

MEDICAL SCHOOL HOTLINE

Hawai'i Medical Education Program: An Innovative Method to Incorporate American Education Methodologies into the Traditional Japanese System

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Background

The current medical educational system in Japan was established more than 60 years ago.¹ Reforms introduced by the Japanese were influenced by the Allied Forces and the US educational system in the 50s and 60s. Currently, Japanese medical education is a six-year program that starts immediately after high school. The curriculum consists of general education for first two years; pre-clinical studies which include basic science during the third and fourth years; clinical clerkships during the fifth year; and exams and preparation for the national licensure examination during the sixth year.² Throughout the six years, the majority of time is spent in lectures, with little or no hands-on clinical experience. Medical education focuses mainly in acquiring didactic medical knowledge necessary to pass the national licensure examination.

In comparison, US clinical experiences in medical education are standardized and strictly regulated by accrediting organizations, the Liaison Committee on Medical Education (LCME) during medical school and the Accreditation Council for Graduate Medical Education (ACGME) during residency training after medical school. In 2004, to address the limited clinical experience in Japanese medical education, the Ministry of Health (Ministry of Health, Labor and Welfare) ordered a two-year mandatory postgraduate training program following graduation and acquisition of medical license. Currently, this is required before physicians can practice independently.²

The Japanese mandatory postgraduate training is similar in its content to that of the clinical clerkship experiences conducted in the third and fourth years of study at US medical schools. Following the two-year postgraduate training, physicians usually continue in residency programs in specific specialty areas. Table 1 is a summary comparison of medical education systems between Japan and the United States.

Medical schools in the United States and Canada are accredited by the LCME with strict educational and administrative standards. Accreditation oversight is conducted by the LCME. Accreditation is granted if all the standards are met by the

medical school. Students that have graduated from LCME accredited medical schools take the United States Medical License Examination (USMLE) and apply for the National Residency Matching Program (NRMP) for US residency positions. In US residency programs, trainees are assigned greater patient care responsibility under supervision with focused experiences in the specialty areas.

For foreign medical school graduates to apply for the NRMP, they must obtain certification from the Educational Commission for Foreign Medical Graduates (ECFMG). In July 2010, the ECFMG announced that, effective in 2023, foreign physicians applying for ECFMG certification will be required to graduate from medical schools that have been appropriately accredited.^{3,4} To satisfy this requirement, foreign medical schools must be accredited through a formal process that uses criteria comparable to those established for US medical schools (LCME), or other globally accepted criteria such as those put forth by the World Federation for Medical Education (WFME).

Currently (as of March 2017), most Japanese medical schools do not meet the criteria set by either LCME or WFME. In particular, clinical medical education, such as bedside teaching and patient care responsibility are less extensive in Japanese medical schools than the world standard. The Ministry of Educa-

Japan	United States
High School	High School
Medical School (6 Years) ¹	College (4 Years), Medical School (4 Years) ³
#Medical Licensure Examination	#USMLE
Mandatory Post Graduate Training (2 Years) ²	<Clinical Clerkship (2 Years)> ³
Specialty Residency (3 – ? Years)	Residency/Fellowship (3 – ~8 Years)
Ministry of Education ¹	LCME ³
Ministry of Health ²	

tion and all Japanese medical schools are aware of this critical issue and are revising their medical school curricula to meet global standards. The majority of Japanese medical schools are planning to launch new curricula for freshmen beginning in April 2017.

To adapt their own curricula to meet the ECFMG requirement by 2023, Japanese medical schools have demonstrated a strong interest in learning about curricula and teaching methodologies used by US LCME accredited medical schools. The University of Hawai'i (UH), John A. Burns School of Medicine (JABSOM), with its long history of collaboration with Japanese medical schools, is offering an innovative method to incorporate a US medical education curriculum and methodologies into the traditional Japanese system as one approach to address the existing challenges.

Hawai'i Medical Education Program

To comply with the regulations, foreign medical school graduates applying for NRMP must obtain certification from the ECFMG. The Hawai'i Medical Education Program (HMEP) was created by the Office of Global Health and Medicine, with the endorsement of the Dean of JABSOM, to help facilitate students in obtaining ECFMG certification. This HMEP fulfills the Japanese medical education requirements by the Ministry of Education simultaneously.

The following are key points of HMEP (see Table 2):

1. During Japanese medical school (JMS) years 1-4, (every Saturday) classes are offered in Tokyo to Japanese medical students as extracurricular educational activities. In these classes, liberal arts, critical thinking skills, basic science, and clinical science are taught (some in English). Faculty members are familiar with the UH JABSOM style of medical education. This is supplemental to the students' regular weekday classes. Also these special classes for Japanese students provide an understanding of UH education, particularly interactive discussion essential in problem-based learning (PBL) and clinical clerkship. Learning English communication, including, interpersonal skills are also emphasized in these classes.

