NICE news in the annals

Adopting medical technologies and diagnostics recommended by NICE: The Health Technologies Adoption Programme

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NICE's Medical Technologies Evaluation Programme follows a rigorous process to review the devices and diagnostics that industry refers for evaluation. It considers the advantages for patients and for the National Health Service (NHS), which a manufacturer has claimed for their technology, compared with current management. A careful review of this claim is made against the evidence submitted and by taking expert advice. If the technology is judged to offer advantages to patients and the NHS, then NICE publishes guidance recommending that it should be considered for adoption. The guidance specifies the patient group that is likely to benefit, it explains the reasons and it gives an indication of the likely cost consequences.

The NHS has a reputation for being slow to adopt new medical technologies and there are numerous reports documenting the barriers that prevent their uptake. These are often cited as structural issues such as lack of a tariff, budget silos, reluctance to decommission existing technologies, the need for retraining, lack of experience in procurement and the need for service redesign.

The Royal College of Surgeons of England has published a number of reports in this area (most recently, *From Innovation to Adoption*).¹ This identifies six factors common to a number of case studies in the report that the authors suggest will help to overcome the 'barriers' to adoption. From my own perspective, a key factor identified in that report is 'leadership', particularly clinical leadership. In that regard, it is critically important to provide clinicians with information to assist them in making decisions about the adoption of new technologies.

In 2013 Tomlin *et al* added significantly to this argument by highlighting the importance of perceptions related to technologies.² They suggested that technologies can assume an 'identity' as a result of the interactions and discussions held between people interested in that technology. This may be through colleagues sharing their experiences of equipment use, by attending academic meetings or through time spent with supplier representatives. These 'identities' were found to be instrumental in decisions about whether particular technologies are used. Tomlin *et al* reported that the influence of clinical leadership in promoting successful adoption appears to be linked firmly to those with the most

powerful and loudest voices 'mobilising' the identity that has been created so that products are brought into clinical practice.

NICE recognises that despite clear evidence of clinical and cost effectiveness, devices and diagnostics recommended in its medical technologies and diagnostics guidance can be difficult to adopt in the NHS. Difficulties can include not only the need for capital investment but also the availability and support of colleagues with the skills, authority and experience to help redesign services and care pathways, to facilitate the retraining of staff, and to advise on how the impact of the new technology should be measured.

NICE's Health Technologies Adoption Programme (HTAP) has been developed to provide adoption support alongside NICE's medical technologies and diagnostics guidance and also for selected technology appraisals guidance. HTAP aims to identify NICE guidance likely to face the most significant adoption challenges, and to work with frontline NHS organisations to gain intelligence and feedback about how to overcome these, collecting real life examples of the solutions that organisations have identified, and recording the impact on patients and services.

HTAP approaches this work in two ways. First, it identifies providers and teams who are already using the technology, and works with them to capture their experiences and the problems they have encountered. These sites, as existing users of a technology, are referred to as 'demonstrators'. The reports sharing their work describe how they resolved any difficulties, the changes they needed to put in place, and the outcomes of audits showing benefits for patients, clinical teams and cost savings.

HTAP has published two reports in the last 12 months related to products that may be used in surgery. The first report relates to the Inditherm patient warming mattress for the prevention of inadvertent hypothermia (MTG7).³ The HTAP team worked with a number of sites that had used this technology and was able to assemble an advisory list of key activities to support successful adoption together with examples provided by existing users. This report not only includes a template business case but also a spreadsheet used by one centre to calculate their own equipment

requirements for each operating theatre as well as the associated purchase and maintenance costs.

A second report from HTAP relates to the Ambu aScope2, a single use flexible intubation scope used for managing unexpected difficult airways (MTG14).⁴ By working with six sites, the HTAP team was able to collect practical information about those organisations' experiences and the benefits they found. In addition, the document highlights the areas any adopting centre would need to consider, including workforce issues, how to measure impact and improvements in the service, and useful advice about procurement, a sample business case and potential financial savings.

The second approach that HTAP uses is to work alongside sites as they adopt a technology that is new to them. These sites are referred to as 'adoption sites'. The focus of the work is to identify the barriers specific to that technology and the best ways to overcome them. This information is then captured in an adoption report. One benefit of this approach is that it allows the collection of baseline measures so that the changes the technology brings, both from a patient outcome and service perspective, can be clearly shown. These could include, for example, any implications for training, changes in staffing levels or a reduction in patients' length of stay.

While each of HTAP's publications provides information related to the specific products recommended by NICE guidance, they also provide generic advice about how to increase the likelihood of successful adoption of technologies. This advice includes who to involve, how to plan the necessary work and how to measure impact. As in the Royal College of

Surgeons report,¹ the importance of clinical leadership is strongly supported and cannot be emphasised enough.

NICE's HTAP programme has been developed in recognition of the fact that as well as the 'human factors' of technology adoption, as captured by Tomlin *et al*,² there are many practical ones too. The barriers such as care pathway redesign, staff retraining and service reorganisation are complex and time consuming to overcome. HTAP's approach of working with front line organisations to identify and publish how the NHS might best adopt products recommended by its diagnostic and medical technology guidance is a new offering from NICE at a time of significant challenge in the NHS.

Web statistics have shown a keen interest in HTAP's adoption support reports in the 12 months since the programme was established. With an increasing understanding of the important role that new technologies can contribute to patient care and supporting the NHS to improve efficiency, NICE is aiming to continue its efforts with front line services to improve uptake of the products it recommends.

References

1. Royal College of Surgeons of England. *From Innovation to Adoption*. London: RCS; 2014.
2. Tomlin Z, Peirce S, Elwyn G, Faulkner A. *The Adoption Space of Early-emerging Technologies: Evaluation, Innovation, Gatekeeping*. London: NIHR; 2013.
3. National Institute for Health and Care Excellence. *Medical Technology Adoption Support for Inditherm Patient Warming Mattress for the Prevention of Inadvertent Hypothermia (MTG7)*. London: NICE; 2014.
4. National Institute for Health and Care Excellence. *Ambu aScope2 for Use in Unexpected Difficult Airways: Site Demonstrator Pack*. London: NICE; 2013.