

# Educational Opportunities for Medical Students in the United States

The purpose of this brochure is to provide a guideline to graduates of medical schools regarding entry into graduate medical education in the United States. It contains information on the following subjects: clerkships, residency and fellowship programs, medical research, United States Medical Licensing Examination (USMLE) and state licensure.

## The Structure of U.S. Medical Education

The structure of medical education in the United States differs from most countries. In the United States it is **not** possible for a student to start medical studies after the completion of high school at the undergraduate level. A student must first complete a four-year undergraduate 'pre-medical' program at a college or university and obtain a Bachelor's degree before entering medical school.

The U.S. medical school takes four years and results in an M.D. (medical doctor) degree. Medical school graduates then supplement their training by pursuing a hospital internship or residency for three to seven years.

Dutch VWO students must take into consideration that the required period of study for basic medical training is eight years when contemplating studying medicine in the United States. In addition, there are no financial aid opportunities available.

## Acceptance Rate at U.S. Medical Schools

Admission to U.S. medical schools is extremely competitive. Many schools will not consider international students for admission to an M.D. program, and overall less than 5% of those who apply from overseas are accepted. The chance of admission increases if the applicant has obtained U.S. permanent residency (a "green card") or has studied at least one year at a U.S. undergraduate institution.

## Costs

The average annual cost of tuition and fees for the first year at a state-funded medical school is \$19,500 for out-of-state students; for a private school, the tuition and fees average \$24,000. In addition, the cost of living for an academic year (nine months) ranges from \$10,000 to \$15,000, depending on location. Scholarships for international students are very rare and U.S. lending institutions will not extend student loans to

them. U.S. permanent residents may be eligible for such loans. Establishing residency in a state, to lower tuition costs, normally takes one year for both permanent residents and U.S. citizens.

## Transfer Students

Although it is very difficult for a Dutch medical student to transfer halfway into a U.S. medical school, general information can be obtained by contacting:

### Educational Commission for Foreign Medical Graduates (ECFMG)

3624 Market Street  
Philadelphia, PA 19104-2685  
USA  
Telephone: (001) 215-386-5900  
Internet: <http://www.ecfm.org>

## Clerkships

Dutch medical students interested in going to the U.S. before completing their medical education in The Netherlands as a part of their *co-schappen* may apply to U.S. medical schools for advanced clinical clerkships or clinical elective programs. It is very common in the U.S. to do clerkships at different universities, so institutions are used to receiving clerkship applications from students that are enrolled elsewhere. Many institutions also accept international applications. This is usually clearly stated in their information. However, international medical students will be admitted on a space available basis, since U.S. schools have to place their own students first. Generally speaking, it is easier to get an elective clerkship than a core (=required) clerkship, and private medical schools are more likely to accept international students than state universities.

Clinical clerkships are usually for a maximum of three months. International medical students must be enrolled in a medical

school listed in the current edition of the World Directory of Medical Schools, published by the World Health Organization, and have a malpractice and liability insurance to be considered for admission. For medical students seeking clerkships during their studies, there are no specific test requirements. However, it may be useful to pass Step I of the USMLE. See below for further information on USMLE. Students doing clerkships of this type will enter the U.S. on an F-1 student visa or a J-1 Exchange Visitor visa, available from the American Consulate General in Amsterdam. To request a visa, the student must use an I-20 or DS-2019, respectively, issued by the U.S. medical school concerned.

### Obtaining a Clerkship

Information on clerkship opportunities is listed in the catalogs of medical schools. The **Fulbright Center** has basic information on all U.S. medical schools available in its documentation center. Some Dutch universities have official clerkship exchange agreements with American institutions. Ask the International Office for more information. Many students obtain a medical clerkship through one of their professors. He or she can contact the department of medicine or a colleague he or she personally knows about the possibility for a Dutch medical student to do one or more clerkships (*co-schappen*). The International Federation of Medical Students' Associations also offers exchange opportunities. Look at [www.ifmsa.org](http://www.ifmsa.org) for more information.

Clerkships done in the U.S. do **not** generally count as a substitute for *co-schappen*, which need to be done in The Netherlands. Students tend to do it for their own benefit and experience. A clerkship could be a great advantage for later on, if the student is considering a residency (*specialisatie*) program in the United States.

### Residency and Fellowship Programs

A Dutch physician (*basisarts*) interested in doing a specialization at a U.S. medical school is eligible for a medical residency training or fellowship program. A valid Standard ECFMG (Educational Commission for Foreign Medical Graduates) Certificate is required in order to enter medical residency training or fellowship programs in the United States that are accredited by the Accreditation Council for Graduate Medical Education (ACGME). See below for further information on the Certificate.

