

Specification

1. Funding support for Biomedical Scientists in Histopathology

Health Education England proposal for funding to support biomedical scientists undertaking the Institute of Biomedical Science and Royal College of Pathologists histopathology professional qualifications as described in section 5.

2. Background

Following the publication of the *Five Year Forward View*, (1) the Independent Cancer Taskforce set out a clear and compelling strategy to radically improve the prevention, diagnosis, survival and experience of people affected by cancer in England. It is the people working in our NHS – the GPs, scientists, oncologists, pathologists, radiographers, physicists amongst others – who will deliver these improvements. Health Education England's Cancer Workforce Plan (2) sets out actions to increase the overall supply of the cancer workforce by the end of 2021 and to help improve cancer services in line with the ambitions in the NHS Cancer Taskforce Strategy and NHS Long Term Plan (3).

Histopathology is nationally recognised as a shortage specialty with only 3 per cent [of respondents] reporting they had enough staff to meet clinical demands (4) and has been identified as a priority within the HEE Cancer Workforce Plan (2), and Cancer Research UK Testing Times (5). Though the specialty is not exclusively concerned with cancer care, this does account for a significant proportion of the work. It is vital that histopathology skills are developed to support the ongoing developments in cancer diagnosis, to include new technologies such as molecular and genomic profiling as well as artificial intelligence and machine learning. In addition, given the changing face of the discipline and the shortage of medically qualified consultants, it is incumbent upon the specialty to explore new ways of working and to help to develop new roles, advanced professional roles and to train biomedical and clinical scientists in to these new advanced practice roles to achieve the best possible care for cancer patients.

3. Need

The amount of histopathology requests to laboratories has increased by around 4.5% on average year on year since 2007 (6). The prevalence of cancer is forecast to increase, however, this is a time of unprecedented advances in the NHS' ability to prevent, diagnose and treat cancer, and it is our responsibility to embed proven new treatments, tests and technologies in routine healthcare as quickly and equitably as possible. For patients to reap the benefits of new developments in diagnostics,

monitoring and therapy in cancer, it is imperative that we have sufficient staff with the right skills and support to deliver them. With the histopathology workforce under pressure now we need to ensure that we have the appropriate staff being trained in the right way to deliver the ambitions of the NHS Long Term Plan. Therefore, there is a need to ensure that the education and training environment keeps pace with developments in healthcare delivery.

Histopathologists have an in-depth knowledge of both pathological and clinical aspects of disease, and have key responsibilities for cancer screening, diagnosis and advice regarding appropriate therapies. They work with tissues to provide information on the type, stage, and grade of cancer and the genetic and molecular profiles are increasingly being integrated into their reports in many settings to assess which type of treatment would be most effective. Such developments serve to only increase the complexity of histopathology reporting and analysis and the forthcoming introduction of FIT colon testing is predicted to increase the workload pressure on histopathologists still further. Skilled histopathologists, and many of them, are going to be needed to use their expertise and judgement in differential diagnosis, advise on complex or borderline cases, attend MDT meetings and networks as well as validate and quality assure any results.

The Topol review (7) has highlighted the need to adapt to developing technology, and as clear from above a range of workforce reviews have emphasised the need to provide increasing flexibility during education and training pathways. These requirements herald an urgent need to support the rapid development of the critically important workforce in pathology.

The National School of Healthcare Science (NSHCS) in HEE, in partnership with stakeholders, has a responsibility to support existing training programmes in histopathology to ensure that they are being developed, are flexible and accessible. This is necessary so that programmes can be used to rapidly train a wide range of histopathology scientists with the aim to increase the histopathology workforce and improve recruitment and retention.

4. Histopathology Scientist Training

The nationally recognised Healthcare Science Framework for Education and Training of NHS scientists was developed to introduce flexibility, sustainability and modern career pathways for the healthcare science workforce to meet future needs of the NHS. Under the Long Term Plan (3), the need for agility and flexibility in

training of healthcare scientists is even greater and the NSHCS is actively seeking to work with scientific colleagues and professional bodies to ensure that the education and training of scientists for the NHS is current, fit for purpose and future proof.

