

Surgery: the UWI graduate's guide to USA surgical residency

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ABSTRACT

The competition for general surgery specialisation remains high and while the United Kingdom route of training is a well-established avenue, the University of the West Indies (UWI) graduate has alternative options with the United States general surgery residency. The aim of this article to outline the numerous steps that one must take to apply to general surgery residency and the pathway and requirements of the general surgery residency itself.

INTRODUCTION

The field of surgical specialisation is a dynamic and demanding one, both in terms of selection and successful completion of the programme. A total number of 2,539 applicants were considered for the 609 positions available in the Core Surgical Training (CT1) Programme in the NHS, culminating to a competition ratio of 4.17 for the year 2023.¹ This increase in the competition ratio from 2022, which was 3.70, demonstrates an increasing competition in surgical specialisation.²

It is important, therefore, that UWI graduates understand all their options and possible avenues to pursue their desired specialties, with the primary focus of this article being general surgery. Many countries in the West Indies share an intimate history with the United Kingdom, which is maintained through several Caribbean countries being member states of The Commonwealth. The most relevant of these Caribbean countries being Barbados, Jamaica and Trinidad and Tobago, which house the regions campuses for the University of the West Indies.³

The surgical pathway to the United Kingdom has therefore been well established and information on the steps required is widely available.⁴ As an alternative, this article aims to act as a guide to show the United States as a route for surgical training and the criteria required for successful acceptance.

The data was compiled using open access documents, the National Resident Matching Program (NRMP), Accreditation Council for Graduate Medical Education (ACGME) and the American College of Surgeons (ACS) as they relate to general surgery.

RESULTS

The formal training programme of becoming a qualified general surgeon in the United States is known as 'residency'. Residency training can be administered by those institutions which are accredited by the Accreditation Council for Graduate Medical Education (ACGME), provided that the institution satisfies the "ACGME Program Requirements for Graduate Medical Education in General Surgery".⁵

The UWI graduate is referred to as an International Medical Graduate (IMG) during the application process and must become well versed in several different USA regulatory bodies responsible for the selection process of surgical trainees (residents).

The process of applying to general surgery residency requires various steps, many of which are governed by different US regulatory bodies. These steps are outlined in Table 1, which serves as a guide of the necessary steps required for a medical student or IMG to successfully gain acceptance into a surgical residency programme.

Table 1: Steps required to apply for general surgery residency as an IMG

Step	Regulatory Body	Details
Registration to the ECFMG	ECFMG	Register with the ECFMG.
Enrol for STEP 1 United States Medical Licensing Examination	USMLE	Enrol for the USMLE STEP 1 which is done via ECFMG account and can be taken at an accredited Prometric Centre internationally. Most USA medical students sit this exam after their second year of medical school. ⁶
Enrol for STEP 2 United States Medical Licensing Examination	USMLE	Enrol for the USMLE STEP 2 which is done via ECFMG and is taken at an accredited Prometric Centre internationally. Most USA medical students sit this exam after their fourth year of medical school. ⁶ Candidates can elect to sit the USMLE STEP 3 before acceptance into a residency program but can also elect to do so in their residency program. Completion of USMLE STEP 3 is not a requirement for applying to residency programs although it is highly recommended to do so as this can strengthen your application, makes you eligible for an H1-B visa, and avoids the added pressure of studying for this exam while working full-time during your residency.

Table 1 (continued)