A fellowship is usually an appointed position by a medical school. It is similar to a hospital residency, but generally places more emphasis on teaching, laboratory and research experience. Most foreign doctors interested in going to the U.S. for further studies will be interested in a medical residency program. The length of time spent in residency training varies for the different medical specialties. In general, three to seven years are necessary to complete the program.

The Graduate Medical Education Directory, which is available in the **Fulbright Center** documentation center, provides a list of names, addresses and phone numbers of the residency

program directors of ACGME-accredited graduate medical education programs in the United States. Alternatively, the website of the **American Medical Association (AMA)** contains a database of residency programs, **FREIDA Online**. Users can search the database by specialty, region, program size and educational requirements. All program listings offer the following information: name of program director, fax and e-mail address, program length and number of positions offered. Most also include information on compensation and benefits, resident-faculty ratio, work schedule, policies and educational environment.

To access **FREIDA**:

[www.ama-assn.org/ama/pub/category/2997.html](http://www.ama-assn.org/ama/pub/category/2997.html)

For further information:

Telephone: (001) 800-266-3966

E-mail: [freida@ama-assn.org](mailto:freida@ama-assn.org)

Doctors should contact residency programs as early as possible to determine eligibility requirements and request application materials. Applicants are responsible for requesting recommendations, arranging transcripts and forwarding material to each program by the established deadline.

### Electronic Residency Application Service (ERAS)

Many residency programs require applicants to apply through ERAS. ERAS transmits residency applications and supporting documents, such as transcripts and letters of recommendation, to residency program directors. To participate in ERAS, applicants must have access to the Internet. For additional information, please check: [www.ecfm.org/eras](http://www.ecfm.org/eras)

### National Residency Matching Program (NRMP)

In addition to applying directly to the hospital residency programs in which you are interested, it is important to also register with the NRMP, since many hospitals only select applicants who participate in the Match. The NRMP is not a centralized application service for medical education programs in the United States, but rather a mechanism for matching applicants with programs according to the preferences of both parties. The timetable of the NRMP runs from September to March, when position matches are announced.

All examinations necessary for ECFMG certification must have been passed in February in order to remain in the Match. See below for further information on the Certificate. Residencies start in July following the March announcements.

The NRMP allows you to state 14 preferences for different programs. Since your first choice program and field of specialization may be quite competitive, it may be smart to list other programs somewhere on your list of preferences. For instance, if your first choice specialization is internal medicine, you might also want to interview for a flexible program or family practice, as these are less competitive. The flexible programs in particular are good in that they last one year, after

which you choose a specialty. Although you lose a year by doing this, it improves your chances of a placement.

In order to have a good chance of being placed via the NRMP, it is important to visit the hospitals you are interested in between August and the beginning of October of the year in which you are participating in the NRMP. If you have personal contacts with a hospital or have a professor who knows people at a particular hospital, make use of this. These interviews with hospitals are essential because American hospital staffs are unlikely to place someone on their ranking list that they have never met. It is also best to contact programs in advance, as there are many programs that do not admit foreign medical graduates. You must be ECFMG certified before undertaking the interview phase, so it is best to take these exams in the year preceding the year in which you want to start a residency program. There is **no** guarantee that you will be matched with any of the selected programs since the number of applicants may be larger than the number of available positions. If there are unmatched positions, anyone who has not been matched can try to get one of these slots. This means, however, that you will have to travel (again) to the U.S. to be able to present yourself for any open positions. Usually, 45% to 50% of all international medical graduates who participated in the Match, found a residency position.

For details on the NRMP and on-line registration, visit: [www.nrmp.org](http://www.nrmp.org)

### Finances

Residents receive a modest salary for their work, and most residency programs also provide basic employee benefits such as health insurance. Most residencies do not include housing and students should understand that rents can be very high, especially in urban areas. Residency salaries are usually enough to support a single person. If the foreign resident has a family, he/she will need additional resources to cover expenses. Students must have sufficient financial resources for the three-to-seven year program, **before** they begin the residency.

### The J-1 Exchange Visitor Visa

Foreign medical graduates in U.S. residency programs are required to have a J-1 Exchange Visitor visa. ECFMG is authorized by the Department of State to sponsor foreign physicians as Exchange Visitors in ACGME-accredited programs. The objectives of this Exchange Visitor Sponsorship Program are to enhance international exchange in the field of medicine and to promote mutual understanding between the people of the United States and other countries through the interchange of persons, knowledge and skills.

