Commissioning and adoption stage

Health technology evaluation guide

Health technology evaluation

Assessments of health technologies are carried out by regulatory organisations in England, Scotland and Wales. The evaluations carried out by these organisations are considered equivalent.

In England, evaluations are carried out by the NICE Centre for Health Technology Evaluation (CHTE) which produces guidance for NHS England on the use of new and existing treatments such as medicines, medical devices and surgical procedures. In Scotland, this role is carried out by the Scottish Health Technologies Group (SHTG) which advises NHS Scotland, while NHS Wales is advised by Health Technology Wales (HTW), although HTW does not review medicines. In Northern Ireland, Health and Social Care NI reviews guidance provided by NICE and the technology's suitability for use in Northern Ireland.

The health technology evaluation process includes the evaluation of clinical, economic and other types of evidence about the use of the innovation or existing treatments.

NICE provides a range of guidance and advice, including:

- health technology guidance (HTG) assesses medical technologies to determine whether they are cost-effective, improve patient quality of life and patient treatment choice. HTG covers diagnostics, medical devices and digital technologies, including those that use AI. Where multiple technologies assessing a similar area are available, a single HTG will assess all these technologies
- interventional procedures guidance assesses whether new or significantly modified interventional procedures are effective and safe enough for use in the NHS. Interventional procedures include those that make an incision, puncture or entry into a body cavity, or use ionising, electromagnetic or acoustic energy. The guidance for an interventional procedure focuses on the procedure, even if a piece of medical device is used, for instance if the device is implanted
- highly specialised technologies guidance assesses technologies and medicines that are intended for people with ultra rare conditions that are likely to be very expensive. Most of the evaluation topics are chosen by the National Institute for Health Research Innovation Observatory. Each evaluation in this programme can cover only a single technology for a single indication
- technology appraisal guidance assesses medicines and other innovations that cannot be assessed in the other types of NICE guidance. This programme uses a range of processes, including cost comparison, rapid review, multiple technologies comparison and appraisal of a single technology for multiple indications

- early use assessments look at new technologies which could address a national unmet need but may still require further evidence before they are ready for a full assessment. Recommended technologies must then meet an agreed evidence generation plan to support this full assessment. Key to this approach is managing all risks associated with the medical device during the evidence generation period while generating the information needed for NICE to make a recommendation about the routine use of the technology
- late-stage assessments compare multiple products which are already in use within the NHS in a particular product category. The late-stage assessment looks at the value for money and performance claims of each device and takes account of any incremental improvements which may have taken place since the technology's approval

NICE prioritises key clinical areas which they focus on. These areas are detailed in the NICE Forward View. Priority areas are determined by the NICE prioritisation board which looks to identify the areas of health and care where new guidance would be of greatest value. Patients, the public and clinicians can all submit topics for consideration for guidance development. Wider areas of need identified by NHSE experts working with NICE are listed on the Innovation Service discover opportunities for innovation page.

The topic selection panel is supported by the NICE topic intelligence team which provides information to the prioritisation board on the system priorities, stakeholders and engagement with the wider NHS needs, alongside horizon scanning for promising emerging technologies which could meet the challenges of the targeted areas. NICE looks to review all technologies with use cases to meet its priorities. Innovators can no longer submit their medical technology to NICE for evaluation. Instead, they should ensure that their technology is registered on the NHS Innovation Service and that the record is kept up to date. This supports NICE in identifying the technology should it fall under a prioritised use case.

NICE clinical guidelines are also produced to set out recommended care and services for people with specific conditions, diseases or needs.

The SHTG provides recommendations, assessments and innovative medical technology overviews in Scotland.

- SHTG recommendations are developed by a national committee in consultation with stakeholders. The committee looks at clinical effectiveness, safety, and cost-effectiveness evidence for the technology alongside patient and public views, professional expert views, and social and organisational implications

- SHTG assessments provide targeted analysis to support decision-making across health and social care in Scotland. However, assessments do not include recommendations for technologies
- SHTG also produces light-touch overview of emerging evidence for innovative technologies and their potential impact on health and social care in Scotland

HTW provides guidance and reports including:

- HTW topic exploration reports provide a high-level briefing on new topics for consideration by HTW and whether an area should be included in a work programme
- HTW evidence appraisal reports are carried out once a topic is accepted onto the HTW work programme. HTW researchers complete a rapid review of the available evidence on the topic, assessing the available evidence
- HTW guidance is produced by a HTW appraisal panel and looks at whether the evidence supports adoption of a technology in Wales, considering the evidence appraisal report alongside expert, patient and public input