Gain USA Clinical Experience and Letters of Recommendation (Optional)	VARIOUS	Apply to hospitals and universities to complete clinical rotations and thereby gain letters of recommendation to use in subsequent applications.
Register with the Association of American Medical Colleges (AAMC)	Association of American Medical Colleges (AAMC)	Registration with the AAMC will allow the candidate to apply to the residency programmes via the AAMC's Electronic Residency Application Service (ERAS)
Research the residency of interest via the Fellowship and Residency Electronic Interactive Database (FREIDA), Residency Explorer Tool and Match A Resident	American Medical Association (AMA) Association of American Medical Colleges (AAMC)	The FREIDA database shows all the ACGME accredited residency programmes in the USA. Additional resources include the 'Residency Explorer Tool' website (a residency program database provided by the AAMC) and the 'Match A Resident' website which charges a one-time fee but may be useful as it suggests programs that have historically accepted candidates from your university.
Attain English language communication competency	Occupational English Test (OET)	To satisfy the ECFMG requirement for communication skills, the candidate must complete the OET examinations, either virtually or at an approved testing centre.
Achieve ECFMG Certification	ECFMG	The IMG must achieve ECFMG certification before being eligible to apply to any residency. Certification can be achieved by one of the six "Pathways for ECFMG Certification". ⁷
Submit ERAS document and residency preferences	AAMC	The candidate is required to submit their letters of recommendation and personal information through the ERAS portal. Applications to the respective residency programs are submitted here. Please note, as an IMG, a verification process carried out by the ECFMG is required for all letters of recommendation (LORs) submitted. This process is usually completed within five business days but times can vary, especially when coming closer to the ERAS application date. Ensure that your LORs are ready early to avoid delays or the need to submit your application without them.
Attend residency interviews if invited	AAMC	After submission of the candidate's documents to AAMC, interview invites may be extended to the IMG. The interview can occur in person or online.
Register for the National Residency Match Program (NRMP)	NRMP	The candidate will be required to register to the NRMP and rank the residency programs of their interest, in order of first preference to last preference.
The Match	NRMP	The NRMP Match is the process by which successful candidates are matched to residency programs that have expressed interest in said candidate.
Residency	ACGME	Following a successful acceptance into residency, the IMG will be required to fulfil the residency requirements.

The pathway of surgical residency is outlined in Table 2 and shows the steps during general surgery residency.

Table 2: Steps during general surgery residency

Requirement	Specifics	Further Details
Curriculum Requirements	<ul style="list-style-type: none"> • Experience in Essentials of General Surgery • Advanced Cardiac Life Support (ACLS) • Advanced Trauma Life Support (ATLS) • Fundamentals of Laparoscopic Surgery (FLS) • Fundamentals of Endoscopic Surgery (FES) • Resident Performance Assessments 	The experience in Essentials of General Surgery requires the resident to gain clinical experience in several areas including solid organ transplantation, vascular surgery, trauma and emergency surgery and more. ⁸
Residency Program Requirements	<ul style="list-style-type: none"> • Minimum of 60 months of progressive residency education • At least 48 weeks of full-time clinical activity in each residency year • Categorical Post Graduate Year (PGY) 3 year • Increasing levels of responsibility throughout training • Final two years of residency must be completed in the same residency program 	A categorical PGY-3 year must be completed to progress to PGY-4. A resident may complete more than one year at a PGY-1 or PGY-2 year, however this does not equate to a Categorical PGY-3 year and therefore a PGY-3 Categorical year must be completed to allow progression to PGY-4 in residency. ⁹
Chief Resident Year Requirements	<ul style="list-style-type: none"> • Must have acted as Chief Resident in general surgery for a minimum of 48 weeks over the PGY-4 and PGY-5 years 	The term “chief resident” indicates that a resident has assumed ultimate clinical responsibility for patient care under the supervision of the teaching staff and is the most senior resident involved with the direct care of the patient.
Examination Requirements	<ul style="list-style-type: none"> • General Surgery Qualifying Examination (GSQE) • General Surgery Certifying Examination (GSCE) 	Residents must first pass the GSQE and then successfully pass the GSQE in order to successfully complete residency program. ⁹

DISCUSSION

Caveats To the Application Process for UWI Graduates

The process of being accepted to general surgery residency is multifaceted and requires coordination and application to many different regulatory bodies. This process can occur during medical school or after graduation. While completion of STEPS 1 and 2 are

mandatory to apply to the Match, STEP 3 can be done after acceptance into a residency program. It is important to note however that STEP 3 must be completed in a US territory and therefore the UWI graduate will have to factor in the costs associated if they wish to complete this examination prior to commencement of a residency program.

