National Assembly for Wales
Health and Social Care Committee
Access to medical technologies in Wales
Evidence from Welsh Government – MT 40

Health & Social Care Committee inquiry into access to medical technologies in Wales – evidence from the Welsh Government

December 2013

Purpose

1. This paper provides evidence for the Health & Social Care Committee's inquiry into the access into medical technologies in Wales including:

    a. background on appraisal and change management issues associated with technology adoption;
    b. relevant Welsh Government policy and strategy;
    c. delivery activities to promote uptake of evidence based technologies.

Background

2. There has been a long history of advances in medicine through introduction of new technologies. Over recent decades NHS services in Wales have changed dramatically with a constant push towards better targeted and less invasive treatments with improved diagnostic technologies a key foundation for this. Technology adoption can have efficiency benefits through automation of processes or other changes in patient pathways. Technological developments can enable services to be provided closer to patients in community settings.

3. The National Institute for Health and Clinical Excellence recognises that the benefits of technologies are more difficult and complex to appraise than pharmaceuticals (NICE Medical Technologies Evaluation Programme Methods Guide April 2011 pp.7-8):

    - *Technologies may be modified over time in ways that change their effectiveness;*
    - *The clinical outcomes resulting from the use of technologies often depend on the training, competence and experience of the user (sometimes referred to as the 'learning curve').*
    - *Clinical evidence on technologies, in particular new technologies, is often limited, especially comparative studies against appropriate alternative treatments or methods of diagnosis.*
    - *The healthcare system benefits of adopting medical technologies often depend on organisational factors, such as the setting in which the technology is used or the staff who use it, in addition to the benefits directly related to the technology.*

- *When the technology is a diagnostic test, improved clinical outcomes depend on the subsequent delivery of appropriate healthcare interventions.*
- *Evidence of the effect of diagnostic tests on clinical outcomes may not be available because improved diagnostic accuracy may not be reflected in improved clinical or quality-of-life outcomes.*
- *Some technologies are indicated in managing or investigating a number of different medical conditions and may be used by different healthcare professionals and in a variety of healthcare settings.*
- *Costs of medical technologies often comprise both procurement costs (including associated infrastructure) and running costs (including maintenance and consumables).*
- *A new technology may influence costs by its effect on various aspects of the care pathway, in addition to costs directly related to the use of the technology.*
- *In general, medical technology pricing is more dynamic than that of other types of medical interventions.*

The above considerations mean that technology adoption decisions will sometimes differ depending on the local context.

4. The introduction of significant new technologies may well require changes in the way services are organised and delivered. A report from the York Health Economics Consortium "Organisational and Behavioural Barriers to Medical Technology Adoption" published in 2009 included a systematic review of the international evidence on this topic. The report's main findings emphasised the importance of seeing successful technology adoption as an integral part of service transformation and organisational development. This topic should not, therefore, be seen in isolation from knowledge transfer, improvement and a more general approach to adopting best practice in all aspects of health and social care.

5. Notwithstanding these challenges, the Welsh Government sees the introduction of new medical technology into practice as a critical part of meeting Welsh Government aims and objectives, with potential to: raise the quality and reduce the cost of care; provide more equal access to care in all parts of Wales; to engage the public and patients in the co-production of health and social care; and to reduce need and demand, particularly through improved diagnoses and the prevention of illness. The Welsh Government welcomes the Health and Social Care Committee inquiry into this topic and looks forward to receiving constructive proposals on how current arrangements might be enhanced.

Strategic Approach

Healthcare standards for Wales

6. Standard 7 from 'Doing Well, Doing Better – Standards for Health Services in Wales' requires organisations and services to ensure that patients and service users are provided with safe, effective treatment and care based on agreed best practice and guidelines including those defined by National Service

Frameworks, National Institute for Health and Clinical Excellence (NICE), National Patient Safety Agency (NPSA) and professional bodies. This includes adoption of evidence-based health technologies for provision of effective treatment.

7. The standards are used by all NHS organisations at all levels and across all activities as a key source of assurance to enable them to determine what areas of healthcare are doing well and those that may need to do better. Organisations and services self-assess against the standards and develop improvement plans to demonstrate progress. The self-assessments are used by Healthcare Inspectorate Wales to undertake testing and validation against the standards each year as part of their public assurance role.

Quality Delivery Plan

8. The Quality Delivery Plan 2012-2016 "Achieving Excellence" described the importance of making use of new technology to improve access and quality of care and drew attention to the Medical Technology Evaluation Programme introduced by NICE as an important source of advice given this focusses specifically on the selection and evaluation of new or innovative medical technology. Health Boards and Trusts were asked to work together to put effective processes in place to ensure the prompt uptake of evidence based new technology that maximises benefit and value.

