

## Research

### The problem

The hospital had started to implant quadripolar (IS4) left ventricular pacing leads, which had theoretical benefits over traditional bipolar or unipolar leads. The benefit had not been convincingly demonstrated as they were a relatively new product. The leads were also considerably more expensive than traditional leads. It was hypothesised that the leads should reduce the number of repeat interventions for lead displacement or phrenic nerve stimulation.

### The solution

A research fellow undertook an analysis of 338 matched patients within PACENET. It showed that the rate of re-intervention after implantation of these leads (4.2%) was significantly lower than after traditional leads (14.2%) and was highly statistically significant ( $p < 0.001$ ). The difference was as hypothesised – a reduction in interventions for displacement and phrenic nerve stimulation. The main analysis was completed within a day, and the fellow was able to immediately submit an abstract of their findings to an international conference.

PACENET supports clinical research. In the same Hospital, as part of more complex projects, its data has been fed into inherited cardiomyopathy databases of MRI and genetic testing results to support research published in major clinical journals<sup>1</sup>. Its data can also be fed into clinical data warehouse projects to support Hospital-wide research.

1. JACC 2017 October 31;70(18):2264–74

### Highlight

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### Your Contact



**Emma O'Kane**  
Client Success Manager

[emma.okane@clinicalnetworksystems.com](mailto:emma.okane@clinicalnetworksystems.com)