‘한국의사 외국면허 취득 표준 지침개발’

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목차

1. (커리큘럼) 국내 의학 대학 교육과정 및 임상실습과정, 진료과별 레지던트 프로그램, 전문의 과정, 컨설턴트 과정 등 교육과정 조사

우리나라 의학교육과정은 책임연구원 안덕선이 교육부지정 고등정책연구소 2014년 연구과제인 '국내외 의과대학 교육 특성 및 교육과정분석연구'를 선행연구로 수행한 바 있어 연구 내용 일부가 그대로 게재되었습니다.

1.1 우리나라 의학 교육과정

가. 보편적인 의학교육과정 구성

의학 교육과정은 국내외 모두 크게 기초의학, 임상의학, 인문사회의학의 세부분으로 구성된다. 기초의학은 인체 해부학, 생리학, 병리학, 생화학 등 의학의 기초가 되는 학문이며, 임상의학은 환자 진료와 직접적으로 관련있는 의학의 한 부문을 말한다. 임상의학 교육과정은 크게 강의실이나 실습실에서 이루어지는 강의 중심의 교육과정과 병원에서 환자와 직접 접촉하면서 배우는 진료중심의 임상실습수업으로 구분할 수 있다. 인문사회의학은 인문학적 또는 사회적 차원에서 건강문제를 연구하는 의학 분야이다. 철학, 문학, 역사, 윤리 등의 인문학적 관점과 법의학, 병원관리학, 공중위생학 등 사회적 관점에서 보건의학상의 문제를 해명하고 해결책을 찾고자 하기 위한 의료관련 인문사회학을 의미한다. .

1) 기초의학 교육과정

기초의학이란 인체 해부학, 생리학, 병리학, 약리학, 생화학 등 의학의 기초가 되는 학문이며, 내과, 외과, 산부인과, 소아과 등의 임상의학에 대응하는 학문 분야이다. 통상 의과대학 의학과 및 의학전문대학원 1, 2학년 과정에서 기초의학을 이수하며, 이어서 임상의학의 과정을 이수하게 된다. 병리학, 미생물학, 기생충학, 약리학, 유전학 등의 기초의학은 독립 교과목으로 가르치기도 하지만 둘 이상의 기초의학 과목을 통합하여 가르치는 경우도 많으며, 내용적으로 임상의학과 가깝기 때문에 임상의학과 병행하여 통합적으로 교육하기도 한다.

2) 임상의학 이론 교육과정

임상의학은 환자 진료에 직접 관련되는 의학의 한 부문을 말한다. 임상의학은 내과, 외과, 소아과, 정형외과, 산부인과, 이비인후과, 안과, 피부과, 비뇨기과, 정신과, 성형외과, 방사선과 등이다. 임상의학 교육과정에서 배운 지식과 역량은 3,4학년 임상실습 시 환자를 직접 참관 및 진료하면서 통합되고 완성된다. 임상의학 교육과정은 교과목 명칭이나 학생들이 이수해야 할 학점과 시간, 개설 학년에 있어 학교마다 약간씩 차이가 있다.

예로 들어 2012년 D의대의 임상의학 교육과정을 보면, 2학년 과정은 임상의학 강의로 구성되어 있고, 3학년과 4학년 과정에서는 임상실습 과정으로 편성하고 있다. 2학년 임상의학 강의 과목명은 외과학개론, 임상면역학, 임상감염학, 정신과학, 소화기학, 심장과 순환, 신장·비뇨기학, 호흡기학, 혈액학, 종양학, 내분비학, 피부과학, 근골격학 등 19개 과목과 임상실습 준비교육을 위한 임상의학입문(ICM) 과목을 개설하고 있다. 이들 과목은 680시간, 41학점으로 구성되어 있으며 임상의학입문(ICM) 교육이 60시간 편성되어 있다.

2011, 2012년 5개 대학의 임상의학 교육과정을 정리하면 다음과 같다. 이 표에 따르면 임상의학 교과목 중 감염학과 면역학, 소화기학, 순환기학, 신장학, 호흡기학, 혈액학과 종양학, 내분비학, 신경과학 등은 대학마다 명칭이 다소 다르긴 하지만 5개 대학이 모두 개설하고 있으며, 근골격학, 생식의학, 출생·성장·노화의 발달 등은 대부분의 대학에서 임상의학 과목으로 가르치고 있다. 대학에 따라 2학년 교육과정에 피부학, 산업의학, 기초영상의학의 과목을 포함하는 경우도 있다.

<표 1> 2011-2012년 5개 대학 임상의학 교육과정

과목명 (개설학년)				
B대 (2011)	C대 (2011)	D대 (2012)	E대 (2012)	F대 (2012)
		생활습관과 건강(2)		
의학유전학(2)	성장과 노화(2)	유전, 신생아 및 노인학(2)	성장과 노화(1)	출생과 성장 및 발달(2)
		기초영상의학(2)		
		외과학개론(2)		
기초면역학(1)				
임상면역학(2)	임상면역학(1)	임상면역학(2)	감염과 면역(1)	임상면역학(2)
감염학(2)	감염학(2)	임상감염학(2)	정신과 행동(2)	감염학(2)
	정신과학(2)	정신과학(2)	소화기(1)	정신의학(2)
소화기학(2)	소화기학(1)	소화기학(2)	순환기(2)	소화기학(2)

순환기학(2)	심장순환기학(1)	심장과 순환(2)	심장비뇨기(2)	심장순환기학(2)
신장요로학(2)	신장학(1)	신장□비뇨기학(2)	호흡기(1)	신장비뇨기학(2)
호흡기학(2)	호흡기학(1)	호흡기학(2)	혈액과 종양(2)	호흡기학(2)
혈액학(2)	혈액학.종양학(1)	혈액학(2)	내분비(2)	혈액종양학(2)
종양학(2)		종양학(2)	생식기(2)	
내분비학(2)	내분비대사학(1)	내분비학(2)		내분비학(2)
	생식의학(2)	생식의학과 여성질환(2)	두경부와 피부(2)	생식의학(2)
		응급의학과 중환자의학(2)		
신경계학(2)	신경계 및 두경부학(2)	임상신경과학(2)	두경부와 피부(2)	신경의학(2)
		감각기학(2)	근골격(2)	피부감각기학(2)
		피부학(2)		
	근육골격학(2)	근골격학(2)		근육골격학(1)
	임상의학입문(2)	임상의학입문1,2(2)		임상의학입문 1,2,3(3)
직업환경의학(4)	산업환경의학(2)			
	PBL1(1)			PBL(1)
	PBL2(2)			
	가정 및 지역사회의학(2)			
				손상과 중독(2)

임상추론(3)				
임상특과(4)				
중환자관리(4)				
의학의 새지평(4)				
				임상수행능력평가 1(3)
				임상수행능력평가2(4)
			임상의학총론 (1)	임상병리학적토의 (4)
			건강증진과 예방(2)	증례바탕학습 (4)
			740시간	
			44주	

3) 임상실습 교육과정

임상실습 교육과정은 크게 필수 실습과정과 선택 실습과정으로 구분된다. 필수와 선택 여부, 각 과별 임상실습 주수와 시간, 교육방법, 개설학년 등은 대학마다 다소 차이가 있다. 내과, 외과, 산부인과, 소아과, 정신과는 대다수의 대학에서 필수 임상실습과정으로 정하고 있으며, 마취의학, 방사선종양학, 재활의학, 흉부외과학 등은 선택과정으로 개설하고 있다. 가정의학, 정형외과학, 영상의학, 신경과학, 안과학 등은 학교에 따라 필수인 곳도 있고 선택으로 하는 경우도 있다.

<표 2> 임상실습 교육과정 현황: 6개 대학 사례

실습과정명	학년/ 필수.선택/ 실습주수					
	A대	B대	C대	D대	E대	F대

	(2011)	(2011)	(2011)	(2012)	(2012)	(2012)
내과학	3/필수/14	3/필수/10	필수/14	3/필수/12	3/필수/16	3/필수/12
외과학	3/필수/8	3/필수/5	필수/6	3/필수/6	3/필수/5	3/필수/8
소아(청소년)과학	3/필수/6	3/필수/5	필수/6	3/필수/6	3/필수/5	3/필수/4
산부인과학	3/필수/6	3/필수/5	필수/6	3/필수/6	3/필수/5	3/필수/4
정신(건강)과학	3/필수/4	3/필수/5	필수/3	3/필수/4	3/필수/5	4/필수/3
신경과학	3/필수/2	3/필수/3	필수/3	3/필수/2	4/필수/2	4/선택
가정의학	3/필수/2	3/필수/1 4/선택/3	필수/2	4/필수/2	4/선택/1	3/필수/2
응급의학	3/필수/2	3/필수/3	선택/1	4/필수/2	4/필수/2	3/필수/2
마취(통증)의학	4/선택/2	4/선택/3	선택/1	4/선택/2	4/선택/1	4/선택
방사선종양학	4/선택/2	4/선택/3	선택/1	4/선택/2	4/선택/1	4/선택
비뇨기과학	4/선택/2	4/선택/3	선택/1	4/선택/2	4/필수/1	4/선택
성형외과학	4/선택/2	4/선택/3	선택/1	4/선택/2	4/선택/1	4/선택
안과학	4/선택/2	4/선택/3	선택/1	4/선택/2	4/필수/1	4/선택
이비인후과학	4/선택/2	4/선택/3	선택/1	4/선택/2	4/필수/1	4/선택
재활의학	4/선택/2	4/선택/3	선택/1	4/선택/2	4/선택/1	4/선택
정형외과학	4/선택/2	3/필수/3	선택/1	4/선택/2	4/필수/2	4/선택

진단검사의학	4/선택/2	3/필수/1 4/선택/3	선택/1	4/선택/2	4/선택/1	4/선택
영상의학	3/필수/4	3/필수/3	선택/2	4/선택/2	4/필수/2	4/선택
피부과학	4/선택/2	4/선택/3	선택/1	4/선택/2	4/필수/1	
흉부외과학	4/선택/2	4/선택/3	선택/1	4/선택/2	4/선택/1	4/선택
류머티스내과	4/선택/2					
병리과	4/선택/2		선택/1			4/선택
산업의학과(K대) 직업환경의학(A대, N대)	4/선택/2				4/선택/1	4/선택
신경외과학	4/선택/2	4/선택/3	선택/1		4/필수/2	4/선택
의공학과	4/선택/2					
핵의학과	4/선택/2	3/필수/1	선택/1		4/선택/1	4/선택
심화실습				3/필수/2		
외부실습/의학연구	4/필수/2					
일차진료실습	4/필수/2					
서브인턴십	4/필수/3		필수/2			
지역사회의학실습(예방의학)	4/필수/2	4/선택/3			4/필수/2	4/선택

SSM과정					4/필수/4	
학외임상실습						4/선택
	3학년 48주 4학년 24주 : 총 72주	3학년 47주 4학년 18주 (13과목 중 6개 선택) : 총 65주	총 59주	3학년 38주 4학년 20주 : 총 58주	총62주	3학년 32주 4학년 29주 : 총 61주

나. 의학교육과정의 세계적 동시성과 공통성

의사가 되기 위한 제도는 의과대학이나 의학전문대학원의 이원화 체제로 나라마다 상이하다. 본격적인 의학과정은 대학 졸업 후 4년간의 전문대학원 과정이나 아니면 고등학교 졸업 후 예과 혹은 이와 같은 목적을 갖는 1년간의 생명과학의 기초가 되는 기초과학과정 이수 후에 보통 3년에서 최대 5년과정을 의미한다. UAE도 5개 의과대학을 보유하고 있고 1년의 기초과학 이수 후 5년간의 의과대학 과정을 갖고 있다. 세계적으로 의사가 되기 위한 교육내용은 거의 표준화 되었다. 우리나라에서 의과대학의 평가인증(accreditation)은 의무화 되어 있고 인증기준에서 요구하고 있는 교육과정의 내용은 세계적으로 공통적이고 UAE역시 동일하다. 우리나라의 의학교육과정은 재)한국의학교육평가원에서 요구하는 의학교육 과정의 기준을 참고하면 개괄적인 큰 틀을 이해할 수 있다. 평가인증 기준에서 교육과정 부분을 발췌하면 다음과 같다.

2-3-6　교육목표와 졸업성과를 달성하기 위한 기초의학 교육내용은 적절한가?

- 기본기준

기초의학 교육내용은 대학의 교육목표와 졸업성과를 달성하기에 적합하게 구성되어 있다.

- 보고서 기술내용

기초의학 교육과정은 세계의학교육협회가 강조하는 ① 신체의 구조와 기능에 관한 분자생물(molecular), 세포(cellular), 기관(organ) 및 신체전부(whole body)수준의 내용 ② 비정상적(병적)인

신체구조와 기능에 관한 내용 ③ 질병의 자연사, 병적 상태에 대한 신체 방어기전 및 질병에 대한 신체반응 등에 관한 내용 ④ 질병발생과 관련되는 유전적, 환경적, 사회경제적 요인에 관한 내용 및 연구방법 등의 내용을 포함하고 있는지 기술한다. 또한 기초의학실습은 어떤 내용으로 실시되는지 기술하며, 기초의학 교육의 실행을 위한 자원이 무엇인지 기술한다.

2-3-8 임상실습에 대한 준비교육이 있는가?

- 기본기준

환자 면담 기법과 기본 술기에 대한 교육이 포함된 임상실습 전 준비교육이 있다. 이러한 과정이 블록(block)으로 개설된 경우에는 최소 4주 이상, 지속적인 과정(longitudinal course)이면 최소 2학기 이상 개설되어 있다.

- 보고서 기술내용

학생이 임상실습에 진입하기 전에 임상실습 준비 교육을 언제, 어떻게 실시하고 있는지 기술한다. 임상실습 준비교육 내용에 환자 면담 기법과 기본 술기에 대한 교육이 포함되었는지를 기술한다.

[주] 임상실습 준비교육은 ICM(Introduction to Clinical Medicine), FCM(Fundamentals of Clinical Medicine)등을 의미한다. 블록 또는 지속적인 과정이 있으면, 학생 1인당 교육받는 시간이 40시간 이상 되어야 한다.

2-3-12 임상실습을 위한 장소가 다양하며 외래 환자 중심 실습은 적절한가?

- 기본기준

임상실습은 상급종합병원 이외에 종합병원, 병·의원에서도 이루어지고, 핵심과의 외래 환자 중심 실습은 전체 실습 시간의 25% 이상이다.

- 보고서 기술내용

임상실습의 장소와 방법이 일차 진료 수준에 적절한지를 관련 자료와 함께 기술한다. 즉, 학생들의 임상실습 장소가 상급종합병원 이외에 종합병원, 병·의원이 포함되어야 하며, 핵심과에서 외래 및 입원 환자 중심 실습이 어떻게 이루어지고 있는지 기술한다.

[주] 핵심과는 내과, 외과, 산부인과, 소아청소년과, 정신건강의학과, 응급의학과를 의미하며, 응급의학과는 외래 실습으로 간주한다.

다. 우리나라와 UAE의 기본의학교육과정 동등성

현재 UAE에는 6개의 의과대학이 존재한다. UAE자체도 의사면허 취득을 위하여는 반드시 국제적으로 공인된 기관의 의과대학 명부에 이름이 존재하고 평가인증(accreditation)을 획득한 의과대학 졸업생으로 국한시키고 있다. 우리나라도 의과대학 평가인증은 평가인증 대학출신자 만이 의사국가시험에 응시할 수 있어 의무화되었고 의과대학 평가인증을 교육부로 인정받은 재)한국의학교육평가원은 세계의학교육연합회(World Federation for Medical Education)의 기관인정 심사를 받고 곧 인정기관으로 지정 받을 예정에 있다. 이런 연유로 UAE와 우리나라에서 의사가 되기 위한 기본의학교육과정은 동등하다고 인정된다. 현재 UAE의 의과대학은 다음과 같다.

- United Arab Emirates[edit]
- Dubai Medical College for Girls
- Gulf Medical University Ajman
- United Arab Emirates University
- University of Sharjah
- Ras al-Khaimah Medical and Health Sciences University

이중 Sharjah 의과대학을 표본 사례로 삼아 조사한 UAE 의과대학 교육과정은 다음과 같다. 실제로 세계적으로 기본의학교육과정은 표준화되고 공통의 교과목을 이수하고 있다. 나라마다 교육방법과 교과목의 이름을 다르게 표기하나 의사를 양성하기 위한 서양식의학교육(allopathic medical education) 내용은 거의 유사하다.

<표 3> Sharjah 의과대학의 교육과정

Year I, Semester 1 (15 Credits)			
Course	Title	CrHrs	Prerequisites
1427107	General Chemistry (I) for Medical Science	3	
0900104	Intro to Anatomy and Physiology (1)	3	
1430113	Physics for Medical Sciences	3	
1430114	Physics Lab for Medical Science	1	

0900103	Medical Education	3	
0202122	English for Medicine	3	

Year I, Semester 2 (14 Credits)			
Course	Title	CrHrs	Prerequisites
1427108	Chemistry II (Biochemistry) for Medical Science	3	
0900108	Introduction to Anatomy and Physiology II	4	
0215118	Chemistry II (Biochemistry) for Medical Science Lab.	1	
0710109	Arts and Medicine	3	
0900107	History of Medical and Health Sciences	3	

Phase II – Years 1, 2, and 3 “Pre-clerkship”

Year One

- Life Cycle Unit
- Man and his environment Unit
- Musculoskeletal and Neuroscience I Unit
- Hematopoietic unit

Year Two

- Cardiovascular and Respiratory unit
- Gastrointestinal Tract unit
- Endocrine unit
- Renal and Reproductive unit

Year Three

- Neurosciences II and Multi-system (Integrated hospital-based Medicine and Surgery) (14 weeks)
- Multi-system (Integrated hospital based Medicine and Surgery) Community Health (14 weeks)

Phase III - Clerkship Phase

Year Four

Four clerkship rotations of 10 weeks each related to four main clinical disciplines, i.e., Surgery,

Medicine, Pediatrics and Obstetrician/Gynecology.

0900501: Obstetrician/Gynecology (10 weeks)

0900502: Pediatrics (10 weeks)

0900503: Medicine - I (10 weeks)

0900504: Surgery – I (10 weeks)

0900505: Electives “6 weeks”

All students are offered 6 weeks of electives allowing them to explore educational experiences which they found it interesting.

This could be Clinical, Basic Medical Sciences or Research. Report on their experience during the elective will be presented and constitutes part of their portfolio.

Year Five

Second rotation of clerkships surgical and medical sub-specialties, Family Medicine and Psychiatry.

0900601: Medicine - II (10 weeks): Cardiology - 3 weeks; Neurology - 3 weeks; ENT/Dermatology/ophthalmology - 3 weeks.

0900602: Surgery - II (10 weeks): Orthopedics - 3 weeks (1 day Anesthesia on Sundays); Urology - 3 weeks (1 day Anesthesia on Mondays) and Accident and Emergency - 3 weeks (2 days Radiology for 2 hours)

0900603: Family Medicine (8 weeks): Family Medicine

0900604: Psychiatry (2 weeks): Psychiatry

2. (면허제도) 국내 및 UAE 의사 면허 취득 절차, 국가시험 및 평가제도, 면허 승인 주관 기관 등 면허 관련 제도 조사

- 의사면허 취득 승인 및 교육 제도 등에 대한 관리 및 규제기관

2.1 UAE와 의사면허

UAE는 아랍토후국연맹 등으로 알려져 있으나 이것은 이슬람에 전통에 의해서 모하메드에 후손인 에미르 후손들로 이루어져 있는 나라를 의미하는 것이고, 에미르의 의미는 이슬람에서 한 부족의 지역의 정치지도자를 의미한다. 그래서 UAE라는 것은 결국 7개의 토후국이 연합한 연방으로 구성되어 있다. UAE는 아라비아 반도의 동남쪽에 위치한 국가로서 페르시아만을 접하고 있으며 주변에 오만과 사우디아라비아를 연계를 하고 있고 반대편으로 이란과 카타르를 해역(홍해)을 사이에 두고 바다 경계를 가지고 있다. 정확한 UAE의 인구는 알려져 있지 않고 자료들 마다 상이하나, 약 천만명 정도 UAE에 거주하고 있으나 실제로UAE의 시민은 즉, UAE의 아랍출신 토후국사람은 150명 정도로 추정하고 있다.

비록 아랍어가 공용어이긴 하나 영어가 공용어만큼 잘 이해되고 사용되고 있다. 아부다비는 현재 UAE 의 수도로서 지정되어 있다. UAE의 의료제도는 UAE연방정부의 복지부 담당이고 현재 UAE에는 2015년 6월 기준으로 약 105개의 의료기관이 존재한다. 우리에게 잘 알려진 UAE의 두바이는 두바이 토후국 내에서 Dubai Health Authority (DHA) 그리고 아부다비는 Health Authority of Abu Dhabi (HAAD)가 의료에 관한 정책과 의료에 관한 공식 기구이고 나머지 5개의 토후국 즉, Ajman, Fujairah, Ras al-Khaimah, Sharjah, Umm al- Quwain 토후국은 UAE 연방정부의 Ministry of health가 보건담당기구이다. UAE에서 의과대학을 들어가는 것은 우리와 마찬가지로 12년간의 초·중등교육을 마쳐야 한다. 그리고 현재 UAE에도 의과대학이 있으며 그 중에 잘 알려진 GULF Medical University와 같이 5년제 영국식 의과대학이 있고 졸업 후 1년간의 인턴과정이 있다. 학생들이 5년 간의 의과대학 과정과 1년의 인턴과정을 마쳤을 때 이들이 수여 받는 학위는 MBBS이다. UAE 의학·의과학대학은 예과2년 과정과 4년의 본과과정으로 구성되어 있다.

2.2 졸업 후 교육(전문의 교육)

UAE에서 전공의 교육을 받을 수 있는 곳은 두바이와 아부다비이다. 두바이에서는 DHA(Dubai

Health Authority)가 두바이 전공의 프로그램을 관장하는 기관이고 두바이 전공의 교육을 DRTP (Dubai Residency Training Program) 라고 명명하고 반면에 아부다비에서는 HAAD가 전공의 교육을 주관하는 프로그램이고 프로그램의 이름을 TANSEEQ(Emirate-wide Residency Post-Determination and Matching Process) 명명되어 있다. 현재 UAE에서 전공의 교육프로그램에 들어가는 것은 매우 경쟁이 심하여 어렵다고 하며 UAE시민권자에게 우선권이 주워지고 있다. 그러나 만약에 외국인이더라도 전공의 진입시험과 인턴시험을 통해서 전공의 프로그램에 들어 갈 수 있다. UAE의 전공의 교육을 지원하기 위해서는 먼저 WHO의과대학 명부에 기재된 의과대학 출신이며 1년간 인턴을 수료한자, Pre-Entry evaluation 필기시험 그리고 인터뷰를 통과해야 한다.

2.3 UAE에서의 의사면허

앞에서 언급한 바와 같이 아부다비에서는 HAAD가 외국인 의사에게 면허시험을 시행하고 있고 두바이는 두바이와 5개의 나머지 토후국에서는 UAE의 보건부 MOH에서 면허시험을 시행한다. 면허는 시험을 통과한 자에게만 수여가 된다. 그럼에도 불구하고 시험이 면제되는 속칭 T1국가들도 있다. 이러한 국가들은 대게 면허기구와 의학교육제도가 잘 발달된 영문 개통의 미국, 영국, 아일랜드, 호주, 캐나다, 남아프리카공화국, 뉴질랜드이다.

UAE 내에서는 면허의 상호통용이 가능하나 반드시 6개월 이상 UAE내에서 임상경험이 있어야 한다는 것을 전제하고 있다. 즉, UAE 내에서 면허취득 후 6개월이 지나야만 UAE 모든 지역에서 통용될 수 있는 면허를 받을 수 있다.

면허시험을 위해서는 UAE 전체의 통일된 정책을 가지고 있는데 PQR(Professional Qualification Requirements)이라고 한다. 인턴을 마친 사람에게 주어지는 자격의 급여는 한달에 2-3만 5천정도의 AED라고 한다. (AED는 Arab Emirates Dirham 약자이다.)

2.4 UAE의 면허기구(Regulator)

UAE에서 의료규제(Medical Regulation)를 담당하는 기구는 보건성(MOH), HAAD, DHA(Dubai Health Authority)의 세가지 정부기구와 최근 두바이 경제자유구역 내 별도로 면허를 담당하는 기구 설립되어 UAE내에 총 4개의 면허기구가 있다. 이것은 전체 의료인력의 80%를 외국의료인력으로 충원하는 UAE의 독특한 의료환경에 의한 현상이다. 사회 경제적으로 다른 에미레이트 보다 앞선 두바이와 아부다비는 각자의 지방정부에서 관할하고 나머지 5개 지역은 중앙연방정부에서 관

할하는 것이다. 이 4개의 기구는 연합하여 보건의료인의 자격인정에 관한 통일된 지침(the unified Healthcare Professionals Qualification Requirement)을 제정하였다.

가. Primary Qualification Requirement (PQR)

위의 지침에 의하면 UAE에서 일반면허를 취득하기 위한 요건을 요약하면 다음과 같다.

우선 면허를 취득하기 위하여는 우선 평가인증을 획득한 기본의학교육과정을 이수한 사람으로서 반드시 출신국가에서 인정받는 의과대학에서 졸업장을 취득해야 한다. 그리고 의과대학 입학을 위해서는 반드시 고등학교 졸업장이 있어야 한다. UAE에는 다국적 의료인이 유입되어 이들의 자격여부를 심사하는 질적 평가는 다음과 같이 행해지고 있다.

1. 의과대학 졸업증이 수여된 국가와 기관에 대한 평가.

2. 자격증을 발행한 기관이나 국가의 자격에 관한 질적인 수준과 평판.

3. 의학교육에 소요된 총 수학기간과 졸업 후 실제적인 직무훈련과 임상경력. 명예 졸업증, 원격학습 또는 통신강의 등은 제외한다.

4. 실제 직무경험의 평가로UAE에서는 의과대학을 마치고 반드시1년간의 인턴과정을 이수하여야 한다. 인턴 수료를 하지 못한 사람들은 졸업 후 2년간의 임상경험을 요구 받는다. 그러나 특정 국가에서는 인턴과정이 학부과정으로 되어 있어 이런 경우에 예외로 할 수도 있다.

5. 직무경력의 심사에서 UAE내국인, 외국인을 막론하고 의과대학을 졸업한 사람은 별도의 경력을 요구하지 않으나 외국인이 외국의 의과대학을 졸업 한 경우에는 PQR에서 지정한 Title즉, 등급에 따라서 인턴경력 후 직무경력을 요구할 수도 있다.

6. UAE에서 면허 취득을 신청하는 사람은 반드시 자기 출신국가에서 면허를 취득해야 하며 면허자격자에 의하면 6개월 이전에 발급받은 모범회원증명(certificate good stranding)이 있어야 한다. 물론 과거에 형사범죄, 의료사고에 의한 법적인 처벌 등도 반드시 없어야 하며 모든 증명서류는 직접 발급기관에서 원본이어야 한다.

7. 자격심사를 위한 시험에는 필기, 구두, 실기(OSCE) 시험 종류를 채택하고 있다. 모든 시험은 영어로 진행되고 있으며 구두시험인 경우에는 각자에 전문영역에 따라 대게 5개의 시나리오를 가지고 시행하고 있다. 수험생은3번이상 시험은 응시 할 수 없다.

8. 시험 면제는 PQR에서 지정한 등급에 따라 가능하다. 그렇다고 해서 이들이 무조건 면허를 발부 받는 것은 아니라 오로지 시험만은 면제되나 그 외에 면허 취득에 필요한 경력증명, 원본 대조 등은 반드시 필요한 절차이다. 비록 면제받은 국가에서 왔더라도 임상활동에서 2년이상 종사하지 않은 사람은 제외된다. 시험 면제국가는 T1 국가로서 영,미 권의 잘 발달된 면허기구와 전공의 교육의 프로그램 평가인증을 담당하는 공적 기구를 갖고 있는 나라 들이다.

9. 전공의로 선발된 자는 면허에 전공의 면허로 기재된다.

<표 4> 시험면제국가: Tier 1 Countries

General Practitioner

Category	Equivalency Assessment	Abbreviation
Australia	Australian Medical Council Examination	AMC/MCQ
Canada	Medical Council of Canada qualifying examination part II	MCCQE-part II
Ireland	Ireland Temporary Registration Assessment Scheme part III	TRAS
New Zealand	New Zealand Registration Examination	NZREX
UK	United Kingdom Professional and Linguistic Assessment Board Test Part II	PLAB II
USA	United States Medical Licensing Examination Part III	USMLE – Part III

Specialist Physicians

Category	Equivalency Assessment	Abbreviation
Australia	Fellowship from the Royal Australian College AND Specialist Registration from the Australian Medical Council	
Canada	Specialization Certificate of the RCPS or Certification by the College of Family Physicians Canada	CFPC
Ireland	Certificate of Specialist Doctor	
New Zealand	Fellowship of the Royal College AND Specialist Registration by the Medical Council	

2.5 두바이의 면허취득 절차

두바이는 전산망 상으로 원서접수를 받고 있다. 전산망에 들어가서 필요한 정보를 입력 후 제출한 기록물에 대한 평가 수수료를 지불한 후에 여기서 통과하면 PSV(Primary Source Verification)

원본대조서비스에 대한 수수료를 지급한다. 결과를 기다리는 동안 두바이시험 일자를 선택할 수 있다. 그리고 날짜가 확정되면 다지선다형 컴퓨터 기반 시험을 치를 수 있다. 그 후 한달 동안 머물 수 있는 비자를 가지고 두바이에서 직장을 구한 다음에 직장을 구하면 노동허가증과 의료보험증을 받는다. 면허비용을 내면 두바이에서 면허를 받을 수 있다. 아부다비에서의 면허절차는 전산망으로 이루어지며 사설 전문업체가 담당하고 있다. 사설 전문업체에서는 전산망으로 필요한 수수료를 책정하여 받고 있고 이 사설업체에서 응시자의 각종 기록물에 대한 원본 대조가 끝나면 HAAD 전산망에 들어갈 수 있는 아이디, 비밀번호를 지급받는다. 그리고 최종허락을 받으면 시험에 대한 등록을 하고 시험이 통과되면 라이선스에 필요한 등록비를 내어야 한다. HAAD에서 면허시험은 Pearson VUE라는 회사에서 담당하고 있다.

2.6 아부다비에서 면허기구 HAAD

UAE에서 가장 발 발달된 면허관리 기구는 영, 미 계열 제도를 도입한 아부다비의 HAAD로서 우리나라에도 제도적 탐사의 가치가 있는 매우 현대적인 기관으로 간주된다. HAAD (The Health Authority - Abu Dhabi)

HAAD는 UAE 아랍 토후국 연합의 한 토후국인 아부다비의 면허기구로써 지역주민들의 건강상태를 관측하므로 의료에 대한 수월성을 보장하는 것이 목적이다. 뿐만 아니라 의료인 면허기구로서 의료표준을 강화하고 국제적으로 통영 받는 가장 높은 수준의 의료를 채택하도록 독려하는 기구이다. 또, 뿐만 아니라 이 기구는 아부다비가 가지고 있는 의료제도 내에서의 경제적 보상 또는 의료에 대한 허용범위에 대한 규제를 담당하고 있다.

이 기구는 의료전문인력의 역량, 특권, 지속적인 전문성개발, 의료교육 및 전문인력 실무 및 행동강령에 관한 기준을 공식허가하고 수립하는데 책임이 있다. 아래의 문건은 아부다비 보건국(Health Authority Abu Dhabi) 에서 출간한 보건의료인 정책지침(Healthcare Professionals Policy Manual)의 일부를 발췌한 것이다.

가. HAAD(Health Authority – Abu Dhabi)의 기능

5.2.1 아부다비에서 의료실무를 수행하는데 자격증[1]이 필요한 의료전문인력 결정

5.2.2 전문위원회 권고에 따라 자격증[2] 부여 및 갱신 기준 수립, 자격증 기간, 제한 또는 조건 결정

5.2.3 자격증 획득 기준에 부합하는 의료전문인력에게 허가부여

5.2.4 아부다비 내에서 의료실무 허가를 받거나 제지 받은 의료전문인력의 최신 리스트 유지· 발표 또는

5.2.5 전문위원회에서 권고한 의료전문인력의 실무범위, 역량 체계, 전문직 자격요건을 고려, 승인 및 발표

5.2.6 전문위원회와의 협업을 통해 의료전문인력의 실무 및 행동 기준 수립

5.2.7 전문위원회와 협력 하에 의료제공기관 및 전문위원회의 책임 수립을 포함하여 징계조치에 관한 체계 수립을 통해 실무·행동기준을 고수할 수 있도록 의료전문인력의 실패 처리

5.2.8 전문위원회 설립 및 감독

5.2.9 의료제공기관, 의료전문인력, 전문위원회 그리고 그 밖에 HAAD가 참여한 기관을 의료규정을 기반으로 감사진행

5.2.10 규제요건을 위반한 의료제공기관과 의료전문인력에 관한 규제조치 시행

나. HAAD 전문인력관리위원회(Professional Board)의 역할

6.1 HAAD에서 설립한 전문위원회는 HAAD에게 자문을 해주고 아부다비에서 일하거나 일하고 싶은 의료전문인력 평가 및 규제에 관한 절차를 지원하도록 한다.

6.2 특히, 전문위원회의 기능은 다음과 같다:

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[1] HAAD 의료 규제기관 매뉴얼

[2] HAAD 의료 제공기관 매뉴얼

6.2.1 아부다비에서 자격증이 반드시 필요한 의료전문인력에 관하여 HAAD에게 자문제공

6.2.2 의료전문인력의 실무범위, 역량체계 및 전문직 자격요건에 관하여 HAAD를 지원제공

6.2.3 전문인력의 시험요건·시험제외에 관한 HAAD 기준 권고 및 자격증을 신청한 의료전문인력을 대상으로 시험 선정 또는 관리 지원

6.2.4 전문훈련의 고기준 촉진 및 HAAD에서 요구한 지속적인 전문직교육프로그램의 편성과 승인

6.2.5 특권과 관련된 규제체계를 HAAD에게 권고해주고, 필요 시, 소규모 의료제공기관이나 특히 기업관리 감독이 없는 기관을 대신하여 특권 배정 관리

6.2.6 HAAD의 공식허가가 필요하지 않는 스텝 참여에 관하여 의료제공기관에 지침 개발

다. 보건의료인의 역량 체계

11 역량체계

11.1 HAAD는 역량 체계(Competence Framework)로 알려진 하나 이상의 문서를 발행할 수 있다.

11.2 역량 체계 내에서 지명된 의료 전문의로 일하는 개인에 의해 항상 반드시 유지되어야 하는 최소 수준의 전문역량을 명시 하도록 한다.

11.3 이 같은 목적으로, 역량 체계는 특히 다음을 포함할 수 있는 의료 전문인력의 기술이나 활동에 관한 사항을 참고하여 전문직 역량의 수준을 정의할 수 있다.

11.3.1 해당•최신 기술지식 및 실용기술

11.3.2 해당•최신 경험

11.3.3 의료 전문의를 대상으로 가능한 감독 수준 및 질

11.3.4 특권 추가 또는 삭제를 위한 프로세스

11.3.5 의료 전문의를 대상으로 가능한 수준의 지원 및 추가 전문자원

11.3.6 의료전문의의 성과 수준이 정기감사 대상인 정도까지

11.4 역량 체계는 서로 다른 의료 전문의에 의해 유지될 여러 수준의 전문역량을 명시할 수 있다.

라. 허가 및 전문자격요건

12 전문자격 요건

12.1 HAAD는 전문위원회와 협력하여 전문자격요건(Professional Qualification Requirements)[3]로 알려진 하나 이상의 문서를 발행할 수 있다.

12.2 PQR은 HAAD에서 발행한 자격증을 소지한 개인에 의해서만 아부다비 내에서 일할 수 있는 의료 전문의를 명시하도록 한다.

12.3 또한, PQR은 다음을 위해 각각의 의료전문의 내에서 개인에 의해 요구된 교육, 자격, 훈련 및 경험 기준을 수립하도록 한다:

12.3.1 HAAD로부터 자격증 획득

12.3.2 해당 전문의 내에서 특정 전공분야 실행

[3] HAAD 전문자격요건

3. HAAD 면허

3.1 자격증 취득 자격

17 자격 요건

17.1 아부다비에서 의료전문의로 일할 수 있는 자격증을 획득하기 위해서는 반드시 다음사항에 부합해야 한다:

17.1.1 PQR 요건

17.1.2 언어요건

17.1.3 (가능할 경우) 최신 국가 또는 이에 동등한 외국자격증 요건

17.1.4 (가능할 경우) 개인 의료요건

17.1.5 1차 자료 검증요건

17.1.6 (가능할 경우) 시험요건

18 PQR 요건

18.1 PQR 요건에 따라 의료전문인력은 PQR에 명시된 교육, 자격, 훈련 및 경험기준을 해당 의료전문의에 관한 최소기준에 부합해야 한다.

19 언어 요건

19.1 언어요건에 따라 의료전문인력은 해당 의료전문의로 일하기에 충분한 영어구사 능력을 증명할 수 있어야 한다.

19.2 HAAD는 다음을 명시하는 기준을 발행할 수 있다.

19.2.1 충분한 영어구사능력을 측정할 수 있는 방법

19.2.2 이 같은 역량이 의료전문인력에 의해 증명될 수 있는 방법

20 최근 국가 또는 이에 동등한 외국 자격증 요건

20.1 최근 국가 또는 이에 동등한 외국 자격증 요건은 기존에 다음과 같이 보유한 의료전문인력에 적용된다:

20.1.1 UAE의 보건부 또는 그 밖의 UAE('국가 자격증') 보건청에 의해 해당 의료전문의가 일할 수 있도록 자격증을 부여 받거나

20.1.2 UAE('외국자격증')외의 국가에서 해당 의료전문의로 일할 수 있도록 권한을 부여 받음.

20.2 적용 가능한 경우, 최신 국가 또는 이에 동등한 외국 자격증 요건은 다음과 같다:

20.2.1 의료보건인력은 UAE에서 일할 수 있는 국가자격증을 소지하거나 고국이나 가장 최근에 일한 국가에서 일할 수 있는 외국 자격증을 소지해야 한다.

20.2.2 자격증은 징계조치에 따라 부과된 조건이나 제약의 대상은 아니다.

22 1차 자료 검증

22.1 '1차 자료 검증'은 HAAD에서 의료전문인력의 교육, 자격조건, 훈련 또는 경험과 관련된 정보를 관련 기관(직접 기관으로부터 또는 HAAD에서 의뢰한 제 3자로부터)으로부터 획득하여 확인한 것을 의미한다.

22.2 1차 자료검증 요건에 따라 의료 전문의는 HAAD에 1차 자료검증을 획득하기 위해 필요한 동의를 제공하며, HAAD가 이 같은 검증을 받을 수 있다.

23 시험요건

23.1 시험요건은 HAAD에서 시험제외대상으로 결정한 인력을 제외한 모든 의료전문인력에 적용된다[4].

[4] 의료전문인력 허가시험에 관한 HAAD 기준

23.2 적용할 경우, 시험요건에 따라 의료전문인력은 다음과 같은 시험에 통과해야 한다:

23.2.1 해당 의료전문의로 일할 수 있는 역량 평가 그리고

23.2. HAAD에서 승인한 시험 (HAAD에서 시험을 제공하거나 HAAD에서 명시한 그 밖의 조직에서 제공하는 여부)

23.3 의료전문인력은 기타 자격요건에 부합하여 HAAD로부터 통지를 받은 경우에 시험을 시행할 수 있으나 그 전에 HAAD에서 시험을 승인할 수 있다.

23.4 HAAD는 다음을 포함하여 시험요건에 관한 세부사항을 제공해주는 전문위원회와 협업하여 기준[5]을 발표할 수 있다:

23.4.1 시험요건에서 제외된 의료전문인력 카테고리 정의

23.4.2 시험시행 프로세스 규칙 수립

23.4.3 서로 다른 시험요소 제공 (예: 필기, 구술, 실기 요소- 각각 가중치 또는 중요성 명시)

15 23.4.4 시험(또는 시험요소)을 통과했거나 실패했다고 간주하는 상황 정의

23.4.5 시험(또는 시험요소)결과, 실패 결정

23.4.6 시험(또는 시험요소)을 다시 치를 수 있거나 그렇지 않는 경우, 또는 일정시간이 지난 후에 다시 치를 수 있는 상황 대비 그리고/또는

23.4.7 시험비용 요구

23.5 본 기준은 서로 다른 의료전문인력에 대비할 수 있다.

3.2 자격증 신청

25 자격증 신청서

25.1 HAAD는 자격증을 신청하기 위해 의료전문인력(또는 이를 대신한 의료제공기관)에 의해 사용

[5] 특정 의료전문의 범주를 기반으로 허가에 관한 HAAD 시험 제외대상에 관한 HAAD 기준

될 하나 이상의 신청양식을 발행할 수 있다.

25.2 신청양식은 의료전문인력이 신청한 양식을 HAAD가 평가할 수 있도록 하는 정보와 입증자료를 포함해야 한다.

25.3 신청이 유효하기 위해서는 자격증신청은 반드시 다음과 같아야 한다:

25.3.1 적절한 신청양식으로 제출되어야 한다.

25.3.2 신청서에서 요하는 모든 정보와 증거를 제공해야 한다

25.3.3 1차 자료 검증 목적을 위해 신청양식에서 요하는 동의를 제공해야 한다

25.3.4 신청양식에서 요하거나 그렇지 않는 그 밖의 정보나 증거를 공개하여 의료전문인력에 대해 정확히 알고 적격여부를 평가할 수 있도록 해야 한다

25.3.5 정직함과 선의로 신청양식을 작성해야 한다

25.3.6 신청양식에서 명시한 신청비용을 신청 시에 신청양식과 함께 내야 한다

25.4 HAAD는 다음의 경우에 추가 고려사항 없이 자격증 신청을 거절할 수 있다:

25.4.1 위의 요건을 충족하지 않는 경우

25.4.2 신청자의 외부요건으로 인해 이 같은 요건이 보류되는 경우 외에 HAAD의 합리적인 재량으로 1차 자료검증을 진행할 수 없는 경우

3.3 자격증 발행 또는 거부

26 임시자격증

26.1 HAAD는 임시자격증을 합법적으로 신청제출하고 다음과 같은 경우에 동의서를 제출한 의료전문인력에게 임시자격증을 발행할 수 있다:

26.1.1 개인이 자격허가요건에 부합한 경우 그리고

26.1.2 다음 중 최소 한 항목이 적용되는 경우

(a) 의료전문인력이 교육받고, 자격을 갖추고, 훈련 받거나 이전에 고용된 국가의 정치적 혹은 국

내 불안으로 인해 해당인력과 관련된 1차 자료검증을 획득하는데 일반적인 소요시간보다 지연되는 경우

(b) 의료전문직 중 의사로, 아부다비에서 긴급하게 필요할 시에 제공기관 그리고/또는 HAAD 자료증거를 기반으로 HAAE가 결정한 경우

(c) 개인이 의료시설에서 단기간취업을 목적으로 아부다비에 방문한 전문의료인력인 경우

(d) 감독 보호 하의 의료를 수행하도록, 개인이 아부다비에서 전문훈련 프로그램을 수행하기 위한 목적으로 자격증을 요구한 경우

26.2 임시자격증은 6개월이 지나면 유효하지 않으며 갱신될 수 없다.

26.3 사실상 임시자격증을 받은 의료전문인력은 다음의 경우, 임시자격증이 자동 취소되어야 한다:

26.3.1 시험요건의 일부를 구성하는 시험요소에 통과하지 못한 경우 또는

26.3.2 HAAD에서 정식자격증을 발행한 경우.

26.4 임시자격증은 정식자격증처럼 동일한 정보 카테고리를 명시해야 하나, HAAD에서 임시유형에 적합하다고 판단하거나 전문위원회의 조언을 기준으로 하는 조건이나 제약 대상이 될 수 있다.

