

**NATIONAL AUDIT
OF CARDIAC RHYTHM
MANAGEMENT DEVICES**

2014-15

Acknowledgments



National Institute of Cardiovascular Outcomes Research (NICOR) is a partnership of clinicians, IT experts, statisticians, academics and managers which manages six cardiovascular clinical audits and three clinical registers. NICOR analyses and disseminates information about clinical practice in order to drive up the quality of care and outcomes for patients.



The British Cardiovascular Society promotes education, training and research in cardiovascular health and upholds clinical and professional standards.



The British Heart Rhythm Society is an affiliated group of the British Cardiovascular Society and the Arrhythmia Alliance, and is dedicated to improving all aspects of cardiac arrhythmia care and electrical device based therapies. It provides an essential link between professionals working within pacing, devices and electrophysiology in the UK.



The Healthcare Quality Improvement Partnership (HQIP) is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing and National Voices. Its aim is to promote quality improvement, and in particular to increase the impact of clinical audit in England and Wales. HQIP hosts the contract to manage and develop the National Clinical Audit and Patient Outcomes Programme (NCAPOP). The programme comprises 40 clinical audits that cover care provided to people with a wide range of medical, surgical and mental health conditions.



Founded in 1826, UCL (University College London) was the first English university established after Oxford and Cambridge, the first to admit students regardless of race, class, religion or gender, and the first to provide systematic teaching of law, architecture and medicine. It is among the world's top universities, as reflected by performance in a range of international rankings and tables.

1. Acknowledgements

The National Audit of Cardiac Rhythm Management Devices is managed by the National Institute for Cardiovascular Outcomes Research (NICOR), which is part of the National Centre for Cardiovascular Prevention and Outcomes, based at University College London. Clinical leadership for the audit is provided by the British Cardiovascular Society and British Heart Rhythm Society. The audit steering group includes major stakeholders in the audit, including cardiologists, the professional societies, physiologists, commissioners and patient group representatives.

We would especially like to thank the contribution of all NHS Trusts and the individual physiologists, clinicians and audit teams who collect data and participate in the audit.

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2. Executive Summary

Background

This 10th annual report of the National Audit of Cardiac Rhythm Management Devices (CRM Device Audit) describes cardiac device implants in hospitals in England, Wales, Scotland and Northern Ireland for the period April 2014 to March 2015. This report details the implant rates of pacemakers (PM) and implantable cardioverter defibrillators (ICDs), including those providing cardiac resynchronization therapy (CRT). Data were collected from every implanting centre by on-line submission. The Audit was managed by the National Institute for Cardiovascular Outcomes Research (NICOR), which is part of University College London (UCL) with the British Heart Rhythm Society (BHRS) providing clinical leadership through the Audit Steering Group, co-chaired by Dr Francis Murgatroyd and Prof Nick Linker.

The CRM device audit is a development of the national device registry which was the first in the world and now documents approximately a million device procedures. In addition to the vital registry role, the annual reports have examined UK implant rates in comparison with other European countries, and there is an increased focus on quality, e.g. adherence to NICE guidance for pacing mode and BHRS standards for centres. More detailed centre- and operator- based reporting, as well as clinical outcomes, will be the objective of future reports, following the switch to a redesigned dataset.

Key findings:

- pacemaker implant rates are static and remain well below the European average.
- implant rates for ICDs have risen since last year but are still below the European average.
- CRT implant rates continue to rise - the total rate of CRT therapy implantation in the UK is now above the European average.
- data submission remains incomplete and should be submitted sooner after device implantation.
- most centres report very high rates of appropriate pacemaker type for sinus node disease
- the overwhelming majority of pacemakers and complex devices are implanted in centres that do sufficient numbers to meet the recommended minimum standard. However, a small proportion of procedures are reported from centres with extremely low implant rates.

Recommendations

1. Commissioners and Chief Executives

We recommend that you:

- Consider whether pacemaker and ICD/CRT implant activity at the hospital level is in line with BHRS guidelines¹ to ensure the skill of performing the procedure is maintained. If activity is below the guideline levels, particular vigilance for appropriateness and complications is recommended, and the sustainability of the service should be considered.
- Ensure compliance with NICE guidelines (TA88, TA324 and TA314).
- Ensure there are sufficient resources allocated to support national clinical audit activity.

2. Medical directors and Clinical Leads

We recommend that you:

- Ensure all operators regularly review their data in NICOR to improve timeliness and accuracy.
- Provide appropriate clinical support to the clinical audit teams. Our data show that higher level of clinical engagement with the clinical audit team is associated with a better data completeness and data quality of the audit data. Each clinical audit should have an identified clinical lead assigned to support this activity.
- Monitor the use of atrial-based pacing for sick sinus syndrome (NICE TA88/TA324).
- Monitor indications for ICD and CRTD implantation (NICE TA314).

¹ BHRS Practice Guidelines <http://www.bhrs.com/guidelines-information>

3. Clinical audit teams

We recommend that you:

- Submit data as soon as possible after device procedures and on a quarterly basis at the very least. You are reminded that the NICOR standard for data submission is that each quarter's data should be submitted by the end of the following quarter at the latest. Up to date data are associated with higher completeness and accuracy. Timely feedback will be provided to improve performance.
- Check that the data submitted to NICOR shows what you expect it to be; this is especially relevant to those hospitals that use third party software to submit their data.
- Ensure complications data are completed for all patients.
- Engage with all local and national reports to check case ascertainment rates and data completeness.
- Ensure that accurate and specific device procedure data are available to physiologists and implanters to facilitate audit, clinical governance, appraisal and revalidation.

4. Patients and public

What does this mean for me?

- The report allows you to see which hospitals in your region perform implants of the different types of heart rhythm devices. Not all hospitals implant all of the types of device. The report also details the numbers of implant procedures reported by each hospital, as less experienced centres may have higher complication rates.
- If you have symptoms due to a slow heart rate (bradycardia) or pauses in the heart beat, due to a problem with your "natural" pacemaker (sinus node), and your doctor thinks that a dual-chamber pacemaker (with leads in the upper and lower chambers of the heart) is the right treatment, you should be able to have the treatment on the NHS as recommended by NICE.
- If you are at increased risk of a serious heart rhythm abnormality or have heart failure, and your doctor thinks that an implantable cardioverter defibrillator (ICD) or cardiac resynchronisation therapy with defibrillation (CRT-D) or pacing (CRT-P) is the right treatment, you should be able to have the treatment on the NHS as recommended by NICE.

3. Foreword from National Clinical Director for Heart Disease, NHS England

I am pleased to welcome publication of this, the 10th UK Cardiac Rhythm Management (CRM) Device Audit Report, covering the implantation of cardiac pacemakers, implantable defibrillators (ICDs) and cardiac resynchronisation therapy (CRT) in the period April 2014 to March 2015.

This has been a transitional year for the CRM Device Database. A newly designed dataset has gradually gained compliance during the year. Creation of this annual report has required an amalgamation of data from old and new datasets, and we thank David Cunningham, Francis Murgatroyd and Morag Cunningham for their efforts in achieving this.

I am pleased again to acknowledge the hard work of clinical physiologists, nurses and clinicians at the device centres. Their time is often unfunded, yet freely given, and all concerned also deserve our recognition and thanks.

The results for 2014/15 show a rise in implant rates for ICDs but a static pacemaker rate. There has been a continued rise in CRT implants (which as before probably explains some of the lack of increase in non-CRT ICDs). As in previous years, optimism must be tempered by the observation that UK device implant rates, particularly for pacemakers, remain well below those of many comparable European countries. Clinicians and commissioners are encouraged to follow best practice guidelines, such as those published by the National Institute for Health & Care Excellence (NICE) and be alert to any inequity in provision of these devices.

This national CRM device audit continues to provide valuable data for understanding current practice, and how we might best plan for future improvement. As in previous years, I warmly commend it to all who commission and deliver cardiac device therapy.

Professor Huon Gray
National Clinical Director for Heart Disease
NHS England



4. Foreword from National CRM Device Audit Clinical Lead

This is the tenth annual report from the devices section of the national Cardiac Rhythm Management Audit, and covers the period from April 2014 to March 2015.

Following extensive consultation with stakeholders including physiologists, implanting cardiologists and audit leads, and various NHS bodies (including the National Institute for Healthcare Excellence, the Medicines and Healthcare Regulatory Authority, NHS Improvement, and patient representatives) the NICOR CRM dataset was revised in April 2014 to reflect major changes in clinical practice, national guidance and to improve its usefulness in audit. Inevitably, these changes have been challenging for both data collection and analysis but 80% of the data in this report reflects the new dataset and this increased during the year to well over 90% by March 2015.

Terminology

- **Pacemakers** (PPMs)
are implanted devices that prevent the heart from beating slowly (bradycardia) or stopping (asystole), due to disease affecting the sinus node (the natural pacemaker in the upper part of the heart) or atrio-ventricular conduction (conduction from upper to lower (main "pump") part of the heart).
- **Implantable Cardioverter Defibrillators** (ICDs)
are able to terminate dangerous rhythms (ventricular tachycardia and ventricular fibrillation) by delivering rapid pacing and/or shocks, rescuing patients from cardiac arrest. Most ICDs are can also act as pacemakers.
- **Cardiac Resynchronization Therapy** (CRT) devices
can improve the coordination of the heart's contraction, and thus the efficiency of the heart. This has been shown to improve symptoms and life expectancy, and to greatly reduce hospitalization rates, in certain groups of patients with heart failure. These devices either have pacemaker functionality (CRT-P) or can also defibrillate when necessary (CRT-D).

Indications

"High energy devices" (ICD and CRT-D) are able to deliver shocks and can be implanted for **secondary prevention**, (i.e. in patients who have already survived cardiac arrest or dangerous arrhythmias), or for **primary prevention**, (i.e. in patients who are at increased risk of these events, but have not yet suffered one). Indications for pacemaker, ICD and CRT therapy are included in international guidelines based on evidence from multiple trials, and all these therapies have been found to be cost-effective and approved by NICE. However, current NICE guidance for ICDs and CRT were published in mid-2014 [www.nice.org.uk/guidance/ta314] and the effects of the changes in device indications may not be fully reflected within the current report. When interpreting this report it is important to understand that the indications for these devices overlap considerably in heart failure patients: many patients that would once have received ICDs now receive CRT-D. This is reflected in the annual trends.

What is covered in the report?

This report details implants of pacemakers and complex devices (ICDs and CRT) in England, Wales, Scotland and Northern Ireland during the period **1st April 2014 – 31st March 2015**. Both new and replacement implants are included and where possible these are detailed separately. However, a substantial proportion of complex device procedures are "upgrades" from simpler devices and it has been impossible to distinguish these reliably with the existing dataset; therefore combined figures are given.

In recent years, a number of centres in Scotland have not submitted data to the audit. This situation is improving and we have evidence from correlation with other data that all Scottish centres implanting ICDs are now reporting their device implants with the remaining “missing” centres implanting only pacemakers. We are therefore able to report overall implant rates (per million) for complex devices in Scotland, but not yet for pacemakers.

What are the key findings of the report?

1. Pacemakers

New pacemaker implant rates are presented from England, Wales and Northern Ireland. These are calculated as the total number of devices implanted in the year divided by the best available estimate of total population. Over the last decade the overall implant rate has gradually increased in line with an ageing population, though in England and Wales the rate has tailed off in the last few years. The average implant rate of 594 per million population (pmp) remains below the Western European average of 740 pmp. This is not due to conservative practice by pacemaker specialists in the UK, but more likely due to under-identification in other specialties and general practice, and lack of timely diagnostic tests such as 24h ECGs.

2. Implantable defibrillators

New UK ICD implant rates have remained stubbornly low over the last five years at around 70-80 pmp, and have even been steadily dropping in Wales. This contrasts with a Western European average of 166pmp. Most ICDs in the UK are implanted for secondary prevention indications, unlike most other developed countries where there is a better appreciation of the need for primary prevention ICDs in patients with weak hearts.

3. Cardiac resynchronization therapy

The news is good regarding cardiac resynchronization therapy with steady growth in all parts of the UK. The overall implant rate of 149 pmp compares well with the Western European average of 129 pmp. However, there is a lower proportion of CRT-D than in most other nations, perhaps reflecting historic NICE guidance. This may change following the 2014 NICE appraisal [www.nice.org.uk/guidance/ta314] which should bring UK practice more in line with international guidelines. The growth in Scotland is also impressive, but from a low baseline so that the implant rate remains around half that of the rest of the UK.

4. High Energy Devices

After a fall off between 2011 and 2013, high energy device implant rates (ICD & CRT-D) have picked up. The overall defibrillator implant rate of 200-250 pmp has picked up but this figure still falls short of the Western European average of 375 pmp.

5. Pacing mode in sick sinus syndrome ([NICE TA324](#))

Atrial based pacing in sinus node disease is recommended by NICE, though it is occasionally inappropriate for clinical reasons. The overwhelming majority of centres report atrial based pacing in over 80% of patients, and the national average is 90%. However, there are a small number of centres which remain outliers with consistently low rates (Figure 11).

6. Implant Rates (BHRS Standards 2013)

The overwhelming majority of centres implanting pacemakers have reported numbers above the minimum recommended in the BHRS 2013 Standards document, and indeed have reported sufficient numbers to satisfy the requirement for training. However, a small proportion of centres are reporting implant rates that fall well below the recommendations. Among centres implanting complex (ICD and CRT) devices, over a third report implant rates below the recommendations. As a result, 4% of pacemaker implants and 8% of complex device implants are performed in centres that do not meet the minimum recommended activity levels.

What has happened to the geographic analysis?

In addition to details of activity by implanting centre, our reports up to 2013 detailed implant rates by geographical populations (Primary Care Trusts and Cardiac Networks and in 2012 Local Area Teams). We gave breakdowns of the Clinical Commissioning Groups falling within each LAT, and the demographics of the local populations, from which local needs could be estimated. This work provided valuable information, allowing areas of relative under-provision to be identified (overprovision was rare), helping to highlight “postcode provision”.

This work required significant resources to validate patient postcodes and chase missing entries, for thousands of procedures, and a substantial analytic effort. In the past this was funded by donations from industry and more recently charity. We very much hope that funding will be provided in the future to restore this valuable analysis.

Plans for the future

The next 2-3 years will see big changes to the device audit and its reporting. First of all, only data compliant with the new dataset can be submitted. This should allow a more detailed breakdown of procedure types (first implant, upgrade, replacement, revision, etc.). We hope that the requirement for compliance with the new dataset and more stringent data quality will not adversely impact our case ascertainment, which we believe has hitherto been close to 100%. This is an essential prerequisite for one of our core functions, which is a national registry of implanted devices.

Secondly, we will start to publish basic data on the website. This will initially be implant rates by centre and by operator, in line with other audits, on a quarterly basis. We will highlight the fact that the most recent quarter(s) may be inaccurate but we hope that this will be a driver to timely and accurate data submission. Thirdly, we will for the first time start to examine outcomes. Unlike for coronary intervention and cardiac surgery, mortality is a poor outcome measure for CRM. Furthermore, reported complications are an unreliable guide as the better centres are more likely to report their complications. We will therefore be looking primarily at re-intervention rates within the first year after a new implant. This should pick up the most serious complications, infection, lead displacement/perforation, systematically. These data can only be reported after a one year delay so will apply to the previous years’ implants.

Thanks

As ever, we are immensely grateful to David Cunningham who has been the rock on which this audit has stood since the beginning. He has been uniquely able to both run the technical aspects of the audit and understand its context. Morag Cunningham has been invaluable in getting the data in – without her organisational skills, persistence, and excellent relationships with the numerous centres involved the data would be in poor shape.

We are also grateful to Adél de Lange who has handled the huge task of analysing the data, and to Anthony Bradley, our Project Manager. Most of all, our thanks to the hundreds of individuals, mostly physiologists, but some nurses and even some doctors, for their hard and unpaid efforts in submitting the data.



Francis Murgatroyd

**Audit lead, British Heart Rhythm Society
Chair, BHRS Registry and Audit Steering
Committee**



Nick Linker

**President,
British Heart Rhythm Society**

5. Foreword from Trudie Lobban, CEO of the Arrhythmia Alliance

Firstly, I would like to thank all the contributors to the audit from the designated cardiac implantation centres across the UK, and to the audit team and authors for producing the 10th UK Cardiac Rhythm Management Audit report. The robust data within the report must now be used as a catalyst and stimulus for action as it clearly demonstrates significant variation in implantation rates across the UK, and an overall unacceptable level of performance when compared to our European counterparts.

Although this audit was not structured to measure patient outcomes related to the levels of implantation rates recorded, we can only assume that many patients and their families have suffered unnecessary negative outcomes through lack of cardiac implantation to manage their symptoms – and we must find ways to measure the direct impact of low implantation rates on patients, and how many patients this affects in the UK.

Arrhythmia Alliance, the UK's leading heart rhythm charity, believes in working together to improve the diagnosis, treatment and quality of life for all those affected by arrhythmias – and as stated in the recommendations of this report all patients with symptomatic bradycardia, without AV block, or with an arrhythmia and/or heart failure, where device implantation is the most appropriate treatment, MUST be able to have this treatment on the NHS. This is our mandate for action!

The audit report raises a number of fundamental questions that need to be explored and addressed if we are to see any significant improvement in implantation rates at a local and national level, we believe this can only be done by driving through best practice that is resonant and applicable at the local level. Guidance on its own is not enough to ensure positive change.

Where is the breakdown? Is it a lack of understanding and/or referral at primary care level, is there a need for better co-ordination and provision of cardiac implantation services to manage local populations? Are there identifiable resource challenges? We can only hypothesise on the reasons until we get down to grass roots level to identify the problems and explore solutions.

During 2015 Arrhythmia Alliance ran a series of educational Cardiac Update meetings related to the management of arrhythmias and ran a number of pilot projects in areas where implantation rates needed to improve in partnership with local clinical physiologists, commissioners, primary care and industry.

In 2016 we intend to extend the pilot program to at least 10 areas in the UK where implantation rates need to improve and local, multidisciplinary teams want to work together to create local action plans to improve the overall management and treatment of patients with arrhythmias. If you would like to find out more, or would be interested in participating in this program please contact me direct through the details below.

Trudie Lobban MBE FRCP (Edin)
Founder & CEO
Arrhythmia Alliance

www.heartrhythmcharity.org



6. Introduction

This 10th annual report of the National Audit of Cardiac Rhythm Management Devices describes cardiac device implantation performance in each hospital in England and Wales for the period 1st April 2014 to 31st March 2015 and is the second annual report to present information at this level.

The central task of the CRM audit has always been, and remains, to provide a central core of clinical audit data describing the total implant volumes of the three main implantable cardiac device types:

- **pacemakers** for bradycardia (slow heart rhythm),
- **implantable cardioverter defibrillators (ICD)** for cardiac arrest, and
- **cardiac resynchronization therapy (CRT)** devices for advanced heart failure.

As in previous reports, local hospital performance is shown for several NICE guidelines within a national context, as well as reporting on trends in national rates of implantation, comparing current rates with those in other European countries.

The report presents information on implantation activity for all implanting hospitals in England and Wales as well as three in Northern Ireland and six in Scotland. For each implanting cardiac devices, the report shows their location and Local Area Team (LAT) and the number of each class of device implanted. It also compares local performance to the current national average performance against key quality indicators which align to NICE guidelines on Physiological Pacing for Sick Sinus Syndrome (TA88/TA324) and Indications for High Energy Devices (TA314).

A new, redesigned reporting dataset was introduced for use by all hospitals from April 2014 which was the first change in over a decade. Therefore this is the first annual report to be derived from the new dataset.

This report is aimed at clinicians, healthcare managers, clinical governance leads, commissioners and all healthcare professionals and members of the general public interested in the improvement and provision of quality device and arrhythmia services in the UK.

7. Aims and objectives of the audit

The aim of the CRM Audit is to examine the implant rates and outcomes of all patients who undergo pacemaker, ICD and CRT implantation procedures in the UK against national and international standards defined by NICE and other specialist organisations.

The audit has the following objectives:

- To collect data about all implanted cardiac devices, and all patients receiving interventional procedures for management of cardiac rhythm disorders, in the UK.
- To report activity, trends and outcomes in pacing and ICD practice in UK hospitals.
- To continue to collect and develop the presentation of data from pacemaker, ICD and electrophysiology centres in the United Kingdom.
- To provide new analyses and outputs of the data as defined by the clinical group.

8. Methodology

8.1 Organisation of the National CRM Audit

The audit is managed by the National Institute for Cardiovascular Outcomes Research (NICOR), which is part of University College London (UCL). NICOR's mission is to provide timely and accurate data on cardiovascular outcomes for the public, healthcare providers and the medical profession.

The audit is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP).

The British Heart Rhythm Society (BHRS) provides clinical leadership through the Audit Steering Group, which also includes representation from a wide range of other stakeholders and is co-chaired by Dr Francis Murgatroyd and Prof Nick Linker.

The current membership of the Audit Steering Group is shown in Appendix 2.

8.2 Participating hospitals

The CRM Audit collects data from all hospitals undertaking implantation activity in England, Wales and Northern Ireland, as well as several in Scotland. Participation statistics for all hospitals participating in the 2014/15 audit are shown in the Participation section of the report. A summary listing of the hospitals is also shown in Appendix 3.

8.3 Data collection and IT

All implanting hospitals are required to provide NICOR with audit data on implantation activity throughout the year. Hospitals can either enter audit data manually via a dedicated interface or upload it from existing hospital systems using commercial or locally developed software. All data uploaded is encrypted on transmission and stored in encrypted form in NICOR's central database. Further information is available on the [NICOR website](#).

All data held by NICOR are managed in a secure environment and in compliance with UCL's Information Governance and Security policies. NICOR is registered under the Data Protection Act and has support under Section 251 of the National Health Service (NHS) Act 2006 to collect and store patient identifiable data without explicit consent.

Information on the data items that are collected is available on the NICOR website:

<http://www.ucl.ac.uk/nicor/audits/cardiarrhythm/datasets>

8.4 Definitions - "New" and "Total" Implants

There are three classes of device considered in this report:

8.4.1 Pacemakers (PM) - for treatment of symptomatic bradycardia

8.4.2 Implantable cardiac defibrillators (ICD) - for treatment of cardiac arrest and patients suffering or at risk from life threatening ventricular tachyarrhythmias.

8.4.3 Cardiac resynchronisation therapy devices (CRT) - for treatment of heart failure.

CRT devices can use low energy pacing-type pulses only (CRT-P) or can also have the capability to deliver defibrillating shocks (CRT-D). The two types of device are mostly counted together in this report.

The first time a patient receives a device, the procedure is classed as a "new implant". If that device is replaced with another of the same class, usually due to battery depletion, then that procedure is classed as a "replacement implant".

If however the patient's device type is changed, for instance from a pacemaker to a CRT device, then the CRT implant will be classed as a "new implant".

For the purposes of this report, the word "total" is defined as "new plus replacement" implants. Where data are combined for different modes e.g. single plus dual chamber, CRT-P plus CRT-D, this is made clear in the text, or the word "all" is used.

