Review of Histopathology Services in Wales

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| CONTENTS |
|----------|---|
| Executive Summary                                  | Page |
| Recommendations                                    | 2    |
| 1. Background                                      | 3    |
| 2. Terms of Reference                              | 3    |
| 3. Assumptions                                     | 3    |
| 4. Process                                         | 4    |
| 5. Histopathology Services                         | 4    |
| 6. Quality                                         | 4    |
| 7. Training and Education                          | 5    |
| 8. Current and Future Delivery of Histopathology Services in Wales | 6    |
| 9. Laboratory Services                             | 9    |
| 10. National Population Screening Programmes       | 9    |
| 11. Factors that should be considered when planning and developing Histopathology Services | 10   |
| 12. Molecular Diagnostics                          | 11   |
| 13. Appendix                                       | 12   |
| 14. References                                     | 13   |
Review of Histopathology Services in Wales

Executive Summary

As part of the process of undertaking this review I spoke to many people involved in the delivery of Histopathology services in Wales, as well as using the knowledge gained my involvement in the Pathology Modernisation process and various roles within the Advisory system. My overriding impression was that there is a strong desire to change the way services are delivered taking into account the current professional and financial pressures affecting the service. It is recognised that there are some challenges facing Health Boards in sustaining the status quo. The services being delivered are safe and in most instances comply to the regulatory and quality standards. It will be the responsibility of the Health Boards, working closely with the clinical (medical and non-medical) staff to consider the recommendations and then implement them in the way that best suits local needs.

Recommendations

- In the short term, services in Hywel Dda should be centred at Carmarthen.
- It is recommended that discussions are started to consolidate Cellular Pathology services to fewer sites in Wales.
- The increasing demands on Consultant Histopathologists to attend Multi-disciplinary team meetings need to be recognised. Formal arrangements should be in place to enable this.
- Use of telemedicine and video-conferencing should be utilised to its fullest extent.
- Opportunities need to be developed in discussion with the appropriate Colleges and Universities in Wales to develop and expand existing courses to train BMS staff to carry out Advanced Practitioners roles. The educational requirement of Support workers needs to be considered as a matter of urgency.
- There should be an all-Wales review of post mortem services carried out on behalf of coroners
- It is recommended that molecular diagnostic techniques should be centred in laboratories where specialist skills have been developed and there should be coordination across Wales.
1. Background

Following discussions at the National Pathology Board the Chief Scientific Adviser (Health) invited me as Chair of the Welsh Scientific Advisory Committee to undertake a review to consider how Histopathology services should be planned and delivered in the future.

The issues identified by the Board centred on the difficulties being experienced in recruiting Consultant Histopathologists in parts of Wales, resulting in concerns about sustaining services and maintaining quality, combined with the economic pressures facing the Health Service. It was agreed that in addition to examining ways of sustaining and improving services, the review would also focus on the role of Histopathology within Health Services in the 21st century.

2. Terms of Reference

Terms of reference for the review included:

- To review staffing levels of Histopathology consultants in the restructured NHS in Wales.
- To review the delivery of the components of the Histopathology services to include post-mortem, diagnostic, multidisciplinary working especially through cancer, the impact of Histopathology involvement in emerging molecular diagnostic techniques and personalised medicine.
- To review the existing laboratory facilities to assess whether there exists opportunities to rationalise on the number of laboratories currently providing facilities.
- To review the role of Biomedical Scientists to see what opportunities exist to extend their roles with a view of relieving pressures on Consultant staff.
- To review existing training numbers of both Medical and Non-Medical staff.

The terms of reference and process for the review were agreed at the Histopathology Specialist Standing Advisory Committee in November 2009.
3. Assumptions

A number of assumptions were agreed as the basis for the review which included:

- Service delivery has to be of the highest quality and have patient interest as its main priority.
- Services must be sustainable and affordable
- There is a need to ensure that safe services are provided as locally as possible (not the other way around)
- There will be little or no additional funding available in the foreseeable future
- Do nothing is not an option

4. Process

Information for the review was obtained through informal face to face conversations and telephone interviews with those listed in Appendix 1 and responses received to drafts of the report.

5. Histopathology Services

Histopathology services play a crucial role in the diagnosis of both neoplastic and non-neoplastic diseases, and make a major contribution to treatment selection and monitoring. Histopathologists increasingly collaborate with other healthcare professionals on treatment and in particular staging, planning and monitoring the success of multidisciplinary treatments for cancer, where Consultant Histopathologists are integral members of multidisciplinary clinical teams. Teaching, Research and Development and Laboratory Management are roles undertaken by medical and non-medical staff.

Consultant Histopathologists with the support of expert mortuary staff also undertake post mortem examinations to ascertain the cause of death. A significant proportion of this work is undertaken for Coroners. The activity is performed often during office hours but as Category II NHS activity. It is therefore, remunerated separately and recorded in job plans as “below the line” activity separated from, and in addition to, contracted NHS work. Fees for this work are normally based on local arrangements between the Coroner and Histopathologists.

