NCAP

NATIONAL CARDIAC AUDIT PROGRAMME

NICOR

National Audit of Cardiac Rhythm Management (NACRM)

Interim Report 2026

Including data to September 2025

BHRS

British Heart Rhythm Society

Report at a glance

Devices

- 34,003 cardiac implantable electronic device (CIED) procedures reported between April and September 2025.
- This represents only 43% of activity reported in 2024/25 and trend analysis will only be possible when complete data are available for the full annual report for 2025/26.
- 7,735 CIED procedures were for complex implants (ICDs, CRT).
- Not all ICBs/Health Boards have hospitals that are using Conduction System Pacemakers or non-transvenous ICDs.

Ablations

- 11,886 total ablation procedures were reported between April and September 2025.
- The number of ablation procedures for patients with AF continued to rise, with 6,100 procedures performed between April and September 2025.
- The technology for AF ablation procedures is changing, with gradually fewer procedures using radiofrequency alone, and more using pulsed-field ablation.

Abbreviations:
AF= Atrial Fibrillation; CIED= Cardiac Implantable Electronic Devices; CRT= Cardiac Resynchronisation Therapy; ICD= Implantable Cardioverter Defibrillator.

Introduction to the report

The National Audit of Cardiac Rhythm Management (NACRM) is part of the National Cardiac Audit Programme (NCAP) delivered by the National Institute for Cardiovascular Outcomes Research (NICOR). Cardiac rhythm management (CRM) helps patients with a variety of heart rhythm conditions. Treatment includes the use of pacemakers and defibrillators (collectively termed cardiac implantable electronic devices or CIEDs) as well as cardiac
electrophysiological ablation procedures.

This is the 2026 interim report, presenting data from April to September 2025 across England, Wales and Northern Ireland, along with longer-term trends (data for Scotland can be found in the Scottish Cardiac Audit Programme). The deadline for data submission is ideally two weeks after each procedure but each month's data should be provided within two weeks of the end of the month. This will enable close to real-time reporting and better monitoring of emerging technologies. As interim reporting is still a new process, individual hospitals have not yet submitted complete data. This will require time to adapt workflows and allocate resources. Submitted data have also yet to be fully adjudicated. Therefore, the final procedural data will vary in volume and accuracy compared to the finalised annual report when it is published. We anticipate this process will improve with time.

The slides in the report are interactive so you can select and explore the data that interest you. Geographical maps are included to highlight variations in practice for specific areas of practice.

All summary statistics are based on data submitted by hospitals which have then gone through a validation process to adjudicate their accuracy. The numbers might therefore vary slightly from the recently-published interim report (produced for the first time this year) which utilised both validated as well as unadjudicated data from the participating hospitals. More details on the methods used can be found here, and this contains descriptions of the various arrhythmias, treatments, and practicalities on data submission. To support more rapid reporting in future, all hospitals are asked to submit audit data to NICOR on a monthly basis.

We are grateful to all involved in contributing to the development of this audit. Detailed information on all procedures has been diligently entered by hospitals, queried and cleaned before analysis is undertaken by the NICOR team. Expert advice on the design and outputs of the NACRM comes from members of the British Heart Rhythm Society (BHRS).

NICOR NACRM audit team

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Because of incomplete data, fewer Cardiac Implantable Electronic Device (CIED) procedures have been reported between April and September 2025

In April to September 2025, 34,003 Cardiac Implantable Electronic Device (CIED) procedures were reported, from 147 hospitals in England and Wales (16 fewer hospitals than the total reporting in the last annual report, so some hospitals have not yet submitted data). The average time to submitting data from procedure date was 1 day (range 0 to 37). The deadline for data submission is two weeks after the end of each month.

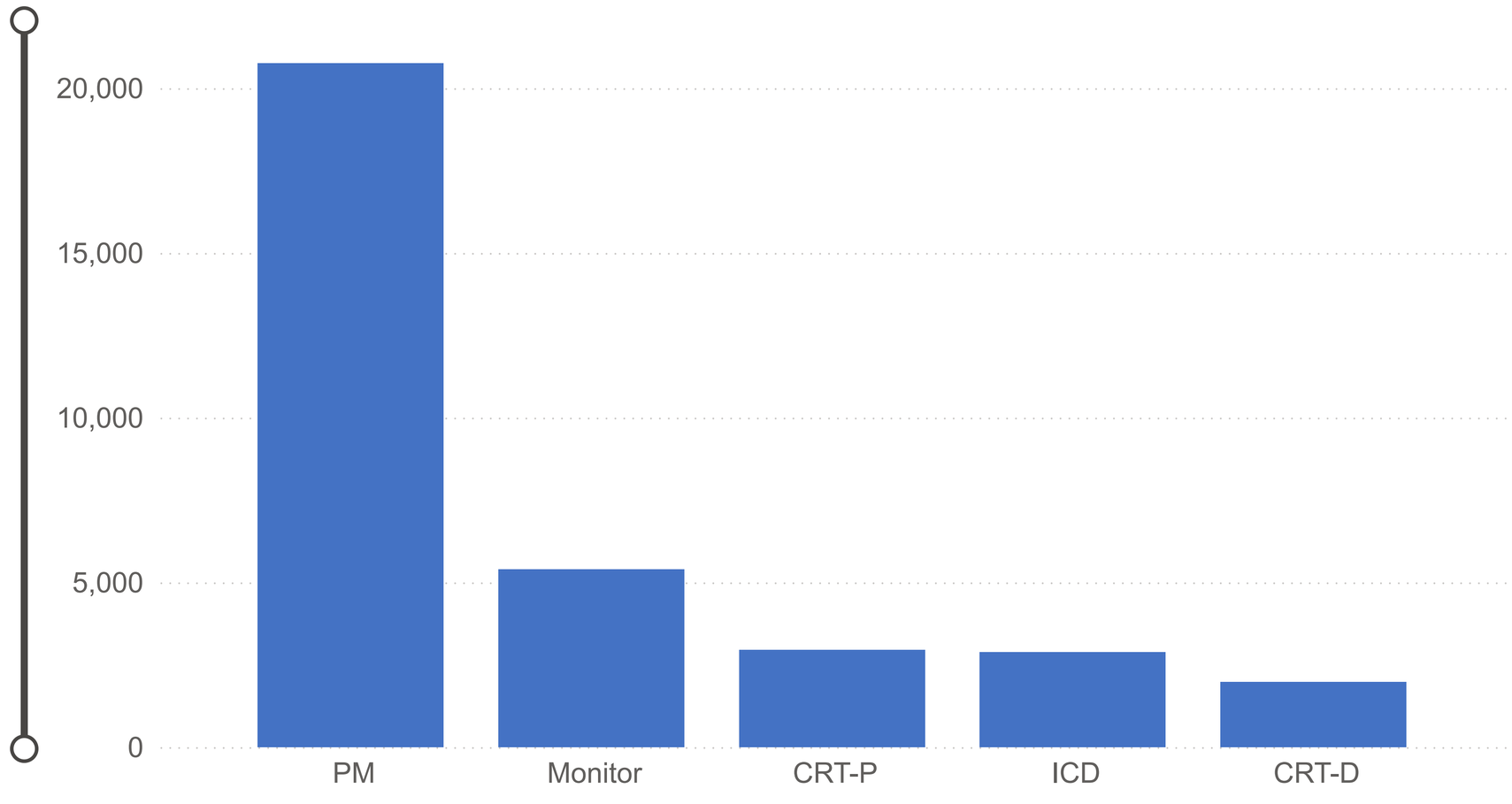
The total included 20,756 pacemaker (PM), 7,818 complex CIED (which include ICD, CRT-P and CRT-D), and 5,394 monitor procedures.