27 정식 자격증

27.1 HAAD는 자격에 관하여 본 Ⅲ장의 요건(신청, 시험(가능할 경우) 및 1차 자료검증)에 충족한 의료전문인력에게 자격증을 발행하도록 한다.

27.2 HAAD는 본 Ⅲ장의 요건에 충족하지 않는 의료전문인력에게 자격증신청을 거부할 수 있다. 신청 거부 시, HAAD는 신청자에게 그 결과를 통보하도록 한다.

27.3 자격증신청이 거부된 신청자는 의료규제기관 매뉴얼 제 X장에따라 이 같은 결정을 항소할 수 있다.

27.4 자격증은 다음이 명시되어야 한다:

17 27.4.1 발행된 자격증에 의료전문인력의 이름

27.4.2 해당 의료전문인력이 아부다비에서 일할 권리가 주어진 전문 또는 부전문 분야

27.4.3 해당 의료인력이 아부다비에서 일할 권리가 주어진 의료전문의의 연공서열 수준

27.4.4 갱신일 그리고

27.4.5 해당 의료인력의 경우, HAAD가 적절하다고 고려하는 조건이나 제약사항

3.4 자격증 갱신

28 갱신기간

28.1 각 자격증은 다음에 해당하는 날짜(갱신일)까지 반드시 갱신되어야 한다:

28.1.1 발행되거나 마지막으로 갱신된 (이전 갱신 대상인 경우) 날짜로부터 1년 만기일 또는

28.1.2 HAAD가 해당 전문위원회의 권고로 명시된 의료전문의의 경우에 적절하다고 결정했을 시, 자격증 발행일 또는 마지막 갱신일 이후의 다른 기간 만기

28.2 자격증이 갱신이 가능한 때는 제한이 없다.

28.3 갱신일까지 갱신하지 않았을 경우, 자격증은 자동적으로 취소되어야 한다.

28.4 갱신일에 갱신 미흡으로 인해 취소된 자격증은 신청 시 HAAD가 이를 회복시키도록 하며, 갱신요건에 부합 대상이 되도록 하고, 지연벌금을 내도록 한다.

29 갱신 신청

29.1 자격증발행 대상인 의료전문인력이나 이를 대신하는 의료제공기관이 신청 시, HAAD가 자격증을 갱신할 수 있다.

29.2 자격증 갱신 신청은 다음과 같도록 한다:

29.2.1 갱신일 최소 90일 전에 허가대상인 의료전문인력에 의해 반드시 신청되어야 한다.

29.2.2 최대 6개월 전에 허가대상인 의료전문인력에 의해 신청될 수 있다.

29.3 HAAD는 자격증 갱신 신청을 한 허가대상인 의료전문인력에 의해 사용될 하나 이상의 신청 양식을 발행할 수 있다.

29.4 신청양식은 자격증을 소지한 의료전문인력이 신청한 양식을 HAAD가 평가할 수 있도록 정보와 입증자료를 포함해야 한다.

29.5 신청이 유효하기 위해서는 자격증신청은 반드시 다음과 같아야 한다:

29.5.1 적절한 신청양식으로 제출되어야 한다.

29.5.2 신청서에서 요하는 모든 정보와 증거를 제공해야 한다

29.5.3 정직함과 선의로 신청양식을 작성해야 한다

29.5.4 신청양식에서 명시한 신청비용을 신청 시에 신청양식과 함께 내야 한다

29.6 HAAD는 이 같은 요건의 하나라도 충족하지 못할 경우에 추가 고려사항 없이 자격증 신청을 거절할 수 있다:

30 갱신에 관한 자격증 개정

30.1 자격증갱신을 위한 신청 시, 허가대상인 의료전문인력은 다음에 관하여 HAAD가 해당 자격증을 갱신하기 위해 개정하도록 요구 할 수 있다.

30.1.1 해당 의료전문의가 아부다비에서 일할 권리가 주어진 전문분야

30.1.2 해당 의료전문의가 아부다비에서 일할 권리가 주어진 의료전문의의 연공서열 수준

30.1.3 해당 의료인력의 경우, HAAD가 적절하다고 고려하는 조건이나 제약사항

30.2 허가대상인 의료전문인력이 HAAD에 자격증을 개정할 것을 요구할 경우, 해당 인력은 HAAD가 요구할 수 있는 추가 정보 및 증거와 함께 요청지원 시에 모든 정보와 증거를 HAAD에 반드시 동시 제공해야 한다.

30.3 자격증 갱신 시, HAAD는 해당요청에 따라 자격증을 개정할 수 있으며, 갱신요청이 거부된 허가대상인 의료전문인력에게 통보할 수 있다.

30.4 자격증 갱신 시, HAAD는 재량으로 다음 사항을 수행할 수 있다:

30.4.1 대상 자격증의 어떠한 제약이나 조건을 개정 또는 삭제

30.4.2 자격증의 신규 제약이나 조건 대상

31 갱신된 자격증

31.1 자격증 갱신 시, 자격증을 소지한 의료전문인력은 다음사항이 포함된 신규자격증 문서와 함께 발행되어야 한다:

31.1.1 신규갱신일 명시

31.1.2 자격증 개정 또는 신규 제약이나 조건 반영 및 자격증 갱신 진행 (제공기관의 주도로 진행된 특권으로 사용되지 않는 제약)

31.2 HAAD는 자격증갱신을 위한 절차에 관하여 상세사항을 기술한 기준을 발행할 수 있다.

3.5 자격증 유보, 취소 및 포기

32 도입

32.1 본 파트 C는 징계조치 결과로 제한되고, 취소 및 포기되는 자격증에 관한 사항을 기술 한다.

33 자격증 유보

33.1 HAAD는 징계 및 제재에 관한 의료규제기관 정책 매뉴얼 조항에 따라 자격이 주어진 허가대상인 의료 전문인력의 자격증을 유보할 수 있다[6].

33.2 허가대상 의료전문인력은 반드시 유보기간 시작 시에 지연 없이 HAAD에게 자격증 관련 문서를 반드시 되돌려 줘야 한다.

33.3 자격증 유보기간 동안, 허가대상인 의료전문인력은 자격증이 없는 것으로 고려되고, 아부다비에서 관련 전문직으로 일해서는 안 된다.

[6] 본 IX장. HAAD 의료규제기관 매뉴얼

34 자격증 취소

34.1 HAAD는 징계 및 제재에 관한 의료규제기관 정책 매뉴얼 조항에 따라 자격이 주어진 허가대상인 의료 전문인력의 자격증을 취소할 수 있다.

34.2 허가대상 의료전문인력은 반드시 취소기간 시작 시에 지연 없이 HAAD에게 자격증 관련 문서를 반드시 반환해야 한다.

34.3 자격증 취소 이후, 의료전문인력은 아부다비에서 해당 전문직으로 일해서는 안 된다.

3.6 자격증 포기

35 자격증 포기

35.1 허가대상인 의료전문인력은 다음과 같은 경우에 자격증을 자발적으로 포기할 수 있다:

35.1.1 HAAD에 자격증 포기 내용이 담긴 통보를 서면으로 제출한 경우

35.1.2 HAAD에 자격증 문서를 반환한 경우

35.2 자격증은 위에 명시된 경우에만 포기로 간주되어야 한다.

35.3 자격증 포기 이후, 의료전문인력은 본인이 신청하여 HAAD에 의해 신규자격증을 발행 받지 않는 한, 그리고 그 기간까지 아부다비에서 해당 전문직으로 일해서는 안 된다.

3.7 자격증 상실

36 통보

36.1 자격증이 상실된 허가대상인 의료전문인력은 자격증 상실이 인식된 즉시 반드시 다음사항을 수행하여야 한다:

36.1.1 해당 고용시설에 통보

36.1.2 서면으로 공지를 제출하여 HAAD에 통보

36.2 HAAD에게 자격증상실통보 시에 해당 자격증은 바로 취소되어야 하며, 자격증 교체는 HAAD

에 의해 발행되어야 한다.

4. (국가 비교) 영국, 미국 등 Tier 1 등급 국가의 의과대학 및 전문의 교육과정, 면허제도 등 국내 교육과정 및 제도 비교

4.1 외국의 기본의학교육과정 개요

기본의학교육은 졸업 후 의학교육과정인 전공의 과정으로 입문할 수 있도록 학생을 교육하는 것이다. 그러나 졸업 후 의학의 세부 전공은 다양하기 때문에 자신이 선택한 전공에서 의료의 수월성을 추구하기 위해 필요한 기본 지식, 술기, 전문직의 가치관과 태도를 갖추도록 준비시켜 주는 것이 기본의학교육의 목표이다. 이러한 목표 하에 모든 의과대학은 임상실습 전 교육에 해당하는 기초 및 임상의학교육과 임상실습 교육을 편성한다. 임상실습 전 교육은 교과목 중심, 장기계통 중심, 그리고 문제 또는 사례 중심 교육과정으로 편성한다. 임상실습교육은 전공(실습)과 중심의 임상실습이 가장 보편적이며, 최근 장기간 통합 임상실습(longitudinal integrated clerkship), 절충된 혼합형(mixed) 임상실습이 도입되고 있다. 그러나 기본의학교육의 교육방법과 내용의 구성은 학교마다, 나라마다 약간 차이를 보이나 근본적인 교육내용은 거의 표준화되어 있고 공신력을 확보한 기관의 평가인증을 받은 의과대학의 교육은 동등성을 확보한다고 간주할 수 있다.

외국 특히 미국에서 다양한 의학교육과정 형태와 접근이 있지만, 대부분의 의과대학 4년 기본의학과정은 다음과 같이 운영된다. 1, 2학년 과정은 기초 및 임상의학 교육과정으로 주로 중요한 임상 지식에 대해 배우며 비판적 사고능력을 키운다. 구체적으로 해부학, 생화학, 생리학, 미생물학, 병리학, 약리학, 행동과학 등을 배우며, 조기 임상노출을 통해 환자 및 동료와의 라포 형성, 병력청취와 문진 등의 주요 술기에 대해 배운다.

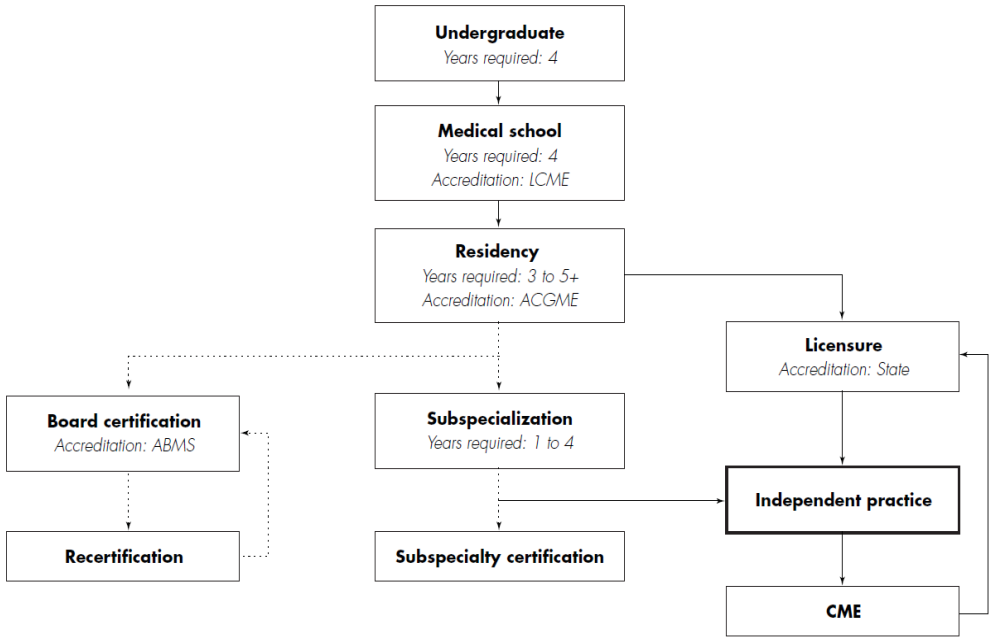
3학년과 4학년은 임상실습 과정으로 강의실에서 배웠던 것을 실제 환자 진료 상황에 적용해 보는 과정이다. 일반의로서 핵심이 되는 실습과와 전문 과목을 선택하여 실습을 하게 된다. 3학년에서는 내과, 가정의학, 소아과, 산부인과, 외과, 정신과 등을 실습하며, 4학년에서는 세부 전공분야에 집중하여 선택 실습을 하게 된다. 4학년 학생들은 졸업 후 전공과 선택을 고민하게 되면, 전공의 매칭 프로그램(NRMP: National Residency Matching Program)을 통해 전공 선택의 도움을 받는다. 학년마다 학생들이 교육과정 이수를 위해 요구되는 교육주수는 평균 36주에서 47주 사이이다(AAMC, 2012). 임상실습이 진행되는 3학년에서 가장 많은 교육이 이뤄지고 있다.

4년의 의학교육과정 동안 학생들은 3단계의 의사국가시험(USMLE: United States Medical Licensing Examination)에 통과해야 한다. 1단계는 기초의학 지식을 평가하는 것으로 2학년 말에 응시한다. 2단계는 임상 진단과 질병에 관한 것으로 4학년에 응시하며, 마지막 3단계는 임상 관리(Clinical management)와 관련된 것으로 보통 전공의 1년차 또는 2년차에 응시한다.

4.2 북미(미국, 캐나다) 전공의 교육과정 개요

전공의 과정 또한 전공분야마다 수련과정이 3년에서 5년으로 상이하다. 예를 들면, 가정의학 3년, 응급의학 3년, 일반외과 3년, 소아청소년과 3년, 소아청소년과 세부전공 5년, 산부인과 4년, 병리과 4년, 마취과 4년, 피부과 4년, 신경과 4년, 안과 4년, 정신과 4년, 영상의학과 4년, 이비인후과 5년, 정형외과 5년, 비뇨기관 4년 외과 세부전공 6년~7년이 소요된다. 이러한 의과대학 기본의학교육과정을 통해 의사가 되는 과정은 아래와 같다.

전공의교육의 내용도 나라마다 전공과목의 계열(내과, 외과, 기본계열 등)에 따라 상이하나 대게는 의과대학 졸업후 의학의 기본필수 역량을 위한 인턴과정이나 이에 준하는 과정을 수료한 후에 진입하여 통상 3년에서 6년 정도의 수련기간을 마쳐야 전문의가 될 수 있다. 우리나라 전공의 교육은 인턴 후 4년 과정이나 세부 전문의 취득을 위하여는 1-2년의 추가 수련을 요구받고 있어 선진국과 전문의 자격의 동등성을 확보한다. 실제로 UAE에서 표현하는 CONSULTANT는 우리나라의 대학병원 교수임용이 된 정도의 경력을 요구하는데 전문의(Specialist)와 Consultant의 경계는 분명치 않아 보인다. 다만 전공의과정을 수료하고 전문의 자격을 취득한 의사를 전문의로 그리고 이후 별도의 경력을 쌓은 의사를 Consultant라고 칭하는데 우리나라의 의과대학교수에 해당된다고 판단된다.



Note: LCME (Liaison Committee on Medical Education), ACGME (Accreditation Council for Graduate Medical Education), ABMS (American Board of Medical Specialties), CME (continuing medical education). Solid flow lines indicate required paths. Dotted flow lines indicate optional paths. Most physicians seek board certification. Physicians may seek subspecialization after completion of their residency.

[그림 1] 의사가 되는 과정(미국)

(출처 : https://www.aamc.org/download/73222/data/medicaleducationjune2009report.pdf)

5. (시험면제기준) HAAD 시험면제기준 제 3 조 4 항 관련 의과대학 입학시험, 의학 교육과정, 훈련과정, 각 단계별 평가, 다른 국가로부터의 면허 상호 인정여부 등 종합적 검토

앞에서 설명한 우리나라나 국제적인 의학교육의 흐름에서 교육내용은 보편적으로 표준화 되어가고 있으나 교육방식에 있어 나라별 차이를 보인다. 그리고 총 수학기간은 대게 고등학교 졸업후 11-13년 정도가 소요된다. 이런 점에서 우리나라의 전문의 자격과 T1 국가의 전문의자격은 동등성을 갖추었다고 볼 수 있으나 가장 큰 문제점은 전공의교육에 대한 공신력이 있고 국제적으로 저명한 전공의교육 평가인증기관이 존재하지 않는다는 점이 우리나라 전문의 자격의 국제적인 전문의 자격인증의 걸림돌이 될 것으로 판단된다.

<표 5> Continuum of Medical Education

	Admission	Medical school	Transition	Residency	Subspecialty	License exam
U.K.	High school	5y	Foundation training 2y	Common trunk 3-4y	3-4y	None
Korea	High school College	6y 4y	Intern 1y Intern 1y	3-4y	1-2y	2 part
Australia	High school College	5y 4y	Intern 1y Intern 1y	Basic training 3 y	Advanced training 3-4y	None
U.S.A. Canada	College	4y	None	3-5y	1-4y	3 part 2 part

UAE의 의사면허는 기본적으로 5년 의과대학과 1년의 인턴기간으로 6년의 의과대학과 1년의 인턴과정을 마친 우리나라 의사와 동등성을 갖는다. 그러나 의사면허에 대한 선진화된 면허기구가 존재하지 않는 우리나라의 실정이 국제적인 신뢰성을 확보에 장애요소로 판단된다. 앞에서 제시한 UAE의 T1 국가와 이들 국가의 면허와 자격증을 관리하는 공적기구를 참고하여 향 후 우리나라도 이에 상응하는 기구를 설립하는 것이 의료인의 국제적 진출을 용이하게 할 것이다.

결론적으로 국제적 면허와 자격의 인증은 매우 쉽지 않은 사례로 의사 개인의 역량이 문제라기보다는 우리나라 의사의 교육과 자격, 면허를 관리하는 선진적 사회 문화자산과 제도의 결여현상이 문제이다.

시험면제 기준에 대한 답변서와 우리나라 의학교육에 대한 전반적인 설명은 영문자료와 PPT파일에 담겨 있다.

영문 번역본

Medical Education in Korea

Preface

It has been about 120 years since western medical education was first introduced in Korea. Medical education and medical treatment have achieved a remarkable progress along with social, economic and political growth in Korea. In the meantime, very active migration of students, patients, doctors and medical institutions make an issue of a country become an issue of this world. The current situation calls for the need of sharing information on Korea's medical education internationally but the English version of materials that introduce medical education in Korea is not sufficiently provided. The purpose of this report is to provide information on various systems including medical education in Korea to nurture doctors and accreditation and medical license both in Korean and English. This report will be publicly available for individuals and institutions home and abroad and periodically updated to help those who need useful information on medical education in Korea.

Contents

Chapter 1 Basic Medical Education

1. Admission to medical school

Those who desire to enter a college in Korea need to take College Scholastic Ability Test (CSAT) which is similar to SAT in the U.S. and is managed by Korea Institute for Curriculum Evaluation. Although colleges may adopt various other methods such as interviews and essay, and etc. According to their needs, every student who wants to enter a college must take the College Scholastic Ability Test (CSAT). The CSAT is arranged annually, and academic subjects include Korean, Mathematics, English, Korean History, Social Studies, Science, Vocational Education, and 2nd Foreign Language. For 2nd Foreign Language, student can pick a language of choice other than English.

According to a survey, CSAT scores of those who entered a medical college were top 0.05 to 2% among all the examinees. The number is more astonishing for Greater Seoul and its surrounding area. Top 0.1% of all the examinees are accepted by top medical colleges, and even those who entered the lowest-rank colleges were within top 2%. In short, students who enter medical colleges in Korea are the most outstanding ones, and admission to medical colleges is highly competitive. National Board of Educational Evaluation under the Ministry of Education is an institution that directly belongs to the government. This governmental agency manages the general affairs of all curriculums of secondary education in Korea as well as CSAT-related affairs regarding college entrance examinations.

1.1 College of Medicine

Currently, there are 41 colleges of medicine in Korea. There were only 6 colleges of medicine in the early 1960s: Korea University College of Medicine, Seoul National University College of Medicine, Yonsei University College of Medicine, Ewha Woman's University School of Medicine and Chonnam National University College of Medicine. Many colleges of medicine were established starting from the 1970s to the mid-1990s but no college of medicine has been established since the 2000s. The list of medical colleges is shown in <Table 1>. Medical education in Korea adopted Japanese style western medicine under the influence of Japanese colonial rule and later it has been influenced by American style medical education since the Korean War to form the Korean medical education to what it is today. Association among colleges of medicine was established for medical education and has been developed into today's Korean Association of Medical Colleges (KAMC).

Korean Association of Medical Colleges (KAMC)

The beginning of KAMC dates back to the early 1960s when the Association of Deans of Medical Colleges played a central role in the country's medical education. The role of KAMC was assumed by the Korean League of Deans of Medical Colleges founded in 1984.

KAMC was engaged in diverse activities, including operating medical curriculum, managing educational matters, and sharing information between medical colleges in addition to publishing Current Status of Education of Medical Colleges. Its activities also include holding medical education conferences, figuring out learning objectives for medical colleges, and developing and conducting research on medical curriculum associated with humanities and social sciences. In the policy front, KAMC expresse opinions on medical school systems to the government and make proposals on nurturing talented researchers in medical and life sciences.

Inheriting the tradition, KAMC will stay committed to the mission to establish an academic community to foster medical doctors who contribute to raising the health in the country and the whole human society. To make this possible, KAMC will lay the foundation for creative research in medical and life sciences and promote service for and dedication to humanity and human societies.

MISSION

KAMC conducts missions to establish and develop an academic community to foster medical doctors who contribute to raising the health in the country and the whole human society.

MISSION 1

Lead innovations in systems to foster medical doctors and scientists as well as in medical education

MISSION 2

Lay the foundation for creative research in medical and life sciences

MISSION 3

Promote service for and dedication to humanity and human societies

<Table 1> List of Medical Colleges

No.	**Name of College/School**	**Year of Foundation**	21	Soon Chun Hyang University College of Medicine	1978
1	Gachon University School of Medicine	1997	22	Ajou University College of Medicine	1987
2	The Catholic University of Korea School of Medicine	1954	23	Yonsei University College of Medicine	1885
3	Kangwon National University School of Medicine	1994	24	Yonsei University Wonju College of Medicine	1977
4	Konkuk University School of Medicine	1986	25	Yeungnam University College of Medicine	1979
5	Konyang University College of Medicine	1995	26	University of Ulsan College of Medicine	1988
6	Kyungpook National University School of Medicine	1933	27	Wonkwang University School of Medicine	1981
7	Gyeongsang National University School of Medicine	1981	28	Eulji University School of Medicine	1997
8	Kyung Hee University School of Medicine	1965	29	Ewha Womans University School of Medicine	1945
9	Keimyung University School of Medicine	1979	30	Inje University College of Medicine	1979
10	Korea University College of Medicine	1938	31	Inha University College of Medicine	1885
11	Kosin University College of Medicine	1981	32	Chonnam National University College of Medicine	1944
12	Catholic Kwandong University College of Medicine	1995	33	Chonbuk National University Medical School	1970
13	Dankook University College of Medicine	1988	34	Jeju National University School of Medicine	1998
14	Catholic University of Daegu School of Medicine	1991	35	Chosun University School of Medicine	1966
15	Dongguk University College of Medicine	1978	36	Chung-Ang University College of Medicine	1918
16	Dong-A University College of	1985	37	CHA University School of Medicine	1997

	Medicine				
17	Pusan National University School of Medicine	1955	38	Chungnam National University School of Medicine	1967
18	Seonam University School of Medicine	1994	39	Chungbuk National University College of Medicine	1987
19	Seoul National University College of Medicine	1946	40	Hallym University College of Medicine	1982
20	Sungkyunkwan University School of Medicine	1997	41	Hanyang University College of Medicine	1968

1.2 Two-track System: College of Medicine and School of Medicine

There are two tracks for basic medical education to nurture doctors: College of Medicine and School of Medicine. High school graduates can apply for college of medicine and university graduates can apply for school of medicine. There are 5 schools of medicine in Korea as of 2017 and remaining 36 medical institutions are college of medicine as part of departments under university. Except for Kangwon National University School of Medicine, Dongguk University School of Medicine, Konkuk University School of Medicine, Jeju National University School of Medicine and CHA University School of Medicine, all universities returned to college of medicine system.

Basic Medical Education

Undergraduate medical schools in Korea consist of two years of premedical studies followed by four years of the standard medical program. During the first two years of premedical studies, students take all prerequisite coursework in Physics, Chemistry, Biology, Physical Chemistry, Organic Chemistry, etc., instead of clinical subjects.

For four years of the standard medical program, students are required to take basic medical science courses first including Anatomy, Physiology, Parasitology, Preventive Medicine, and Pathology. Upon completion of the basic coursework, they take clinical courses in Internal Medicine, Pediatrics, Obstetrics and Gynecology, General Surgery, and other areas of specialty. During the third year of the standard medical program, students go through clinical clerkship. Prior to graduation, they have to pass the Korean Medical License Examination (KMLE) to be certified as a general practitioner.

1.3 Education Course of Medical Colleges

Medical education curriculum can be divided into two: one is for 6 year-curriculum composed of premedical course and medical course and the other one is school of medicine which runs only 4-year medical course. However, the 4-year medical course program is almost same for medical colleges and school of medicine and same accreditation criteria is applied.

1.3.1 Premedical Course

Premedical course is a preparation for medical course. Usually, the first year is composed of general study and remaining year is composed of bridging science to prepare for medical course. 38 out of 40 universities across the nation are in charge of premedical education at the college of medicine. For other cases, school of science or the university itself takes the lead in premedical education. If not college of medicine but school of science is in charge of premedical course, students can take advantage of taking various liberal arts courses and exchanging with students of other majors. In the meantime, if the college of medicine is in charge of premedical course, students can take advantage of adjusting themselves to the life of college of medicine and universities can plan and run curriculum

linked with medical courses. The ratio of basic medical education related to standard medical program to premedical course was in the increase between 2009 and 2013.

1.3.2 Medical Course

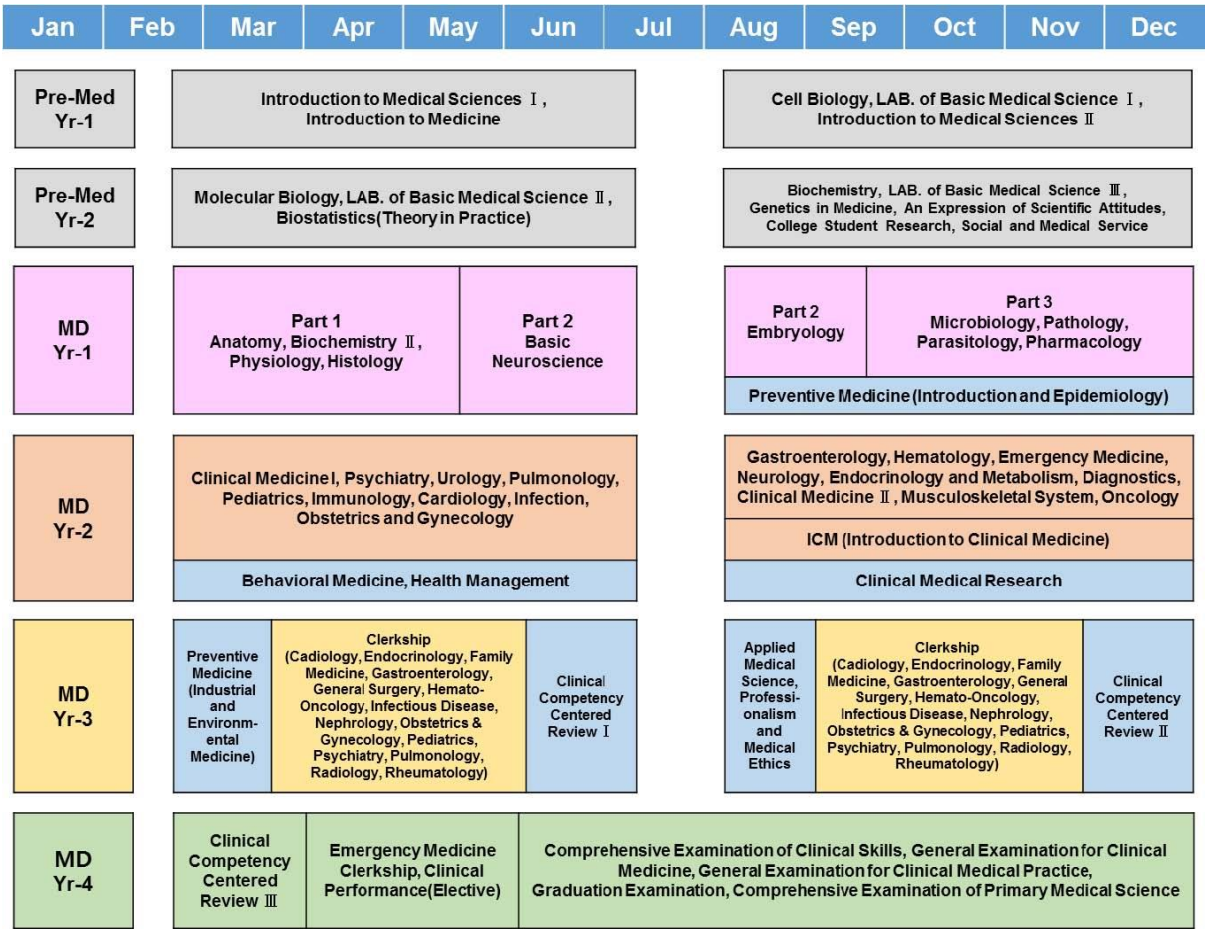
Since 2000 when accreditation for college of medicine was started in Korea, many universities has been making an effort to improve medical education by revising education objectives and developing learning performance emphasized by recent medical education. In particular, KAMC published education objectives based on clinical presentation for the purpose of making medical education focus on outcome and competence.

Currently, various kinds of education methods are in use for medical education and not traditional lecture-type class but discussion based class is recommended. 38 out of 40 colleges of medicine implement problem-based learning (PBL) and 28 universities give a single credit to PBL class indicating that small-group discussion type class is encouraged. PBL is more dominant than lecture in 12 universities. 38 universities prepared dedicated small-group discussion room for PBL class.

26 universities, more than half of universities with medical course, implement team-based learning (TBL) and TBL is used for 3.95 subjects on average. 13 universities, the majority, implement TBL for 1 or 2 subjects and 2 universities implement TBL for more than 15 subjects or programs. It means that TBL is spreading among many universities gradually. 11 universities are equipped with TBL dedicated facilities and many universities are trying to have a dedicated facility for TBL.

Medical courses take various forms depending on school but generally, preclinical curriculum and clinical curriculum. In addition, it shows various types of integrated education to link clinical program to basic medical education. The figure below shows a typical structure of university program that has a relatively traditional curriculum. The common feature is horizontal integration among basic courses or organ based integration.

In general, clinical practice starts from the third year of the standard medical program and continues until graduation. The figure below shows an example of curriculum of a college of medicine in university (Figure 1).



[Figure 1] Medical Education Course

First Year

Students concentrate on the studies of the structure and function of the normal human body and the deviations that result from aging, disease and other causes in the first year. The required core courses are Anatomy, Physiology, Neurophysiology, Biochemistry, Histology, Embryology, Neuroanatomy, Pathology, Microbiology, Fundamental Immunology, Biomedical Engineering, Preventive Medicine and Patient-Doctor-Society.

Subject	Lecture(hrs)	Labs(hrs)	Credits
Anatomy	51	120	5
Histology	43	56	3
Embryology	12	20	1
Neuroanatomy	24	41	2
Neurophysiology	21	8	1
Physiology	54	32	4
Biochemistry	77	32	5
Patient-Doctor-Society (1)	32	-	1
Fundamental Immunology	20	20	1
Pathology	70	20	7
Microbiology	52	64	4
Preventive Medicine	25	32	2

Second Year

Subject	Lecture(hrs)	Labs(hrs)	Credits
Pharmacology	53	40	4
Parasitology	20	40	2
Legal Medicine	12	-	1
Medical Genetics	17	15	1
Clinical Immunology	35	-	2
Infection	19	-	1
Oncology	35	-	2
Neuroscience	80	8	3
Nephrology	58	6	3
Hematology	48	21	3
Endocrinology	69	-	3
Cardiology	81	5	3
Respiratory System	87	8	3
Gastroenterology	87	-	3
Patient-Doctor-Society (3)	16	24	1
Patient-Doctor-Society (4)	16	24	1
TOTAL	722	191	36

Third Year

The third year program is a 38- week clinical study. Students go through the basic core clerkships in Internal Medicine for 12 weeks; 6 weeks each in Pediatrics, Obstetrics, and Gynecology; and 4 weeks each in General Surgery and Psychiatry. The clerkship provides the opportunity for a small group of students to participate directly in the management of clinical problems presented by patients in the hospital. Clinical lectures are also given during this period but are limited to 2 hours a day.

Subject	Lecture(hrs)	Labs(hrs)	Credits
Internal Medicine	32	320	8
Clinical Reasoning	27	-	1
Pediatrics	8	160	4
Obstetrics &Gynecology	31	160	4
Psychiatry	33	160	4
General Surgery	23	160	4
Orthopedic Surgery	16	80	3
Radiology	8	64	3
Nuclear Medicine	9	16	1
Patient-Doctor-Society (5)	12	12	1
Neurology	-	80	3
Laboratory Medicine	10	-	1
Emergency Medicine	5	80	3
TOTAL	214	1292	40

Fourth Year

The first half of the fourth year is a continuation of the third year, which provides 13 weeks of minor subject clerkship. The latter half-year of the senior year, the fourth quarter, covers one block of community medicine and the graduation examination.

Subject	Lecture(hrs)	Labs(hrs)	Credits
Advanced clinical medicine	93	-	4
Selective course (6 subjects out of 13 subjects)	-	540	18
Thoracic surgery	-	(90)	(3)
Neurosurgery	-	(90)	(3)
Urology	-	(90)	(3)
Otolaryngology	-	(90)	(3)
Ophthalmology	-	(90)	(3)
Dermatology	-	(90)	(3)
Plastic surgery	-	(90)	(3)
Radiation oncology	-	(90)	(3)
Community medicine	-	(90)	(3)
Laboratory medicine	-	(90)	(3)
Rehabilitation medicine	-	(90)	(3)
Anesthesiology	-	(90)	(3)
Family medicine	-	(90)	(3)
Research in medicine	-	130	4
Clinical performance training and examination	-	35	1
Integrated clinical medicine	-	70	2
Occupational and environmental medicine	35	-	1
Critical care medicine	24	2	1
Patient-Doctor-Society (6)	30	30	2
New horizons in medicine	32	-	1
Total			

1.3.3. Clinical Practice of Medical Students

The Enforcement Regulation of the Medical Service Act in Korea allows the medical practice of medical students in the process of clinical clerkship education. The legal basis for the field experience of medical students as part of clinical practice is defined in the following acts.

[Ministerial Decree Number 11 of the Ministry of Health and Welfare, fully revised on Apr. 11, 2008]

Article 19 [Medical Practice of Medical Students, Etc.]

① The scope of medical practice under Article 27.1.2 of the Act is as follows:

1. Medical practice for medical volunteer service for the public

2. Medical practice conducted in times of national emergency including war and disaster at the request of the nation or regional government.

3. Medical practice for research or pilot project for a certain period

② In accordance with Article 27.1.3 of the Act, students majoring in medicine, dentistry, oriental medicine or nursing may conduct the following medical practices.

1. Medical practice conducted under the guidance and supervision of an advisor for the purpose of

conducting practice related to specialty

2. Medical practice under the guidance and supervision of healthcare providers as part of medical volunteer works for the public

3. Medical practice conducted in times of national emergency including war and disaster at the request of the nation or regional government.

1.4 Accreditation for College of Medicine

Evaluation and accreditation on medical education in Korea started in 1997. Korea Medical Education Council decided to introduce evaluation system in 1997 and established Accreditation Board for Medical Education in Korea (ABMEK) in 1998. Pilot accreditation was carried out in 1999 and evaluation was conducted for the first time in 2000 (validity of evaluation criteria was verified and then pilot accreditation was conducted in 8 newly-established medical schools). As Korean Institute of Medical Education and Evaluation (KIMEE) was founded in 2004 under the approval of Ministry of Health and Welfare (MOHW), ABMEK has been an accreditation board under Korean Institution of Medical Education and Evaluation (KIMEE).

There are currently 41 medical schools in Republic of Korea, and KIMEE accredits only “Basic Medical Education Program” from the educational programs of those of 41 medical schools in Republic of Korea. KIMEE, a non-governmental organization, was certified as an accreditation agency for medical schools in May 2014 by Ministry of Education (MOE).

KIMEE is closely working with medical organizations such as Korean Medical Association (KMA), Korean Hospital Association (KHA), Korean Academy of Medical Sciences (KAMS), Korean Association of Medical Colleges (KAMC), National Health Personnel Licensing Examination Board (NHPLEB), Korea Medical Education Council (KMEC) and Korean Society of Medical Education (KSME). Each head of these organizations and the individual recommended by each head are participating in KIMEE as an ex-officio director while individuals recommended by each related organization are taking part in Executive Committee and Decision making committee of KIMEE to reflect the reviews of medical education associates.

KIMEE was incorporated on 27 February 2004 following the approval by MOHW and reports business performance, business planning and medical education accreditation results to MOHW. Following the review of the objective, infrastructure, standard, process, performance and application, KIMEE was designated as a medical education accreditation agency by MOE in 2014, and planning to conduct the projects over the next 5 years (12 May 2014 to 11 May 2019).

KIMEE conducts projects in order to guarantee the quality and raise the supremacy of medical education, publishes evaluation results and provides advisory services with objective of complying with social responsibility of the institution.

Evaluation and judging standards are pursuant to KIMEE regulation. KIMEE developed Korean accreditation standard by gathering opinions from colleges, relevant organizations and general public via public hearings in accordance with the Articles 35 & 36 of the Medical Education Accreditation Regulation. We also studied LCME, WFME and AMC standard and confirmed the comparability with our standards. Changes regarding evaluation standard, regulation or process are publicly announced.

※ Governmental recognition system refers to that academic curriculums and disciplines are to be evaluated by the accrediting agency recognized by Minister of MOE according to the Sections 2 (Evaluation) & 3 of Article 11 of Higher Education Act, which was introduced in 2008 to improve the quality and systematic management of higher education.

Site Visit

KIMEE organizes the site visit team consists of 7 members. The site visit team performs ‘site visit’ to a medical school for assessment. The agency evaluates governance and administration, educational program, students, faculty, education and research resources, and postgraduate education. They hold a meeting prior to conducting evaluation, carry out accrediting services and then write an evaluation report.

Accrediting services include verification of prepared data & documents, and facilities and equipment, interview, debrief, provision of a general review and visit of teaching hospitals for appraisal. The team decides whether the standards are met after panel discussions among the team members.

Among 41 colleges of medicine in Korea as of 2016, 39 colleges obtained accreditation, 2 colleges were not accredited and 1 college is on probation. The Ministry of Education raised the agenda of making accreditation for doctors, dentists, oriental medicine doctors and nurses mandatory and the agenda is under review at the National Assembly. Under the Medical Service Act in 2011, only those who graduated from the schools that obtained accreditation can take medical licensing examination for the 4 occupations mentioned and the requirement will be implemented from 2018.

Chapter 2 Medical Licensing Examination

2. Licensing and Scope of Practice

In Korea, the medical license is given to those who graduate from a medical college and pass both the written test and practical test. The fact that the medical license is issued does not necessarily mean that one's specialty of medical examination is decided or that one is qualified to perform medical examination of every subject. Almost all medical college graduates in Korea go through the resident course to become a medical specialist. The area of general practice as well specifies the course of family practice medical specialists. Thus, independent medical practice in Korea is exclusively for a specialized area that one is trained for. Those who graduate from a medical college, complete an internship course, and find employment would work as an assistant for future independent medical examination, work as a general practitioner handling a quite low level of medical treatment, or work as an apprenticeship doctor to learn the works of medical specialists under the supervision.

2.1 History of National Medical Licensing Examination

The national medical licensing examination had been led by the government for 42 years from the first medical licensing examination in 1952 to the 56th examination in 1993. The examination began to be led by the private evaluation agency with the opening of Korea National Doctors' Licensing Examination Institute in 1992. The institute became Korea Health Personnel Licensing Examination Institute to be in charge of license and qualification of 24 occupations in the health sector including doctors. It became a special corporation under the Special Act in Dec. 2015.

2.2 Written Test

2.2.1 Composition of Test

A total of 400 questions were provided in the written test for the 80th national medical licensing examination in 2016 composed of 80 questions for general medicine (12 questions for R type), 300 questions for particular medicine (48 questions for R type) and 20 questions on acts related to health and medicine. Among them, R type questions accounted for 15% of the total.

<Table 2> Subjects for the written test for medical licensing examination (since 2002. 01. 01)

Exam subjects	Major Categories
Introduction to medical science	Normal structure and function of the body, normal development · growth and aging, outbreak of disease and death, major symptoms and pathophysiology, examination and diagnosis, test, treatment and complications, health improvement and disease prevention, health and medical care
Clinical medicine	Nutrition, digestive disease, injury · addiction, neoplasm, blood · blood-forming organ disease, cardiovascular disease, musculoskeletal · connective tissue disease, neurological disorders, allergy and immune disease, respiratory disease, infection and parasitic disease, endocrine · metabolic disease, renal · urinary tract and male genital disease, genetic disorder

	and congenital malformation, perinatal and neonatal disease, eye and ocular appendage disease, ear and mastoid disease, skin disease, female genital disease, pregnancy · delivery and postpartum disease, mental illness
Health and medical regulations	Framework Act on Health and Medical Services, Regional Public Health Act, National Health Promotion Act, Infectious Disease Prevention Act, AIDS Prevention Act, The Quarantine Act, Medical Law, Emergency Medical Service Act, Blood Management Act, Narcotics Control Act, National Health Insurance Act and Its Enforcement Decree and Regulations

2.2.2. Examination Schedule

Examination is conducted for two days and one point is allocated to each question with total score of 400. The first four sections are scheduled on the first day and remaining two sections are scheduled on the second day. About 1 minute plus 15 to 17 seconds are allocated to each question.

2.2.3. Acceptance Criteria

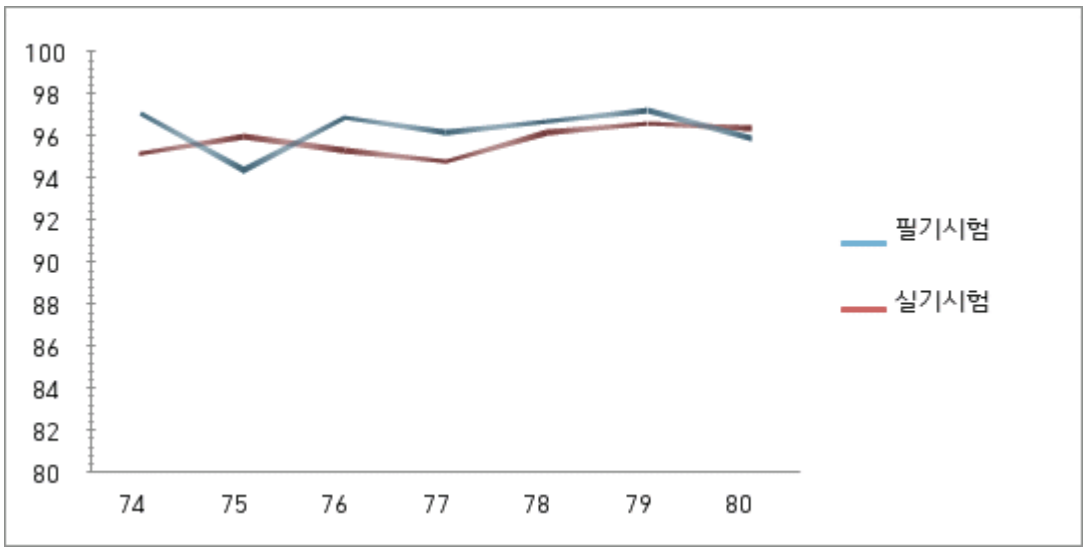
Those who obtained more than 60% of the total score and 40% of each subject can pass the written test of the national medical licensing examination and those who pass the performance test are determined by the review board composed of professors of medical colleges. The details for calculating cut-off points of performance test are defined and announced the Minister of Health and Welfare. Those who pass both written and performance tests are final successful applicants. The national medical licensing examination is composed of written and performance tests and those who pass one of the written test or performance test are exempted from the successful test for the next year's examination.

