

Case Study

Cardiac Diagnostics Transformation:

Faster Diagnosis, Greater Efficiency and
Enhanced Patient Experience with
ZioTM Service^{4,7,8,9}

East Kent NHS Foundation Trust



Key Takeaways:

- Pathway transformation to ZioTM service delivered through community diagnostic centres including in-clinic and Direct-to-Patient enabled long-term cardiac monitoring for 4,000+ patients annually^{1,10}
- 6x more arrhythmia detected and 59% fewer repeat tests enabling a faster time to diagnosis^{2,4}
- 88 day reduction in median time from monitor fitting to results⁴
- EHR integration streamlined workflows saving clinical staff up to 18 minutes per patient versus prior workflow⁷
- 95% of patients received monitors at home resulting in high levels of compliance and satisfaction⁸ and eliminating outpatient fitting appointments⁴

Introduction

iRhythm partnered with East Kent NHS Foundation Trust - one of England’s largest hospital trusts, serving approximately 695,000 people across five hospitals and community clinics.

To enhance cardiac care, East Kent adopted the Zio™ Service, integrating it into a transformed pathway that includes Community Diagnostic Centres and Direct-to-Patient services.

This collaboration, underpinned by robust benchmarking and a shared commitment to continuous quality improvement, now delivers long-term ambulatory cardiac monitoring at scale for over 4,000 patients annually.¹

The Challenge

The Trust was struggling to cope with a surge in cardiac monitoring demand following the Covid-19 pandemic.

Existing Holter monitoring methods were highly resource-intensive, requiring multiple patient visits and lengthy manual analysis on equipment nearing end of life.

When the Zio™ Service was initially launched there were also additional service issues requiring urgent resolution²:

The Solution

The Trust implemented the Zio XT Long-Term (14-day) Ambulatory Monitoring service, leveraging the operational advantages of our Direct-to-Patient Service and seamless Electronic Health Record integration via the ZioSuite reporting platform.

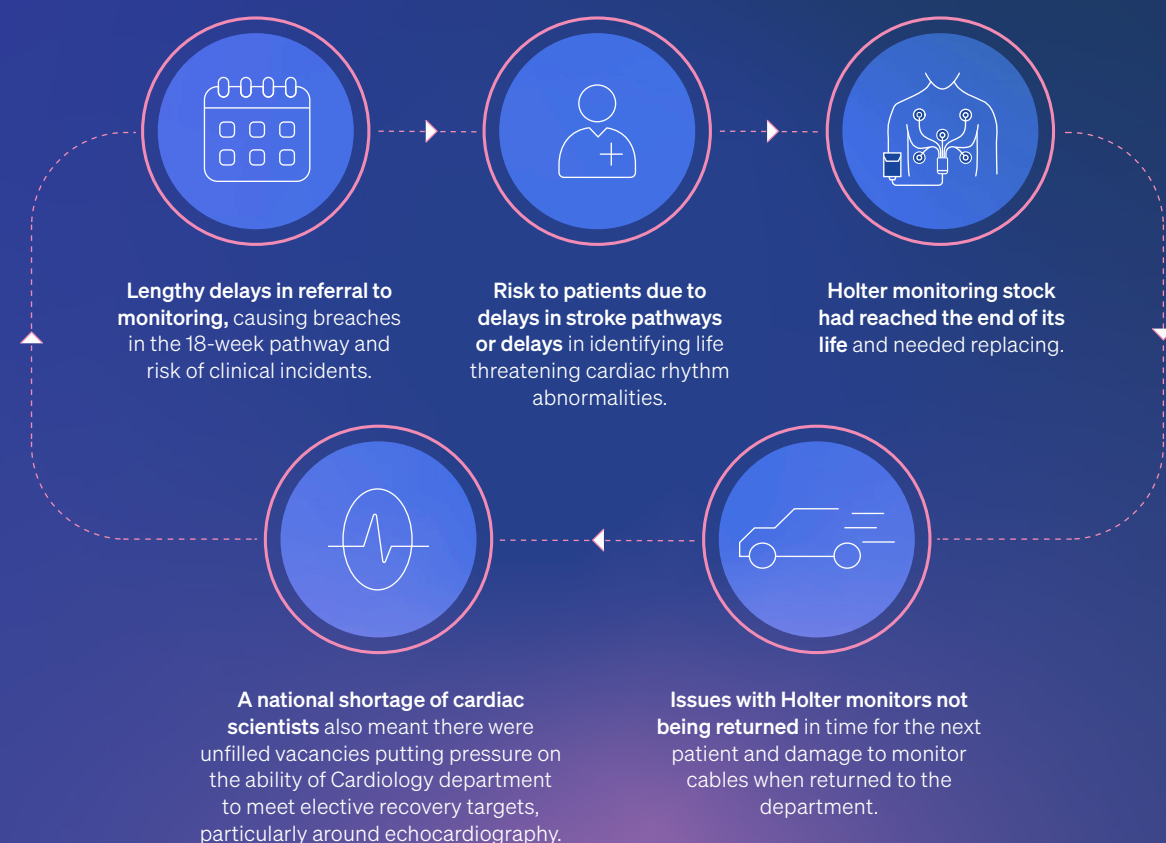
Through joint collaboration and a multidisciplinary approach, the team utilised proven project management tools to successfully launch and scale services across multiple sites within the Trust.

