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Introduction

Little information is available to trainees considering potential careers in the USA. American jobs are rarely advertised in the UK. In addition, there are enough significant differences between the two systems to intimidate potential trainees from the UK from considering a career in the USA. A proactive approach by interested applicants is often required; by learning about American medicine and with adequate preparation a career in American medicine can become a viable and highly attractive option.

This article is a guide to expectations and requirements for training in the USA. Application tips and mandatory early preparation are included.

American medicine

The USA spends more on health care per capita than any medical system in the world (World Health Organization, 2009). Most hospitals are private entities and care is predominantly delivered to individuals through health insurance programmes in vastly capable, modern, efficient hospitals. 'County hospitals' exist within the mix of American hospitals and aim to serve uninsured and poorer populations. Most American residency programmes involve rotations through these busy institutions, and many of these hospitals are designated 'level 1' trauma and tertiary referral centres, with large catchment areas, diverse pathology and vast training opportunities.

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Hospitals aim to attract highly trained medical staff in order to maximize their patient load while providing high quality evidence-based care to patients. Within private institutions, outcomes are frequently scrutinized and medical personnel are continuously expected to deliver. Professional development begins early, and many medical students, for example, will have undertaken research with peer-reviewed publications and postgraduate university degrees (Masters or doctoral degrees) before entering medical school.

Entry into an American residency programme

Training in the USA is overseen by the Accreditation Council of Graduate Medical Education, which approves programmes to provide training. Approval of training by the Accreditation Council of Graduate Medical Education is also a prerequisite for eligibility for 'board' membership. Board accreditation is similar to Royal college fellowship and occurs after passing examinations tailored to the different boards in the USA. An example is the American Board of Surgery. Eligibility to apply for American Board of Surgery accreditation usually requires 60 months of training in an American surgical residency programme. Strictly speaking, board certification is not mandatory, but lack of board certification often severely restricts working options within the USA (demanded by most patients and employers) and offers little career security.

As is the case with international graduates seeking UK training, American training is difficult to enter from the 'outside', as there is no shortage of interested home applicants. Lack of American letters of recommendation and a lack of familiarity with the application process also contribute to more limited success rates for international graduates.

Options available to international graduates to facilitate entry into the American system include accepting preliminary training positions or undertaking research

in the USA. Preliminary positions refer to temporary 1-year placements, which are used to assess trainees who are less well known to the system. They do not guarantee continuation of training but offer candidates an opportunity to display their strengths and gain American letters of recommendation. These positions are widely available and are accessed through the same application process (discussed below). For more competitive fields (e.g. dermatology, urology and radiology), acceptance of preliminary positions may be the only way in.

An alternative route is to undertake research in a laboratory for a given period of time, with the intention of, once again, gaining local letters of recommendation, but also for personal and professional development. Applying to research positions is less formal and includes directly contacting research supervisors and completing a short application process, which is dependent on local protocol at the chosen laboratory and/or university.

In order to apply to residency training, candidates will require the following:

- United States Medical Licensing Examinations (USMLEs) steps 1 and 2 clinical knowledge, and step 2 clinical skills, ideally with high scores (www.usmle.org/). USMLE steps 1 and 2 clinical knowledge are most important, with 3-digit scores above 230 and 2-digit scores at 99 significantly enhancing the application and subsequent chances of success. Note that step 3, which is the final exam in the USMLE series, is usually taken during the first year of residency training and is not required for certification and residency application. *Figure 1* highlights additional details related to the USMLEs
- Strong letters of recommendation are key, and while strong letters from the UK are useful, American letters are essential
- Valid USA immigration status. Specific information pertinent to the visa application process was discussed by Sultan et al (2010)
- Basic documents including medical degree and government identification should be routinely available.

Some tips to enhance your application are listed in *Figure 2*.

The application process: what to expect and preparation

Application to American residency programmes is a long process that can be intense. Almost all accredited programmes in the USA accept applications through the Electronic Residency Application Service (www.aamc.org/students/medstudents/eras/). Through this electronic application, prospective applicants compile their USMLE scores, medical school transcripts, dean's letter or medical student performance evaluation (provided by the applicant's medical school), curriculum vitae, letters of recommendation and personal statement.

The Electronic Residency Application Service application opens to potential applicants in July of the year preceding the start of residency (most residency programmes begin July 1) with all components of the application being made avail-

able to residency programmes by early November. The applicant designates residency programmes of interest and the documents are distributed accordingly. There is a fee for the Electronic Residency Application Service application based on the number of chosen residency programmes. This varies but at the time of publication application to general surgery would cost approximately \$60 for 10 programmes, \$200 for 25 programmes, and \$800 for 50 programmes. Most American applicants will apply to approximately 10–30 programmes, and international graduates should aim for 30–50+ programmes. Applying to multiple specialties at the same institution is generally not recommended.

After receiving applications, residency programmes conduct an internal review of all the candidates, and the most qualified applicants are offered interviews. For

Figure 1. United States Medical Licensing Examination specifics.