Note: final numbers to be presented in the full annual report for Q1/Q2 2025/26 will be greater as we expect data from all hospitals. Real-time data submission is being encouraged, which will permit more timely capture in the interim report. Submissions with missing fields require a validation process for accuracy and were not included, also leading to under-reporting here.

Key:
CRT-D = Cardiac Resynchronisation Therapy (CRT) Defibrillator
CRT-P = Cardiac Resynchronisation Therapy (CRT) Pacemaker
ICD = Implantable Cardioverter-Defibrillator
Monitor = Implantable Loop Recorder
PM = Pacemaker

34,003	20,756	7,818	5,394
Total	Pacemakers	Complex	Monitors

All CIED procedures by type (April - September 2025)



The number of CIED procedures reported by each hospital, both total and by CIED type, varied significantly

The British Heart Rhythm Society (BHRS) Standards (2024 January revision) recommend that device centres undertake a minimum procedure volume per year:

A minimum of 80 new pacemaker implants per year
A minimum of 60 new ICD or CRT implants per year

In April to September, most hospitals are on track to perform the minimum number of annual procedures. 27 (18%) hospitals do not meet the minimum reported 6-monthly volume for pacemaker implants. 67 (46%) hospitals do not meet the minimum reported 6-monthly volume for ICD or CRT implants. British Heart Rhythm Society standards are for adult cardiology and there is no minimum recommended volume for paediatric hospitals/operators.

Key:
CRT-D = Cardiac Resynchronisation Therapy (CRT) Defibrillator
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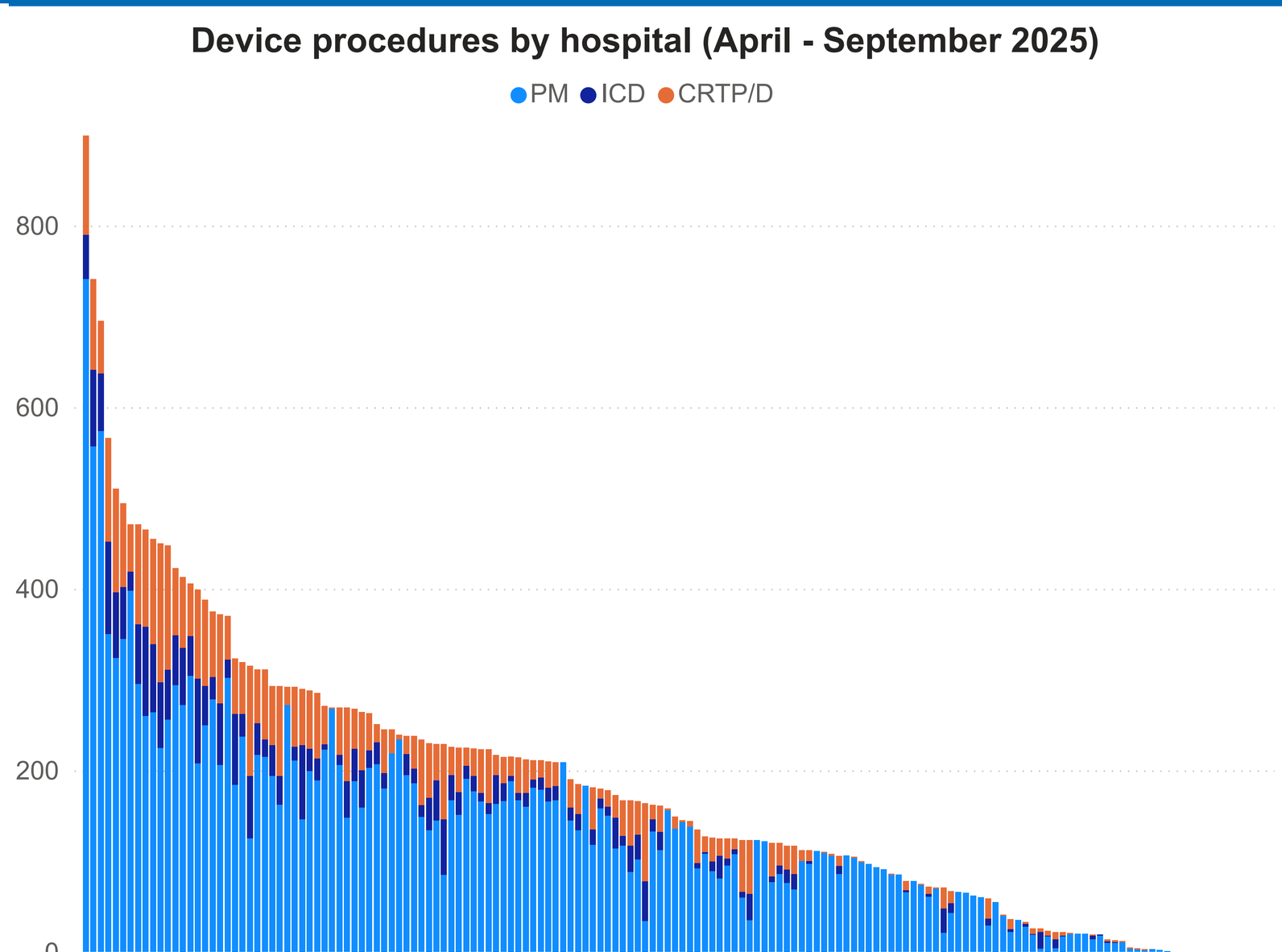
ICD = Implantable Cardioverter-Defibrillator
Monitor = Implantable Loop Recorder
PM = Pacemaker