To obtain a J-1 visa from the American Consulate General, you need:

- an DS-2019 document
- a valid ECFMG Certificate
- a contract or an official letter of offer for a position in an ACGME-accredited program that is affiliated with a medical school

- a statement of need from the *Ministerie van Volksgezondheid*. This statement must provide written assurance that the country needs specialists in the area in which the Exchange Visitor will receive training

The duration of your stay is at least limited in two ways:

- to the time required to complete your medical program, which refers to the medical specialty and subspecialty certification requirements published by the American Board of Medical Specialties
- to a period of no more than 7 years

Doctors entering the U.S. under a J-1 visa are subject to the *two-year home country residency rule*. You must return to your country of citizenship or legal permanent residence for two years before requesting another visa to enter the U.S. Dutch citizens, however, may still enter for brief visits or tourism under the Visa Waiver Program, without obtaining a visa. For additional information about the Exchange Visitor Sponsorship Program, contact **ECFMG**.

### Working as a Physician in the U.S.

Apart from working in a residency program, establishing a medical practice is not normally permitted. Upon completion of your residency program you will be required to return home for a minimum of 2 years, as required by the J-1 visa.

In the United States a **license** to practice medicine is a privilege granted only by the individual medical licensing authorities ("state medical boards") of the various jurisdictions. They have sole authority to grant or withhold licenses to practice medicine. Each licensing authority sets its own rules and regulations, and requires as part of the licensing process the successful completion of an examination or the certification demonstrating qualification for licensure. Most authorities will require a residency of several years and the USMLE Step 3 in addition to ECFMG Certification. See below for further information on state licensure.

General questions about the practice of medicine in the U.S. may be addressed to the medical board in the state where you would like to practice. Addresses of the medical boards can be found at the website of the Federation of State Medical Boards, [www.fsmb.org](http://www.fsmb.org)

### Medical Research

Physicians who want to concentrate on medical research instead of clinical work do not need to take the USMLE. Such doctors should find out which universities are well known and well equipped for the type of research they wish to pursue. Fulbright Center information sheets Nr. 12, *'Het vinden van een Onderzoekplaats in de Verenigde Staten'*, contains general information on finding research positions. Medical students can also look for opportunities posted on the website of the International Federation of Medical Students' Associations, [www.ifmsa.org](http://www.ifmsa.org)

Medical researchers can apply for grants, either from the American universities themselves, from private funds and foundations, or from government funded programs such as Fulbright. Information on Fulbright grants is available at the Fulbright Center website, [www.fulbright.nl](http://www.fulbright.nl).

## Graduate Degrees

Foreign medical graduates may also apply to undertake graduate degree programs in fields such as Public Health, and various basic medical sciences such as physiology and anatomy. If no contact with patients is involved, the USMLE is not required, although you may be required to take the GRE (see **Fulbright Center Information Sheets** Nr. 8b, 'Toelatingsexamens: GRE'). This exam is required for all graduate studies leading to a Master's or Ph.D. degree. For information on Graduate Study in the U.S. see **Fulbright Center Information Sheets** Nrs. 3 and 4.

## ECFMG-certification and State Licensure

Physicians wishing to do a residency training or fellowship program must be ECFMG certified. ECFMG certification provides assurance to directors of accredited residency and fellowship programs and to the people of the United States that graduates of foreign medical schools have met minimum standards of eligibility required to enter such programs. ECFMG certification is also a prerequisite required by most states for licensure to practice medicine in the United States and is one of the eligibility requirements to take Step 3 of the USMLE (see further below).

A Standard ECFMG Certificate is issued to applicants who have fulfilled the examination requirements:

- USMLE Step 1
- USMLE Step 2 CK (Clinical Knowledge)
- USMLE Step 2 CS (Clinical Skills)

and who also fulfill the medical education credential requirements.

ECFMG certification does **not** guarantee that graduates will be accepted into residency programs in the U.S.

## USMLE

The USMLE is designated to assess a physician's ability to apply knowledge, concepts and principles that are important to health and disease, and that constitute the basis of safe and efficient patient care. The USMLE consists of 4 complementary Steps. The USMLE program recommends that individual medical licensing authorities require completion of USMLE Steps 1, 2 CK, 2 CS and 3 within a seven-year period. The Step 1, 2 CK and 3 examinations of USMLE are administered by computer only. Step 2 CS is done with real (standardized) patients.

**Step 1** assesses whether you can apply the knowledge and understanding of key concepts of basic biomedical science, with an emphasis on principles and mechanisms of health, disease and modes of therapy.

**Step 2 CK** assesses whether you can apply the medical knowledge and understanding of clinical science considered essential for the provision of patient care under supervision, including emphasis on health promotion and disease prevention. When you apply you **must** have completed at least two years of medical school by the beginning of the three-month eligibility period you select on the application.