Technology Adoption Systems Guidance

9. The Health and Wellbeing Best Practice and Innovation Board ('the Innovation Board') was established by the previous Minister for Health and Social Services. Its purpose was to assist in accelerating the pace of innovation relevant to health and social care, adding value to the identification and implementation of system wide innovation and the rapid adoption and diffusion of best practice, transformative technologies, service models and delivery.

10. To support NHS bodies the Innovation Board issued a "Technology Adoption Systems Guidance" document, advising a more systematic and consistent approach to the identification, appraisal and adoption of technology across NHS Wales, building on Standard 7 of Healthcare Standards for Wales. Key stakeholders were involved in the drafting and assurance of the document, which was issued to Directors of Planning in August 2013 and has been discussed with Chief Executives. Each organisation has nominated a senior lead official to drive the implementation of the Guidance, and to develop a networked approach, in which NHS Wales Shared Services Partnership will also be a key stakeholder.

11. The Guidance sets out number of recommendations and expectations for Health Boards and Trusts, particularly the adoption of a 'mini-HTA' (Health Technology Assessment) process to provide a basis to support decisions regarding the introduction of new technology. This is a structured decision support tool to assess the usefulness, cost effectiveness and appropriateness of new technology. Using a mini-HTA will help consideration of whether a

technology is acceptable, effective, safe and capable of being introduced at a lower or similar cost to existing practice. The guidance recommends publication of completed mini-HTA assessments so that work is not duplicated and knowledge is shared.

NHS Wales Planning Framework

12. The NHS Wales Planning Framework issued in November 2013 reflects the need to ensure technology adoption is seen as an integral part of service transformation and organisational development in line with the findings of the York Health Economics Consortium report described above. The Framework states that a systematic approach to identifying and realising the benefits of new technologies is one of the characteristics of an effective planned system of healthcare in NHS Wales technology adoption. The guidance prompts Health Boards and Trusts to: check that their plans maximise the quality and efficiency benefits of innovation and new technologies; describe their systems for technology adoption; consider the resource implications of technology change; and provide evidence of innovation and the potential role of new technologies. The Technology Adoption Systems Guidance is cited as a key reference document to support this.

Delivery

Support for the Health Technology Assessment Programme

13. The UK Health Technology Assessment (HTA) Programme produces independent research information about the effectiveness, costs and broader impact of healthcare treatments and tests for those who plan, provide or receive care in the NHS. The HTA Programme is funded by the NIHR in England, with contributions from the Chief Scientist Office in Scotland, the Health and Social Division R&D in Northern Ireland and the National Institute for Social Care and Health Research (NISCHR) in Wales. The NISCHR contribution secures access to the programme for Wales-based researchers.

14. The HTA programme has Researcher-led and Commissioned arms. Through the commissioned research funding stream, the HTA identifies gaps in NHS knowledge and commissions the research to fill them. The programme also commissions research for a number of ‘policy customers’ including the National Institute for Health and Clinical Excellence (NICE) and the National Screening Committee.

15. In addition to dissemination through usual academic channels, findings from the HTA research programme are published in the Health Technology Assessment Journal, which has a five-year impact factor of 5.804 and is ranked third (out of 82 titles) in the 'Health Care Sciences & Services' category of the Thomson Reuters 2012 Journal Citation Reports (Science Edition). More information on the HTA, including information on currently funded projects and recent publications, is available at: www.nets.nihr.ac.uk/programmes/hta

National Institute for Health and Clinical Excellence

16. The Welsh Government has entered a Service Level Agreement with NICE which includes access to NICE's evaluation of new or innovative medical technologies (including devices and diagnostics). The Welsh Government expects the NHS to take NICE guidance fully into account when planning and delivering services, as they are based on the best available evidence.

17. Anyone can request NICE to consider a medical technology for guidance by submitting a notification form. NICE will assess whether a notified technology falls within the remit of the programme and meets the programme eligibility criteria. Further information on how NICE develops its medical technologies guidance, including details of its eligibility criteria is available at: http://www.nice.org.uk/aboutnice/howwework/developing_medical_technologies_guidance/DevelopingMedicalTechnologiesGuidance.jsp

Welsh Government Professional Advisory Committees

18. The Welsh Government has professional advisory committees which provide a mechanism for the professions to bring new health technologies to the attention of the Welsh Government and the NHS:

    a. Welsh Dental Committee
    b. Welsh Medical Committee
    c. Welsh Nursing and Midwifery Committee
    d. Welsh Optometric Committee
    e. Welsh Pharmaceutical Committee
    f. Welsh Scientific Advisory Committee
    g. Welsh Therapies Advisory Committee

19. For example the Welsh Scientific Advisory Committee has provided influential advice on advanced radiotherapy technologies which is available on the Committee's web site. The Committee recently held a successful Symposium on 2 October 2013 on New Technologies in Healthcare at which the Minister and the head of the NICE technology evaluation programme were both speakers. The Symposium aimed to explore the factors affecting the adoption and diffusion of new technologies, particularly from the standpoint of NHS Wales.