In histopathology there has been a traditional divide between the roles of medical consultants and scientists. The reasons behind this are historical and complex, though there has been recent progress in closing this divide. In response to workforce pressures a number of professional qualifications in histopathology reporting and histopathology dissection for Institute of Biomedical Science (IBMS) members (both biomedical and clinical scientists) have been developed (8) and successfully launched through a joint examination initiative between the IBMS and the Royal College of Pathologists (RCPath). There are now training pathways culminating in qualified scientists undertaking dissection and reporting duties in histopathology. This training pathway is the de-facto standard for recognition of biomedical and clinical scientists to perform these roles in histopathology in the NHS.

In respect of histopathology reporting there is an Advanced Specialist Diploma available in gastrointestinal, gynaecologic and skin pathology. This latter qualification is still relatively new and to date only a small number of individuals have qualified from the programme, although there are more than 50 candidates currently in training. In light of the contribution these individuals are able to make towards the histopathology reporting workload, there would be considerable benefits to be gained from significantly increasing the number of applicants and hence the number of scientists available to undertake reporting once qualified.

The dissection qualifications are available at two levels: the Diploma of Expert Practice in Histological Dissection (specimen categories B and C) which covers principally the higher volume and lower complexity workloads and the Advanced Specialist Diploma in Histopathology Dissection (specimen categories D and E), which covers the highly complex and cancer cases and which is available in breast, gastrointestinal and urinary tract pathology.

It is necessary to build on the success of the IBMS/RCPath reporting and dissection qualifications in histopathology, with the ultimate aim to develop a histopathology workforce comprised of senior scientists and medically qualified doctors that can provide the skills necessary to lead, develop and deliver state of the art histopathology services in the future.

5. This project will support the training of scientists in histopathology to undertake established IBMS/RCPATH professional qualifications with the aim of increasing the number of scientists dissecting and reporting, while acknowledging and respecting the stand alone existing qualifications of the IBMS/RCPATH.

Recognition of and building on the IBMS/RCPATH Advanced Specialist and Expert Practice professional qualifications in histopathology

The Advanced Specialist Diploma in Histopathology Reporting, in Histological Dissection and the Diploma of Expert Practice in Histological Dissection are rigorous and highly respected professional qualifications that address a workforce need. These qualifications represent a significant investment by both the IBMS and the RCPATH, made over a number of years to be fit for purpose.

The Diploma of Expert Practice in Histological Dissection, which enables the holders to dissect RCPATH specimen categories B and C samples, has been available for 15 years and has been sat by more than 200 candidates. It is now a well-established qualification and histological dissection is now increasingly being regarded as a scientist supported element of histopathology services, enabling a greater amount of consultant pathologist time to be devoted to histopathology reporting.

The Advanced Specialist Diploma in Histological Dissection enables scientist dissection of the most complex and challenging cases including cancers (RCPATH specimen categories D and E).

The Advanced Specialist Diploma in Histopathology Reporting has been available for five years and is offered in gastro-intestinal, gynaecologic and skin pathology. Seven individuals have completed the training programme and have qualified and more than 50 are in the training 'pipeline'. Due to the benefits this scientist workforce is bringing to diagnostic histopathology services there is a growing demand for the introduction of a shorter, tissue specific reporting option to enable a greater number to become qualified to report in a shorter timeframe than the current 5 years. A shorter, tissue specific reporting qualification is viewed as being highly beneficial in respect of the histopathology workload generated by the NHS Bowel and Cervical Screening Programmes. As a consequence, the IBMS and RCPATH plan to have available tissue specific Advanced Specialist Diplomas in cervix and bowel screening polyps from mid-2020.

Candidates who take and pass either of these qualifications would be able to continue training to enable the eventual reporting of ALL gastro-intestinal or gynaecologic samples or can restrict their practice to just the named specific tissue. It is recognised that candidates currently on one of the ASD training pathways may wish to switch to a tissue specific option.

