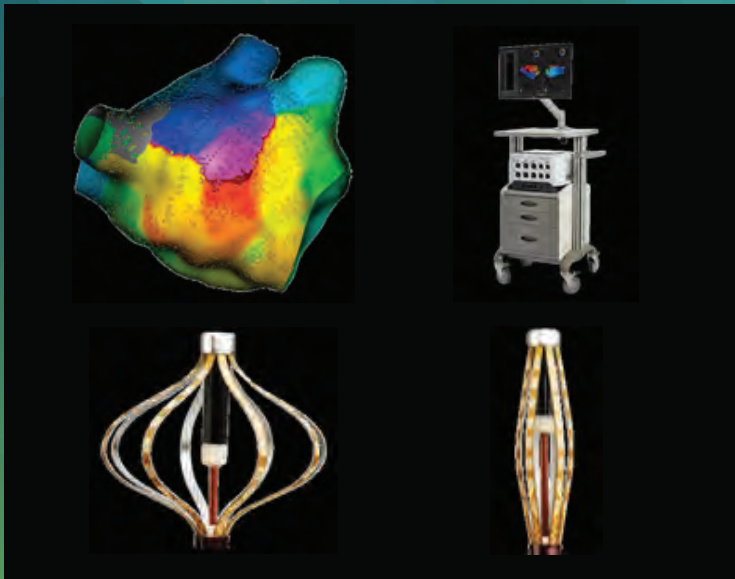


Rhythmia HDx Mapping System

This technology was funded through the New Technology Funding and Evaluation Program (NTFEP). The NTFEP funds the introduction and evaluation of new technologies that:

- ✓ Are safe and effective
- ✓ Provide better health outcomes
- ✓ Provide value for money
- ✓ Provide greater access to care.

The evaluation findings will inform recommendations regarding the future use and/or investment of the technology within Queensland.



What is the technology?

Rhythmia HDx is a 3-dimensional cardiac mapping and navigation system that allows heart rhythm specialists to accurately diagnose, define and treat complex cardiac arrhythmias (abnormal heart rhythms). Following comprehensive mapping of the patient's abnormal heart rhythm, a catheter (wire) is guided via real-time tracking (similar to a GPS) to the area where the rhythm can be treated by radiofrequency ablation (similar to cautery). Complex arrhythmias often occur in patients with more advanced forms of heart disease and can result in severe symptoms, collapse or death. Existing mapping systems have limitations related to spatial resolution and speed of map acquisition and the Rhythmia system potentially addresses these concerns by using a mini-basket catheter with 64 micro electrodes to record signals.

What were the evaluation findings?



Rhythmia has been utilised for complex atrial and ventricular arrhythmias, particularly in patients with congenital heart disease who are usually very difficult to treat.



Mapping time (for complete circuit characterization) was significantly reduced compared to conventional point-by-point mapping.



Rhythmia allows high-resolution mapping and accurate identification of multiple complex varieties of arrhythmias. This level of definition would not have been possible with conventional mapping systems.



Patients and laboratory staff were exposed to very little radiation, as the Rhythmia system uses magnetic/impedance based tracking and is fluoroscopy-independent.



No complications occurred with the use of this mapping system. In addition, the disposable costs per case are comparable to other mapping systems.



While found to be very useful for some arrhythmias (especially in congenital heart disease), the basket catheter did not perform as well for other types of arrhythmia. Rhythmia will not replace other systems at present.

Where was it evaluated?

Cardiology, The Prince Charles Hospital (Evaluation completed in 2017)

Want more information?

secretariat_hta@health.qld.gov.au