8.5 Notes on comparisons with information in previous reports

Reporting by financial year

This report is based on data provided by hospitals for the financial year April 2014 to March 2015.

Reporting at hospital level

This report analyses data only by the hospital performing the implantation. CRM Audit Reports up to 2011 analysed data at the level of Primary Care Trusts (PCTs) and Cardiac Networks and in 2012 on the basis of Clinical Commissioning Groups (CCGs) and Local Area Teams (LATs). The audit data continues to be able to support these analyses, but their inclusion is no longer funded.

9. Findings

The findings of the 2014/15 report are structured as follows:

- Overview of device implants in the UK.
- European implant rates.
- Indicators of performance against NICE guidelines.
- Level of participation by implanting hospitals.
- Number of procedures carried out and performance of individual hospitals.

General note on rates and trends

Up to 2010, population estimates were projections from the Office for National Statistics extrapolated from the 2001 census. In general these projections tend to under-estimate the true population. The rates from 2011 onwards use the accurate population from the 2011 census, so a slight increase in actual implant rate might have been masked. The rates for 2014 are calculated using data for the financial year (the 12 months from April 2014 to March 2015). Prior to 2013 rates remain based on calendar year data and are unchanged from those presented in previous year's reports.

The rates in the following graphs are NOT adjusted for age and sex to facilitate comparison with data from other countries.

9.1 Overview of device implants in the UK - National Implant Rate Trends

A comparison of pacemaker implant rates from 2014/14 and 2014/15 shows that rates remained static in England while there were 5-6% increases in Wales and Northern Ireland. These rates individually and in aggregate remain below the BHRS target of the European average which is currently 740 per million population per year.

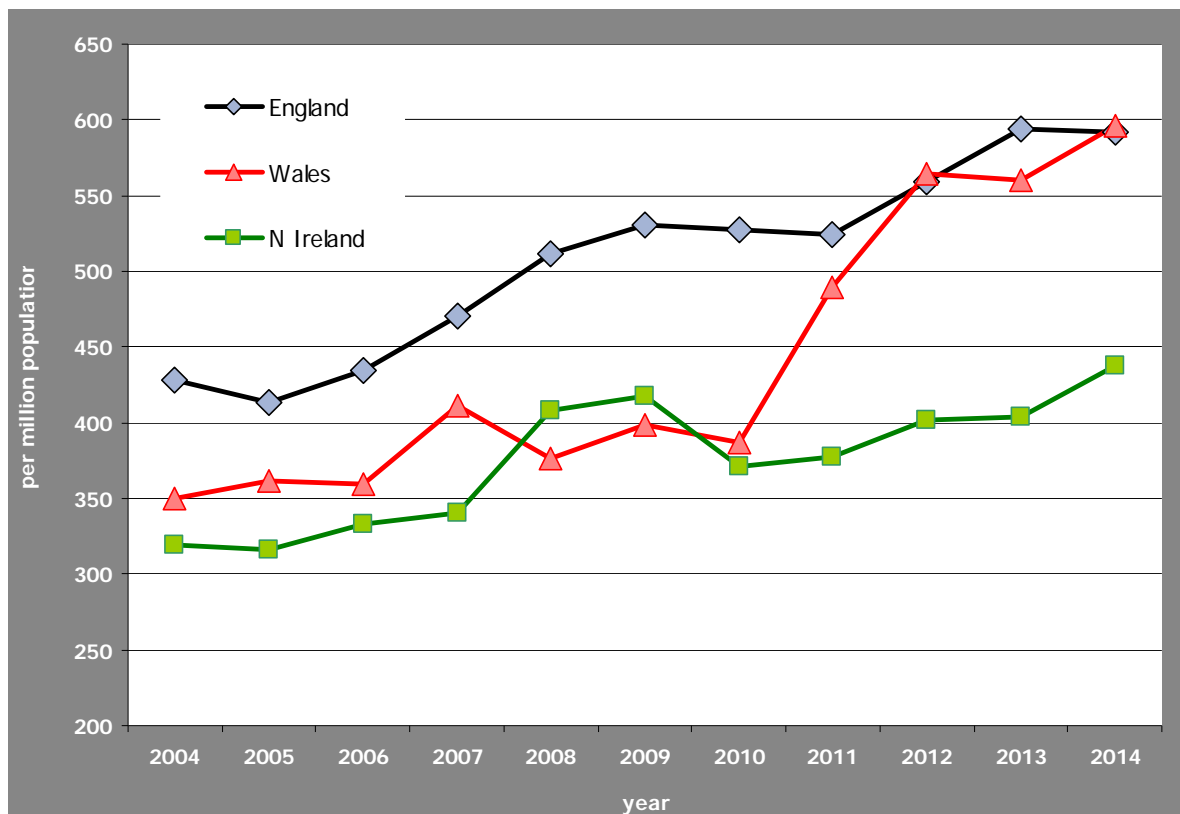
Pacemaker data submissions from Scotland remain incomplete and have been excluded from this analysis.

Figure 1: Annual New Pacemaker Implant Rate per million population

	2014/15 rate	2013/14 rate
ENGLAND	592	594*
WALES	596	560
N IRELAND	438	413
SCOTLAND	incomplete data	incomplete data

**NB: 2013/14 rate revised due to reclassification of implants as 'replacement' rather than 'new' from data revisions submitted after report publication.*

Figure 2: New pacemaker implant rate trend 2004-2014



ICD implant rates appear to have fallen in Wales and Scotland. In England and N Ireland there were respectively 20% and 28% increases between 2013/14 and 2014/15.

Figure 3: New ICD Implant Rate per million population

	2014/15 rate	2013/14 rate
ENGLAND	83	69
WALES	55	64
N IRELAND	97	76
SCOTLAND	61	70

Figure 4: New ICD implant rate trend 2004-2014

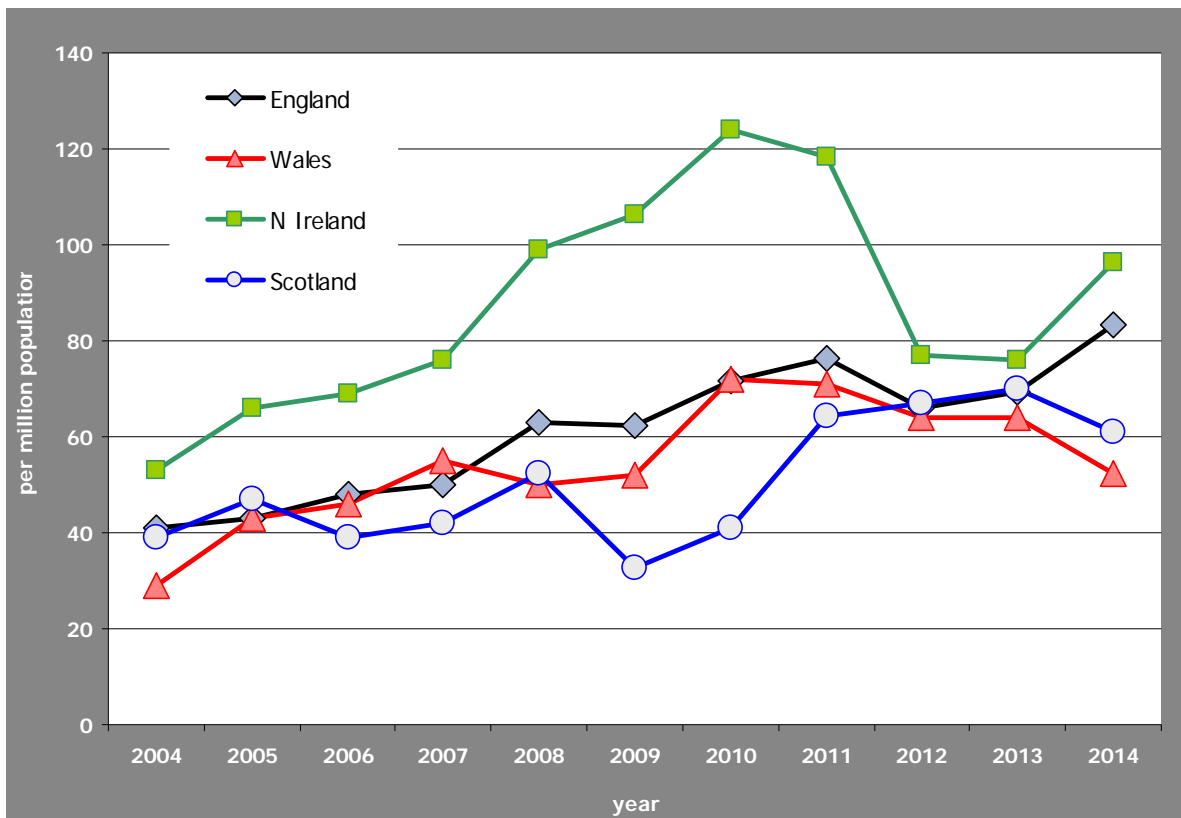


Figure 5: Total CRT Implant Rate per million population

Including both new and replacement CRT-P and CRT-D

	2014/15 rate	2013/14 rate
ENGLAND	166	145
WALES	128	125
N IRELAND	131	114
SCOTLAND	91	60

Implant rate has risen significantly (~15%) in England, N Ireland and Scotland and more modestly in Wales.

Figure 6: All CRT implant rate trend 2004-2014

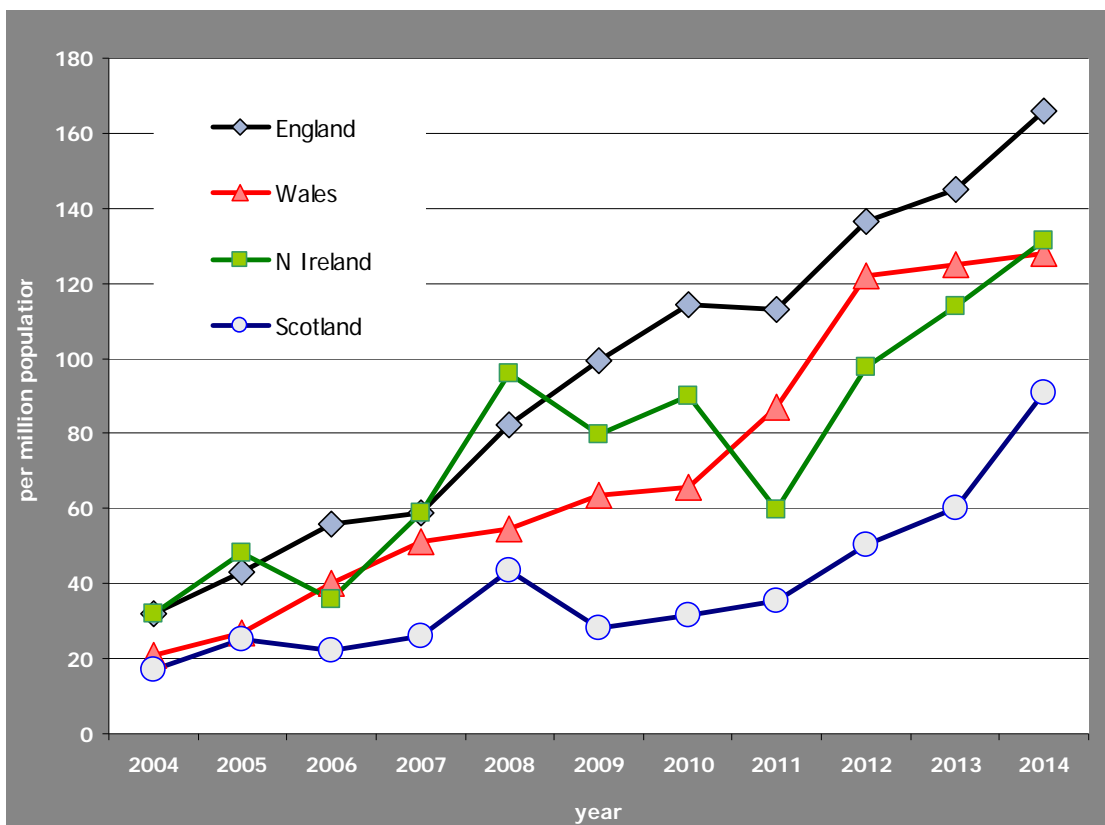


Figure 7: Total High Energy Implant Rate per million population

All ICD + CRT-D implants

Including both new and replacement ICD and CRT-D

	2014/15 rate	2013/14 rate
ENGLAND	206	159
WALES	154	132
N IRELAND	212	176
SCOTLAND	123	115

Figure 7: All High Energy Implant Rate trend per million population

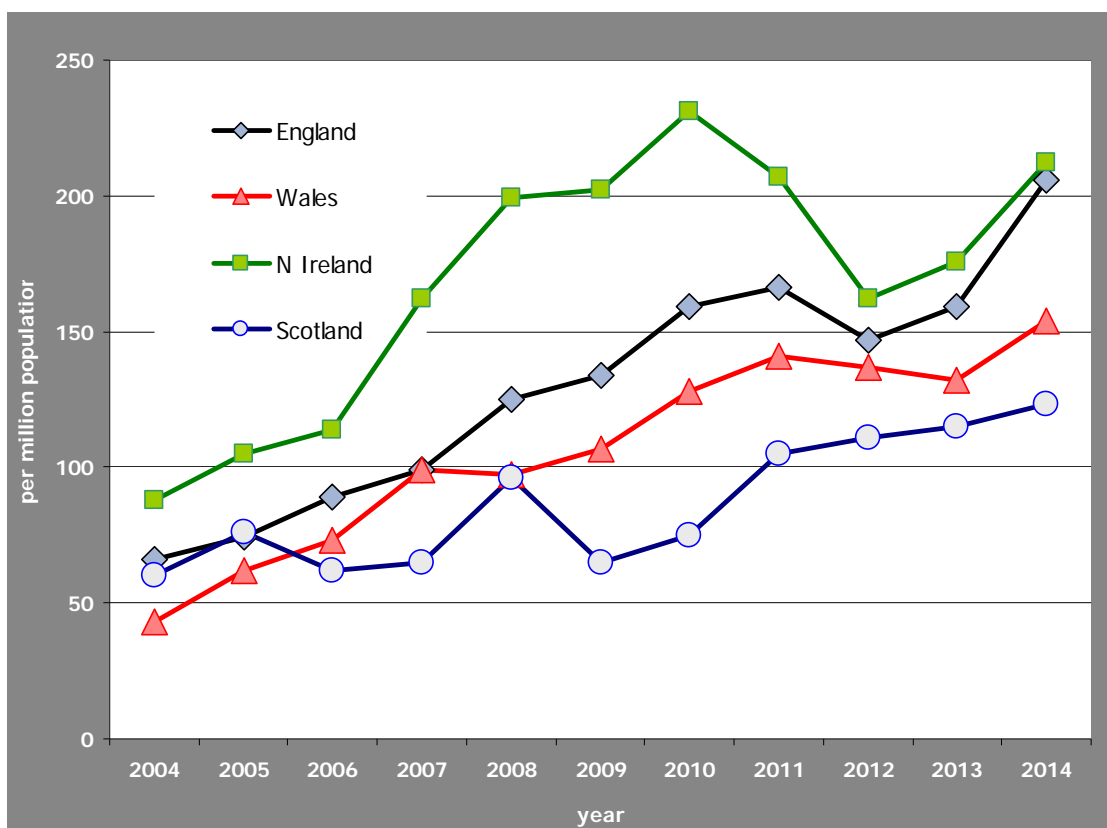
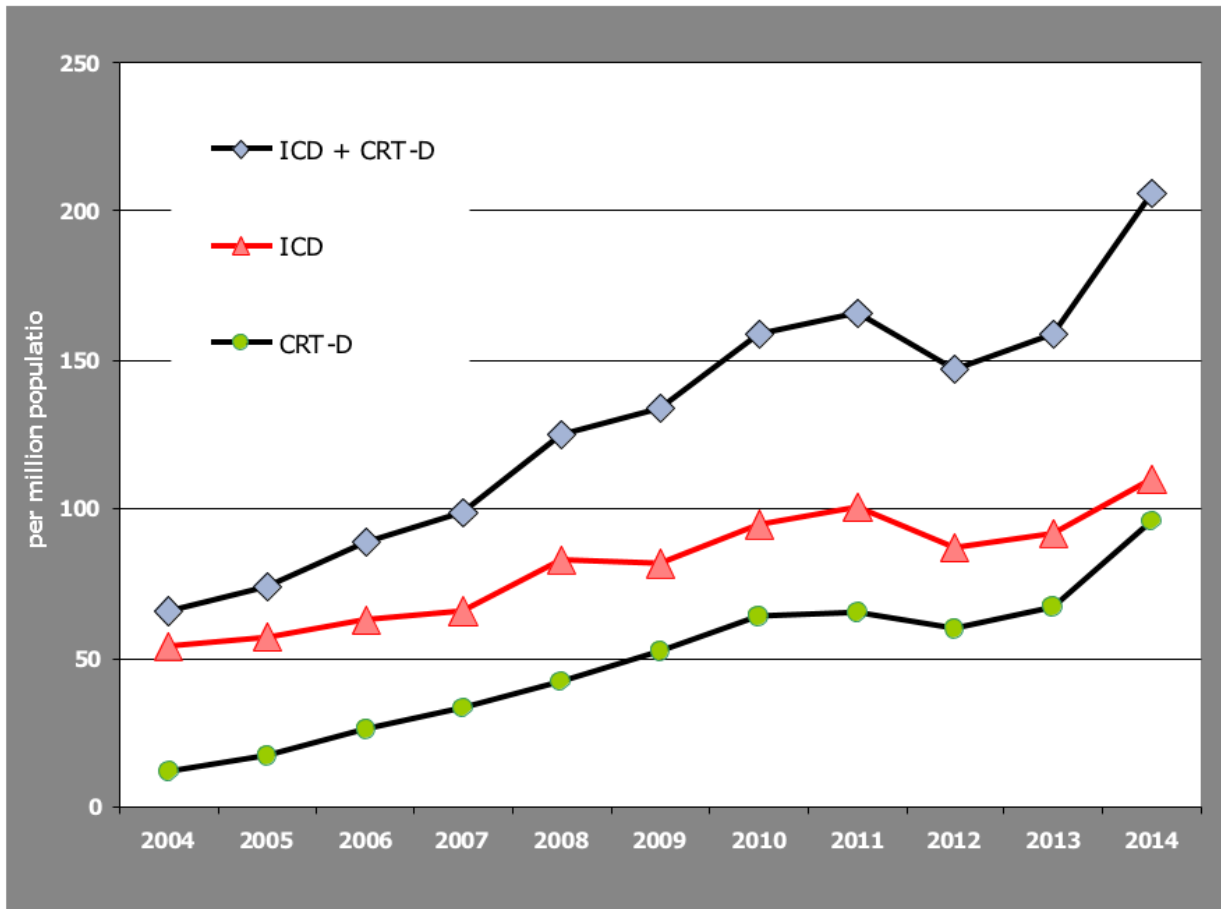


Figure 8: High Energy Implant Rate trend per million population in England: ICD vs CRT-D



CRT-D implants continue to rise faster than ICD. Many patients now have CRT-D implants that would previously have been implanted with an ICD as this can reduce the need for future repeat procedures.

9.2 European Implant Rates 2014

The charts in this section compare the following implant rates across all European countries:

- New pacemaker implants
- New ICD implants
- Total CRT implants
- Total High Energy Device implants (total ICD + total CRT-D)

Commentary

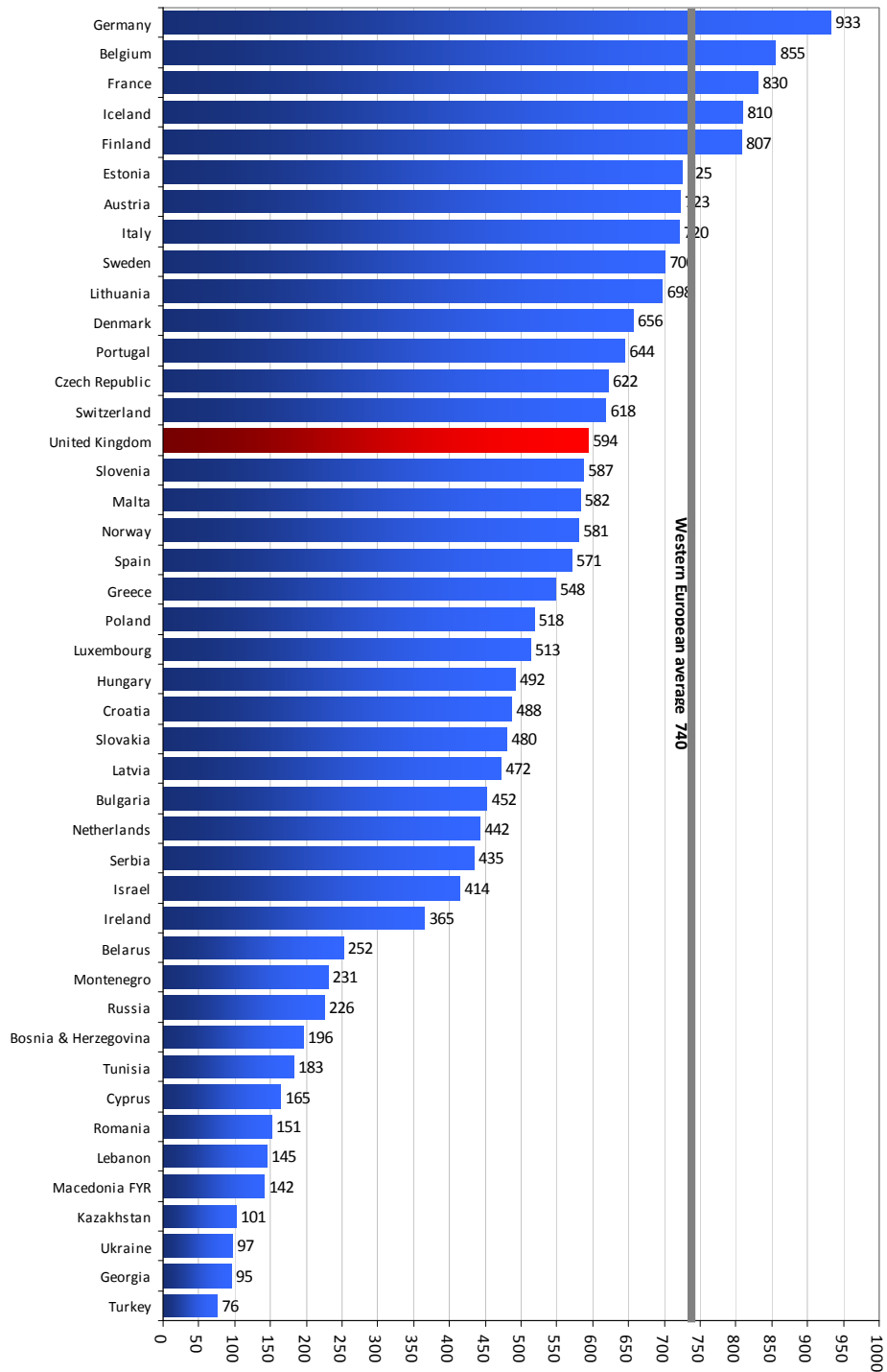
The charts highlight the following findings:

- The UK new pacemaker implant rate (594) is well below the Western European average (740).
 - This has been consistently so for more than a decade. There are no clinical reasons why the need for pacemakers should be less in the UK.
- The UK new ICD implant rate (83) is much lower than the Western European average (166).
 - This rate has been falling further behind in recent years. Again, there are no clinical reasons why the need for ICDs should be less in the UK.
- The total rate of CRT therapy implantation in the UK is slightly above the European average.
 - This is mainly due to a higher than average implant rate of CRT-P devices.
- The rate of implantation of all high energy devices (ICD + CRT-D) is around 70% of the European average.