Hospital

All

Cardiac Network

All



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There is a monthly fluctuation in CIED procedure volume but data are incomplete for April to September 2025

Over April to September, the average monthly procedure volume was 3,460 pacemaker, and 1,303 complex (ICD, CRT-P and CRT-D) CIED procedures. For pacemaker procedures, the highest monthly volume was 3,654 and lowest 3,120. For complex CIED procedures, the highest monthly volume was 1,434 and lowest 1,148.

Note: final numbers to be presented in the full annual report for Q1/Q2 2025/26 will be greater as we expect data from all hospitals. Real-time data submission is being encouraged, which will permit more timely capture in the interim report. Submissions with missing fields require a validation process for accuracy and were not included, also leading to under-reporting here.

Key:
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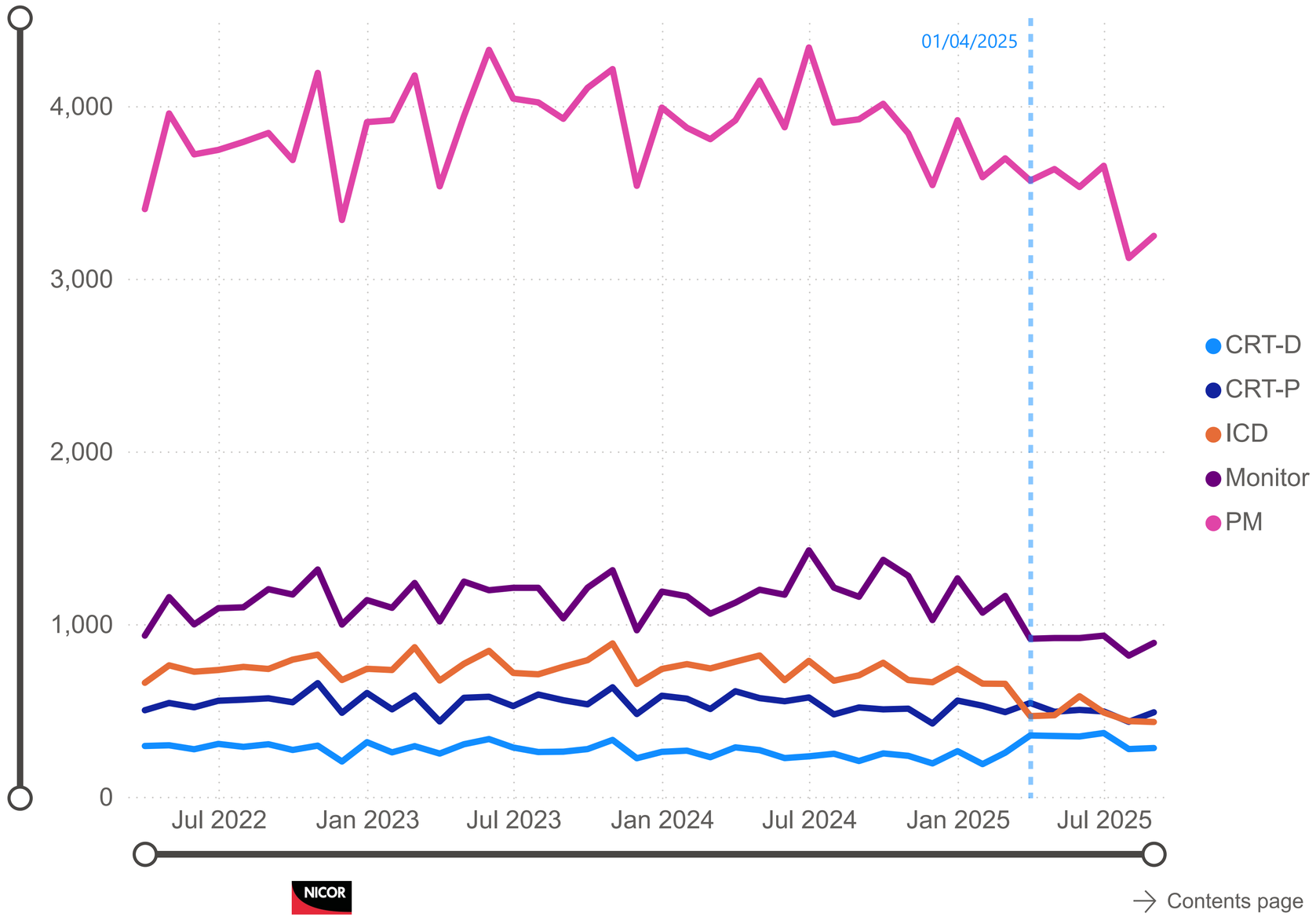