The Impact

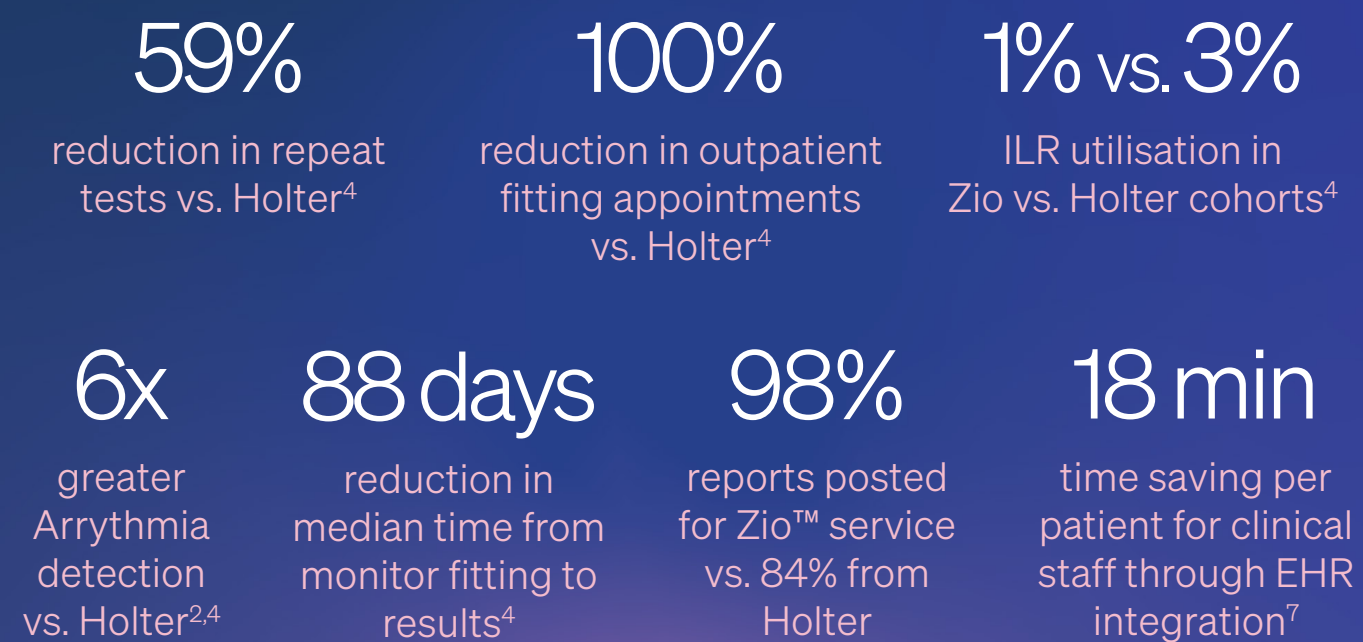
A study by the Trust found that patients who utilised the Zio™ Service received their test results quicker⁴ had fewer hospital visits⁴ and a reduced need for repeat testing⁴.