UK pacemaker implantation data from 2014/15 (highlighted in red) are compared to data from other Western European countries in the [EHRA White Book](#). The mean new pacemaker implant rate in 2014 was = **740** per million population and is indicated by a grey line.

Figure 7

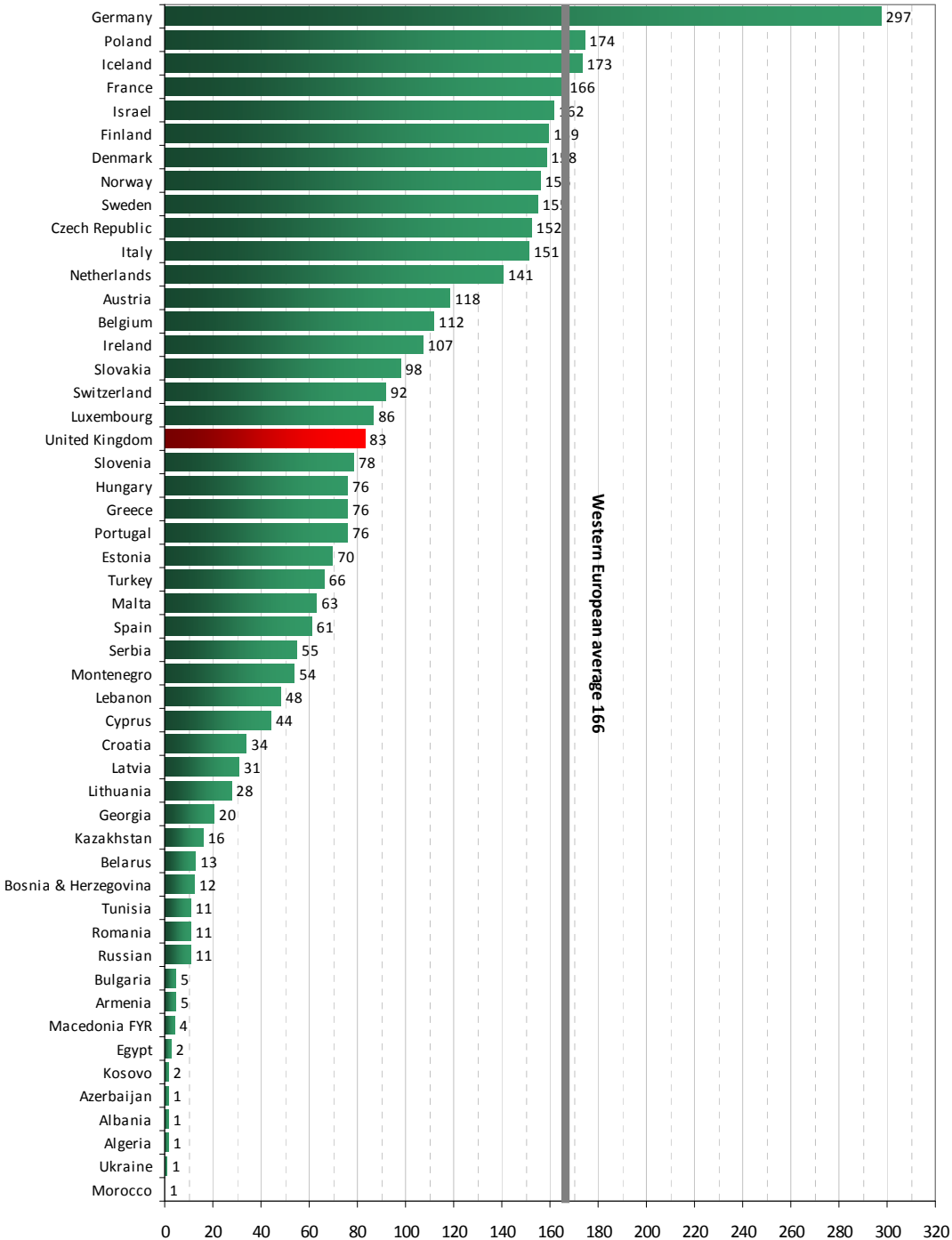
Pacemaker New Implant Rate 2014



UK ICD implantation data from 2014/15 (highlighted in red) are compared to data from other Western European countries in the [EHRAW White Book](#). The mean new ICD implant rate in 2014 was = 166 per million population and is indicated by a grey line.

Figure 8

ICD New Implant Rate 2014



UK total CRT (CRT-P + CRT-D) implantation data from 2014/15 (highlighted in red) are compared to data from other Western European countries in the [EHRAW White Book](#). The mean new CRT implant rate in 2014 was = 129 per million population and is indicated by a grey line.

Figure 9

CRT Total Implant Rate 2014

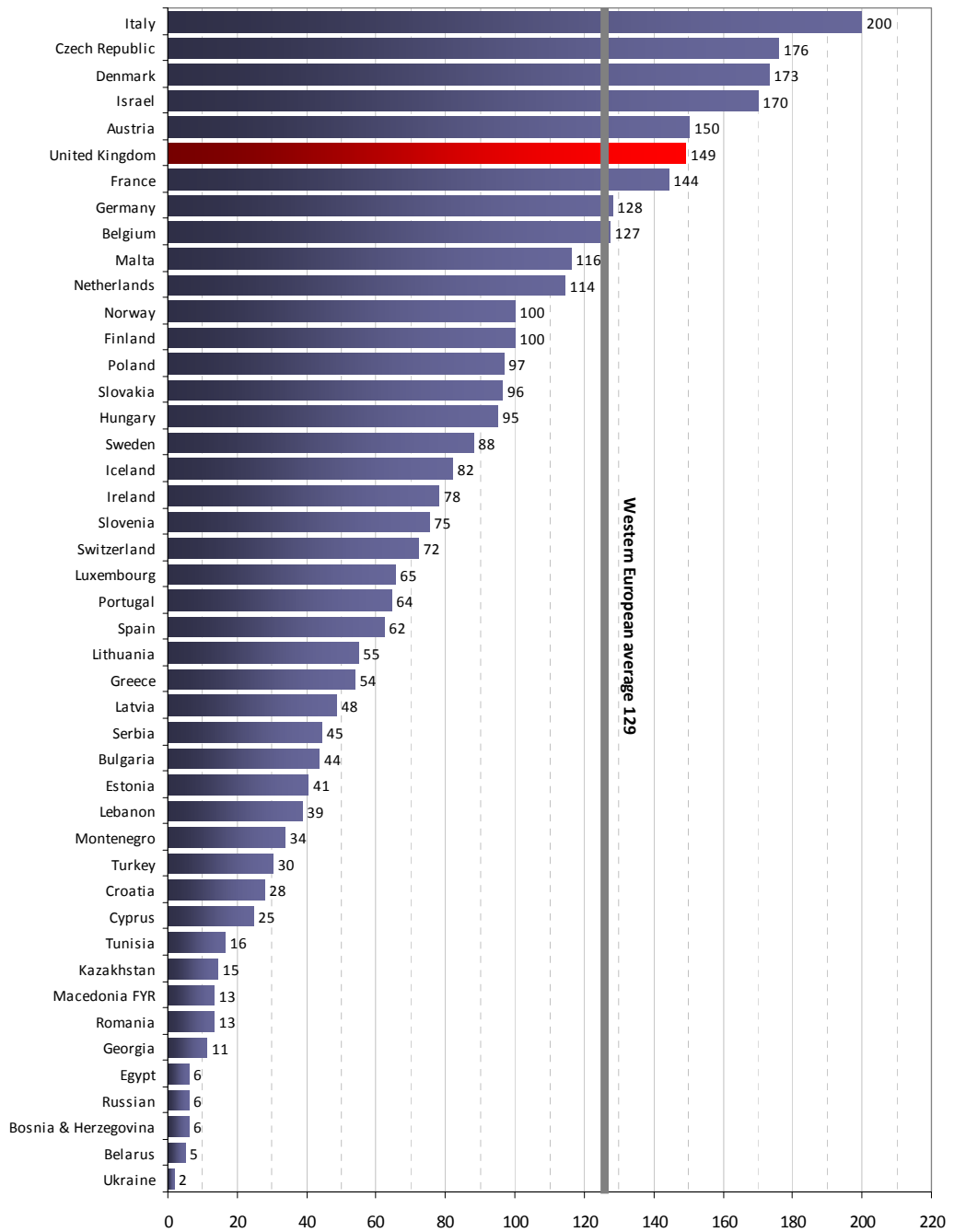
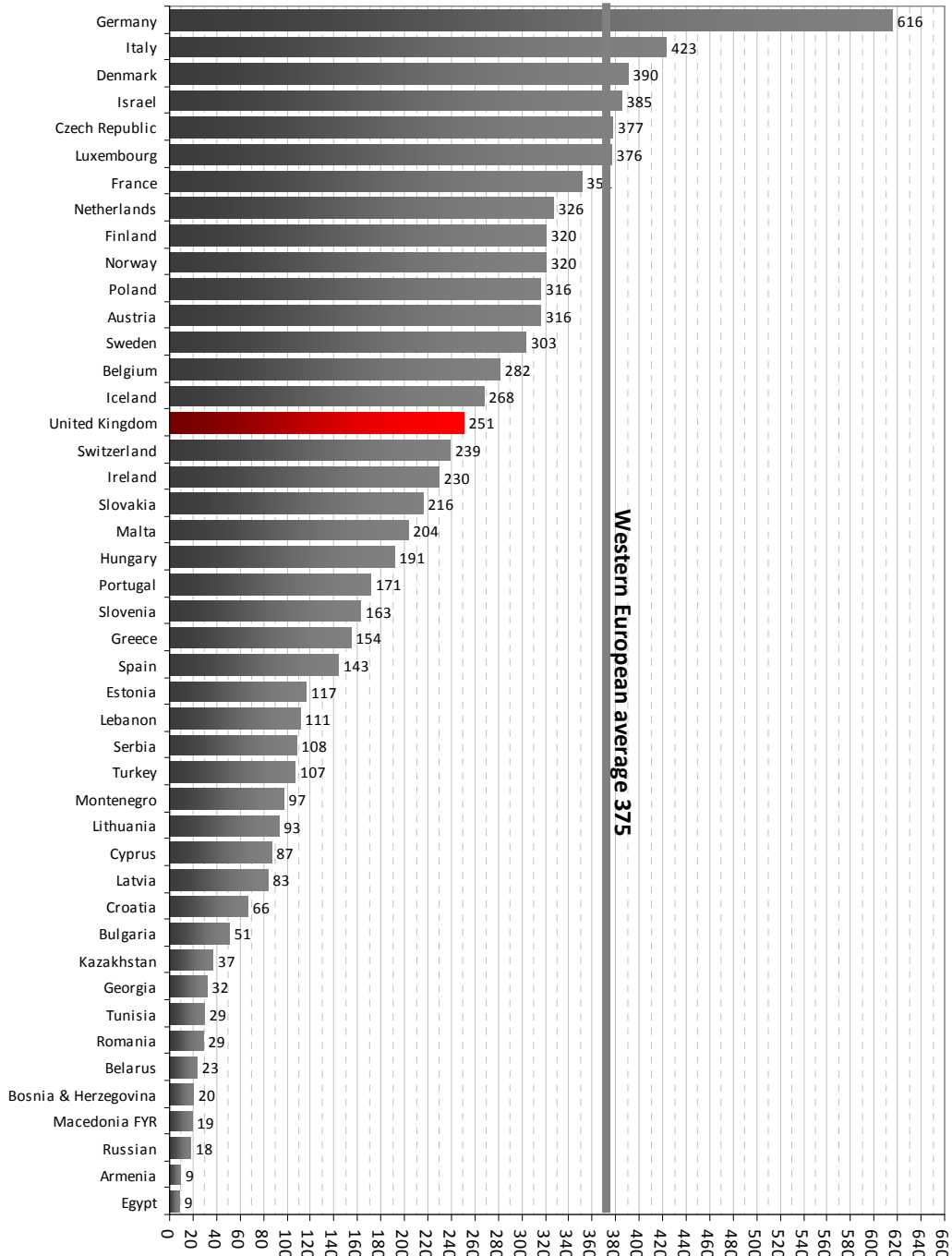


Figure 10 shows Western European average total high energy implant rate (2014) = **375** per million population. UK data is from financial year 2014-15 registrations. The data presented for all other countries is derived from the EHRA White Book for calendar year 2014.

Figure 10

**High Energy Devices Total Implant Rate 2014
(total ICD + total CRT-D)**



Note on sources of data

Data was abstracted from European Heart Rhythm Association White Book for 2014 (calendar year), available at:

[http://www.escardio.org/The-ESC/Communities/European-Heart-Rhythm-Association-\(EHRA\)/Publications/The-EHRA-White-Books](http://www.escardio.org/The-ESC/Communities/European-Heart-Rhythm-Association-(EHRA)/Publications/The-EHRA-White-Books)

Ireland did not split their pacemaker (PM) and ICD data into new and replacement numbers so these were inferred from historical data.

Western European Average

The Western European average is a population-weighted average of the data from the following countries:

- Austria
- Belgium
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Greece
- Ireland
- Italy
- Netherlands
- Norway
- Portugal
- Spain
- Sweden
- Switzerland

9.3 Indicators of performance against NICE guidelines

The hospital level data presented in this report includes information pertaining to the following indicators:

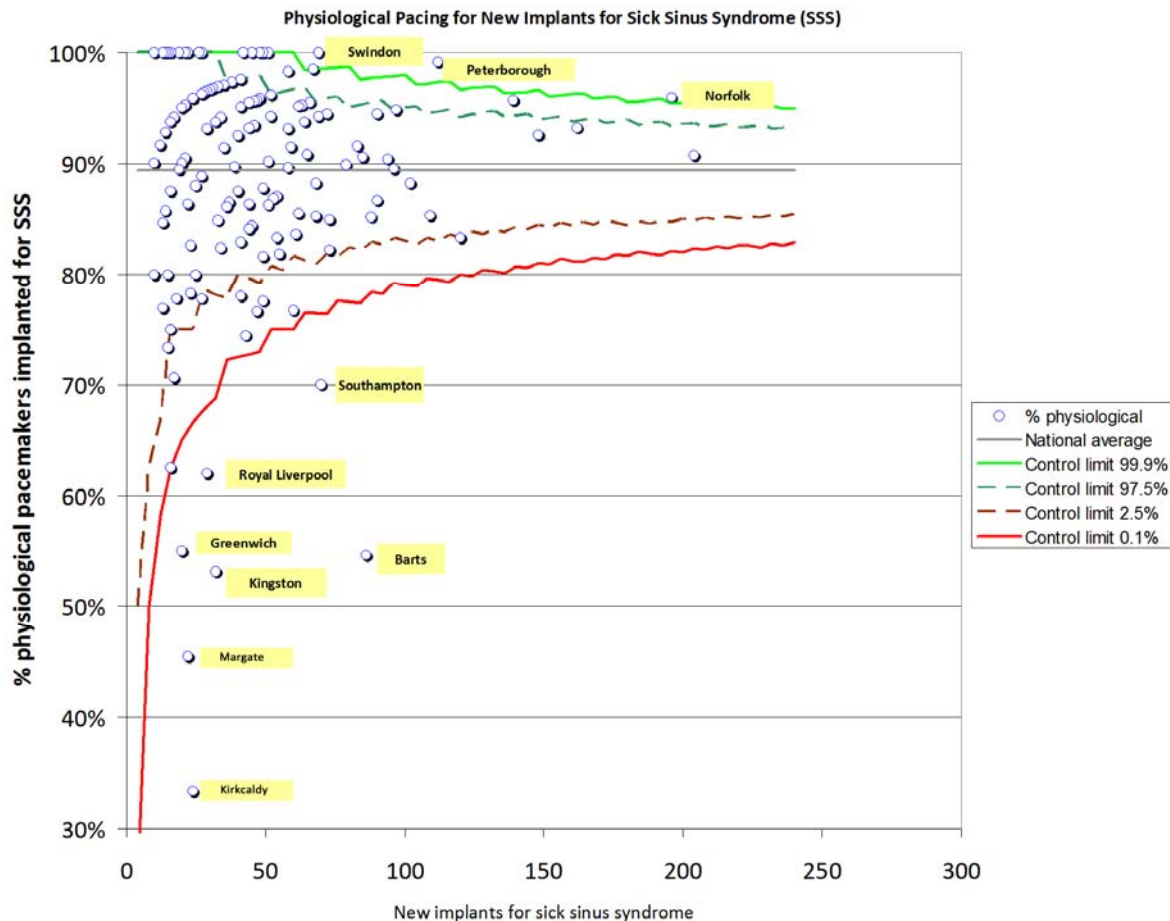
- Atrial-based Pacing in Sick Sinus Syndrome (NICE Technology Appraisal TA88/TA324)
- Indication for High Energy Devices (NICE Technology Appraisal TA314)

The following information is reported for each applicable hospital:

- The percentage of atrial-based pacing implants as a proportion of all new implants for Sick Sinus Syndrome.
- The percentage of ICD and CRT-D implants which are for primary or secondary prevention.

The data for Sick Sinus Syndrome is summarised in the funnel chart below.

Figure 11:
New implants for sick sinus syndrome 2014-15 - % Atrial-based Device Implants



Each centre performing at least 10 new implants carried out for Sick Sinus Syndrome with a registered mode of pacing has been included in this graph. Sick Sinus Syndrome is identified by ECG codes E1-E5 (E1 in new dataset). Three centres reported an exemplary high proportion of physiological pacing for SSS – Swindon, Peterborough and Norfolk.

Seven centres implanted low proportions of atrial-based pacing, as indicated on the funnel plot. The control limit exceeded by these outliers was 0.1% (or 99.9% confidence) but it is still possible with so many multiple comparisons that the finding was by chance. These units should examine their data first, and then their practice, to see if changes need to be made. If the problem lies within their data management, they should correct the data and inform the CRM National Database Coordinator.

Barts, Greenwich and Margate are outliers for the *second year in a row*, and they should therefore pay special attention to their data and/or practice. It should be remembered that the data may either reflect implant practice or it may reflect data submission anomalies. For reasons of clarity, the Trusts are strongly advised to examine this.

9.4 Performance against 2013 BHRS Guidelines for Implanting Centres

There is clear evidence in the research literature of a relationship between the number of procedures performed in a centre and its complication rates, and in 2013 BHRS published recommendations for minimum procedure numbers.

Figure 12 is a histogram of pacemaker implant numbers by centre. Amongst 220 centres reporting new pacemaker implants, the number of these procedures ranged from 1 to over 700. 60 centres reported fewer than the recommended minimum of 70 new pacemaker implants, 44 reported less than half this number, and 22 reported fewer than 10 implants.

Figure 13 is a histogram of complex (ICD/CRT) device implants by centre. Amongst 140 centres reporting complex (ICD/CRT) device implants, the number of these procedures ranged from 1 to 675. 66 centres reported fewer than the recommended minimum of 60 procedures, 44 reported fewer than half this number, and 30 reported fewer than 10 procedures.

The overwhelming majority of centres reported new pacemaker implants numbers well over the minimum recommendation, and indeed sufficient numbers to meet the standard for a training centre. This is to be welcomed. For complex procedures, however, nearly half of implanting centres report activity below the recommended minimum.

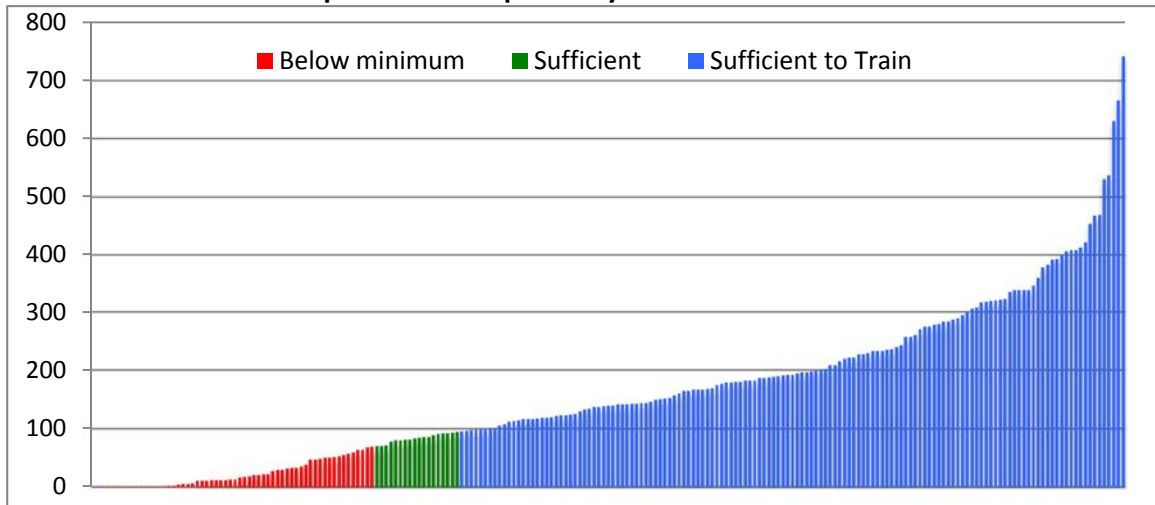
Viewed alternatively, 4% of pacemakers and 8% of complex devices are implanted in centres that report insufficient numbers of these procedures to meet the 2013 standards.

The number of centres reporting very low implant rates should be interpreted with caution. The data include 17 centres that are children's or private hospitals, and a few that merged or changed name during the year. Furthermore, we believe that a few hospitals have misreported patients transferred from elsewhere for follow-up as new implants. For this reason, Figures 12 and 13 do not identify individual centres.