All of the above qualifications are:

- Jointly owned and run by the IBMS and RCPATH and are the joint intellectual property of the two organisations

- Professional qualifications not delivered through an HEI
- Not currently funded by HEE via the NSHCS
- Gaining increasing acceptance from medical histopathologists
- Carried out in departments that should be UKAS accredited.

Project requirements

The supplier will be required to support scientists undertaking the histopathology qualifications in the following ways:

- To provide a one-off training grant of up to £10,000 per trainee to support the current cohort of healthcare scientist trainees and those due to start in 2020, undertaking the Advanced Specialist Diploma in Histopathology Reporting and the dissection qualifications which will be based on an assessment of the need of each individual trainee compared to all trainees' needs across the full programme with the aim of reducing attrition from the course and ensuring completion ;
- Administer funding of the course fees of 58 new trainees to be recruited to the Advanced Specialist Diploma in Histopathology Reporting and the dissection through the 29 pathology networks in 20/21 and 21/22;
- Offer enhanced examination support to trainees on the Advanced Specialist Diploma in Histopathology Reporting and the dissection qualifications to ensure candidates are well-prepared for their exams.

To achieve the above, the supplier will need to:

- Administer the training grant based on the training needs of the individual trainee as determined and outlined by the candidate's employer with the aim of reducing attrition from the course and ensuring completion
- Administer the funds on behalf of the NSHCS in Health Education England.
- Liaise with employers who have candidates undertaking the above identified histopathology qualifications
- Identify those candidates and employers who meet the project criteria to receive the funds;
- Understand the different funding required for the different qualification and examination stages;
- Liaise with NHS England & Improvement to be advised of the nominated candidates to commence training from within each Pathology Network, and their employer's contact details;
- Aim to run up to two exam preparation days each year for candidates on the reporting qualification. This will help candidates to be better prepared for the

exam, network with their contemporaries and will improve the overall likelihood of success;

- Every six months the supplier will provide the NSHCS in HEE with details of the employers that have been supported and the nature of the costs for which support has been claimed;
- Monitor and report to HEE on completion rates and attrition rates of candidates funded by this agreement throughout the course of the contract.

Financial Envelope

The financial envelope for the contract is £500,000 in year one £300,000 in year two, and £250,000 in year three, exclusive of VAT.

Any administration costs incurred by the supplier will need to come out of the financial envelope.

Any unused funding must be returned Health Education England after the end of the contract term.

Contract

The Contract T&Cs are attached and the length will be to the end of October 2025.

References

1. Five Year Forward View. <https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf>
2. Cancer Workforce Plan, Health Education England, 2017
<https://www.hee.nhs.uk/our-work/cancer-workforce-plan>
3. Long Term Plan <https://www.longtermplan.nhs.uk/publication/nhs-long-term-plan/>
4. Meeting Pathology Demand, Histopathology Census, 2018 – The Royal College of Pathologists <https://www.rcpath.org/uploads/assets/952a934d-2ec3-48c9-a8e6e00fcdca700f/Meeting-Pathology-Demand-Histopathology-Workforce-Census-2018.pdf>
5. Testing times to come? An evaluation of pathology capacity in the UK, November 2016.

[https://www.cancerresearchuk.org/sites/default/files/testingtimes to come nov 16 cruk.pdf](https://www.cancerresearchuk.org/sites/default/files/testingtimes%20to%20come%20nov%2016_cruk.pdf)

6. The Pathology Workforce, The Royal College of Pathologists
<https://www.rcpath.org/discover-pathology/public-affairs/the-pathology-workforce.html>
7. The Topol Review <https://topol.hee.nhs.uk/>
8. The Role of Biomedical Scientists in Histopathology Reporting. A Joint Statement from the Royal College of Pathologists and Institute of Biomedical Science, Royal College of Pathologists and Institute of Biomedical Scientists, May 2017