

Introducing a Career in Pathology

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The World Journal of Medical Education and Research (WJMER) is the online publication of the Doctors Academy Group of Educational Establishments. Published on a quarterly basis, it's aim is to promote academia and research amongst all members of the multi-disciplinary healthcare team including doctors, dentists, scientists, and students of these specialties from all parts of the world. The principal objective of this journal is to encourage the aforementioned from developing countries in particular to publish their work. The journal intends to promote the healthy transfer of knowledge, opinions and expertise between those who have the benefit of cutting edge technology and those who need to innovate within their resource constraints. It is our hope that this will help to develop medical knowledge and to provide optimal clinical care in different settings all over the world. We envisage an incessant stream of information will flow along the channels that WJMER will create and that a surfeit of ideas will be gleaned from this process. We look forward to sharing these experiences with our readers in our subsequent editions. We are honoured to welcome you to WJMER.





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Introduction

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Introducing a Career in Pathology

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Introducing Pathology

Pathology is an integral speciality within medicine with great emphasis placed on the analysis and detection of disease processes. Pathologists thereby have a huge influence on the diagnosis and shaping the patient management in staging disease and advising treatment targets. It has greatly advanced since humans first began examining bodies centuries ago to the use of diverse imaging and laboratory techniques available today. Knowledge and curiosity are the foundations of this specialty as pathologists seek to explain how and why people fall ill.

Such is the importance of pathology that there are several sub-specialties to diversify into; it is a training pathway with many opportunities. The path to specialising into one of these branches depends on the sub-specialty. Haematology and Immunology require core medical training for two years whereas the others are run-through training (you enter specialist training straight after foundation years). Histopathology is the largest specialty but others include Chemical Pathology, Microbiology and Virology.

Life as a Pathologist

The bulk of a pathologists work on a daily basis will involve interpreting results of investigations related to their sub-specialty. Furthermore, a pathologist will go on ward rounds and journal clubs as well as advise other consultants as to what investigations to perform. This can either be via telephone, or in person, as well as visiting specific patients (in the case of Haematology, Chemical Pathology and Microbiology). There is much interaction with other specialties as many pathologists frequently attend multidisciplinary (MDT) meetings in order to discuss cases. For example, at an MDT for lung cancer, the input from the pathologist is essential to determine

the type and stage the tumour which directly affects the treatment aims and prognosis.

There are many opportunities to pursue other interests in pathology. There is a strong emphasis on teaching biochemistry at a post graduate level in the clinical setting, and it is easy to get involved in research projects. The level of teaching depends on the hospital association. District general hospitals will mainly teach graduates. Undergraduate teaching is usually only found at teaching hospitals. Also, there are opportunities to increase patient contact by further sub-specialising. For example, a pathologist could pursue diabetes and then run a diabetes clinic once a week (this mostly applies to chemical pathology).

A typical day in the life of a pathologist varies on a daily basis. This in itself provides excitement as well as the challenge of deciding which investigation is most appropriate or determining what disease process is occurring. Some pathologists can work remotely at weekends which can aid a better work-life balance. This is still considered to be elective and will be in addition to a full working week. There is less paperwork (due to less patient contact) which means more time spent performing clinical tasks. For Histopathology, this mostly involves interpreting histology slides.

Paperwork mainly consists of accreditations and writing responses to referral letters. Furthermore, the on-call requirements of a pathologist are small compared to other specialties. This will usually involve a rota such as working on-call once every three weeks. Even so, these on-call sessions will often involve only two to three calls per week and will usually consist of reviewing analytical data.

A career in pathology does not lend itself to private practice very well. The only way to become involved in private practice is through the clinics run as an interest within the main specialties. These can be in any subject where pathology plays a major role in diagnosis or management e.g. dermatology. A pathologist may also advise private laboratories, but does not have direct involvement with the private sector. This branch of medicine is almost completely contained within the NHS and it is rare for a pathologist to work completely in the private sector.

Pathology is also a specialty which is unique to countries within the British Commonwealth, and so international opportunities are available only in these countries. Other countries, for example America, do not recognise some pathology disciplines as a medical specialty. Instead, scientists perform many of the duties of a pathologist without direct patient interaction.

This specialty will suit someone who enjoys the 'detective' side of medicine, thriving in trying to understand the cause of different diseases. This career might not provide as much patient contact as some of the other branch of medicine but the amount of variation is superior to most specialties. Pathology offers an interesting profession with enough flexibility to allow for a work-life balance

Facts and Figures

Pathology isn't as competitive as some of the other specialties but nevertheless, studying another degree is beneficial particularly if it involves laboratory work. The national ratios for some of the sub-specialties are shown below:

	2010	2011	2012
Histopathology	Not available	1.1	1.5
Haematology	Not available	3.1	3.9

Figure 1: National Competitive Ratios within U.K. ²

The training pathways differ for each sub-specialty, most of which involve run-through training whereby you commit to specialty training after completion of foundation years. The exceptions to this are Haematology and Immunology which require two years of core medicine before entering specialty training. Histopathology requires completion of four stages over a minimum of five years. Throughout these stages, knowledge of the pathological traits and analytical techniques are introduced then built upon. Clinically, cut-up of specimens such as mastectomy and prostatectomy are learnt under supervision before becoming competent independently in the latter stages of training. Both parts of the FRC Path examination must be completed by ST2 and ST4 respectively as well workplace-based assessments and both parts of the ARCP.

The Future

The future of pathology could have huge implications for other specialties. There are increasing amounts of research dedicated to diagnosing patients with certain conditions at the bedside, or through other methods. There are also ideas to utilise the human genome in pathology with the aim to provide individualised care. This could completely alter the way medical treatment functions in the future, but this level of care is several years away at least.

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