Laboratory services, staffed by the Health Profession Council regulated biomedical scientists and support workers, make up the team which contributes to the provision of Histopathology Services and provide expert scientific and practical knowledge.
Further details of the delivery of Histopathology services in Wales can be found in *The Future Delivery of Pathology Services in Wales* (August 2008).

6. **Quality**

Histopathology Services are required to comply with regulatory and accreditation schemes including:

6.1 **Human Tissue Act (2004)**

The Human Tissue Authority ensures that there is compliance regarding the obtaining of tissue for further investigation, storage of such tissue etc.

6.2 **Clinical Pathology Accreditation (CPA)**

Clinical Pathology Accreditation (CPA) ensures that laboratories operate a quality management system to integrate the organisation, procedures, processes and resources. The standards which have to be complied with include those around the building infrastructure of the laboratories, continuing professional development of staff, quality assessment of performance and individual performance review.

6.3 **External Quality Assessment**

Histopathology services participate in multiple National External Quality Assessment (EQA) schemes, both medically and scientifically. Performance against EQA standards is used as a development tool at personal review and as a tool to improve service provision and delivery.

7. **Training and Education**

Through the Wales Histopathology Training programme in Cardiff, Llantrisant and Swansea there is an excellent scheme for training future Consultant Histopathologists, although as highlighted previously there are difficulties in recruiting Consultant Histopathologists in parts of Wales.

Accredited courses for training Biomedical Scientists (BMS) are available in Cardiff (UWIC) and Bangor University and produce graduates who are Health Profession Council (HPC) regulated. Once qualified and trained their CPD is overseen as part of the CPA process in those laboratories that are accredited and by the individual Health Boards as part of their Workforce Development strategy annual performance review.

In order to maintain registration with the General Medical Council or the Health Professions Council every clinician practising as such registrants have to participate in a CPD programme.
In addition to this the Modernising Scientific Careers programme describes a strategy for the development of the Healthcare science workforce and their education and training as initially outlined in *A High Quality Workforce*. It sets out how it is intended to take forward proposals on career pathways, regulation and standards of education and training, education and training programmes and on supporting delivery.

Work needs to be done with Further Education Institutes, Colleges and Universities to develop roles leading to Advanced Practitioner status. Also, the educational needs of Support Workers need to be considered as a priority and incorporated into the Workforce development plans for the future delivery of Histopathology services.

8. Current and Future Delivery of Histopathology Services in Wales

The following section describes the current delivery of Histopathology Services in Wales and describes a number of challenges facing the service, work that is currently being undertaken to meet these challenges and recommends further areas of work.

8.1 Human Tissue Act (2004)

The consequences of non-compliance with the requirements of the HTA were demonstrated by the temporary suspension of Post Mortem (PM) licences at the University Hospital of Wales, part of the Cardiff and Vale University Health Board, during the autumn of 2009. Subsequent to this, the National Pathology Programme has been working with NHS organisations to take an All Wales approach to improvement in compliance with the Act. A “Designated Individuals (DIs) Group” consisting of HTA Designated Individuals, (Consultant Histopathologists and Biomedical Scientists), Persons Designate and Bereavement Officers has developed the following:

1. Consent forms and information booklets for adult and paediatric post mortem examinations.
2. Training material for paediatric and perinatal post mortem consent.
3. An All Wales framework for service agreement/memorandum of understanding between Health Boards and Coroners.
4. A standard guide and form for recording relatives’ wishes in relation to tissue retention and disposal following Coroner’s PM.

The consent forms, guides and other documents developed by the All Wales HTA DIs Group now meet the requirements of the HTA. During the summer (2010), the HTA visited Llandough Hospital, also part of Cardiff & Vale Local Health Board, and gave an exemplary report on the
service, hailing it as a beacon of excellence and also cited the DIs Group activities and results as examples of good practice.

Thus far coroners in Wales have not uniformly adopted the good practice described above with potential regulatory risk (as many mortuaries undertake work for several coroners). Implementation of uniform good practice would be helped by support from the Welsh Assembly Government.

It needs to be recognised that the HTA as it exists presently is to be disbanded and consideration needs to given as to what is going to fulfil its role in Wales in the future.

8.2 Clinical Pathology Accreditation

The CPA status of all of the laboratories in Wales as at March 2008 was summarised in *The Future Delivery of Pathology Services in Wales*. The only laboratories not accredited at that time were those in Carmarthen, Haverfordwest and Aberystwyth. The reasons centred mainly on the recruitment of Consultant Histopathologists and the fabric of the laboratory buildings. These issues are in the process of being addressed and it is envisaged that this will enable them to move towards accrediting their services in the future. There is however a need to ensure that once achieved, accreditation is sustainable and there is also a need to consider whether a collaborative approach between the two Health Boards in the South West (Hywel Dda and Abertawe Bro Morganw) would also sustain the accreditation of Histopathology Services.