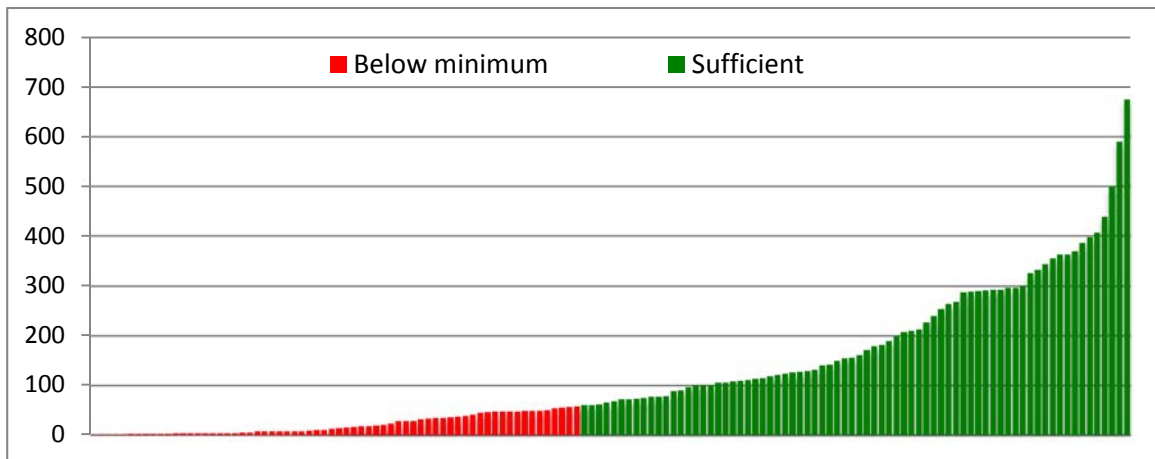
However, there are probably at least 30 NHS adult hospitals in which activity for pacemaker or complex device activity is either well below the recommended minimum, or is seriously under-reported. Commissioners and centres should be aware that the 2015 revised BHRS guidelines have *increased* the recommended minimum procedure numbers to 80 new pacemaker implants and 60 new ICD/CRT implants where these are performed. (www.BHRS.com/standards).

For future reports, we intend to improve data quality to the extent that we will identify centres with activity below the recommended minima.

**Figure 12:
New pacemaker implants by Centre 2014-5**



**Figure 13:
ICD and CRT Implants/Upgrades by Centre 2014-5**



9.4 Level of Participation by Implanting Hospitals

Procedures registered in NICOR on 1/11/2015. A 'tick' indicates the centre has performed 5 or more of this implant type in 2014-15.

Q44. Cheshire, Warrington and Wirral

Centre		PM	ICD	CRT
Arrowe Park Hospital (WIR)	Birkenhead	✓		
Countess of Chester Hospital (COC)	Chester	✓		
Warrington Hospital (WDG)	Warrington	✓		

Q45. Durham, Darlington and Tees

Centre		PM	ICD	CRT
Darlington Memorial Hospital (DAR)	Darlington	✓		
The James Cook University Hospital (SCM)	Middlesborough	✓	✓	✓
University Hospital of Hartlepool (HGH)	Hartlepool	✓		
University Hospital of North Durham (DRY)	Durham	✓		
University Hospital of North Tees (NTG)	Hartlepool	✓		

Q46. Greater Manchester

Centre		PM	ICD	CRT
BMI The Alexandra Hospital (AHM)	Manchester	✓	✓	✓
Fairfield General Hospital (BRY)	Bury	✓	✓	✓
Manchester Royal Infirmary (MRI)	Manchester	✓	✓	✓
North Manchester General Hospital (NMG)	Manchester	✓		
Rochdale Infirmary (BHH)	Rochdale	✓		✓
Royal Albert Edward Infirmary (AEI)	Wigan	✓		
Royal Bolton Hospital (BOL)	Bolton	✓	✓	✓
Salford Royal Hospital (SLF)	Salford	✓		
Stepping Hill Hospital (SHH)	Stockport	✓		
Tameside Hospital (TGA)	Ashton-under-Lyne	✓		
Trafford General Hospital (TRA)	Manchester	✓		
Wythenshawe Hospital (WYT)	Manchester	✓	✓	✓

Q47. Lancashire

Centre		PM	ICD	CRT
Blackpool Victoria Hospital (VIC)	Blackpool	✓	✓	✓
Royal Blackburn Hospital (BLA)	Blackburn	✓		✓
Royal Lancaster Infirmary (RLI)	Lancaster			
Royal Preston Hospital (RPH)	Preston	✓		

Q48. Merseyside

Centre		PM	ICD	CRT
Aintree University Hospital (FAZ)	Liverpool	✓		
Alder Hey Hospital (ACH)	Liverpool	✓	✓	
Liverpool Heart & Chest Hospital (BHL)	Liverpool	✓	✓	✓
Royal Liverpool University Hospital (RLU)	Liverpool	✓		
Whiston Hospital (WHI)	Prescot	✓		

Q49. Cumbria, Northumberland, Tyne and

Centre		PM	ICD	CRT
Cumberland Infirmary (CMI)	Cumbria	✓		
Freeman Hospital Newcastle (FRE)	Newcastle	✓	✓	✓
Queen Elizabeth Hospital Gateshead (QEG)	Gateshead	✓		
South Tyneside District Hospital (STD)	South Shields	✓		
Sunderland Royal Hospital (SUN)	Sunderland	✓		
Wansbeck General Hospital (ASH)	Ashington	✓	✓	✓
Westmoreland General Hospital (WGK)	Kendal	✓		✓

Q50. North Yorkshire and Humber

Centre		PM	ICD	CRT
Castle Hill Hospital (CHH)	Hull	✓	✓	✓
Diana, Princess of Wales Hospital Grimsby (GGH)	Grimsby	✓	✓	✓
Harrogate District Hospital (HAR)	Harrogate	✓		✓
Scarborough Hospital (SCA)	Scarborough	✓		
Scunthorpe General Hospital (SCU)	Scunthorpe	✓		
Spire Hull and East Riding Hospital (HBP)	Hull	✓		
The York Hospital (YDH)	York	✓		

Q51. South Yorkshire and Bassetlaw

Centre		PM	ICD	CRT
Barnsley Hospital (BAR)	Barnsley	✓		
Doncaster Royal Infirmary (DID)	Doncaster	✓		
Northern General Hospital Sheffield (NGS)	Sheffield	✓	✓	✓
Rotherham Hospital (ROT)	Rotherham	✓		

Q52. West Yorkshire

Centre		PM	ICD	CRT
Airedale General Hospital (AIR)	Keighley	✓	✓	✓
Bradford Royal Infirmary (BRD)	Bradford	✓	✓	✓
Calderdale Royal Hospital (RHI)	Halifax	✓	✓	✓
Dewsbury District Hospital (DEW)	Dewsbury	✓		
Huddersfield Royal Hospital (HUD)	Huddersfield	✓		✓
Leeds General Infirmary (LGI)	Leeds	✓	✓	✓
Leeds Nuffield Hospital (LNH)	Leeds			
Pinderfields General Hospital (PIN)	Wakefield	✓	✓	✓
Spire Leeds Hospital (LEB)	Leeds	✓		✓

Q53. Arden, Herefordshire and Worcesters

Centre		PM	ICD	CRT
BMI The Meriden Hospital (BMI)	Coventry	✓		✓
County Hospital Hereford (HCH)	Hereford	✓	✓	✓
George Eliot Hospital (NUN)	Nuneaton	✓		
University Hospital Coventry (WAL)	Coventry	✓	✓	✓
Warwick Hospital (WAR)	Warwick	✓	✓	✓
Worcestershire Royal Hospital (WRC)	Worcester	✓	✓	✓

Q54. Birmingham and The Black Country

Centre		PM	ICD	CRT
Birmingham Childrens Hospital (BCH)	Birmingham	✓		✓
Birmingham City Hospital (DUD)	Birmingham	✓	✓	✓
Birmingham Heartlands Hospital (EBH)	Birmingham			
BMI The Priory Hospital Birmingham (PHB)	Edgbaston	✓		✓
Good Hope Hospital (GHS)	Sutton Coldfield	✓	✓	✓
New Cross Hospital (Wolverhampton Heart Centre) (NCR)	Wolverhampton	✓	✓	✓
Queen Elizabeth Hospital Birmingham (QEB)	Birmingham	✓	✓	✓
Russells Hall Hospital (RUS)	Dudley	✓	✓	✓
Sandwell General Hospital (SAN)	West Bromwich	✓	✓	✓
Solihull Hospital (SOL)	Solihull	✓		
Walsall Manor Hospital (WMH)	Walsall	✓	✓	✓
Wordsley Hospital (WOR)	Dudley			

Q55. Derbyshire and Nottinghamshire

Centre		PM	ICD	CRT
Chesterfield Royal Hospital (CHE)	Chesterfield	✓		
Kings Mill Hospital (KMH)	Sutton-in-Ashfield	✓	✓	✓
Nottingham City Hospital (CHN)	Nottingham	✓	✓	✓
Royal Derby Hospital (DER)	Derby	✓	✓	

Q56. East Anglia

Centre		PM	ICD	CRT
Addenbrookes Hospital (ADD)	Cambridge	✓	✓	✓
Colchester General Hospital (COL)	Colchester	✓		
Norfolk & Norwich University Hospital (NOR)	Norwich	✓	✓	✓
Papworth Hospital (PAP)	Cambridge	✓	✓	✓
Peterborough City Hospital (PET)	Peterborough	✓		
The Ipswich Hospital (IPS)	Ipswich	✓		

Q57. Essex

Centre		PM	ICD	CRT
Basildon Hospital (BAS)	Basildon	✓	✓	✓
Basildon Hospital (BAS)	Basildon			
Broomfield Hospital (BFH)	Chelmsford	✓		
Oaks Private Clinic, Colchester (OAK)	Colchester			
Princess Alexandra Hospital Harlow (PAH)	Harlow	✓		
Southend University Hospital (SEH)	Southend	✓	✓	

Q58. Hertfordshire and The South Midlands

Centre		PM	ICD	CRT
Bedford Hospital (BED)	Bedford	✓		
Kettering General Hospital (KGH)	Kettering	✓	✓	✓
Lister Hospital (LIS)	Stevenage	✓		
Luton & Dunstable Hospital (LDH)	Luton	✓		
Milton Keynes Hospital (MKH)	Milton Keynes	✓		
Northampton General Hospital (NTH)	Northampton	✓	✓	✓
Watford General Hospital (WAT)	Watford	✓	✓	✓

Q59. Leicestershire and Lincolnshire

Centre		PM	ICD	CRT
Glenfield Hospital (GRL)	Leicester	✓	✓	✓
Lincoln County Hospital (LIN)	Lincoln	✓		
Pilgrim Hospital (PIL)	Boston	✓		
Spire Leicester Hospital (LBP)	Leicester	✓		

Q60. Shropshire and Staffordshire

Centre		PM	ICD	CRT
Princess Royal Hospital Telford (TLF)	Telford	✓	✓	✓
Queens Hospital Burton (BRT)	Burton Upon Trent	✓		
Stafford Hospital (SDG)	Stafford	✓		
University Hospital of North Staffs (STO)	Stoke-on-Trent	✓	✓	✓

Q64. Bath, Gloucestershire, Swindon and W

Centre		PM	ICD	CRT
Cheltenham General Hospital (CHG)	Cheltenham	✓	✓	✓
Royal United Hospital Bath (BAT)	Bath	✓		
Salisbury District Hospital (SAL)	Salisbury	✓	✓	✓
The Great Western Hospital (PMS)	Swindon	✓	✓	✓
University of Gloucester (GLU)	Gloucester			

Q65. Bristol, North Somerset, Somerset and

Centre		PM	ICD	CRT
Frenchay Hospital (FRY)	Bristol	✓	✓	
Weston General Hospital (WGH)	Weston Super Mare	✓		
Yeovil District Hospital (YEO)	Yeovil	✓		

Q65. Bristol, North Somerset, Somerset and

Centre		PM	ICD	CRT
Bristol Royal Hospital for Children (BRC)	Bristol	✓		
Bristol Royal Infirmary (BRI)	Bristol	✓	✓	✓
Musgrove Park Hospital (MPH)	Taunton	✓	✓	✓
Southmead Hospital (BSM)	Bristol			
Spire Bristol Hospital (GHB)	Bristol	✓		

Q66. Devon, Cornwall and Isles Of Scilly

Centre		PM	ICD	CRT
Derriford Hospital (PLY)	Plymouth	✓	✓	✓
Duchy Hospital, Truro (DUC)	Truro	✓	✓	✓
North Devon District Hospital (NDD)	Barnstable	✓		
Royal Cornwall Hospital (RCH)	Truro	✓	✓	✓
Royal Devon & Exeter Hospital (RDE)	Exeter	✓	✓	✓
Torbay Hospital (TOR)	Torquay	✓	✓	✓
West Cornwall Hospital (WCH)	Penzance			

Q67. Kent and Medway

Centre		PM	ICD	CRT
Darent Valley Hospital (DVH)	Dartford	✓		
Kent Institute of Medicine and Surgery (KIM)	Maidstone	✓		
Maidstone Hospital (MAI)	Maidstone	✓	✓	✓
Medway Maritime Hospital (MDW)	Gillingham	✓	✓	✓
Queen Elizabeth the Queen Mother Hospital (QEQ)	Margate	✓	✓	✓
Tunbridge Wells Hospital (TUN)	Tunbridge Wells			
Tunbridge Wells Hospital (KSX)	Tunbridge Wells	✓		
William Harvey Hospital (WHH)	Ashford	✓	✓	✓

Q68. Surrey and Sussex

Centre		PM	ICD	CRT
Ashford Hospital - Middlesex (AHX)	Ashford			
Conquest Hospital (CGH)	St Leonards on Sea	✓	✓	✓
East Surrey Hospital (ESU)	Redhill	✓	✓	
Eastbourne District General Hospital (DGE)	Eastbourne	✓	✓	✓
Epsom Hospital (EPS)	Epsom	✓		
Frimley Park Hospital (FRM)	Frimley	✓	✓	✓
Royal Surrey County Hospital (RSU)	Guildford	✓	✓	✓
Royal Sussex County Hospital (RSC)	Brighton	✓	✓	✓
St Richards Hospital (STR)	Chichester	✓	✓	✓
Worthing Hospital (WRG)	Worthing	✓	✓	✓

Q69. Thames Valley

Centre		PM	ICD	CRT
Heatherwood Hospital (HWH)	Ascot			
John Radcliffe Hospital (RAD)	Oxford	✓	✓	✓
Royal Berkshire Hospital (BHR)	Reading	✓	✓	✓
Royal Berkshire Hospital (code not used: see BHR) (RBE)	Reading			
Wexham Park Hospital (WEX)	Slough	✓	✓	✓
Wycombe Hospital (AMG)	High Wycombe	✓		

Q70. Wessex

Centre		PM	ICD	CRT
Basingstoke & North Hampshire Hospital (NHH)	Basingstoke	✓	✓	✓
Dorset County Hospital (WDH)	Dorchester	✓	✓	✓
Poole Hospital (PGH)	Poole	✓		
Queen Alexandra Hospital (QAP)	Portsmouth	✓	✓	✓
Royal Bournemouth Hospital (BOU)	Bournemouth	✓	✓	✓
Southampton General Hospital (SGH)	Southampton	✓	✓	✓
Spire Southampton Hospital (CBS)	Southampton	✓		✓
St Marys Hospital Isle of Wight (IOW)	Newport	✓		
St Mary's Hospital Portsmouth (SMP)	Portsmouth			

Q71. London

Centre		PM	ICD	CRT
Barnet General Hospital (BNT)	Barnet	✓	✓	✓
Barts and the London (BAL)	London	✓	✓	✓
Central Middlesex Hospital (CMH)	Park Royal	✓		
Chelsea & Westminster Hospital (WES)	London	✓		
Cromwell Hospital (CRO)	London	✓		✓
Croydon University Hospital (MAY)	Croydon	✓	✓	✓
Ealing Hospital (EAL)	London	✓		
Great Ormond Street Hospital (GOS)	London	✓	✓	
Hammersmith Hospital (HAM)	London	✓	✓	✓
Harefield Hospital (HH)	Uxbridge	✓	✓	✓
Harley Street Clinic (HSC)	London	✓	✓	✓
King George Hospital Goodmayes (KGG)	Goodmayes	✓		
Kings College Hospital (KCH)	London	✓	✓	✓
Kingston Hospital (KTH)	Kingston-upon-Thames	✓		
Lewisham Hospital (LEW)	London	✓		
London Bridge Hospital (LBH)	London	✓	✓	✓
London Independent Hospital (IND)	London	✓		
North Middlesex University Hospital (NMH)	London	✓		
Northwick Park Hospital (NPH)	Harrow	✓		
Queen Elizabeth Hospital Greenwich (GWH)	Greenwich	✓	✓	✓
Queen Marys Hospital Sidcup (QMH)	Sidcup			
Royal Berkshire Hospital (RBH)	Reading	✓	✓	✓
Royal Brompton Hospital (NHB)	London	✓	✓	✓
Royal Free Hospital (RFH)	London	✓	✓	✓
St Anthonys Hospital (ANT)	North Cheam	✓		
St Bartholomews Hospital (SBH)	London			
St Georges Hospital (GEO)	London	✓	✓	✓
St Peters Hospital (SPH)	Chertsey	✓	✓	✓
St Thomas Hospital (STH)	London	✓	✓	✓
The Princess Royal University Hospital Bromley (BRO)	Bromley	✓		
University College Hospital (UCL)	London	✓	✓	✓
Wellington Hospital North (HHW)	London	✓	✓	✓
Whipps Cross University Hospital (WHC)	London	✓		

North Wales

Centre		PM	ICD	CRT
Glan Clwyd District General Hospital (CLW)	Rhyl	✓		
Gwynedd Hospital (GWY)	Bangor	✓	✓	✓
Maelor Hospital Wrexham (WRX)	Wrexham	✓	✓	✓

South Wales

Centre		PM	ICD	CRT
Glangwili General Hospital (WWG)	Carmarthen	✓		
Morrison Hospital (MOR)	Swansea	✓	✓	✓
Neville Hall Hospital (NEV)	Abergavenny	✓		
Prince Charles Hospital (PCH)	Merthyr Tydfil	✓		
Princess Of Wales Hospital (POW)	Bridgend	✓		
Royal Glamorgan Hospital (RGH)	Ynysmaerdy	✓		✓
Royal Gwent Hospital (GWE)	Newport	✓		
University Hospital of Wales (UHW)	Cardiff	✓	✓	✓

N Ireland

Centre		PM	ICD	CRT
Belfast City Hospital (BFT)	Belfast	✓	✓	✓
Craigavon Area Hospital (CRG)	Portadown	✓		
Royal Hospitals Belfast (RVB)	Belfast	✓	✓	✓

Scotland

Centre		PM	ICD	CRT
Dumfries and Galloway Royal Infirmary (DMF)	Dumfries	✓		✓
Edinburgh Royal Infirmary (ERI)	Edinburgh	✓	✓	✓
Glasgow Royal Infirmary (GRI)	Glasgow	✓	✓	✓
Golden Jubilee Hospital (GJH)	Glasgow	✓	✓	✓
Hairmyres Hospital (HAI)	East Kilbride			
Inverclyde Royal Hospital (INV)	Greenock	✓		
Monklands District General Hospital (MDG)	Airdrie			
Ninewells Hospital (NIN)	Dundee			
Royal Alexandra Hospital (RAH)	Paisley	✓		
Royal Hospital for Sick Children (RHS)	Glasgow	✓		
Royal Infirmary Aberdeen (RIA)	Aberdeen	✓	✓	✓
Southern General Hospital (SGG)	Glasgow	✓		
Stobhill Hospital (STB)	Glasgow	✓		✓
Victoria Hospital Kirkcaldy (KIR)	Kirkcaldy	✓	✓	
Victoria Infirmary Glasgow (VIG)	Glasgow	✓		
Western Infirmary Glasgow (WIG)	Glasgow	✓	✓	✓

9.5 Hospital Reports

All device implant procedures registered in NICOR at 1/10/2015.

	Pacemaker			ICD			CRT-P	CRT-D
	New	Replacement	Total	New	Replacement	Total	Total	Total
England	31,297	8,943	40,240	4,460	1,377	5,837	3,716	5,140
N Ireland	787	271	1,058	175	102	277	86	152
Scotland	1562*	445*	2007*	321	194	425	255	223
Wales	1,742	402	2,144	144	72	216	117	228

* known registration deficit

Q44. Cheshire, Warrington and Wirral

Centre: **Arrowe Park Hospital (WIR)**

Town/City: **Birkenhead**

Local Area Team: **Q44. Cheshire, Warrington and Wirral**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	227	38	265
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **83**

Physiological pacing implants **76**

% physiological pacing for SSS **92 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD	ICD national	CRT-D	CRT-D national
New Devices with a registered indication:	<input type="text"/>		<input type="text"/>	
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Countess of Chester Hospital (COC)**

Town/City: **Chester**

Local Area Team: **Q44. Cheshire, Warrington and Wirral**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	182	40	222
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	49	
Physiological pacing implants	38	
% physiological pacing for SSS	78 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	<i>50.0%</i>	<input type="text"/>	<i>76.9%</i>
Secondary prevention:	<input type="text"/>	<i>49.8%</i>	<input type="text"/>	<i>23.0%</i>
Other indication:	<input type="text"/>	<i>0.2%</i>	<input type="text"/>	<i>0.1%</i>

Centre: **Warrington Hospital (WDG)**

Town/City: **Warrington**

Local Area Team: **Q44. Cheshire, Warrington and Wirral**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	81	1	82
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome

Physiological pacing implants

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Q45. Durham, Darlington and Tees

Centre: **Darlington Memorial Hospital (DAR)**

Town/City: **Darlington**

Local Area Team: **Q45. Durham, Darlington and Tees**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	137	53	190
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **41**

Physiological pacing implants **40**

% physiological pacing for SSS **98 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	<i>50.0%</i>	<input type="text"/>	<i>76.9%</i>
Secondary prevention:	<input type="text"/>	<i>49.8%</i>	<input type="text"/>	<i>23.0%</i>
Other indication:	<input type="text"/>	<i>0.2%</i>	<input type="text"/>	<i>0.1%</i>

Centre: **The James Cook University Hospital (SCM)**

Town/City: **Middlesbrough**

Local Area Team: **Q45. Durham, Darlington and Tees**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	399	128	527
ICD	177	40	217
CRT-P			43
CRT-D			103

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	67	
Physiological pacing implants	66	
% physiological pacing for SSS	99 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	177	<i>ICD national</i>	83	<i>CRT-D national</i>
Primary prevention:	72%	<i>50.0%</i>	83%	<i>76.9%</i>
Secondary prevention:	28%	<i>49.8%</i>	17%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **University Hospital of Hartlepool (HGH)**

Town/City: **Hartlepool**

Local Area Team: **Q45. Durham, Darlington and Tees**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	27	3	30
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **6**

Physiological pacing implants **3**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **University Hospital of North Durham (DRY)**

Town/City: **Durham**

Local Area Team: **Q45. Durham, Darlington and Tees**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	118	39	157
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	27	
Physiological pacing implants	24	
% physiological pacing for SSS	89 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **University Hospital of North Tees (NTG)**

Town/City: **Hartlepool**

Local Area Team: **Q45. Durham, Darlington and Tees**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	134	34	168
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	41	
Physiological pacing implants	38	
% physiological pacing for SSS	93 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Q46. Greater Manchester

Centre: **BMI The Alexandra Hospital (AHM)**

Town/City: **Manchester**

Local Area Team: **Q46. Greater Manchester**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	63	19	82
ICD	8	0	8
CRT-P			15
CRT-D			5