2.2.4 Pass Rate of Written Test of National Medical Licensing Examination

<Table 3> Change in the Pass Rate of National Medical Licensing Examination by the Year

Count (Year)	Written	Performance	Total
72(2008)	96.5	-	96.5
73(2009)	93.6	-	93.6
74(2010)	97.0	95.2	92.9
75(2011)	94.4	96.0	91.7
76(2012)	96.9	95.3	93.1
77(2013)	96.2	94.8	92.2
78(2014)	96.7	96.2	93.8

79(2015)	97.2	96.6	94.6
80(2016)	95.9	96.4	93.5



[Figure 2] Change in Pas Rate of Written Test and Performance Test by Examination (%)

필기시험: Written Test

실기시험: CPX(Clinical Performance Examination)

2.2.5. Development of Evaluation Objectives for Written Test of National Medical Licensing Examination

The evaluation objectives for written test of national medical licensing examination were published in Dec. 2014. In order to improve the contents and quality of national medical licensing examination, National medical licensing examination objectives which describe minimum competence of doctors were developed focusing on physician encounter (PE). It is intended to improve the authentic assessment by turning the focus from questions in the test for organs in the body and systematics to real-world problem solving.

The development of objectives for national medical licensing examination incorporates global trend that was already developed and applied in many countries like Switzerland, Germany and Netherlands including Objectives for the Qualifying Examination 1 in Canada. The objectives were developed based on “basic medical education learning performance (focusing on medical treatment competence)” published by Korean Association of Medical Colleges (KAMC) for basic medical education in Korea in 2012 to align medical education with evaluation and promote mutual development of medical education and evaluation system and nurture competent physician ultimately improving the quality of medical service.

The contents are described focusing on 105 kinds of clinical presentations including necessity, major causes (major considerations), core performance and specific performance. The evaluation objective

of the national medical licensing examination includes 522 essential diseases and depending on 97 job contexts in generic medicine area, there are 483 essential diseases included indicating that on average one physician job context has 5 essential diseases.

2.2.6 Smart Device Based Test

Korea Health Personnel Licensing Examination Institute is preparing for the transition from paper-based test to smart device based test (SBT) utilizing tablet PC. It is planning to provide information on SBT continuously and make people experience SBT on its website. The SBT will start from “Emergency Medical Technician-Paramedic Examination (written test)” and will expand to other occupations gradually. It plans to adopt multi-media questions in written test for national medical licensing examination in 2020.

2.3 Medical Preliminary Examination for international graduates

Under the Article 5 of the Medical Service Act announced on Mar. 30, 2002 (Licenses for Medical Doctors, Dentists or Oriental Medical Doctors) that requires the implementation of preliminary examination for foreign graduates from college of medicine or college of dentistry, the first medical and dental preliminary examination for graduates from foreign colleges of medicine or dentistry was conducted on Sept. 11, 2005.

Preliminary examination is composed of the first and second test where applicants need to go through test on basic medical knowledge and Korean language skills in the first test and performance test including examination of patients in the second test. The acceptance criteria of preliminary test are 60 out of 100 scores and the score of each subject should be over 40. If an applicant passes the preliminary test and fails the national medical licensing examination, the preliminary test is exempted for the following year. The number of examinees was 13 and 4 of them passed the examination showing pass rate of 30.8% but only 2 out of 4 who passed the first test passed the performance test obtaining the qualification to apply for the 70th national medical licensing examination

2.4 History of Medical Skill Test

Medical skill test was first conducted on Sept. 23, 2009 and it was conducted as part of the 74th national medical licensing examination in 2009. The skill test had continued for 51 days until Dec. 1, 2009. The skill test has the purpose of evaluating not only applied knowledge focusing on diagnosis and procedure utilizing standardized patients who have been trained systematically and model but also attitude and technical skills.

Under the test, the examinees need to examine standardized patients regarding them as actual patient and go through examination questions to evaluate this process and technical skills are evaluated by using model, mannequin and simulated patients. One examinee needs to go through skill test composed of 6 examination questions and 6 technical skill tests. One examination question is given 50 scores with the total full score of 900 scores. The examination is conducted at two centers on one day and cycle 1 is conducted in the morning and cycle 2 is conducted in the afternoon. A total of 12 examinees can take the test per set per cycle. 3,531 people applied for the 74th national medical licensing examination in 2010 and among them 3,456 people actually took the test showing 97.9% of applicants taking the test. The pass rate of the 74th national medical licensing examination in 2010 was the lowest for the past 3 years at 92.9%. 3,469 people took the test and 3,224 people passed the examination. At the first medical skill test, 3,289 people passed the test out of 3,456 people with pass rate of 95.2%. The written test showed the pass rate of 97.0% as 3,349 people passed the test out of 3,452 people who took the test. 3,439 people took both written and skill test. 17 people only took the skill test and 13 people took only written test.

2.4.1 Meaning of the Adoption of Medical Skill Test

KAMC presented education objectives of college of medicine and school of medicine as the Korean medical education in the 21st century emphasizing the nurturing holistic human therapist and attitude as a doctor covering basic medical knowledge, technical skills, problem solving capability on site, disease prevention and health improvement. The national medical licensing examination in Korea has been run with paper-based test having limitations to evaluating attitude and technical skills even though there has been some achievement to some extent in evaluating basic knowledge and problem-solving capability.

Against this backdrop, the adoption of practical test in the national medical licensing examination has a significant meaning in that it pursues balance of evaluation areas. Second, the adoption of practical test can serve as a good opportunity to turn the clinical education to learning based on experience. There is a pedagogical saying that adoption of practical test is a good opportunity to reshape the clinical education focusing on patient both for professors and students. In particular, it is expected that students are more interested in patients with in mind that their learning objective is to have a dialogue with a patient, take care of and give treatment to a patient.

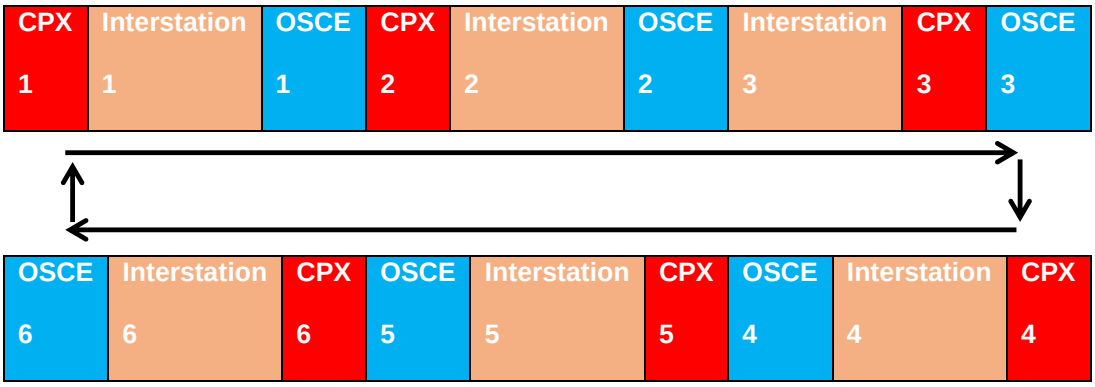
Third, it can establish a turning point to improve the quality of doctors. Existing paper-based test cannot evaluate the minimum requirements of technical skills and attitude and check the ethical elements and professional attitude. The existing written test has a danger of not filtering doctors who can impose harm to patients or who cannot communicate efficiently with patients. However, the adoption of practical test can improve the quality of doctors as minimum qualification as a doctor to treat and take care of patients can be checked with test environment even though it is not conducted with an actual patient. The assumption is that re-training should be conducted for those who do not pass the test. It is expected that the adoption of skill test can improve the management of medical resources coming from other countries with the opening of medical market in consideration of other advanced countries' cases like the US, Canada and the UK. Because the test can evaluate both basic knowledge and conversational skills as well as diagnosis of those who want to enter Korean market after graduating from foreign college of medicine.

2.4.2. Composition of Skill Test

One set is composed of 12 questions. 6 questions are related to patient encounter utilizing a standardized patient and the other 6 questions are related to procedure skills. Regarding the time required for station, 1 minute is given to read the guideline and 5 minutes are given for procedure skills. 10 minutes are given to patient encounter. During in-between test linked to patient encounter, the examinee needs to fill out medical record on a computer focusing on assessment and plan based on patient encounter. A total of 157 minutes are given to an examinee with 10-minute break in the middle.

2.4.3. Execution of Skill Test

The first six examinees need to wait in front of patient encounter station and read the condition guideline with the start signal for 1 minute and go to the room. They start examination for 10 minutes and take in-between test for 5 minutes. Next, they need to read condition guideline for 1 minute related to procedure skill and enter the station and take the skill test for 5 minutes for evaluation. Another 6 examinees start from procedure station and go to the patient encounter. Therefore, 12 examinees can take the test by taking turns in one cycle (Figure 3).



[Figure 3] Execution of Test

CPX: Patient (SP) Encounter 10 min station

OSCE: Procedural skill 5min. station

Interstation: Post-encounter probe 5 min. station

2.4.4. Evaluator of Skill Test

Korea Health Personnel Licensing Examination Institute recruits the evaluators, who were selected previously at the school level among professors of medical colleges across the nation. They are trained for grading and perform grading in the morning and in the afternoon. There is one professor evaluator per room and the professor inputs the evaluation result by referring to the grading table on the computer in real time when medical treatment skill test is conducted.

For the patient encounter, a standardized patient acts based on the scenario developed for actual patients and after 10-minute medical treatment, patient-physician interaction is evaluated for 2 minutes. While the standardized patient act in the room, an evaluator puts on headset, looks at the one-way mirror and puts grade on grading sheet on the computer for medical history check, examination of patient, and patient education in real time. All process in the station is recorded but the purpose of the recording is not to grade again but to utilize the record as research and development data in the future and monitor the quality of test.

The professor evaluator is assigned to station where examinees for medical colleges other than the evaluator's own medical college take examination to avoid bias by interests. The number of professor evaluator from a certain medical college is in proportion to the number of examinees for the certain school and more professors from larger scale medical colleges or medical colleges in Seoul are assigned. In principle, KMLE prefers professor evaluator who can maintain the quality of evaluation well.

2.4.5. Grading Method

Objective evaluation tools in the form of check list are used for both patient encounter and procedure skill. The patient-physician interaction under patient encounter section is composed of 5 common items, which are evaluated as four categories of Likert scale: Very Good, Good, Fair, and Poor. The information collection ability including medical history check, diagnosis and patient education is usually graded with 2 to 3 category- scale: Yes/No or Doing Well/Not Doing Well/ Didn't Do. Procedure skill is usually graded with 2 to 3 category- scale: Yes/No or Doing Well/Not Doing Well/ Didn't Do.

Some evaluation items have different weight. The percentage of scores out of total score of each

grading item is calculated combining patient encounter station score with weight. The score of in-between test of patient reflects 5% of station score as contribution. The 20 to 40% of patient-physician interaction score is reflected based on the characteristics of medical treatment. If the patient encounter includes examination, the clinical doctor attitude is evaluated on 4-point scale. In the end, full score of patient encounter is 100 scores per station. For procedure skill, the percentage of each evaluation item is calculated first and converted into score with full score of 50. The total score of 12 sections is 900 (6 patient encounters (100*6) and 6 procedure skills (50*6).

The composition of grading table for procedure skill and patient encounter is shown below (Table 4). Usually procedure skill section has one skill competency item and it is included in the evaluation item for checking overall skill competency.

<Table 4> Grading Table for Patient Encounter and Procedure Skill

Patient Encounter	Procedure Skill
Listening to medical history	Procedure: complete process
Examination of patient, attitude toward patient (common)	Sterile manipulation
Patient education	Skill level
Patient-physician interaction: common item	± Description of results

2.4.6. Determination of Pass Mark

The pass or fail are determined separated from the written test. Under the Enforcement Regulation of the Medical Service, final pass criteria shall be determined by the head of the KMLE. The pass mark review committee is composed of 13 to 15 people including chairman and determines pass mark for each question with modified Angoff method.

Chapter 3 Internship Education

The internship program lasts 1 year in certified hospitals under the supervision of specialists of each medical department. The program must consist of general training programs including patients' history taking, consultation, treatments, and surgeries. Internship trainees must participate in the educational programs provided by each medical department of the hospital during the internship period. Interns must take the essential courses that include 4 weeks of Internal Medicine, General surgery, and Obstetrics & Gynecology and 2 weeks of Pediatrics. The trainees must additionally take two subjects of their choice.

3.1 Definition of Internship

"Interns" are those who obtained medical license and belong to teaching hospital to learn technical skills of each clinical course. Internship period lasts 1 year and the internship year starts from Mar. 1 and ends at the end of Feb. next year. However, in case of Article 1.1.2 the first internship year starts from May 1 and ends at the end of Feb next year (Regulation on the Specialist Training and Qualification, implemented on July 1, 2014) (Partially revised on Apr. 1, 2014, under Presidential Decree No. 25290)

3.2 Teaching Hospital for Interns

Medical institutions which want to be designated as teaching hospital for interns should have departments of internal medicine, surgery, pediatrics, obstetrics and gynecology, anesthesiology, radiology, laboratory medicine or pathology and each department should have full-time specialist. The medical institutions shall meet the criteria mentioned in Appendix 1 (Article 7 of the Presidential Decree No. 25290 (Article 7.1.1 of Criteria on the Designation of Teaching Hospitals and Teaching Institutions).

<Revised on Sept. 26, 2014>

Criteria on the Designation of Teaching Hospital (in relation to Article 7.1)

1. Common Criteria

Full-time Specialist	Number of hospital beds and actual record of patient consultancy	Facility and Equipment
More than 1 specialist per department	1. No. of hospital beds permitted: more than 100 beds 2. Actual number of discharged patients per year: more than 2,000 patients (except for newly born babies) 3. Hospital bed utilization rate: higher than 70%	The medical institution shall be equipped with nursing department, nutrition department, pharmacy, medical record room, emergency room, operation room, intensive care unit, central sterilization service, accommodation for interns, delivery room, recovery room and lecture room (or meeting room)

2. Criteria for Each Department	
Specialty	Facility and Equipment
Internal Medicine	1. EKG recorder 2. Funduscope 3. Artificial respirator 4. Centesis
Pediatrics	1. Baby clinic 2. Separated unit 3. Nutrition room and baby feeding room 4. Tools required to consult babies and children (extensometer and for children, funduscope, otoscope, blood pressure monitor for children)
Surgery	1. Diagnostic x-ray during operation (C-arm or portable X-ray) 2. Laparoscopic surgery unit 3. Electric coagulator or Bipolar vessel sealing system
Obstetrics and Gynecology	1. Room for newly born babies, and preterm infants 2. Incubator
Radiology	More than 5 units including 2 300㎃ x-ray device for diagnosis
Anesthesiology	1. Anesthesia equipment in each operation room 2. Suction unit in each operation room 3. Recovery room equipped with cardiopulmonary resuscitation equipment 4. Suction therapy device 5. EKG recorder
Laboratory Medicine	1. Blood test devices (blood clotting analyzer, automatic hemotology analyzer, blood smear staining facility) 2. Clinical chemistry test facility (clinical chemistry analyzer, electrolyte analyzer, blood gas analyzer) 3. Bacteria and immunoserological test facility (bacteria staining facility, bacteria cultivation device, immune test analyzer) 4. General test facility (urine dip stick reader) 5. Blood bank facility (blood storage refrigerator, centrifugal separator) 6. Other facilities (common: centrifugal separator, refrigerator, microscope) * If there is automatic test equipment that can conduct more than two tests mentioned above, it is regarded that test equipment for respective function is secured.

Pathology	1. Visual sample test room 2. Tissue preparation room 3. Cell sample preparation room

3.3 Selection of Interns

Across the nation, 203 individual hospitals are selected as teaching hospital for internship (if it is integrated at the hospital system, 108 units) and they can recruit interns. By the hospital group, interns can apply for A-D, institution and single department C.

(1) Score Allocation for Intern Selection Test

The score distribution for intern selection test proposed by Hospital Association is more than 40% for written test (substituted by score obtained in the college of medicine), less than 15% for interview, more than 20% of medical college graduation score and less than 25% of selective evaluation. Selective evaluation can be conducted at the hospital level for performance test. The ratio of intern selection test for 108 hospitals across the nation is 50.7% for written test, 14.6% for interview, 27.0% for medical college graduation score, and 7.7% of selective evaluation. As of 2016, 78 hospitals recruited interns for the first recruitment and 30 teaching hospitals recruited interns for the second recruitment for 2016 (Table 5).

<Table 5> Score Distribution for Intern Selection Test (n=108 hospitals)

	Written Test More than 40%	Interview Less than 15%	Score during College of Medicine More than 20%	Selective Evaluation Less than 25%
Average	**50.7**	**14.6**	**27.0**	**7.7**
Standard Deviation	**9.6**	**1.9**	**6.3**	**9.3**
Minimum	0	5	20	0
Maximum	65	25	45	50

3.4 Internship Education Course

3.4.1 Internship education course: Yearly Education Course for Specialist [No. 2013-39] Ministry of Health and Welfare, Feb. 28, 2013]

(1) Education Objectives

The objective is to improve the competency of a doctor who can provide consultancy to a patient independently during internship education where those who obtained medical license can improve the knowledge learned at medical college to the level of consulting actual patient.

(2) Course

Internship education is for clinical training for overall medical treatment including recording of medical history, consultancy, treatment and operation for inpatients under the guidance of chief of each

department, specialist and resident. Interns are required to participate in education event of each department and education event at the hospital level. Internship is conducted, in principle, on a rotation basis but internal medicine, surgery, pediatrics and obstetrics and gynecology should be included mandatorily as follows. Education course based on rotation should include internal medicine (more than 4 weeks), surgery (more than 4 weeks), obstetrics and gynecology (more than 4 weeks) and pediatrics (more than 2 weeks) and the department for the remaining period is subject to choice but more than two departments should be selected.

3.5 Internship and Qualification

Article 5.5 of the Regulation on Specialist Training and Qualification: Notice of the Ministry of Health and Welfare No. 2013-39 (Feb. 28, 2013)

A. Internship period: It starts from Mar. 1 (in case of interns with the background of public health doctors or army medical specialist, it starts from May 1) and ends at the end of Feb. next year.

B. Subject for internship: Mandatorily internal medicine (for more than 4 weeks), surgery (for more than 4 weeks), obstetrics and gynecology (for more than 4 weeks) and pediatrics (for more than 2 weeks) should be included and more than 2 subjects (more than 6 subjects in total) should be completed.

C. If the legal internship period and subject requirements are not met the completion of internship may not be recognized.

3) The Healthcare Resource Policy Division of the Ministry of Health and Welfare is in charge of supervising the demand and supply of interns. Hospital Association shall coordinate general administrative works and be responsible for actual process under the supervision of the Ministry of Health and Welfare.

3.6 Evaluation of Work during Internship

3.6.1 Preparation of Internship Work Evaluation, 2015

Grade (total score): Percentage of the work performance grade (total score) based on the score converted from internship work of each hospital is calculated. The grade is organized in a descending order giving A grade to the top 35%, B grade to the top 80% and C for the remaining interns. The evaluation period is Mar 1 to Oct. 31 of the year. However, those who started their internship on May 1 have the evaluation period from May 1 to Oct. 31. Special remarks regarding the internship can be given separately. The internship work evaluation sheet at a university hospital is shown below.

Internship Work Evaluation Sheet

▣ Seoul, K Hospital, Department: Chief Name (Signature)

Name		Intern Number		Evaluation Period	Sept. 1 to Sept. 30, 2015

▣ Internship Status

Department	Expected Internship Days	Actual Internship Days	Remarks	Head of Education Research Dept.
	30 days	30 days		Kim Tae-hwan (signature)

▣ Internship Status: ①②, written by education research department, ③④, written by chief of the relevant department, ⑤ confirmed and signed by head of education research department

▣ Grade

Evaluation	Basic knowledge and attitude to work (40%)	Commute, cloth, appearance, compliance with work place		
		Relationship with patient and guardian (ethics, friendliness)		
		Relationship with medical personnel (cooperation and harmony)		
		Prompt response to call		
	Clinical competency (40%)	Ability to ask questions to patient, provide consultancy		
		Reporting of patient condition and test result		
		Learning attitude		
		Clinical performance		
* The head of relevant department shall check the evaluation classification above and circle the appropriate level of the intern by selecting A, B, or C.				
Score	A - 80 79 78 77 76			
	B - 75 74 73 72 71			
	C - 70 69 68 67 66			
* If the score is less than 65, please attach the statement for the reason			Score	
	Education Research Department (20%)	Internship Education Participation (Attendance score)		
Total			Total Score	

3.6.2 Relevance with Resident Admission Examination

The score for specialist recruitment examination is composed of more than 40% for written test, less than 15% for interview, more than 20% of internship work score and less than 25% of selective evaluation (including skill test). As the internship work score up to Oct. of the year is reflected in the specialist recruitment examination, the attitude after Oct. may be different depending on the pass of the specialist recruitment examination. Therefore the Korean Hospital Association demands the periodic quality management to hospitals.

3.6.3 Score of Internship Work

A. The internship work score included in the resident admission examination is evaluated by the internship score certificate issued by the relevant hospital head.

B. Head of teaching hospital or teaching institution (hereinafter referred to as “head of hospital”) shall calculate internship score for those who completed internship of his/her hospital or who are about to complete the internship by end of each Oct. and submit the results within 30 days after calculation to Minister of Health and Welfare.

C. The evaluation of the internship work is classified into three categories in relation to the intern’s ability to perform work, attitude toward work and work performance. The distribution rate of each category shall be 35% for grade A, 45% for grade B and 20% for grade C.

A grade: higher than 90 scores

B grade: between 80 and 90 scores

C grade: between 50 and 80 scores

D. The document related to the calculation of internship work scores mentioned under C shall be kept for 5 years.

E. Head of the teaching hospital shall issue the internship certificate to those who completed the internship in the hospital and seal and send the performance evaluation document to the head of a hospital which conducts resident recruitment examination keeping the document to secret.

F. Head of the hospital which conducts resident admission examination can check and inquire the record of an intern mentioned in E with the head of relevant hospital.

Chapter 4 Specialty Education: Resident Training

The Specialty program lasts 4 years in certified hospitals under the supervision of specialists of each medical department; the requirements of each specialty program differ slightly by department. Basically, the requirements clarify the number of assigned patients, training criteria, participation in medical conferences in each field, publishing of papers, and dispatched training from related departments and other requirements. After completing the program, they must pass the Korean Medical Specialist Certifying Examination to be nationally recognized as a specialist.

4.1 History of Specialist System

The modern medical education started in Korea in 1899 when medical school was established by the state. The post-graduate medical education started in the 1910s but the development of education system was stagnated due to political confusion and war. The specialist system was created in the process of organizing various kinds of social systems after the establishment of the Korean government. In 1951, the national medical act was established and the Article 41 stated that “medical practitioners shall not practice special department without the permission from responsible minister under the act”. Specialist has the right to claiming specialties and the right shall be recognized by the administrative department. Under the act, “permission for specialty” started to be given in 1952. At that time, permission was issued after review without any traditional-concept test. It is like portfolio evaluation of today, which can be regarded as specialist licensing examination.

In 1960, the first Specialist examination was conducted by adopting the traditional concept of examination. At that time, examination was conducted for 10 specialties and since then the examination has been conducted every year except for exceptions due to the creation of new specialty. In 1966, the name was changed from specialist permit to specialist license and the changed name is still in use today. The number of specialties, which was started as 10 had been increased for the time being. As the dermatology and urology was divided into dermatology and urology in 1961, the number of specialties increased to 11. After that new specialties were added or existing specialties were divided. Sometimes, new specialty was created according to separation of academic discipline or diversification of public demand for medical care. For some cases, specialty was created due to changes in environment or development. Accordingly, the number of specialties increased to 26 in 1996, which are maintained as of now (Table 6).

As the specialist system takes root, most of the existing doctors select their specialty to obtain specialty license and doctors who obtain license newly selects training for specialty. Accordingly, the demand for specialist was met to some extent and the possibility of adding a new specialty becomes low. However, from the academic and public demand perspective, there is still the deed for new specialty and it can be said that the demand for new specialty is increasing from a certain perspective. Such a conflicting circumstance is explored to find a solution through subspecialty certification system.

<Table 6> Specialty by Year

year	number	specialties
1960	10	Internal Medicine, Surgery, Obstetrics and Gynecology, Pediatrics, Ophthalmology, Otolaryngology, Dermatology and Urology, Orthopedic Surgery, Psychiatry, Radiology

1961	11	(separation) Dermatology, Urology
1963	15	Neurosurgery, Preventive Medicine, Anatomical Pathology, Clinical Pathology
1964	16	Anesthesiology
1967	17	Tuberculosis
1972	18	Thoracic Surgery
1975	19	Plastic Surgery
1983	22	Neurology, Therapeutic Radiology, Rehabilitation Medicine
1986	23	Family Medicine
1996	26	Occupational Medicine, Nuclear Medicine, Emergency Medicine

4.2 Current Status of Specialist System

The specialist system in Korea started in the form of restricting medical institutions to claim specialty recklessly. To achieve the objective, the qualification for the specialist has been recognized by the executive branch and the system has been maintained today. As the system has continued for a long time, the specialist qualification has become to have almost the same authority with license. With this perception, those who obtain medical license want to obtain specialist qualification and the course has taken the root as a pretty sound post-graduation education.

As of late 2015, the number of people who obtained medical license newly was 3,106 and 3,112 people completed internship and among them, 2,901 people applied for resident program. The number indicates that all of those who obtained medical license newly start internship course and more than 93% of them enter resident program. The high ratio of people for resident program does not stop here. The number of whose who applied for specialist examination after the completion of resident program was 3,390 for the same year (except for trainees overseas), which is bigger than the number of those who obtained medical license newly. The number indicates that even though there are people who completed internship and didn't enter into resident program, some of them enter into resident program later. In short, becoming a specialist after completing resident program is recognized as an essential post-graduation education course.

It is estimated that more than 95% of doctors who are practicing as of now have hold specialist qualification. As most of doctors are specialist, there is no functional limitation to specialist job. A specialist can practice in all medical institutions from the tertiary medical institution to the primary medical institution. However, the boundary of specialties is clearly separated to the extent that specialist qualification is treated like exclusive right as license. In particular, this is very clearly shown in the secondary and tertiary medical institution. The boundary is a social norm and the insurance companies limit the scope of medical treatment by reflecting the division of specialty for insurance premium. The functional classification of the 26 specialties is not clear in the health care delivery system making the responsible specialty for the primary care is vague. On the contrary as the ratio of special specialty which has clear and narrow scope of care is high, the ratio of neuro surgery, orthopedic surgery, thoracic and cardiovascular surgery, plastic surgery and otolaryngology is high compared to that of other countries.

<Table 7> Current Status of Physicians Who Passed Specialist Examination

Specialty	Number of Those Who Passed Specialist Examination	Ratio
Internal Medicine	559	19.3%
Surgery	179	6.2%
Obstetrics and Gynecology	206	7.1%
Pediatrics	218	7.5%
Psychiatry	116	4.0%
Orthopedic Surgery	198	6.8%
Ophthalmology	108	3.7%
Otolaryngology	119	4.1%
Dermatology	71	2.5%
Urology	100	3.5%
Radiology	82	2.8%
Neuro Surgery	94	3.3%
Laboratory Medicine	11	0.4%
Pathology	15	0.5%
Preventive Medicine	12	0.4%
Anesthesiology	176	6.1%
Tuberculosis	1	0.0%
Thoracic and Cardiovascular Surgery	32	1.1%
Plastic Surgery	66	2.3%
Neurology	72	2.5%
Radiation Oncology	7	0.2%
Rehabilitation Medicine	89	3.1%
Family Medicine	268	9.3%
Occupational Medicine	13	0.4%
Nuclear Medicine	6	0.2%
Emergency Medicine	74	2.6%
Total	2892	100.0%

4.3 Teaching Hospital for Medical Resident

4.3.1 Recognition of Teaching Hospital

New and existing hospitals among hospitals accredited by medical institution evaluation which meet the criteria on teaching hospital under the Regulation on Specialist Training and Qualification and its Implementation Rules are managed every year. Relevant department should be in the hospital and there should be full-time specialist, and actual medical care record, hospital size, facility and equipment should meet the criteria for the designation of teaching hospital. Teaching hospitals are classified as intern teaching hospital, single subject teaching hospital and intern/resident teaching hospital. Korean Hospital Association conducts the current status survey on teaching hospital and evaluation of new hospital. The criteria in designating teaching hospital for resident are as follows.

<Table 8> Common Criteria for the Recognition of Teaching Hospital

Clinical Departments	Department of internal medicine, Pediatrics, Psychiatry, Surgery, Obstetrics & Gynecology, Anesthesiology, Radiology, Laboratory, Pathology (all of these are called “compulsory specialized department”) should be present.
Number of the Exclusive Specialists	There should be 2 or more full time specialists (consultant) in Departments of internal medicine, Surgery, Pediatrics and Obstetrics & Gynecology. There should be 1 or more full time specialists (consultant) in Department of psychiatry, Anesthesiology, Radiology, Laboratory and Pathology.
Number of beds and medical performance	1. The number of minimum beds authorized: 200 or more 2. The number of discharged patients annually: 3000 or more (except neonates) 3. Bed occupancy rate: 70% of more
Facilities and Institutions	1. Facilities and institutions of the compulsory clinical department should fit “2. Criteria for each specialization.” 2. Department of nursing, nutrition, pharmacy, medical record, emergency room, operating room, night duty room for medical residents, delivery room, recovery room, lecture room(or meeting room), ICU, and medical library should be present
Internship Training	Hospital for residency training must have internship training capacity

<Table 9> Criteria for Clinical Department

Specialized Department	Number of the full time Specialists(consultant)	Minimum Annual Patient Data	Facilities and Institutions
Department of internal	4 or more	1. Discharged: 300 or more (actual number)	1. Electrocardiogram 2. Funduscope

medicine		2. Outpatients: 2000 or more (man-days)	3. Ventilator 4. Centesis (thoracentesis, bone marrow aspiration, pericardiocentesis, paracentesis) 5. Biopsy room
Department of surgery	4 or more	1. Discharged: 350 or more (actual number) 2. Outpatients: 2500 or more (man-days)	1. Diagnostic X-ray during operation (C-arm or portable X-ray) 2. Sonogram during operation 3. Laparoscopic surgery unit 4. Vascular surgery unit 5. Electric coagulator 6. Argon beam coagulator 7. Ultrasonic tissue dissector 8. Bipolar vessel sealing system
Pediatrics	3 or more	1. Discharged: 250 or more (actual number including neonates, except normal ones) 2. Outpatients: 2500 or more (man-days, including child-rearing consult)	1. Child-rearing consult unit 2. New-born unit and isolation room 3. Nutritive chamber and nursing room 4. Instruments for medical treatment (Pediatric height measurement and scale, Funduscope, auriscope, hemato-manometer)
Obstetrics & Gynecology	3 or more	1. Discharged: 300 or more (actual number) 2. Outpatients: 2500 or more (man-days)	1. New-born unit, incubator room 2. Neonate-care unit
Ophthalmology	3 or more	1. Discharged: 80 or more (actual number) 2. Outpatients: 4000 or more (man-days; if it is	1. Slit Lamp 2. Retinoscope

		less than 4000, number of inpatients should be 1500 or more)	3. Trial Lens Set 4. Ophthalmoscope 5. Automated perimetry 6. Lensmeter 7. Exophthalmometer 8. Gonioscope 9. Color Vision Test Chart 10. posterior vitrectomy system 11. Electric Cautery 12. Binocular Indirect Ophthalmoscope 13. Worth-4-dot or stereopsis measuring unit 14. Keratometer 15. Surgical Microscope 16. Fundus Camera 17. Cryosurgical Unit
ENT (ear-nose-and throat department	3 or more	1. Discharged: 100 or more (actual number) 2. Outpatients: 6000 or more (man-days)	1. Soundproof audiometric examination room 2. Audiometer 3. Surgical microscope 4. Endoscopy for ENT 5. Surgical units (middle ear surgery, paranasal sinusitis surgery, suspension laryngoscopy surgery)
Dermatology	2 or more	1. Discharged: 20 or more (actual number) 2. Outpatients: 2000 or more (man-days)	1. UV therapy unit 2. Clinical picture taking unit 3. Educational pathologic slides 4. Microscope

			5. Electrotherapy unit 6. Freezing treatment unit 7. Patch test set 8. Intracutaneous reaction and skin prick test unit 9. Wood light
Urology	2 or more	1. Discharged: 150 or more (actual number) 2. Outpatients: 1000 or more (man-days)	1. Separated cystoscopy room 2. Adult/pediatric cystourethroscopy 3. Adult/pediatric resectoscope 4. Other urologic instruments (urodynamic equipment, uroflowmetery, residual urine measurement, stone disintegration apparatus, diagnostic tool for sexual dysfunction)
Radiology	4 or more	1. Simple X-ray: 15000 or more cases yearly (Except indirect radiography) 2. Special filming: 2500 or more cases	Diagnostic X-ray: 5 or more machines including 2 or more 300mA machines.
Orthopedics	3 or more	Discharged: 200 or more (actual number)	1. Operating room and surgical equipment 2. Equipment (surgical table, surgical equipment for bone setting, hand, joint, and vertebra) 3. Cast room and plaster banding unit 4. Skeletal traction device 5. Physical therapy room
Neurosurgery	4 or more	Discharged: 250 or more (actual number)	1. Neurosurgery ICU 2. Operating room for

			neurosurgery, brain and spine surgery equipment, operating microscope 3. Suitable facility for taking cerebrovascular imaging and diskography (CT and MRI) 4. Public equipment and room for physical therapy 5. Public examining room for neurophysiology (EMG, evoked potential test, EEG)
Anesthesiology	3 or more	500 or more cases (including general and local anesthesia)	1. Anesthesia equipment in every operating room 2. An aspirator in every operating room 3. Recovery room with CPR unit 4. Device for aspiration 5. EKG, EEG, thermometer, body temperature regulator, neuromuscular blocking monitoring device 6. Blood gas analyzer
Thoracic surgery	3 or more	Discharged: 250 or more (actual number)	1. Operating room (heart-lung machine, intra-aortic balloon pump) 2. Diagnostic and operating units for thoracic and cardiovascular diseases (thorascopy, cardiovascular filming room, echocardiogram) 3. ICU
Laboratory medicine	2 or more	50000 or more yearly Automatically scan of two or more can be performed the functions of the devices if held a	1. Blood inspecting room (blood coagulation analyzer, automatic blood cell analyzer, blood smear staining facility) 2. Clinical chemistry inspecting room (clinical chemistry analyzer, electrolyte analyzer,

		piece of velvet see of each item with a corresponding instrument or with the facility.	blood-gas analyzer) 3. Clinical microorganism inspecting room (microorganism staining unit, microorganism culture medium) 4. immune serum screening (immune analyzer) 5. Speculum testing (urine stick analyzer) 6. Blood bank unit (blood storing refrigerator, centrifuge for cross matching) 7. Other unit (centrifuge, refrigerator, microscope) * If there is a multi-functional automatic inspection machine, it is regarded that the instrument or facility of the items above is fulfilled
Pathology	2 or more	1. 5000 or more cases of biopsy including frozen-sectioning 2. 5000 or more cases of cystoscopy including aspiration biopsy	1. Tissue and cell preparation making room 2. Gross-screening and sectioning room 3. Reading room and conference room 4. Paraffin blocks and slides keeping room 5. Autopsy room * Externally commissioned test is not accepted
Plastic surgery	2 or more	Discharged: 200 or more (actual number)	1. Operating room, recovery room and other surgical facilities 2. Surgical equipment, filming machine 3. Special room for plastic surgery only (ward, filming

			room, microsurgery of tissue culturing lab) 4. Other instruments and facilities (microscopic surgical equipment, exclusive video camera, laser treatment unit, liposuction, Cranio-facial surgery set, Doppler ultrasound, Endoscopy set, Rhinoplasty set, Hand surgery set
Neurology	2 or more	1. Discharged: 100 or more (actual number) 2. Outpatients: 500 or more (man-days)	1. ICU 2. Exclusive neuro-physiological testing machine (EEG, EMG, evoked potential machine) 3. Radiology facility (cerebral angiography, myelography, brain scintigraphy, CT, MRI)
Rehabilitation medicine	1 or more	1. Discharged: 50 or more (actual number) 2. Outpatients: 2000 or more (man-days)	1. Consulting room 2. Treatment room (200m^2 or more): physical therapy room, operational therapy room, language rehabilitation therapy room, pediatric rehabilitation room) 3. Physical therapy instruments and facility (parallel bar, exercise mat, tilting table, FES, isometric exercise therapy, training stairs, training ball, treadmill, device for continuous manual joint motion, cervical vertebra and pelvic retractor, percutaneous nerve stimulating machine, EST, interference wave therapy machine, whirl poo, paraffin pool, pressure machine, hydrocollator unit, ultrasonic wave therapy machine, infrared ray therapy machine)

			4. Operational therapy (Neuromuscular electrical stimulator for dysphagia, hand dynamometer, pinch gauge, finger goniometer, Purdue pegboard, testing equipment for unilateral neglect, Jebson-Taylor hand function test) 5. Electro diagnostic room: EEG and evoked potential test
Radiation oncology	1 or more	Outpatients: 2500 or more (man-days)	1. Co-60 or more energy producing radiological therapy machine 2. Radiation measuring machine and other facilities 3. X-ray aiming unit
Family medicine	1 or more	1. Discharged: 20 or more (man-days, 10 outpatients can be considered as 1 inpatient) 2. Outpatients: 2000 or more (man-days)	1. Consulting room and casualty room 2. Medical recording facility 3. Counseling room (consulting room can be used instead)
Psychiatry	3 or more	1. Discharged: 100 or more (actual number) 2. Outpatients: 900 or more (man-days)	1. 20 or more beds 2. Psychiatry diagnostic tools
Department of Tuberculosis	1 or more	1. Discharged: 200 or more (actual number)	1. X-ray (available for tracheography) 2. EKG 3. Pulmonary function testing machine 4. TB screening facility 5. Bronchoscope 6. Blood gas analyzer 7. Ventilator

Emergency Medicine	1 or more	Call patient: 8000 or more (actual number)	1. EKG set 2. Ventilator 3. Defibrillator 4. Aiding table 5. Airway intubate 6. Medical oxygen provider 7. Suction 8. Central venous pressure measuring device 9. Infusion pump 10. Portable radiography equipment 11. Exclusive sonography 12. Exclusive pulse oximetry 13. Common blood gas analyzer
Nuclear Medicine	2 or more	1. Imaging examination: 4000 or more cases 2. In vitro examination: 20000 or more cases 3. Treatment: 30 or more cases	1. Consulting room 2. Radical medicine room 3. Contamination examining room 4. One PET machine and 2 or more gamma camera including a SPECT machine 5. Nuclear medicine image processing computer 6. Gamma ray sensor
Occupational and Environmental medicine	1 or more	1. Occupational disease outpatients: 300 or more 2. Occupational disease diagnosis: 300 or more (including a complete medical	1. Special health checkup room 2. Sound proof room(for hearing test), hearing test equipment 3. Working environment measuring and analyzing tool

		checkup)	(chemicals and dust sampling machine, acoustimeter, AAS, GC, HPLC, can be substituted for equipment in the facility where medical specialists are sent) 4. Other special checkup tools (pulmonary function testing machine, centrifuge, chest x-ray)

<Table 10> Criteria for Recognition of a Teaching Hospital or a Facility of a Single Specialty Residency

Clinical Department	Number of the Full Time Specialists	Minimum Annual Patient Data	Facilities and Institutions
Psychiatry	3 or more	1. Permitted beds number: 80 or more 2. Discharged: 100 or more (actual number) 3. Outpatients: 900 or more (man-days)	1. Psychiatry diagnostic tools 2. ECG
Department of Tuberculosis Medicine	2 or more	1. Permitted beds number: 80 or more 2. Discharged: 200 or more (actual number)	1. X-ray (available for tracheography) 2. EKG 3. Pulmonary function testing machine 4. TB screening facility 5. Bronchoscope 6. Blood gas analyzer 7. Ventilator
Preventive medicine	2 or more		1. Facility for practicing preventive medicine 2. Medical library
Ophthalmology	6 or more	1. Permitted beds number: 50 or more 2. Discharged: 500 or	Same as the information in ophthalmology column of the second issue, attached table 2

		more (actual number) 3. Outpatients: 40000 or more (man-days)	
Rehabilitation medicine	5 or more	1. Permitted beds number: 200 or more 2. Discharged: 400 or more (actual number) 3. Outpatients: 10000 or more (man-days)	Same as the information in rehabilitation medicine column of the second issue, attached table 2 Radiation equipment: add 1 or more skeletomuscular diagnostic radiation tool
Occupational and Environmental medicine	2 or more	1. Occupational disease outpatients: 300 or more 2. Occupational disease diagnosis: 300 or more (including a complete medical checkup)	Same as the information in industrial medicine column of the second issue, attached table 2

<Table 11> Hospital Evaluation Criteria by Class

Division	Class A, B, C Hospital (intern and resident training)	Class D (intern training / intern and family medicine training)	Single department criteria C (single special subject resident training)
I. Hospital operating system (A. Organization management)	Present condition of hospital, organization management, manpower management, customer satisfaction management, medical social work, disaster management		
I. Hospital operating system (B. Facility management)	Facility safety, facility system, disinfection and wash, medical wastes		
I. Hospital operating system (C. Patient safety management)	Quality management, infection management, CPR management		
I. Hospital operating system (D. Treatment support)	Nursing, medicine, nutrition, medical record/ medical information		

II. Training support system (E. Specialized treatment support -1)	<Compulsory> ICU, delivery room, newborn unit, operating room / <Optional> Artificial dialysis room, burn treatment room	<Compulsory> ICU, delivery room, newborn unit, operating room / <Optional> Artificial dialysis room, burn treatment room	Operating room (in case of ophthalmology application)
II. Training support system (E. Specialized treatment support -2)	Rehabilitation medicine, anesthesiology, medical imaging, laboratory, pathology, emergency medicine, nuclear medicine (Criteria A only)	Anesthesiology, medical imaging, laboratory (or pathology), emergency medicine	Rehabilitation medicine (in case of applying), anesthesiology(in case of ophthalmology application), medical imaging, laboratory
II. Training support system (F. Training administration)	Medical library, training education		
III. Treatment department system (G. Treatment department)	<Compulsory> Internal medicine, pediatrics, surgery, anesthesiology, radiology, laboratory, pathology, psychiatry <Optional> Subject for resident quota application and referral training	<Compulsory> Internal medicine, pediatrics, surgery, anesthesiology, radiology, laboratory, (or pathology) <Optional> Subject for resident quota application and referral training	<Optional> Subject for resident quota application (psychiatry, ophthalmology, TB medicine, rehabilitation medicine, occupational and environmental medicine)

4.3.2. Accreditation Criteria for Teaching Hospital

Category 1	Category 2	Category 3	Subcategory Name
Health Care Support	1. Hospital Management System	A. Organizational management	Current state of hospital, organizational management, human resources management, customer satisfaction management, medical contribution to society, disaster management
		B. Facility management	Facility safety, equipment system, sterilization and laundry, medical waste
		C. Patient safety management	Quality management, infection management, cardiopulmonary resuscitation
		D. Health care support	Nursing, pharmacy, nutrition, medical record/medical information
	2. Teaching	E. Special care	Delivery room, new born baby room,

	Support System	support	artificial dialysis room (blood dialysis, peritoneal dialysis), operation room, intensive care unit (including burn injury treatment room), rehabilitation medicine, anesthesia, radiology, laboratory medicine, pathology and emergency medicine, nuclear medicine
		F. Administration	Medical library, training
Health Care	3. Medical Department System	G. Medical department	Internal medicine, pediatrics, neurology, psychiatry, dermatology, surgery, thoracic and cardiovascular surgery, orthopedics, neuro surgery, plastic surgery, obstetrics and gynecology, ophthalmology, otolaryngology, urology, tuberculosis, rehabilitation medicine, anesthesiology, radiology, radiation oncology, laboratory medicine, pathology, family medicine, emergency medicine, nuclear medicine, occupational medicine, preventive medicine

4.3.3. Summary of Quality Assurance for Resident Education

For quality management of resident education in Korea, the following three methods are adopted: the table of annual curriculums specified by the Medical Treatment Act, the training hospital performance evaluation conducted by Korean Hospital Association, the specialty evaluation at each hospital conducted by various associations for each professional clinical subject as part of the credit rating of resident training hospitals. These methods all aim at quality supervision and promotion of resident training in pursuit of medical excellence. Hospital performance evaluation is conducted through a 5-day evaluation group of 7 to 8 individuals visiting university hospitals with 500 or more sickbeds. The domestic standard for resident training quality management is quite strict as it requires the hospital performance evaluation which is a unique institution evaluation system of Korea, the completion of the curriculum for each year of resident training specified by the Ministry of Health and Welfare in law, and the onsite evaluation for a quarter of the day that is conducted annually by an academic association related to that subject. There are a number of specific legal criteria regarding resident training and designation of training hospitals. Recently, there are moves to adopt competence-centered qualitative evaluation in addition to existing input and process-centered quantitative evaluation, which indicates the transition to setting a milestone and EPA for resident training based on on-clinical competence and specialty specific competence of residents. In other words, the domestic evaluation on resident training is currently output-centered and based on the input and process, but it is changing to focus on competence based on the outcome.