Crucially, the earlier detection of clinically significant arrhythmias—particularly atrial fibrillation (AF)—enabled faster clinical decision-making and is expected to increase the number of patients receiving timely, appropriate therapy⁴.

Key Challenges



Impact of Zio™ Service



Customer Experience

The CX team at iRhythm were able to spend valuable time shadowing service delivery with administrative and clinical team members, resulting in the creation of clear workflows and identified areas where efficiencies could be delivered through the adoption of Zio™ Service. Pathway mapping and robust benchmarking data collection supported alignment and the definition of measures of success.

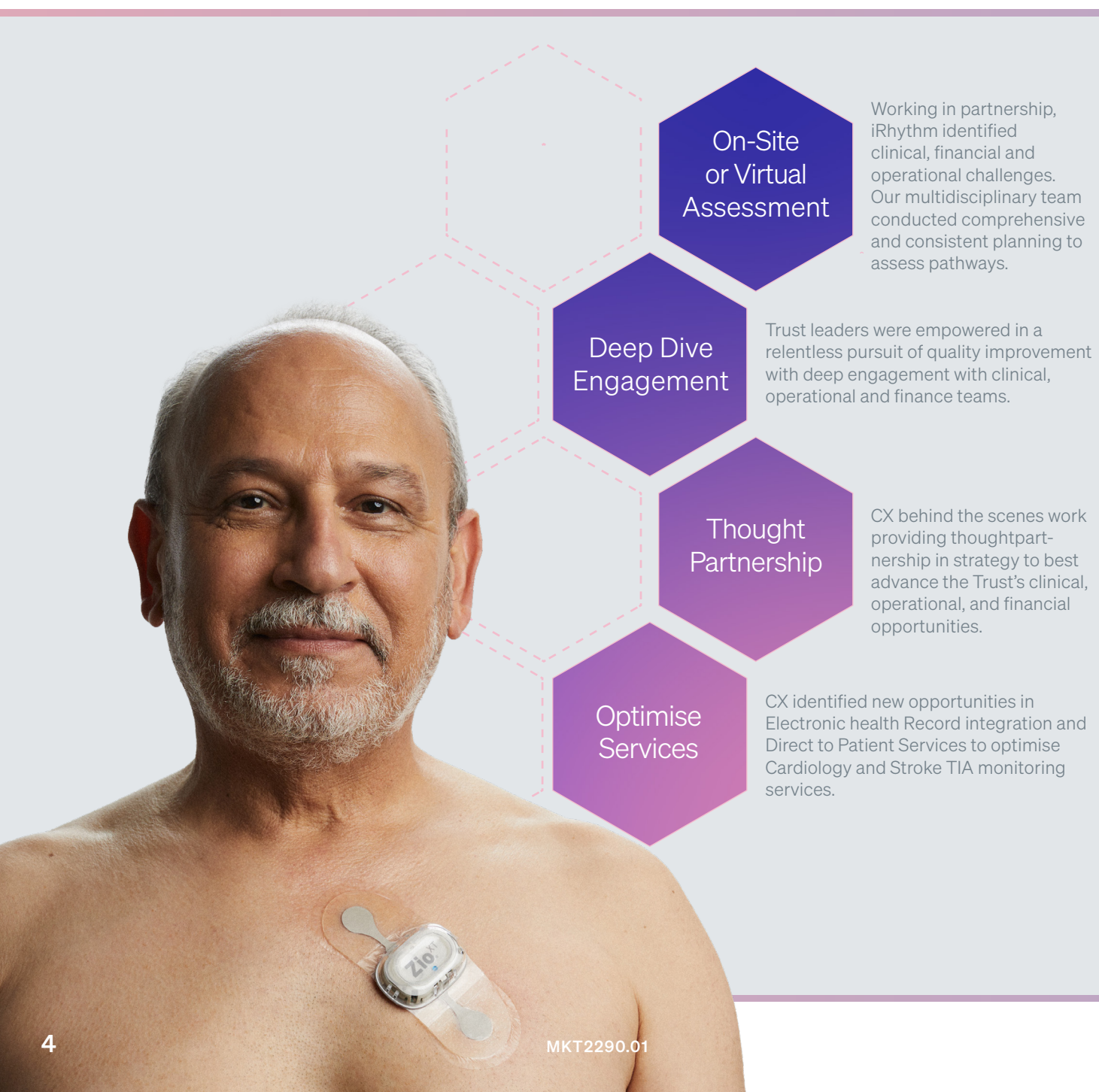
Services are now delivered through the Community Diagnostic Centre at East Kent which continues to improve patient access and providing the Zio™ Service to over 4000 patients per annum¹. The Trust and iRhythm are now integrating the Electronic Health Record and further operational benefits are being delivered through a Direct to Patient Service (launched in 2023). This has resulted in over 95% of patients being able to have the Zio™ Service monitor dispatched to their home for fitting by the patient.⁸ Telephone support is also provided by our dedicated customer care team.