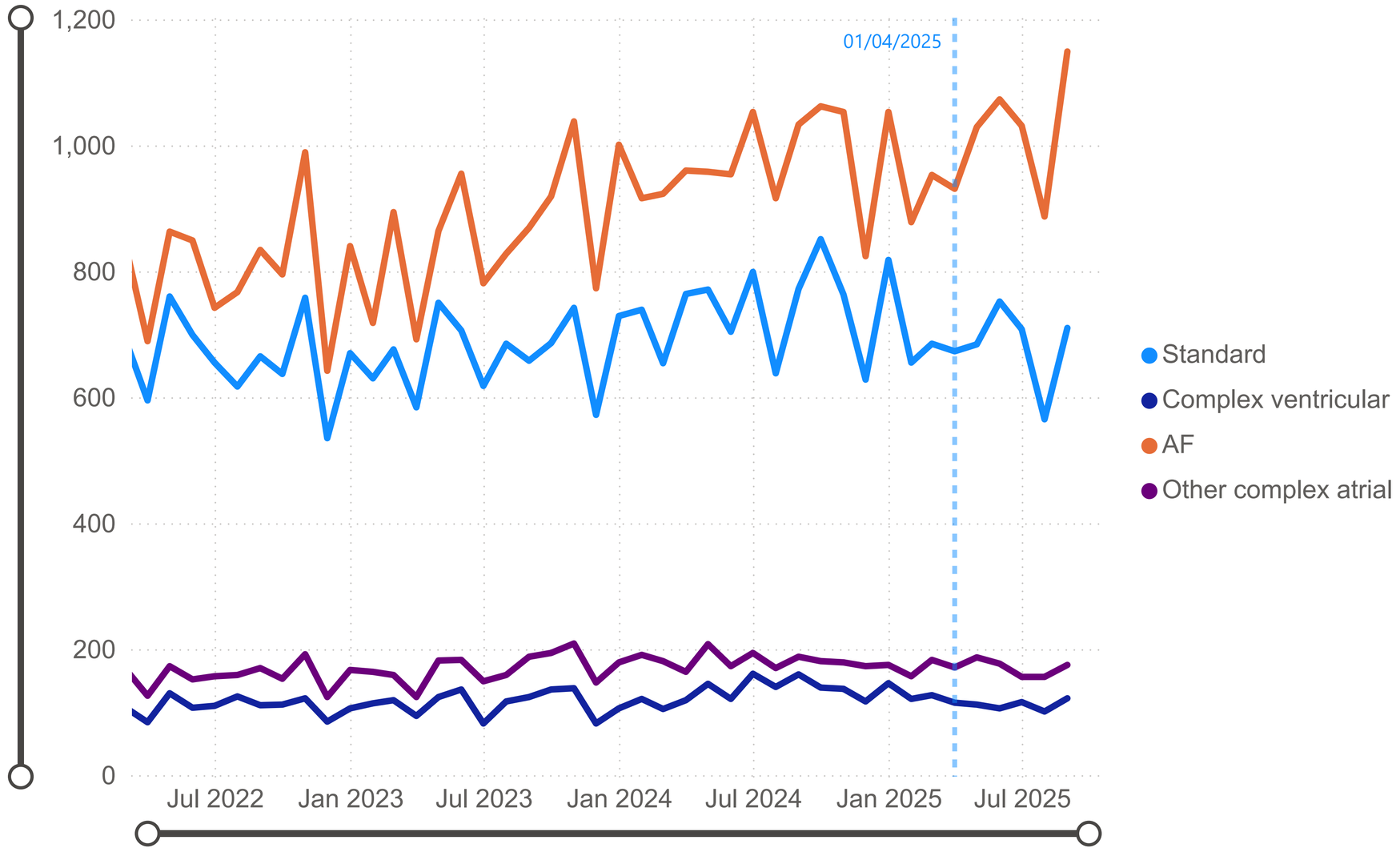
The number of AF ablation procedures has not yet plateaued

For the period spanning April to September 2025, 6,100 ablations for atrial fibrillation (AF), 4,092 standard ablations, 1,022 other complex atrial, and 672 complex ventricular ablations were reported.

Ablations are sophisticated techniques for treating specific abnormal tissue that promotes fast heart rhythms. These totals represent 49% of activity reported in 2024/25. Full trends for the year will have to await the full report for 2025/26, but it appears that the growth in ablation procedures for AF is continuing.

See here for category definitions.

Number of ablation procedures by complexity (to September 2025)