Promoting NHS Wales engagement with those involved in the development/ manufacture of new medical technologies

20. The NHS and social services have an important role to play in the innovation ecosystem in Wales and NISCHR works to stimulate and reward innovative activities through its research and development programme. NISCHR supports Wales based researchers for the NIHR Invention for Innovation (i4i) programme and the INVENT proof of concept scheme for the NHS and social care. Both are designed to encourage new solutions, including medical technology, for clinical and social care unmet need which, in-turn, will bring benefits to patients.

21. Over the past five years. NISCHR has forged strong links with MediWales, the forum representing the medical technology sector in Wales, by supporting the

annual innovation awards celebrating collaborations between the NHS and industry. Additionally, in recognition of the differences that exist between the pharmaceutical and medical technology sectors in terms of product development and the regulatory pathway, NISCHR commissioned MediWales to undertake a review of the barriers to clinical access. This report highlighted a number of challenges hindering the development of innovative medical devices such as, a lack of available clinical expertise during early product idea evaluation and, lack of access to specialist advice for proof of concept testing.

22. Relevant recommendations from this report and, the NISCHR Academic Health Science Collaboration (AHSC) Industry Task and Finish group have formed developments around greater engagement with industry. 'Health Research Wales' has been established by NISCHR to facilitate the development of productive relationships between industry, academia and the NHS. This involves a partnering service for medical technology companies, requiring advice on undertaking clinical research in NHS Wales and, where possible, access to clinical expertise.

23. As a funder of health and social care research, NISCHR recognises the important role of effective knowledge transfer in improved care and practice. As a result, NISCHR has commissioned parts of its funded infrastructure, NISCHR Academic Health Science Collaboration and NISCHR All-Wales Academic Social Care Research Collaboration (ASCC), to establish a knowledge transfer Task and Finish Group to assist in identifying enablers and barriers to the progression of research knowledge translation in health and social care. This will cover commercial and non-commercial research evidence and include recommendations for system change.

24. Since 2010, the Welsh Government has recognised Life Sciences and Health as a priority economic development sector. This has resulted in a number of key investments and commitments in support of the sector in Wales, including support for phase two of the Institute of Life Sciences in Swansea, a £100 Million Life Sciences Investment Fund, and the announcement of a new Life Sciences Hub to be located in Cardiff Bay. Alongside these flagship announcements, there is continuing support for business R&D, innovation, growth, and international trade. The Welsh Government also supports networking and industry engagement, from academic knowledge exchange projects to funding MediWales, the Welsh life sciences sector network. For example the current Life Sciences Wales project hosted at the Institute of Life Sciences includes strong representation from health academic and industry partners across Wales and across the whole technology development path.

25. Recently the Welsh Government has partnered with the Technology Strategy Board to support a number of Small Business Research Initiative (SBRI) 'development procurement' challenges. Two of the first four challenges were awarded to health boards, providing almost £2 Million of additional funding to develop innovative technology solutions to particular healthcare needs.

Health Technology Fund

26. During 2013 the Welsh Government has announced significant additional investment into new medical technology through the £25 Million Health Technology Fund. An initial tranche of £5m was allocated to high priority technology investments including a linear accelerator for Ysbyty Glan Clwyd in Betsi Cadwaladr University Health Board (BCUHB); scanners and genetics equipment. A second tranche supported 21 projects, committing over £15 million to new medical equipment in maternity, cancer, cardiac, mental health, diagnostics and unscheduled care. Landmark projects included:

    a. a first robotic surgery system for Wales capable of minimally invasive treatment of prostate cancer at Cardiff and Vale University Health Board;
    b. state of the art radiotherapy planning and high dose rate brachytherapy equipment to deliver the latest cancer treatment methods at Velindre Trust;
    c. automated equipment for identification of bacteria with near trebling of productivity, increased quality and more rapid diagnosis for the Public Health Wales microbiology service at Glan Clwyd Hospital;
    d. replacement of more expensive and invasive colonoscopy with a dedicated CT scanner for the colon cancer service at Betsi Cadwaladr UHB;
    e. new technologies to promote mental health and well being at Aneurin Bevan Health Board;
    f. computerised heart rate analysis of low birth weight babies to prevent deaths and harm at the neonatal unit at ABM University Health Board.

Health Technology and Telehealth Fund

27. In 2014 the Welsh Government will invest at least £9.5 Million into new technology in non-hospital settings, through a Health Technology and Telehealth Fund. This successor Fund has an additional emphasis on supporting the use of digital and telehealth technologies to deliver services closer to patients, and on allowing more scope for innovation and demonstrating technology which is new or applied in new settings.

28. This Fund also builds on previous pilot projects supported by the £1.4 Million Rural Health Innovation Fund between 2010 and 2014. Advised by an independent Rural Health Implementation Group, this supported research and engagement which led to fifteen projects, including a home support service, neurological rehabilitation, rural pharmaceutical care, and the roll out of telemedicine technology across a large part of Wales.