

ADVANCED ROLES

FOR BIOMEDICAL SCIENTISTS

Specialist Biomedical Scientist **Shahid Nazir Muhammad** looks at how smarter services can be provided through embracing collaborative working.

Healthcare access and delivery face significant global and local challenges – funding restraints in healthcare practices mean that there is now more need than ever to ensure technology is available to better integrate services, to allow swifter delivery of clinical and biomedical-centred care for patients in community.

To ensure better health of the general population through smarter working, there is a need to highlight the scientist's role in wider community and this can be achieved through better use of technology

and collaborative working.

Scientists have traditionally been perceived (if at all) as “those who support diagnosis in secondary care”, or those who “run the tests behind the scenes” – the public do not really understand who we are and what we do.

However, there is now scope for scientists to become involved in community services and to support integrated care and best practice.

Perceived challenges

The creation of new technologies could support scientists to develop a more clinical role, providing information on



screening and diagnostic services and health promotion.

Patients are being encouraged to use technology, web portals, social media and phone apps, to help them better manage their own health. While websites, such as LabTests Online, provide patients with information on what tests are for and why they are being requested from a healthcare provider. In this context, the climate is right for scientists to identify novel ways of working and collaborating with other healthcare teams.

For example, in collaboration with community pharmacists, scientists could provide simple explanations on the purpose of certain tests and the broad implications of results.

Primary care is evolving, however, there is little collaboration and uptake of technology to support patients in managing their healthcare needs more innovation, using the knowledge that is resident within the biomedical science workforce.

My role as a scientist has advanced and evolved in ways that I never even imagined

CONSULTANT BIOMEDICAL SCIENTIST PATRICK KUMAH ON EVOLVING ROLES

It is important to look at smart and innovative ways of working in pathology, to motivate existing members of staff and to attract new members of staff. Advancing roles for scientists is a way of providing new career pathways, and ways in which individuals can grow and develop.

During my time in the Department of Histopathology at the Royal Derby Hospital, my role as a scientist has advanced and evolved in ways that I never even imagined. When I started as a trainee biomedical scientist in the 1990s, specimen dissection was something that only the medics did. However, with the support and training that I received in Derby, I have gained both the Diploma of Expert Practice in Specimen Dissection and the Advanced Specialist Diploma in Breast Specimen Dissection.

Derby participated in the biomedical science histopathology reporting pilot study. I started my training in gastrointestinal pathology reporting in 2012. I was successful in my final exams in 2016, and was awarded the IBMS/RCPATH Advanced Specialist Diploma in GI Histopathology Reporting. I am currently in Stage D of my GI reporting training and being progressively signed off to report GI pathology cases independently. My new role as a Consultant Biomedical Scientist is a combination of reporting, dissection, teaching, training and clinical audit. I also participate in the General GI EQA Scheme.

Now Derby has put forward other colleagues of mine to undergo training to report Gynaecological Pathology and Dermatopathology. Our Clinical Director has a vision of the Derby histopathology department having specialist teams containing both medical and non-medical staff who can all dissect and report. This is definitely a far cry from how things were when I started out back in the 1990s.

Patrick Kumah is a Consultant Biomedical Scientist in Gastrointestinal Pathology at Royal Derby Hospital.

While community pharmacists have roles and skillsets for delivery of medicines management, they too have similar challenges to biomedical scientists relating to wider practice.

It has been highlighted that point of care testing (POCT) or near-patient testing (NPT) are becoming increasingly important. The up-front costs of POCT initiatives can deliver greater “down stream” savings, through the better use of early stage pathology screening tests.

Further development of POCT/NPT programmes involving collaborations between biomedical scientists and community pharmacists would allow wider service availability in primary care.

While scientists have unique aptitudes and capabilities, their skillset and knowledge have not been utilised in community-based services because scientists have not been regarded as having a primary role in patient care.

Technology providing scope

With the expanding utilisation of technology by public health providers and service users, there is a need to evaluate the scientist’s role in the wider community. Studies have found that a significant proportion of the public rely on the internet to make critical health decisions and often bring information retrieved from the internet into healthcare consultation. Whilst long-term conditions can be managed by the appropriate use of medicines and ongoing care-plans, there is the potential for scientists to provide services and information that support patient self-care.

Patient Group Directions allow certain healthcare professionals to supply and administer specified medicines to pre-defined groups of patients, without a prescription. There is a case for including biomedical scientists in this group of

professions to better support patient care in defined clinic and community settings.