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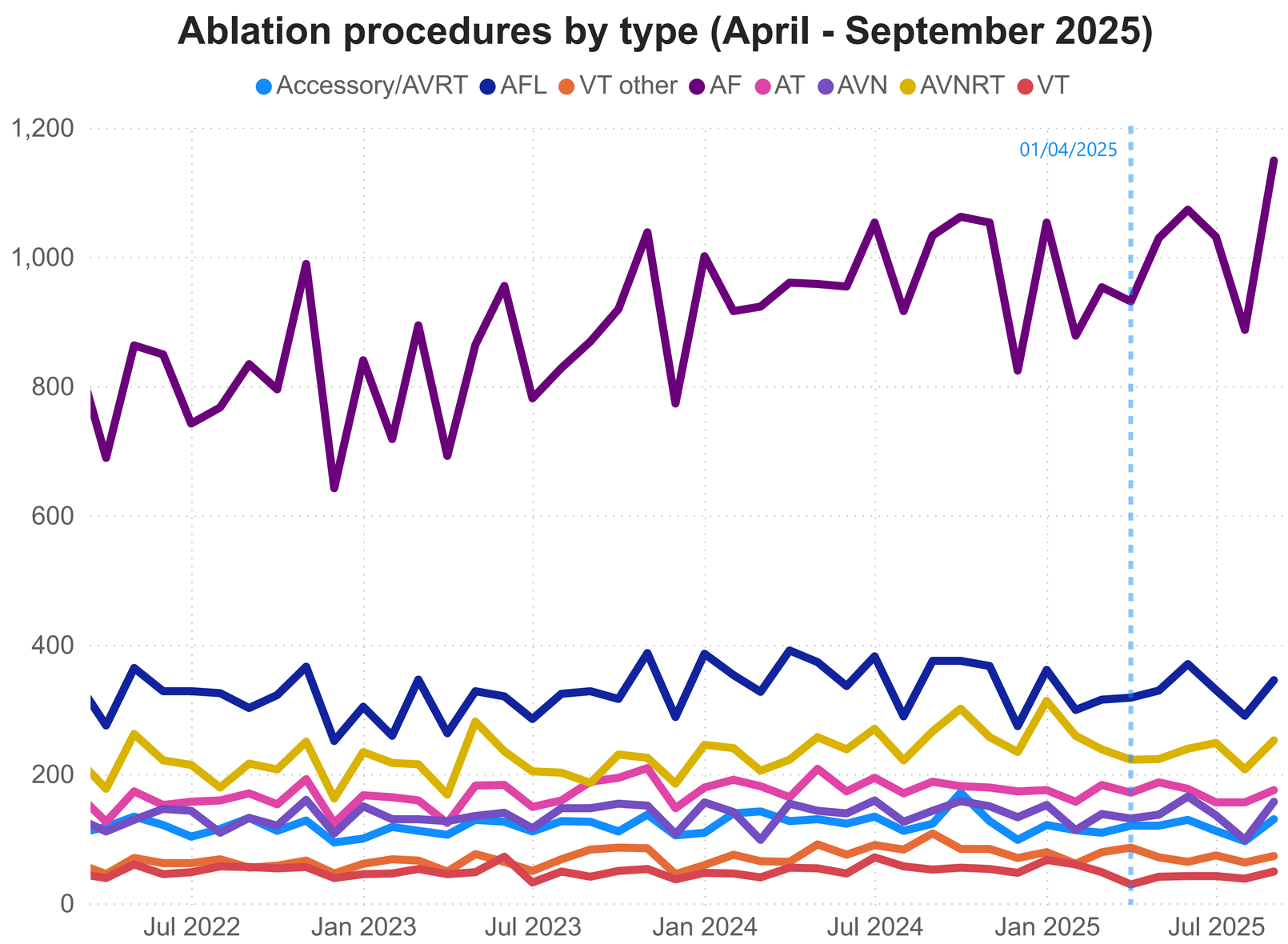
AF ablation procedure numbers increased in the period April to September 2025

Between April and September 2025, procedural volumes were generally stable but ablation procedures for atrial fibrillation (AF) rose (931 to 1,149).

Any trends for numbers of ablation procedures for other arrhythmias will be shown in the full report for 2025/26.

Key:
AF = Atrial fibrillation
AFL = Atrial flutter
AVNRT = Atrioventricular nodal re-entrant tachycardia
AT = Atrial tachycardia
AVN = Atrioventricular nodal ablation
AVRT = Atrioventricular re-entrant tachycardia
VT Other = Premature Ventricular Contraction ablation, etc
VT = Ventricular Tachycardia



Ablation rates varied 20-fold across ICBs and Health Boards in England and Wales

The maps show the rates of ablation procedures per million population (pmp) by Integrated Care Board (ICB) / Health Board (HB) and Cardiac Network (CN) for the first half of 2025/26.

Substantial regional variation exists in the rate of ablation procedures across England and Wales, with a 20-fold difference in total rates between areas.

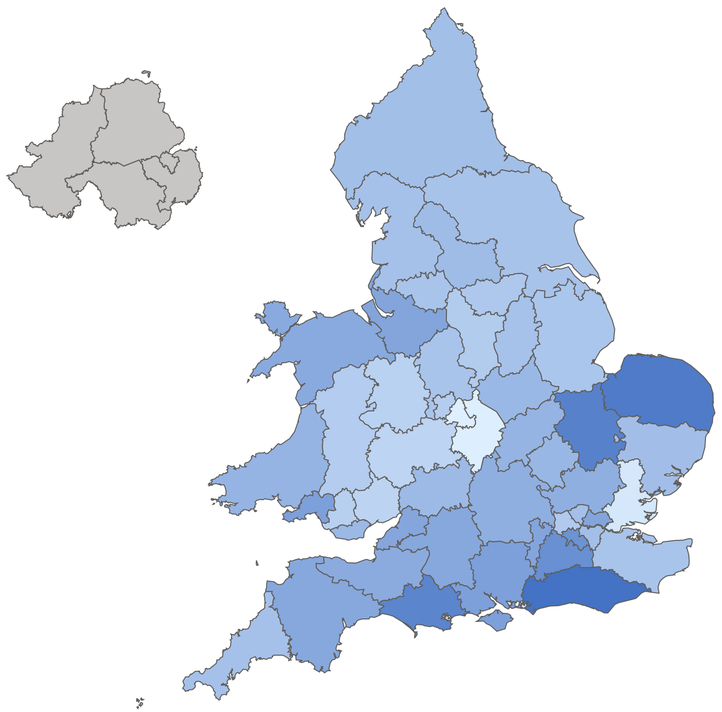
When mapped by patient home location, there is a clear gradient in ablation procedures, with higher rates in parts of London, the East of England, and the South East, and lower rates in northern and rural regions.

Mapping by Cardiac Network hospital location reveals concentration of ablation activity within major tertiary centres, reflecting the centralised model of complex electrophysiology service delivery within the NHS.