**Step 2 CS** evaluates an examinee's ability to gather and interpret clinical patient data and communicate effectively in the English language. Step 2 CS assesses whether an examinee can obtain a relevant medical history, perform a focused physical examination and compose a written record of the patient encounter. Step 2 CS also requires a demonstration of proficiency in spoken English. A medical student can take step 2 CS if the student has completed at least two years of medical school. You must meet this requirement at the time of application since your eligibility period assigned for Step 2 CS begins upon completion of application.

Step 2 CS will be given throughout the year at the ECFMG Step 2 CS Centers in Philadelphia, Atlanta, Houston, Chicago and Los Angeles. A report of performance on Step 2 CS will be mailed approximately 6 weeks after the examination. Make sure that if you want to participate in the Match (see below) you take the Step 2 CS as early as possible and keep in mind that the closer the Match deadline, the harder it is to get a testing appointment.

Current information about Step 2 CS can be found on the ECFMG web site [www.ecfm.org](http://www.ecfm.org)

There are no examination prerequisites for Steps 1, 2 CK and 2 CS. This means you can take Step 1, 2 CK and 2 CS in any sequence. However, it is recommended that before taking Step 2 CK and 2 CS, applicants complete their core clinical clerkships, including actual patient contact.

**Step 3**, a two-day examination, assesses whether you can apply the medical knowledge and understanding of biomedical and clinical science considered essential for the unsupervised practice of medicine, with emphasis on patient management in ambulatory settings.

General information on USMLE is also available at [www.usmle.org](http://www.usmle.org)

Students are eligible to take **Steps 1** and **2** if they are currently enrolled in or a graduate of a foreign medical school that is listed in the International Medical Education Directory, which can be found at the website of ECFMG.

Applicants for Step 1 and 2 can register on-line at [www.ecfm.org](http://www.ecfm.org) and indicate a period of three months during which they would like to take the exam, the so-called eligibility period. After receiving permission from ECFMG to schedule the exam, students can contact the Thomson Prometric registration center in Lelystad (0320-239530). You may also schedule a time at Thomson Prometric to see sample test materials before taking the test. The test center is located in Amsterdam.

International Medical school students who need to pass **Step 2 CS** to participate in the upcoming Match are strongly encouraged to apply as soon as they are eligible and to schedule a testing appointment for the earliest possible date. Medical school graduates can apply for Step 2 CS at any time (provided they meet all other eligibility requirements). The Step 2 CS \$50 rescheduling fee has been waived indefinitely. This means that applicants who want to schedule a testing appointment can change that appointment without cost, provided they give more than 14 calendar days' notice. In deciding when to apply, applicants should also consider ECFMG's recommendations to Step 2 CS applicants, which are described in Eligibility for Examination in the ECFMG Information Booklet at [www.ecfm.org](http://www.ecfm.org).

For **Step 3**, you must have obtained the M.D. degree, have passed Steps 1 and 2 (CK and CS), and have obtained certification by the ECFMG. Step 3 is administered in the jurisdictions of the individual medical licensing authorities. See the "USMLE Bulletin of Information." General inquiries for information on medical licensure and Step 3 may be directed to the Federation of State Medical Boards, [www.fsmb.org](http://www.fsmb.org). Specific inquiries regarding licensure and Step 3 should be directed to the medical licensing authority in the jurisdiction where you intend to take step 3, or wish to practice.

Test practice books are sold in academic bookstores. One of the most popular publications is 'Rypins Basic' and 'Clinical Medical Review,' published by Frohlich Publishers, available at various academic bookstores in The Netherlands.

### **Time schedule for the USMLE Steps**

Applicants must apply for the Steps 1 and Step 2 CK and CS at least one month before their desired eligibility period.

Approximately 2 weeks are required to issue the Standard ECFMG Certificate after all requirements are met — medical science examination (Step 1 and Step 2 CK), Step 2 CS, fulfilled medical education credential requirements, and cleared financial accounts with ECFMG.

As application procedures for Step 3 vary among jurisdictions, you are advised to begin inquiries 6 months in advance of the dates on which you expect to take the examination.

One of the examination dates included on the Standard ECFMG Certificate is subject to expiration for purposes of entry into graduate medical education: the Step 2 CS date is

valid for 3 years. After an applicant enters an ACGME-accredited program of medical education in the United States, the Step 2 CS valid-through date is no longer subject to expiration.

### **Examination fees**

Step 1	\$740 + \$170 surcharge for Europe
Step 2 CK	\$740 + \$190 surcharge for Europe
Step 2 CS	\$1295

You must pay all applicable fees at the time of application. If you apply for more than one exam at the same time, you must pay applicable fees for all exams at the time of application. If you do not pay all fees, your application will be rejected. If your application is rejected, any payment received with that application will be credited to your ECFMG financial account and will be used for future exam applications or services.