8.3 Mortuary Facilities

NHS Mortuary facilities at which post mortems are performed are required to meet HTA standards.

There is a view that the number of facilities where post mortems are undertaken could be reduced, but that there will be a need for a number of facilities to continue to be available for the storage of bodies at no financial burden to families.

Histopathologists are not required to undertake coroner’s post mortems as part of their NHS role and are increasingly choosing not to provide this service. This is seen as an increasing risk for service sustainability.

It is recognised that the post-mortem room technical staff also perform an essential role in the maintenance and development of this service, but there is variation in the way that these roles contribute to delivery of the service.

Given the range of issues identified in relation to post mortem services it is recommended that an All Wales review of coroner’s post mortem
services should be undertaken. It is suggested that it is most appropriate for Coroners as users of the service to carry out this review.

8.4 Recruitment of Consultant Histopathologists

The training scheme for Consultant Histopathologists delivered by the Wales Histopathology Training programme provides a steady stream of high quality Consultant Histopathologists. These are readily recruited into the departments within commuting distance of Cardiff, however there is a significant problem in recruiting to services to the west of Swansea in Aberystwyth, Haverfordwest and Carmarthen. There are also problems attracting trainees to Aneurin Bevan for Consultant posts.

The pressure that this has placed upon existing consultants has resulted in concerns over clinical quality and sustainability of services.

To address some of these issues in West Wales, plans are being developed and implemented to rationalise services, including tissue processing and Consultant bases onto the Carmarthen site with Consultants visiting other sites. This may be more attractive to prospective consultant candidates who would be more likely to be attracted to a team environment which apart from providing mutual support, also enables discussion about difficult diagnoses.

In addition, this allows Consultants to develop subspecialist interests which help to improve the quality of clinical diagnosis as demonstrated through clinical audit and performance review.

In order for this to be successful, accommodation would be required to house the Consultants. One option would be to provide this accommodation as part of the new mortuary build. This is in its advanced stage of planning but the foundations are such that an additional floor could be added at minimal cost.

In North Wales recruitment has also been a problem particularly at the Glan Clwyd and Wrexham sites. Traditionally, Consultants have tended to be recruited from training schools in the North West of England.

This is being addressed by Betsi Cadwaladr University Health Board (BCUHB) and in particular the Pathology Clinical Programme group, through plans to centralise services at Glan Clwyd Hospital. These plans are currently being consulted upon and as services fall under one organisation opportunities for a fully harmonised and integrated approach to working practice are being developed.

The issue in North Wales is not one of lone working as in West Wales, but of capacity. Centralisation is likely to provide a ‘critical mass’ allowing the development of posts with teaching and research commitments alongside service commitments. This will encourage more academically minded candidates to consider a career in North Wales. The success of this approach has been demonstrated by the recruitment of a Consultant
Cytopathologist who commenced work in BCUHB in October having spent a number of years working at the Royal Liverpool University Trust.

Points to consider when discussing the issues around the recruitment of Consultant Histopathologists include:

- Is there a need to take more of a “network” approach to ensure that posts are attractive to potential applicants?
- Is there potential to develop non-medical staff to take on advanced skills e.g. cut up by BMS’ and undertaking molecular diagnostic techniques.

The development of telemedicine and integrated IM&T will be a further enabler to improving the quality and sustainability of services, particularly with regard to Multidisciplinary team working.

9. Laboratory Services

These have been traditionally delivered from the main DGH sites in Wales. The techniques used in these laboratories include diagnosis by the use of microscopy following tissue processing, immunological techniques and to an increasing extent molecular diagnosis. There are moves to rationalise where these tests are undertaken occurring in most Health Boards in Wales. However, core services have to be available to accept urgent samples from surgical teams. It is envisaged that the facilities needed for this would be minimal with the opportunities being available to rationalise tissue processing possibly to as few as three sites. This needs to be considered in conjunction with the provision of other clinical the need for an efficient transport system. The current delivery of tissue processing needs to be reviewed with the aim of concentrating technical work to fewer sites. It is recognised that other services in cytopathology need to be reviewed.

The procurement of the new Laboratory Information Management System (LIMS) will offer great scope for standardisation of processes and procedures. The Cancer Histopathology Reporting Project integrated to the LIMS offers better reporting to the cancer registry and standardisation of report formats. This will also act as an enabler for centralisation of services.

