# An assessment of whether the recommendations made by NICE's Medical Technologies Evaluation Programme support MTEP's stated aims

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**Introduction**: NICE's Medical Technology Evaluation Programme (MTEP) was set up in 2010 to determine whether '*the evidence supports the case for adoption of a technology in the health system on the basis that it offers substantial benefits to patients/and or to the health service*'. This is with the stated aim of promoting faster uptake of medical technologies in the healthcare system. This aim is aligned with recent policy published in the UK which is designed to encourage appraisal of and uptake of promising medical technologies.

The Programme also aims to place '*particular emphasis on technologies that, when compared with current management, may provide more benefits at the same or lower cost*'. The drive to improve efficiency and limit budget impact also lies at the heart of NHS policy and decision making, and this can sometimes contradict an intent to ensure access to new technologies. This poster will evaluate whether NICE fulfils these aims, and make recommendations for future areas of work and methodological development.

**Objectives**: This study seeks to examine the approval rates of technologies assessed by NICE's MTEP process, and the reasons for the outcome of its evaluations. It will also consider whether MTEP can be said to fulfil its stated aims on the basis of these findings. Particular regard will be paid to the fact that MTEP's stated aims may be contradictory, in that MTEP seeks to recommend technologies that may provide significant benefit to patients and the health service over time, but also considers whether a technology is cost-saving, and it is unlikely that a technology would always satisfy both of these criteria. There is a further question about the balance of certainty in the assessment of MedTech through MTEP, and the influence this has on recommendations.

**Methods**: All topics reviewed by MTEP between 2010 and January 2019 were identified through the published topics on NICE's website. These topics were then analysed and categorised by their recommendation status, which was one of the following results: not recommended, partially recommended or recommended. The topics that received a negative recommendation were then further analysed to assess the factors that contributed to the recommendation, and whether or not the justification is aligned with MTEP's stated aims.

**Results**: Of the 40 topics assessed, 28 had a positive recommendation (70%), 8 had a negative recommendation (20%) and 4 had a partial recommendation (10%). The rationale for either giving a limited recommendation or a negative recommendation often cited strength of the evidence base, either in the total or selected patients, or the uncertainty of the benefit in the NHS patient population. Uncertainty of the patient and system benefits of a treatment was a significant contributing factor to most negative recommendations, as stated in the summary recommendations in 6 of the 8 non-recommended topics, as expanded upon in Table 1.

**Discussion**: The data shows that the most common reason for a technology not being recommended through MTEP was due to either lack of robust evidence or uncertainty about the evidence that NICE had been presented with. This can be seen in plain language for topics such as the meplilex border heel and sacrum dressings for prevention of pressure ulcers, as NICE stated that further research would need to be carried out in order to address uncertainties and allow a full recommendation.

Technologies that did not demonstrate clinical benefit with sufficient certainty would not meet the primary stated aim of MTEP set out in the introduction to this study, to substantially benefit patients and the NHS.

The data also shows that no technologies were given a negative recommendation through MTEP solely for the reason of price. In topics where cost was a factor, such as Ambulight PDT, there were other reasons which meant that the technology would likely not have been approved regardless of price, such as uncertainty or lack of evidence.

**Conclusion**: While it is possible that MTEP would be faced with a highly costly and highly effective technology, that would challenge the stated aims of the Programme, this potential conflict has not unduly limited access so far. This could be due to the fact that MTEP has been seen to evaluate lower cost technologies that do not represent a paradigm shift in the way certain conditions are treated. Naturally highly complex and disruptive devices, such as robots designed to assist surgery, would likely be more cost additive to standard of care, and therefore may challenge the MTEP process.

It is possible that in future this conflict would arise more often, and NICE should make clear whether its priority would be ensuring access to effective devices, or limiting budget impact. However, this has not hindered NICE in its efforts so far, so may not need to be urgently addressed, and we can conclude that MTEP's recommendations support the programme's stated aims.

Should NICE wish to revisit its approach, incorporating conditional approval as a recommendation that would encourage access and further data collection would provide certainty where it was otherwise lacking.

**References**

1 https://www.nice.org.uk/process/pmg33/chapter/introduction

2 https://www.nice.org.uk/process/pmg33/chapter/principles-for-developing-medical-technologies-guidance

**Table 1**

| Intervention | Year Published | Reason for negative recommendation |
|---|---|---|
| Meplilex Border Heel and Sacrum Dressings for preventing pressure ulcers | 2019 | Research is recommended to address uncertainties about the claimed benefits of the technology. This research should also explore issues such as, the incidence of heel and sacrum pressure ulcers in NHS acute care settings and criteria for patient selection to reduce pressure ulcer incidence with the technology, in addition to SoC. |
| Neuropad for detection of preclinical diabetic peripheral neuropathy | 2018 | Neuropad detects sub-normal sweating in patients with diabetes but the clinical importance of this in current NHS care pathways is poorly defined. There is insufficient evidence to support the use of the technology. |
| HumiGard for preventing inadvertent perioperative hypothermia | 2017 | HumiGard shows promise for preventing hypothermia during abdominal surgery. There is, however, insufficient robust evidence to support the case for routine adoption. |
| VibaTip for testing vibration perception to detect diabetic peripheral neuropathy | 2014 | VibraTip shows potential to improve the detection of diabetic peripheral neuropathy and to provide cost savings to the NHS. VibraTip appears to be easy to use, portable and reliable in its functionality, but the current evidence does not support the case for its routine adoption in the NHS. Research is recommended to address uncertainty. |
| Parafricta Bootees and Undergarments to reduce skin breakdown in people with or at risk of pressure ulcers | 2014 | Research is recommended to address uncertainties about the claimed patient and system benefits of using Parafricta Bootees and Undergarments. This should take the form of comparative research against standard care, preferably carried out in a hospital. |
| ReCell Spray-On Skin system for treating skin loss, scarring and depigmentation after burn injury | 2014 | The ReCell Spray-On Skin system shows potential to improve healing in acute burns. However, there is insufficient evidence on its use in clinical practice, particularly in relation to which patients might benefit most from its use, to support the case for its routine adoption in the NHS. |
| MIST Therapy system for the promotion of wound healing | 2011 | The MIST Therapy system shows potential to enhance the healing of chronic, 'hard-to-heal', complex wounds, compared with standard methods of wound management. The amount and quality of published evidence on the relative effectiveness of the technology is not sufficient to support the case for routine adoption. |
| Ambulight PDT for the treatment of non-melanoma skin cancer | 2011 | The case for routine use of Ambulight PDT in achieving a more efficient service is not supported by the evidence submitted by the manufacturer. The quantity of clinical evidence on its use is limited and the cost consequences of adoption, when compared with conventional PDT, ranged from a saving (per patient) of £195 to a cost increase of £536. |

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