4.4 Selection of Medical Resident

4.4.1 Determination on Resident Number for Specialist Training

The specialist system is run by the government and the number of trainee is determined by Minister of Health and Welfare. In the process of early development, the determination of the number was delegated to various advisory committees. Starting from 1969, Hospital Accreditation Committee under Korean Hospital Association conducts basic survey on the number of resident needed for each

specialty and gives its opinion to the Ministry of Health and Welfare. Then the Minister of Health and Welfare gives approval. The work of determining quota of specialist training is similar to determination of teaching hospital. Recently, the opinion of sub-committee in Korean Academy of Medical Sciences under Korean Medical Association is referred to partially, but final license and permission is given by the Ministry of Health and Welfare.

The quota of specialist training is determined as follows. The hospitals with more than permitted hospital beds of more than 100, the number of discharged patients a year of more than 2,000 and hospital bed utilization rate of higher than 70% are eligible for accepting interns and the quota is determined based on the previous year's quota considering medical treatment record, average length of stay in hospitals within the available resources (the number of medical college graduates)

4.4.2. Selection Process for Resident

The recruitment of specialists is centrally managed (Accreditation & Evaluation Center for Hospital). The Korean Hospital Association is in charge of posting public announcement on the recruitment which is divided into first, second and additional recruitment. The individual announcement at the teaching hospital (institution) level is allowed only on its own website and bulletin board. The recruitment period shall be the same to provide equal opportunity and prevent duplicate application. For fair distribution, the timing of the recruitment is divided into first and second time.

The criteria are unified to select specialists based on grade during medical college years, internship grade, written test, interview test and skill test. The ratio of points can be selected within the limit defined by Minister of Health and Welfare. The applicants and successful applicants are reported to central management center (Accreditation & Evaluation Center for Hospital) and the changes of people are required to be reported frequently for management purpose. The specific guideline on the specialist examination is provided by Korean Hospital Association with the score distribution criteria as follows (Figure 4). The selection of specialists in accordance with selection criteria is done by teaching hospital.

Score Distribution Criteria for Specialist (Ministry of Health and Welfare Resources No. 65520-2360 (July 5, 2003))

Classification	Score Distribution Criteria	Ratio
Intern	Written test score	More than 40%
	Interview	Less than 15%
	Grade during medical college	More than 20%
	Selective evaluation (including skill test)	Less than 25%
Resident	Written test score	More than 40%
	Interview	Less than 15%
	Internship grade	More than 20%
	Selective evaluation (including skill test)	Less than 25%

[Figure 4] Score Distribution Criteria for Specialist Selection

The written test score for internship is substituted by score of national medical licensing examination and the converted score from the examination score is issued to the teaching hospital (institution) by Korea Health Personnel Licensing Examination Institute. The written test for resident is composed of 5 choice multiple choice questions prepared by central management committee (Figure 5). The written test score of applicants for resident is issued by the central management committee to each teaching hospital (institution). The head of teaching hospital (institution) should publicly post the result of specialist recruitment and the test score should be open to the applicants at the request of him/her.

Classification	Subject	No. of Questions	Allocated Score (0.5 score per question)
Mandatory	Internal medicine	30	15
	Surgery	30	15
	Obstetrics and gynecology	20	10
	Pediatrics	20	10
Selective	Psychiatry	10	5
-	Total	110	If psychiatry is selected: 55 If psychiatry is not selected: 50

[Figure 5] Written Test Subjects for Specialist

4.5 Resident Education System and Course (Generic Competence and Special Competence)

4.5.1 Current Status of Education System for Specialist

The regulation on the education course for specialists in Korea is managed by Notice of the Ministry of Health and Welfare. In the past, the yearly training course was composed of patient treatment scope, textbook contents, participation in symposium and submission of papers and the skills to be completed for each medical department and the number of participation in symposium were evaluated.

However, currently, the training objective on what kinds of specialist are nurtured is determined first and the knowledge and skills that should be obtained to achieve the objective are determined to design a training program. In particular, the stage of training is considered to allocate difficult subject to senior years and the training program is prepared considering the characteristics of training for resident.

After preparing training program, it is necessary to have a tool to evaluate a teaching hospital and individual specialists to confirm that training is conducted properly based on the program. The tool to evaluate training hospital checks teaching hospital and training status of each department and the tool to evaluate individual specialists evaluate the completion of the training. It is necessary to have an objective evaluation tool to train customized training for individual specialists and to maintain and develop training system.

Generic competence is important to determine training objective to establish a training program. Generic competence means the common competence that is required for health care personnel regardless of specialty. For example, effective communication with patients, compliance with code of ethics and professionality are core elements of generic competence. The generic competence can be regarded as a basic ability to shape a desirable figure of a doctor. The “Future Role of Korean Doctors 2014” defines the personality and role of a doctor under the social and proper agreement.

4.5.2 Education Course for Medical Resident (Training Course for Each Year and Generic Competence)

(1) Education Program for Each Year

The training of specialist and qualification for specialist in Korea is defined in applicable laws. Article 77.1.4 of the Medical Service Act defines the matters necessary for specialist training and qualification and that are stipulated in the Presidential Decree "Regulation on Specialist Training and Qualification”. The article 9.1 of the regulation (training course) specifies that the training course for specialist should follow the instruction by the Minister of Health and Welfare. Under the article, the training course of each year for specialist has been included in Notice 9 of the Ministry of Health and Welfare on Feb. 24, 1979 and has been revised 6 times. The latest revision is the Decree of Ministry of Health and Welfare No. 263 dated on Sept. 26, 2014.

The latest training course of each year for medical residents is announced is as follows.

Article 1 General

1. The training status of specialist at the seniority level should be checked by the head of each teaching hospital and each subcommittee under the Korean Medical Association takes the lead in guiding and supervising the contents of training course at the medical department level.

2. If an intern receives training for less than a year and a resident receives training for less than 6 months in the same hospital, in relation to specialty program, the period is not included in the training period.

3. If a person receives training in part or in whole for specialty program in other countries, the period may be included in the specialty program period with the recommendation of the head of Korean Medical Association and determination by the Minister of Health and Welfare.

Article 2 Internship Education Course

1. Objective

The objective is to improve the competency of a doctor who can provide consultancy to a patient independently during internship education where those who obtained medical license can improve the knowledge learned at medical college to the level of consulting actual patient.

2. Education Course

Internship education is for clinical training for overall medical treatment including recording of medical history, consultancy, treatment and operation for inpatients under the guidance of chief of each department, specialist and resident. Interns are required to participate in education event of each department and education event at the hospital level.

Internship is conducted, in principle, on a rotation basis but internal medicine, surgery, pediatrics and obstetrics and gynecology should be included mandatorily as follows. Education course based on rotation should include internal medicine (more than 4 weeks), surgery (more than 4 weeks), obstetrics

and gynecology (more than 4 weeks) and pediatrics (more than 2 weeks) and the department for the remaining period is subject to choice but more than two departments should be selected.

3. Special Treatment

The internship for preventive medicine specialist can be replaced by the clinical experience for a year during the specialist training period in a hospital where internship is recognized.

Article 3 Resident Education Course (for each course)

The training program for each year of resident program and training course for 26 specialties showed the characteristics of training course in Korea in terms of generic competency.

1. The specialist training and qualification is legally specified by the Medical Service Act, Presidential Decree on the Regulation on the Specialist Training and Qualification and Notice on the Training Program for Specialist announced by Minister of Health and Welfare.

2. The 26 specialty academia defines the yearly training program in the same format and the program is largely classified into patient treatment scope, textbook contents, participation in symposium, submission of paper, dispatch to other department and other requirements. The difference is the contents depending on seniority.

3. Some specialty recommends ethical education and volunteer work for generic competency and there are no education contents to speak of in generic competency of specialist training course in advanced countries.

4. In case of submission of paper, the requirement varies for each specialty. But at least one original paper written by himself/herself should be submitted. Some academic societies require at least 3 papers including case reporting, which is considered to be demanding compared to the requirements in training programs of advanced countries.

5. The period of dispatch to other department should not exceed 6 months during specialist training period. In other countries, there are various clinical pathways. In some cases, if one wants to major in thoracic and cardiovascular surgery, otolaryngology or plastic surgery, it is required to have a certain training period in surgery or if one wants to apply for neurology, it is required to complete internal medicine for the first year. As such under that system, it is possible to produce specialists with interdisciplinary knowledge with various backgrounds. But system in Korea is rigid to the extent that once the specialty is decided training is focused on that specialty without department change except for change to sub department under the department of choice.

Samples of Credentialing for Resident Education Requirement by Specialty are specified by the Medical Service Act of the Ministry of Health and Welfare.

The examples of credentialing for resident education for some department are shown in below table (Table 12).

<Table 12>Internal Medicine Specialty Program

Year	Division	Contents

1	Number of assigned patients	As a main physician, the trainees must handle minimum of 100 inpatients including 20 patients of Gastro Intestinal Medicine, 15 patients of Pulmonology and Cardiology, and more than 50 patients of other Internal Medicine (Nephrology, Endocrinology, Immunology, Hemato-Oncology, Rheumatology, Infection, and Allergy).
	Training program	Goal: As a specialist of Internal Medicine, the trainees are expected to have basic knowledge and abilities to deal with medical emergency. 1. General history taking, Physical examination (including fundus examination), and ability to read the results of neurological examination and laboratory tests 2. Ability to interpret basic EKG results (more than 50 cases) 3. Ability to interpret X-ray of chest and GI track 4. Training of internship trainees on general treatment and diagnosis of inpatient 5. Learning to record general medical procedures (more than 20 cases: thoracic, abdominal, pericardial and spinal puncture, etc., and central venous catheter insertion)
2	Number of assigned patients	Minimum of 100 inpatients (same as 1st year)
	Training program	Goal: The trainees are expected to learn how to interpret and record special medical test as an Internal Medicine specialist. The trainees must take the following during their 2nd and 3rd years of training: 1. 50 cases of endoscopy (gastro-intestinal tract, bronchus, etc.) 2. 80 cases of function test(lungs, heart, endocrine, liver, immune system, nuclear medicine examination) 3. Biopsy of organs and tissues (liver, kidney, lungs, pleura, peritoneum, bone marrow, etc.) and reading of biopsy results 4. Heart and abdominal ultra sonography 5. Two-month training in intensive care unit and emergency room(active participation in emergency care and intensive care management)
3	Number of assigned patients	Same as the 2nd year
	Training program	Same as the 2nd year
4	Scope of patients	More than 300 outpatients
	Training program	Goal: The trainees are expected to supervise students and 1st and 2nd year specialist trainees, educate patients and their guardians, treat outpatients, and consult with other departments on patients' care while taking charge of patients' treatment. 1. Supervising inpatients' treatment (more than 100

		cases) 2. Outpatients' treatment (more than 300 cases) 3. Assisting consultants 4. Education of staff in the healthcare field 5. Education of patients and their guardians 6. Training in a specific field(optional)
Total	Number of assigned patients	1. Minimum of 300 inpatients (as a main physician) 2. Minimum of 300 outpatients
	Training program	(Refer to that described above)
	Participation in Conferences	Minimum of 20 external conferences(including participation in at least 5 conferences hosted by the Korean Association of Internal Medicine), participation in minimum of 400 lectures held by the training hospital (within the training period)
	Papers	3 papers (including a paper as a main author) within the training period. Trainees must submit at least 3 papers to recognized journals (including a paper as a main author), and at least 1 paper among them must be published in the Korean Journal of Internal Medicine. Note, however, that trainees who publish an original paper in the Korean Journal of Internal Medicine (English version) as the first author are accepted to fulfill the requirement for the papers. In case there is no paper published in the Korean Journal of Internal Medicine, the trainees must additionally show evidence that they submitted a poster as the first author in the workshop in the Korean Association of Internal Medicine conference.
Remarks		1. In case of working in other departments, the trainees must provide evidentiary document from the head of the department. 2. In case the training hospitals are not adequately equipped with the necessary facilities, the trainees must be dispatched to other adequate hospitals for the required period, and official evidentiary documents must be obtained from the head of the department of the dispatched hospital. 3. The number of patients that the trainees deal with each year may be changed depending on each training hospital within the total number of required patients.

<Table 13>Neurosurgery Specialty Program

Year	Division	Contents
1	Number of assigned patients	Minimum of 75 inpatients(actual number of patients) 1. Minimum of 25 participation in surgeries 2. Neurological examinations 3. Learning emergency patients' treatment 4. Learning pre- and post-operation treatment 5. Learning to record the tracheotomy procedure

	Training program	6. Learning to record minor surgeries and neurosurgery procedure 7. Neuroanatomy, Neuroradiology training 8. Neurosurgery training
	Participation in Conferences	Minimum of 1 in external conferences Minimum of 100 in the training hospital
	Experience in other department	The trainees are recommended to undergo 6 months' dispatched training in General Surgery, Orthopedics and Neurology.
2	Number of assigned patients	1. Minimum of 75 inpatients(actual number of patients)
	Training program	1. Minimum of 25 participation in surgeries 2. Learning severe patients' treatment 3. Learning to record the Neurosurgery procedure 4. Neuroanatomy, Neuroradiology training 5. Neurosurgery training 6. Neurology training
	Participation in Conferences	Minimum of 1 in external conferences Minimum of 100 in the training hospital
	Papers	1 paper (as the first author)
3	Scope of patients	1. Minimum of 75 inpatients(actual number of patients)
	Training program	1. Minimum of 100 participation in surgeries 2. Learning to record the neurosurgery procedure Neuroradiology training 4. Neurosurgery training 5. Presentation of paper in conferences 6. Training on recording microsurgery 7. Experiment on animals 8. Neurology training
	Participation in Conferences	Minimum of 2 in external conferences Minimum of 100 in the training hospital
	Papers	1 paper (as the first author)
4	Number of assigned patients	1. Minimum of 75 inpatients (actual number of patients)
	Training program	1. At least 100 cases of participation in surgeries 2. Learning to record the neurosurgery procedure 3. Neuroradiology training 4. Leading patient rounding at least twice a day Pediatric Neurosurgery training 6. Presentation of paper in conferences 7. Outpatient treatment 8. Training on recording microsurgery

	Participation in Conferences	Minimum of 2 in external conferences Minimum of 100 cases in the training hospital
	Experience in other department	The trainees are recommended to undergo 6 months' dispatched training in General Surgery, Orthopedics, and Neurology
Total	Number of assigned patients	1. Minimum of 300 inpatients(actual number of patients)
	Training program	1. 300 or more cases of discharge summary 2. 300 or more cases of operation records 3. 100 or more cases of Neuropathological diagnosis
	Participation in Conferences	Minimum of 6 in external conferences Minimum of 400 in the training hospital
	Papers	2 papers
	Experience in other department	The trainees are recommended to undergo 6 months' dispatched training in General Surgery, Orthopedics, and Neurology during the training period.
Remarks	Training contents	The trainees must perform at least 250 surgeries as a surgeon or 1st assistant; 50% of the surgeries must be elective surgeries, and 20% must be tumors and vascular surgeries.

(2) Generic Competency

A. Concept of Generic Competency

In Korea, medical humanities were adopted in medical education under various names like liberal social medicine, doctoring and patient-doctor-society about 20 years ago in college of medicine and school of medicine. About 10 years ago, Korean Institute of Medical Education and Evaluation designated the medical humanities in essential subject in basic medical education course in the second cycle of college of medicine accreditation. The medical humanities of the basic medical education course are migrated to specialist training program with changed name and characteristics. In advanced countries, it is called general competency or generic competency.

The medical humanities course in college of medicine in Korea is mostly included in generic competency in specialist training program. Specialist training program is focusing on treating actual patients with less focus on pure humanities programs with more focus on actual competency. This can be regarded as generic competency. In addition, the generic competency should start from all courses of basic medical education or basic medical education and look at overall graduated medical education and continuous professional development comprehensively. It is reasonable to develop generic competency continuously for one's lifetime. Therefore, the generic competency development program or course need to be reviewed and reestablished in the broader context of basic medical education, graduated medical education, continuous medical education or continuous professional development.

B. Development of Generic Competency Education Course for Specialists in Korea

1) Development of Korean Type Generic Competency Education Course RESPECT100

The precedent studies on the generic competency education for specialist, the policy task "Research on the Generic Competency Education Course for Specialist in Advanced Countries" of the Planning and R&D Committee of the Korean Institute of Medical Education and Evaluation was conducted. Based on the research, medical policy research institute of the Korean Medical Association announced the

Korean type generic competency education course that encompass overall contents of education for specialists in 2008. The report emphasized the need for generic competency as a specialist that is required for all departments regardless of specialty. The selected subject is named with abbreviation as RESPECT 100 by the Planning and R&D Committee of the Korean Institute of Medical Education and Evaluation.

R means respect that deals with respect for oneself and others which can be lost in authoritarian and vertical college of medicine and hospital culture. E means ethics that deals with equity and excellence as other contents related to ethics are being developed by other institution. S means safety that is emerging as a global subject in the medical industry. P means professionalism and T means team work. The main category includes specific details.

The research on the improvement of training course for each specialty for efficient training of specialist, which was the policy task ordered by the Ministry of Health and Welfare to Korean Academy of Medical Science in 2013 presented the desirable generic competency education by referencing to 4 materials related to generic competency including RESPECT 100 research in Korea, 6 core competency of US ACGME, 7 competency by Canadian CanMed and Good Medical Practice of Britain's GMC. (Table 14)

<Table 14> New Korean Type Generic Competency Improved from RESPECT 100 (draft)

Area	Specific Subject	Standardized Course Item
1. Respect	Respect for Others	. Protection of patients and patients' rights (ban on physical contact and sexual intercourse) . Respect for other occupations . Ban on patient discrimination . Protection of peer doctors
	Respect for Self	. Self-respect for specialist . Prevention of physical verbal and sexual violence
2. Ethics	Medical Ethics	. Biomedical ethics principles . Obligation to confidentiality and compliance . Clinical research ethics . Conflicts of interest with profit-based health care companies
	Medical Acts	. Acts related to health care
	Resource Management	. Efficiency . Equity
3. Patient Safety	Patient Safety	. Concept of patient safety . Risk management . Human factors and systematic approach

		. Infection management . Various quality improvement management
4. Society	Understanding of Society and Health Care System	. Understanding of health insurance system, medical resources and demand in local community . Understanding of various medical management . Understanding of regional health care group and financial resources . Understanding of medical policy . Understanding of politics, economy and society regarding health care . Understanding of various religions and cultures . Basic knowledge and understanding of medicine, culture, art, public opinion and public media
5. Professionalism	Professional Integrity	. Professionalism in an organization . Social accountability
	Self- Management	. Wellbeing of a physician . Self-control/stress management . Lifetime career management
6. Excellence	Clinical Competence	. Correct evaluation of patient condition: listening to medical history and physical check-up . Proper and warm attitude . Ability to perform clinical skills . Consultancy based on evidence . Whole humane and comprehensive consultancy (understanding of human mind, behavior and family)
	Self-Development	. Life-long learning attitude based on self-driven learning . Specialist as an educator . Research design and paper preparation skills
7. Communication	Communication	. Communication skill with patient and family . Communication skill with colleagues, health care team and community people

		. Providing disease education and correct information
8. Teamwork	Collaboration	. Team work with colleagues
	Leadership	. Professional leadership . Social and global leadership

4.5.3 Development of Education Program for Professional Development

As mentioned earlier, the role of doctor is to define and establish the concept of properties and roles of a physician. In foreign countries, generic competency and special competency were developed based on desirable role of a doctor to have a systematic training program for the purpose of nurturing specialists with desirable competencies. However, the desirable competency of a doctor is different from one specialty to another as priority of competencies is different. There is a consensus that it is important to develop special competency for each specialty, establish competency based training program and conduct education and evaluation based on the program within 26 academics of the Korean Academy of Medical Sciences. Accordingly, common competency was developed for specialists and special competency for some specialties was developed in 2015. From now on, let's look at the special competencies which are different from one specialty to another and required to be a qualified specialist.

In the development of special competency, desirable role of a physician was established to improve the existing training program for the purpose of developing desirable training course and evaluation tool to evaluate the competencies was developed. Following information is the newly revised and developed special competency and evaluation prototype in otolaryngology

(1) Otolaryngology

A. Introduction
Task force team was established including otolaryngology training committee and representative of each department (director, manager) to develop otolaryngology specialty specific competency and evaluation method. By forming the task force team, the need for and consensus on the development of otolaryngology specialty specific competency was established and the feasibility of training objectives for each subsection (otology, rhinology, and head and neck) were checked and coordinated. By doing so, specialty specific competencies and milestone for otolaryngology were developed and assessment tool was developed. Finally, the task force team went through collection of opinion and re-coordination process within the otolaryngology academy.

B. Direction for the Improvement of Otolaryngology Specialist Training Program in Korea

In comparison with otolaryngology training program in other countries, key topics and milestones related to specialty specific competency are very similar with differences in approach and assessment system. Accordingly, Korea tried to establish the minimum training regulation and year-by-year evaluation system for promotion. It means that the learning objective of the training program was specified and the training program's specialty specific competency and assessment method was improved in teaching hospital. The specialty specific competency was divided into basic, advanced and subspecial categories and development was made for medical knowledge, operation and skills. It is judged that it is desirable to provide assessment method to each category.

1) Classification and contents proposal for otolaryngology specialty specific competency education course

Basic Course (first year and second year course)" Diagnosis on disease and basic knowledge

Advance Course (third and fourth year course): Treatment method and operation related to the disease

Sub-specialty Course: Professional knowledge, operation and skill to be the specialist of the department

2) Overview and proposal for assessment method

In-training examination should be specified and implemented during the 4-year training period every year by otolaryngology academy. The test questions are developed by dividing questions into basic and advanced so that people in the first and second year and people in the third and the fourth year understand respective milestone and pass the relevant level.

To strengthen the competency of otolaryngology specialist in Korea, basic and advanced competencies were defined in the training program for each subdivision of head and neck, otology and rhinology. In addition, evaluation method for each competency was developed to test competencies through in-training examination, OSCE, Oral test and Observation of Procedural Skills in surgery (DOPS). As such, computerized e-portfolio system to evaluate resident by specialist is established.

As described in the direction for the improvement of otolaryngology training program in Korea, the evaluation items are divided into basic, advanced and subspecial depending on the level of resident and classification is also made at the subject level like medical knowledge, operation and skill (Table 11). The in-training examination which is conducted by otolaryngology department every year is used as evaluation method. The test questions are developed by dividing questions into basic and advanced so that people in the first and second year and people in the third and the fourth year understand respective milestone and pass the relevant level (Table 12).

C. Specialty Specific Competency and Assessment Method for ENT in Korea

Until now, 'TFT conference for developing ENT professional competency' was held, and total 21 specialty specific competencies (milestones) were developed..

- Otology

- Congenital external and middle ear abnormality
- Adult and pediatric hearing impairment
- External ear disease
- Acute otitis media and otitis media with effusion
- Chronic otitis media
- Dizziness
- Tinnitus

- Facial nerve palsy
- Skull base disease
- Traumatic ear perforation

- Rhinology
  - General rhinology
  - Olfactory and tasting sense
  - Rhinosinusitis and cost
  - Allergy and immune
  - Nasal septum and external nasal disease
  - Sleep
  - Neoplasm of the nose and paranasal sinuses

- Head & Neck Surgery
  - Neck
  - Oral cavity
  - Thyroid
  - Pharynx

< Table 15> Example of specialty specific competency: Adult and pediatric hearing impairment

Theme	Adult and pediatric hearing impairment
Learning objective	Can explain normal development of auditory pathway, and structural and physiological change in hearing impairment Know types and methods of exams for sensorineural hearing loss patients Can differentiate and diagnose sensorineural hearing loss, and provide appropriate treatment Know types of hearing rehabilitation treatments and can explain them

	Medical knowledge	Clinical performance and operation
Basic	Understand normal structure and developmental process of temporal bone and auditory pathway Understand auditory physiology	Can take individual history, family history, social history of patient, carry out physical examination, and interpret their effects on hearing impairment
Year 1, 2	Understand screening test for neonatal hearing loss Understand pathology of sensorineural hearing loss like senile, noise induced, hereditary hearing loss Know principle, type, and method of hearing tests and can apply them for different diseases	Can interpret screening test for neonatal hearing loss
Evaluation	In-training exam, Board exam	OSCE, Oral test, DOPS, e-portfolio with movie clip, etc.
Advanced (Year 3, 4)	Can explain pathway of central auditory neuron Can go through differential diagnosis for hearing loss by providing hearing test Can explain and diagnose hearing impairment with systemic disease Understand principle and prescribing process of hearing aid	Can evaluate patients with hearing loss through electrophysiological and psychoacoustic tests Can explain result of screening test for neonatal hearing loss Can prescribe hearing aid selectively Understand operating principle of bone-conduction hearing aid, artificial cochlear, and artificial middle ear, and can assist surgical method
Evaluation	In-training exam, Board exam	OSCE, Oral test, DOPS, e-portfolio with movie clip, etc.
Sub-	Can understand physiology of hearing,	Can carry out operation for artificial

specialist	select rehabilitation method, and predict prognosis and result	cochlear and artificial middle ear under supervision
Evaluation	Interview and performance evaluation	Interview and performance evaluation
● Carrying out an artificial cochlear operation is limited to the qualified specialists only		

<Table 16> Example of the specialty specific competencies, milestone of Facial nerve disease for ENT specialists

Disease of facial nerve				
Level 1	Level 2	Level 3	Level 4	Level 5
Facial nerve structure	Disease of facial nerve - central facial nerve palsy - peripheral facial nerve palsy	Treatment for facial palsy - medication - surgical treatment	Surgery for facial palsy - severity test - surgical approach - facial nerve graft	Overall care for patients with facial palsy - medical examination - diagnosis - treatment - surgery - prevention of complications
Dynamics of facial nerve	Medical examination and scientific examination (including HBgrade)	Treating pediatric facial palsy	Prognosis of facial palsy	
Filming of facial nerve	Diagnosis of facial palsy (including NET, MST, ENoG, EMG)	Facial palsy patient management (preventing complications-Ophthalmology, rehabilitation medicine)		
Comments				
Basic course (in-training, year 1 and 2)				

Level 1 (basic knowledge)

1) Should know basic anatomy of facial nerve

2) Should know muscle innervation and function of facial nerve

3) Should be aware of facial nerve course on CT & MRI image

Level 2 (Diagnosis and disease)

1) Should be able to list diseases that can cause facial nerve palsy, and know how to distinguish between central type(cerebral hemorrhage, cerebral infarct, facial nerve neuroma) and peripheral type(otitis media, Bell's palsy, Ramsay Hunt Syndrome)

2) Should understand review of system and physical examination for a patient with facial palsy (including Gr evaluation)

3) Should be fully aware of tests needed for diagnosing facial palsy (know types of tests, pros and cons)

Advanced Course (In-training year 3, 4)

Level 3 (Treatment)

1) Determine treatment method for facial palsy according to the test result

2) List methods of medical treatment and types of medicine

3) Know indications for surgical treatment

4) Classify patients into child and adult and can separate treatment

5) Know how to manage patients to prevent complications

Level 4 (Surgery)

1) Understand principle needed for facial nerve surgery and can interpret the result

2) Can list ways of surgical approach

3) Should understand surgical range of middle cranial approach method, transmastoid approach method, anterior and posterior approach method, and should know the pros and cons of each approach

4) Should know method of facial nerve regeneration and the nerves that can be used for facial nerve transplantation

5) Should know prognosis of medical treatment and surgical treatment for facial palsy

4.6 In-training Examination

Compared to specialist qualification test to evaluate the achievement of training objective holistically, in-training examination is a test to make specialist participate in education program actively by identifying the level of training status. Most specialty conducts evaluation examination independently led by relevant academy. Currently, 18 specialties conduct in-training examination and internal medicine, pediatrics, obstetrics and gynecology, ophthalmology, tuberculosis, pathology, preventive medicine and occupational medicine do not conduct in-training examination. Mostly, the in-training examination is conducted every year and the specialists in the same years of resident are taking the same examination. More than half of specialties include essential course and some specialties make specialists select the subject for examination.

Examination is conducted based on paper, but radiography test (radiology) and computer based test (orthopedics and emergency medicine) is conducted for some cases. The test is composed of more than 100 questions on average, and most of them is MCQ with some SAQ. The questions are managed by training committee of each specialty academy and result of the test is provided to specialist and training program director.

4.7 Specialist Qualification Examination

The certificate of specialist is issued by the MOH with the official seal of the minister. The government certified or recognized teaching hospital issued the certificate of the completion of specialty training and this certificate is reviewed by training and examination committee of each specialty society. Training should be completed for a specified period of each specialty after obtaining medical license in Korea to obtain specialist qualification. One needs to pass specialist qualification examination.

4.7.1 Qualification to Take Examination

One needs to complete training for a specified period of each specialty to take the specialist qualification examination. Most specialties has training period for 1 year as intern and 4 years as resident and family medicine, preventive medicine and tuberculosis requires 3 years of resident program completion. The training period has been changed depending on social changes and development of each discipline. Recently, some specialty reviews the reduction of resident period to 3 years.

Training contents are broadly defined by acts and professional groups including relevant academy define specific details. The training is mainly composed of professional knowledge and skills but at the same time academic career is included as essential items requiring participation in symposium and writing academic papers.

The training period and contents should be checked in the process of reviewing qualification of the applicants. In case of applicants trained in other countries, the eligibility is reviewed in this process.

4.7.2 Examination Format

Specialist qualification examination started with portfolio examination but it changed to written test. The

first examination was composed of written test and oral test. The written test was composed of short answer form and essay form.

After that multiple choice questions were adopted and took root with increasing ratio gradually. In particular, as the work of specialist examination was migrated to the Korean Medical Association in 1973 the ratio of multiple choice questions increasing further. In 2012, 4 specialties had written test composed only of multiple choice questions and this trend was expanded to 18 specialties in examination in 2016.

There have been some changes in the contents after the adoption of multiple choice questions. At first, most of the questions were true-false items but it has been changed to structure that make examinees select the best choice with high portion of problem solving questions. The essay-type questions have been changed from short description to short-answer type (Table 17).

<Table 17> Part 1 Written Examination Format of Specialty Certifying Examination

Specialty	Ratio (%)	
	MCQ	SAQ
Internal Medicine	80	20
Surgery	60	40
Pediatrics	60	40
Obstetrics and Gynecology	60	40
Psychiatry	100	-
Orthopedic Surgery	70	30
Neurosurgery	60	40
Thoracic Surgery	70	30
Plastic Surgery	70	30
Ophthalmology	60	40
Otolaryngology	82	18
Dermatology	70	30
Urology	90	10
Radiology	75	25
Radiation Oncology	80	20
Anesthesiology	60	40
Neurology	100	-
Rehabilitation Medicine	80	20
Tuberculosis	60	40
Laboratory Medicine	70	30
Pathology	60	40
Preventive Medicine	80	20
Family Medicine	100	-
Occupational Medicine	64	36
Nuclear Medicine	80	20
Emergency Medicine	100	-
MCQ : multiple choice question(selection type) SAQ : short answer question(supply type)		

The oral test of the first examination was conducted in a way that examiner asks questions on medical knowledge and examinee answers to that question to evaluate not psychomotor domain but cognitive domain. The oral test started changing from 1964 when the test was separated into first and second test. The change was made to test using actual data, slide test and skill test and some specialty contains clinical performance test these days (Table 18).

<Table 18> Part 2 Performance Examination Format of Specialty Certifying Examination

specialty	contents
Internal Medicine	VMATE*/Case discussion
Surgery	VMATE*
Pediatrics	VMATE*
Obstetrics and Gynecology	VMATE*/PMP
Psychiatry	Video test/Psychotherapy test
Orthopedic Surgery	VMATE*/Viva
Neurosurgery	Viva
Thoracic Surgery	VMATE*/ Viva
Plastic Surgery	CPX/Portfolio
Ophthalmology	VMATE*/Video test/Specimen test
Otolaryngology	CPX
Dermatology	VMATE*/Specimen test/Verbal test
Urology	VMATE*/PMP
Radiology	VMATE*/X-ray Reading
Radiation Oncology	VMATE*
Anesthesiology	VMATE*
Neurology	CPX/Video test/ Viva
Rehabilitation Medicine	VMATE*/Specimen test
Tuberculosis	VMATE*/X-ray Reading
Laboratory Medicine	VMATE*
Pathology	VMATE*/Specimen test/ Viva
Preventive Medicine	Viva
Family Medicine	CPX/VMATE*
Occupational Medicine	VMATE*
Nuclear Medicine	VMATE*
Emergency Medicine	VMATE*

***VMATE: Visual Material Assisted Timed Exam for case management e.g. pathology slide, photos, data table and graphic data etc.**

4.7.3 Pass Rate

In general, qualification examination in the form of comprehensive test, is conducted to check the achievement level of minimum requirement with absolute evaluation method. Specialist qualification examination in Korea follows this structure with pass criteria of obtaining 60% of total score.

In the initial stage, the pass rate was 60 to 70 percent but it had increased gradually to over 90% in 1980 and has been maintained at more than 90% with some exceptions.

4.8 Teacher Training for Resident Education

The essential elements for proper specialist training include institution, director, programs and evaluation system. Among them, director, meaning teaching specialist, is the most important factor to improve and develop rapidly changing training environment in Korea. That is because director develops a good education program for specialists, applies and supervises the program and encourages institution to improve training environment and attracts the participation of specialists in the program.

With growing interest in proper medicine and training system in Korea recently, the guideline on the teaching specialist system with direct responsibility for specialist education was made by the Korean Hospital Association. The major contents of the guideline by the Korean Hospital Association include the followings:

Full-time specialist refers to those who obtained specialist qualification and receives regular salary with contract period for more than a year and defined by the criteria of teaching hospital (institution).

Teaching specialist refers to a specialist in charge of specialist training after working for the teaching hospital (institution) for more than a year. It is applied to the criteria on the selection of resident quota.

Based on the guideline, appropriate number of teaching specialists with proper capability within a teaching hospital is secured and the criteria on selection of quota linked to the number of teaching specialists played the role of making many specialists working for the teaching hospital have interest in teaching specialist system. In particular, it is evaluated that the securing the number of teaching specialists “in quantitative terms” for specialist training through teaching specialist education led by Korean Hospital Association and education led by specialty academy has made an achievement.

4.9 Subspecialist System

There is a subspecialist system to nurture excellent doctors and recognize subspecialty for areas with more specified subareas. The concept of subspecialist system spread and was recognized long before but the subspecialist system took root in earnest as the Korean Academy of Medical Sciences made regulation on subspecialist and manage work related to it in 2001.

Unlike specialist recognized by the nation, subspecialist qualification is recognized and managed by relevant academy and the academy is under the accreditation and management of the Korean Academy of Medical Sciences. Subspecialist cannot present the subspecialty as specialty or medical department and has a difference from specialist in that he/she cannot exclusively conduct medical activities for the subspecialty. Depending on the characteristics of the specialty, it is divided into subspecialist and sub-department specialist. The sub-division specialty is originated from one specialty and subspecialty refers to the area commonly originated from more than 2 specialties. Through this classification, exclusive independence in academia and clinical test can be maintained.

The subspecialties recognized as of now are 26: division of gastroenterology, cardiology, division of pulmonology, endocrinology, division of nephrology, hemato-oncology, division of infectious diseases,

department of allergy and clinical immunology, division of rheumatology, pediatric infections disease, pediatric cardiology, pediatric gastroenterology, pediatric neurology, new-born baby, pediatric nephrology, pediatric pulmonology, pediatric hemato-oncology, critical care medicine, trauma surgery, HBP surgery, colorectal surgery, pediatric surgery, gastro-intestinal tract surgery, breast disease surgery, etc.

Specialist training should be taken for a certain period by subspecialist with teaching qualification to obtain subspecialist qualification. The training period is defined at the subspecialty level, which is usually 1 to 2 years. Training contents and qualification of a teaching hospital is determined at the subspecialty level and relevant academy controls strictly. Specialist who completed the training should pass the subspecialist qualification test. The test is led by relevant academy and conducted every year. The examination is composed of paper-based test, performance test and portfolio.

The qualification of subspecialist is effective for a certain period and one should be qualified again after the expiration. The qualification period is 5 years. For re-qualification, academic career including participation in symposium and presentation of paper is evaluated generally.

Primary specialty	Subspecialty	Primary specialty	Subspecialty
Internal Medicine	Gastroenterology	Pediatrics Society	Pediatric Infectious Diseases
	Cardiology		Pediatric Endocrinology
	Pulmonology		Pediatric Gastroenterology, Hepatology and Nutrition
	Endocrinology		Pediatric Neurology
	Nephrology		
	Hematology-Oncology		Pediatric Nephrology
	Infectious Diseases		Pediatric Cardiology
	Allergology		Pediatric Pulmonology & Allergies
	Rheumatology		Pediatric Hematology and Oncology
General Surgery	Hepatobiliary and Pancreatic Surgery	Plastic / Orthopaedic Surgery	Hand Surgery
	Colorectal Surgery	Anesthesia/Medicine	Critical Care Medicine
	Pediatric Surgery	General Surgery	Trauma Surgery
	Stomach Surgery		
	Breast & Endocrine Surgery		

4.10 Agency Related to Specialist Education

4.10.1 Role of Each Institution or Group under Specialist System Operation

Unlike other countries which recognize the qualification of specialist by relevant specialty academy, specialist system in Korea is led by the government as Minister of Health and Welfare recognizes the qualification of a specialist. Accordingly, the role of the Ministry of Health and Warfare is very significant and various medical education related institutions and groups work together to perform actual medical education.

4.10.2 Role of Korean Medical Association

Under Article 26 of the Medical Service Act, Korean Medical Association is a central association of doctors. Under the Article 17.2 of the Presidential Decree, the association is delegated to deal with specialist qualification examination from the Ministry of Health and Welfare. It has been conducting specialist qualification examination from the 15th examination on Feb. 13, 1973. The Korean Medical Association defines “Matters related to Specialist Training System and Items Related to Specialist Qualification Recommendation” in Article 3 of its articles of incorporation and as an agency to perform the work there is committee composed of a representative of each specialty academy under Article 35 of the articles of incorporation.

4.10.3 Role of Korean Hospital Association

Korea Hospital Association is delegated to perform its work under the regulation that “minister of Health and Welfare can delegate the data collection work to determining specialist quota under Article 6 “Designation of Teaching Hospital and Institution” and Article 7” under Article 20 of the Presidential Decree.

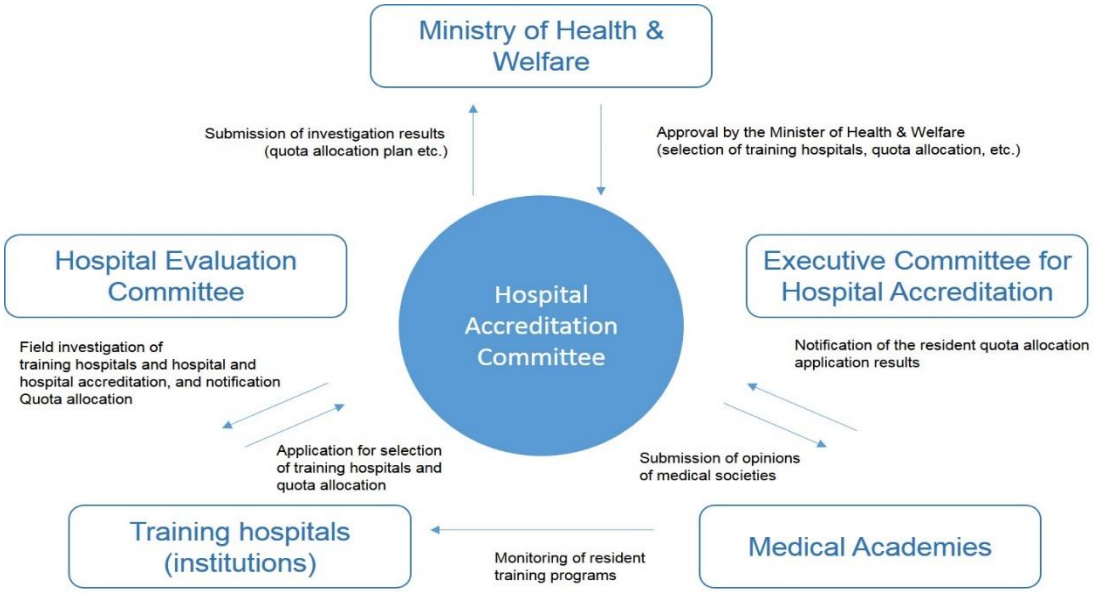
The work was migrated from Korean Medical Association to Korean Hospital Association on Jan. 11, 1967. Korean Hospital Association established the Hospital Accreditation Committee to perform the work by revising its articles of incorporation on Feb. 16, 1968. The Hospital Accreditation Committee existed with the same system of Hospital Accreditation Committee of the Korean Medical Association. On Apr. 30, 1981, the regulation on the committee was revised to have accreditation committee composed of 7 representatives of Korean Hospital Association, 7 representatives of Korean Medical Association and 1 representative of military camp and 3 steering committee for training committee, hospital standardization committee and hospital standardization and training investigation committee composed of 40 people recommended by accreditation committee, Korean Hospital Association and Korean Medical Association. On Aug. 4, 1989, 7 sub committees were established to respond actively to issues.

- Resident Training: The Cradle of Future Professional Physicians

Medical professionals are the indispensable assets of the country’s future medical industry. And training of residents has played a pivotal role in the advancement of the Korean medical industry. The KHA has been commissioned by the government to provide education for residents and nurture highly-skilled medical professionals since 1967. It will spare no effort to help residents become full-fledged practitioners in a better environment. The KHA will remain committed to providing the world’s best medical services. KHA conducts research on the training costs, supply and demand of medical

professionals, development of the evaluation standards for the training environment, etc.

[Figure 6: from KHA English Brochure] Operating System of Education for Residents



[Figure 7: from KHA English Brochure] Resident Quota Allocation Management

- KHA Tasks for Resident Education

- Selection of training hospitals, research for quota allocation, publication of annual reports
- Field investigation of training hospitals, and development of evaluation standards
- Accreditation of medical professionals and management of resident training
- Operation of training courses for teaching faculty
- Setup of and environment evaluation committee for resident training
- Research project for improving the resident training system

4.10.4 Role of Korean Academy of Medical Sciences

Korean Academy of Medical Sciences (KAMS) is a group of medical academic group established under the name of sub-division academic council on Oct. 6, 1966. Currently, 154 academies including 25 specialty academies are member of KAMS. There are training committee and exam committee under KAMS and these committees are in charge of teaching and supervising specialists, improvement of specialist exam and other training and examination matters.

4.10.5 Role of Each Specialty Academy

Academy of each specialty has a specialist as a member and has a great interest in nurturing and producing specialists in its field. As Korean Hospital Association focuses on securing medical resources including determination of specialist quota, each academy is interested more in quality of specialist training.

Each academy dispatches representative to examination committee of the Korean Medical Association and to hospital accreditation committee of the Korean Hospital Association and each academy has examination committee under it to be involved in question making, and scoring of the specialist qualification education. In addition, it is making an effort to improve training environment through specialist guidance and supervision activities every year.

