Review of the NHS (Wales) Workforce – Call for Evidence Questions

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Integration of health and social care

The identification of new models of service delivery which are at the forefront of the integration of health and social care along with an analysis of the barriers experienced by such models and associated ways of working. We would welcome you views in this regard and in particular we would welcome your views concerning:

How have other countries/health systems adapted to meet exponential increases in demand for health and social care provision?

Not known

What factors have led to the increases in demand for provision within these countries/systems?

Chemical Pathology is predominantly a laboratory based specialty with the Chemical Pathologist bringing vital medical insight, direction and leadership to the nature and quality of the diagnostic service provided by the laboratory. The Chemical Pathologist also straddles the clinical-laboratory interface and is able to ensure that diagnostics are used properly in the clinical setting.

- Clinical liaison work is important for primary care with expansion of new monitoring tests and increasing cohort of patients with co-morbidities and multiple drugs which GPs are expected to monitor. Succinct targeted medical advice helps support services. Also there will likely be a need to provide more direct interpretative and advisory services direct to patients as they obtain the right to access their own results directly (April 2015).
- Chemical Pathologists increasingly find themselves making significant and important contributions to how diagnostic testing can improve the whole patient pathway, with essential guidance, explanation and interpretation provided to other healthcare professionals who increasingly are unable to deal with the complexity of modern diagnostic medicine in an optimal manner without such input. The Diagnostic Atlas of Variation demonstrates the huge variation in the level of use of diagnostic tests which in turn points towards significant levels of inappropriate testing and understanding amongst medical professionals.
- Chemical Pathologists are pivotally involved in the provision of direct specialist patient care, notably in diabetes, obesity, lipid disorders, metabolic bone disease and inherited metabolic diseases in Trusts and Health Boards across the UK.
- The Chemical Pathologist is becoming an increasingly important player, providing much needed clinically diagnostic insight, into the processes of reconfiguration, procurement and commissioning of pathology services, including areas such as repertoire, turnaround times and demand management that depend hugely on being able to make the link between diagnostic service and the needs of the patient.
- Pressure on Clinical Biochemistry (Chemical Pathology) diagnostic services continues to rise year on year both in terms of the number of samples but also with regards to the increasing complexity of requests. While molecular based diagnostics will offer new approaches, the number of "variants of *unknown significance"* generated will require increased guidance on biomarkers for individual disorders to help clarify. Individuals with sound clinical diagnostic skills (Chemical pathologists) are essential to

support this.

- The ageing population will continue to add pressure to the whole of diagnostics in relation to the inevitable increase in prevalence of multi-system and chronic disease processes.
- Chemical Pathologists working within the NHS and academia make significant contributions to research output both directly via their own driven research activity, but also by providing essential and important collaboration and diagnostic support to many other studies and trials.

What criteria have been used to assess degree to which integration of services has contributed to effective management of demand?

Not known

To what extent can these models be replicated in Welsh system of health and social care?

Not known

What barriers have been identified in inhibiting successful implementation of such models?

Not known

How might such barriers be overcome within Welsh context?

Not known

Future workforce skill and skills mix

The workforce of the future; the staff and skill mix the NHS needs to ensure patients continue to receive high-quality care as close to their homes as possible. We would welcome you views in this regard and in particular we would welcome your views concerning:

To what extent has service provision changed within NHS Wales and across social care in Wales over past 10 years?

All Chemical Pathologists report increasing advice sought from junior doctors particularly as many have not had the same pathology exposure of previous generations. Current reviews of undergraduate training are likely to reverse some of the changes over the last two decades with increase need for Chemical Pathology input into undergraduate teaching.

How has the composition of workforce changed within the same time period – numbers, type, location, etc?

In 2005:

- There were 13 medically qualified consultants in post in Wales in Clinical Biochemistry. 3 of these were aged 55 or over.
- There were 3 trainees in post in dual training with Metabolic Medicine.
- In addition, there were 2 vacant trainee posts, temporarily converted to SHO posts.

In 2015:

- There are 16 medically qualified consultants in post in Wales in Clinical Biochemistry. 6 of these are aged 55 or over. (see Table 1)
- There are 3 trainees in post; 2 in Chemical Pathology and 1 in Chemical Pathology with Metabolic Medicine.

The number of consultants has increased but training posts have not. This could lead to problems with supply.

What are the key strategic drivers that will influence trends in service provision over next 10 years?