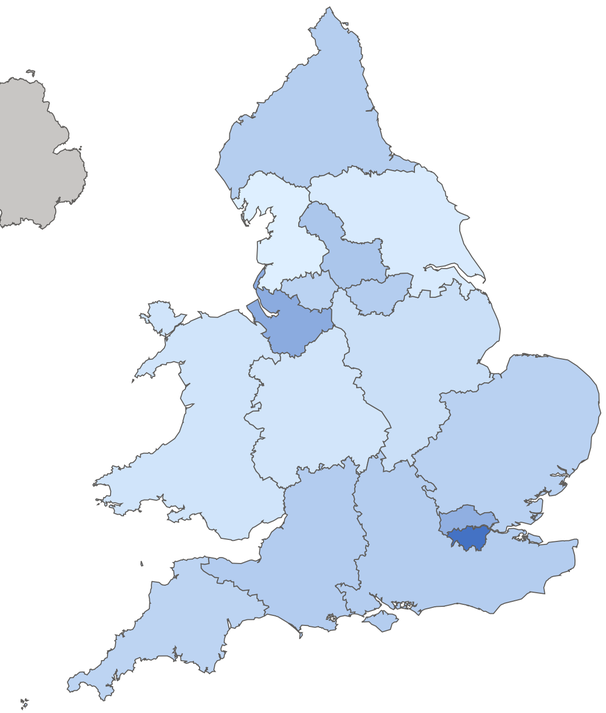
Select actual or age-standardised rate pmp and/or hover over the map to see specific data.

Note: Data for ICB/HBs are based on the patient home location. Data for CNs are based on the location of the hospitals undertaking the procedure in that area. No data on ablation procedures were received from hospitals in Northern Ireland.

Ablation procedures per million population by ICB/HB based on patient home location (April - September 2025)



Ablation procedures per million population by Cardiac Network based on hospital location (April -September 2025)



Select rate

Age-standardised rate

Select ablation type

All

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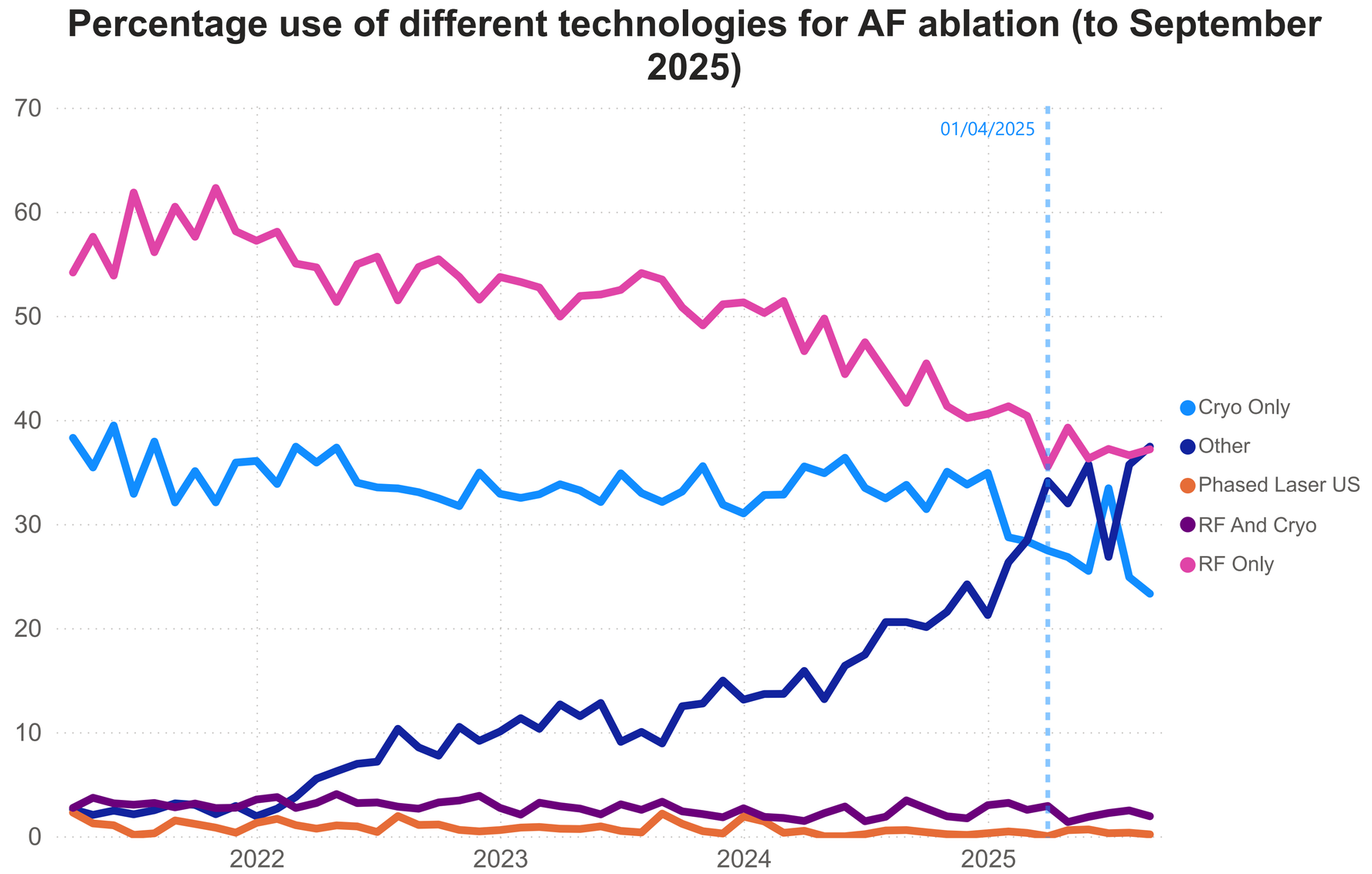
There has been a change in the technology used for AF ablation procedure over the last few years

For patients with atrial fibrillation (AF), there are several technologies that can be used to perform ablation procedures.

