



Resource impact summary report

Resource impact

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Resource impact

This summary report is based on the NICE assumptions used in the [resource impact template](#). Users can amend the 'Inputs and eligible population' and 'Unit costs' worksheets in the template to reflect local data and assumptions.

Recommendation

NICE has recommended that HeartLogic and TriageHF can be used as options for algorithm-based remote monitoring in people with cardiac implantable electronic devices (CIEDs) who have heart failure. They should be used as part of a specialist multidisciplinary heart failure service with alerts reviewed and acted on by specialist healthcare professionals.

Eligible population for heart failure algorithm technologies

A number of NHS Trusts in England are currently using algorithm-based monitoring in people with CIEDs. Each algorithm is only compatible with specific CIEDs manufactured by the same company. Because of the variation in current practice and uncertainties around the numbers of eligible people with CIED devices made by the companies that offer HeartLogic (Boston Scientific) and TriageHF (Medtronic), the resource impact will need to be determined at a local level. We have created a local [resource impact template](#) to help organisations assess the cost of full rollout of these technologies in their area.

Resource implications

Areas requiring additional resources

Depending on current local practice, recommendations or areas that may require additional resources and result in additional costs include:

- the heart failure algorithm technology including specific hardware or software and

upgrades to support the technology

- time and resources to monitor and respond to alerts and adjust medication
- time required for training and support
- any costs associated with a lack of interoperability of the heart algorithm technology with electronic patient record systems
- other costs such as IT equipment may be needed for those who do not have access to internet, smartphones, tablets, or a computer.

Potential benefits

Implementing the guidance may:

- reduce heart failure events and hospitalisation rates
- improve heart-failure-related mortality rates
- reduce the number of overall scheduled patient reviews in secondary care
- reduce the rates of emergency department or primary care visits.

These benefits may provide savings to offset against technology and implementation costs. To confirm the extent of the benefit seen in the studies, companies should work with the NHS to collect registry data for HeartLogic and TriageHF on incidents relating to the above.

Assumptions used in the economic modelling for HeartLogic were based on hospitalisations attributable to heart failure only, whereas the assumptions used for TriageHF were based on all cause hospitalisations. There are no directly comparable studies that look at the same hospitalisation rate.

Using the information from the economic model as a basis, the table below illustrates the number of alerts and the hospitalisation benefit of using each algorithm per 1,000 people.

Table 1 Difference per year in hospitalisations with each algorithm per 1,000 users compared with standard care with no algorithm

Algorithm used	Users (n)	Alerts generated (n per year)	Heart failure hospitalisations saved (n per year)	All-cause hospitalisations saved (n per year)
HeartLogic	1,000	710	280	No evidence
TriageHF	1,000	430	No evidence	340

For further analysis or to calculate the financial impact of cash and capacity items, see the [resource impact template](#). The template enables users to model bed-day savings by inputting an assumed number of inpatient days per person admitted in cells F58 to H59 of the 'Inputs and Eligible population worksheet.' Users are also encouraged to review the assumed costs of the hospitalisations shown in cells B43 to M49 of the 'Unit Costs' worksheet and will need to input an average cost for an all-cause admission in cell I55. All blue cells can be changed to reflect local circumstances.

Key information

Table 2 Key information

Programme budgeting category	10, Circulation Problems
Commissioners	Integrated care boards
Providers	NHS hospital trusts
Pathway position	Algorithms for monitoring people with CIEDs manufactured by Boston Scientific or Medtronic who have heart failure

Abbreviation: CIEDs, Cardiac Implantable Electronic Devices.

About this resource impact summary report

This resource impact summary report accompanies [NICE guidance on Heart failure algorithms for remote monitoring in people with cardiac implantable electronic devices](#) and should be read with it.

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