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **8**

Physiological pacing implants **8**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	5	<i>ICD national</i>		<i>CRT-D national</i>
Primary prevention:	100%	50.0%		76.9%
Secondary prevention:		49.8%		23.0%
Other indication:		0.2%		0.1%

Centre: **Fairfield General Hospital (BRY)**

Town/City: **Bury**

Local Area Team: **Q46. Greater Manchester**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	251	63	314
ICD	31	11	42
CRT-P			48
CRT-D			38

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	60	
Physiological pacing implants	46	
% physiological pacing for SSS	77 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	30	<i>ICD national</i>	17	<i>CRT-D national</i>
Primary prevention:	47%	50.0%	53%	76.9%
Secondary prevention:	53%	49.8%	47%	23.0%
Other indication:		0.2%		0.1%

Centre: **Manchester Royal Infirmary (MRI)**

Town/City: **Manchester**

Local Area Team: **Q46. Greater Manchester**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	201	61	262
ICD	53	24	77
CRT-P			58
CRT-D			78

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	44	
Physiological pacing implants	37	
% physiological pacing for SSS	84 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	51	<i>ICD national</i>	54	<i>CRT-D national</i>
Primary prevention:	49%	<i>50.0%</i>	67%	<i>76.9%</i>
Secondary prevention:	51%	<i>49.8%</i>	33%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **North Manchester General Hospital (NMG)**

Town/City: **Manchester**

Local Area Team: **Q46. Greater Manchester**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	70	19	89
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	15	
Physiological pacing implants	15	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Rochdale Infirmary (BHH)**

Town/City: **Rochdale**

Local Area Team: **Q46. Greater Manchester**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	50	13	63
ICD	1	2	3
CRT-P			14
CRT-D			8

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	16	
Physiological pacing implants	12	
% physiological pacing for SSS	75 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Royal Albert Edward Infirmary (AEI)**

Town/City: **Wigan**

Local Area Team: **Q46. Greater Manchester**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	143	44	187
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	38	
Physiological pacing implants	37	
% physiological pacing for SSS	97 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	<i>50.0%</i>	<input type="text"/>	<i>76.9%</i>
Secondary prevention:	<input type="text"/>	<i>49.8%</i>	<input type="text"/>	<i>23.0%</i>
Other indication:	<input type="text"/>	<i>0.2%</i>	<input type="text"/>	<i>0.1%</i>

Centre: **Royal Bolton Hospital (BOL)**

Town/City: **Bolton**

Local Area Team: **Q46. Greater Manchester**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	101	32	133
ICD	22	10	32
CRT-P			81
CRT-D			77

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	35	
Physiological pacing implants	34	
% physiological pacing for SSS	97 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	22	<i>ICD national</i>	54	<i>CRT-D national</i>
Primary prevention:	50%	50.0%	81%	76.9%
Secondary prevention:	50%	49.8%	19%	23.0%
Other indication:		0.2%		0.1%

Centre: **Salford Royal Hospital (SLF)**

Town/City: **Salford**

Local Area Team: **Q46. Greater Manchester**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	96	38	134
ICD	0	0	0
CRT-P			4
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	16	
Physiological pacing implants	16	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Stepping Hill Hospital (SHH)**

Town/City: **Stockport**

Local Area Team: **Q46. Greater Manchester**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	140	13	153
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	21	
Physiological pacing implants	19	
% physiological pacing for SSS	90 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Tameside Hospital (TGA)**

Town/City: **Ashton-under-Lyne**

Local Area Team: **Q46. Greater Manchester**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	152	35	187
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	48	
Physiological pacing implants	48	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	<i>50.0%</i>	<input type="text"/>	<i>76.9%</i>
Secondary prevention:	<input type="text"/>	<i>49.8%</i>	<input type="text"/>	<i>23.0%</i>
Other indication:	<input type="text"/>	<i>0.2%</i>	<input type="text"/>	<i>0.1%</i>

Centre: **Trafford General Hospital (TRA)**

Town/City: **Manchester**

Local Area Team: **Q46. Greater Manchester**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	31	15	46
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **2**

Physiological pacing implants **1**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Wythenshawe Hospital (WYT)**

Town/City: **Manchester**

Local Area Team: **Q46. Greater Manchester**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	378	175	553
ICD	85	34	119
CRT-P			148
CRT-D			119

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	73	
Physiological pacing implants	62	
% physiological pacing for SSS	85 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	83	<i>ICD national</i>	61	<i>CRT-D national</i>
Primary prevention:	43%	<i>50.0%</i>	87%	<i>76.9%</i>
Secondary prevention:	57%	<i>49.8%</i>	13%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Blackpool Victoria Hospital (VIC)**

Town/City: **Blackpool**

Local Area Team: **Q47. Lancashire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	308	106	414
ICD	55	21	76
CRT-P			100
CRT-D			114

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	47	
Physiological pacing implants	45	
% physiological pacing for SSS	96 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	49	<i>ICD national</i>	70	<i>CRT-D national</i>
Primary prevention:	37%	50.0%	76%	76.9%
Secondary prevention:	63%	49.8%	24%	23.0%
Other indication:		0.2%		0.1%

Centre: **Royal Blackburn Hospital (BLA)**

Town/City: **Blackburn**

Local Area Team: **Q47. Lancashire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	278	61	339
ICD	0	0	0
CRT-P			15
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	41	
Physiological pacing implants	32	
% physiological pacing for SSS	78 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Royal Lancaster Infirmary (RLI)**

Town/City: **Lancaster**

Local Area Team: **Q47. Lancashire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	1	0	1
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome

Physiological pacing implants

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD	CRT-D
New Devices with a registered indication:	<input type="text"/> <i>ICD national</i>	<input type="text"/> <i>CRT-D national</i>
Primary prevention:	<input type="text"/> 50.0%	<input type="text"/> 76.9%
Secondary prevention:	<input type="text"/> 49.8%	<input type="text"/> 23.0%
Other indication:	<input type="text"/> 0.2%	<input type="text"/> 0.1%

Centre: **Royal Preston Hospital (RPH)**

Town/City: **Preston**

Local Area Team: **Q47. Lancashire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	221	65	286
ICD	1	0	1
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **7**

Physiological pacing implants **4**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Q48. Merseyside

Centre: **Aintree University Hospital (FAZ)**

Town/City: **Liverpool**

Local Area Team: **Q48. Merseyside**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	144	27	171
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **51**

Physiological pacing implants **46**

% physiological pacing for SSS **90 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	<i>50.0%</i>	<input type="text"/>	<i>76.9%</i>
Secondary prevention:	<input type="text"/>	<i>49.8%</i>	<input type="text"/>	<i>23.0%</i>
Other indication:	<input type="text"/>	<i>0.2%</i>	<input type="text"/>	<i>0.1%</i>

Centre: **Alder Hey Hospital (ACH)**

Town/City: **Liverpool**

Local Area Team: **Q48. Merseyside**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	12	10	22
ICD	7	0	7
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	1
Physiological pacing implants	0
% physiological pacing for SSS	% UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	7	<i>ICD national</i>		<i>CRT-D national</i>
Primary prevention:	29%	<i>50.0%</i>		<i>76.9%</i>
Secondary prevention:	71%	<i>49.8%</i>		<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Liverpool Heart & Chest Hospital (BHL)**

Town/City: **Liverpool**

Local Area Team: **Q48. Merseyside**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	454	67	521
ICD	208	112	320
CRT-P			175
CRT-D			180

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	59	
Physiological pacing implants	54	
% physiological pacing for SSS	92 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	194	<i>ICD national</i>	128	<i>CRT-D national</i>
Primary prevention:	55%	<i>50.0%</i>	75%	<i>76.9%</i>
Secondary prevention:	45%	<i>49.8%</i>	25%	<i>23.0%</i>
Other indication:	1%	<i>0.2%</i>		<i>0.1%</i>

Centre: **Royal Liverpool University Hospital (RLU)**

Town/City: **Liverpool**

Local Area Team: **Q48. Merseyside**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	101	63	164
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	29	
Physiological pacing implants	18	
% physiological pacing for SSS	62 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Whiston Hospital (WHI)**

Town/City: **Prescot**

Local Area Team: **Q48. Merseyside**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	108	35	143
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	22	
Physiological pacing implants	19	
% physiological pacing for SSS	86 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Q49. Cumbria, Northumberland, Tyne and Wear

Centre: **Cumberland Infirmary (CMI)**

Town/City: **Cumbria**

Local Area Team: **Q49. Cumbria, Northumberland, Tyne and We**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	168	66	234
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **37**

Physiological pacing implants **32**

% physiological pacing for SSS **86 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Freeman Hospital Newcastle (FRE)**

Town/City: **Newcastle**

Local Area Team: **Q49. Cumbria, Northumberland, Tyne and We**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	421	203	624
ICD	204	68	272
CRT-P			125
CRT-D			193

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	97	
Physiological pacing implants	92	
% physiological pacing for SSS	95 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	203	<i>ICD national</i>	154	<i>CRT-D national</i>
Primary prevention:	58%	<i>50.0%</i>	75%	<i>76.9%</i>
Secondary prevention:	42%	<i>49.8%</i>	25%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Queen Elizabeth Hospital Gateshead (QEG)**

Town/City: **Gateshead**

Local Area Team: **Q49. Cumbria, Northumberland, Tyne and We**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	93	16	109
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	13	
Physiological pacing implants	11	
% physiological pacing for SSS	85 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **South Tyneside District Hospital (STD)**

Town/City: **South Shields**

Local Area Team: **Q49. Cumbria, Northumberland, Tyne and We**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	80	21	101
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	19	
Physiological pacing implants	19	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Sunderland Royal Hospital (SUN)**

Town/City: **Sunderland**

Local Area Team: **Q49. Cumbria, Northumberland, Tyne and We**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	97	36	133
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	13	
Physiological pacing implants	13	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Wansbeck General Hospital (ASH)**

Town/City: **Ashington**

Local Area Team: **Q49. Cumbria, Northumberland, Tyne and We**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	283	65	348
ICD	58	0	58
CRT-P			16
CRT-D			36

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	58	
Physiological pacing implants	54	
% physiological pacing for SSS	93 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	55	<i>ICD national</i>	32	<i>CRT-D national</i>
Primary prevention:	82%	<i>50.0%</i>	88%	<i>76.9%</i>
Secondary prevention:	18%	<i>49.8%</i>	13%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Westmoreland General Hospital (WGK)**

Town/City: **Kendal**

Local Area Team: **Q49. Cumbria, Northumberland, Tyne and We**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	174	55	229
ICD	0	0	0
CRT-P			47
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	20	
Physiological pacing implants	18	
% physiological pacing for SSS	90 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Q50. North Yorkshire and Humber

Centre: **Castle Hill Hospital (CHH)**

Town/City: **Hull**

Local Area Team: **Q50. North Yorkshire and Humber**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	337	50	387
ICD	63	13	76
CRT-P			47
CRT-D			56

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **72**

Physiological pacing implants **68**

% physiological pacing for SSS **94 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	54	<i>ICD national</i>	38	<i>CRT-D national</i>
Primary prevention:	33%	50.0%	61%	76.9%
Secondary prevention:	67%	49.8%	39%	23.0%
Other indication:		0.2%		0.1%

Centre: **Diana, Princess of Wales Hospital Grimsby (GGH)**

Town/City: **Grimsby**

Local Area Team: **Q50. North Yorkshire and Humber**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	143	45	188
ICD	8	0	8
CRT-P			32
CRT-D			25

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	52	
Physiological pacing implants	49	
% physiological pacing for SSS	94 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	8	<i>ICD national</i>	24	<i>CRT-D national</i>
Primary prevention:	13%	<i>50.0%</i>	92%	<i>76.9%</i>
Secondary prevention:	88%	<i>49.8%</i>	8%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Harrogate District Hospital (HAR)**

Town/City: **Harrogate**

Local Area Team: **Q50. North Yorkshire and Humber**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	120	23	143
ICD	0	0	0
CRT-P			17
CRT-D			1

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	17	
Physiological pacing implants	16	
% physiological pacing for SSS	94 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Scarborough Hospital (SCA)**

Town/City: **Scarborough**

Local Area Team: **Q50. North Yorkshire and Humber**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	164	36	200
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	46	
Physiological pacing implants	44	
% physiological pacing for SSS	96 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Scunthorpe General Hospital (SCU)**

Town/City: **Scunthorpe**

Local Area Team: **Q50. North Yorkshire and Humber**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	112	14	126
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	34	
Physiological pacing implants	32	
% physiological pacing for SSS	94 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Spire Hull and East Riding Hospital (HBP)**

Town/City: **Hull**

Local Area Team: **Q50. North Yorkshire and Humber**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	10	0	10
ICD	1	0	1
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **2**

Physiological pacing implants **2**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **The York Hospital (YDH)**

Town/City: **York**

Local Area Team: **Q50. North Yorkshire and Humber**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	196	46	242
ICD	0	1	1
CRT-P			1
CRT-D			1

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	27	
Physiological pacing implants	24	
% physiological pacing for SSS	89 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Q51. South Yorkshire and Bassetlaw

Centre: **Barnsley Hospital (BAR)**

Town/City: **Barnsley**

Local Area Team: **Q51. South Yorkshire and Bassetlaw**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	117	2	119
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **23**

Physiological pacing implants **18**

% physiological pacing for SSS **78 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	<i>50.0%</i>	<input type="text"/>	<i>76.9%</i>
Secondary prevention:	<input type="text"/>	<i>49.8%</i>	<input type="text"/>	<i>23.0%</i>
Other indication:	<input type="text"/>	<i>0.2%</i>	<input type="text"/>	<i>0.1%</i>

Centre: **Doncaster Royal Infirmary (DID)**

Town/City: **Doncaster**

Local Area Team: **Q51. South Yorkshire and Bassetlaw**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	208	58	266
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	45	
Physiological pacing implants	38	
% physiological pacing for SSS	84 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Northern General Hospital Sheffield (NGS)**

Town/City: **Sheffield**

Local Area Team: **Q51. South Yorkshire and Bassetlaw**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	294	74	368
ICD	68	45	113
CRT-P			41
CRT-D			73

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	26	
Physiological pacing implants	26	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	55	<i>ICD national</i>	54	<i>CRT-D national</i>
Primary prevention:	51%	<i>50.0%</i>	78%	<i>76.9%</i>
Secondary prevention:	49%	<i>49.8%</i>	22%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Rotherham Hospital (ROT)**

Town/City: **Rotherham**

Local Area Team: **Q51. South Yorkshire and Bassetlaw**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	139	24	163
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	41	
Physiological pacing implants	34	
% physiological pacing for SSS	83 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Airedale General Hospital (AIR)**

Town/City: **Keighley**

Local Area Team: **Q52. West Yorkshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	92	23	115
ICD	16	4	20
CRT-P			28
CRT-D			12

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **30**

Physiological pacing implants **29**

% physiological pacing for SSS **97 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	16	<i>ICD national</i>	10	<i>CRT-D national</i>
Primary prevention:	31%	50.0%	80%	76.9%
Secondary prevention:	69%	49.8%	20%	23.0%
Other indication:		0.2%		0.1%

Centre: **Bradford Royal Infirmary (BRD)**

Town/City: **Bradford**

Local Area Team: **Q52. West Yorkshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	182	44	226
ICD	23	4	27
CRT-P			23
CRT-D			22

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	51	
Physiological pacing implants	51	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	19	<i>ICD national</i>	18	<i>CRT-D national</i>
Primary prevention:	47%	<i>50.0%</i>	72%	<i>76.9%</i>
Secondary prevention:	47%	<i>49.8%</i>	28%	<i>23.0%</i>
Other indication:	5%	<i>0.2%</i>		<i>0.1%</i>

Centre: **Calderdale Royal Hospital (RHI)**

Town/City: **Halifax**

Local Area Team: **Q52. West Yorkshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	186	68	254
ICD	15	2	17
CRT-P			23
CRT-D			7

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	49	
Physiological pacing implants	40	
% physiological pacing for SSS	82 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	11	<i>ICD national</i>		<i>CRT-D national</i>
Primary prevention:	45%	<i>50.0%</i>		<i>76.9%</i>
Secondary prevention:	55%	<i>49.8%</i>		<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Huddersfield Royal Hospital (HUD)**

Town/City: **Huddersfield**

Local Area Team: **Q52. West Yorkshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	16	11	27
ICD	1	1	2
CRT-P			6
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **3**

Physiological pacing implants **3**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Leeds General Infirmary (LGI)**

Town/City: **Leeds**

Local Area Team: **Q52. West Yorkshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	469	156	625
ICD	90	52	142
CRT-P			121
CRT-D			144

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **139**

Physiological pacing implants **133**

% physiological pacing for SSS **96 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	86	<i>ICD national</i>	95	<i>CRT-D national</i>
Primary prevention:	42%	<i>50.0%</i>	71%	<i>76.9%</i>
Secondary prevention:	56%	<i>49.8%</i>	29%	<i>23.0%</i>
Other indication:	2%	<i>0.2%</i>		<i>0.1%</i>

Centre: **Pinderfields General Hospital (PIN)**

Town/City: **Wakefield**

Local Area Team: **Q52. West Yorkshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	197	81	278
ICD	26	7	33
CRT-P			78
CRT-D			50

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **19**

Physiological pacing implants **17**

% physiological pacing for SSS **89 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	17	<i>ICD national</i>	19	<i>CRT-D national</i>
Primary prevention:	53%	<i>50.0%</i>	74%	<i>76.9%</i>
Secondary prevention:	41%	<i>49.8%</i>	26%	<i>23.0%</i>
Other indication:	6%	<i>0.2%</i>		<i>0.1%</i>

Centre: **Spire Leeds Hospital (LEB)**

Town/City: **Leeds**

Local Area Team: **Q52. West Yorkshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	12	0	12
ICD	0	0	0
CRT-P			1
CRT-D			4

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	4	
Physiological pacing implants	4	
% physiological pacing for SSS	%	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Q53. Arden, Herefordshire and Worcestershire

Centre: **BMI The Meriden Hospital (BMI)**

Town/City: **Coventry**

Local Area Team: **Q53. Arden, Herefordshire and Worcestershir**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	17	2	19
ICD	0	0	0
CRT-P			3
CRT-D			4

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **3**

Physiological pacing implants **3**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **County Hospital Hereford (HCH)**

Town/City: **Hereford**

Local Area Team: **Q53. Arden, Herefordshire and Worcestershir**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	124	39	163
ICD	13	4	17
CRT-P			8
CRT-D			16

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	14	
Physiological pacing implants	12	
% physiological pacing for SSS	86 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	12	<i>ICD national</i>	12	<i>CRT-D national</i>
Primary prevention:	50%	<i>50.0%</i>	92%	<i>76.9%</i>
Secondary prevention:	50%	<i>49.8%</i>	8%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **George Eliot Hospital (NUN)**

Town/City: **Nuneaton**

Local Area Team: **Q53. Arden, Herefordshire and Worcestershir**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	69	14	83
ICD	1	0	1
CRT-P			0
CRT-D			1

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	25	
Physiological pacing implants	20	
% physiological pacing for SSS	80 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **University Hospital Coventry (WAL)**

Town/City: **Coventry**

Local Area Team: **Q53. Arden, Herefordshire and Worcestershir**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	190	33	223
ICD	43	3	46
CRT-P			29
CRT-D			51

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	45	
Physiological pacing implants	45	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	42	<i>ICD national</i>	46	<i>CRT-D national</i>
Primary prevention:	21%	<i>50.0%</i>	70%	<i>76.9%</i>
Secondary prevention:	76%	<i>49.8%</i>	30%	<i>23.0%</i>
Other indication:	2%	<i>0.2%</i>		<i>0.1%</i>

Centre: **Warwick Hospital (WAR)**

Town/City: **Warwick**

Local Area Team: **Q53. Arden, Herefordshire and Worcestershir**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	146	37	183
ICD	4	2	6
CRT-P			18
CRT-D			31

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	24	
Physiological pacing implants	23	
% physiological pacing for SSS	96 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text" value="23"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	<i>50.0%</i>	<input type="text" value="65%"/>	<i>76.9%</i>
Secondary prevention:	<input type="text"/>	<i>49.8%</i>	<input type="text" value="35%"/>	<i>23.0%</i>
Other indication:	<input type="text"/>	<i>0.2%</i>	<input type="text"/>	<i>0.1%</i>

Centre: **Worcestershire Royal Hospital (WRC)**

Town/City: **Worcester**

Local Area Team: **Q53. Arden, Herefordshire and Worcestershir**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	229	72	301
ICD	30	2	32
CRT-P			21
CRT-D			65

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **1**

Physiological pacing implants **1**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	29	<i>ICD national</i>	61	<i>CRT-D national</i>
Primary prevention:	24%	<i>50.0%</i>	77%	<i>76.9%</i>
Secondary prevention:	76%	<i>49.8%</i>	23%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Birmingham City Hospital (DUD)**

Town/City: **Birmingham**

Local Area Team: **Q54. Birmingham and The Black Country**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	91	26	117
ICD	10	1	11
CRT-P			11
CRT-D			23

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	14	
Physiological pacing implants	12	
% physiological pacing for SSS	86 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	10	<i>ICD national</i>	19	<i>CRT-D national</i>
Primary prevention:	80%	<i>50.0%</i>	58%	<i>76.9%</i>
Secondary prevention:	20%	<i>49.8%</i>	42%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Birmingham Heartlands Hospital (EBH)**

Town/City: **Birmingham**

Local Area Team: **Q54. Birmingham and The Black Country**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	1	0	1
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome

Physiological pacing implants

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **BMI The Priory Hospital Birmingham (PHB)**

Town/City: **Edgbaston**

Local Area Team: **Q54. Birmingham and The Black Country**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	4	2	6
ICD	1	0	1
CRT-P			5
CRT-D			1

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **1**

Physiological pacing implants **1**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Good Hope Hospital (GHS)**

Town/City: **Sutton Coldfield**

Local Area Team: **Q54. Birmingham and The Black Country**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	233	104	337
ICD	47	6	53
CRT-P			27
CRT-D			75

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	39	
Physiological pacing implants	35	
% physiological pacing for SSS	90 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	29	<i>ICD national</i>	40	<i>CRT-D national</i>
Primary prevention:	45%	<i>50.0%</i>	75%	<i>76.9%</i>
Secondary prevention:	55%	<i>49.8%</i>	25%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **New Cross Hospital (Wolverhampton Heart Centre) (NCR)**

Town/City: **Wolverhampton**

Local Area Team: **Q54. Birmingham and The Black Country**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	243	60	303
ICD	52	10	62
CRT-P			31
CRT-D			31

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	64	
Physiological pacing implants	60	
% physiological pacing for SSS	94 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	49	<i>ICD national</i>	24	<i>CRT-D national</i>
Primary prevention:	29%	<i>50.0%</i>	88%	<i>76.9%</i>
Secondary prevention:	71%	<i>49.8%</i>	13%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Queen Elizabeth Hospital Birmingham (QEB)**

Town/City: **Birmingham**

Local Area Team: **Q54. Birmingham and The Black Country**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	274	69	343
ICD	96	23	119
CRT-P			85
CRT-D			151