Current cost of United States Medical Licensing Examination (US\$):	USMLE 1	\$780
	USMLE 2 clinical knowledge	\$780
	USMLE 2 clinical skills	\$1355

United States Medical Licensing Examination steps 1 and 2 CK can be taken in designated British testing centres. A small surcharge is often required for examinations to be taken outside the USA. Further information related to examination and formal application for international medical graduates is through the Educational Commission for Foreign Medical Graduates website (www.ecfm.org)

Step 2 clinical skills must be taken in one of five American centres (in Atlanta, Chicago, Houston, Los Angeles or Philadelphia), because of the standardized nature of the clinical examination, with transatlantic flights costing upwards of \$500

The examining board does not provide a list of standardized or recommended textbooks or study resources. However, most American students will resort to the 'First-Aid' series of textbooks, Kaplan study resources, and the extensive online 'USMLEWORLD' question databank (membership \$100–400 for 1–12 months; www.usmleworld.com/). These resources are found at most online retail stores, along with detailed customer reviews at websites such as Amazon

Figure 2. How to make your application stand out.

Ensure that all elements of the application are completed accurately, prepared meticulously, and submitted on time; the earlier the application is submitted, the better, with submission on opening day preferred among many programme directors

Provide strong letters of recommendation, ideally from well-known senior consultants, but also from American referees if possible. It is important that these letters are strong and if there is concern that a referee may provide a mediocre reference, then seek alternative references. Previous medical school Deans, Heads of Student Affairs and/or professors will frequently provide strong letters to support their graduates

Obtain very high scores in the United States Medical Licensing Examinations. These examinations provide the only objective measure of a candidate's abilities by US standards. Very simply, the higher the score, the higher the chances of a successful match into the American medical system

Submit all relevant material including honours, awards, prizes, additional university degrees and Royal college memberships, peer-reviewed publications, sporting and music awards and achievements, and prior work experience in the UK. Compiling all such information, certificates and degrees into a 'career portfolio' allows a candidate to present all relevant information as a neat and compact package, which reflects tremendous organizational skills and a serious commitment to the application process

competitive specialties, approximately 1 in 10 to 1 in 20 applicants will receive an interview offer, with the aim of subsequently selecting 1 of 10 candidates for the residency programme. Applicants are notified of the interview offer through Electronic Residency Application Service with most notifications being sent between November and December. The interviews are typically conducted over three or four predetermined dates throughout the winter season. Applicants (usually 20–30 applicants per interview session) are typically invited to the hospital or affiliated university for an informal dinner or cocktail reception the night before interview. This is time designated to speaking to current residents and faculty (including the programme director and chairman at each programme) in a ‘relaxed’ environment, meeting fellow applicants, and getting a feel for the programme’s social composition.

The interview day typically consists of three–five interviews with current residents and faculty, intermixed with presentations by the department chairperson and programme director. The interview process provides an opportunity for the programme to showcase its strengths and promote applicant interest, in an attempt to recruit talented applicants. Applicants are encouraged to send formal thank you letters to the interviewers and/or programme administrators following their visit.

After completion of the interview season, applicants must create their ‘match list’. American residency programmes use the National Resident Matching Program to allocate residency positions to the most appropriate candidates (www.nrmp.org/res_match/index.html). Through this program, both the applicants and the pro-

grammes create rank lists of each other. The integrity of the ‘match’ hinges upon the policies documented on the National Resident Matching Program website (National Resident Matching Program, 2009), and most notably include regulations surrounding rank list disclosure. Importantly, applicants are not required to disclose their ranks lists and residency programmes are not allowed to ask an applicant for such information under any circumstance, in order to promote a fair match based on mutual candidate and programme preference.

The deadline for rank list submission through the National Resident Matching Program website is typically in mid-February and the much celebrated ‘match-day’ occurs in mid-March. Importantly, application through the National Resident Matching Program is a legally binding process and applicants are committed to employment at their match location. On this important note, applicants are strongly advised not to rank programmes in which they are not interested, since contractual agreements can and do rarely result in undesired matches occurring.

The transition from British to American medicine

The transition from British to American medicine can be tough. Asking questions and approaching residency with an open mind to learning is key. Resources for information and support from faculty professors, co-residents, medical students and textbooks should be fully used, as the transition can be intimidating. From a medical perspective, obtaining a history, examining a patient, requesting investigations, and providing management plans are similar, but vary in the way that doc-

tors’ ‘orders’ are written. Orders are essentially lists of prescribed treatments, including intravenous fluids, medications, and detailed nursing instructions (e.g. lay patient flat, remove Foley catheter), which are very specific to every element of patient care.

Trade drug names are very different, and can at first be confusing. The learning curve here is steep, but resources such as ‘Epocrates’ (a pharmaceutical encyclopedia that is a clear favourite among local and internationally-trained doctors) and local guidelines and handbooks published for residents by training programmes are invaluable.

Conclusions

While few British trainees explore options in America, there is often a high degree of satisfaction among trainees who are able to integrate into the American system. The standard of training provided is very high, with residents expected to work an average of 80 hours per week. The surrounding environment is competitive, and entry into the American system requires a good deal of work, with new examinations and a significant degree of flexibility. Most importantly, entry into this system begins with adequate preparation and an intricate understanding of the application process. **BJHM**

Conflict of interest: none.

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KEY POINTS

- Although the application process is costly and requires recertification, successful candidates enjoy a high degree of satisfaction and fulfilment with training and practicing medicine in the USA.
- Successful application depends on a thorough understanding of the multiple components of the application process.
- United States Medical Licensing Examination scores provide an objective measure of ability as assessed by American standards.
- While strong British letters of recommendation are helpful, American letters of recommendation are invaluable when applying to train in the USA.
- Adequate preparation and timely application are essential for successful application.