4.10.6 Role of the Korean Intern Resident Association

The Korean Intern and Resident Association started as a group for social networking and became an association representing the opinion of specialists across the nation with the participation of 60 hospitals in Mar. 1998. Currently, the association is recognized as a group that represents all specialists in teaching hospitals. Starting from the late 2000s, it expressed its opinion on proper working hours of specialist, opposition to reduction of specialist quota and improvement of specialist and internship system representing the voice in the field regarding education to Korean Medical Association, Korean Hospital Association and Ministry of Health and Welfare.

Chapter 5 Competence Framework for Korean Doctor

The first edition of the Role of the Korean Doctor was published on Oct. 10, 2011 and the latest revision was completed on Dec. 20, 2013 after a number of revisions. 14 agencies related to medical education including Korean Medical Association ratified the role of Korean doctors and officially made and distributed competency framework.

Medical doctors are professional resources critical for maintaining and managing the modern state. As a profession, doctors bear the grave duty of providing medical care that is essential to the health of individuals and society as a whole and must continuously exert the utmost self-initiated effort to maintain their professional competencies and moral values.

Medicine is a fundamentally multi-faceted and complex field of study and the practice of medicine becomes far more effective and efficient when carried out based on internal self-regulation rather than regulation imposed by an external authority. Accordingly, hereunder are listed the roles and virtues expected of doctors of the Republic of Korea.

Realistically, it is a difficult challenge to create a complete list of the roles and virtues expected of doctors. However, even the exercise and effort of establishing such standards are very important and it is a highly meaningful endeavor to continuously improve such standards toward even higher levels and to positively impact the change of the times and the environment.

This effort in Korea started in 1999 and particularly, through the five major revisions during the past 3 years, we announced "The Role of the Korean Doctor"(2014) in December 2013 with the earnest hope that this document may contribute to maintaining and promoting the professionalism of doctors practicing medical care and the curriculum to foster Korea's doctors.

"The Role of the Korean Doctor" (2014) addresses the values and competencies to be pursued by today's Korean doctors as professionals across the five areas of "patient care", "communication and cooperation", "social responsibility", "professionalism" and "education and research." Going forward, the Role of the Korean Doctor will continue to be supplemented and updated based on ongoing research and feedback from all sectors of society with the aspiration of assisting Korean doctors, who embrace this Role of the Korean Doctor as their professional gold standard, become leaders in medical welfare both in Korea and in the world

1. Patient Care

The doctor shall place the utmost priority on the health and safety of patients and shall obtain the capability necessary to provide the highest level of care within the circumstances of the Korean medical system based on the trust of the patients and society and shall continuously maintain and develop such competencies.

◎ Commentary

Doctors must possess the professional knowledge and clinical skill necessary for patient care and must be capable of delivering medical judgements and clinical decisions with the highest priority placed on the individual patient's health and safety. Patient care shall be evidence-based and within the context of mutual trust and communication with the patient and society supported by an understanding of Korea's medical system. Also, doctors shall be devoted to a life-long process of professional development in order to maintain his/her professional competencies and attitude.

◎ Competencies

1.1. Medical Knowledge and Clinical Skill

1.1.1. Doctors shall possess professional medical knowledge and appropriate clinical skills.

1.1.2. Doctors shall maintain a patient-centric approach when assessing, diagnosing and treating the patient and shall be capable of delivering accurate medical judgements and appropriate clinical decisions.

1.1.3. Patient care shall be based on scientific evidence and shall consider the individual nature of each patient.

1.1.4. Decisions related with patient care shall be reached while respecting the patient's opinions through activities such as information provision, education, counselling, and collection of informed consent.

1.1.5. The duty to protect the patient's privacy shall be upheld and requirements regarding medical records and issuance of various certificates shall be fully understood. Such records shall be maintained with integrity and accuracy.

1.1.6. Doctors shall respond appropriately so that the patient's quality of life does not deteriorate due to pain and suffering in the course of medical care.

1.2. Professionalism

1.2.1. Doctors shall respect patients and maintain a patient-doctor relationship based on mutual trust.

1.2.2. Doctors shall communicate actively with patients, their guardians and other medical professionals.

1.2.3. Doctors shall acknowledge the limits of modern medicine and also exert an open-minded effort to overcome such limits.

1.2.4. Upon encountering a patient beyond one's knowledge or experience, doctors shall seek the cooperation of other appropriate medical professionals and cooperate when asked for advice or referred patients.

1.2.5. Doctors shall comply with professional ethics and develop their professional expertise in order to acquire the best ability and professional attitude for patient care.

1.3. Patient Safety

1.3.1. Doctors shall extensively pursue measures for the safety of their patients.

1.3.2. In an emergency situation, doctors shall perform prompt contact and emergency care and shall transfer the patient to a medical institution capable of follow-up care if necessary to prevent the situation from worsening.

1.3.3. Doctors shall educate patients about drug interaction and possible adverse effects of drugs and shall exert efforts to prevent drug addiction and abuse.

1.3.4. In a situation involving the safety of the patient, doctors shall place the highest priority on patient protection and shall take appropriate follow-up measures.

2. Communication and Cooperation

The doctor shall mutually communicate and cooperate with patients, their guardians, medical staff and society.

◎ Commentary

Doctors shall communicate effectively with patients and guardians. Effective communication is the

foundation for a positive patient-physician relationship and for encouraging active patient cooperation in the diagnosis and treatment decision process. Also, as a member of a team of medical professionals, doctors shall achieve the best possible care results, minimize potential risk during the care process and maximize patient safety through effective communication and collaboration.

◎ Competencies

2.1. Communication and Cooperation with Patients

2.1.1. Doctors shall understand and empathize with their patients and shall be able to appropriately express their appreciation of the patient's position.

2.1.2. Doctors shall listen to patients with care and respect the patient's opinions.

2.1.3. Doctors shall protect the patient's privacy and personal values.

2.1.4. Doctors shall pursue a patient-doctor relationship based on honesty and trust.

2.1.5. In a situation posing harm to the patient, doctors shall take appropriate measures and resolve problems through communication and cooperation.

2.1.6. When termination of care, consult, referral or transfer to another hospital is necessary, doctors shall explain such reasons sufficiently to the patient and the guardian in advance.

2.1.7. When the patient has difficulties in cooperating and communicating due to special circumstances, doctors shall request professional assistance if necessary.

2.2. Communication and Cooperation with Patient Guardians

2.2.1. Doctors may provide sufficient information to patient guardians and seek their cooperation while respecting patient privacy if such efforts are beneficial to patient care.

2.2.2. Doctors shall understand and respect the position of patient family members or guardians.

2.3. Communication and Cooperation with Colleagues

2.3.1. Doctors shall closely communicate and cooperate with all colleagues including medical and non-medical personnel.

2.3.2. Doctors shall respect the ability, experience and opinion of each member of the medical team and follow clearly defined roles and responsibilities.

2.3.3. When referring patients or delegating patient care to fellow doctors, doctors shall provide appropriate and sufficient information.

2.3.4. Doctors shall not engage in groundless criticism of fellow doctors.

2.3.5. Doctors shall actively participate in training that may enhance understanding of other professions.

2.4. Communication and Cooperation with Society

2.4.1. When necessary for effective care and better public health, doctors shall communicate and cooperate with numerous related organizations.

2.4.2. Doctors shall provide truthful information beneficial to public good when providing public health related information.

2.4.3. Doctors shall identify various factors that influence the health of individuals, the community and the nation, and shall be able to appropriately respond to such factors.

3. Social Responsibility

The doctor shall use his/her expert knowledge to promote the patient's health and social well-being and actively participate in the organization and distribution of medical resources to contribute to effectively maintaining and developing the health and medical system. Also, the doctor shall participate and cooperate in disaster relief efforts in Korea and abroad and actively respond to future changes in medicine.

◎ Commentary

Doctors shall understand that they are responsible for improving not only the patient's heath but also the public health of society as a whole. Doctors shall provide professional opinions related with information or solutions regarding promotion of the local community's health. Also, doctors shall play an active role in the decision making process regarding policies while understanding the health and medical system and considering the limited medical resources. Doctors shall actively participate in health protection activities for residents of areas damaged by disasters in Korea and abroad. Also, doctors shall understand international health and medical issues and actively participate in international initiatives for their resolution.

◎ Competencies

3.1. Maintenance of Individual and Public Health

3.1.1. Doctors shall meet the patient's demands for better personal health in the course of patient care.

3.1.2. Doctors shall identify factors and needs that influence the health of local residents and take appropriate action.

3.1.3. Doctors shall provide professional insight on information and solutions regarding the promotion of health in the community.

3.1.4. Doctors shall actively cooperate with activities to promote health of the local community and country such as control of contagious diseases.

3.1.5. Doctors shall identify the health issues of the medically disadvantaged and shall exert efforts to resolve such issues.

3.2. Participation in Public Health Policy Making & Response to Future Medicine

3.2.1. Doctors shall understand the social, economic, cultural and ethical implications of medicine related laws and systems and actively respond to shifts in future medicine.

3.2.2. Considering the limited medical resources, doctors shall maintain fairness and increase the efficiency of medical institutions and public health systems.

3.2.3. Doctors shall be capable of performing the role of manager and leader of the public health system.

3.3. Disaster Relief and Promotion of International Cooperation

3.3.1. Doctors shall cooperate in health protection activities in the event of domestic disaster.

3.3.2. Doctors shall understand the meaning of international disaster relief activities and participate in such activities.

3.3.3. Doctors shall support the activities of public health related international organizations and participate in international exchange.

4. Professionalism

The doctor, as a professional devoted to human health and life, shall maintain a high level of professional ethics based on professional work norms and self-regulation.

◎ Commentary

The doctor's professionalism refers to the autonomy of professional judgement based on professional ethics, an attitude appropriate for patient care and the practice of virtues such as sincerity and altruism. Because doctors are granted their professional licenses from society based on an implicit social contract based on their professionalism, doctors must continuously exert efforts to develop their professionalism and to secure the right for profession-led, self-regulation.

◎ Competencies

4.1. Patient Care based on Ethics and Autonomy

4.1.1. Doctors shall assess their own medical competencies with honesty and shall not promote them in an exaggerated manner.

4.1.2. Doctors shall maintain their competencies to provide the best patient care based on their conscience and clinical autonomy.

4.1.3. Doctors shall be aware of the duty to protect patient privacy and shall abide by such principles.

4.1.4. Doctors shall provide medical information through due process for a justified cause.

4.2. Patient-Doctor Relationship

4.2.1. Doctors shall be capable of maintaining the patient-doctor relationship within a professional context.

4.2.2. Doctors shall be capable of managing conflict of interest situations that occur in the course of patient care.

4.2.3. Doctors shall respect the political, social and religious beliefs of the patients in the course of care and shall not hold prejudice against or discriminated based on the patient's beliefs. Also, the doctor shall not forcefully impose his/her own belief system on the patient.

4.3. Profession-led Self-Regulation

4.3.1. Doctors shall fully understand and comply with the ethical guidelines required by related laws and the medical profession.

4.3.2. Doctors shall faithfully perform the duties demanded by professional organizations and related bodies.

4.3.3. Doctors shall take appropriate action when a fellow doctor damages the professionalism as a doctor.

4.3.4. Doctors shall actively participate in various self-regulation activities. 자

4.4. Professionalism and Self-Care

4.4.1. Doctors shall maintain an appropriate balance between their work and personal life.

4.4.2. Doctors shall maintain an appropriate level of personal health.

4.4.3. Doctors shall be capable of systematically responding to protect their own work in the medical care environment.

4.4.4. Doctors shall request for the cooperation of other colleagues when in need of assistance for issues of their own health and shall actively cooperate when asked for help by other doctors.

5. Education and Research

The doctor shall practice life-long, self-initiated learning with the spirit of scientific inquiry and at the same time, as an educator and researcher, shall develop, acquire and spread latest medical knowledge, apply such knowledge in work and be capable of critically assessing the result of such application.

◎ Commentary

Doctors shall be aware of the need for life-long learning and accordingly, continuously acquire new medical knowledge and shall be able to apply such knowledge in the practice of medicine and to interpret and assess such applications. Also, as an educator, doctors need to be capable of

teaching patients, guardians, medical professionals and the general public. Furthermore, doctors need to have the understanding and basic research ability for medical research, shall exert efforts to minimize risks that may occur in the process of conducting research and shall fully understand and comply with domestic and international ethics regulations on research involving human subjects.

◎ Competencies

5.1. Education

5.1.1. Doctors shall maintain and promote professional competencies through life-long learning.

5.1.2. Doctors shall be capable of performing the role as an educator to patients, guardians, medical professionals and the general public.

5.1.3. Doctors shall be capable of conducting fair peer assessment based on scientific evidence.

5.2. Research

5.2.1. Doctors shall understand the scientific principles and methods of medical research.

5.2.2. Doctors shall select and apply scientific methods to scientifically solve questions that occur in the process of patient care.

5.2.3. Doctors shall be able to appropriately analyze and utilize the results of medical research.

5.2.4. Doctors shall comply with related ethical principles and guidelines when conducting medical research involving human subjects.

Chapter 6 Graduate Study Course for Master and Doctoral Degree

The graduate course for medical study managed by Korean universities can be classified as medicine, medical science and cooperation course. For a long time, all colleges of medicine opened medical department in graduate school to run medical education and have maintained the system for master degree, doctoral degree and integrated course for master's and doctoral degree. In the meantime, people with bachelor's degree of other discipline except for medicine can enter the medical department of a graduate school with vitalized medical research. When graduating from the graduate school, they are given master of medicine or doctor of medicine. Recently, some universities run medical science (or biomedical engineering, etc.) in addition to department of medicine to improve the shortcomings. In addition, the increasing number of universities are running cooperative course along with natural science, social sciences and humanities.

All 40 domestic universities, who responded to survey, run department of medicine in graduate school and all universities open master and doctorial degree course. At the same time, 27 universities open integrated course for master and doctorial degree. A total of 17 universities run medical science department at graduate school and among them, 16 universities open master's degree course in medical science department, 17 open doctorial degree course and 13 universities open integrated course for master and doctorial degree course. 12 universities open MD-PhD course. 22 universities run cooperative course at the graduate school and all of them have master and doctorial degree course respectively. 12 universities run integrated course for master and doctorial degree course.

Chapter 7 Continuing Medical Education/Continuing Professional Development

The basis of continuing medical education in Korea is specified in a relevant act. According to Article 30.2 of the Medical Service Act, Korean Medical Association should conduct continuing training to improve the competency of the members in accordance with the decree of the Ministry of Health and Welfare and Article 3 requires the medical personnel to receive continuing medical training. Accordingly, Korean Medical Association should conduct continuing medical education every year and medical personnel should receive medical training for more than 8 hours a year (Article 20.1 and 2 of the Continuing Medical Training of the Enforcement Regulation of Medical Service Act). The number of participants who have participated in the continuing medical education was 271,517 on average for the past 5 years from 2010 to 2014. 281,030 people completed continuing medical education by participating in symposium. 18.8% participated in teaching hospital, 10.1% participated in regional association of doctors and 9.1% participated in special agency for continuing medical education.

7.1 Issue of the Term Continuing Medical Education

In Korea, continuing medical education is also referred to as training or life-long learning but in the future, the term should be unified as continuing professional development which is proper term based on the concept.

7.2 Continuing Medical Education Management System

Major changes in the training of Korean Medical Association in 2014 were that training has been led by training implementation and evaluation group (hereinafter referred to as evaluation group) which is directly under Chairman of the Korean Medical Association.

7.3 Continuing Medical Education Agency

An agency needs to get certification from Korean Medical Association or institution to which the work is consigned by the Korean Medical Association by preparing minimum requirements to be a designated continuing medical education agency. The minimum requirements for being designated as continuing medical education agency are as follows (Article 6 of Enforcement Regulation of Korean Medical Association).

① Agency dedicated to training

② Members and staff dedicated to training

③ Securing necessary budget

④ Securing education venue and education equipment

⑤ Training implementation plan: mid to long-term training plan, training implementation plan

7.4 Submission of, Approval for and Reporting of Continuing Medical Education

Training agency should apply for training in KMA training center by 20 days before training date and get approval from KMA in advance. If the agency wants to change the contents in the application, the approval for the change should be obtained from KMA by 5 days before training date. Approval for all matters is notified to training agency through KMA training center.

Training agency should report the result of training in a designated from to KMA through KMA training center within 14 days after training completion date. KMA issues training certificate, training confirmation, training contents confirmation in electronic form to a member in accordance with Article 13 Training Result.

7.5 Credit and Subjects

Training contents revised after 2014 include clinical education, basic education, ethics, and other necessary education in parallel. Subjects which are in compliance with applicable laws, humanities and social medicine, medical policy and other training education purpose can be opened. The credit can be given differently depending on time and characteristics of training. So far, the major recognition criteria of training are time-based on requiring us to move to performance-based concept.

① 1 credit is recognized for 1-hour training

② 1 credit is recognized per class in cyber training. The annual maximum credit that can be obtained from cyber training is 5 per member.

③ 1 credit is recognized for 1 class in KMA medical course self study and a member can get 3 credits at a maximum per year.

④ Credits for education which is deemed necessary by KMA can be given at KMA's discretion.

7.6 Implementation of Training and Function of Evaluation Group

The guideline of KMA revised in June 2015 requires the visiting investigation group composed of more than 2 people from steering committee and sub committee in relation to designation of new education agency by training implementation and evaluation steering committee. The head of the visiting investigation group is designated by chairman of steering committee and the group should review the documents submitted by agency subject to investigation and conduct on-site investigation.

Chapter 8 Maintenance of license and it's renewal

8. Maintenance of license

To maintain the license, it is required to take a complementary continuing medical education course or continuing professional development course of at least 8 credits every year. Each point does not necessarily mean one hour equivalent of educational activity, but often two hours or more may have to be spent for 1 point depends on the nature of educational activity. Unless one has received a disciplinary action of the central ethics commission of Korea Medical Association or of the Ministry of Health and Welfare for a violation of the Medical Treatment Act, or a criminal penalty for general crimes, the license is automatically renewed with one report in every 3 years. Unless the minimum CME.CPE credit is fulfilled or there is a violation regarding the obligation of complementary education courses and ethical regulations, the license is renewed automatically.

The Ministry of Health and Welfare announced the policy that improves quality of care and strengthens patient and social safety through changes in licensing system for medical personnel which is required by society recently. The policy is announced to be legislated strengthening licensing management for medical personnel in Korea.

8.1 New government policy to improve the medical license 2016

< Summary of Ways to Improve Licensing Management of Medical Personnel >

Classification	Present		Improvement
Strengthening management of unethical medical practice	1-month license suspension for unethical medical practice	➢	▪ License cancellation for severe unethical medical practice ▪ Specifying the scope of unethical medical practice and increasing the license suspension period (up to 1 year) ▪ Establishment of license suspension order system
	No active review process	➢	▪ Composition of Review committee to check good practice of medicine

Improving license reporting system	Reporting only employment status and continuing medical education completion	➢	▪Mandatory self- disclosure of disease, substance abuse (drug, alcohol etc) which have significant impact on medical practice ▪Checking with various methods including medical certificate, information from relevant agency, peer checking
Improving continuing medical education	8-hour education every year Lack of management	➢	▪Mandatory completion of patient safety education ▪ Strengthening management including attendance checking

The short-term items of the improvement plan will be implemented in the second half of this year by revising relevant Enforcement Decree and Regulation of the Medical Service Act in the first half of the year and long-term items that require revision of the Medical Service Act including establishment of reasons for license cancellation and license suspension order system will go through legislative procedure from Mar.

8.1.1 Strengthening management of unethical medical practice

(1) (License cancellation due to severe unethical medical practice) The license of medical personnel who conducts severe unethical medical practice that threatens the patient safety shall be cancelled.

First, if medical personnel put significant harm to public hygiene by reusing syringe (Passed the Standing Committee of the National Assembly (Feb. 17), pending in Legislation and Judiciary Committee).

-Even before the revision of act, penalty can be given under accidental homicide of the Criminal Act (5-year imprisonment or fine less than 20 million won).

If medical personnel are given sentence higher than fine due to sexual crime during medical activities including sleep endoscopy, the license shall be cancelled (revision of the Medical Service Act is underway)

- Even before the revision of the act, the relevant information will be used in medical institution by discussing with relevant ministries to constrain the medical personnel to be hired by medical institution under the Act on the Protection of Children and Juveniles Against Sexual Abuse.

* If medical personnel are convicted of sexual crime and sentenced with imprisonment or treatment under the Article 56 of the Act on the Protection of Children and Juveniles Against Sexual Abuse, he/she cannot run or work for medical institutions for 10 years.

Third, if it is hard to conduct medical practice due to health reason including being classified as long-term care, the license shall be cancelled (revision of the Medical Service Act is underway). The scope of the diseases which hinder the medical practice will be established in consultation with the medical society.

(2) (License suspension for up to 1 year for unethical medical practice) The scope of unethical medical practices is defined clearly as below and the suspension period will be diversified from current 1 month to

maximum 1 year depending on the significance on patients.

< Specification of Unethical Medical Practice >

▷ Use of injections which are not permitted as medical products without any specific reason including medical justification

▷ If one's drinking has an impact on medical practice

▷ If one causes harm to the public health by using one-time use medical equipment again

▷ If one conducts medical practice under the influence of psychotropic drugs including drug and hemp

▷ If one injects psychotropic drugs into patient more than required intentionally.

▷ Use of medical products which have expired shelf life intentionally.

(3) (Establishment of license suspension order system) The establishment of license suspension order system will be pursued for medical personnel who have a potential to cause severe risks if he/she continues medical practice.

-Even before the court judgment comes out, interim suspension order can be issued to the medical personnel with significant potential risk to secure constraints on the activities that threaten public health.

-Suspension of license by interim order shall be issued within 1 month based on professional opinion and the period shall be 3 months. If necessary, the period can be extended based on professional opinion and the interim order is released if the concerned on potential harm are removed.

(4) (Composition of review committee to check the appropriateness of medical practice) The review committee to check the appropriateness of the medical practice is run to strengthen the review function of area that requires professional medical judgement.

- The review committee plays the role of reviewing areas that require high level of expertise including unethical medical practice that is not defined in act, physical and psychological diseases. The central ethical committee of the medical personnel group should perform the review with the participation of external experts to secure fairness of the review. The authority of review will be strengthened including joint investigation with the Ministry of Health and Welfare. * Composition of advisory group per specialty to improve the review the function of specialty area.

(5) (Operation of reporting center) The central group of the medical association, regional doctor's society and clinics run the reporting center to regularly identify unethical medical practices and make the reporting easy by advising type of cases for reporting and examples.

8.1.2 Improvement of Effectiveness of License Reporting System for Medical Personnel

(1) (Strengthening the requirements for license reporting) The items to judge whether the medical practice meet the standards or not upon license reporting by medical personnel and the fitness to practice medicine will be verified more strictly.

- (Improvement of reporting items) Currently medical personnel are required to report employment status and continuing medical education completion but in the future physical and psychological diseases including brain damage or dementia, addiction to drug or alcohol will be included as they may have a significant impact on medical practice.

- Even though one was diagnosed with physical and psychological diseases including brain damage in the past he can continue medical practice by attaching and submitting medical certificate where specialist says there is no problem with medical practice.

- (Confirmation method) Mental disease or addition to drugs, which are reasons for disqualification under the current Medical Service Act will be checked by attachment of medical certificate by medical personnel or utilizing information from relevant agencies including the National Health Insurance Service with relevant person's consent.

- (Sanctions on false reporting) The regulation on the penalty on false reporting will be established through revision of the Medical Service Act to protect the majority of medical personnel who make reporting properly.

- If it is confirmed that the items related to disqualification of medical personnel including physical or mental diseases or addition to drug which are important to evaluate the fitness to practice, are reported falsely then the medical license will be cancelled and false reporting of other items will be subject to disciplinary measure including fine.

(2) (Adoption of peer review) The peer review system, which is implemented in advanced countries including Canada for mutual checks and balances among medical personnel who know regional medical environment well, will be implemented on a pilot basis.

- (Target) If there is a concern on medical practice based on the information on license reporting or renewal of license after cancellation is applied for, or if one does not receive continuing medical training for more than 2 years, peer review is applied.

- (Operation) The peer review group is formed from regional doctors' society to evaluate the appropriateness of medical practice and if any problem is found, the review committee to check the fitness to practice. If necessary, the disciplinary measure by administrative order including license suspension is requested to Minister of Health and Welfare.

* Establishment of specific ways including cross review to secure fairness of the review

- (Plan) Pilot project will be conducted first in the medical society on a voluntary basis first and model suitable for Korea will be determined. Based on the model, revision of the Medical Service Act will be conducted.

(3) In the mid to long-term, the research on the medical regulatory authorities in other countries proposed by consultative body will be conducted and review will be done to check the need for the adoption of the system.

8.1.3 Improvement of Continuing Medical Education

(1) (Adoption of mandatory education) Making education related to medical act, medical ethics, infection prevention and other patient safety matters a mandatory course for continuing medical education

- Currently one needs to complete 8-hour continuing medical training a year. But in the future, one needs to complete mandatory education for more than 2 hours every time when license is reported.

- The customized education reflecting the characteristics of self-employee and pay doctors and practical reentry education for medical personnel who have left the job for a long time based on education demand survey.

(2) (Strengthening management) Automatic attendance checking system will be expanded including bar code system and identification card checking and mandatory signature will be required to attendance by substitute or leaving the class in the middle.

- To evaluate the feasibility of continuing medical education, which is performed by central association of the medical personnel based on consignment, the evaluation group for continuing medical education will be established in Ministry of Health and Welfare to strengthen the evaluation on the contents of continuing training and appropriateness of the management.

(3) In the meantime, the Ministry of Health and Welfare announced that it will conduct on-site survey to check the medical personnel who are expected not to conduct medical practice due to being classified as long-term care patients utilizing big data of the National Health Insurance Service in Mar.

Article 9 Equivalence Analysis with License/Certificate in Advanced Countries

9.1 International Equivalence of Specialist Qualification in Korea

The World Federation for Medical Education call the education before obtaining medical license a basic medical education. This term is adopted by all countries commonly to overcome the differences of medical education system in many countries. For example, in the US, Canada, the Philippines and Korea, it is possible to enter school of medicine after graduating from university. In Korea most colleges of medicine recruit high school graduates for 6-year medical program. Countries with similar system are Taiwan, Japan and China. However, under the British Commonwealth system, college of medicine is 5-year course and 2 year foundation course is established to be a general practitioner. On the contrary, in the US and Canada which adopt school of medicine system, internship program is absorbed into third and fourth year of the standard medical program. In case of Australia one needs to graduate 5-year college of medicine and go through 1-year internship program. Recently, Japan makes it mandatory to receive clinical training for 2 years after the graduation of college of medicine, which is similar to the British program which nurtures general practitioners in Britain.

However, in Britain, one needs to complete 2-year foundation program and complete 3-year general practitioner course to be a true general practitioner. Therefore, general practitioner in Britain is equivalent to family medicine specialist in Korea. In the US and Canada, one can be a true general practitioner after completing 2-3 year family medicine specialist course after medical school. It is confusing as different countries use different concepts and terms for general practitioner. In this regard, completing 6-year college of medicine or 4-year school of medicine after graduation of university, completing 1-year internship program and 4-year resident program in Korea is equivalent to British system where one enters specialist course after 5-year college of medicine and 2-year clinical foundation training from the perspective of training period after graduation.

The specialist courses to be a specialist require 3 years for family medicine and 4 years for other specialties. To be a subspecialist under internal medicine or surgery, 1 to 2 years of training period is required after obtaining specialist qualification. It means that 6 to 7 years are required after the graduation of college of medicine. Even after obtaining subspecialist qualification, additional 2 to 3 years of experience is required to be a clinical professor. For some specialists, additional 3 to 5 training period is required separately from doctorial degree for research. This means that 8 to 10 years are required after college of medicine on average to be a clinical doctor working for university hospital or general hospital with more than 500 hospital beds. When it is calculated from the high school graduation, 15 years are required to be a clinical doctor on average. Therefore, Korea's specialist system secures sufficient equivalence compared with any other countries.

9.2 Equivalence of Accreditation for College of Medicine

It has been 15 years since the accreditation of college of medicine was adopted. For the past 15 years, all universities have gone through accreditation for more than 3 times led by the Korea Institute for Curriculum and Evaluation. The number of evaluation standards increased from initial 50 to 97. The Korean Institute of Medical Education and Evaluation comes to the conclusion that accreditation standard of Korea is equivalent to international standard based on the comparative study with advanced

countries including the US, Britain, Australia and World Federation for Medical Education. The standards presented by the World Federation for Medical Education will be adopted and used in 2017. Currently increasing number of countries such as China and Japan uses Global Standards of World Federation for Medical Education as its standards. Korean Institute of Medical Education and Evaluation has applied for the recognition of Korean Institute of Medical Education and Evaluation and is waiting for the result. Accreditation for basic medical education in Korea secures international equivalence already confirms that basic medical education courses currently implemented in colleges of medicine and schools of medicine in Korea have a sufficient international equivalence.

9.3 Medical Practice by Foreign License Holders

Korea does not allow medical practice by person with foreign license holder but medical practice of those people is allowed for following cases by act.

Article 18 of the Enforcement Regulation of the Medical Service Act [Medical Practice of Foreign License Holders]

Those who hold medical license of other countries under the Article 27.1.1 of the act and stay in Korea for the purpose of performing one of the following activities, they can conduct medical activities within necessary scope with the approval from the Minister of Health and Welfare.

1. Work of exchange professor as a result of education or technology cooperation with other countries

2. Work related to education research project

3. Medical volunteer work by international medical volunteer group

9.4 Mutual Recognition of Medical License

At present, mutual recognition of a Korean medical license and a foreign medical license is not available in Korea.

<Appendix 1>

KIMEE Accreditation Standards by Area (BME)

1. Governance and Administration

1-1 Mission

1-1-1 Does the medical school have a mission and does it include contents addressing the social responsibility of the medical school and the need to serve public interest ?

[Basic standard] The mission of the medical school is stated.

1-1-2 Is the autonomy and independence of the medical school guaranteed?

[Basic standard] Independence and autonomy of the medical school's administration are respected by the university headquarter, medical center and/or educational foundation. The formal policy is provided for the independence and autonomy of the medical school .

[annotation] This item describes an overall opinion on the administration process of the medical school (education, facility, human resources, administrative and financial affairs etc). The administration of the medical school should be based on professionalism.

1-1-3 Is the medical school exerting efforts to fulfill the WHO recommended social accountability ?

[Basic standard] The medical school has education, research and health care policies regarding the implementation of social accountability and such policies are being implemented.

1-2 Administration and Governance

1-2-1 Is the work for the medical school's administration appropriately divided?

[Basic standard] The work of education, faculty and student affairs is divided while administratively associated. Each of the three areas is appointed by the separate vice dean.

[annotation] Vice dean refers to a person who receives separate compensation for being responsible for an certain administrative area. Depending on the relevance of two work areas, vice deans can be in charge of two work areas.

[Quality development standard] Sufficient numbers of vice deans including those for education, faculty, student and research areas, etc. have been appointed and such vice deans should demonstrate assigned activities.

1-2-2 Is the medical school's staff work defined and are there sufficient administrative staffs for each individual work area?

[Basic standard] The staff work is defined into areas such as education, faculty, student, research,

post-graduate education, admissions and finance. The number of administrative staffs are at least 5.

[annotation] A staff can be in charge of two related work areas depending on the relevance of the work.

1-2-3 Is the system for developing and maintaining the expertise of the academic leadership appropriate?

[Basic standard] The medical school is exerting continuous efforts to secure the expertise of the academic leadership.

[annotation] The academic leadership refers to the dean and professors with administrative responsibilities.

[Quality development standard] Experience in various fields including education, faculty development and research is stated as the dean's leadership qualifications.

[annotation] The qualifications for dean candidates should be specified in the selection rules or the medical school's regulations/operational rules or internal rules. Describe whether qualifications for positions are publicly announced before actual appointment.

1-2-4 Does the dean have autonomy in terms of the medical school's administrative planning and budget execution and is a medical school-based management system established?

[Basic standard] The dean has the power over the medical school's administrative work and budget execution as delegated (or approved) by the university (or medical center) and such power is exercised autonomously by the dean under his/her own responsibility.

[annotation] There must be written regulations stipulating that a committee headed by the dean discusses matters such as hiring, promotion qualifications as well as overseas training qualifications for faculty. Lab costs and ordinary expenses should be executed at the dean's discretion and the medical school's academic schedule must be planned and managed under the dean's responsibilities.

[annotation] The discretionary spending amount of the dean does not refer to the business promotion expense or reserved budget included in the medical school's budget. The discretionary spending amount refers to the financial resources that the dean can execute at his discretion to achieve the medical school's mission and goal.

1-2-5 Are policy decision structures and procedures of the medical school operated appropriately?

[Basic standard] The medical school has appropriate policy decision structures and procedures for medical school administration.

[annotation] At least 1/3 of members of the human resources related committee should be appointed through an election. Other committees must have not more than 1/4 of ex-officio members. Committees should have a diverse membership to represent various job levels and fields (basic, clinical etc). Each committee must meet at least once during a semester.

1-2-6 If the medical school hospital is geographically separated, is there a medical school administrative structure in each hospital to support student education and faculty research?

[Basic standard] Each geographically separated medical school hospital must have an appointed faculty in charge of student education and faculty research. Each location must also have an administrative

structure supporting education and faculty research.

[annotation] The medical school's affiliated hospitals must hold regular meetings to standardize students' clinical clerkship. There must be actual implementation of such meetings' results. In addition, the Dean's Group must be directly involved in the development, implementations and evaluation of programs provided at all education sites.

1-3 Educational Budget

1-3-1 Is the medical school's financing system for medical school administration appropriate?

[Basic standard] The medical school has prepared and is administrating a reasonable budgeting system.

[annotation] When preparing the budget, the medical school must collect each department's (classroom, department, integrated department) business plan and budgetary opinions.

1-3-2 Does the medical school have appropriate financial resources related with education?

[Basic standard] Educational budget is prepared appropriately.

[annotation] Describe what education related finances have been secured by item (student lab expenses, curriculum development and operation expenses, faculty development expenses, domestic/international faculty training support expenses, education-related seminar organizing cost, student community service activity support expenses etc) as well as the medical school's efforts and achievements. All material should cover the recent 6-year period with information organized by year to show change and trends.

1-3-3 Is there the medical school's auditing system?

[Basic standard] The auditing system of medical school is appropriate.

1-4 Development Plan

1-4-1 Is there an established medical school development plan and is the support from the university or board of foundation appropriate?

[Basic standard] The medical school development plan is described and the support from the university or board of foundation is appropriate.

1-4-2 Is there a medical school development fund and is its management appropriate?

[Basic standard] There is a medical school development fund and its management is appropriate.

1-4-3 Are there appropriate participations of alumni or communities in medical school development and efforts of the medical school to encourage their active participation?

[Basic standard] The alumni or communities participate in medical school development and the efforts of the medical school to encourage their active participation are appropriate.

1-5 Continuous renewal

1-5-1 Does the medical school have an organization that conducts self-assessment for quality management and improvement and does the medical school operate this organization appropriately?

[Basic standard] The medical school has an organization that conducts self-assessment for the medical school's continuous quality control and improvement. The operating budget of this organization is appropriate.

[annotation] The organization for the medical school's quality control and improvement must assess the medical school's progress in achieving management goals, regularly issue evaluation reports and reflect the results in medical school administration. There must also be a institutional device or specific effort to guarantee the expertise of committee members.

[annotation] The permanent organization for quality control and improvement of the medical school must have a specifically prepared budget supporting at least meeting expenses, workshop, external evaluation consulting fee, policy development research fee, program development expenses, research committee member activity fee and report writing fee etc. Also, such budgets should have been executed.

[Quality development standard] The annual budget of the relevant committee is sufficient and there are ongoing efforts to ensure the expertise of the committee members.

1-5-2 Is the medical school reflecting previous accreditation results for continuous renewal?

[Basic standard] There is a track record of continuous renewal in the medical school administration by reflecting the results of accreditation.

[annotation] While the evaluation should be comprehensively executed considering various factors including the short and mid-to-long-term improvement plans for each iarea needed for improvement, the amount of time since accreditation and the medical school's continuous renewal efforts, the medical school must demonstrate specific improvement results.

1-5-3 Arethe international exchanges with foreign medical schools appropriate?

[Basic standard] The medical school has a dedicated organization for international cooperation with its own budgets and staffs. The overseas research and the student exchanges for education and clinical clerkship are being properly operated.

[annotation] The International Exchange Performance Reports must include documents proving such as exchange of letters regarding mutual visits or exchange student evaluation reports.

[annotation] The executed budget includes expenses paid by the student and documents proving school's support.

[Quality development standard] The students can earn academic credits in overseas medical school and there are actual cases of students doing so.

2. Educational Program

2-1 Educational Outcomes

2-1-1 Does the medical school have the educational aims and objectives that reflect its educational mission and unique characteristics?

[Basic standard] The educational aims and educational objectives are described and the educational objectives are regularly evaluated.

2-1-2 Are there graduate outcomes based on the educational objectives?

[Basic standard] The medical school has specific graduate outcomes based on educational objectives and conducts regular evaluation to improve graduate outcomes.

2-1-3 Is the curriculum appropriate for achieving educational objectives and graduate outcomes?

[Basic standard] The medical school operates its curriculum based on self-developed curriculum principles. The curriculum reflects its educational objectives and graduate outcomes. The principles of the curriculum are continuously evaluated.

2-2 Curriculum Development and Support

2-2-1 Are the medical school's educational objectives well known to students and faculty/staffs and is the medical school making appropriate efforts to raise the awareness about educational objectives?

[Basic standard] The medical school constituents are familiar with the educational objectives and the medical school is exerting various efforts to further raise the level of awareness. A survey of the medical school constituents' awareness of education objectives is conducted at least once every 2 years.

[annotation] Efforts by medical schools to raise constituents' awareness of the educational objectives include public announcement, seminars, workshops and posting on classrooms and laboratories, etc. Describe whether the questionnaire items for the survey on the awareness of educational objectives are appropriate and also describe the results of such regularly conducted surveys.

2-2-2 Are the activities of the education related committee in charge of improving and managing curriculum appropriate?

[Basic standard] The composition, role, authority and responsibilities of the committee in charge of curriculum improvement and management are clearly defined. The committee is organized independently and there are systematic devices to maintain a continuity in the committee's activities.

[annotation] Also describe regarding the committee in charge of curriculum improvement and management, 1) the degree of participation by faculties, students and administrative staffs, 2) whether or not an education expert participates in curriculum development and evaluation and 3) whether there are the medical school's internal rules that enable management and operation of the curriculum independently from interdepartmental interests and political influences.

2-2-3 Has the curriculum committee secured a budget for curriculum development, management and evaluation and is this budget being executed appropriately?

[Basic standard] The annual budget of the curriculum committee is appropriate.

[annotation] The budget of Curriculum Committee could be calculated by including the budget of various education-related committees. However, the actual education expenses incurred during conduct of OSCE and PBL etc. or the budget of the department of medical education and the student guidance committee etc. should not be included. In other words, it refers to the budget for the operation (meeting, seminars, research and development and workshops etc.) of the education-related committees.

[Quality development standard] The Curriculum Committee is held regularly at least once a month and its annual budget is sufficient.

2-2-4 Are various instructional and learning methods being developed and applied for delivering curriculum effectively?

[Basic standard] There are lesson plans reflecting instructional and learning methods. Also, 5% or more of the total lessons are conducted using various instructional and learning methods.

[annotation] Various instructional and learning methods refer to PBL and TBL etc. excluding traditional lecture methods and laboratory exercising).

[Quality development standard] Lesson plans are made available to students in advance and 20% or more of the total lessons are conducted using various instructional and learning methods.

2-2-5 Is the support for educational expenses related with student education appropriate?

[Basic standard] Educational expense related with student education is appropriate.

[annotation] Educational expenses related with student education include basic medicine laboratory excercise expenses, CPX- and OSCE-related expenses, costs for teaching materials, computer programs for student education, labor costs for standardized patients , development expenses for test questions , costs for clinical skill laboratory-related consumables, PBL and TBL operation expenses and clinical clerkship-related expenses.

[Quality development standard] Educational expenses related with student education is sufficient.

2-3 Curriculum Structure, Composition and Duration

2-3-1 Does the curriculum appropriately consist of the basic medicine, clinical medicine and medical humanities for achieving the education objectives and graduate outcomes?

[Basic standard] The medical school is operating curricula capable of achieving education objectives and graduate outcomes. It also has specific operation guidelines.

2-3-2 Are there phase outcomes of the basic medicine, clinical medicine and medical humanities being developed on the basis of the graduate outcomes?

[Basic standard] The medical school has developed phase outcomes of the basic medicine, clinical medicine and medical humanities and those outcomes should reflect the graduate outcomes.

2-3-3 Is the integrated curricula of the basic medicine, clinical medicine and medical humanities appropriate?

[Basic standard] The medical school is operating appropriately integrated curricula of the basic medicine, clinical medicine and medical humanities.

2-3-4 Is there a professor in charge of the integrated curriculum and are the rights and responsibilities of the professor appropriate?

[Basic standard] There is a professor in charge of the integrated curriculum and there are rules regarding the rights and responsibilities of the professor.

[annotation] An integrated curriculum refers to interdisciplinary & multidisciplinary integrated courses (e.g. normal structure of the human body, hemato-oncology, growth and aging etc). There should exist a separate professor designated to operate the each integrated course.

2-3-5 Are the outcomes of the both course and lesson defined and reflected in instruction?

[Basic standard] Each course has specific learning outcomes and these outcomes are reflected in instruction.

2-3-6 Are the educational contents of the basic medicine appropriate in order to achieve education objectives and graduate outcomes?

[Basic standard] The contents of the basic medicine are comprised appropriately to achieve the educational objectives and graduate outcomes.

2-3-7 Are the educational contents of clinical medicine appropriate in order to achieve educational objectives and graduate outcomes?

[Basic standard] The educational contents of clinical medicine are comprised appropriately to attain the educational objectives and graduate outcomes.

2-3-8 Are there preparatory instructions for the clinical clerkship before it starts?

[Basic standard] Prior to the clinical clerkship, there exist preparatory instructions which include trainings of patient communication skills and basic clinical skills. Such preparatory instruction courses must have a minimum of 4 weeks or more if provided as a block or have been established for at least 2 semesters if provided as a longitudinal course.

[annotation] Preparatory instruction for the clinical clerkship refers to ICM(Introduction to Clinical Medicine) or FCM (Fundamentals of Clinical Medicine) etc. If it is provided as a block or longitudinal course, each student must receive at least 40 hours of instruction.

2-3-9 Are the guide books of clinical clerkship provided to students and are they actually utilized?

[Basic standard] Students are provided with guide books of clinical clerkship that contained basic clinical skills that students must acquire. The guide books are actually utilized.

[annotation] Basic clinical skills refer to simple diagnostic or treatment techniques such as vital sign measurement, blood sampling, blood smear test, taking EKG, intravenous and intramuscular injections, urinary catheter insertion, performing enema, wound disinfection and closure, and nasogastric tube insertion.

[annotation] The minimum required patients group refers to those with the common symptoms and signs or diseases that students must know in each department to gain a primary care physician's competency.

[Quality development standard] The guide books of clinical clerkship provide separate descriptions for basic and observation clinical skills. A minimum required patient groups are presented in each training department so that students can experience them. There are internal regulations on the scope of techniques and practice that can be provided by students during the clinical clerkship.

[annotation] Observation clinical skills refer to skills that must be observed at least once during the clinical clerkship and may be different depending on the medical school. (e.g. paracentesis, thoracentesis & pleural biopsy, bone marrow aspiration & biopsy, venous sampling of infectious patients, percutanous fine needle aspiration, paricardiocentesis, central venous catheter insertion, hemodialysis and peritoneal dialysis, esophagogastroduodenoscopy, colonoscopy, bronchoscopy and CPR.) The students must also be able to explain the purposes, methods and risks of these skills.

2-3-10 Is the clinical clerkship conducted in a way that enables students to acquire the doctor's role?

