A BOLD PLAN FOR THE BIOMEDICAL SCIENTIST WORKFORCE

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As the leading professional body for biomedical scientists and laboratory staff in the NHS, the Institute of Biomedical Science (IBMS) welcomed the NHS England Long Term Workforce Plan and committed to ensuring that the biomedical scientist workforce will be a key part in its successful delivery.

Our response, the IBMS Long Term Biomedical Scientist Workforce Plan, presents a bold strategy for the UK to develop the biomedical scientist workforce so that it can operate at the highest levels of practice through training, experience, and professional qualifications. It outlines how to support and upskill biomedical scientists in a manner that is safe, efficient, and meets nationally recognised standards for the whole of the UK.

BIOMEDICAL SCIENTISTS – A WORKFORCE OF ALL THE TALENTS

Biomedical scientists, regulated since 1960, make up the largest segment (40%) of healthcare science professionals, totalling over 27,000 Health and Care Professions Council (HCPC) registrants. They are the largest staff group in UK pathology laboratories at approximately 14,000, with the remainder in management roles, NHS Blood and Transplant, public health services, private laboratories, research, armed forces, the diagnostics industry, and academia.

The biomedical scientist workforce has extensive experience of both NHS laboratory management and advanced clinical practice and has vast knowledge and experience of haematology, transfusion science, clinical chemistry, microbiology, cellular pathology, immunology, molecular pathology, and

genomics – the widest knowledge base of all healthcare professionals covering from before conception to after death.

Their high-level clinical and scientific knowledge has supported the expansion of the pathology test repertoire. There are now hundreds of diagnostic tests, many of which can be performed within hours (sometimes minutes) of receiving the patient's sample. This is critical to enable timely clinical interventions, reduce waiting times, and to prevent further disease.

This is the workforce with the capacity and capability to respond to large and rapid increases in demand for laboratory testing services generated by a pandemic. This is also the workforce with the capacity and capability to undertake advanced clinical roles to report histopathology samples alongside medically qualified pathologists – helping to support the UK cancer screening programmes and meet the challenge of early diagnosis and treatment of cancers as per the UK Major Conditions Strategy.

GROWING AND TRAINING A SUSTAINABLE WORKFORCE

HCPC registration for biomedical scientists requires an IBMS Accredited degree and completion of an IBMS Registration Training Portfolio in an approved laboratory during or post-graduation. Around 60 UK universities offer IBMS Accredited biomedical science degrees. Graduates from these accredited degrees can finish pre-registration training within 12 months, whereas those with non-accredited degrees may have to add an extra year for additional study.

The IBMS recognises the risk of a potential skills gap due to an ageing workforce approaching retirement and we are putting in place measures to support the supply stream of biomedical science graduates entering the profession and seeking HCPC registration. However, in order to grow and train a sustainable workforce, we must introduce a registration training grant for departments to train individuals completing their IBMS Registration Training Portfolio, expand the number of training positions, enable more biomedical science graduates to get registered, and thereby prevent an interruption in the pipeline of talent.

The current absence of central funding hinders this and recent graduates often struggle to secure training positions, leading to valuable talent seeking alternative careers due to training shortages. Implementing a registration training grant for departments could alleviate this bottleneck, ensuring a continuous flow of qualified professionals to enhance pathology services amid increasing demands.

SPECIALIST KNOWLEDGE AND SKILLS

IBMS qualifications extend beyond HCPC registration - with a suite of professional qualifications that provide a structured career-long training framework. The Specialist Diploma, available in each laboratory specialism, is a prerequisite for NHS Band 6 roles in most laboratories and will soon adopt a modular format to tailor training to specific service needs.

This aim of the Specialist Diplomas is to ensure alignment with current practice and supporting new registrants in their early career stages. New Specialist Portfolios in Molecular Pathology and Genomics are in development to train biomedical scientists for roles in genomic hubs, meeting escalating workload demands. Beginning in 2024, a Specialist Portfolio in Andrology will be developed to standardise post-registration training for biomedical scientists in fertility services laboratories.