The Trust and iRhythm continue to collaborate to monitor impact and drive ongoing quality improvement. Regular reviews assess key performance metrics, clinical outcomes, patient compliance, and satisfaction to ensure comprehensive service evaluation.

What the team said

Dr James Rosengarten, Consultant Cardiologist and Electrophysiologist: "By prescribing Zio, patients get their results faster. This helps them move from uncertainty to action sooner. With Zio™ Service, hospitals experience fewer repeat visits and less need for additional testing, freeing up valuable clinical time. Most importantly, Zio enables earlier detection of significant arrhythmias, especially Atrial Fibrillation (AF), empowering clinicians to make faster, more confident decisions and deliver the right therapy at the right time. The result? Better outcomes, greater efficiency, and a smoother patient journey."

Melissa Baker, Lead Cardiac Clinical Scientist: "Our patients expressed genuine relief and appreciation for being able to receive care outside of a traditional hospital environment. This was particularly so in the period following the pandemic. This comfort and reassurance translated into exceptional levels of patient engagement and compliance throughout."



Key Success Factors



Clinical and operational engagement



Close partnerships



A clear vision of change



iRhythm expertise

and experience of service transformation, health economics and change management



Training together

with continuous review and quality improvement



Accurate and timely reports data

Zio XT Pathway



88 days reduction in median time from monitor fitting to results⁴

Continued Efficiency - Seamless Digital Integration of the Electronic Health Record (EHR)

EHR integration further streamlined workflows by automating registration and publishing reports directly to patient timelines, eliminating manual entry and errors.

Using HL7 standards and requiring no onsite hardware, the system saved clinical staff an average of 18 minutes per patient⁷, improved data accuracy and patient safety, and enabled faster access to results - all while remaining fully NHS-compliant and scalable for long-term care.

Seamless EHR Integration and Efficiency



Footnotes

- 1 ZSR data on file 2024
- 2 Cardiac Arrhythmia Diagnosis in the NHS: The Unmet Need, Dr James Rosengarten (Consultant Cardiologist and Electrophysiologist, East Kent Hospitals University NHS Foundation Trust) and Prof Jay Wright (Consultant Cardiologist, Liverpool Heart and Chest NHS Trust)
- 3 NICE guidance: <https://www.nice.org.uk/guidance/mtg52>
- 4 Can AI-led remote ECG monitoring result in service improvement for cardiac investigations. M Baker, J Rosengarten, E Hart, M Ojo, William Harvey Hospital - Ashford - ACNAP Congress Abstract 2023
- 5 ZSR data on file 2024
- 7 EHR observational data held on file
- 8 ZSR data on file 2024
- 9 As compared to original Holter pathway
- 10 Direct-to-Patient currently only available in the UK

The ZioTM service is a long-term continuous ambulatory cardiac monitoring service. It consists of the ZioTM XT that collects beat-to-beat ECG data and can be worn for up to 14 days; the ZioTM ECG.

Utilization Service (ZEUS) System deep learned algorithm which detects arrhythmias. The data is reviewed and curated by a team of Qualified ECG Specialists (QES) to provide the final patient report.

This study was undertaken in the UK within the UK healthcare system therefore results may vary.

ZioTM XT is only available within the UK.

ZioTM XT and ZEUS are UKCA-marked (UKCA0086).

For further regulatory information visit:
<https://www.irhythmtech.com/gb/en/regulatory-information>

For indications for use, warnings & contraindications visit:
<https://www.irhythmtech.com/gb/en/patients/Instructions-for-Use>

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