[Basic standard] Clinical clerkship is formulated with not only passive methods such as simple observation but also active participation in patient care as a member of the medical team so that students can learn their work as doctors.

[Quality development standard] A student internship program in which all students can participate for at least 4 weeks is provided.

[annotation] The student internship program must be conducted 1) mainly with a focus on the core departments (internal medicine, obstetric and gynecology, pediatrics, psychiatry and emergency medicine) 2) chiefly with hospitalized patients (carrying out prescription, treatment, and evening or night duties etc.) and 3) with differentiation from the existing clinical clerkship.

2-3-11 Is clinical clerkship conducted long enough?

[Basic standard] Clinical clerkship must be conducted for at least 52 weeks (36 hours a week) or a period equivalent to this time. Clerkship in internal medicine, surgery, obstetric and gynecology, pediatrics, psychiatry and emergency medicine must be included.

[Quality development standard] Clinical clerkship is conducted for at least 72 weeks (36 hours a week) or a period equivalent to this time.

2-3-12 Are there various hospitals and community clinics for the clinical clerkship and is the out-patients-centered clerkship appropriate?

[Basic standard] Clinical clerkship for core departments, supportive departments and family medicine must be conducted in primary and secondary hospitals as well as in tertiary hospitals. The out-patient centered clerkship must account for at least 25% of total clinical clerkship time for core departments.

[annotation] Core departments refer to internal medicine, surgery, obstetric and gynecology, pediatrics, psychiatry and emergency medicine.

2-3-13 Are there any elective courses in clinical clerkship?

[Basic standard] The medical school provides suitable elective courses students can choose freely.

[annotation] In elective courses a student is able to train at any site of his/her choice in the courses of basic medicine, clinical medicine and domestic/international research institutes etc..

2-3-14 Is a professor in charge of clinical clerkship designated and are the guidance, supervision and feedback for students appropriate?

[Basic standard] The professor in charge of clinical clerkship and the resident in charge of clinical education are appointed in each department. Guidance and supervision as well as feedback are provided to students.

[Quality development standard] The medical school has regulations stating resident's roles and duties as an educator and conducts the education and training related to the methods of student guidance, supervision and feedback for residents in charge of major clinical clerkship on a regular basis.

[annotation] Education/training programs for Resident as Teacher (RAT) include effective guidance in clinical clerkship, communication skills with students, student assessment methods, and educator ethics.

2-3-15 Are the educational contents of medical humanities appropriate in order to achieve educational objectives and graduate outcomes?

[Basic standard] The medical humanities curricula to achieve educational objectives and graduate outcomes has been operating throughout the school years. The medical humanities curricula also include contents such as integrative medicine and alternative medicine.

2-3-16 Are the instructional, learning and assessment methods appropriate to deliver the curricula of medical humanities?

[Basic standard] Various instructional, learning and assessment methods are applied to deliver the curricula of medical humanities.

[annotation] Various instructional and learning methods other than simple lectures refer to methods that use 50% or more of the lesson time in activities such as discussion, presentation or question & answers as well as team-based learning, problem-based learning and discussions in small groups. Only methods announced in advance in lesson plans will be recognized.

2-4 Academic Achievement Evaluation

2-4-1 Is the medical school evaluating the student's academic achievements based on learning outcomes and are students given feedback of evaluation results?

[Basic standard] The medical school is applying evaluation methods that can check the learning outcomes defined for each course and 1/3 or more of the courses provide feedback to students at least once.

[Quality development standard] Ten percent or more of the total courses are conducting formative evaluation.

2-4-2 Are the students' performance evaluated appropriately in the clinical clerkship?

[Basic standard] Clinical performance examination is conducted at least once a year.

[Quality development standard] Clinical performance examination is conducted for each core clinical clerkship.

2-4-3 Is the medical school comprehensively evaluating the academic achievement based on phase outcomes or graduate outcomes and is the method of such evaluation appropriate?

[Basic standard] The medical school is conducting a comprehensive evaluation capable of checking phase or graduate outcomes.

[Quality development standard] Comprehensive evaluation for both phase and graduate outcomes is conducted and the results of such evaluation are used for grade promotion and graduation review of the student.

2-5 Curriculum Evaluation and Improvement

2-5-1 Is the medical school reviewing course outcomes periodically and reflecting results in curriculum improvement?

[Basic standard] The medical school annually reviews the appropriateness of course outcomes and the degree of how much is reflected in instruction and evaluation. The medical school also has actual examples of using such review results to improve instruction and evaluation or course outcomes.

2-5-2 Is the medical school accordingly improving its curriculum followed by reviewing and updating of phase and graduate outcomes?

[Basic standard] The medical school is reviewing whether phase and graduate outcomes are reflected in the curriculum and is using such review results to improve the curriculum.

2-5-3 Is the medical school conducting an overall evaluation on curriculum for improvement?

[Basic standard] The medical school is conducting an annual evaluation on the appropriateness of the curriculum and the results have been used for actual improvement.

3. Students

3-1 Admission Policy and Student Selection

3-1-1 Does the medical school have admission policies that clearly describe student selection methods?

[Basic standard] The medical school has an admission policy that clearly states various student selection methods consistent with its education mission and social responsibility. The medical school also publicly advertises its admission policy.

3-1-2 Is the medical school making efforts to develop and improve its student selection system?

[Basic standard] The medical school is exerting efforts to develop and improve student selection criteria and procedures. If the medical school accepts transfer students, the medical school must operate a student selection committee in a professional and continuous manner.

[annotation] The appropriateness of admission policies and student selection systems should be based on evaluation of the student selection criteria and procedure as well as the academic achievements of enrolled students. Describe activities of admission policy related organizations or committees to explain improvement results and plans. If the medical school accepts transfer students, the student selection committee must be comprised of inside and outside experts of the medical school.

3-1-3 Are the student selection methods, procedures and criteria of the medical school appropriate?

[Basic standard] The student selections of the medical school are performed reasonably and fairly.

3-1-4 Does the medical school have a strategy for selecting students with the personal and emotional characteristics necessary for them to become effective physicians?

[Basic standard] The medical school has a process of selecting students with the personal and emotional characteristics necessary to become effective physicians.

[Quality development standard] The medical school is conducting systematic and in-depth interviews to select students with the personal and emotional characteristics necessary to become effective physicians.

3-2 Student counseling and Support System

3-2-1 Does the medical school have an appropriate student counseling and support system and is it being operated properly?

[Basic standard] The medical school must organize and operate a student counseling and support committee. Student counseling and support must be performed professionally and in an integrated manner by dividing its areas into learning, living and career guidance.

[Quality development standard] Student counseling and support systems have been established for all students, each grade, each group and each individual, respectively to facilitate the students' school lives. (e.g.: Is the role of the student counseling and support committee chair clearly defined and is it publicly announced to and understood by students?)and are operated professionally.

3-2-2 Are the contents of academic counseling and support based on monitoring of student progress appropriate?

[Basic standard] The medical school has a system where students can receive counseling autonomously. It checks students' academic achievement level regularly and provides programs for underachieving students.

[Quality development standard] The medical school has actual performances of learning guidence on underachieving students counseling. If there was a sudden change in retention rate in a certain grade, the medical school has tried to analyze any problems that could be the causes. In addition, there is a way to salvage the retained students.

3-2-3 Is the medical school appropriately conducting student's academic evaluation, retention or graduation review and disciplinary actions according to school rules?

[Basic standard] The medical school has criteria for students' academic evaluation, retention or graduation review and disciplinary actions according to school rules. It is enforcing such rules appropriately.

[Quality development standard] Students preview his/her academic records including clerkship grades before grades are finalized and are guaranteed an opportunity to appeal against grade, retention, graduation postponement and expel decisions. There are actual examples of such student appeals.

[annotation] To guarantee students an official appeals process, the medical school must have a related committee consisting of professors not involved in student evaluation and must publicize the existence of such a committee to students.

3-2-4 Is the program of student support addressing social, financial and personal needs appropriate?

[Basic standard] Professors meet students regularly for student support addressing social, financial and personal needs and the results of such meetings are kept as records.

3-2-5 Are the contents of the student career guidance and planning appropriate?

[Basic standard] The medical school has programs and actual cases of providing student career guidance and planning

[Quality development standard] There are reliable mentors and mentor development programs to responsibly perform guidance activities such as students' selection of intra- and extramural elective courses, post-graduate career guidance and advisory support.

3-2-6 Is the medical school encouraging students sound professional activities in and outside the school and providing appropriate guidance and support?

[Basic standard] The medical school is encouraging students sound professional activities in and outside the school and is providing appropriate guidance and support.

[Quality development standard] The student delegates have been involved in education and student-related committees.

3-3 Student Welfare and Safety

3-3-1 Does the medical school have a scholarship program that is operated fairly and is the scholarship to tuition ratio appropriate?

[Basic standard] The medical school has a scholarship program that is operated fairly.

[Quality development standard] The annual average scholarship to full tuition ratio is excellent.

3-3-2 Is the medical school providing students with appropriate financial support ?

[Basic standard] Students can receive tuition loans with the help of the medical school when necessary.

[Quality development standard] In addition to tuition loans, the medical school has a system for providing financial counseling to students and this system has actual performances.

3-3-3 Does the medical school determine the residential status of students and is the dormitory operated appropriately?

[Basic standard] The medical school is aware of the current residential status of students and the dormitories are operated appropriately.

[Quality development standard] The medical school has an exclusive dormitory that can accommodate all applicants. If the training hospital is in a remote location, its dormitory facilities are provided for clerkship students.

3-3-4 Are there staffs or systems for student health services?

[Basic standard] The provisions and facilities for the student health services exist in the medical school. Staffs in charge of the student health services are present at the health care center or infirmary and there is a system that allows students to access the hospitals easily when necessary.

[Quality development standard] For health management purposes, students receive health check-ups at admission to premedical course, entry to medical school and start of clinical clerkship. There is a connection system with outside medical facilities where students are allowed to access those facilities if they want to. Before start of clerkship, students are checked on whether their vaccinations were carried out according to Korean adult immunization guidelines.

3-3-5 Is the counseling system for students appropriate?

[Basic standard] There is a counseling system for students. Psychological tests are conducted and their results are being used for student guidance and counseling.

[Quality development standard] There is a student counseling room and one or more full-time counselors are working. Also, when necessary, students can receive psychiatric or psychological treatment from outside medical experts.

[annotation] The condition that a full time counselor is working means that the professional staff dedicates to the consultation. Guidance provided by a staff member of the student affairs or the vice-dean for student affairs is not considered to be professional consultation. When a counseling center is located not in the medical school but in the university, the medical school would be considered to have a counseling system only if the counseling center is geographically easily accessible to and has a separate professional counseling system exclusively for the medical students with actual counseling cases of them.

3-3-6 Are students taught about prevention and measures against infectious and environmental hazards before the clinical clerkship?

[Basic standard] Students are educated about prevention and measures against infectious and environmental hazards before the clinical training.

[Quality development standard] The medical school provides students with management and treatment measures as well as necessary financial means for when a student is exposed to infectious or environmental hazards.

3-3-7 Does the medical school have plans for preventing and protecting students from harm by unjust behaviors?

[Basic standard] The medical school conducts preventive education and advertizing activities to protect students from unjust behaviors by students, faculty and other constituents of the medical school. There are plans for providing protection and relief to victimized students.

3-4 Post-graduate Career

3-4-1 Is the medical school's support for students advancing into non-clinical medicine appropriate?

[Basic standard] The medical school has a policies, such as scholarships and special funds etc., to secure experts in the fields of non-clinical medicine or the actual track record of its graduates advancing into non-clinical medicine is appropriate.

[Quality development standard] The actual track record of its graduates advancing into non-clinical medicine is excellent.

3-4-2 Does the medical school analyze the results of the national medical exam and exert efforts to improve any issues?

[Basic standard] The medical school is analyzing the results of the national medical exam and is exerting efforts to improve issues.

4. Faculty

4-1 Full-time Faculty

4-1-1 Does the medical school have an appropriate number of basic medicine full-time faculties?

[Basic standard] The medical school has appropriate number of faculties in each field (13 fields) of basic medicine as recommended by WFME.

[annotation] Field does not refer to subject or department but to education contents.

[annotation] Part-time professors are not included in the count but endowed professors who receive regular pay from the medical school are included. Part-time professor refers to those who have positions at other medical schools or universities but also serve as a faculty member at the medical school. Endowed professors will be included if they are confirmed to conduct the same teaching, research and patient care activities as full time professors even though not included in the Ministry of Education faculty count.

[annotation] WFME' s classification of basic medicine includes anatomy, physiology, biochemistry, immunology, pathology, pharmacology, microbiology, genetics, molecular biology, biophysics, cell biology, preventive medicine and parasitology.

[Quality development standard] Each field of basic medicine has a full-time faculty with excellent teaching experiences.

[annotation] The teaching experience of basic medicine full-time faculty refers to experience working in higher education institutions after graduating medical school. It is the experience in education related fields including teacher assistant experience.

4-1-2 Is there an appropriate number of full-time faculties in the department of medical education?

[Basic standard] The department (division, center etc.) of medical education is established and there is at least 1 full-time faculty.

[annotation] The full-time faculty is someone who has majored in the medical education and is a research lecturer status or higher. In the case of medical school professors, he/she must be administratively assigned to the department of medical education without any assignment to other department. He/she must dedicate 80% or more of his/her working hours to medical education work.

[Quality development standard] There are sufficient number of full-time faculties or assigned fculties in the department of medical education.

[annotation] Assigned faculties are those appointed to the department of medical education while also serving other positions and are subjected to separate achievement evaluations and promotion rules. The assigned faculty's work related with medical education must be proven.

4-1-3 Does the medical school have an appropriate number of full-time faculties in the area of medical humanities?

[Basic standard] The medical school must have appropriate number of full-time or assigned faculties in the area of medical humanities.

[annotation] Medical humanities refers to majors such as language and literature, history, philosophy, ethics, social sciences, law, business management, anthropology, psychology or art.

[annotation] Full-time faculties are those who majored in the relevant field and at least a research lecturer. If he/she is a medical school faculty, he/she must be administratively appointed to the medical humanities department and not serve with any other position in other departments.

[annotation] Assigned faculties are medical school faculties who are assigned to the medical humanities curriculum.

[Quality development standard] The medical school has established the department (division, center etc.) of medical humanities and there are sufficient number of full-time faculties in it.

4-1-4 Are there appropriate human resources to assist teaching and research of basic medicine, medical education and medical humanities?

[Basic standard] There are appropriate number of teaching assistants or researcher assistants who receive direct financial support from the medical school and assist the instructions and researches in basic medicine, medical education or medical humanities.

[Quality development standard] There are sufficient number of teaching assistants or researcher assistants who receive direct financial support from the medical school and assist the instructions and researches in basic medicine, medical education or medical humanities.

4-1-5 Does the medical school have an appropriate number of full-time faculties in each department of clinical medicine?

[Basic standard] Medical school has an appropriate number of full-time faculties in each department of clinical medicine.

[Quality development standard] The number of full-time faculties in each department of clinical medicine with appropriate experience in education, research and medical practice is excellent.

4-1-6 Is the composition of full-time faculties for basic medicine, medical education, medical humanities and clinical medicine proportionally appropriate?

[Basic standard] The ratio of faculty members who graduated from the same medical school is appropriate.

[Quality development standard] The departments of basic and clinical medicine appoint head professors through an open application process.

4-2 Faculty Activities

4-2-1 Is the faculty producing appropriate research achievements?

[Basic standard] The research achievements of full-time faculties are appropriate.

[Quality development standard] The research achievements of full-time faculties are excellent.

4-2-2 Are the research funds received from outside the medical school appropriate?

[Basic standard] The amount of research funds received from outside the medical school during the past 2 years is appropriate.

[Quality development standard] The amount of research funds received from outside the medical school during the past 2 years is excellent.

4-2-3 Is the intramural research budget of the medical school appropriate?

[Basic standard] The intramural research budget of the medical school during the past 2 years is appropriate.

[Quality development standard] he intramural research budget of the medical school during the past 2 years is excellent.

4-2-4 Are the research and academic activities of research centers in the medical school appropriate?

[Basic standard] The medical school operates a research center with its own research fund and the research fund of the research center has been used to support academic or research activities during the past 2 years.

4-2-5 Does the medical school guarantee the faculty's social services activities and participation in academic societies?

[Basic standard] The faculty's social services activities such as participation in academic societies are guaranteed.

4-3 Faculty Development

4-3-1 Does the medical school conduct faculty achievement evaluations and are the results used appropriately?

[Basic standard] The faculty achievement evaluation system is established and it is reflected in the faculty's promotions.

[Quality development standard] The faculty performance evaluation is carried out differently by faculty rank (research fellow, assistant professor, associate professor, professor) and by function (basic medicine, clinical medicine, medical humanities, medical education etc.). The provosions relating to promotion is differentiated and there is a separate achievement evaluation system.

4-3-2 Do the faculty achievement evaluation standards include contents related with medical education and faculty development and is the participation of faculties in extramural medical education training or intramural faculty development programs appropriate?

[Basic standard] Rules on faculty achievement evaluation stipulate the number of hours that full-time faculty must participate mandatorily each year in medical education related training or faculty development programs. Also, there has been an appropriate participation of faculties in medical education related training during the past 2 years.

[Quality development standard] Participation in medical education training is mand atory according to faculty achievement evaluation rules and there are faculty achievement evaluation rules that enable promotion based on educational achievement. Also, there are incentive programs for education activities other than classical lecture for students (variety of education programs such as PBL, TBL etc.). The participation of faculty in medical education related training during the past 2 years is excellent.

4-3-3 Is a medical education training course being appropriately implemented for newly appointed faculties to the medical school?

[Basic standard] A medical education training course is mandatory to all newly appointed faculty members to the medical school and it is carried out over an appropriate time within 1 year of appointment.

4-3-4 Do the faculty achievement evaluation standards include social service?

[Basic standard] The faculty achievement evaluation criteria include evaluation standards on activities in academic society or public purpose social service.

4-3-5 Does the medical school have an appropriate financial support system to help faculties participate in short and long-term overseas training and attend domestic or overseas academic symposia?

[Basic standard] The financial support for faculty's short and long-term overseas training and attendance of domestic or overseas academic symposia is appropriate.

[Quality development standard] The financial support for faculty's short and long-term overseas training and attendance of domestic or overseas academic symposia is excellent.

4-3-6 Is the education on research ethics being provided?

[Basic standard] The medical school has its own regulation on research ethics. Training on research ethics is conducted regularly.

4-3-7 Is sexual harrassment prevention training conducted?

[Basic standard] The medical school has its own operation regulation on sexual harrassment prevention. Prevention training is conducted regularly.

5. Education and Research Resources

5-1 Educational resources

5-1-1 Does the medical school sufficiently have fundamental facilities for student education?

[Basic standard] The medical school sufficiently has appropriately equipped and conditioned fundamental facilities for student education.

[annotation] The medical school's fundamental facilities refer to lecture rooms and labs for students.

[annotation] The facility's equipment and conditions refer to multimedia equipment, lighting, heating, air conditioning, sound insulation, ventilation and cleanliness etc.

5-1-2 Does the medical school have sufficient supporting facilities for student education?

[Basic standard] The medical school has sufficient supporting facilities for student education.

[annotation] Supporting facilities for student education include problem-based learning room, team-based learning room, small group discussion room, self-study room, computer room, clinical skill lab, education and evaluation facility using standardized patients and multimedia facilities capable of computer-based testing etc. Students must use support facilities for student education in accordance to the curriculum.

[annotation] A clinical skill lab of an appropriate size must have fundamental equipment for clinical skills education and the size of the lab must be appropriate compared to the number of students. It must not belong to a certain specialty department and be installed in an independent space so that students can use it conveniently. The education and evaluation facility using standardized patients must be a facility that is continuously used for lectures, clinical skills education and evaluation in accordance to the medical school's curriculum.

5-1-3 Does the medical school equip appropriately with facilities for student well-being and convenience?

[Basic standard] The medical school equips appropriately with student council room, club rooms, male and female rest rooms, gym, cafeteria, shop, vending machines and personal lockers etc.

5-1-4 Does the medical school efficiently manage the facilities and equipment for student education and welfare?

[Basic standard] The medical school has a staff for managing the facilities and equipment for student education and welfare and an appropriate budget is allocated.

5-1-5 Does the medical school have a university teaching hospital for the clinical clerkship and does the hospital have facilities for the student education?

[Basic standard] To provide the clerkship, the medical school must have a teaching hospital of at least 500 beds. The hospital must have various facilities for student education and adequate exclusive spaces for students in the hospital.

[annotation] If the clerkships are conducted in affiliated hospitals, the affiliated hospital must have the same facilities and equipments for student education as a teaching hospital.

[Quality development standard] An space for night-duty room is provided for student internship programs.

5-1-6 Does the medical school have a convenient academic information system to support education and research?

[Basic standard] The medical school has established an independent academic information system to support education and research and the annual spent budget is appropriate. Experts to support education and research (a medical librarian) must be available.

[Quality development standard] The annual spent budget and number of experts (medical librarian) are enough.

5-1-7 Does the medical school have a convenient education information system?

[Basic standard] The medical school has an education information system related with student affairs and curriculum operation and it can be conveniently used by constituents.

[annotation] E-Learning is not just providing teaching-learning material but must be interactive. Educational contents are provided through the system and actual teaching-learning takes place. Learning management is also possible. The medical school must be able to prove the actual utilization of e-learning with actual course offerings through e-learning (cyber lectures etc.).

[Quality development standard] There is an e-Learning system that is being actually used.

5-2 Research Resources

5-2-1 Does the medical school have enough individual offices for faculties and an administrative support system?

[Basic standard] The medical school have enough individual offices and administrative support system for faculties

[Quality development standard] All of the faculties have their individual offices.

5-2-2 Does the medical school have sufficient research resources for faculties?

[Basic standard] The medical school has sufficient space, facilities and equipments for the faculties' research.

6. Postgraduate Education

6-1 Graduate School Education

6-1-1 Is the graduate school education being conducted faithfully under systematic planning?

[Basic Standard] Each major must have a lesson plan that includes learning objectives. The instruction is conducted faithfully according to the lesson plan.

6-1-2 Is the graduate school affairs system appropriate?

[Basic Standard] There exist the structure and personnel exclusively for the graduate school affairs and the amount budget for its operation as well as the budget's execution are reasonable. 6-1-3 Are the student selection and support systems appropriate?

[Basic Standard] The experience and background of students are diverse enough to suit a specialized graduate school system and the internal/external scholarships or special support payments are reasonable.

[Quality development standard] The internal/external scholarships or special support payments are excellent and there exits a research space exclusively for the graduate school students.

<**Appendix 2**>

Rules of Procedure in Medical Education Accreditation

Enacted	Sep.	16, 1999
Revised	Sep.	26, 2006
	Feb.	2, 2010
	Jan.	24, 2011
	Apr.	16, 2012
	Jan.	23, 2014

Section 1 General Principles

Article 1 (name) The English name of this organization is Accreditation Board for Medical Education in Korea or ABMEK.

Article 2 (purpose) The purpose of these Rules of Procedure is to define matters necessary in organizing and operating ABMEK, which is established to conduct matters regarding the accreditation of medical colleges and medical graduate schools (hereinafter colleges) in accordance with Article 3-1-6 of the Articles of Incorporation of the Korean Institute of Medical Education Evaluation (hereinafter KIMEE).

Article 3 (goals and activity) ① The goal of ABMEK is to accredit medical education programs and education environments to improve medical education quality and to pursue excellence.

② To achieve such goals, ABMEK conducts the following activities.

A. Develop evaluation standards and criteria to accredit medical education programs and education environments

B. Evaluate medical education programs and education environments based on evaluation standards and criteria

C. Evaluate medical education programs and education environments for accreditation maintenance

D. Evaluate medical education programs and education environments of newly founded colleges

Section 2 Organization and Meetings

Article 4 (organization) ① ABMEK shall have standing bodies (steering committee, expert committees, decision making committee) and a non-standing Site Visit Team. It can maintain special committees to achieve accreditation objectives.

② ABMEK's organization chart is as shown in "ABMEK Organization (Appendix A)."

Article 5 (executives) ① ABMEK shall have officers charged with the duties as described in each of the following items.

A. ABMEK Director : oversees entire ABMEK business and chairs the Steering and Decision Making Committees.

B. ABMEK Vice-director : assists the Director and assumes the role of Acting Director when Director becomes vacant.

C. Chairs of Expert Committees: oversees the business of each Expert Committee

② ABMEK Director is to be appointed by .

③ ABMEK Vice-director and Expert Committee Chairs are to be appointed by the President of KIMEE based on ABMEK Director's recommendation.

④ The executives' term is 3 years with the possibility of serving multiple terms.

Article 6 (Steering Committee) The Steering Committee consists of ABMEK, Vice-director and Chairs of Expert Committees. The Steering Committee assists the Director regarding ABMEK's operation.

Article 7 (Expert Committees) ① Each Expert Committee's work is as follows.

A. Committee on Policy : planning, research, policy & rule development on overall accreditation work

B. Committee on Standards : develop, revise and complement evaluation standards for accreditation

C. Committee on Quality Control : manage accreditation quality and evaluate regarding accreditation maintenance

② Expert Committees are to have around 10 members who are appointed by ABMEK Director based on the Steering Committee's recommendations.

③ The committee members' term shall be 3 years with the possibility of serving multiple terms.

Article 8 (Decision Making Committee) ① The Decision Making Committee shall have around 12 members including ex officio members and community representatives.

② Ex officio members include ABMEK Director, Vice-Director, Chairs of the 3 Expert Committees and people recommended by the Korean Council for University Education, government, medical science and medical profession organizations and other accreditation bodies. The term of ex officio members is limited to his/her term in the position providing ex officio status.

③ Community representatives include 1 student representative, 1 parent representative and 1 civic group representative. Such members are appointed by

ABMEK Director based on the Steering Committee's recommendation. The community representative's term is 3 years with the possibility of severing multiple terms. However, the term of the student representative is 1 year.

Article 9 (meetings) ① ABMEK Director can call a General Meeting to be attended by members of the Steering Committee and all Expert Committees.

② The Chair of each committee can call the given committee's meeting when necessary.

③ A meeting has quorum when half or more of registered members are present and can resolve with a simple majority of those present. When the number of consenting votes is equal to that of dissenting votes, the Chair shall decide the outcome.

Section 3 Accreditation

Article 10 (subject) ① ABMEK evaluates the college's basic medical education curriculum and education environment.

② ABMEK can include graduate education, postgraduate medical education, continuing medical education/continuing professional development etc. in its scope of evaluation.

Article 11 (accreditation type) ① Accreditation types consist of accreditation, accreditation on probation and non-accreditation.

A. Accreditation is given when a college satisfies accreditation standards.

B. Accreditation on Probation is a temporary accreditation and is given when a college failed to satisfy accreditation standards but is capable of improving within a year.

C. Non-accreditation is given when a college fails to satisfy accreditation standards. If intentionally falsified facts are discovered after accreditation was issued, the

college at issue could be considered as a non-accreditation.

Article 12 (accreditation period and timing) ① Accreditation is valid for 4 or 6 years depending on the Decision Making Committee's decision.

② A college must receive accreditation during the year its existing accreditation expires.

③ A college that has received an accreditation on probation must be reevaluated during the following year. If the college satisfies accreditation standards in the reevaluation, it is given an accreditation valid for 3 years. If the college fails to satisfy, it is given a non-accreditation.

④ The college can apply for accreditation 1 year after receiving a non-accreditation.

Article 13 (applying for accreditation) ① A college must apply for accreditation 1 year before the current accreditation expires.

② If material reasons prevent the college from receiving evaluation, the college can apply for a postponement and the Steering Committee can decide to allow a 1 year postponement of evaluation.

③ A college can apply for accreditation even before the current accreditation expires.

Article 14 (evaluation procedure and method) ① Colleges subject to accreditation must regularly enter data in the Korean Medical School Information System (KOMSIS) and create a self-evaluation report according to the ABMEK's Guidelines on Self-evaluation and submit this report to ABMEK.

② The student representative of the college subject to accreditation must prepare a Student Report according to ABMEK's "Guidelines on Preparing Student Report" (Appendix K) and submit this report to ABMEK.

③ The Site Visit Team shall conduct a documentary evaluation of the college's KOMSIS, self-evaluation report, student report and related material and then conduct an site visit to verify the documented information. The Site Visit Team must complete and submit to ABMEK an evaluation report within 7 days of completing the site visit.

④ The length of the site visit can be adjusted according to ABMEK's decision.

⑤ ABMEK must provide information about the Site Visit Team members and site visit procedures to the relevant college before the site visit. The college can request for adjustment. In this case, ABMEK has the final decision power regarding adjustments.

Article 15 (Site Visit Team's Composition and Activity) ① The Site Visit Team must comprise of at least 6 experts who have knowledge and experience in medical education.

② The Site Visit Team members are to be appointed by President based on recommendation of ABMEK Director. The ABMEK Director must recommend Site Visit Team members while considering the characteristics of the college to be surveyed and in line with "Guidelines on Medical Education Accreditation Ethics." (Appendix B).

③ ABMEK must conduct training to enhance the expertise and reliability of Site Visit Team members.

Article 16 (Site Visit Observation) ① The Ministry of Education, Science and Technology, representatives of other academic fields, Korean and foreign medical education officials etc. can observe a Site Visit with the consent of ABMEK and the college to be surveyed.

② Observation of site visit as mentioned in above provision 1 shall follow "Guidelines on Site Visit Observation." (Appendix C)

Article 17 (expense) ① In principle, all expense incurred for accreditation and maintenance of accreditation shall be burdened by the receiving college.

② The expenses to be burdened by the college can be divided into accreditation expense and accreditation maintenance expense.

A. Accreditation expense is the overall expense incurred during the accreditation process.

B. Accreditation maintenance expense is the overall expense incurred to evaluated the progress report submitted every 2 years.

③ ABMEK must annually determine expenses to be burdened by the colleges and notify the decision to the concerned college.

Section 4 Accreditation Actions

Article 18 (Evaluation Report) ① ABMEK must send the relevant evaluation report to the concerned college so that the college can verify facts in the report.

② The Site Visit Team must write a final evaluation report reflecting the opinions provided in above provision 1 and submit it to ABMEK.

Article 19 (Decision Making Committee's decision) The Decision Making Committee determines the type of accreditation and follow-up measures etc. regarding a college's medical education program and education environment.

Article 20 (notice of decision) ① ABMEK must notify the final results of the Decision Making Committee's decision to the college's president and dean within 7 days of the final decision.

② ABMEK must publicly announce the Decision Making Committee's decision and the final evaluation report 30 days after the Decision Making Committee's decision. If the concerned college has filed an appeal, the decision and final evaluation report must be made public after relevant procedures have been completed.

③ All documents related with the documentary evaluation and site visit results must not be disclosed.

④ The college must publicly announce its accreditation results to students, faculty and staff.

⑤ ABMEK must notify the government entity in charge and other related entities of the decision results 30 days after the Decision Making Committee's decision. It can include suggestions on how to utilize the evaluation results.

Article 21 (reconsideration application) ① The college can apply for a reconsideration of the accreditation decision.

② The college's reconsideration procedure and KIMEE's work procedures shall follow "Guidelines on Accreditation Result Reconsideration." (Appendix D)

Article 22 (improvement plan) The college must submit an improvement plan on how to correct any non-compliance items mentioned in the evaluation report within 3 months from the date it received notification of the accreditation decision.

Article 23 (accreditation maintenance and management) ① To maintain its accreditation, a college must submit a Progress Report every 2 years including improvement results (Appendix L).

② If a college expects major changes in its medical education program or education environment, it must submit in advance a Major Change Plan according to "Guidelines on Writing Major Change Plan." (Appendix E). Major change refers to change in education goals, overhaul of curriculum, change of major teaching hospital, campus relocation or split, change of ownership or negative change in education environments etc.

③ The Committee on Quality Control must conduct a documentary evaluation of the Progress Report and Major Change Plan. ABMEK can conduct a site visit.

④ ABMEK can conduct a site visit of a college that fails to submit a Progress Report or Major Change Plan and can modify the accreditation type or period of the college.

Article 24 (data collection) ABMEK can conduct annual questionnaire surveys or various data surveys to establish accreditation policy or develop evaluation standards etc.

Section 5 Accreditation of Newly Founded Colleges

Article 25 (subject) ① ABMEK must evaluate the medical education program and education environment of newly founded colleges that receive government's establishment approval.

Article 26 (accreditation type) ① The accreditation types available for newly founded colleges are preliminary accreditation, non-preliminary accreditation, provisional accreditation and non-provisional accreditation.

A. Preliminary accreditation is given when a newly founded college satisfies the preliminary accreditation standards.

B. Non-preliminary accreditation is given when a newly founded college fails to satisfy the preliminary accreditation standards. Colleges with a non-preliminary accreditation cannot recruit students.

C. Provisional accreditation is given when a newly founded college that has started student education under a preliminary accreditation satisfies the accreditation standards.

D. Non-provisional accreditation is given when a newly founded college fails to satisfy the accreditation standards. A college given a non-provisional accreditation cannot recruit students and cannot advance existing students to next levels of study.

Article 27 (application) ① A newly founded college that has received government's establishment approval must apply for an evaluation for preliminary accreditation before recruiting students.

② A newly founded college with preliminary accreditation must apply for an evaluation for provisional accreditation each year from time of student recruitment until the first graduation of students.

Article 28 (period and procedure) ① Preliminary accreditation is valid for 2 years. A college that receives a non-preliminary accreditation cannot receive a reevaluation within a year.

② A provisional accreditation is valid for 1 year. A college that receives a non-provisional accreditation cannot receive a reevaluation within 1 year.

③ The college shall burden all expenses for preliminary or provisional accreditation.

④ These rules of procedure shall be applied as rules and procedures for preliminary and provisional accreditation.

Section 6 Supplementary Rules

Article 29 (Third party comment) ① Regarding college accreditation, ABMEK provides the opportunity for third party comment. However, ABMEK does not consider personal complaints or matters related with admission, appointment, promotions, employee dismissal and student discipline etc.

② Procedure for dealing with third party comments on college accreditation as mentioned in above provision 1 shall follow "Guidelines on Third Party Comments." (Appendix F)

③ Third party comments presented regarding a college's accreditation must be limited to those related with accreditation standards. Anonymous comments are not accepted. Third party comments must be submitted to KIMEE at least 1 month prior to the concerned college's Site Visit to enable verifications of such comments.

Article 30 (college's change of ownership or closure) ABMEK's work process regarding college's ownership change or closure shall follow "Guidelines on College Ownership Change or Closure." (Appendix G)

Article 31 (accreditation of medical college outside Korea) When it judges that a medical program approved in another country influences medical education and medical services in Korea, ABMEK can conduct accreditation of such programs.

Article 32 (guideline on conflict of interest) ① Treatment of conflicts of interest must follow ABMEK's "Guidelines on Medical Education Accreditation Ethics." (Appendix C)

② All persons related with accreditation must strictly adhere to ethical standards in accordance with social norms and must follow ABMEK's guidelines on conflict of interest.

Article 33 (guideline on confidentiality) All ABMEK committee members and secretariat staff must not disclose any information related with accreditation activities and must sign the "Letter of Pledge" (Attached Form 1, Appendix B).

Article 34 (management of accreditation records) Various material and records produced in the medical education accreditation process must not be used for purposes other than accreditation. They must be stored and managed according to "Guidelines on Management of Accreditation Records ." (Appendix H)

Article 35 (accreditation standard review and change procedure) ① ABMEK must review accreditation standards every 6 years. However, it can implement partial change to the accreditation standards being applied even before the regular review cycle if there is an opinion for revision, deletion, addition etc of standards and the scope of change does not harm the accreditation standard's basic spirit and intention.

② ABMEK's procedure for accreditation standard review and change must follow "Guidelines on Changing Accreditation Standards" (Appendix I)

Article 36 (review and change of Rules of Procedure in Medical Education Accreditation) ① ABMEK must review the Rules of Procedure every 6 years. However, it can implement partial change to the Rules of Procedure even before the regular review cycle if there is an opinion for revision, deletion, addition etc. of the Rules of Procedure and the scope of change does not harm the rules of procedure's basic spirit and intention.

② ABMEK's procedure for Rules of Procedure review and change must follow "Guidelines on Changing Rules of Procedure". (Appendix J)

Article 37 (summary of Rules of Procedure in Medical Education Accreditation) A summary of the Rules of Procedure in Medical Education Accreditation is as shown in "Summary of Rules of Procedure in Medical Education Accreditation." (Appendix K)

Supplementary Rules (Sep. 16, 1999)

Article 1 (enforcement date) These Rules of Procedure shall take effect as of the date they are resolved by the Korean Medical Education Accreditation Committee.

Supplementary Rule (Sep. 26, 2006)

Article 1 (enforcement date) These Rules of Procedure shall take effect as of the date they are resolved by KIMEE's Executive Committee.

Supplementary Rule (Feb. 2, 2010)

Article 1 (enforcement date) These Rules of Procedure shall take effect as of the date they are resolved by KIMEE's Executive Committee.

Supplementary Rules (Jan. 24, 2011)

Article 1 (enforcement date) These Rules of Procedure shall take effect as of the date they are resolved by KIMEE's Executive Committee.

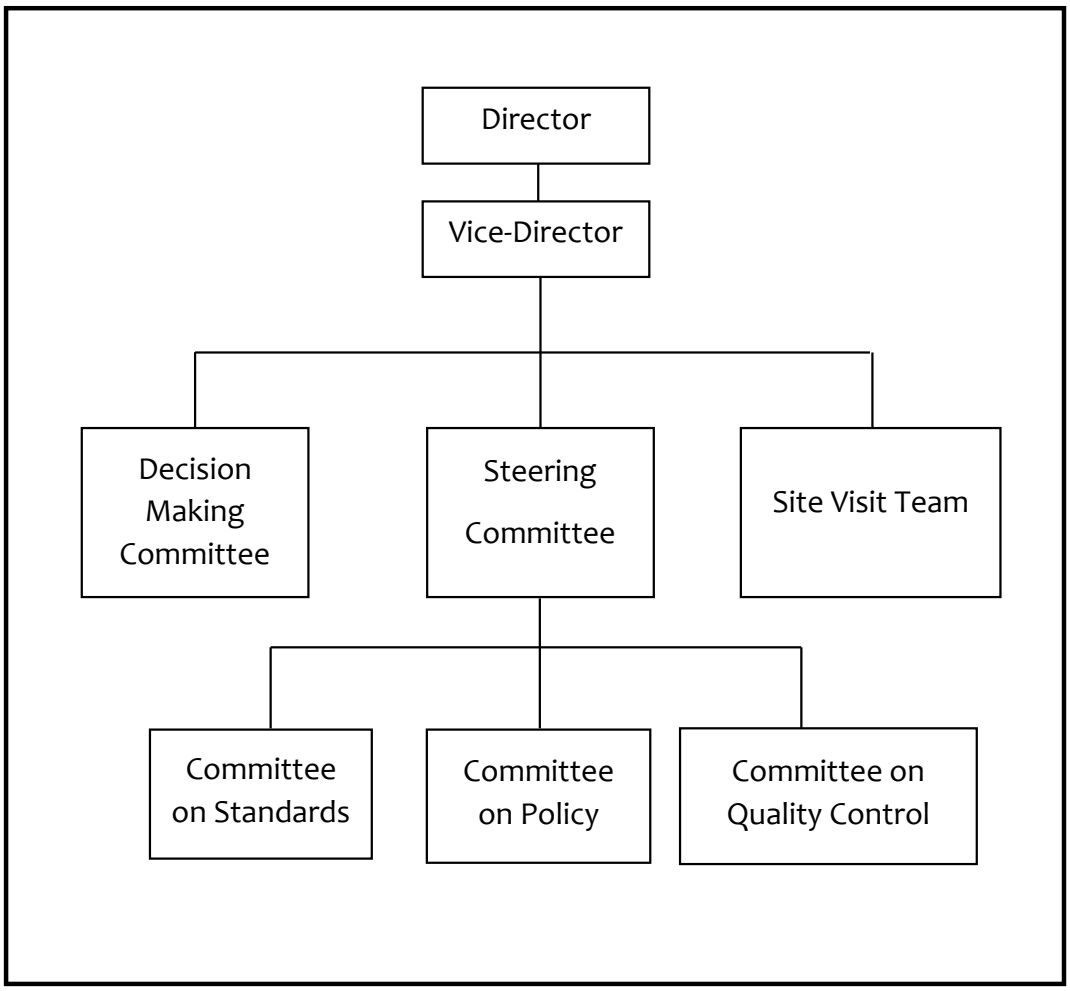
Supplementary Rules (Apr. 16, 2012)

Article 1 (enforcement date) These Rules of Procedure shall take effect as of the date they are resolved by KIMEE's Executive Committee.

Supplementary Rules (Jan. 23, 2014)

Article 1 (enforcement date) These Rules of Procedure shall take effect as of the date they are resolved by KIMEE's Executive Committee.

Appendix A : ABMEK Organization



Appendix B: Guidelines on Medical Education Accreditation Ethics

Article 1 (purpose) The purpose of this rule is to define matters regarding the code of ethics for those participating in the medical education accreditation process.

Article 2 (basic approach) Site Visit Team members must exert efforts to conduct their work sincerely and objectively according to their conscience to enhance the feasibility and reliability of the evaluation.

Article 3 (independence of evaluation) Site Visit Team members must not be subjected to unfair outside influence and must conduct their evaluation work independently.

Article 4 (confidentiality) Site Visit Team members must not disclose information acquired related with accreditation activities without justified reasons. In particular, they must not use it for their own or a third party's economic gain.

Article 5 (privacy protection) Site Visit Team members must take care not to infringe upon other's rights in the accreditation process and must exert efforts to protect privacy information etc. acquired while performing their job.

Article 6 (ban on unjust behavior) Site Visit Team members must not express unfair requests for favors or solicitation to those being surveyed during the accreditation process. Also, they must not engage in behavior that would be misunderstood by others.

Article 7 (ban on conflict of interest) ① Site Visit Team members must not participate in the accreditation process of colleges with which he/she has the following relationships.

1. the site visit team member or his/her immediate family is or has recently been a student, professor, administrative staff, employee or agent of the college
2. the site visit team member or his/her immediate family has a possibility of concluding

a tentative agreement or contract with the college to be evaluated

3. the site visit team member or his/her immediate family served in a position representing the college to be evaluated during the past 3 years

4. the site visit team member or his/her immediate family has a relationship of interest with the college to be evaluated

② The Site Visit Team member must not provide advice related with accreditation to the college being evaluated other than advice requested by KIMEE.

Article 8 (ban on bribery) The Site Visit Team member must not receive any monetary compensation related with accreditation activity other than the allowance paid by KIMEE according to rules.

Article 9 (letter of pledge) Site Visit Team members must sufficiently study "Guidelines on Medical Education Accreditation Ethics" before signing the Letter of Pledge (attached form no. 1) and submit the signed letter to the Secretariat.

Supplementary Rules

Article 1 (enforcement date) These guidelines shall take effect as of January 24, 2011.

[Attached Form 1]

Letter of Pledge

As a member of the Medical Education Accreditation Site Visit Team, I have read and sufficiently understood "Guidelines on Medical Education Accreditation Ethics." I pledge to adhere to these guidelines while acting as a Site Visit Team member.

In addition, I will never disclose in any form any information acquired related with medical education accreditation without approval in accordance with legal procedures and regulations. I also pledge to take full responsibility for any and all damage incurred due to my failure to maintain confidentiality.

Date :

Name :

Signature :

Appendix C: Guidelines on Site Visit Observation

Article 1 (purpose) The purpose of these guidelines is to define the procedure for site visit observation in accordance to Article 16 (Site Visit Observation) of the Rules of Procedure in Medical Education Accreditation.

Article 2 (application to observe) Korean or overseas entities wishing to observe ABMEK's site visit must request so in writing to ABMEK's Secretariat at least 1 month before the site visit. The requesting body must explain in the application its reason for wishing to observe.

Article 3 (consent to observe) When there is an application to observe a site visit of a college to be accredited, ABMEK must review the appropriateness of observation background and purpose etc. and notify this to the relevant college to seek its consent.

Article 4 (conducting observation and limits of rights and obligations) ① The observer must observe a college's site visit within the scope of not interfering with the site visit team's work.