LEADING AND MANAGING OUR LABORATORY SERVICES

Modern NHS laboratories drive research and innovation, enhancing diagnostic services for acute, chronic, and emergency conditions, refining patient care. Pathology investigations now play a crucial role in over 80% of patient care pathways, a trend likely to grow with genomic testing and personalised medicine.

Biomedical scientists, beyond their scientific expertise, oversee quality, safety, equipment, budgets, and staff in these complex environments. This responsibility demands individuals deeply attuned to their service and its role in patient care.

Learning to manage a laboratory isn't solely attainable through on-the-job experience, and standard management courses fall short for this workforce. Responding to this gap, the IBMS designed Certificate of Expert Practice (CEP) courses - short-duration distance learning programmes, to introduce new managers to specific aspects of laboratory management.

In 2023, a new CEP in Laboratory Information

Technology and Clinical Informatics was introduced. This course aids individuals taking on expanding roles in laboratory IT projects and supports non-biomedical scientist IT managers in grasping the intricacies of the service they support.

WORKING AND TRAINING DIFFERENTLY

The biomedical scientist workforce stands out in healthcare due to its unique suite of affordable, service-specific professional qualifications spanning an entire career - precisely mirroring professional practice.

Recognising the need for affordable and accessible level 7-equivalent qualifications, the IBMS offers the Higher Specialist Diploma (HSD). This level 7-equivalent professional qualification, available in all major laboratory specialisms, equips candidates not just in science but also in leadership and laboratory management.

UPSKILLING THE WORKFORCE

The advancement of consultant-level practice for scientists in UK health services is gaining momentum. However, while this forward-thinking approach is standard in nursing and allied health professions, it has progressed at a slower rate in biomedical science.

NHSE is driving the adoption of advanced and consultant roles for biomedical scientists across pathology disciplines. These roles expand diagnostic and treatment capacity, overseeing patient care in primary, secondary, and community diagnostic hubs.

Increasing numbers of biomedical scientists are now undertaking IBMS professional qualifications that enable them to work alongside medical pathologists as part of the pathology dissection and reporting team, freeing up many hours of consultant pathologist time each week to focus on reporting.

Recognising pressures in haematology, IBMS is developing specialist programmes in haemostasis, thrombosis, and red cell disorders. The aim is to enhance the skills of scientists, supporting medical colleagues effectively and safely.

INDUSTRY AND INNOVATION

The field of biomedical and life science in healthcare is agile, evolving rapidly to meet shifting patient and societal needs. Early-stage life science research and the integration of life science R&D into the NHS offers the promise of pioneering treatments, improved patient outcomes, and the potential to revolutionise healthcare practices. Innovative diagnostics enable quicker, more accurate services closer to patients, improving outcomes, reducing healthcare costs, and shortening hospital stays.

Cancer care paths, among healthcare's costliest and lengthiest, now benefit from genomic testing, tailoring treatments to individuals. The IBMS advocates rapid genomic/proteomic testing for cancer patients, aiming to expedite targeted treatments. With biomedical scientists in every laboratory supporting cancer centres, and advanced technology in the diagnostics industry, greater diagnostic options are feasible at reduced costs, ensuring optimal patient outcomes.

The IBMS offers NHSE and the NHS in the devolved nations its diagnostics experience, and its links to industry and innovation. Working together will drive improvement and the adoption of new diagnostic strategies to deliver the most rapid, effective, and efficient treatments for patients that utilise the biomedical science workforce to speed up adoption of proven, effective technologies and diagnostic tests.

THE ROUTE FORWARD

The IBMS wants biomedical scientists to be recognised as the key health service workforce in pathology and diagnostics, with IBMS qualifications the primary route to its further development.

The biomedical scientist profession should be supported in a manner that allows the full scale of its skills and expertise to be galvanised to contribute to the delivery of the Government's new Major Conditions Strategy, with its focus on primary and secondary prevention, early diagnosis, managing multiple conditions effectively, and helping people live well after they have been diagnosed.

The IBMS can help the UK Governments make this happen faster and on a greater scale through the application of our Long Term Biomedical Scientist Workforce Plan, benefiting the healthcare system and patients.

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