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	40	
Physiological pacing implants	35	
% physiological pacing for SSS	88 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	70	<i>ICD national</i>	63	<i>CRT-D national</i>
Primary prevention:	69%	<i>50.0%</i>	76%	<i>76.9%</i>
Secondary prevention:	31%	<i>49.8%</i>	24%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Russells Hall Hospital (RUS)**

Town/City: **Dudley**

Local Area Team: **Q54. Birmingham and The Black Country**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	178	73	251
ICD	55	12	67
CRT-P			11
CRT-D			54

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	47	
Physiological pacing implants	36	
% physiological pacing for SSS	77 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	53	<i>ICD national</i>	41	<i>CRT-D national</i>
Primary prevention:	74%	<i>50.0%</i>	88%	<i>76.9%</i>
Secondary prevention:	26%	<i>49.8%</i>	12%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Sandwell General Hospital (SAN)**

Town/City: **West Bromwich**

Local Area Team: **Q54. Birmingham and The Black Country**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	98	23	121
ICD	13	11	24
CRT-P			18
CRT-D			35

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **33**

Physiological pacing implants **32**

% physiological pacing for SSS **97 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	13	<i>ICD national</i>	28	<i>CRT-D national</i>
Primary prevention:	38%	<i>50.0%</i>	89%	<i>76.9%</i>
Secondary prevention:	62%	<i>49.8%</i>	11%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Solihull Hospital (SOL)**

Town/City: **Solihull**

Local Area Team: **Q54. Birmingham and The Black Country**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	202	85	287
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	28	
Physiological pacing implants	27	
% physiological pacing for SSS	96 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Walsall Manor Hospital (WMH)**

Town/City: **Walsall**

Local Area Team: **Q54. Birmingham and The Black Country**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	151	32	183
ICD	19	4	23
CRT-P			11
CRT-D			28

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	46	
Physiological pacing implants	44	
% physiological pacing for SSS	96 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	18	<i>ICD national</i>	23	<i>CRT-D national</i>
Primary prevention:	44%	<i>50.0%</i>	91%	<i>76.9%</i>
Secondary prevention:	56%	<i>49.8%</i>	9%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Kings Mill Hospital (KMH)**

Town/City: **Sutton-in-Ashfield**

Local Area Team: **Q55. Derbyshire and Nottinghamshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	176	71	247
ICD	37	3	40
CRT-P			19
CRT-D			54

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	43	
Physiological pacing implants	32	
% physiological pacing for SSS	74 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	31	<i>ICD national</i>	44	<i>CRT-D national</i>
Primary prevention:	77%	<i>50.0%</i>	82%	<i>76.9%</i>
Secondary prevention:	23%	<i>49.8%</i>	18%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Nottingham City Hospital (CHN)**

Town/City: **Nottingham**

Local Area Team: **Q55. Derbyshire and Nottinghamshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	408	125	533
ICD	109	32	141
CRT-P			44
CRT-D			102

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	61	
Physiological pacing implants	51	
% physiological pacing for SSS	84 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	106	<i>ICD national</i>	84	<i>CRT-D national</i>
Primary prevention:	48%	<i>50.0%</i>	87%	<i>76.9%</i>
Secondary prevention:	52%	<i>49.8%</i>	13%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Royal Derby Hospital (DER)**

Town/City: **Derby**

Local Area Team: **Q55. Derbyshire and Nottinghamshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	188	33	221
ICD	15	2	17
CRT-P			2
CRT-D			1

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	18	
Physiological pacing implants	14	
% physiological pacing for SSS	78 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	8	<i>ICD national</i>		<i>CRT-D national</i>
Primary prevention:		50.0%		76.9%
Secondary prevention:	100%	49.8%		23.0%
Other indication:		0.2%		0.1%

Centre: **Addenbrookes Hospital (ADD)**

Town/City: **Cambridge**

Local Area Team: **Q56. East Anglia**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	233	7	240
ICD	26	0	26
CRT-P			43
CRT-D			32

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	69	
Physiological pacing implants	65	
% physiological pacing for SSS	94 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	26	<i>ICD national</i>	27	<i>CRT-D national</i>
Primary prevention:	50%	50.0%	70%	76.9%
Secondary prevention:	50%	49.8%	30%	23.0%
Other indication:		0.2%		0.1%

Centre: **Colchester General Hospital (COL)**

Town/City: **Colchester**

Local Area Team: **Q56. East Anglia**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	208	92	300
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **3**

Physiological pacing implants **3**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Norfolk & Norwich University Hospital (NOR)**

Town/City: **Norwich**

Local Area Team: **Q56. East Anglia**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	666	176	842
ICD	59	15	74
CRT-P			93
CRT-D			87

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	196	
Physiological pacing implants	188	
% physiological pacing for SSS	96 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	58	<i>ICD national</i>	69	<i>CRT-D national</i>
Primary prevention:	28%	<i>50.0%</i>	86%	<i>76.9%</i>
Secondary prevention:	72%	<i>49.8%</i>	14%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Papworth Hospital (PAP)**

Town/City: **Cambridge**

Local Area Team: **Q56. East Anglia**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	630	119	749
ICD	71	37	108
CRT-P			150
CRT-D			67

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	148	
Physiological pacing implants	137	
% physiological pacing for SSS	93 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Peterborough City Hospital (PET)**

Town/City: **Peterborough**

Local Area Team: **Q56. East Anglia**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	320	41	361
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **112**

Physiological pacing implants **111**

% physiological pacing for SSS **99 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **The Ipswich Hospital (IPS)**

Town/City: **Ipswich**

Local Area Team: **Q56. East Anglia**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	338	50	388
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	96	
Physiological pacing implants	86	
% physiological pacing for SSS	90 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Basildon Hospital (BAS)**

Town/City: **Basildon**

Local Area Team: **Q57. Essex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	319	54	373
ICD	105	28	133
CRT-P			57
CRT-D			107

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	66	
Physiological pacing implants	63	
% physiological pacing for SSS	95 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	103	<i>ICD national</i>	80	<i>CRT-D national</i>
Primary prevention:	34%	50.0%	80%	76.9%
Secondary prevention:	66%	49.8%	20%	23.0%
Other indication:		0.2%		0.1%

Centre: **Broomfield Hospital (BFH)**

Town/City: **Chelmsford**

Local Area Team: **Q57. Essex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	122	67	189
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	24	
Physiological pacing implants	23	
% physiological pacing for SSS	96 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Oaks Private Clinic, Colchester (OAK)**

Town/City: **Colchester**

Local Area Team: **Q57. Essex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	1	0	1
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **1**

Physiological pacing implants **1**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Princess Alexandra Hospital Harlow (PAH)**

Town/City: **Harlow**

Local Area Team: **Q57. Essex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	119	30	149
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome

Physiological pacing implants

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Southend University Hospital (SEH)**

Town/City: **Southend**

Local Area Team: **Q57. Essex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	192	71	263
ICD	4	1	5
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **34**

Physiological pacing implants **28**

% physiological pacing for SSS **82 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Q58. Hertfordshire and The South Midlands

Centre: **Bedford Hospital (BED)**

Town/City: **Bedford**

Local Area Team: **Q58. Hertfordshire and The South Midlands**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	161	33	194
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **35**

Physiological pacing implants **32**

% physiological pacing for SSS **91 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	<i>50.0%</i>	<input type="text"/>	<i>76.9%</i>
Secondary prevention:	<input type="text"/>	<i>49.8%</i>	<input type="text"/>	<i>23.0%</i>
Other indication:	<input type="text"/>	<i>0.2%</i>	<input type="text"/>	<i>0.1%</i>

Centre: **Kettering General Hospital (KGH)**

Town/City: **Kettering**

Local Area Team: **Q58. Hertfordshire and The South Midlands**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	191	22	213
ICD	55	4	59
CRT-P			66
CRT-D			85

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	44	
Physiological pacing implants	42	
% physiological pacing for SSS	95 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	44	<i>ICD national</i>	56	<i>CRT-D national</i>
Primary prevention:	50%	<i>50.0%</i>	73%	<i>76.9%</i>
Secondary prevention:	50%	<i>49.8%</i>	27%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Lister Hospital (LIS)**

Town/City: **Stevenage**

Local Area Team: **Q58. Hertfordshire and The South Midlands**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	198	58	256
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	52	
Physiological pacing implants	50	
% physiological pacing for SSS	96 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Luton & Dunstable Hospital (LDH)**

Town/City: **Luton**

Local Area Team: **Q58. Hertfordshire and The South Midlands**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	144	1	145
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	31	
Physiological pacing implants	30	
% physiological pacing for SSS	97 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Milton Keynes Hospital (MKH)**

Town/City: **Milton Keynes**

Local Area Team: **Q58. Hertfordshire and The South Midlands**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	78	44	122
ICD	1	0	1
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **7**

Physiological pacing implants **6**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Northampton General Hospital (NTH)**

Town/City: **Northampton**

Local Area Team: **Q58. Hertfordshire and The South Midlands**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	283	51	334
ICD	34	6	40
CRT-P			19
CRT-D			38

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	65	
Physiological pacing implants	59	
% physiological pacing for SSS	91 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	31	<i>ICD national</i>	31	<i>CRT-D national</i>
Primary prevention:	58%	<i>50.0%</i>	81%	<i>76.9%</i>
Secondary prevention:	42%	<i>49.8%</i>	19%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Watford General Hospital (WAT)**

Town/City: **Watford**

Local Area Team: **Q58. Hertfordshire and The South Midlands**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	236	62	298
ICD	35	3	38
CRT-P			10
CRT-D			27

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	49	
Physiological pacing implants	49	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	19	<i>ICD national</i>	9	<i>CRT-D national</i>
Primary prevention:	74%	<i>50.0%</i>	89%	<i>76.9%</i>
Secondary prevention:	26%	<i>49.8%</i>	11%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Q59. Leicestershire and Lincolnshire

Centre: **Glenfield Hospital (GRL)**

Town/City: **Leicester**

Local Area Team: **Q59. Leicestershire and Lincolnshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	742	154	896
ICD	198	80	278
CRT-P			90
CRT-D			132

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **204**

Physiological pacing implants **185**

% physiological pacing for SSS **91 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	183	<i>ICD national</i>	103	<i>CRT-D national</i>
Primary prevention:	44%	<i>50.0%</i>	81%	<i>76.9%</i>
Secondary prevention:	56%	<i>49.8%</i>	19%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Lincoln County Hospital (LIN)**

Town/City: **Lincoln**

Local Area Team: **Q59. Leicestershire and Lincolnshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	239	58	297
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	58	
Physiological pacing implants	57	
% physiological pacing for SSS	98 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Spire Leicester Hospital (LBP)**

Town/City: **Leicester**

Local Area Team: **Q59. Leicestershire and Lincolnshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	6	2	8
ICD	1	0	1
CRT-P			1
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **3**

Physiological pacing implants **3**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Q60. Shropshire and Staffordshire

Centre: **Princess Royal Hospital Telford (TLF)**

Town/City: **Telford**

Local Area Team: **Q60. Shropshire and Staffordshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	257	64	321
ICD	50	11	61
CRT-P			14
CRT-D			40

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **10**

Physiological pacing implants **9**

% physiological pacing for SSS **90 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	10	<i>ICD national</i>	7	<i>CRT-D national</i>
Primary prevention:	70%	50.0%	86%	76.9%
Secondary prevention:	30%	49.8%	14%	23.0%
Other indication:		0.2%		0.1%

Centre: **Queens Hospital Burton (BRT)**

Town/City: **Burton Upon Trent**

Local Area Team: **Q60. Shropshire and Staffordshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	89	8	97
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	17	
Physiological pacing implants	12	
% physiological pacing for SSS	71 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **University Hospital of North Staffs (STO)**

Town/City: **Stoke-on-Trent**

Local Area Team: **Q60. Shropshire and Staffordshire**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	260	363	623
ICD	59	16	75
CRT-P			64
CRT-D			153

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	53	
Physiological pacing implants	46	
% physiological pacing for SSS	87 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	54	<i>ICD national</i>	113	<i>CRT-D national</i>
Primary prevention:	31%	<i>50.0%</i>	88%	<i>76.9%</i>
Secondary prevention:	69%	<i>49.8%</i>	12%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Q64. Bath, Gloucestershire, Swindon and Wiltshire

Centre: **Cheltenham General Hospital (CHG)**

Town/City: **Cheltenham**

Local Area Team: **Q64. Bath, Gloucestershire, Swindon and Wilt**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	337	69	406
ICD	50	11	61
CRT-P			45
CRT-D			34

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **94**

Physiological pacing implants **85**

% physiological pacing for SSS **90 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	44	<i>ICD national</i>	21	<i>CRT-D national</i>
Primary prevention:	73%	50.0%	90%	76.9%
Secondary prevention:	27%	49.8%	10%	23.0%
Other indication:		0.2%		0.1%

Centre: **Royal United Hospital Bath (BAT)**

Town/City: **Bath**

Local Area Team: **Q64. Bath, Gloucestershire, Swindon and Wilt**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	257	45	302
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	15	
Physiological pacing implants	12	
% physiological pacing for SSS	80 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Salisbury District Hospital (SAL)**

Town/City: **Salisbury**

Local Area Team: **Q64. Bath, Gloucestershire, Swindon and Wilt**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	138	27	165
ICD	9	3	12
CRT-P			21
CRT-D			16

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	46	
Physiological pacing implants	43	
% physiological pacing for SSS	93 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **The Great Western Hospital (PMS)**

Town/City: **Swindon**

Local Area Team: **Q64. Bath, Gloucestershire, Swindon and Wilt**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	289	60	349
ICD	27	6	33
CRT-P			32
CRT-D			41

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	69	
Physiological pacing implants	69	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	27	<i>ICD national</i>	38	<i>CRT-D national</i>
Primary prevention:	59%	<i>50.0%</i>	76%	<i>76.9%</i>
Secondary prevention:	41%	<i>49.8%</i>	24%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Q65. Bristol, North Somerset, Somerset and South G

Centre: **Frenchay Hospital (FRY)**

Town/City: **Bristol**

Local Area Team: **Q65. Bristol, North Somerset, Somerset and S**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	113	46	159
ICD	6	1	7
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **23**

Physiological pacing implants **19**

% physiological pacing for SSS **83 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	5	<i>ICD national</i>		<i>CRT-D national</i>
Primary prevention:	60%	<i>50.0%</i>		<i>76.9%</i>
Secondary prevention:	40%	<i>49.8%</i>		<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Weston General Hospital (WGH)**

Town/City: **Weston Super Mare**

Local Area Team: **Q65. Bristol, North Somerset, Somerset and S**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	21	27	48
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **2**

Physiological pacing implants **2**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Yeovil District Hospital (YEO)**

Town/City: **Yeovil**

Local Area Team: **Q65. Bristol, North Somerset, Somerset and S**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	166	25	191
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	27	
Physiological pacing implants	21	
% physiological pacing for SSS	78 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Q65. Bristol, North Somerset, Somerset and South Gloucestershire

Centre: **Bristol Royal Hospital for Children (BRC)**

Town/City: **Bristol**

Local Area Team: **Q65. Bristol, North Somerset, Somerset and S**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	21	16	37
ICD	0	0	0
CRT-P			3
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **2**

Physiological pacing implants **1**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	<i>50.0%</i>	<input type="text"/>	<i>76.9%</i>
Secondary prevention:	<input type="text"/>	<i>49.8%</i>	<input type="text"/>	<i>23.0%</i>
Other indication:	<input type="text"/>	<i>0.2%</i>	<input type="text"/>	<i>0.1%</i>

Centre: **Bristol Royal Infirmary (BRI)**

Town/City: **Bristol**

Local Area Team: **Q65. Bristol, North Somerset, Somerset and S**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	321	107	428
ICD	107	22	129
CRT-P			73
CRT-D			87

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	51	
Physiological pacing implants	44	
% physiological pacing for SSS	86 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	102	<i>ICD national</i>	69	<i>CRT-D national</i>
Primary prevention:	39%	<i>50.0%</i>	67%	<i>76.9%</i>
Secondary prevention:	61%	<i>49.8%</i>	33%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Musgrove Park Hospital (MPH)**

Town/City: **Taunton**

Local Area Team: **Q65. Bristol, North Somerset, Somerset and S**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	222	46	268
ICD	36	16	52
CRT-P			26
CRT-D			43

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	10	
Physiological pacing implants	8	
% physiological pacing for SSS	80 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	30	<i>ICD national</i>	25	<i>CRT-D national</i>
Primary prevention:	43%	<i>50.0%</i>	72%	<i>76.9%</i>
Secondary prevention:	53%	<i>49.8%</i>	20%	<i>23.0%</i>
Other indication:	3%	<i>0.2%</i>	8%	<i>0.1%</i>

Centre: **Southmead Hospital (BSM)**

Town/City: **Bristol**

Local Area Team: **Q65. Bristol, North Somerset, Somerset and S**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	1	0	1
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **1**

Physiological pacing implants **1**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Spire Bristol Hospital (GHB)**

Town/City: **Bristol**

Local Area Team: **Q65. Bristol, North Somerset, Somerset and S**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	13	4	17
ICD	1	0	1
CRT-P			2
CRT-D			1

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **4**

Physiological pacing implants **4**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Q66. Devon, Cornwall and Isles Of Scilly

Centre: **Derriford Hospital (PLY)**

Town/City: **Plymouth**

Local Area Team: **Q66. Devon, Cornwall and Isles Of Scilly**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	317	135	452
ICD	40	11	51
CRT-P			22
CRT-D			54

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **85**

Physiological pacing implants **77**

% physiological pacing for SSS **91 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	34	<i>ICD national</i>	35	<i>CRT-D national</i>
Primary prevention:	35%	50.0%	66%	76.9%
Secondary prevention:	65%	49.8%	34%	23.0%
Other indication:		0.2%		0.1%

Centre: **Duchy Hospital, Truro (DUC)**

Town/City: **Truro**

Local Area Team: **Q66. Devon, Cornwall and Isles Of Scilly**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	35	3	38
ICD	19	0	19
CRT-P			1
CRT-D			13

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **5**

Physiological pacing implants **5**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	13	<i>ICD national</i>	10	<i>CRT-D national</i>
Primary prevention:	100%	50.0%	100%	76.9%
Secondary prevention:		49.8%		23.0%
Other indication:		0.2%		0.1%

Centre: **North Devon District Hospital (NDD)**

Town/City: **Barnstable**

Local Area Team: **Q66. Devon, Cornwall and Isles Of Scilly**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	5	1	6
ICD	0	0	0
CRT-P			0
CRT-D			1

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **1**

Physiological pacing implants **1**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Royal Cornwall Hospital (RCH)**

Town/City: **Truro**

Local Area Team: **Q66. Devon, Cornwall and Isles Of Scilly**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	306	131	437
ICD	47	10	57
CRT-P			2
CRT-D			46

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	63	
Physiological pacing implants	60	
% physiological pacing for SSS	95 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	47	<i>ICD national</i>	40	<i>CRT-D national</i>
Primary prevention:	60%	<i>50.0%</i>	95%	<i>76.9%</i>
Secondary prevention:	40%	<i>49.8%</i>	5%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Royal Devon & Exeter Hospital (RDE)**

Town/City: **Exeter**

Local Area Team: **Q66. Devon, Cornwall and Isles Of Scilly**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	531	123	654
ICD	47	22	69
CRT-P			22
CRT-D			81

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	109	
Physiological pacing implants	93	
% physiological pacing for SSS	85 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	38	<i>ICD national</i>	51	<i>CRT-D national</i>
Primary prevention:	34%	<i>50.0%</i>	73%	<i>76.9%</i>
Secondary prevention:	66%	<i>49.8%</i>	27%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Torbay Hospital (TOR)**

Town/City: **Torquay**

Local Area Team: **Q66. Devon, Cornwall and Isles Of Scilly**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	157	68	225
ICD	13	3	16
CRT-P			11
CRT-D			9

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **1**

Physiological pacing implants **1**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Q67. Kent and Medway

Centre: **Darent Valley Hospital (DVH)**

Town/City: **Dartford**

Local Area Team: **Q67. Kent and Medway**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	51	21	72
ICD	0	0	0
CRT-P			2
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **12**

Physiological pacing implants **11**

% physiological pacing for SSS **92 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD	ICD national	CRT-D	CRT-D national
New Devices with a registered indication:	<input type="text"/>		<input type="text"/>	
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Maidstone Hospital (MAI)**

Town/City: **Maidstone**

Local Area Team: **Q67. Kent and Medway**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	106	45	151
ICD	15	5	20
CRT-P			21
CRT-D			38

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	21	
Physiological pacing implants	20	
% physiological pacing for SSS	95 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	5	<i>ICD national</i>	15	<i>CRT-D national</i>
Primary prevention:	60%	<i>50.0%</i>	73%	<i>76.9%</i>
Secondary prevention:	40%	<i>49.8%</i>	27%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Medway Maritime Hospital (MDW)**

Town/City: **Gillingham**

Local Area Team: **Q67. Kent and Medway**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	153	23	176
ICD	18	3	21
CRT-P			14
CRT-D			37

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	29	
Physiological pacing implants	27	
% physiological pacing for SSS	93 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	13	<i>ICD national</i>	21	<i>CRT-D national</i>
Primary prevention:	85%	<i>50.0%</i>	71%	<i>76.9%</i>
Secondary prevention:	15%	<i>49.8%</i>	29%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Queen Elizabeth the Queen Mother Hospital (QEQ)**

Town/City: **Margate**

Local Area Team: **Q67. Kent and Medway**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	187	32	219
ICD	33	9	42
CRT-P			8
CRT-D			23

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	22	
Physiological pacing implants	10	
% physiological pacing for SSS	45 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	19	<i>ICD national</i>	9	<i>CRT-D national</i>
Primary prevention:	74%	<i>50.0%</i>	89%	<i>76.9%</i>
Secondary prevention:	26%	<i>49.8%</i>	11%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Tunbridge Wells Hospital (KSX)**

Town/City: **Tunbridge Wells**

Local Area Team: **Q67. Kent and Medway**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	84	20	104
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	14	
Physiological pacing implants	14	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **William Harvey Hospital (WHH)**

Town/City: **Ashford**

Local Area Team: **Q67. Kent and Medway**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	196	43	239
ICD	25	3	28
CRT-P			19
CRT-D			30

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	27	
Physiological pacing implants	27	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	19	<i>ICD national</i>	14	<i>CRT-D national</i>
Primary prevention:	63%	<i>50.0%</i>	79%	<i>76.9%</i>
Secondary prevention:	37%	<i>49.8%</i>	21%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Q68. Surrey and Sussex

Centre: **Ashford Hospital - Middlesex (AHX)**

Town/City: **Ashford**

Local Area Team: **Q68. Surrey and Sussex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	1	0	1
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome

Physiological pacing implants

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	<i>50.0%</i>	<input type="text"/>	<i>76.9%</i>
Secondary prevention:	<input type="text"/>	<i>49.8%</i>	<input type="text"/>	<i>23.0%</i>
Other indication:	<input type="text"/>	<i>0.2%</i>	<input type="text"/>	<i>0.1%</i>