② The observer cannot request the site visit team's inspection results or conclusions and must pledge to maintain confidentiality of all information learned during the site visit period.

③ The observer must not attend meetings with the college president or dean.

④ The draft of the evaluation report must not be disclosed to the observer.

Supplementary Rules

Article 1 (enforcement date) These guidelines are to take effect as of January 14, 2011.

Letter of Pledge for Site Visit Observation

Letter of Pledge

As an observer of the medical education accreditation site visit, I have read and sufficiently understood the "Guidelines on Medical Education Accreditation Ethics" and "Guidelines on Site Visit Observation." I pledge to adhere to these guidelines while acting as an observer.

In addition, I pledge not to disclose any information acquired related with medical education accreditation without an approval according to legal procedures and rules. I also pledge to take full responsibility for any and all damage that could be caused due to my failure to maintain confidentiality.

Date :

Name :

Signature :

Appendix D: Guidelines on Accreditation Result Reconsideration

Article 1 (purpose) The purpose of these guidelines is to define the procedure for the reconsideration of a college's accreditation results (hereinafter "reconsideration") pursuant to Article 21-2 of the Rules of Procedure in Medical Education Accreditation (hereinafter "rules of procedure") and the handling procedure for such a request.

Article 2 (reconsideration application) ① A college can apply for reconsideration of accreditation results to KIMEE within 30 days of being notified of accreditation results by expressing in writing the reasons for seeking reconsideration.

② A college can withdrawal its reconsideration application within 7 days of submission.

Article 3 (Reconsideration Committee) ① Director of KIMEE must form a Reconsideration Committee of about 6 internal and external medical education experts or persons with accreditation experience.

② A person who conducted a documentary evaluation or Site Visit of the college applying for reconsideration (hereinafter "applying college") during the given year cannot serve as a Reconsideration Committee member.

③ The Reconsideration Committee must be operated temporarily until the reconsideration process of the applying college is completed.

Article 4 (activities of Reconsideration Committee member) ① KIMEE must provide material related with the applying college's accreditation and the reasons for applying for reconsideration to the Reconsideration Committee.

② The Reconsideration Committee can request additional material necessary for reconsideration to ABMEK and the applying college through KIMEE. Once requested, ABMEK and the applying college must actively respond.

③ The Reconsideration Committee does not consider any improvements or changes that occurred after the documentary evaluation and Site Visit of the applying college.

④ The Reconsideration Committee can conduct a Site Visit of the applying college.

Article 5 (submission of Reconsideration Result Report) ① The Reconsideration Committee must submit a Reconsideration Result Report to KIMEE President within 45 days of being formed.

Article 6 (final decision) KIMEE President must hold an executive committee immediately after receiving the Reconsideration Result Report and reach a final decision based on the Reconsideration Result Report.

Article 7 (notification of reconsideration result) KIMEE President must notify the results of the reconsideration decision to the applying college.

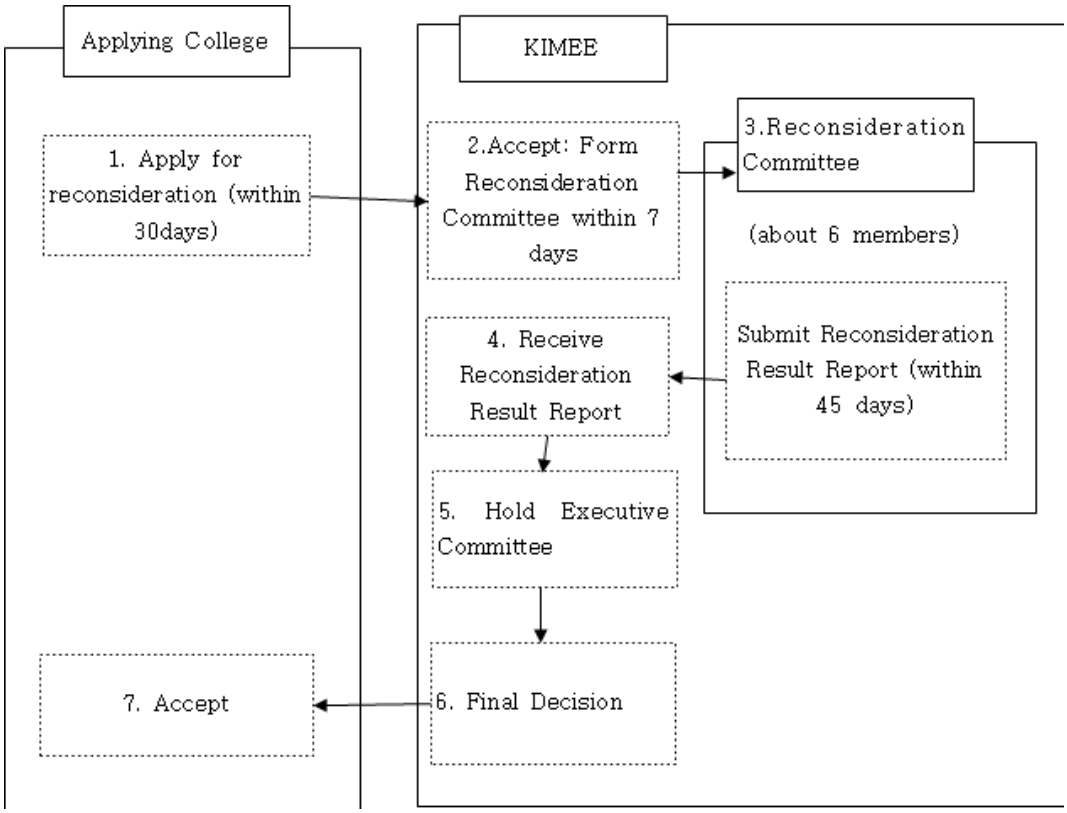
Article 8 (reconsideration expense) ① Expense incurred in the reconsideration process must be burdened by the applying college.

② The reconsideration expense shall be decided by KIMEE based on actually required expenses.

Supplementary Rules

Article 1 (enforcement date) These guidelines shall take effect as of January 24, 2011.

Figure. Reconsideration Process Flowchart



Appendix E: Guidelines on Writing Major Change Plan

Article 1 (purpose) The purpose of this guideline is to define the procedure for writing a Major Change Plan based on the Article 23 of the Rules of Procedure in Medical Education Accreditation. <Amended on January 23rd, 2014>

Article 2 (definition) A Major Change refers to change in education program or environment that influences medical education. It includes the following. <Amended on January 23rd, 2014>

① Change of major teaching hospital

② Relocation or splitting of campus

③ Change of ownership, etc.

Article 3 (composition) A Major Change Plan includes the Chapter 1. Overview, the Chapter 2. Details by Items of Evaluation Standards, and the Chapter 3. Summary. <Amended on January 23rd, 2014>

① "The Chapter 3. Overview" includes the followings.

a. Types of change

b. Background of change

c. Details of change

d. Overview of curriculum change and impact of change on education

e. Future plan based on change (including administrative and financial plans)

f. Others

② "The Chapter 2. Details by Items of Evaluation Standards" in the plan includes "Skills by Types of Major Change (Table 1)". For details by items, expected results depending on changes shall be specific compared to the case of accreditation.

Article 4 (procedure) ① A collage shall submit the Major Change Plan one month before

change starts when a major change defined in the Article 2 is expected. A college can conduct a written inquiry regarding submission of the Major Change Plan. <Amended on November 23rd>

② The KIMEE may request a college where a major change is expected to submit the Major Change Plan and the collage shall submit the plan within one month after the request.

③ If the collage does not submit the Major Change Plan by a due date or it is identified that a major change will have a negative impact on education after a documentary review of the plan, the KIMEE may carry out the following measures.

a. Requesting submission or supplementation of the Major Change Plan (within a month)

b. Conducting a Site Visit (within three months)

c. Changing an accreditation period d. Changing accreditation types

④ If a collage does not submit the Major Change Plan despite its major change, the KIMEE may change an accreditation period and accreditation types of the college.

Supplementary Rules

Article 1(enforcement date) These guidelines shall take effect as of January 24, 2011.

Supplementary Rules

Article 1(enforcement date) These guidelines shall take effect as of January 23, 2014.

(Table 1) Skills by Types of Major Change

Standards			Types of Major Change		
			Change of major teaching hospital	Relocation or splitting of campus	Change of ownership
1. Governance and Administration	1-1 Mission	1-1-1			
		1-1-2	o	o	o
		1-1-3			
	1-2 Administration and Governance	1-2-1		o	o
		1-2-2		o	o
		1-2-3			o
		1-2-4			o
		1-2-5			o
		1-2-6	o	o	
	1-3 Educational Budget	1-3-1			o
		1-3-2			o
		1-3-3			o
	1-4 Development Plan	1-4-1			o
		1-4-2			o
		1-4-3			

	1-5 Continuous renewal	1-5-1			
		1-5-2			
		1-5-3			
2. Educational Program	2-1 Educational Outcomes	2-1-1			o
		2-1-2			
		2-1-3			
	2-2 Curriculum Development and Support	2-2-1			
		2-2-2			
		2-2-3			
		2-2-4			
		2-2-5			o
	2-3 Curriculum Structure, Composition and Duration	2-3-1			
		2-3-2			
		2-3-3			
		2-3-4			
		2-3-5			
		2-3-6			
		2-3-7			
		2-3-8			
		2-3-9			
		2-3-10			

		2-3-11			
		2-3-12	o		
		2-3-13			
		2-3-14	o		
		2-3-15			
		2-3-16			
	2-4 Academic Achievement Evaluation	2-4-1			
		2-4-2			
		2-4-3			
	2-5 Curriculum Evaluation and Improvement	2-5-1			
		2-5-2			
		2-5-3			
3. Students	3-1 Admission Policy and Student Selection	3-1-1			o
		3-1-2			
		3-1-3			
		3-1-4			
	3-2 Student counseling and Support System	3-2-1			
		3-2-2			
		3-2-3			
		3-2-4			
		3-2-5			

		3-2-6			
	3-3 Student Welfare and Safety	3-3-1			o
		3-3-2			o
		3-3-3	o	o	o
		3-3-4			
		3-3-5			
		3-3-6			
		3-3-7			
	3-4 Post-graduate Career	3-4-1			
		3-4-2			
4. Faculty	4-1 Full-time Faculty	4-1-1		o	o
		4-1-2			o
		4-1-3			o
		4-1-4			o
		4-1-5	o		o
		4-1-6			
	4-2 Faculty Activities	4-2-1			
		4-2-2			
		4-2-3			
		4-2-4			
		4-2-5			

	4-3 Faculty Development	4-3-1			o
		4-3-2			o
		4-3-3			o
		4-3-4			o
		4-3-5			o
		4-3-6			
		4-3-7			
5-1 Educational resources	5-1 Educational resources	5-1-1	o	o	o
		5-1-2	o	o	o
		5-1-3		o	o
		5-1-4			o
		5-1-5	o		o
		5-1-6	o	o	o
		5-1-7		o	o
	5-2 Research Resources	5-2-1	o	o	o
		5-2-2	o	o	o
6. Postgraduate Education	6-1 Graduate School Education	6-1-1			
		6-1-2			
		6-1-3			
Sum			12	13	37

Appendix F: Guidelines on Third Party Comments

Article 1 (purpose) The purpose of these guidelines is to define the business procedure for when a third party comment about a college subject to evaluation is registered.

Article 2 (submission) ① Comments regarding the medical education program of a college subject to evaluation must be submitted in writing. Anonymous comments are not considered.

② Registered comments must be about areas related with accreditation standards. Personal complaints such as those regarding student admission, promotion, employee dismissal or student discipline will not be mediated.

③ The comment submitted in writing must include background of submitting comments and information that relates the comment to an accreditation standard. Quoting the accreditation standard related with the presented comment is most desirable.

④ ABMEK must exert efforts to maintain confidentiality of the submitted comment and collected & confirmed material. However, it can disclose the related information to the person of the highest authority at the concerned college, ABMEK committee members, staff or lawyer in charge etc. to conduct a thorough investigation of the presented comment.

Article 3 (examination) ① ABMEK must determine whether the presented comment is related with the accreditation standards.

② If ABMEK determines that the third party comment is related with accreditation standards, it must notify the college's chief representative of the comment, supporting evidence and questions to be answered by the college.

③ The chief representative of the college must respond within 30 days of being notified as described in above provision 2.

Article 4 (review) ① ABMEK must review the third party comment and the reply received from the concerned college.

② If there is a lack of evidence to support a third party comment that the medical education program of the concerned college fails to meet accreditation standards, ABMEK can stop its examination at its own discretion.

③ If ABMEK finds that the college subject to evaluation has aspects that fail to satisfy accreditation standards, it must reach a final decision including appropriate follow-up measures and notify this to the chief representative of the college.

Article 5 (answer) ABMEK must notify the third party who presented the comment whether the presented comment warrants examination.

Supplementary Rules

Article 1 (enforcement date) These guidelines shall take effect as of January 24, 2011.

Appendix G: Guidelines on College Ownership Change and Closure

Article 1 (purpose) The purpose of these guidelines is to protect the interest of students registered in a medical education basic course in the case of college ownership change or closure.

Article 2 (college closure) ① When a college is closed, students must be quickly reassigned to other ABMEK accredited programs to enable their on-time graduation.

② Colleges that decide to close must report the college's plan including student reassignment and relevant schedules to ABMEK immediately with its decision. The college's plan must include the following items.

1. A college's closure must occur at the end of an academic year. If this is impossible, the timing must be appropriately adjusted to prevent students transferring to other programs from having to repeat a year.

2. The following must be considered to minimize damage to students due to the college's closure.

   A. Students in the 4th year must be allowed to graduate from the closing college.

   B. If a college is closed in the early part of the academic year, students in the 3rd year can transfer as long as their graduation is not delayed. Alternatively, they can advance to the 4th year of study and graduate from the closing college as long as they complete 4th year requirement courses clinical training and elective courses in another institution.

   C. Students in the 1st and 2nd year of study must be assisted in transferring to other colleges.

3. Records of attending and graduated students must be preserved and students

must be publicly notified of the place and procedure for obtaining their student records. Records of students transferred to other colleges must be sent to the admissions office of the receiving college.

Article 3 (accreditation expiration of closed college) Absent of any special measures by ABMEK, the accreditation of the closing college expires at the end of the academic year when the last registered student either graduates or transfers. However, if special reasons are presented, the accreditation status can be maintained until the following year according to ABMEK's decision.

Article 4 (ABMEK's role in college closure) ① When a college closes, ABMEK must provide information on other schools that can accept the transferring students.

② Colleges with plans of accepting students from the closed college must notify ABMEK and receive evaluation of whether their resources are appropriate to accept the increase in students.

③ If necessary, ABMEK can call a special meeting to enable timely implementation of measures.

Article 5 (merger or ownership change) ① In the case of college merger or change in ownership, the relevant college must immediately notify ABMEK in accordance with Guidelines on Writing Major Change Plan.

② Once notified of merger or ownership change plans, ABMEK must contact the given college to collect additional information. It can pursue a special Site Visit if necessary.

③ Based on the overall information of the college's merger or ownership change, ABMEK must determine the type of accreditation and accreditation period for the new entity. ABMEK must notify its decision regarding the college's merger or change of ownership to the Ministry of Education, Science and Technology and other related bodies.

Supplementary Rules

Article 1 (enforcement date) Theses guidelines shall take effect as of January 24, 2011.

Appendix H: Guidelines on Management of Accreditation Records

Article 1 (purpose) The purpose of these guidelines is to define matters regarding the management of various material and records created in the process of Korean Institute of Medical Education and Evaluation (hereinafter KIMEE)'s medical education accreditation.

Article 2 (ban on usage for other purposes) All booklets, material and documents etc. submitted or written for accreditation such as reports and supplementary material submitted by the college, draft of evaluation results and the final evaluation report must be used and stored as confidential material and must not be used for purposes other than accreditation.

Article 3 (preservation of material) ① Site visit team members must return all related material including self-evaluation reports submitted by the college for accreditation to KIMEE after submission of the final evaluation report.

② KIMEE must keep 2 copies of material submitted by the college for 10 years. It must destroy all other remaining copies.

③ The self-evaluation report submitted by a college must not be disclosed or approved for reading without the written consent of the submitting college.

④ KIMEE must record the accreditation procedure and keep such records for 10 years.

⑤ Documents older than 10 years can be kept in storage on electronic media such as KIMEE's database.

Article 4 (material destruction) ① KIMEE must maintain confidentiality regarding permanent disposal of material related with accreditation.

② All documents, memos, letters etc that were personally written or used for accreditation activity by the site visit team members and not submitted officially by the college must be kept by the site visit team members for 30 days following the final decision and be destroyed.

Supplementary Rules

Article 1(enforcement date) These guidelines shall take effect as of January 24, 2011.

Appendix I: Guideline on Changing Accreditation Standards

Article 1 (purpose) The purpose of these guidelines is to define the procedure regarding change of accreditation standards.

Article 2 (review) ① ABMEK must regularly review accreditation standards.

② When opinions on partial addition, revision or deletion of standards are proposed, ABMEK can review the accreditation standards anytime.

Article 3 (procedure and method) The Committee on Standards must notify related bodies such as colleges of accreditation standard changes or hold public hearings to collect opinions and write a Draft of Accreditation Standards Change.

Article 4 (report) The Committee on Standards must report the Draft of Accreditation Standards Change to ABMEK's Steering Committee.

Article 5 (resolution) The Draft of Accreditation Standards Change must be presented to the KIMEE Executive Committee. It becomes effective as of the date of the Executive Committee's approval.

Article 6 (public announcement) ABMEK must publicly announce the changed accreditation standards through means such as the KIMEE homepage and if necessary, notify related bodies such as each college.

Supplementary Rules

Article 1(enforcement date) These guidelines shall take effect as of January 24, 2011.

Appendix J: Guidelines on Changing Rules of Procedure in Medical Education Accreditation

Article 1 (purpose) The purpose of these guidelines is to define the procedure for changing the Rules of Procedure in Medical Education Accreditation (hereinafter Rules of Procedure).

Article 2 (review) ① ABMEK must regularly review the Rules of Procedure.

② ABMEK can review the Rules of Procedure anytime when opinions on partial addition, revision or deletion of the Rules of Procedure have been proposed.

Article 3 (procedure and method) The Committee on Policy must notify related bodies such as colleges about changes to the Rules of Procedure or hold public hearings to collect opinions to prepare a Draft of Changes to the Rules of Procedure.

Article 4 (report) The Committee on Policy must report the Draft of Changes to the Rules of Procedure to ABMEK's Steering Committee.

Article 5 (resolution) The Steering Committee must present the Draft of Changes to the Rules of Procedure to KIMEE Executive Committee for approval. The changes take effect as of the date of the Executive Committee's approval.

Article 6 (public announcement) ABMEK must publicly announce the changed Rules of Procedure through means such as KIMEE homepage and notify related bodies such as each college if necessary.

Supplementary Rules

Article 1(enforcement date) These guidelines shall take effect as of January 14, 2011.

Appendix K: Guidelines on Preparing Student Report

Article 1 (purpose) The purpose of these guidelines is to define general matters regarding the preparation of student reports.

Article 2 (significance) The significance of the student report is as follows.

① contribute to medical education quality improvement and college development

② fulfill procedures that meet international accreditation best practice

③ provide opportunity to express and reflect student opinions

④ empower students

⑤ enable students' active participation in accreditation

⑥ provide reference material for documentary evaluation and Site Visit

Article 3 (content) Student reports shall include the following content.

① basic student information

② curriculum (basic, clinical, medical humanities etc.)

③ extracurricular activities

④ career and counseling

⑤ welfare and facility: learning and living environments

⑥ degree of participation in academic operation

⑦ others

Article 4 (procedure) ① When applying for accreditation, the college must request a student representative to write a student report.

② The college must provide administrative and financial support necessary in writing

the student report. Also, the student's autonomy must be guaranteed when writing the student report.

③ The student representative must write the student report autonomously and must submit it directly to KIMEE through on-line channels before submitting it to the college.

④ The college must produce the student report submitted by the student into a separate booklet and submit it together with its self-evaluation report.

Supplementary Rules

Article 1 (enforcement date) These guidelines shall take effect from April 16, 2012.

Appendix L: Guidelines on Progress Report

Article 1 (purpose) The purpose of this guideline is to define the procedure for writing a Progress Report based on the Article 23 of the Rule of Procedure in Medical Education Accreditation.

Article 2 (definition) The Progress Report is a self-evaluation report that an accredited collage submits to be evaluated that it suitably fulfills the criteria of an accredited collage.

Article 3 (Composition and submission) In the Progress Report, changes and improvements of overall management of the concerned collage for recent two years after accreditation and confirming maintenance of accreditation are described. (Ex. a collage accredited in 2012 submits a report written based on data of two years from March 1st, 2012 by August 31st, 2014.)

Article 4 (Details) The Progress Report consists of Preface, the Chapter 1 Introduction, the Chapter 2 Current Status of Medical Collage, the Chapter 3 Study Results of Interim Evaluation, the Chapter 4 Summary and Discussion, and Appendix as follows in the form (Form No. 0-000) of self-evaluation report.

Preface

It is described that the Progress Report is written based on facts and gratitude to faculty members and organizations involved in evaluation, etc. is expressed.

Chapter 1. Introduction

Organization and roles of permanent institutions for self-evaluation such as the planning committee for self-evaluation and the research committee for self-evaluation,

preparations and plans for interim evaluation, and procedures of data collection, evaluation, and writing the Progress Report are briefly described.

Chapter 2. Current Status of Medical Collage

Changes of administrative organizations and organization charts, history, status of students, professors, and employees, major facilities and installations, budget status, etc. for recent two years are briefly described and the table for identifying and comparing changes of major items and current status is presented.

Chapter 3. Study Results of Interim Evaluation

The results by questions are presented same as the Self-evaluation Report and especially changes for recent two years are described based on the following criteria.

① "No change" for the questions that changes do not occur.

② Changes only are described for the questions that changes occur.

③ Specific results of improvement for the questions included in the plan for improvement shall be described.

④ If a collage carries out improvement for itself even though it is not included in the plan for improvement, the details are described.

Chapter 4. Summary and Discussion

The results of the interim evaluation by area are summarized and the conclusions are described.

Appendix

The materials for proving improvement and changes are attached.

Supplementary Rules

Article 1(enforcement date) These guidelines shall take effect as of January 23, 2014.

Summary of Rules of Procedure in Medical Education Accreditation

Section	Content
Goals and Activity	A. Develop standards and criteria for medical education program accreditation B. Evaluate medical education programs based on standards and criteria C. Accreditation maintenance and management D. Evaluate education conditions and curriculum of newly founded colleges
Organization	◆ Executives: Director, Vice-Director, Chairs of Expert Committees ◆ Steering Committee (Director, Vice-Director, Chairs of Expert Committees) |Expert Committees (Standards, Policy, Quality Control) | Decision Making Committee(about 12 members) | 3 year term ◆ Site Visit Team
Accreditation Subject	◆ Medical Education Program | BME, GE, GME, CPD
Procedure	◆ Apply for evaluation 1 year prior to accreditation expiration ◆ Self-evaluation - Site Visit
Site Visit Team	◆ At least 6 members including team leader
Evaluation Report	◆ Site Visit Team leader is responsible for writing it/ Send to concerned college to verify facts
Accreditation Decision , Notification & Public	◆ Decision Making Committee |Accreditation type, period and follow-up measures ◆ Notify evaluated college| within 7 days of Dicision Committee's decision

Announcement	◆ Publicly announce result and final evaluation report 30 days after decision
Accreditation Type & Period	◆ Existing college: accreditation(4 years, 6 years) | accreditation on probation| non-accreditation ◆ Newly Founded College: preliminary accreditation| provisional accreditation
Reconsideration	◆ Within 30 days from being notified of accreditation result
Accreditation Maintenance	◆ Submit progress reports including improvement results every 2 years ◆ Colleges expecting major changes must submit a Major Change Plan
Others	A. Procedures in case of college's ownership change or closure. B. Procedures for reviewing and changing accreditation standards and rules of procedure. C. Procedure for third party comments. D. Procedure for reconsideration of ABMEK's decision. E. Preparation of Student Report. F. Preparation of Major Change Plan.

<Appendix 3>

The Korean Society of Plastic and Reconstructive Surgeons

Departmental Checklist for Residents Training Site Visit

Standard period for writing :

January 1, 2014 – December 31, 2014 ( )

March 1, 2014 – February 28, 2015 ( )

Hospital: _____

Department Chief: _____

Please prepare following items at the time of local evaluation

① Organization diagram and operating rules for department

② Medical treatment statistics

ⓐ Total number of occupied beds, discharged patients, hospitalized days, and average number of readmission days

ⓑ Exact number and total man-days of inpatients

ⓒ Number of expired patients

ⓓ Number of operation performed (general and local anesthesia)

ⓔ Medical treatment statistics for emegency room

ⓕ A copy of the annual data

③ List of instruments

④ Resident training schedule

⑤ Educational activity record

ⓐ Internal activity record

ⓑ External activity record

ⓒ Evidential material for published paper or presentation

⑥ Resident note (including contents until a month before the evaluation day)

※ Following questions are composed of contents explaining conditions of the hospital services.

1. For each of the following questions, please fill out precisely on the grounds if the detailed questions are relevant to your hospital.

2. When there is a need to add a supplementary description, please write it down at the Supplements and Comments part following the Question part after specifying question number you want to explain.

3. The questions must be answered by the person in charge of this sector. Please indicate name, position, and reporting date at dotted line.

4. Please keep the evaluation part for medical treatment and mentoring activity of residents (section 5) blank. Training condition investigators (실태조사위원) should fill in the blank referring to the data.

Total Score	Minimum score needed for recognition as training hospital	Base line for setting a resident TO
100 points	60 points	70points

 # Number of specialist preceptor for resident education. _____

Name	Specialist identification number	Year/Month/Day of appointment at present hospital	Training for specialist preceptor for resident education: completion status (completed year/month)		The name of first hospital appointed as specialist preceptor and duration of work experience		Notes
			Common program	KPRS Program	Name of hospital	Working period	

 # Number of full time equivalent specialist preceptor

Name	Specialist identification number	Year/Month/Day of appointment at present hospital	Training for specialist preceptor for resident education: completion status (completed year/month)		Working period for training hospital		Notes
			Common program	KPRS Program	Name of hospital	Working period	

Monthly Working Log as a Specialist Preceptor

	Year 2014							Year 2015				
Specialist Preceptor	**June**	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**March**	**April**	**May**

 # Present information on residents (2015)

Classification	Approved Number	Recruited Number	Present Number	Notes
1st year				
2nd year				
3rd year				
4th year				
Total				

 # Last year's information on residents (2014)

 # Current Status of Rotating Resident

Classification	Approved Number	Recruited Number	Present Number	Notes
1st year				
2nd year				
3rd year				
4th year				
Total				

Out- bound

Name of Hospital	Name of Subject	Year	Name	Period of Rotation	Notes

In- bound

Name of Hospital	Name of Subject	Year	Name	Period of Transfer	Notes

(Add a paper if more space is needed)

Patient volume: Monthly number of the discharged patients of specialist preceptor

	Year 2014							Year 2015				
Mentoring-Resident	**June**	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**March**	**April**	**May**

Case statistics: Monthly number of the operations of specialist preceptor

	Year 2014							Year 2015				
Mentoring-Resident	**June**	**July**	**June**	**July**	**June**	**July**	**June**	**July**	**June**	**July**	**June**	**July**

Out-patient statistics: Monthly number of outpatients of specialist preceptor

	Year 2014							Year 2015				
Mentoring-Resident	**June**	**July**	**June**	**July**	**June**	**July**	**June**	**July**	**June**	**July**	**June**	**July**

 # List of Published Papers

Number	Author	Title	Name of Journal	Volume (issue):starting page- ending page	Year. Month
1.					
2.					
3.					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

 # Number of operations according to the type of anesthesia

	Number of cases of operation
General anesthesia	
Regional anesthesia	
Local anesthesia	
Total	**( )**

1. Manpower

1-1. Evaluating Specialist Preceptor-Resident Ratio: _____ people

1-1 Score

☐ ① N-1 (5 points)

☐ ② N-2 (10 points)

☐ ③ N-3 or more (15 points, perfect)

1-2. Specialist Preceptor Absence Period: _____ months

1-2 Score

☐ ① 3 months or more (0 points)

☐ ② 2 ~ 3 months (1 points)

☐ ③ 1 ~ 2 months (2 points)

☐ ④ 1 day ~ 1 month (3 points)

☐ ⑤ none (5 points, perfect)

2. Resident Training

2-1. Number of discharged patients for a resident in each year of residency: _____ people (Exact number)

☐ ① Less than 300 people (0 points)

☐ ② 300 ~ 350 people (2 points)

☐ ③ 351 ~ 400 people (4 points)

☐ ④ 401 ~ 450 people (6 points)

☐ ⑤ 451 people or more (8 points, perfect)

2-1 Score

2-2. Number of inpatients for a resident in each year of residency: _____ people (man-days)

☐ ① Less than 2500 people (0 points)

☐ ② 2500~3500 people (2 points)

☐ ③ 3501~4500 people (4 points)

☐ ④ 4501~5500 people (6 points)

☐ ⑤ 5501~6500 people (7 points)

☐ ⑥ 6501 people or more (8 points, perfect)

2-2 Score

2-3. Number of operation under general or regional anesthesia for a resident in each year of residency: _____ people (man-days)

2-3 Score

☐ ① less than 150 people (0 points)

☐ ② 150 ~ 300 people (2 points)

☐ ③ 300 or more (4 points, perfect)

2-4. Number of operation under local anesthesia for a resident in each year of residency: _____ people (man-days)

2-4 Score

☐ ① less than 250 people (0 points)

☐ ② 250 ~ 400 people (2 points)

☐ ③ 400 or more (4points, perfect)

2-5. Number of cases of operation for each field (0.5~1points for each satisfaction, 6points, perfect)

Field	Performance	Scoring Criteria	Score
Cosmetic	(cases)	0-99 cases: 0 points 100-199 cases: 0.5 points	

		200 cases or more: 1 point	
Head and neck Cancer or Skin Cancer	(cases)	0-49 cases: 0 points 50-99 cases: 0.5 points 100 cases or more: 1 point	
Hand or Limbs	(cases)	0-49 cases: 0 points 50-99 cases: 0.5 points 100 cases or more: 1 point	
Wound or Burn	(cases)	0-149 cases: 0 points 150-299 cases: 0.5points 300 cases or more: 1 point	
Congenital Abnormality	(cases)	0-49 cases: 0 points 50-99 cases:0.5 points 100 cases or more: 1point	
Emergency primary suture (per 1 resident)	(cases)	0-24 cases: 0 points 25-49 cases: 0.5points 50 cases or more: 1point	

2-5 Score

3. Hardware and Facility

3-1. Exclusive space for plastic surgery

Among 5 categories	3-1 Score
2 or less: 0 points	
3: 1 points	

☐ ① Ward (Occupied: beds)

☐ ② Treatment room (처치실)

☐ ③ Medical department room

☐ ④ Filming room

☐ ⑤ Laboratory (for microsurgery or tissue culture)

3-2. Treatment facility and equipment

Among 12 categories	3-2 Score
3 or less: 0 point	
4~5: 1 point	
6~7: 2 points	

☐ ① Microscopic operation equipment

☐ ② Projector for exclusive use

☐ ③ Filming equipment

☐ ④ processing image computer for exclusive use

☐ ⑤ Laser equipment

☐ ⑥ Lipo-Suction

☐ ⑦ Craniofacial operation equipment

☐ ⑧ Doppler

☐ ⑨ Endoscopy set

☐ ⑩ Rhinoplasty set

☐ ⑪ Hand surgery set

☐ ⑫ Video camera for exclusive use

3-3. Subscribing journal or e-journal: _____ types

3-3 Score

☐ ① less than 4 (0 points)

☐ ② 4 ~ 7 (1 points)

☐ ③ 7 or more (2 points, perfect)

3-4. Visual and auditory materials for education _____ number

3-4 Score

☐ ① less than 30 (0 points)

☐ ② 30 ~ 60 (1 points)

☐ ③ 60 or more (2 points, perfect)

3-5. Number of stocked books in the department: _____ books

3-5 Score

☐ ① less than 50 (0 points)

☐ ② 50 ~ 100 (1 points)

☐ ③ 100 or more (2 points, perfect)

4. Education activity

4-1. Department meeting: _____ times/week

4-1 Score

☐ ① less than 3 times (0points)

☐ ② 3 ~ 4 times (1points)

☐ ③ 4 or more (2points, perfect)

4-2. Average number of conference attended by a resident in a year: _____ times

4-2 Score

☐ ① less than once (0points)

☐ ② 1 ~ 3 times (1points)

☐ ③ 3 or more (3points, perfect)

4-3. Average number of KPRS's training education or special lecture attended by a resident: _____ times

4-3 Score

☐ ① less than once (0points)

☐ ② 1 ~ 3 times (1points)

☐ ③ 3 or more (3points, perfect)

4-4. Performance of an abstract of a journal written by a resident in each year of residency (Total: _____ pieces)

☐ ① less than 1 piece (0points)

☐ ② 1 ~ 2 pieces (1points)

☐ ③ 2 ~ 3 pieces (2points)

☐ ④ 3 ~ 4 pieces (3points)

☐ ⑤ 4 ~ 5 pieces (4points)

☐ ⑥ 5 pieces or more (5points, perfect)

4-4 Score

4-5. Number of paper published in journal by a resident in each year of residency (Total: _____ pieces)

☐ ① less than 1 piece (0points)

☐ ② 1 ~ 2 pieces (1points)

☐ ③ 2 ~ 3 pieces (2points)

☐ ④ 3 ~ 4 pieces (3points)

☐ ⑤ 4 ~ 5 pieces (4points)

☐ ⑥ 5 pieces or more (5points, perfect)

4-5 Score

5. Evaluation of Resident's Clinical Performance

5-1. Admission/discharge record

5-1 Score

☐ ① less than 0.5 in average (0 points)

☐ ② average 0.5 ~ 1.5 (1 points)

☐ ③ average 1.5 ~ 2.5 (2 points)

☐ ④ average 2.5 or more (3 points, perfect)

Serial Number	Hospital Number	Score (Evaluate with 0~3points, decimal can be used)
1		
2		
3		
4		
5		
		Average :

* Check and score 5 hospital records with 0~3 points, and calculate the average to evaluate it.

* Reason for deciding poor/excellence:_____

5-2. Writing an operation record

5-2 Score

☐ ① less than 0.5 in average (0 points)

☐ ② average 0.5 ~ 1.5 (1 points)

☐ ③ average 1.5 ~ 2.5 (2 points)

☐ ④ average 2.5 or more (3 points, perfect)

Serial Number	Hospital Number	Score (Evaluate with 0~3points, decimal can be used)
1		
2		
3		
4		
5		
		Average :

* Check and score 5 hospital records with 0~3 points, and calculate the average to evaluate it.

* Reason for deciding poor/excellence:_____

5-3. Writing a progress note (5points, perfect)

5-3-1. Whether the note is written every day and signed by the writer or not

☐ ① less than 0.5 in average (0points)

☐ ② average 0.5 or more (1points)

5-3 Score

5-3-2. Whether dressing and treatment is conducted/recorded or not

☐ ① less than 0.5 in average (0points)

☐ ② average 0.5 ~ 1.5 (1points)

☐ ③ average 1.5 or more (2points)

5-3-3. Whether complication and treatment is explained or not

☐ ① less than 0.5 in average (0points)

☐ ② average 0.5 ~ 1.5 (1points)

☐ ③ average 1.5 or more (2points)

Number	**Case Number**	5-3-1	**5-3-2**	**5-3-3**
		Daily writing and sign	Dressing and treatment	Complication
		Evaluate with 0~1 points, decimal can be used	**Evaluate with 0~2 points, decimal can be used**	**Evaluate with 0~2 points, decimal can be used**
1				
2				
3				
4				
5				
		Average :	**Average :**	**Average :**

* Check and score 5 hospital records, and calculate the average to evaluate each category.

* Reason for deciding poor/excellence:_____

5-4. Writing a resident night duty note (E-daily report)

5-4 Score

☐ ① poor (0points)

☐ ② normal (1points)

☐ ③ excellent (2points, perfect)

5-5. Sincerity for writing a resident note (2points, perfect)

5-5-1. Whether pictures are attached or not and whether number of operation cases performed for each year of residency is proper or not

☐ ① Poor (0points)

☐ ② Good (1points)

5-5 Score

5-5-2. Whether conference attending records are proper or not

☐ ① Poor (0points)

☐ ② Good (1points)

5-6. Result of In-training Examination last year

☐ ① overall performance ranking the upper 1/3 (0 points)

☐ ② overall performance ranking the upper 1/3 ~ 2/3 (1 points)

☐ ③ overall performance ranking the upper 2/3 or more (2 points, Perfect)

5-6 Score

6. Resident on call duty status

6-1. Schedule for resident on-call duty is present

☐ ⓞ No (0points)

☐ ① Yes (1points)

6-1 Score

6-2. Status of continuous night duty

☐ ① There is no continuous night duty (3points)

☐ ② Less than 10% of residents are on continuous night duty (2points)

☐ ③ 10% ~ 30% of residents are on continuous night duty (1points)

☐ ④ More than 30% of residents are on continuous night duty (0points)

6-2 Score

6-3. Ratio of on-call duty by senior residents (year 3, 4)

☐ ⓞ Not applicable (No 3rd/4th year resident was present last year) (0points)

☐ ① less than 10% (0points)

☐ ② 10% ~ 30% (1points)

☐ ③ 30% or more (2points)

6-3 Score

6-4. Monthly night duty status for residents

Category	R1		R2		R3		R4		Note
	night duty (people)	night duty (days)	night duty (people)	night duty (days)	night duty (people)	night duty (days)	night duty (people)	night duty (days)	
March									
April									
May									
June									
July									
Aug									
Sep									
Oct									
Nov									
Dec									
Jan									
Feb									
Total									
Monthly Average									

Category	Supplements and Comments

Evaluation criteria for the department is written by following person and documentary evidence attached is with only facts

2015.____.____. ____ Hospital

Department of Plastic Surgery Chief: _____ (Sign)

◇ Training-condition investigator I		Perfect Points	Evaluation Score	Total	Notes
1. Manpower (20)	1-1 Mentoring-resident number	15			
	1-2 Mentoring-resident vacancy period	5			
2. Training Contents (30)	2-1 Discharged patients number (exact)	8			
	2-2 Outpatients number (man-days)	8			
	2-3 General/regional anesthesia operation cases	4			
	2-4 local anesthesia operation cases	4			
	2-5 Number of cases of operation for each field	6			
3. Instruments and Facility (14)	3-1 Exclusive space for plastic surgery	3			
	3-2 Facility and equipment	5			
	3-3 Subscribing journal	2			
	3-4 Visual and auditory materials	2			
	3-5 Stoked books in the department	2			
4. Education Activity (19)	4-1 Meetings	2			
	4-2 Attending conference	3			
	4-3 Attending special lectures	3			
	4-4 Presenting at symposium	5			
	4-5 Publishing paper	6			
5. Medical Treatment Activity (17)	5-1 Admission/discharge record	3			
	5-2 Operation note	3			
	5-3 Progress note	5			
	5-4 night duty note	2			

	5-5 Resident note	2			
	5-6 Intraining test result	2			
Total		100			

Overall opinion: Please write down your overall opinion.

2015. . . Training-condition investigator I: (Sign)

2015. . . Training education commissioner: 배 용 찬 /김 진 수 (Sign)

◇ Training-condition investigator II		Perfect points	Evaluation Score	Total	Note
1. Manpower(20)	1-1 Mentoring-resident number	15			
	1-2 Mentoring-resident vacancy period	5			
2. Training contents (30)	2-1 Discharged patients number (exact)	8			
	2-2 Outpatients number (man-days)	8			
	2-3 General/regional anesthesia operation cases	4			
	2-4 local anesthesia operation cases	4			
	2-5 Number of cases of operation for each field	6			
3. Instruments and Facility (14)	3-1 Exclusive space for plastic surgery	3			
	3-2 Facility and equipment	5			
	3-3 Subscribing journal	2			
	3-4 Visual and auditory materials	2			
	3-5 Stoked books in the department	2			
4. Education activity (19)	4-1 Meetings	2			
	4-2 Attending conference	3			
	4-3 Attending special lectures	3			
	4-4 Presenting at symposium	5			
	4-5 Publishing paper	6			
5. Medical Treatment (17)	5-1 Admission/discharge record	3			
	5-2 Operation note	3			
	5-3 Progress note	5			
	5-4 night duty note	2			
	5-5 Resident note	2			
	5-6 Intraining test result	2			
Total		100			

Overall opinion: Please write down your overall opinion.

2015. . . Training-condition investigator II: (Sign)

2015. . . Training education commissioner: 배 용 찬 /김 진 수 (Sign)

<Appendix 4>

The Korean Society of Plastic and Reconstructive Surgeons

Trainee Checklist for Resident Training Site Visit

Name of Hospital	
Year	
Name	(Sign)

Report period: 1st year: May 1, 2015 – May 31, 2015
2nd year and more: starting day of residency – May 31, 2015

Please count only the number of performance done each year until May 31, 2015
Please keep ☐ parts blank. It would be checked by training condition investigators

Period : March 1, _____(year) – May 31, 2015

Contents	Distribution	1st year		2nd year		3rd year		4th year		Total		Score
		Record	Min. Requirement (MR)	Record	MR	Record	MR	Record	MR	Record	MR	
1. Discharge (case)	10		60		60		40		0		160	
2. Operative note (case)	10		20		50		70		30		170	
Content, figure, picture	5											
3. Operation done (case)	10		25		25		25		25		100	
Operation type		Suture, skin graft, burn, facial, palmar, minor surgery for skin cancer				Facial bone fracture, facial reconstruction, craniofacial deformity, head and neck cancer, palmar, body, limbs, genital organs, cosmetic surgery, microsurgery						
Type, level of difficulty	5											

4. Attending a conference -external	10		1		1		1		1		4	
- internal	5		40		40		40		40		160	
5. Transferred to another department of another hospital except rotation	5	Hospital		Medical department		Period: -year from (month) to (month)					Within 6 months	
TOTAL	60											

6. Published paper: an extra sheet of paper can be used if needed

Number of papers published first author ( ) piece(s), second author ( ) piece(s), others ( ) piece(s), Score points (Distribution of 15 points)

Author	Title	Name of journal	Volume (issue):starting page-ending page	Year	Notes

7.Oral presentation ( ) piece(s) Score points (Distribution of 15 points)

Author	Title	Conference	Place	Year/Month/Day	Notes

8. Other requirements:

Contents	Distribution	Attended number	Basic	Score
In-training Exam	5		Applying 1 or more times until 3rd year, 2 or more times until 4th year	
Attending CME/CPD education	5		Attending once for 2nd year, twice for 3rd year, 4 or more times for 4th year	
Attending ethics education (Demonstrational item)	0		Attending one or more times	

TOTAL Evaluation Score ____ point(s) (Total 100 points)

2015. . . Written Site Visit Assessor _____ (Sign)

Site Visit Assessor _____ (Sign)

Training Program Supervisor / (Sign)

영문 답변서

Contents

☞A Written Answer to the Question Regarding Article 3-4 of Test Exemption Criteria

Exemption from HAAD examination requirement operates under the 'competent authority' cross recognition model. In deciding cross recognition of a 'competent authority', HAAD applies the following principles,

3.4.1 The existence of an entry examination set by the competent authority

- The College Scholastic Ability Test (CSAT)

Those who desire to enter a college in Korea need to take College Scholastic Ability Test (CSAT) which is similar to SAT in the U.S. and is managed by Korea Institute for Curriculum Evaluation under Ministry of Education. Although colleges may adopt various other methods such as interviews and essay, and etc. students who want to enter a college has to take College Scholastic Ability Test (CSAT). The CSAT is arranged annually, and academic subjects include Korean, Mathematics, English, Korean History, Social Studies, Science, and Vocational Education. For 2nd Foreign Language, Student can pick a language of his/her choice other than English.