2. The majority of the educational activity of HMEP is conducted in medical schools and affiliated teaching hospitals in Japan, except for the Hawai'i Clinical Clerkship Preparation Program (HCCPP). Before students enter the UH style clinical clerkship in Japan at JMS year 4, they will visit and spend one month at JABSOM in Hawai'i. They will experience the UH style of clinical clerkships by observing bedside teaching teams, by interacting with UH medical students, by experiencing the UH PBL exercises and by clinical simulation education, under the aegis of JABSOM's Office of Global Health. HCCPP is conducted to motivate students to better understanding US style clerkship methods.

3. During JMS years 4-6, Japanese students will undergo newly designed clinical clerkships in major medical specialties, similar to JABSOM clerkships: internal medicine, general surgery, pediatrics, obstetrics-gynecology, family medicine, psychiatry, emergency medicine and geriatrics. These clerkships are conducted at Japanese teaching hospitals, and the majority of the faculty physicians are Japanese clinical educators who have been trained in the United States, with sufficient understanding of the US style clinical clerkships.

4. During JMS years 1-4 (class room years), and also during JMS years 4-6 (clinical clerkship years), HMEP students are encouraged to prepare for the USMLE through self-study, interactive learning with faculty, as well as mock examinations provided by HMEP educators. HMEP faculty will offer additional help and support for students who are interested in joining the NRMP to enter US residencies.

5. JABSOM and HMEP faculty in Japan will offer continued mentoring and support to graduates of the HMEP, even after graduation from Japanese medical schools.

In April 2016, the HMEP was launched in Japan in partnership with Tokai University School of Medicine. This HMEP curriculum meets the ECFMG requirements and global standards. The Japanese academic year is from April to March of the following year. During the 2016 academic year, a total of 30 special classes were completed from April 2016 to February 2017. The current JMS year-1 students participated in these classes.

Many teaching faculty members are dual licensed in Japan and the United States (with US board certification). The faculty members also include non-medical professionals such as PhD faculty members from various fields, politicians, communication specialists, and so forth. The extended faculty members of course also include practicing and teaching American physicians in Japan.

Table 2. Incorporation of the HMEP into the Japanese Medical Education System

Medical School Year	1/2 Year	Japanese System	HMEP	USMLE Prep
1	1st	Liberal Arts	Weekend Class	
1	2nd	Basic Science	Weekend Class	
2	1st	Basic Science	Weekend Class	
2	2nd	Basic Science	Weekend Class	
3	1st	Clinical Science	Weekend Class	
3	2nd	Clinical Science	Weekend Class	Step 1
4	1st	Clinical Science	HCCPP at UH, JABSOM*	
Exam (CBT, OSCE)				
4	2nd	Bedside Learning	Clinical Clerkship in Japan	Step 2 CK
5	1st	Bedside Learning	Clinical Clerkship in Japan	
5	2nd	Bedside Learning	Clinical Clerkship in Japan	
6	1st	Bedside Learning	Clinical Clerkship in Japan	Step 2 CS
6	2nd	Graduation Exam		
Medical Licensure Exam				

*Office of Global Health/Medicine

In the 2017 academic year (from April 2017), basic science will be taught to JMS year-2 students. In 2018, clinical science will be taught to JMS year-3 students, once the current 2016 JMS year-1 students become JMS year-2 and -3. For 2019 and beyond, HMEP is preparing the US style clinical clerkships for JMS year-4 students to be conducted at a new US style international teaching hospital, affiliated with Tokai University. This clerkship will be conducted in both Japanese and in English. Direct patient care will be performed in Japanese since the patients are predominantly Japanese, while teaching rounds and conferences will be conducted in English. Unlike observerships, the students will gain hands-on clinical experience as “student-doctor” team members. Prior to graduation in 2022, these students (current 2016 JMS year-1 students) will prepare for USMLE step 1 and step 2CK/2CS, in addition to preparing for the Japanese medical licensure examination.

A number of other Japanese medical schools have been showing interest in participating in the HMEP. It is expected that 5 or 6 schools will join the HMEP beginning in 2017.

Conclusion

Because of the ECFMG requirement of 2023, Japanese medical schools need to revise their curriculum beginning in 2017 so that these graduates from medical schools in 2023 will be educated under criteria expected by the LCME or WFME. Consequently, Japanese medical schools are reaching out to US medical schools for assistance, particularly in regards to the application of hands-on clinical clerkships.

There have been certain reforms in Japanese medical education and postgraduate residency training in the last 25 years. This

includes implementing the two year mandatory postgraduate medical training, initiating PBL learning curriculum and the achievement test in preclinical core curriculum and medical simulation education.⁵ Nonetheless, Japan continues to remain a conservative nation in terms of medical education compared to other Asian countries that have enthusiastically imported modern US or European medical educational systems. Moving forward, Japan will benefit by extending further into the international world of medical education. Collaborations with United States and other foreign schools will support the future globalization of medical education in Japan. The new innovative HMEP approach summarized in this article has the strong potential to serve as a role model for Japanese medical schools and can help global standardization of Japanese medical education and help ensure that Japanese medical students are able to obtain ECFMG certification and apply for residency positions in the United States.

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