Between April and September 2025, RF remained the dominant single modality despite a decline in proportion over the last few years. "Other" modalities increased substantially over a similar period, with a 3.3% absolute increase over the 6 months of this report. "Other" modalities likely represent pulsed-field ablation. The dataset has now changed to capture pulsed-field ablation, and so it should be listed specifically. Data entry details can be found here.



Conduction system pacemakers: access is variable across Integrated Care Boards / Health Boards in England and Wales

The maps show the rate of Conduction System Pacemaker (CSP) procedures per million population (pmp) for the first half of the 2025/26 financial year for the:

- 42 Integrated Care Boards (ICBs) in England and 7 Welsh Health Boards (HBs)
- 16 Cardiac Networks (CNs) in England and Wales.

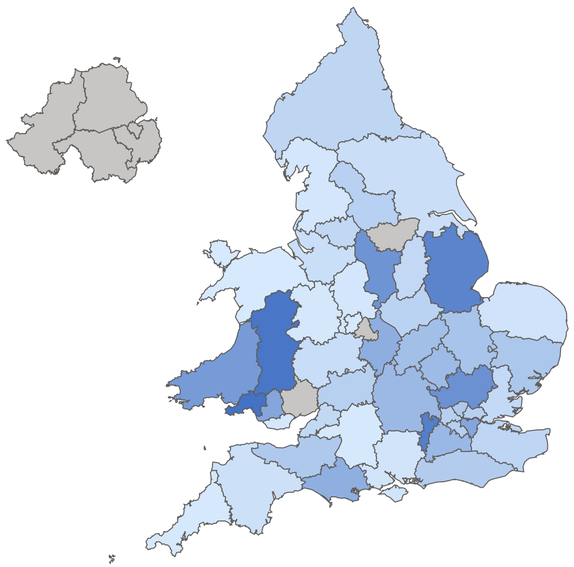
The maps show variation in patient procedures (left) and hospital activity grouped by different areas (middle/right).

As expected with newer technologies, these show that there are currently many regions without access to CSP technology, something which may change with time.

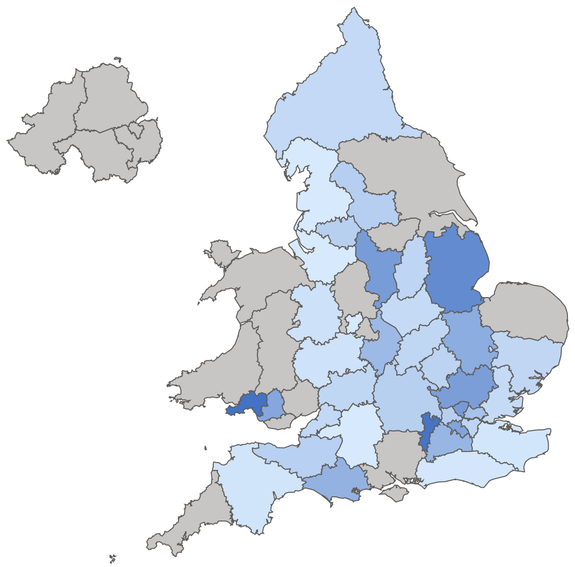
In Q1 & Q2 2025/26, the highest rate was 82 pmp in Swansea Bay HB, and the lowest rate was 3 in several ICB/HBs.

Note: Grey regions represents no procedures performed in that region or no data submitted.

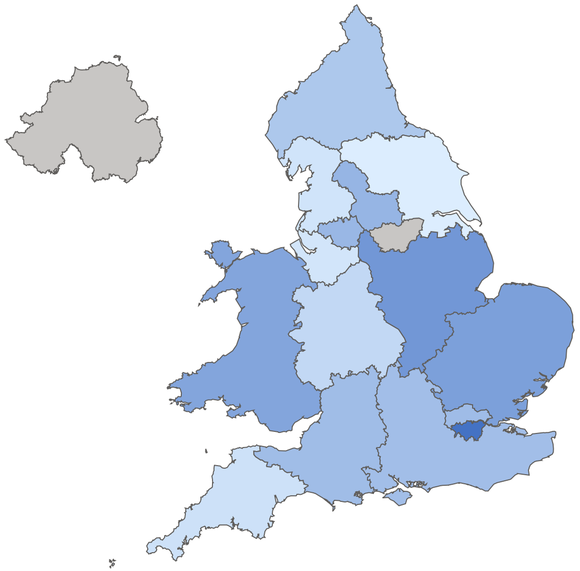
Rate of CSP procedures (pmp) by ICB/HB based on patient home location (Q1 & Q2 2025/26)



Rate of CSP procedures (pmp) by ICB/HB based on hospital location (Q1 & Q2 2025/26)



Rate of CSP procedures by Cardiac Network based on hospital location (Q1 & Q2 2025/26)



Local access to non-transvenous defibrillators varied across Integrated Care Boards / Health Boards in England and Wales

The maps show the rate of non-transvenous defibrillator procedures per million population (pmp) for the:

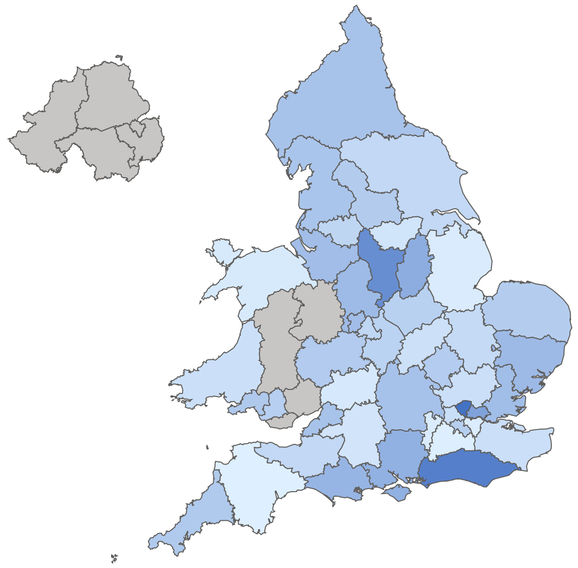
- 42 Integrated Care Boards (ICBs) in England and 7 Welsh Health Boards (HBs)
- 16 of the Cardiac Networks (CNs) in England and Wales.