Centre: **Conquest Hospital (CGH)**

Town/City: **St Leonards on Sea**

Local Area Team: **Q68. Surrey and Sussex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	142	30	172
ICD	7	1	8
CRT-P			15
CRT-D			5

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	32	
Physiological pacing implants	30	
% physiological pacing for SSS	94 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Eastbourne District General Hospital (DGE)**

Town/City: **Eastbourne**

Local Area Team: **Q68. Surrey and Sussex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	179	46	225
ICD	11	7	18
CRT-P			20
CRT-D			20

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	49	
Physiological pacing implants	43	
% physiological pacing for SSS	88 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	6	<i>ICD national</i>		<i>CRT-D national</i>
Primary prevention:	33%	<i>50.0%</i>		<i>76.9%</i>
Secondary prevention:	67%	<i>49.8%</i>		<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Epsom Hospital (EPS)**

Town/City: **Epsom**

Local Area Team: **Q68. Surrey and Sussex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	50	30	80
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	22	
Physiological pacing implants	22	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Frimley Park Hospital (FRM)**

Town/City: **Frimley**

Local Area Team: **Q68. Surrey and Sussex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	179	52	231
ICD	28	8	36
CRT-P			28
CRT-D			37

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **36**

Physiological pacing implants **31**

% physiological pacing for SSS **86 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	28	<i>ICD national</i>	29	<i>CRT-D national</i>
Primary prevention:	54%	<i>50.0%</i>	72%	<i>76.9%</i>
Secondary prevention:	46%	<i>49.8%</i>	28%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Royal Sussex County Hospital (RSC)**

Town/City: **Brighton**

Local Area Team: **Q68. Surrey and Sussex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	392	56	448
ICD	28	9	37
CRT-P			50
CRT-D			69

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	58	
Physiological pacing implants	52	
% physiological pacing for SSS	90 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	27	<i>ICD national</i>	45	<i>CRT-D national</i>
Primary prevention:	48%	<i>50.0%</i>	80%	<i>76.9%</i>
Secondary prevention:	52%	<i>49.8%</i>	20%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **St Richards Hospital (STR)**

Town/City: **Chichester**

Local Area Team: **Q68. Surrey and Sussex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	167	67	234
ICD	16	5	21
CRT-P			13
CRT-D			15

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	31	
Physiological pacing implants	30	
% physiological pacing for SSS	97 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	13	<i>ICD national</i>	9	<i>CRT-D national</i>
Primary prevention:	77%	<i>50.0%</i>	67%	<i>76.9%</i>
Secondary prevention:	23%	<i>49.8%</i>	33%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Worthing Hospital (WRG)**

Town/City: **Worthing**

Local Area Team: **Q68. Surrey and Sussex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	99	21	120
ICD	5	8	13
CRT-P			26
CRT-D			15

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	41	
Physiological pacing implants	39	
% physiological pacing for SSS	95 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	5	<i>ICD national</i>	12	<i>CRT-D national</i>
Primary prevention:	60%	<i>50.0%</i>	33%	<i>76.9%</i>
Secondary prevention:	40%	<i>49.8%</i>	67%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **John Radcliffe Hospital (RAD)**

Town/City: **Oxford**

Local Area Team: **Q69. Thames Valley**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	358	59	417
ICD	111	9	120
CRT-P			40
CRT-D			80

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **2**

Physiological pacing implants **1**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	47	<i>ICD national</i>	25	<i>CRT-D national</i>
Primary prevention:	60%	<i>50.0%</i>	72%	<i>76.9%</i>
Secondary prevention:	40%	<i>49.8%</i>	28%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Royal Berkshire Hospital (BHR)**

Town/City: **Reading**

Local Area Team: **Q69. Thames Valley**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	182	62	244
ICD	25	12	37
CRT-P			24
CRT-D			28

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	58	
Physiological pacing implants	52	
% physiological pacing for SSS	90 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	25	<i>ICD national</i>	18	<i>CRT-D national</i>
Primary prevention:	40%	<i>50.0%</i>	78%	<i>76.9%</i>
Secondary prevention:	60%	<i>49.8%</i>	22%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Wexham Park Hospital (WEX)**

Town/City: **Slough**

Local Area Team: **Q69. Thames Valley**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	235	60	295
ICD	18	8	26
CRT-P			23
CRT-D			62

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	68	
Physiological pacing implants	60	
% physiological pacing for SSS	88 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	17	<i>ICD national</i>	44	<i>CRT-D national</i>
Primary prevention:	35%	<i>50.0%</i>	89%	<i>76.9%</i>
Secondary prevention:	65%	<i>49.8%</i>	11%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Wycombe Hospital (AMG)**

Town/City: **High Wycombe**

Local Area Team: **Q69. Thames Valley**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	215	43	258
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	33	
Physiological pacing implants	28	
% physiological pacing for SSS	85 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Dorset County Hospital (WDH)**

Town/City: **Dorchester**

Local Area Team: **Q70. Wessex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	219	43	262
ICD	17	6	23
CRT-P			30
CRT-D			37

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	42	
Physiological pacing implants	42	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	9	<i>ICD national</i>	11	<i>CRT-D national</i>
Primary prevention:	11%	<i>50.0%</i>	55%	<i>76.9%</i>
Secondary prevention:	89%	<i>49.8%</i>	45%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Poole Hospital (PGH)**

Town/City: **Poole**

Local Area Team: **Q70. Wessex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	130	47	177
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	40	
Physiological pacing implants	37	
% physiological pacing for SSS	93 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Queen Alexandra Hospital (QAP)**

Town/City: **Portsmouth**

Local Area Team: **Q70. Wessex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	383	99	482
ICD	44	7	51
CRT-P			72
CRT-D			59

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	90	
Physiological pacing implants	78	
% physiological pacing for SSS	87 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	44	<i>ICD national</i>	48	<i>CRT-D national</i>
Primary prevention:	43%	<i>50.0%</i>	75%	<i>76.9%</i>
Secondary prevention:	57%	<i>49.8%</i>	25%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Royal Bournemouth Hospital (BOU)**

Town/City: **Bournemouth**

Local Area Team: **Q70. Wessex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	345	140	485
ICD	61	16	77
CRT-P			98
CRT-D			93

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	79	
Physiological pacing implants	71	
% physiological pacing for SSS	90 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	60	<i>ICD national</i>	49	<i>CRT-D national</i>
Primary prevention:	48%	<i>50.0%</i>	82%	<i>76.9%</i>
Secondary prevention:	52%	<i>49.8%</i>	18%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Southampton General Hospital (SGH)**

Town/City: **Southampton**

Local Area Team: **Q70. Wessex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	393	204	597
ICD	65	74	139
CRT-P			52
CRT-D			102

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	70	
Physiological pacing implants	49	
% physiological pacing for SSS	70 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	23	<i>ICD national</i>	12	<i>CRT-D national</i>
Primary prevention:	26%	<i>50.0%</i>	100%	<i>76.9%</i>
Secondary prevention:	74%	<i>49.8%</i>		<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Spire Southampton Hospital (CBS)**

Town/City: **Southampton**

Local Area Team: **Q70. Wessex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	18	8	26
ICD	1	2	3
CRT-P			9
CRT-D			7

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **8**

Physiological pacing implants **8**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text" value="5"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text" value="100%"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **St Marys Hospital Isle of Wight (IOW)**

Town/City: **Newport**

Local Area Team: **Q70. Wessex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	47	19	66
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	16	
Physiological pacing implants	10	
% physiological pacing for SSS	63 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **St Mary's Hospital Portsmouth (SMP)**

Town/City: **Portsmouth**

Local Area Team: **Q70. Wessex**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	1	0	1
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome

Physiological pacing implants

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD	CRT-D
New Devices with a registered indication:	<input type="text"/> <i>ICD national</i>	<input type="text"/> <i>CRT-D national</i>
Primary prevention:	<input type="text"/> <i>50.0%</i>	<input type="text"/> <i>76.9%</i>
Secondary prevention:	<input type="text"/> <i>49.8%</i>	<input type="text"/> <i>23.0%</i>
Other indication:	<input type="text"/> <i>0.2%</i>	<input type="text"/> <i>0.1%</i>

Centre: **Barnet General Hospital (BNT)**

Town/City: **Barnet**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	166	56	222
ICD	9	1	10
CRT-P			2
CRT-D			11

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	44	
Physiological pacing implants	38	
% physiological pacing for SSS	86 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	5	<i>ICD national</i>	6	<i>CRT-D national</i>
Primary prevention:	20%	50.0%	100%	76.9%
Secondary prevention:	80%	49.8%		23.0%
Other indication:		0.2%		0.1%

Centre: **Barts and the London (BAL)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	406	157	563
ICD	146	26	172
CRT-P			86
CRT-D			85

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	86	
Physiological pacing implants	47	
% physiological pacing for SSS	55 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	142	<i>ICD national</i>	69	<i>CRT-D national</i>
Primary prevention:	71%	<i>50.0%</i>	80%	<i>76.9%</i>
Secondary prevention:	28%	<i>49.8%</i>	20%	<i>23.0%</i>
Other indication:	1%	<i>0.2%</i>		<i>0.1%</i>

Centre: **Central Middlesex Hospital (CMH)**

Town/City: **Park Royal**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	64	64	128
ICD	0	0	0
CRT-P			3
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	21	
Physiological pacing implants	21	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Chelsea & Westminster Hospital (WES)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	33	5	38
ICD	1	1	2
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	10	
Physiological pacing implants	10	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Cromwell Hospital (CRO)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	10	3	13
ICD	2	1	3
CRT-P			3
CRT-D			8

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **2**

Physiological pacing implants **2**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text" value="8"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text" value="100%"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Croydon University Hospital (MAY)**

Town/City: **Croydon**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	86	31	117
ICD	10	0	10
CRT-P			10
CRT-D			28

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **5**

Physiological pacing implants **5**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	10	<i>ICD national</i>	28	<i>CRT-D national</i>
Primary prevention:	90%	<i>50.0%</i>	93%	<i>76.9%</i>
Secondary prevention:	10%	<i>49.8%</i>	7%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Ealing Hospital (EAL)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	86	4	90
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	16	
Physiological pacing implants	15	
% physiological pacing for SSS	94 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Great Ormond Street Hospital (GOS)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	13	13	26
ICD	4	1	5
CRT-P			2
CRT-D			2

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **3**

Physiological pacing implants **0**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Hammersmith Hospital (HAM)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	413	92	505
ICD	86	19	105
CRT-P			50
CRT-D			52

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	63	
Physiological pacing implants	60	
% physiological pacing for SSS	95 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	64	<i>ICD national</i>	34	<i>CRT-D national</i>
Primary prevention:	58%	<i>50.0%</i>	76%	<i>76.9%</i>
Secondary prevention:	42%	<i>49.8%</i>	24%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Harefield Hospital (HH)**

Town/City: **Uxbridge**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	233	111	344
ICD	100	29	129
CRT-P			42
CRT-D			122

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	20	
Physiological pacing implants	19	
% physiological pacing for SSS	95 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	100	<i>ICD national</i>	80	<i>CRT-D national</i>
Primary prevention:	48%	<i>50.0%</i>	84%	<i>76.9%</i>
Secondary prevention:	52%	<i>49.8%</i>	16%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Harley Street Clinic (HSC)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	116	36	152
ICD	23	1	24
CRT-P			15
CRT-D			21

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **29**

Physiological pacing implants **28**

% physiological pacing for SSS **97 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	21	<i>ICD national</i>	16	<i>CRT-D national</i>
Primary prevention:	62%	<i>50.0%</i>	69%	<i>76.9%</i>
Secondary prevention:	38%	<i>49.8%</i>	25%	<i>23.0%</i>
Other indication:		<i>0.2%</i>	6%	<i>0.1%</i>

Centre: **King George Hospital Goodmayes (KGG)**

Town/City: **Goodmayes**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	279	26	305
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **1**

Physiological pacing implants **1**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Kings College Hospital (KCH)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	318	73	391
ICD	128	22	150
CRT-P			32
CRT-D			119

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	73	
Physiological pacing implants	60	
% physiological pacing for SSS	82 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	123	<i>ICD national</i>	87	<i>CRT-D national</i>
Primary prevention:	50%	<i>50.0%</i>	82%	<i>76.9%</i>
Secondary prevention:	50%	<i>49.8%</i>	18%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Kingston Hospital (KTH)**

Town/City: **Kingston-upon-Thames**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	94	23	117
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	32	
Physiological pacing implants	17	
% physiological pacing for SSS	53 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Lewisham Hospital (LEW)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	29	11	40
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	5	
Physiological pacing implants	5	
% physiological pacing for SSS	%	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **London Bridge Hospital (LBH)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	57	29	86
ICD	14	4	18
CRT-P			10
CRT-D			9

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **13**

Physiological pacing implants **13**

% physiological pacing for SSS **100 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	14	<i>ICD national</i>	6	<i>CRT-D national</i>
Primary prevention:	79%	<i>50.0%</i>	50%	<i>76.9%</i>
Secondary prevention:	21%	<i>49.8%</i>	50%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **London Independent Hospital (IND)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	20	3	23
ICD	3	0	3
CRT-P			0
CRT-D			4

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome

Physiological pacing implants

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **North Middlesex University Hospital (NMH)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	29	10	39
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	5	
Physiological pacing implants	5	
% physiological pacing for SSS	%	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Northwick Park Hospital (NPH)**

Town/City: **Harrow**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	164	83	247
ICD	0	0	0
CRT-P			3
CRT-D			1

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	48	
Physiological pacing implants	46	
% physiological pacing for SSS	96 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Queen Elizabeth Hospital Greenwich (GWH)**

Town/City: **Greenwich**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	186	30	216
ICD	8	2	10
CRT-P			19
CRT-D			17

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **20**

Physiological pacing implants **11**

% physiological pacing for SSS **55 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	6	<i>ICD national</i>	12	<i>CRT-D national</i>
Primary prevention:	50%	<i>50.0%</i>	100%	<i>76.9%</i>
Secondary prevention:	50%	<i>49.8%</i>		<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Queen Marys Hospital Sidcup (QMH)**

Town/City: **Sidcup**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	1	0	1
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome

Physiological pacing implants

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD	CRT-D
New Devices with a registered indication:	<input type="text"/> <i>ICD national</i>	<input type="text"/> <i>CRT-D national</i>
Primary prevention:	<input type="text"/> <i>50.0%</i>	<input type="text"/> <i>76.9%</i>
Secondary prevention:	<input type="text"/> <i>49.8%</i>	<input type="text"/> <i>23.0%</i>
Other indication:	<input type="text"/> <i>0.2%</i>	<input type="text"/> <i>0.1%</i>

Centre: **Royal Berkshire Hospital (RBH)**

Town/City: **Reading**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	12	2	14
ICD	5	0	5
CRT-P			6
CRT-D			7

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome

Physiological pacing implants

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text" value="5"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text" value="20%"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text" value="80%"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Royal Brompton Hospital (NHB)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	322	92	414
ICD	133	26	159
CRT-P			72
CRT-D			166

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **38**

Physiological pacing implants **37**

% physiological pacing for SSS **97 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	133	<i>ICD national</i>	108	<i>CRT-D national</i>
Primary prevention:	47%	<i>50.0%</i>	76%	<i>76.9%</i>
Secondary prevention:	53%	<i>49.8%</i>	24%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Royal Free Hospital (RFH)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	140	22	162
ICD	29	2	31
CRT-P			10
CRT-D			27

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	15	
Physiological pacing implants	11	
% physiological pacing for SSS	73 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	28	<i>ICD national</i>	21	<i>CRT-D national</i>
Primary prevention:	46%	<i>50.0%</i>	81%	<i>76.9%</i>
Secondary prevention:	54%	<i>49.8%</i>	19%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **St Anthony's Hospital (ANT)**

Town/City: **North Cheam**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	47	12	59
ICD	0	1	1
CRT-P			1
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	13	
Physiological pacing implants	10	
% physiological pacing for SSS	77 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **St Bartholomews Hospital (SBH)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	2	0	2
ICD	1	0	1
CRT-P			0
CRT-D			1

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **1**

Physiological pacing implants **1**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **St Georges Hospital (GEO)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	334	111	445
ICD	95	37	132
CRT-P			74
CRT-D			125

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	54	
Physiological pacing implants	45	
% physiological pacing for SSS	83 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	87	<i>ICD national</i>	107	<i>CRT-D national</i>
Primary prevention:	32%	<i>50.0%</i>	69%	<i>76.9%</i>
Secondary prevention:	68%	<i>49.8%</i>	31%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **St Peters Hospital (SPH)**

Town/City: **Chertsey**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	274	62	336
ICD	34	5	39
CRT-P			34
CRT-D			35

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	68	
Physiological pacing implants	58	
% physiological pacing for SSS	85 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	33	<i>ICD national</i>	28	<i>CRT-D national</i>
Primary prevention:	55%	<i>50.0%</i>	64%	<i>76.9%</i>
Secondary prevention:	45%	<i>49.8%</i>	36%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **St Thomas Hospital (STH)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	270	112	382
ICD	87	30	117
CRT-P			47
CRT-D			101

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	55	
Physiological pacing implants	45	
% physiological pacing for SSS	82 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	51	<i>ICD national</i>	32	<i>CRT-D national</i>
Primary prevention:	55%	<i>50.0%</i>	84%	<i>76.9%</i>
Secondary prevention:	45%	<i>49.8%</i>	16%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **The Princess Royal University Hospital Bromley (BRO)**

Town/City: **Bromley**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	114	32	146
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	22	
Physiological pacing implants	19	
% physiological pacing for SSS	86 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **University College Hospital (UCL)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	537	179	716
ICD	122	95	217
CRT-P			64
CRT-D			158

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	102	
Physiological pacing implants	90	
% physiological pacing for SSS	88 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	119	<i>ICD national</i>	102	<i>CRT-D national</i>
Primary prevention:	64%	<i>50.0%</i>	82%	<i>76.9%</i>
Secondary prevention:	36%	<i>49.8%</i>	18%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Wellington Hospital North (HHW)**

Town/City: **London**

Local Area Team: **Q71. London**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	68	60	128
ICD	8	7	15
CRT-P			7
CRT-D			10

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	15	
Physiological pacing implants	15	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	8	<i>ICD national</i>	8	<i>CRT-D national</i>
Primary prevention:	50%	<i>50.0%</i>	75%	<i>76.9%</i>
Secondary prevention:	50%	<i>49.8%</i>	25%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	59	31	90
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	16	
Physiological pacing implants	14	
% physiological pacing for SSS	88 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

	Pacemaker			ICD			CRT-P	CRT-D
	New	Replacement	Total	New	Replacement	Total	Total	Total
England	31,297	8,943	40,240	4,460	1,377	5,837	3,716	5,140
N Ireland	787	271	1,058	175	102	277	86	152
Scotland	1562*	445*	2007*	321	194	425	255	223
Wales	1,742	402	2,144	144	72	216	117	228

* known registration deficit

Centre: **Glan Clwyd District General Hospital (CLW)**

Town/City: **Rhyl**

Local Area Team: **North Wales**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	116	50	166
ICD	1	0	1
CRT-P			2
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **10**

Physiological pacing implants **9**

% physiological pacing for SSS **90 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD	ICD national	CRT-D	CRT-D national
New Devices with a registered indication:	<input type="text"/>		<input type="text"/>	
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Gwynedd Hospital (GWY)**

Town/City: **Bangor**

Local Area Team: **North Wales**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	80	31	111
ICD	9	1	10
CRT-P			17
CRT-D			23

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **12**

Physiological pacing implants **11**

% physiological pacing for SSS **92 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Maelor Hospital Wrexham (WRX)**

Town/City: **Wrexham**

Local Area Team: **North Wales**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	150	53	203
ICD	7	4	11
CRT-P			11
CRT-D			26

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	54	
Physiological pacing implants	47	
% physiological pacing for SSS	87 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	5	<i>ICD national</i>	14	<i>CRT-D national</i>
Primary prevention:	20%	<i>50.0%</i>	86%	<i>76.9%</i>
Secondary prevention:	80%	<i>49.8%</i>	14%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Glangwili General Hospital (WWG)**

Town/City: **Carmarthen**

Local Area Team: **South Wales**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	166	40	206
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	25	
Physiological pacing implants	22	
% physiological pacing for SSS	88 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD	ICD national	CRT-D	CRT-D national
New Devices with a registered indication:	<input type="text"/>		<input type="text"/>	
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Morrison Hospital (MOR)**

Town/City: **Swansea**

Local Area Team: **South Wales**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	338	62	400
ICD	39	25	64
CRT-P			33
CRT-D			52

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	62	
Physiological pacing implants	53	
% physiological pacing for SSS	85 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	39	<i>ICD national</i>	39	<i>CRT-D national</i>
Primary prevention:	33%	<i>50.0%</i>	64%	<i>76.9%</i>
Secondary prevention:	67%	<i>49.8%</i>	36%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Prince Charles Hospital (PCH)**

Town/City: **Merthyr Tydfil**

Local Area Team: **South Wales**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	70	3	73
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	14	
Physiological pacing implants	13	
% physiological pacing for SSS	93 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Princess Of Wales Hospital (POW)**

Town/City: **Bridgend**

Local Area Team: **South Wales**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	83	3	86
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	27	
Physiological pacing implants	26	
% physiological pacing for SSS	96 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Royal Glamorgan Hospital (RGH)**

Town/City: **Ynysmaerdy**

Local Area Team: **South Wales**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	119	30	149
ICD	3	1	4
CRT-P			8
CRT-D			1

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	16	
Physiological pacing implants	16	
% physiological pacing for SSS	100 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Royal Gwent Hospital (GWE)**

Town/City: **Newport**

Local Area Team: **South Wales**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	178	24	202
ICD	0	0	0
CRT-P			1
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	44	
Physiological pacing implants	41	
% physiological pacing for SSS	93 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	300	103	403
ICD	85	41	126
CRT-P			45
CRT-D			126

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	90	
Physiological pacing implants	85	
% physiological pacing for SSS	94 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	62	<i>ICD national</i>	78	<i>CRT-D national</i>
Primary prevention:	44%	50.0%	74%	76.9%
Secondary prevention:	56%	49.8%	26%	23.0%
Other indication:		0.2%		0.1%

	Pacemaker			ICD			CRT-P	CRT-D
	New	Replacement	Total	New	Replacement	Total	Total	Total
England	31,297	8,943	40,240	4,460	1,377	5,837	3,716	5,140
N Ireland	787	271	1,058	175	102	277	86	152
Scotland	1562*	445*	2007*	321	194	425	255	223
Wales	1,742	402	2,144	144	72	216	117	228

* known registration deficit

Centre: **Belfast City Hospital (BFT)**

Town/City: **Belfast**

Local Area Team: **N Ireland**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	408	161	569
ICD	38	34	72
CRT-P			37
CRT-D			33

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **162**

Physiological pacing implants **151**

% physiological pacing for SSS **93 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	34	<i>ICD national</i>	8	<i>CRT-D national</i>
Primary prevention:	68%	50.0%	75%	76.9%
Secondary prevention:	32%	49.8%	25%	23.0%
Other indication:		0.2%		0.1%