- Chemical Pathologist roles are forecast to experience increasing pressure in the years ahead – as a direct consequence of the increasing prevalence of diabetes, obesity and lipid disorders which will undoubtedly impact heavily on the out-patient services typically led by Chemical Pathologists. This will inevitably lead to more involvement in community provision of services and the education of patients to prevent morbidity.
- The financial downturn, along with recommendations from the Carter Report has resulted in diagnostic services going through a process of reconfiguration which has by and large promoted the evolution of

larger centres connected to smaller providers (hub and spoke model). The historic discipline specific boundaries have also begun to contract, with the concept of blood science based models also becoming common. This is likely to continue to be refined.

- The call for provision of a seven day NHS by 2020 will result in the need for a greater workforce in order to cope with demand.
- The Cancer Strategy for England 2015-2020 means that the size and shape of the pathology workforce needs to be developed further in order to deliver what is required, and the ageing population and increased incidence of cancer will add pressure across the whole of pathology, including chemical pathology.
- The Health and Social Care Act of 2012 has also added a further level of complexity, with competition, commercial awareness and a risk of fragmentation of both services and the workforce providing such.
- The rising importance of quality in healthcare, highlighted by the NHS England publication of the Pathology Quality Assurance Review, will also drive all aspects of Clinical Biochemistry services in the coming years. Medical leadership and insight into this process will be vital to ensure appropriate quality milestones are achieved in relation to teaching, CPD, informatics, quality assessment and clinical governance.
- The increasing use and dependency on Point of Care Testing (POCT) will continue to expand not just in primary and secondary care, but also in the high street and in patients homes. While there will be a vital input required from pathology professionals to ensure that the technical aspects of such POCT is carried out to sufficient standards; there will also be additional guidance from Chemical Pathologists in particular to ensure that any such service is clinically relevant, warranted and is performed and understood by the user of the test. It will be the responsibility of the Chemical Pathologist to redesign the patient pathway using POCT and other innovative approaches to improve the clinical efficiency and patient experience.
- The particular insight of the Chemical Pathologist, using the combination of both medical training and experience along with diagnostic knowledge, will be vital to direct, advise and lead the provision of increasing complex diagnostic strategies that will have significant impact on patient flow and outcomes across the whole patient pathway.
- Continued and increasing demand on the particular direct patient care activities provided by Chemical Pathologists will also become apparent as a result of the epidemiological changes in relation to obesity and ageing that are affecting the population.
- Additional new roles will develop in the near future as a result of the increasing demand for interpretative services – potentially as a direct service to patients as they gain access to their own results. Such enquiry is likely to depend heavily on prior medical knowledge and may involve therapeutic insight and instruction.
- The Cancer Taskforce has issued a statement of intent in a Cancer Strategy for England 2015-2020. Clinical Biochemistry tests contribute both directly and indirectly to cancer detection and management. Directly in that there are specific tumour marker tests: CEA, AFP, CA125, CA19.9 and CA15.3. These may be involved in screening, diagnosis and follow up of patients with certain cancers. Indirectly in that any increased activity in cancer burden (incidence, activity, and new treatment pathways) will be associated with increased use of routine biochemistry tests. It is likely therefore that both of these effects will kick in when either an increase in incidence is observed (expected as the population ages) or whereby screening, case finding or management becomes more active as a result of increasing incidence, policy change or new guidelines.
- New roles and additional time demands for Chemical Pathologists includes attending and supporting MDT meetings at other departments e.g. Endocrine MDT, Gastroenterology (with regards to TPN), etc.
- Chemical Pathologists interact with and support almost every other clinical speciality, as almost all specialities request biochemistry tests to some degree.
- Clinical interpretative support to primary care about the complexities of new biomarkers and explaining drug effects on monitoring increasingly being sought.

What structural/organisational changes may be required to address such changes?

Not known

What are the likely workforce requirements to meet such demands on service provision over next 10 years?

- There is a need for more medically trained Chemical Pathologists to meet demands of service

provision over the next 10 years.

- In addition, there is a need for more clinical scientist Clinical Biochemists to meet demands of service provision.

What are the likely deficits in workforce supply over next decade?

