

[National Assembly for Wales](#)

[Health and Social Care Committee](#)

[Access to medical technologies in Wales](#)

Evidence from Dr S Peirce – MT 32

Submission to the National Assembly for the Wales, Health and Social Care Committee

Inquiry into access to medical technologies in Wales

Sir/Madam,

Personal background: I am a Clinical Scientist experienced in the evaluation and use of medical technologies. I have contributed to other discussions and evidence submissions for this inquiry as part of the Welsh Scientific Advisory Committee symposium (2nd October 2013) and also as part of the PATH project (S. Ulucanlar *et al.*). However, I have some additional personal views derived from many years of studying and working in and around medical physics/clinical engineering departments in NHS hospitals (in England and Wales), recent research projects and my time working as a device evaluator in Cedar, both for the Centre for Evidence-based Purchasing (CEP, 2005-2007) and for NICE (2012-present day).

1. In my role as a researcher and evaluator my job is generally to conduct a rigorous and objective review of the available evidence for a particular technology. To carry this out successfully requires a range of specialist skills: information scientist, critical analysis of the published evidence, scientific/technical knowledge of the technology in question, clinical understanding of the patient condition and also the healthcare context in which it might be used. It also demands a substantial time contribution. However, when a new technology is under consideration in the NHS these tasks primarily end up as the responsibility of the clinician. They become aware of new technologies relevant to their practice at conferences/meetings, via colleagues or industry representatives. However these professionals have other priorities and little time to devote to a thorough evaluation of whether the claimed benefits (clinical, resource and/or financial) are realisable in the local context.
2. Is it also debateable whether most clinical staff have the information skills to locate and critically appraise the (likely low volume and low quality) evidence available or the technical/scientific understanding to effectively interrogate the technology. Healthcare staff with the latter skills should be found in the medical physics/clinical engineering departments of hospitals. They are likely to have a whole-system view of the hospital (rather than the silo/departmental view of the clinical or low/mid-level managerial staff) and as such may be ideally placed to identify otherwise unperceived consequences of adoption in other departments. They will certainly have

a well-developed understanding of whole-life costs and requirements of the technology, which again may not be anticipated by a clinician with more immediate and restricted priorities. However, in Cardiff and Vale UHB senior clinical engineers who have previously filled this role have retired over the last few years and not been replaced. I suspect that financial pressures on staffing levels would have resulted in a similar disinvestment and loss of expertise in other hospitals around Wales.

3. NHS staff involved in attempting to adopt healthcare technologies that require relatively formal procedures, approval from multiple levels of managerial hierarchy and input from several departments often complain about the protracted nature of such processes. Absence of key personnel, intermittent committee meetings and other priorities often mean that such decisions can be dragged out over many months or even years. In such an environment it is likely to be the persistent and the powerful who get what they want, rather than those with the best case for adoption. Meanwhile the financial climate, commissioning bodies and governments can change around them rendering such decisions pointless and a waste of expended time and effort.
4. It is a truism by now that 'the NHS has more pilots than British Airways'. Local clinicians and managers are keen to gain personal experience of the technology in question rather than rely on even high-quality peer-reviewed evidence produced in someone else's clinical environment. Reinterpreting evidence in a local context is appropriate given that benefits from device-based technologies are critically dependent on how they are used (in contrast to pharmaceutical technologies). However, such local evaluations can be informal, poorly designed, poorly evaluated and rarely published. Rigorous, transparent, centralised evaluations (such as those produced by NICE/CEP/Device Evaluation Service or Health Technology Assessments) may be used as supporting evidence to convince others, but their rigid methodologies often preclude their perceived relevance to local practice.
5. In practice the lack of immediately identifiable capital finance is rarely the absolute barrier to adoption it is assumed to be. Healthcare professionals can be very creative in their determination to locate funds for their technology of choice. Persistence is a useful quality in those pursuing technology adoption, however is it appropriate for senior clinicians to spend significant amounts of their time acting as fund-raisers? Alternatively, technology has frequently been procured opportunistically simply because money is left over at the end of the financial year or a specific grant is made available with little time in which to make a well reasoned and robustly prioritised purchasing decision. Medical equipment management departments still provide examples of expensive medical devices bought in haste and rarely (if ever) used.
6. Notwithstanding that recent cuts in capital expenditure has left hospitals without the means to replace aging equipment I suggest that simply making specific capital funds available for Welsh Health Boards to acquire innovative shiny new kit is inefficient and ineffective. It will not improve the processes involved or result in more appropriate decision-making regarding the adoption of novel devices. It is a short-term measure that can provide attractive headlines, but will anyone assess whether these devices actually improve services or patient outcomes? How will the success of the Health Technology Fund be evaluated? The money would be better invested in improving future decision-making about healthcare technologies. I believe that the aim should be to save money and time that would be wasted by adopting inappropriate

technologies and develop more effective ways to identify those that can provide realisable benefits. We should not create a centralised 'Welsh NICE' nor necessarily provide each Welsh hospital with its own 'technology adoption' department. I would like to suggest instead the provision of a regional service that is locally-responsive but with the rigour and transparency to produce evaluations and advice that are relevant to other Welsh (and possibly English) health and social care organisations. Such a service could (for example):

- locate technology solutions to locally-identified problems,
- identify and review the available evidence for a technology of interest,
- advise, design and evaluate local trials and disseminate the results where evidence is insufficient,
- assist with the production of business cases alongside finance, procurement and clinical personnel,
- provide objective leadership for decision-making pathways,
- provide a liaison between industry and the NHS (industry often find access to the NHS difficult and struggle to identify appropriate personnel to contact).

7. Such a service would require a mix of skills and personnel: information scientists, clinical engineers/medical physicists/evaluation researchers, other clinical scientists, healthcare economists, statisticians. It would require close working with the clinical services and management to whom it provides these functions. It should be able to provide a timely, independent and objective response for technology adoption enquiries and should have no vested interest in its recommendations. Local decision-making does not require a full systematic review or randomised clinical trial but this service might also be able to identify and direct questions for which these are appropriate methodologies to suitable organisations or facilities. A wider search strategy for suitable healthcare technologies would also enable smaller, newer manufacturers to have more equitable access to the NHS rather than just large companies with significant promotional budgets. This service could also increase the access to such expertise for smaller healthcare organisations without substantial academic or technological links, thus potentially enabling more equitable access to appropriate technologies at different levels of healthcare provision and supporting national programmes of technology adoption.

I am prepared to give oral evidence if required.

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