There is no explicit statement that USA clinical experience and USA based letters of recommendation are necessary to one's application, however it is evident that letters of recommendation are an important aspect of the application process.¹⁰ Reference is made to the importance of these letters being from those versed in USA clinical education such as clerkship directors and that letters should evaluate the candidate's skills in a way that highlights their ability to succeed in US residency training.¹¹

Another optional, but critical prerequisite in the application to residency training is research experience. The 2021 NRMP Program Director Survey indicated that 41% of program directors emphasized a preference for candidates who demonstrate a genuine "involvement and interest in research".¹²

The application process itself requires significant funding with one author finding that the average cost of USA exam preparation fees and exam fees totaling to a mean of \$7,499 USD.¹³ This financial figure is further added to by the actual residency application and interview process; one author noted that the average resident would spend \$8,312 USD in pursuit of residency.¹⁴

Matching into a categorical general surgery position as an IMG is possible, but quite competitive as the number of programs offering categorical positions to Non-US IMG applicants are few. Therefore, a high USMLE STEP 2 score is an essential piece to an overall, well-refined and curated application. According to NRMP, successful IMG applicants had a median score of 249 in 2023, while many scoring 244 were unmatched.¹⁵ Aiming to exceed this 249 benchmark will serve to strengthen your residency application.

For decades, one- to two-year preliminary surgery positions have served as a gateway to full categorical surgical training for UWI graduates. The probability of matching into a post-graduate year-1 (PGY-1) preliminary general surgery position is higher than into a categorical one. By demonstrating strong clinical skills, work ethic, collegiality and fostering mentorship relations and connections with attending surgeons (ie. consultant surgeons) during a preliminary year, your chances of matching into a categorical position during the next application cycle will improve significantly.

However, it is also important to consider that matching into a PGY-1 preliminary position often means repeating

your intern year if you later secure a PGY-1 categorical position. Rarely, a PGY-2 categorical position (or PGY-3 categorical position if completing both PGY-1 and PGY-2 preliminary surgery years) may open, allowing you to avoid this repetition. Also, bear in mind that there is only a two-to-three-month period between the start of all ACGME-accredited PGY-1 preliminary positions in July and the ERAS application submission date in September for the following match cycle when you may be applying to PGY-1 categorical surgery positions. Therefore, you must effectively utilise this limited time to make a strong impression and secure strong LORs to aid your application. In addition, your ABSITE score as a preliminary surgery resident will be scrutinized as it serves as an additional, significant piece of information for residency programs to assess your suitability for a categorical surgery position.

While high USMLE STEP 2 scores, strong LORs, and research experience are key to a successful general surgery match, networking is the secret ingredient. Attending conferences, such as those hosted by the National Medical Association Surgical Section and the American College of Surgeons (ACS) can be invaluable opportunities for making connections and fostering mentorship relationships that can potentially open doors to residency training and job opportunities.

What General Surgery Residency Is Actually Like

It is equally important that the UWI graduate understands what USA general surgery residency entails and how it compares to the alternative routes that one may take to attain specialty qualification. A United States residency program for general surgery may have an 80 hour work week, varying slightly depending on the accredited program that the resident is enrolled in.¹⁶ In stark contrast, however, the UWI graduate who elects to complete training in the United Kingdom must obey the European Working Time Directive which limits work hours to no more than 56 hours per week for the training surgeon.¹⁷

While the hours of surgical training are higher in the United States, surgical residents in the United States were shown to have comparable work-related quality of life when compared to non-surgical professions, although these residents did express more stress as compared to other non-surgical professions.¹⁸

Despite the particulars of the residency program however, upon successful completion of the residency, the general surgeon can then choose to enter clinical practice, academic employment or fellowship training, with a qualification that is internationally recognized, including the Caribbean region.

Once you have secured a general surgery residency position, be sure to give yourself ample time to acclimate to your new environment. Relocating to the United States comes with several important considerations, including finding housing, determining reliable transportation options, obtaining a Social Security Number (SSN) or Individual Taxpayer Identification Number (ITIN) and building a credit score.

Once residency begins, it is crucial to strike a balance between your work life and personal fulfilment. Ensuring that your residency journey is both rewarding and manageable will help you maintain the mental resilience necessary to successfully complete and reap the most benefit from your training. Remember, mental fortitude is equally as important as securing the position itself when pursuing a career in general surgery.

CONCLUSION

The UWI medical student or graduate has a plethora of diverse avenues upon which they can pursue general surgery training. The USA route of general surgery residency may serve to be a viable alternative to the tried and tested UK route. While the US general surgery residency offers an internationally recognized qualification, there are several factors relating to funding, application requirements, quality of life and examinations that the UWI graduate must consider deciding if the USA is in keeping with their training needs.

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