The maps show variation in patient procedures (left), hospital availability / delivery, and regional availability / delivery. These show that most regions have access to non-transvenous ICD technology. There is greater access to this technology compared to leadless or conduction system pacing. This may be due to a more established evidence base, more mature referral networks and greater procedural training.

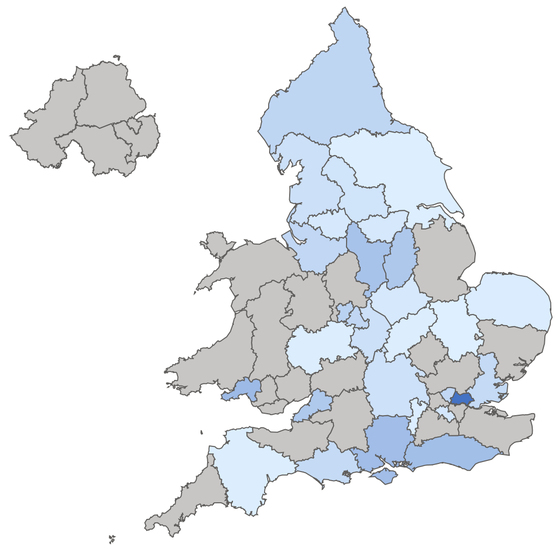
In Q1 & Q2 2025/26, the highest rate is 15.5 pmp in North Central London ICB, and the lowest rate is 0.8 in Devon ICB.

Note: Grey regions represents no procedures performed in that region or no data submitted.

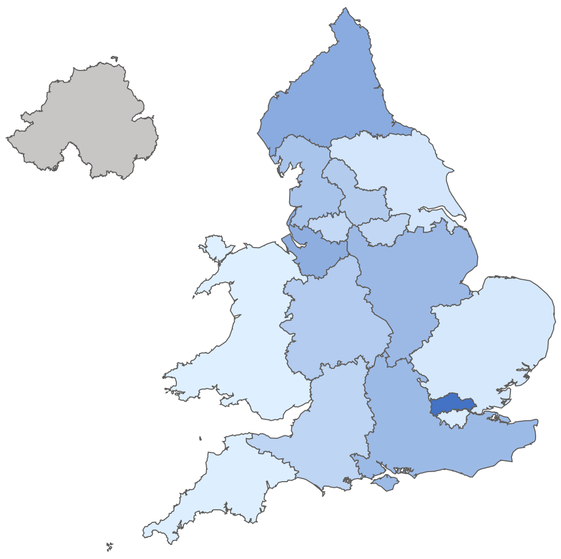
Rate of non-Transvenous ICD procedures (pmp) by ICB/HB based on patient home location (Q1 & Q2 2025/26)



Rate of non-Transvenous ICD procedures (pmp) by ICB/HB based on hospital location (Q1 & Q2 2025/26)



Rate of non-Transvenous ICD procedures by Cardiac Network based on hospital location (Q1 & Q2 2025/26)



References

1European Atlas of Cardiology
https://www.escardio.org/Research/ESC-Atlas-of-cardiology

2023 ESC General Atlas survey

ESC National Cardiac Societies , European Society of Cardiology: the 2023 Atlas of Cardiovascular Disease Statistics, *European Heart Journal*, Volume 45, Issue 38, 7 October 2024, Pages 4019–4062, https://doi.org/10.1093/eurheartj/ehae466

Dual-chamber pacemaker guidance
The National Institute for Health and Care Excellence (NICE) Technology Appraisal (TA324) guidance states that: "*Dual-chamber pacemakers are recommended as an **option** for treating symptomatic bradycardia due to sick sinus syndrome without atrioventricular block".*
The National Institute for Health and Care Excellence (NICE) Technology Appraisal (TA88) states that *"for most people who have sick sinus syndrome with atrioventricular (AV) block, and for those with atrioventricular block without continuous atrial fibrillation, dual-chamber pacing is preferred to single-chamber pacing"*. In previous NACRM reports, this was referred to as Quality Standard 13.

ICD for primary prevention
NICE guidance recommends that an implantable cardioverter defibrillator (ICD) should be implanted for primary prevention when a patient is deemed at risk but has not yet suffered had an aborted sudden cardiac death. Those criteria include:

- Left ventricular dysfunction, with an ejection fraction of ≤35%, despite optimal medical therapy and who are not in NYHA functional class IV.
- A familial cardiac condition with a high risk of sudden death.
- Prior surgical repair of congenital heart disease.

In previous NACRM reports, this was referred to as Quality Standard 14.

ICD for secondary prevention
The National Institute for Health and Care Excellence (NICE) has set criteria for when an implantable cardioverter defibrillator (ICD) should be implanted for secondary prevention. These include patients who, without a treatable cause:

- have survived a cardiac arrest caused by either ventricular tachycardia (VT) or ventricular fibrillation **or**
- have spontaneous sustained VT causing syncope or significant haemodynamic compromise **or**
- have sustained VT without syncope or cardiac arrest, and also have an associated reduction in left ventricular ejection fraction (LVEF) of 35% or less but their symptoms are no worse than class III of the New York Heart Association (NYHA) functional classification of heart failure.

Minimum number of ablations
This was referred to as Quality Standard 5 in previous reports. The British Heart Rhythm Society 2020 recommendations are here.

Re-intervention rates in complex atrial ablation