- The impact of recent changes in provision of NHS pensions are forecast by many organisations to have a significant effect on the retirement age of many consultant Chemical Pathologists, with the likelihood of earlier retirement. In addition, those consultants in receipt of ACCEA merit awards are also likely to retire early before the risk of these pensionable additions to salary are challenged.
- In Wales, two of the three trainees in post are part time and are unlikely to complete their training until 2019 and 2020. The other trainee is due to complete training in 2015. However, no trainees were appointed in 2013 in England despite 12 vacancies. 2014 recruitment was 3 and in 2015 despite 16 posts being available, only 4 places were filled. This contributes significantly to the risk of under recruitment in England and the potential for loss of trained doctors from the devolved nations to address the imbalance in the supply and demand chain for Chemical Pathologists. RCPath and the profession have begun an active programme of awareness and encouragement throughout both undergraduate and postgraduate environments which will hopefully improve recruitment rates in the near future.
- The arduous nature of Chemical Pathology training (6.5 years average), including significant clinical components in the metabolic medicine sub specialty curricula and the current requirement for both MRCP and FRCPath mean that some trainees decide to leave the discipline part way through training. This is estimated to be of the order of 20% overall usually within first 2 years.
- http://www.rcpath.org/training-education/specialty-training/chemical-pathology.htm has links to the curriculum for specialty training in Chemical Pathology and to the Metabolic Medicine curriculum. These set out the specific knowledge, skills and behaviour required of practitioners in the specialty.
- Trainees in Chemical Pathology with metabolic medicine sub-specialty generally are recruited from Core Medical Training output. This is becoming increasingly difficult with fewer trainees from this source available and greater interest in other medical specialities. Some confuse the metabolic medicine component as being the main element of Chemical Pathology rather than the laboratory training – this leads to increased attrition rates.
- Increased opportunities have arisen in recent years for trained Chemical Pathologists to undertake careers in industry; in particular, private medical care, the in-vitro diagnostics and pharmaceutical industry recognise the talent and qualities of such trainees.
- Chemical Pathology trainees have also been lost from the NHS to other countries such as Ireland, Canada and Australasia, with many additional opportunities in Laboratory Medicine opening up in the Middle East and Far East sectors.
- Increased use of flexible working patterns, notably with female trainees and consultants, has led to longer training times in the former and less than full time posts/participation in the latter.

How can such workforce supply deficits be addressed?

- There is a clear role here for the National Laboratory Medicine Catalogue (NLMC) which aims to standardise the requesting, reporting and analysing of pathology tests.
- There will be a need for sufficient laboratory staff including chemical pathologists to deliver this agenda.

What policies are in place to address such deficits?

Not known

What new professional groupings and roles will be required? e.g. physician assistants, advanced practitioners.

- Workforce models with Clinical Biochemistry services will continue to be delivered using a combination of Chemical Pathologists, clinical scientists, biomedical scientists and other support workers. This team approach is essential as it allows each member to bring an important, clearly identifiable and necessary capability that compliments the others in the team.
- There are clear distinctions between the contributions of Chemical Pathologists and clinical scientists.
- Chemical Pathologists, along with other laboratory staff are already working with Enhanced Care Teams in some areas of the UK in the delivery of care closer to the patient's home in in community hospitals. The establishment of quality Point of Care Testing is integral to the delivery of this goal.

What is the evidence for the effectiveness of such groups and roles in meeting supply deficits? Not known

Efficiency and prudent principles

Areas of potential efficiency, taking into account the principles of prudent healthcare, in order to address the long-term financial challenge between 2016-17 and 2025-26 set out by the Nuffield Trust. We would welcome you views in this regard and in particular we would welcome your views concerning:

How can the 'only do what only you can do' principle be translated into an estimate of workforce configuration in the future? Not known
How can the 'only do what only you can do' principle be factored into workforce planning mechanisms? Not known
What is the scope for professional substitution? Not known
What are the financial implications of professional substitution? Not known
What is the role of technology in compensating for time and distance? • As technology in the area of genomics and personalised medicine develops, the need for an increased workforce will continue into the longer term as local laboratories take on more complex analysis. • An increased laboratory workforce, including Chemical Pathologists will be needed to drive and deliver the increased availability of genomic testing within laboratory medicine.
What are the financial implications of technological developments in this area? Not known

Pay and reward

The long-term strategic direction for pay and reward for those currently covered by the UK Agenda for Change (and Executive and Senior Posts) contract terms and conditions. This will include the affordability of future pay and reward, set in the context of the Nuffield Trust's report; and the approach to considering, determining and setting future pay and reward. We would welcome you views in this regard and in particular we would welcome your views concerning:

What are your expectations for the long term strategic direction for pay and rewards within the NHS and in relation to pay and rewards within the wider economy? Not known
What are your expectations with regard to the continuation of, or changes to, current pay and reward differentials? Not known
What are the existing arrangements for A4C staff, executives and senior posts and how have these operated in each of the past five years? Not known
To what extent does Wales have autonomy, authority and powers to be able to determine pay and reward mechanisms and to what extent does this vary as between A4C staff, executives and senior posts?

Not known
To what extent can the long-term strategic direction for pay and reward for people currently covered by the UK Agenda for Change contract terms and conditions be considered separately from a similar consideration of pay and reward for staff covered by the Doctors and Dentists Review Body? Not known
To what extent can pay and rewards be considered in isolation from all the other terms and conditions of employment? Not known

Table 1

Consultant Clinical Biochemists in Wales in 2015 (medically qualified)