Conclusion

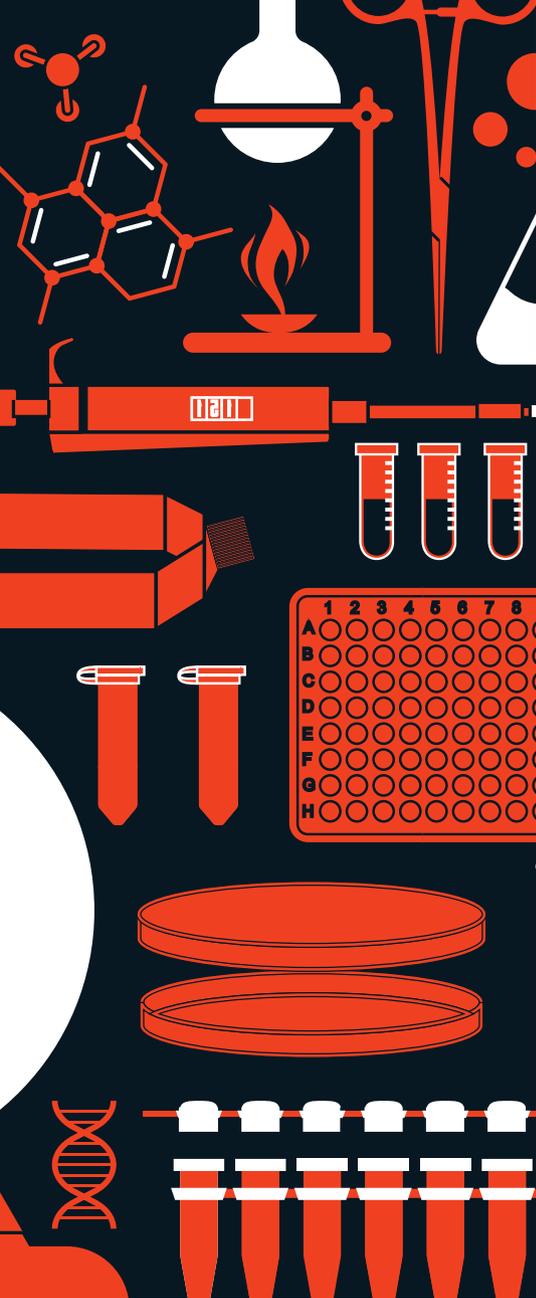
Scientists and pharmacists should be playing an important role in supporting care for patients with complex needs, as well as in providing educational events in community settings, based on health and care needs relating to ailment and disease. A range of developments have been called for in support of the further expansion of medicines optimisation activity. This includes referring patients to a community pharmacy for medication planning before starting any treatment, and strengthening the transfer of medicines information, for example, by providing all community pharmacists with NHS.net website addresses.

CLINICAL LEAD JANE NEEDHAM ON GRASPING OPPORTUNITY

We know from the many NHS reviews, reports and our experiences, that demand for high-quality healthcare is limitless and the resources to deliver are not. It is recognised that there is a wealth of knowledge, skills and expertise residing within the workforce, and that includes, biomedical scientists, which needs to be used effectively to deliver the quality care that patients need now and for the future.

Many of our members are already working in advanced roles, having developed their expertise, knowledge and skills to a very high standard through continuously developing clinical and scientific practice, within the laboratory





There is a need to evaluate the scientist's role in the wider community

Understanding how the expansion of roles, economics, and technology will allow better care and management of patients in community is key.

At present, however the evidence-base for collaborative working has been insubstantial. Biomedical science practice as a “hidden” service remains largely unchanged and cross-profession collaborative working for delivering care, monitoring practice is still not widely considered.

To identify what strategy and mechanisms are required to encourage collaborative working means research and an evidence-based approach is needed to inform both biomedical and pharmacy practices to strengthen ways of evaluating the delivery of better timely care and ensuring productivity during normal and out of hours and through greater use of technology. ^{BMS}

Shahid Nazir Muhammad is a Specialist Biomedical Scientist and Senior Research Scientist Assistant at Invatech Health Ltd.

setting and branching out into the clinical patient environment. We need to continue to promote and take the opportunities to develop advanced roles within the wider healthcare community.

I have a clinic seeing adult patients for investigation of suspected mild bleeding disorders. My passion is the field of haemostasis and thrombosis and the opportunity arose to develop my practice into the clinic setting. It is a privilege and very rewarding to have my own patient caseload, take their clinical history, follow through investigations within the laboratory, present newly identified disorders at MDT meetings and discuss the result findings, diagnosis and meaning with the patient. So, where did my journey start? Right at the bottom, as a trainee biomedical scientist in Haematology, followed by a

systematic step up the career ladder with associated professional (IBMS) and academic qualifications, supported by the development of scientific and clinical practice. On top of the “day job” I have been a life-long student, driven by having moved a step, then realising there was another one above. Persistence, love of my subject and applying this knowledge to benefit patient care, have culminated in a PhD and by examination FRCPPath.

Possible questions for you:

- ✓ Where can I apply or developed my scientific expertise to improve my care?
- ✓ Where can I improve the quality of the diagnostic report to benefit the patient?
- ✓ Can I contribute to multi-discipline clinical meetings?
- ✓ Where can my knowledge and skills be

applied to improve/streamline patient care pathways?

- ✓ Is there a community role for me as a biomedical scientist?

So focus on “can do” (there are many myths surrounding what biomedical scientists “can’t do”). Be confident, know your value, abilities and potential and actively seek opportunities. Be passionate about the service you provide or want to provide and remember – you care for patients, not specimens. The NHS needs you. Grasp the opportunities to improve the care of patients who rely on you.

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