10. National Population Screening Programmes

Cervical Screening Wales (CSW) is responsible for the NHS cervical screening programme in Wales. The aim is to reduce the incidence of, and morbidity and mortality from invasive cervical cancer. CSW, as is Breast Test Wales, Bowel Screening Wales, Newborn Hearing Screening Wales and Antenatal Screening Wales is managed by the Public Health Wales NHS Trust. It works closely with histopathology staff across Wales delivering histopathology across the existing national population based screening programmes.
Some of the issues facing the Cervical Programme in particular at present centre around a trend of a decreasing workload, changes in technology and the vaccination programme for human papilloma virus, which has been recently introduced.

BMS staff are being trained to fulfil Advanced Practitioner roles at courses run in Llandough hospital under the Welsh Cytology Training School which is directly managed by CSW. This workforce development has a significant potential to help alleviate any problems around the recruitment of Consultant Histopathologists.

In the medium term it is envisaged that screening laboratory services will be based in two sites serving the M4 and A55 corridors. A centralised processing laboratory as been established at Llantrisant which may have the capacity to offer other centralised histopathology services. A similar facility is being developed in North Wales.

There has already been a rationalisation of breast screening pathology onto three sites in Wales.

Bowel Screening has a planned roll out to screen ages 50-74, however the rate at which this happens is subject to funding being provided by Welsh Assembly Government.

11. Factors that should be considered when planning and developing Histopathology Services

Future planning and delivery of Histopathology services should be considered in relation to the recommendations in The Future Delivery of Pathology Services in Wales and National Pathology Framework

In terms of The Future Delivery of Pathology Services in Wales, this would include the following recommendations.

Pathology services should be developed so they comply with all relevant standards, including CPA accreditation.

As part of this process Histopathology services should participate in External Quality Assessment schemes. The results should be thoroughly reviewed and used to improve services. These results should not only be fed into the Individual Performance Review processes for staff, but should also be used to improve services within the laboratory and more broadly to users in general for example MDT meetings.

Services should be located to maximise critical mass, provided this does not compromise local service delivery.
The need to rationalise services has already been discussed and plans need to be developed to ensure that services are effective, efficient and sustainable.

The use of current generation Information Technology will need to be maximised. The new Laboratory Information Management System should allow standardisation of a number of processes across Wales.

This will be further enhanced through the introduction of the Cancer Histopathology Reporting Project (CHIRP) which will use a structured report in format to feed information straight into the Cancer Information System Cymru (CANISC). Horizon scanning for new developments such as a PACS for histopathology ought to be considered, together with the possibility of real time reporting linked to clinical procedures. Digital dictation and voice recognition software would also facilitate this process.

The Pathology workforce needs to be further developed to support flexible working and improve and extend their roles through better training and support.

The demography of the workforce in Pathology presents both challenges and opportunities and comprehensive workforce plans need to be developed to ensure that the workforce has the skills to deliver future services.

Decision support for Pathology testing should be developed and feedback processes to clinicians on their testing practice should be developed.

Processes should be established to enable appropriate requesting and limiting unnecessary demand. Processes should be developed on an All Wales basis to improve, where necessary, the education and knowledge of the requesting clinician. More use should be made of Clinical Audit to improve requesting procedures.

12. Molecular Diagnostics

Already a few laboratories across Wales are offering such PCR and FISH testing as part of a suite of molecular diagnostic testing. This is an important area of development which will impact on testing of families, the development of personal treatment plans depending upon genetic make-up. At present a lot of these tests are undertaken in Histopathology departments. It is important that Wales is up with the leaders in developing these techniques and this needs to be taken into account when designing future services across the whole of Wales. Work needs to be done with other Healthcare professionals and the Academic Institutions to develop a programme to roll this out. In addition Histopathologists and BMS' need to receive the appropriate training at undergraduate, postgraduate and continuing professional development routes. It is recommended that these techniques should be centred in laboratories where specialist skills have been developed and there should be coordination across Wales.
Appendix 1

People consulted as part of the review

The views of many others in face to face conversations and at various meetings have also been taken into account when compiling this report.

(P = personally  T = telephone  E = e-mail)

Cardiff and Vale University Health Board
Professor Geraint Williams (P)
Dr David Griffiths (P)

Cwm Taf Health Board
Dr Jason Shannon (P)

Hywel Dda Health Board
Dr John Murphy (P)

Abertawe Bro Morgannwg Health Board
Mrs Sally Buckland-Jones (P)
Dr Wyn Williams (P)
Mrs Christine Davies (P)

Aneurin Bevan Health Board
Mr Mike Redman (E)

Betsi Cadwaladr University Health Board
Dr Mark Lord
Pearl Huey
Mr Adrian Thomas

National Screening services
David Nuttall (P)

Royal College of Pathologists
Dr Ian Frayling
National Pathology Programme
Mrs Lindsey Davies (P)
Ms Margie Fielden

References

1. The Future Delivery of Pathology Services in Wales (August 2008)
3. Clinical Pathology Accreditation (UK) Ltd website http://www.cpa-uk.co.uk