According to a survey, CSAT scores of those who entered a medical college were top 0.05 to 2% among all the examinees. The number is even more astonishing for Greater Seoul and its surrounding area where only top 0.1% of all the examinees are accepted by the top medical colleges. Even those who entered the lowest-rank medical colleges in rural area were within top 2%. In short, students who enter medical colleges in Korea are the most outstanding ones, and admission to medical colleges is highly competitive. National Board of Educational Evaluation under the Ministry of Education is an institution that directly belongs to the government. This governmental agency manages the general affairs of all curriculums of secondary education in Korea as well as CSAT-related affairs regarding college entrance examinations.

3.4.2 The presence of licensing system for trainees (permit to hands-on training)

- Clinical Practice of Medical Students

The Enforcement Regulation of the Medical Service Act in Korea allows the medical practice of medical students in the process of clinical clerkship education. The legal basis for the field experience of medical students as part of clinical practice is defined in the following acts.

[Ministerial Decree Number 11 of the Ministry of Health and Welfare, fully revised on Apr. 11, 2008]

Article 19 [Medical Practice of Medical Students, Etc.]

① The scope of medical practice under Article 27.1.2 of the Act is as follows:

1. Medical practice for medical volunteer service for the public

2. Medical practice conducted in times of national emergency including war and disaster at the request of the nation or regional government.

3. Medical practice for research or pilot project for a certain period

② In accordance with Article 27.1.3 of the Act, students majoring in medicine, dentistry, oriental medicine or nursing may conduct the following medical practices.

1. Medical practice conducted under the guidance and supervision of an advisor for the purpose of conducting practice related to specialty

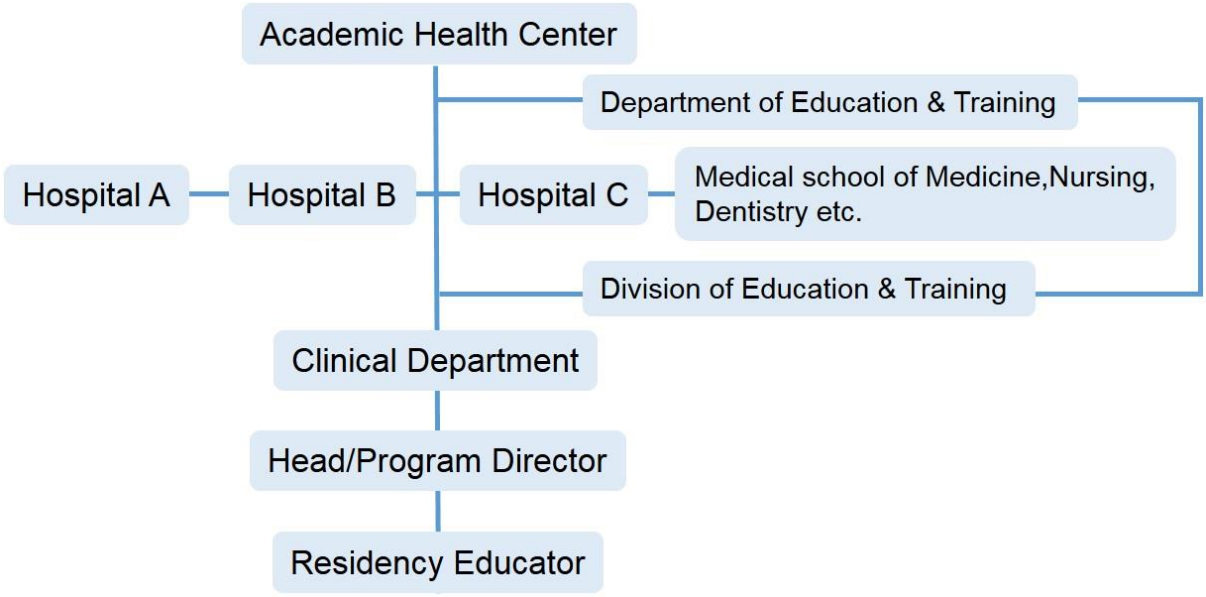
2. Medical practice under the guidance and supervision of healthcare providers as part of medical volunteer works for the public

3. Medical practice conducted in times of national emergency including war and disaster at the request of the nation or regional government.

3.4.3 The Organizational Structure of the Training

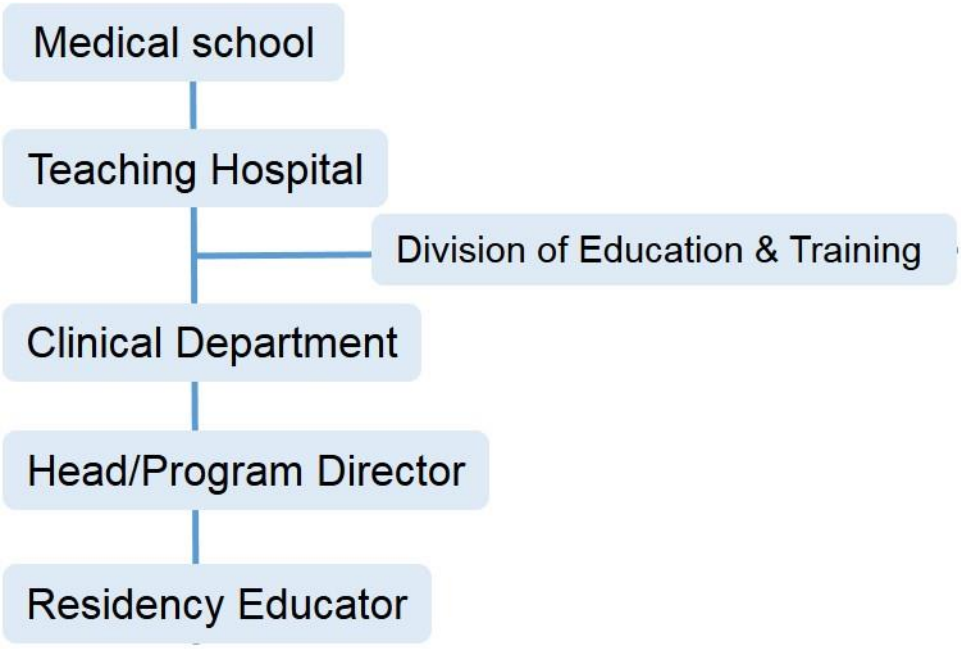
First the training hospital for intern and resident has to be approved by the MOH. This approval process is through the accreditation of teaching hospital. The training of resident is basically within the supervision of each clinical department within teaching hospital. However the organization structure can be slightly different depends on the relationship between the teaching hospital and medical school. Academic health center system has many faculties of health sciences and medical school is just one of them and it usually has many teaching hospitals. In this case the resident education is under the control of department of education and training of academic health science center.

Type A: Academic Health Center System



Type B: Independent Teaching Hospital

If the teaching hospital is independent and does not belong the academic health center, then usually the resident education is controlled by division of education and training of teaching hospital.

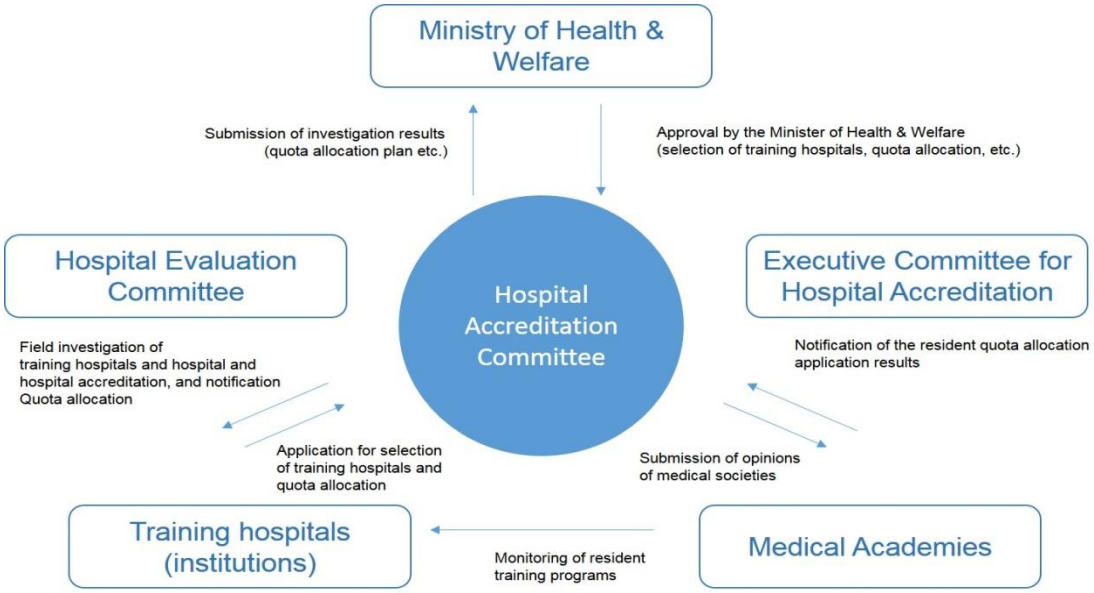


3.4.4 The Governing Structure of the Training

- Governance of Resident Training

The overarching body for the governance of resident training, approval of teaching hospital, specialty examination and issuing specialty certificate is MOH.

The specialist system in Korea started in 1951 when the Korea was in the Korean War with the restriction on the presentation of specialty under the Article 4 of the National Health Service Act and the system has been developed to what it is today with implementation of specialist qualification examination, designation of teaching hospitals and addition of specialties. From the legal perspective, the system is based on Article 77 (Specialist) under the Medical Service Act and Regulation and Enforcement Regulation on Specialist Training and Qualification. Therefore the overarching body for the governance of resident training is MOH. The regulation makes it possible to delegate the works of data survey for the purpose of teaching hospitals or teaching institutions by the Minister of Health and Welfare, data survey for the purpose of determining quota of specialist and data survey for the checking of training status including completion of training course to agency related to medical care and accordingly Hospital Accreditation Committee which has a secretariat under the Korean Hospital Association has been taking responsibilities for recognition of teaching hospitals and specialist quota determination. The Hospital Accreditation Committee established the Accreditation & Evaluation Center for Hospital under Korean Hospital Association to perform accreditation work and conduct evaluation for training by including hospital operation system, medical care department system and training support system in evaluation items.



3.4.5 The Curriculum

- Education Course of Medical Colleges

Medical education curriculum can be divided into two: one is for 6 year-curriculum composed of premedical course and medical course and the other one is school of medicine which runs only 4-year medical course. However, the 4-year medical course program is almost same for medical colleges and school of medicine and same accreditation criteria is applied.

- Premedical Course

Premedical course is a preparation for medical course. Usually, the first year is composed of general study and remaining year is composed of bridging science to prepare for medical course. 38 out of 40 universities across the nation are in charge of premedical education at the college of medicine. For other cases, school of science or the university itself takes the lead in premedical education. If not college of medicine but school of science is in charge of premedical course, students can take advantage of taking various liberal arts courses and exchanging with students of other majors. In the meantime, if the college of medicine is in charge of premedical course, students can take advantage of adjusting themselves to the life of college of medicine and universities can plan and run curriculum linked with medical courses. The ratio of basic medical education related to standard medical program to premedical course was in the increase between 2009 and 2013.

- Medical Course

Since 2000 when accreditation for college of medicine was started in Korea, many universities has been making an effort to improve medical education by revising education objectives and developing learning performance emphasized by recent medical education. In particular, KAMC published education objectives based on clinical presentation for the purpose of making medical education focus on outcome and competence.

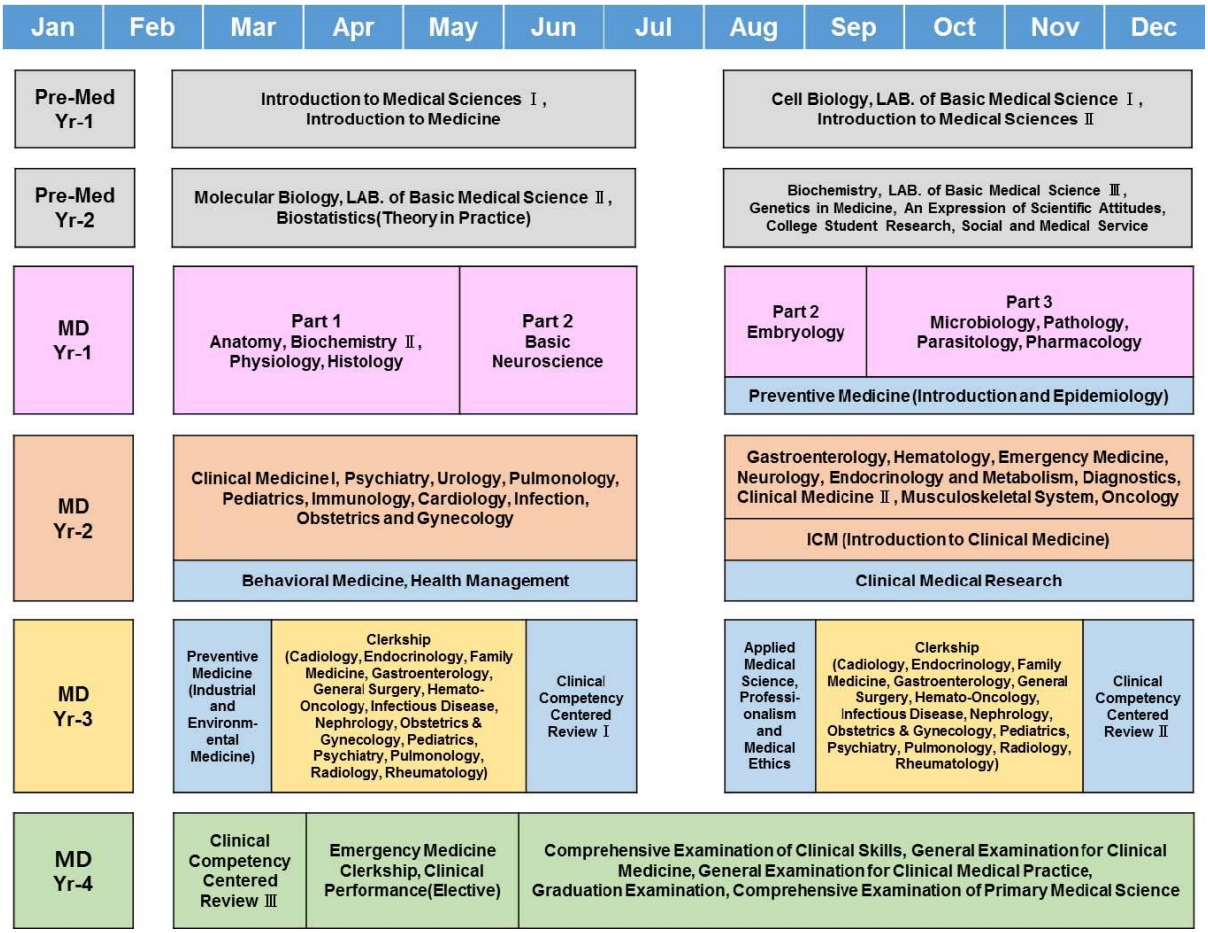
Currently, various kinds of education methods are in use for medical education and not traditional

lecture-type class but discussion based class is recommended. 38 out of 40 colleges of medicine implement problem-based learning (PBL) and 28 universities give a single credit to PBL class indicating that small-group discussion type class is encouraged. PBL is more dominant than lecture in 12 universities. 38 universities prepared dedicated small-group discussion room for PBL class.

26 universities, more than half of universities with medical course, implement team-based learning (TBL) and TBL is used for 3.95 subjects on average. 13 universities, the majority, implement TBL for 1 or 2 subjects and 2 universities implement TBL for more than 15 subjects or programs. It means that TBL is spreading among many universities gradually. 11 universities are equipped with TBL dedicated facilities and many universities are trying to have a dedicated facility for TBL.

Medical courses take various forms depending on school but generally, preclinical curriculum and clinical curriculum. In addition, it shows various types of integrated education to link clinical program to basic medical education. The figure below shows a typical structure of university program that has a relatively traditional curriculum. The common feature is horizontal integration among basic courses or organ based integration.

In general, clinical practice starts from the third year of the standard medical program and continues until graduation. The figure below shows an example of curriculum of a college of medicine in university (Figure 1).



[Figure 1] Medical Education Course

- First Year

Students concentrate on the studies of the structure and function of the normal human body and the deviations that result from aging, disease and other causes in the first year. The required core courses are Anatomy, Physiology, Neurophysiology, Biochemistry, Histology, Embryology, Neuroanatomy, Pathology, Microbiology, Fundamental Immunology, Biomedical Engineering, Preventive Medicine and Patient-Doctor-Society.

Subject	Lecture(hrs)	Labs(hrs)	Credits
Anatomy	51	120	5
Histology	43	56	3
Embryology	12	20	1
Neuroanatomy	24	41	2
Neurophysiology	21	8	1
Physiology	54	32	4
Biochemistry	77	32	5
Patient-Doctor-Society (1)	32	-	1
Fundamental Immunology	20	20	1
Pathology	70	20	7
Microbiology	52	64	4
Preventive Medicine	25	32	2

- Second Year

Subject	Lecture(hrs)	Labs(hrs)	Credits
Pharmacology	53	40	4
Parasitology	20	40	2
Legal Medicine	12	-	1
Medical Genetics	17	15	1
Clinical Immunology	35	-	2
Infection	19	-	1
Oncology	35	-	2
Neuroscience	80	8	3
Nephrology	58	6	3
Hematology	48	21	3
Endocrinology	69	-	3
Cardiology	81	5	3
Respiratory System	87	8	3
Gastroenterology	87	-	3
Patient-Doctor-Society (3)	16	24	1
Patient-Doctor-Society (4)	16	24	1
TOTAL	722	191	36

- Third Year

The third year of the program is a 38- week clinical study. Students go through the basic core clerkships in Internal Medicine for 12 weeks; 6 weeks each in Pediatrics, Obstetrics, and Gynecology; and 4 weeks each in General Surgery and Psychiatry. The clerkship provides the opportunity for a small group of students to participate directly in the management of clinical problems presented by patients in the hospital. Clinical lectures are also given during this period but are limited to 2 hours a day.

Subject	Lecture(hrs)	Labs(hrs)	Credits
Internal Medicine	32	320	8
Clinical Reasoning	27	-	1
Pediatrics	8	160	4
Obstetrics &Gynecology	31	160	4

Psychiatry	33	160	4
General Surgery	23	160	4
Orthopedic Surgery	16	80	3
Radiology	8	64	3
Nuclear Medicine	9	16	1
Patient-Doctor-Society (5)	12	12	1
Neurology	-	80	3
Laboratory Medicine	10	-	1
Emergency Medicine	5	80	3
TOTAL	214	1292	40

- Fourth Year

The first half of the fourth year is a continuation of the third year, which provides 13 weeks of minor subject clerkship. The latter half-year of the senior year, the fourth quarter, covers one block of community medicine and the graduation examination.

Subject	Lecture(hrs)	Labs(hrs)	Credits
Advanced clinical medicine	93	-	4
Selective course (6 subjects out of 13 subjects)	-	540	18
Thoracic surgery	-	(90)	(3)
Neurosurgery	-	(90)	(3)
Urology	-	(90)	(3)
Otolaryngology	-	(90)	(3)
Ophthalmology	-	(90)	(3)
Dermatology	-	(90)	(3)
Plastic surgery	-	(90)	(3)
Radiation oncology	-	(90)	(3)
Community medicine	-	(90)	(3)
Laboratory medicine	-	(90)	(3)
Rehabilitation medicine	-	(90)	(3)
Anesthesiology	-	(90)	(3)
Family medicine	-	(90)	(3)
Research in medicine	-	130	4
Clinical performance training and examination	-	35	1
Integrated clinical medicine	-	70	2
Occupational and environmental medicine	35	-	1
Critical care medicine	24	2	1
Patient-Doctor-Society (6)	30	30	2
New horizons in medicine	32	-	1
Total			

3.4.6 The Program Competency Framework

-Competence Framework for Korean Doctor

The first edition of the Role of the Korean Doctor was published on Oct. 10, 2011 and the latest revision was completed on Dec. 20, 2013 after a number of revisions. 14 agencies related to medical education including Korean Medical Association ratified the role of Korean doctors and officially made and distributed competency framework.

Medical doctors are professional resources critical for maintaining and managing the modern state. As a profession, doctors bear the grave duty of providing medical care that is essential to the health of individuals and society as a whole and must continuously exert the utmost self-initiated effort to maintain their professional competencies and moral values. Medicine is a fundamentally multi-faceted and complex field of study and the practice of medicine becomes far more effective and efficient when carried out based on internal self-regulation rather than regulation imposed by an external authority. Accordingly, hereunder are listed the roles and virtues expected of doctors of the Republic of Korea.

Realistically, it is a difficult challenge to create a complete list of the roles and virtues expected of doctors. However, even the exercise and effort of establishing such standards are very important and it is a highly meaningful endeavor to continuously improve such standards toward even higher levels and to positively impact the change of the times and the environment. This effort in Korea started in 1999 and particularly, through the five major revisions during the past 3 years, we announced "The Role of the Korean Doctor"(2014) in December 2013 with the earnest hope that this document may contribute to maintaining and promoting the professionalism of doctors practicing medical care and the curriculum to foster Korea's doctors.

"The Role of the Korean Doctor" (2014) addresses the values and competencies to be pursued by today's Korean doctors as professionals across the five areas of "patient care", "communication and cooperation", "social responsibility", "professionalism" and "education and research." Going forward, the Role of the Korean Doctor will continue to be supplemented and updated based on ongoing research and feedback from all sectors of society with the aspiration of assisting Korean doctors, who embrace this Role of the Korean Doctor as their professional gold standard, become leaders in medical welfare both in Korea and in the world.

	Category		Section	competency
1.	Patient Care	1.1	Medical Knowledge and Clinical Skill	6
		1.2	Professionalism	5
		1.3	Patient Safety	4
2.	Communication and Cooperation	2.1	Communication and Cooperation with Patients	7
		2.2	Communication and Cooperation with Patient Guardians	2
		2.3	Communication and Cooperation with Colleagues	5
		2.4	Communication and Cooperation with Society	3
3.	Social Responsibility	3.1	Maintenance of Individual and Public Health	5
		3.2	Participation in Public Health Policy Making & Response to Future Medicine	3
		3.3	Disaster Relief and Promotion of International Cooperation	3
4.	Professionalism	4.1	Patient Care based on Ethics and Autonomy	4
		4.2	Patient-Doctor Relationship	3
		4.3	Profession-led Self-Regulation	4

		4.4	Professionalism and Self-Care	4
5.	Education and Research	5.1	Education	3
		5.2	Research	4

3.4.7 The In-Training Assessment

- In-training Examination

Compared to specialist qualification test to evaluate the achievement of training objective holistically, in-training examination is a test to make specialist participate in education program actively by identifying the level of training status. Most specialty conducts evaluation examination independently led by relevant academy. Currently, 18 specialties conduct in-training examination and internal medicine, pediatrics, obstetrics and gynecology, ophthalmology, tuberculosis, pathology, preventive medicine and occupational medicine do not conduct in-training examination. Mostly, the in-training examination is conducted every year and the specialists in the same years of resident are taking the same examination. More than half of specialties include essential course and some specialties make specialists select the subject for examination.

Examination is conducted based on paper, but radiography test (radiology) and computer based test (orthopedics and emergency medicine) is conducted for some cases. The test is composed of more than 100 questions on average, and most of them is MCQ with some SAQ. The questions are managed by training committee of each specialty academy and result of the test is provided to specialist and training program director.

3.4.8 The Presence of Graded Responsibility and the Measurable Outcomes at each Level

The concept of ‘milestone’ and ‘EPA’ has been introduced recently to Korean resident education. As an example, outcome or competency based resident education of ENT specialty is illustrated. Currently same work for other specialties is under development now.

- Professional Competency and Assessment for ENT in Korea

Until now, ‘TFT conference for developing ENT professional competency’ has developed 21 professional competencies by outcome based approach.

- Otology

・ Congenital external and middle ear abnormality

・ Adult and pediatric hearing impairment

・ External ear disease

・ Acute otitis media and otitis media with effusion

・ Chronic otitis media

・ Dizziness

・ Tinnitus

・ Facial nerve palsy

・ Skull base disease

・ Traumatic ear perforation

- Rhinology

・ General rhinology

・ Olfactory and tasting sense

・ Rhinosinusitis and cost

・ Allergy and immune

・ Nasal septum and external nasal disease

・ Sleep

・ Neoplasm of the nose and paranasal sinuses

- Head & Neck Surgery

・ Neck

・ Oral cavity

・ Thyroid

・ Pharynx

< Table 1> Example of Professional Competency: Adult and pediatric hearing impairment

Theme	Adult and pediatric hearing impairment
Learning objective	Can explain normal development of auditory pathway, and structural and physiological change in hearing impairment Know types and methods of exams for sensorineural hearing loss patients Can differentiate and diagnose sensorineural hearing loss, and provide appropriate treatment

	Know types of hearing rehabilitation treatments and can explain them	
	Medical knowledge	Clinical performance and operation
Basic	Understand normal structure and developmental process of temporal bone and auditory pathway Understand auditory physiology	Can take individual history, family history, social history of patient, carry out physical examination, and interpret their effects on hearing impairment
Year 1, 2	Understand screening test for neonatal hearing loss Understand pathology of sensorineural hearing loss like senile, noise induced, hereditary hearing loss Know principle, type, and method of hearing tests and can apply them for different diseases	Can interpret screening test for neonatal hearing loss
Evaluation	In-training exam, Board exam	OSCE, Oral test, DOPS, e-portfolio with movie clip, etc.
Advanced (Year 3, 4)	Can explain pathway of central auditory neuron Can go through differential diagnosis for hearing loss by providing hearing test Can explain and diagnose hearing impairment with systemic disease Understand principle and prescribing process of hearing aid	Can evaluate patients with hearing loss through electrophysiological and psychoacoustic tests Can explain result of screening test for neonatal hearing loss Can prescribe hearing aid selectively Understand operating principle of bone-conduction hearing aid, artificial cochlear, and artificial middle ear, and can assist surgical method

Evaluation	In-training exam, Board exam	OSCE, Oral test, DOPS, e-portfolio with movie clip, etc.
Sub-specialist	Can understand physiology of hearing, select rehabilitation method, and predict prognosis and result	Can carry out operation for artificial cochlear and artificial middle ear under supervision
Evaluation	Interview and performance evaluation	Interview and performance evaluation
● Carrying out an artificial cochlear operation is limited to the qualified specialists only		

<Table 2> Example of the primarily developed professional competencies, milestone, for ENT specialists (Facial nerve disease)

Disease of facial nerve				
Level 1	Level 2	Level 3	Level 4	Level 5
Facial nerve structure	Disease of facial nerve - central facial nerve palsy - peripheral facial nerve palsy	Treatment for facial palsy - medication - surgical treatment	Surgery for facial palsy - severity test - surgical approach - facial nerve graft	Overall care for patients with facial palsy - medical examination - diagnosis - treatment - surgery - prevention of complications
Dynamics of facial nerve	Medical examination and scientific examination (including HBgrade)	Treating pediatric facial palsy	Prognosis of facial palsy	
Filming of facial nerve	Diagnosis of facial palsy (including NET, MST, ENoG, EMG)	Facial palsy patient management (preventing complications-Ophthalmology, rehabilitation medicine)		

Comments
Basic course (in-training, year 1 and 2) Level 1 (basic knowledge) 1) Should know basic anatomy of facial nerve 2) Should know muscle innervation and function of facial nerve 3) Should be aware of facial nerve course on CT & MRI image Level 2 (Diagnosis and disease) 1) Should be able to list diseases that can cause facial nerve palsy, and know how to distinguish between central type(cerebral hemorrhage, cerebral infarct, facial nerve neuroma) and peripheral type(otitis media, Bell's palsy, Ramsay Hunt Syndrome) 2) Should understand review of system and physical examination for a patient with facial palsy (including Gr evaluation) 3) Should be fully aware of tests needed for diagnosing facial palsy (know types of tests, pros and cons) Advanced Course (In-training year 3, 4) Level 3 (Treatment) 1) Determine treatment method for facial palsy according to the test result 2) List methods of medical treatment and types of medicine 3) Know indications for surgical treatment 4) Classify patients into child and adult and can separate treatment 5) Know how to manage patients to prevent complications Level 4 (Surgery) 1) Understand principle needed for facial nerve surgery and can interpret the result 2) Can list ways of surgical approach 3) Should understand surgical range of middle cranial approach method, transmastoid approach method, anterior and posterior approach method, and should know the pros and cons of each approach

4) Should know method of facial nerve regeneration and the nerves that can be used for facial nerve transplantation

5) Should know prognosis of medical treatment and surgical treatment for facial palsy

Samples of Credentialing for Resident Education Requirement by Specialty are specified by the Medical Service Act of the Ministry of Health and Welfare.

The examples of credentialing for resident education for some department are shown in below table (Table 3).

<Table 3>Internal Medicine Specialty Program

Year	Division	Contents
1	Number of assigned patients	As a main physician, the trainees must handle minimum of 100 inpatients including 20 patients of Gastro Intestinal Medicine, 15 patients of Pulmonology and Cardiology, and more than 50 patients of other Internal Medicine (Nephrology, Endocrinology, Immunology, Hemato-Oncology, Rheumatology, Infection, and Allergy).
	Training program	Goal: As a specialist of Internal Medicine, the trainees are expected to have basic knowledge and abilities to deal with medical emergency. 1. General history taking, Physical examination (including fundus examination), and ability to read the results of neurological examination and laboratory tests 2. Ability to interpret basic EKG results (more than 50 cases) 3. Ability to interpret X-ray of chest and GI track 4. Training of internship trainees on general treatment and diagnosis of inpatient 5. Learning to record general medical procedures (more than 20 cases: thoracic, abdominal, pericardial and spinal puncture, etc., and central venous catheter insertion)
2	Number of assigned patients	Minimum of 100 inpatients (same as 1st year)
	Training program	Goal: The trainees are expected to learn how to interpret and record special medical test as an Internal Medicine specialist. The trainees must take the following during their 2nd and 3rd years of training: 1. 50 cases of endoscopy (gastro-intestinal tract, bronchus, etc.) 2. 80 cases of function test(lungs, heart, endocrine, liver, immune system, nuclear medicine examination) 3. Biopsy of organs and tissues (liver, kidney, lungs, pleura, peritoneum, bone marrow, etc.) and reading

		of biopsy results 4. Heart and abdominal ultra sonography 5. Two-month training in intensive care unit and emergency room(active participation in emergency care and intensive care management)
3	Number of assigned patients	Same as the 2nd year
	Training program	Same as the 2nd year
4	Scope of patients	More than 300 outpatients
	Training program	Goal: The trainees are expected to supervise students and 1st and 2nd year specialist trainees, educate patients and their guardians, treat outpatients, and consult with other departments on patients' care while taking charge of patients' treatment. 1. Supervising inpatients' treatment (more than 100 cases) 2. Outpatients' treatment (more than 300 cases) 3. Assisting consultants 4. Education of staff in the healthcare field 5. Education of patients and their guardians 6. Training in a specific field(optional)
Total	Number of assigned patients	1. Minimum of 300 inpatients (as a main physician) 2. Minimum of 300 outpatients
	Training program	(Refer to that described above)
	Participation in Conferences	Minimum of 20 external conferences(including participation in at least 5 conferences hosted by the Korean Association of Internal Medicine), participation in minimum of 400 lectures held by the training hospital (within the training period)
	Papers	3 papers (including a paper as a main author) within the training period. Trainees must submit at least 3 papers to recognized journals (including a paper as a main author), and at least 1 paper among them must be published in the Korean Journal of Internal Medicine. Note, however, that trainees who publish an original paper in the Korean Journal of Internal Medicine (English version) as the first author are accepted to fulfill the requirement for the papers. In case there is no paper published in the Korean Journal of Internal Medicine, the trainees must additionally show evidence that they submitted a poster as the first author in the workshop in the Korean Association of Internal Medicine conference.
Remarks		1. In case of working in other departments, the trainees must provide evidentiary document from the head of the department. 2. In case the training hospitals are not adequately equipped with the necessary facilities, the trainees must be dispatched to other adequate hospitals for the required period, and official evidentiary

		documents must be obtained from the head of the department of the dispatched hospital. 3. The number of patients that the trainees deal with each year may be changed depending on each training hospital within the total number of required patients.

<Table 4>Neurosurgery Specialty Program

Year	Division	Contents
1	Number of assigned patients	Minimum of 75 inpatients(actual number of patients) 1. Minimum of 25 participation in surgeries 2. Neurological examinations 3. Learning emergency patients' treatment 4. Learning pre- and post-operation treatment 5. Learning to record the tracheotomy procedure 6. Learning to record minor surgeries and neurosurgery procedure 7. Neuroanatomy, Neuroradiology training 8. Neurosurgery training
	Training program	
	Participation in Conferences	Minimum of 1 in external conferences Minimum of 100 in the training hospital
	Experience in other department	The trainees are recommended to undergo 6 months' dispatched training in General Surgery, Orthopedics and Neurology.
2	Number of assigned patients	1. Minimum of 75 inpatients(actual number of patients)
	Training program	1. Minimum of 25 participation in surgeries 2. Learning severe patients' treatment 3. Learning to record the Neurosurgery procedure 4. Neuroanatomy, Neuroradiology training 5. Neurosurgery training 6. Neurology training
	Participation in Conferences	Minimum of 1 in external conferences Minimum of 100 in the training hospital
	Papers	1 paper (as the first author)
3	Scope of patients	1. Minimum of 75 inpatients(actual number of patients)
	Training program	1. Minimum of 100 participation in surgeries 2. Learning to record the neurosurgery procedure Neuroradiology training 4. Neurosurgery training 5. Presentation of paper in conferences

		6. Training on recording microsurgery 7. Experiment on animals 8. Neurology training
	Participation in Conferences	Minimum of 2 in external conferences Minimum of 100 in the training hospital
	Papers	1 paper (as the first author)
4	Number of assigned patients	1. Minimum of 75 inpatients (actual number of patients)
	Training program	1. At least 100 cases of participation in surgeries 2. Learning to record the neurosurgery procedure 3. Neuroradiology training 4. Leading patient rounding at least twice a day Pediatric Neurosurgery training 6. Presentation of paper in conferences 7. Outpatient treatment 8. Training on recording microsurgery
	Participation in Conferences	Minimum of 2 in external conferences Minimum of 100 cases in the training hospital
	Experience in other department	The trainees are recommended to undergo 6 months' dispatched training in General Surgery, Orthopedics, and Neurology
Total	Number of assigned patients	1. Minimum of 300 inpatients(actual number of patients)
	Training program	1. 300 or more cases of discharge summary 2. 300 or more cases of operation records 3. 100 or more cases of Neuropathological diagnosis
	Participation in Conferences	Minimum of 6 in external conferences Minimum of 400 in the training hospital
	Papers	2 papers
	Experience in other department	The trainees are recommended to undergo 6 months' dispatched training in General Surgery, Orthopedics, and Neurology during the training period.
Remarks	Training contents	The trainees must perform at least 250 surgeries as a surgeon or 1st assistant; 50% of the surgeries must be elective surgeries, and 20% must be tumors and vascular surgeries.

3.4.9 End of year exams and final exam (nation level) certification and the recertification

Specialist Qualification Examination

The certificate of specialist is issued by the MOH with the official seal of the minister. The government certified or recognized teaching hospital issued the certificate of the completion of specialty training and this certificate is reviewed by training and examination committee of each specialty society. Training should be completed for a specified period of each specialty after obtaining medical license in Korea to obtain specialist qualification. One needs to pass specialist qualification examination. The specialty examination is supervised by the delegate of MOH as a government proctor.

- Qualification to Take Examination

One needs to complete training for a specified period of each specialty to take the specialist qualification examination. Most specialties has training period for 1 year as intern and 4 years as resident and family medicine, preventive medicine and tuberculosis requires 3 years of resident program completion. The training period has been changed depending on social changes and development of each discipline. Recently, some specialty reviews the reduction of resident period to 3 years.

Training contents are broadly defined by acts and professional groups including relevant academy define specific details. The training is mainly composed of professional knowledge and skills but at the same time academic career is included as essential items requiring participation in symposium and writing academic papers.

The training period and contents should be checked in the process of reviewing qualification of the applicants. In case of applicants trained in other countries, the eligibility is reviewed in this process.

- Examination Format

Specialist qualification examination started with portfolio examination but it changed to written test. The first examination was composed of written test and oral test. The written test was composed of short answer form and essay form.

After that multiple choice questions were adopted and took root with increasing ratio gradually. In particular, as the work of specialist examination was migrated to the Korean Medical Association in 1973 the ratio of multiple choice questions increasing further. In 2012, 4 specialties had written test composed only of multiple choice questions and this trend was expanded to 18 specialties in examination in 2016.

There have been some changes in the contents after the adoption of multiple choice questions. At first, most of the questions were true-false items but it has been changed to structure that make examinees select the best choice with high portion of problem solving questions. The essay-type questions have been changed from short description to short-answer type (Table 5).

<Table 5> Part 1 Written Examination Format of Specialty Certifying Examination

Specialty	Ratio (%)	
	MCQ	SAQ
Internal Medicine	80	20
Surgery	60	40
Pediatrics	60	40
Obstetrics and Gynecology	60	40
Psychiatry	100	-
Orthopedic Surgery	70	30
Neurosurgery	60	40
Thoracic Surgery	70	30
Plastic Surgery	70	30
Ophthalmology	60	40
Otolaryngology	82	18
Dermatology	70	30
Urology	90	10
Radiology	75	25

Radiation Oncology	80	20
Anesthesiology	60	40
Neurology	100	-
Rehabilitation Medicine	80	20
Tuberculosis	60	40
Laboratory Medicine	70	30
Pathology	60	40
Preventive Medicine	80	20
Family Medicine	100	-
Occupational Medicine	64	36
Nuclear Medicine	80	20
Emergency Medicine	100	-
MCQ : multiple choice question(selection type) SAQ : short answer question(supply type)		

The oral test of the first examination was conducted in a way that examiner asks questions on medical knowledge and examinee answers to that question to evaluate not psychomotor domain but cognitive domain. The oral test started changing from 1964 when the test was separated into first and second test. The change was made to test using actual data, slide test and skill test and some specialty contains clinical performance test these days (Table 6).

<Table 6> Part 2 Performance Examination Format of Specialty Certifying Examination

specialty	contents
Internal Medicine	VMATE*/Case discussion
Surgery	VMATE*
Pediatrics	VMATE*
Obstetrics and Gynecology	VMATE*/PMP
Psychiatry	Video test/Psychotherapy test
Orthopedic Surgery	VMATE*/Viva
Neurosurgery	Viva
Thoracic Surgery	VMATE*/ Viva
Plastic Surgery	CPX/Portfolio
Ophthalmology	VMATE*/ Viva /Specimen test
Otolaryngology	CPX
Dermatology	VMATE*/Specimen test/ Viva
Urology	VMATE*/PMP
Radiology	VMATE*/X-ray Reading
Radiation Oncology	VMATE*
Anesthesiology	VMATE*
Neurology	CPX/Video test/ Viva
Rehabilitation Medicine	VMATE*/Specimen test

Tuberculosis	VMATE*/X-ray Reading
Laboratory Medicine	VMATE*
Pathology	VMATE*/Specimen test/ Viva
Preventive Medicine	Viva
Family Medicine	CPX/VMATE*
Occupational Medicine	VMATE*
Nuclear Medicine	VMATE*
Emergency Medicine	VMATE*

***VMATE: Visual Material Assisted Timed Exam for case management e.g. pathology slide, photos, data table and graphic data etc.**

- Pass Rate

In general, qualification examination in the form of comprehensive test, is conducted to check the achievement level of minimum requirement with absolute evaluation method. Specialist qualification examination in Korea follows this structure with pass criteria of obtaining 60% of total score.

In the initial stage, the pass rate was 60 to 70 percent but it had increased gradually to over 90% in 1980 and has been maintained at more than 90% with some exceptions.

3.4.10 The level of Independent practice in country of competent authority and their prospect of appointment to practice in the country where they trained

In Korea, the medical license is given to those who graduate from a medical college and pass both the written test and practical test. The fact that the medical license is issued does not necessarily mean that one's specialty of medical practice is qualified to perform medical practice of every subject. Almost all medical college graduates in Korea go through the resident course to become a medical specialist. The area of general practice as well specifies the course of family practice medical specialists. Thus, independent medical examination in Korea is exclusively for a specialized area that one is trained for. Those who graduate from a medical college, complete an internship course, and find employment would work as an assistant for future independent medical examination, work as a undifferentiated general practitioner handling a quite low level of medical treatment, or learn works of medical specialists under the supervision.

As of late 2015, the number of people who obtained medical license newly was 3,106 and 3,112 people completed internship and among them, 2,901 people applied for resident program. The number indicates that all of those who obtained medical license newly start internship course and more than 93% of them enter resident program. The high ratio of people for resident program does not stop here. The number of whose who applied for specialist examination after the completion of resident program was 3,390 for the same year (except for trainees overseas), which is bigger than the number of those who obtained medical license newly. The number indicates that even though there are people who completed internship and didn't enter into resident program, some of them enter into resident program

later. In short, becoming a specialist after completing resident program is recognized as an essential post-graduation education course.

It is estimated that more than 95% of doctors who are practicing as of now have hold specialist qualification. As most of doctors are specialist, there is no functional limitation to specialist job. A specialist can practice in all medical institutions from the tertiary medical institution to the primary medical institution. However, the boundary of specialties is clearly separated to the extent that specialist qualification is treated like exclusive right as license. In particular, this is very clearly shown in the secondary and tertiary medical institution. The boundary is a social norm and the insurance companies limit the scope of medical treatment by reflecting the division of specialty for insurance premium.

3.4.11 Cross recognition of the graduate by other regional authorities to practice independently

At present, mutual acknowledgement of a Korean medical license and a foreign medical license is not available in Korea. Even though Korea does not allow medical practice by person with foreign license holder but medical practice of those people is allowed for following cases by act.

Article 18 of the Enforcement Regulation of the Medical Service Act [Medical Practice of Foreign License Holders]

Those who hold medical license of other countries under the Article 27.1.1 of the act and stay in Korea for the purpose of performing one of the following activities, they can conduct medical activities within necessary scope with the approval from the Minister of Health and Welfare.

1. Work of exchange professor as a result of education or technology cooperation with other countries

2. Work related to education research project

3. Medical volunteer work by international medical volunteer group

3.4.12 Quality Assurance and audit of Program

For quality management of resident education in Korea, the following three methods are adopted: the table of annual curriculums specified by the Medical Treatment Act, the training hospital performance evaluation conducted by Korean Hospital Association, the specialty evaluation at each hospital conducted by various specialty associations for each professional clinical subject as part of the credit rating of resident training hospitals. These methods all aim at quality supervision and promotion of resident training in pursuit of medical excellence and the ultimate supervising body is the MOH.

Hospital accreditation is conducted by site visit through a 5-day evaluation group of 7 to 8 individuals visiting university hospitals with 500 or more sickbeds. The domestic standard for resident training quality management is quite strict as it requires the teaching hospital accreditation which is a unique institution evaluation system of Korea, the completion of the curriculum for each year of resident training specified by the Ministry of Health and Welfare in law, and the onsite evaluation for a quarter of the day that is conducted annually by an academic association related to that subject. There are a number of specific legal criteria regarding resident training and designation of training hospitals. Recently, there are moves to adopt competence-centered qualitative evaluation in addition to existing input and process-centered quantitative evaluation, which indicates the transition to setting a milestone and EPA for resident training based on on-clinical competence and specialty specific competence of residents. In other words, the domestic evaluation on resident training is currently output-centered and based on the input and process, but it is changing to focus on competence based on the outcome.

3.4.13 The Maintenance of Licensing and the Relicensing System

To maintain the license, it is required to take a complementary continuing medical education or continuing professional development course of at least 8 credits every year. Each point does not necessarily mean one hour, but two hours or more may have to be spent for 1 point. Unless one has received a disciplinary action of the central ethics commission of Korea Medical Association or of the Ministry of Health and Welfare for a violation of the Medical Treatment Act, or a criminal penalty for general crimes, the license is automatically renewed with one report in every 3 years. Unless the minimum credit of CME/CPD is fulfilled or there is a violation regarding the obligation of complementary education courses and ethical regulations, the license is renewed automatically.