Centre: **Craigavon Area Hospital (CRG)**

Town/City: **Portadown**

Local Area Team: **N Ireland**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	92	33	125
ICD	0	0	0
CRT-P			4
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	13	
Physiological pacing implants	11	
% physiological pacing for SSS	85 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Royal Hospitals Belfast (RVB)**

Town/City: **Belfast**

Local Area Team: **N Ireland**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	287	77	364
ICD	137	68	205
CRT-P			45
CRT-D			119

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	88	
Physiological pacing implants	75	
% physiological pacing for SSS	85 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	137	<i>ICD national</i>	57	<i>CRT-D national</i>
Primary prevention:	53%	<i>50.0%</i>	56%	<i>76.9%</i>
Secondary prevention:	47%	<i>49.8%</i>	44%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Dumfries and Galloway Royal Infirmary (DMF)**Town/City: **Dumfries**Local Area Team: **Scotland****Device implant procedures registered with NICOR for 2014-15**

	New	Replacement	Total
Pacemaker	99	14	113
ICD	3	1	4
CRT-P			4
CRT-D			2

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus SyndromeNew implants for Sick Sinus Syndrome **3**Physiological pacing implants **3**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD	ICD national	CRT-D	CRT-D national
New Devices with a registered indication:	<input type="text"/>		<input type="text"/>	
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Edinburgh Royal Infirmary (ERI)**

Town/City: **Edinburgh**

Local Area Team: **Scotland**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	468	162	630
ICD	96	25	121
CRT-P			59
CRT-D			20

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **120**

Physiological pacing implants **100**

% physiological pacing for SSS **83 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	94	<i>ICD national</i>	15	<i>CRT-D national</i>
Primary prevention:	27%	<i>50.0%</i>	73%	<i>76.9%</i>
Secondary prevention:	73%	<i>49.8%</i>	27%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Golden Jubilee Hospital (GJH)**

Town/City: **Glasgow**

Local Area Team: **Scotland**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	52	23	75
ICD	134	34	168
CRT-P			105
CRT-D			89

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **1**

Physiological pacing implants **1**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	97	<i>ICD national</i>	42	<i>CRT-D national</i>
Primary prevention:	41%	<i>50.0%</i>	64%	<i>76.9%</i>
Secondary prevention:	59%	<i>49.8%</i>	36%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Hairmyres Hospital (HAI)**

Town/City: **East Kilbride**

Local Area Team: **Scotland**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	1	0	1
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **1**

Physiological pacing implants **1**

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Ninewells Hospital (NIN)**

Town/City: **Dundee**

Local Area Team: **Scotland**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	2	1	3
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome

Physiological pacing implants

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Royal Alexandra Hospital (RAH)**

Town/City: **Paisley**

Local Area Team: **Scotland**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	133	24	157
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome

Physiological pacing implants

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Royal Hospital for Sick Children (RHS)**

Town/City: **Glasgow**

Local Area Team: **Scotland**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	10	0	10
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome

Physiological pacing implants

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	50.0%	<input type="text"/>	76.9%
Secondary prevention:	<input type="text"/>	49.8%	<input type="text"/>	23.0%
Other indication:	<input type="text"/>	0.2%	<input type="text"/>	0.1%

Centre: **Royal Infirmary Aberdeen (RIA)**

Town/City: **Aberdeen**

Local Area Team: **Scotland**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	192	51	243
ICD	34	15	49
CRT-P			24
CRT-D			56

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome	41	
Physiological pacing implants	39	
% physiological pacing for SSS	95 %	UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	26	<i>ICD national</i>	31	<i>CRT-D national</i>
Primary prevention:	58%	<i>50.0%</i>	84%	<i>76.9%</i>
Secondary prevention:	42%	<i>49.8%</i>	16%	<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Centre: **Southern General Hospital (SGG)**

Town/City: **Glasgow**

Local Area Team: **Scotland**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	123	12	135
ICD	0	0	0
CRT-P			0
CRT-D			0

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome

Physiological pacing implants

% physiological pacing for SSS % UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	<input type="text"/>	<i>ICD national</i>	<input type="text"/>	<i>CRT-D national</i>
Primary prevention:	<input type="text"/>	<i>50.0%</i>	<input type="text"/>	<i>76.9%</i>
Secondary prevention:	<input type="text"/>	<i>49.8%</i>	<input type="text"/>	<i>23.0%</i>
Other indication:	<input type="text"/>	<i>0.2%</i>	<input type="text"/>	<i>0.1%</i>

Centre: **Victoria Hospital Kirkcaldy (KIR)**

Town/City: **Kirkcaldy**

Local Area Team: **Scotland**

Device implant procedures registered with NICOR for 2014-15

	New	Replacement	Total
Pacemaker	99	19	118
ICD	7	0	7
CRT-P			2
CRT-D			1

Note: if an implant was performed elsewhere and the implanting hospital did not register the implant, then it will be included in these counts.

Physiological pacing for Sick Sinus Syndrome

New implants for Sick Sinus Syndrome **24**

Physiological pacing implants **8**

% physiological pacing for SSS **33 %** UK national average 89.4% (2013-14: 87.3%)

Indication for High Energy Devices

Reference: NICE Guidance TA095, TA120, TA314

	ICD		CRT-D	
New Devices with a registered indication:	5	<i>ICD national</i>		<i>CRT-D national</i>
Primary prevention:	40%	<i>50.0%</i>		<i>76.9%</i>
Secondary prevention:	60%	<i>49.8%</i>		<i>23.0%</i>
Other indication:		<i>0.2%</i>		<i>0.1%</i>

Appendix 1 – Applicable NICE guidelines

Indicator	Guideline	Title	Date published
Physiological pacing for Sick Sinus Syndrome	NICE technology appraisal TA324 www.nice.org.uk/guidance/ta324	Dual-chamber pacemakers for symptomatic bradycardia due to sick sinus syndrome without atrioventricular block	November 2014 Superseding TA88
Indication for High Energy Devices	NICE technology appraisal TA314 www.nice.org.uk/guidance/ta314	Implantable cardioverter defibrillators and cardiac resynchronisation therapy for arrhythmias and heart failure (review of TA95 and TA120)	June 2014 Superseding TA95 and TA120

Appendix 2 – Audit Steering Group membership

The British Heart Rhythm Society (BHRS) provides clinical governance to the CRM Audit through the Audit Steering Group, chaired by Dr Francis Murgatroyd and Dr Nick Linker. The steering group includes a number of invited stakeholders representing relevant professions, government agencies, industry, and patient representation as well as NICOR. The following were invited to the steering group during the 2014-5 cycle.

Current membership is as follows:

Name	Job title	Committee Position
Anthony Bradley	CRM Project Manager	
James Chal	Chief Operating Officer	
David Cunningham	Senior Strategist	Research Committee
Morag Cunningham	CRM Data Co-ordinator	Admin/Minutes
Heather Cusden	Clinical Cardiac Physiologist	Cardiac Physiologist
Nadeem Fazal	NICOR Audits Service Manager	NICOR Technical Team Leader
Roy Gardner	Consultant Cardiologist	British Society of Heart Failure
Michael Griffith	Consultant Cardiologist	BHRS EPS/Ablation and Patient Reported Outcome Measures
Kevin Harris	Consultant Clinical Advisor to the IP Programme	NICE rep
Simon Holmes	Senior Medical Device Specialist	MHRA
Jonathan Howell	Consultant in Public Health	Specialised Commissioning Groups
Pier Lambiase	Consultant Cardiologist	Research Lead
Mauro Lencioni	Consultant Cardiologist	BHRS EPS/Ablation and Patient Reported Outcome Measures
Nick Linker	Consultant Cardiologist	BHRS rep/ co-chair
Trudie Lobhan	Trustee	Patient Group rep
Janet McComb	Consultant Cardiologist	
Mark McIntyre	UK Group Director of Public Affairs & Health Economics	Industry rep
Francis Murgatroyd	Consultant Cardiologist	BHRS rep/co-chair
Chris Plummer	Consultant Cardiologist	
Vacant		ABHI rep
Edward Rowland	Consultant Cardiologist	BHRS Past President ex officio
Marion Standing	System Developer CRM	Technical team rep

Appendix 3 -List of hospitals participating in the 2014/15 audit

2014/15 CRM Audit Participation - Device Type by Hospital (England & Wales)

Centre	Pacemakers	Complex Devices
ACH. Alder Hey Hospital	yes	yes
ADD. Addenbrookes Hospital	yes	yes
AEI. Royal Albert Edward Infirmary	yes	
AHM. BMI The Alexandra Hospital	yes	yes
AIR. Airedale General Hospital	yes	yes
AMG. Wycombe Hospital	yes	
ANT. St Anthonys Hospital	yes	
ASH. Wansbeck General Hospital	yes	yes
BAL. Barts and the London	yes	yes
BAR. Barnsley Hospital	yes	
BAS. Basildon Hospital (Essex Cardiothoracic Centre)	yes	yes
BAT. Royal United Hospital Bath	yes	
BCH. Birmingham Childrens Hospital	yes	yes
BED. Bedford Hospital	yes	
BFH. Broomfield Hospital	yes	
BFT. Belfast City Hospital	yes	yes
BHH. Rochdale Infirmary	yes	yes
BHL. Liverpool Heart & Chest Hospital	yes	yes
BHR. Royal Berkshire Hospital	yes	yes
BLA. Royal Blackburn Hospital	yes	yes
BMI. BMI The Meriden Hospital	yes	yes
BNT. Barnet General Hospital	yes	yes
BOL. Royal Bolton Hospital	yes	yes
BOU. Royal Bournemouth Hospital	yes	yes
BRC. Bristol Royal Hospital for Children	yes	
BRD. Bradford Royal Infirmary	yes	yes
BRI. Bristol Royal Infirmary	yes	yes
BRO. The Princess Royal University Hospital Bromley	yes	
BRT. Queens Hospital Burton	yes	
BRY. Fairfield General Hospital	yes	yes
BSM. Southmead Hospital	0	
CBS. Spire Southampton Hospital	yes	yes
CGH. Conquest Hospital	yes	yes
CHE. Chesterfield Royal Hospital	yes	
CHG. Cheltenham General Hospital	yes	yes
CHH. Castle Hill Hospital	yes	yes
CHN. Nottingham City Hospital	yes	yes

Centre	Pacemakers	Complex Devices
CLW. Glan Clwyd District General Hospital	yes	
CMH. Central Middlesex Hospital	yes	
CMI. Cumberland Infirmary	yes	
COC. Countess of Chester Hospital	yes	
COL. Colchester General Hospital	yes	
CRG. Craigavon Area Hospital	yes	
CRO. Cromwell Hospital	yes	yes
DAR. Darlington Memorial Hospital	yes	
DER. Royal Derby Hospital	yes	yes
DEW. Dewsbury District Hospital	yes	
DGE. Eastbourne District General Hospital	yes	yes
DID. Doncaster Royal Infirmary	yes	
DMF. Dumfries and Galloway Royal Infirmary	yes	yes
DRY. University Hospital of North Durham	yes	
DUC. Duchy Hospital, Truro	yes	yes
DUD. Birmingham City Hospital	yes	yes
DVH. Darent Valley Hospital	yes	
EAL. Ealing Hospital	yes	
EPS. Epsom Hospital	yes	
ERI. Edinburgh Royal Infirmary	yes	yes
ESU. East Surrey Hospital	yes	yes
FAZ. Aintree University Hospital	yes	
FRE. Freeman Hospital Newcastle	yes	yes
FRM. Frimley Park Hospital	yes	yes
FRY. Frenchay Hospital	yes	yes
GEO. St Georges Hospital	yes	yes
GGH. Diana, Princess of Wales Hospital Grimsby	yes	yes
GHB. Spire Bristol Hospital	yes	
GHS. Good Hope Hospital	yes	yes
GJH. Golden Jubilee Hospital	yes	yes
GOS. Great Ormond Street Hospital	yes	yes
GRI. Glasgow Royal Infirmary	yes	yes
GRL. Glenfield Hospital	yes	yes
GWE. Royal Gwent Hospital	yes	
GWH. Queen Elizabeth Hospital Greenwich	yes	yes
GWY. Gwynedd Hospital	yes	yes
HAM. Hammersmith Hospital	yes	yes
HAR. Harrogate District Hospital	yes	yes
HBP. Spire Hull and East Riding Hospital	yes	
HCH. County Hospital Hereford	yes	yes
HGH. University Hospital of Hartlepool	yes	

Centre	Pacemakers	Complex Devices
HH. Harefield Hospital	yes	yes
HHW. Wellington Hospital North	yes	yes
HSC. Harley Street Clinic	yes	yes
HUD. Huddersfield Royal Hospital	yes	yes
IND. London Independent Hospital	yes	
INV. Inverclyde Royal Hospital	yes	
IOW. St Marys Hospital Isle of Wight	yes	
IPS. The Ipswich Hospital	yes	
KCH. Kings College Hospital	yes	yes
KGG. King George Hospital Goodmayes	yes	
KGH. Kettering General Hospital	yes	yes
KIM. Kent Institute of Medicine and Surgery	yes	
KIR. Victoria Hospital Kirkcaldy	yes	yes
KMH. Kings Mill Hospital	yes	yes
KSX. Tunbridge Wells Hospital	yes	
KTH. Kingston Hospital	yes	
LBH. London Bridge Hospital	yes	yes
LBP. Spire Leicester Hospital	yes	
LDH. Luton & Dunstable Hospital	yes	
LEB. Spire Leeds Hospital	yes	yes
LEW. Lewisham Hospital	yes	
LGI. Leeds General Infirmary	yes	yes
LIN. Lincoln County Hospital	yes	
LIS. Lister Hospital	yes	
MAI. Maidstone Hospital	yes	yes
MAY. Croydon University Hospital	yes	yes
MDW. Medway Maritime Hospital	yes	yes
MKH. Milton Keynes Hospital	yes	
MOR. Morrision Hospital	yes	yes
MPH. Musgrove Park Hospital	yes	yes
MRI. Manchester Royal Infirmary	yes	yes
NCR. New Cross Hospital (Wolverhampton Heart Centre)	yes	yes
NDD. North Devon District Hospital	yes	
NEV. Neville Hall Hospital	yes	
NGS. Northern General Hospital Sheffield	yes	yes
NHB. Royal Brompton Hospital	yes	yes
NHH. Basingstoke & North Hampshire Hospital	yes	yes
NMG. North Manchester General Hospital	yes	
NMH. North Middlesex University Hospital	yes	
NOR. Norfolk & Norwich University Hospital	yes	yes

Centre	Pacemakers	Complex Devices
NPH. Northwick Park Hospital	yes	
NTG. University Hospital of North Tees	yes	
NTH. Northampton General Hospital	yes	yes
NUN. George Eliot Hospital	yes	
PAH. Princess Alexandra Hospital Harlow	yes	
PAP. Papworth Hospital	yes	yes
PCH. Prince Charles Hospital	yes	
PET. Peterborough City Hospital	yes	
PGH. Poole Hospital	yes	
PHB. BMI The Priory Hospital Birmingham	yes	yes
PIL. Pilgrim Hospital	yes	
PIN. Pinderfields General Hospital	yes	yes
PLY. Derriford Hospital	yes	yes
PMS. The Great Western Hospital	yes	yes
POW. Princess Of Wales Hospital	yes	
QAP. Queen Alexandra Hospital	yes	yes
QEB. Queen Elizabeth Hospital Birmingham	yes	yes
QEG. Queen Elizabeth Hospital Gateshead	yes	
QEQ. Queen Elizabeth the Queen Mother Hospital	yes	yes
RAD. John Radcliffe Hospital	yes	yes
RAH. Royal Alexandra Hospital	yes	
RBH. Royal Berkshire Hospital	yes	yes
RCH. Royal Cornwall Hospital	yes	yes
RDE. Royal Devon & Exeter Hospital	yes	yes
RFH. Royal Free Hospital	yes	yes
RGH. Royal Glamorgan Hospital	yes	yes
RHI. Calderdale Royal Hospital	yes	yes
RHS. Royal Hospital for Sick Children	yes	
RIA. Royal Infirmary Aberdeen	yes	yes
RLU. Royal Liverpool University Hospital	yes	
ROT. Rotherham Hospital	yes	
RPH. Royal Preston Hospital	yes	
RSC. Royal Sussex County Hospital	yes	yes
RSU. Royal Surrey County Hospital	yes	yes
RUS. Russells Hall Hospital	yes	yes
RVB. Royal Hospitals Belfast	yes	yes
SAL. Salisbury District Hospital	yes	yes
SAN. Sandwell General Hospital	yes	yes
SCA. Scarborough Hospital	yes	
SCM. The James Cook University Hospital	yes	yes
SCU. Scunthorpe General Hospital	yes	

Centre	Pacemakers	Complex Devices
SDG. Stafford Hospital	yes	
SEH. Southend University Hospital	yes	yes
SGG. Southern General Hospital	yes	
SGH. Southampton General Hospital	yes	yes
SHH. Stepping Hill Hospital	yes	
SLF. Salford Royal Hospital	yes	
SOL. Solihull Hospital	yes	
SPH. St Peters Hospital	yes	yes
STB. Stobhill Hospital	yes	yes
STD. South Tyneside District Hospital	yes	
STH. St Thomas Hospital	yes	yes
STO. University Hospital of North Staffs	yes	yes
STR. St Richards Hospital	yes	yes
SUN. Sunderland Royal Hospital	yes	
TGA. Tameside Hospital	yes	
TLF. Princess Royal Hospital Telford	yes	yes
TOR. Torbay Hospital	yes	yes
TRA. Trafford General Hospital	yes	
UCL. University College Hospital	yes	yes
UHW. University Hospital of Wales	yes	yes
VIC. Blackpool Victoria Hospital (Lancashire Cardiac Centre)	yes	yes
VIG. Victoria Infirmary Glasgow	yes	
WAL. University Hospital Coventry	yes	yes
WAR. Warwick Hospital	yes	yes
WAT. Watford General Hospital	yes	yes
WDG. Warrington Hospital	yes	
WDH. Dorset County Hospital	yes	yes
WES. Chelsea & Westminster Hospital	yes	
WEX. Wexham Park Hospital	yes	yes
WGH. Weston General Hospital	yes	
WGK. Westmoreland General Hospital	yes	yes
WHC. Whipps Cross University Hospital	yes	
WHH. William Harvey Hospital	yes	yes
WHI. Whiston Hospital	yes	
WIG. Western Infirmary Glasgow	yes	yes
WIR. Arrowe Park Hospital	yes	
WMH. Walsall Manor Hospital	yes	yes
WRC. Worcestershire Royal Hospital	yes	yes
WRG. Worthing Hospital	yes	yes
WRX. Maelor Hospital Wrexham	yes	yes

Centre	Pacemakers	Complex Devices
WWG. Glangwili General Hospital	yes	
WYT. Wythenshawe Hospital	yes	yes
YDH. The York Hospital	yes	
YEO. Yeovil District Hospital	yes	

Appendix 4 – Glossary of Terms

24 Hour ECG	A 24 hour recording of the heart beat (electrocardiogram or ECG) usually done by wearing a small portable recorder.
Analyst	An individual employed by NICOR to perform statistical analysis of the audit data.
Arrhythmia	A condition in which there is abnormal electrical activity in the heart. The heartbeat may be too fast or too slow, and may be regular or irregular.
Atrial based pacing	Any type of pacing of the heart which involves delivering electrical pulses to an atrium.
Atrioventricular Block	A disease process where the heart beat which originates in the right atrium cannot properly reach the ventricles. This often occurs as part of the ageing process. Without treatment it will lead to patient symptoms and/or death.
Atrioventricular Conduction	The electrical signal which stimulates the heart to beat originates in the right atrium. The signal passes through specialised cells which ensure that the signal reaches the ventricles simultaneously.
Atrium	One of the upper chambers of the heart.
Audit Steering Group	The audit steering group includes major stakeholders in the audit, including cardiologists, the professional societies, physiologists, commissioners and patient group representatives. This group advises on the management of the audit.
British Cardiovascular Society (BCS)	The British Cardiovascular Society promotes education, training and research in cardiovascular health and upholds clinical and professional standards.
British Heart Rhythm Society (BHRS)	The national professional society which advises on all matters associated with heart rhythm therapy. The British Heart Rhythm Society is an affiliated group of the British Cardiovascular Society, and is dedicated to improving all aspects of cardiac arrhythmia care and electrical device based therapies. It provides an essential link between professionals working within pacing, devices and electrophysiology in the UK.
Cardiac Physiologist	A person working in a hospital who assists a doctor in procedures performed on patients with heart disease.

Cardiac Resynchronisation Therapy (CRT)	CRT aims to improve the heart's pumping efficiency by making the lower chambers of the heart pump at the same time. 25-50% of all heart failure patients have hearts whose lower chambers do not contract simultaneously. CRT involves implanting a CRT pacemaker or ICD (implantable cardioverter defibrillator) that has a lead positioned in each ventricle. Most devices also include a third lead which is positioned in the right atrium to ensure that the atria and ventricles contract in the correct sequence.
Cardiologist	A doctor who specialises in diagnosing and treating medical conditions which arise in, or affect, the heart and blood vessels. They may also perform a limited range of procedures, but not heart surgery.
Case Ascertainment	The proportion of procedures performed that is captured by the audit.
CCG (Clinical Commissioning Group)	Bodies created by the NHS to manage the health budget for an area and commission health services for that area.
Clinical audit	An examination of clinical practice involving recording details of procedures over a period of time.
Clinical Lead	An individual appointed to lead the national audit. This is usually a medical doctor who is a recognised expert in a particular field.
Commissioner	An individual or a group (see CCG) who decides how funding is spent on health care for an area.
Complex device	An expression used to describe all implantable devices in the heart that are not simple pacemakers. Includes ICD and CRT devices.
Coronary Heart Disease (CHD)	A disease in which fatty deposits build up inside one or more of the heart's own arteries. These arteries supply oxygen rich blood to heart muscle. These deposits can cause chest pain or a heart attack.
Coronary intervention	Percutaneous coronary intervention (PCI) is a procedure to unblock a coronary artery. A catheter (a fine, flexible, hollow tube) with a small balloon at the end is inserted through an artery in the groin or arm. The balloon is directed to the blockage using X-ray guidance. Next, the balloon is inflated so that it pushes the fatty tissue in the narrow artery out of the way in order to improve the blood supply in the heart.
CRM (Cardiac Rhythm Management)	Treatments and therapies for abnormal heart rhythms.

CRT-D	Cardiac resynchronisation therapy (CRT) is an effective therapy in patients with heart failure. A CRT-D device sends small, undetectable electrical impulses to both lower chambers of the heart to help them beat together in a more synchronized pattern. This improves the heart's ability to pump blood and oxygen to the body. In addition CRT-D devices can deliver high voltage shocks if the heart develops an immediately life-threatening rhythm.
CRT-P	Cardiac resynchronisation therapy (CRT) is an effective therapy in patients with heart failure. A CRT-P device sends small, undetectable electrical impulses to both lower chambers of the heart to help them beat together in a more synchronized pattern. This improves the heart's ability to pump blood and oxygen to the body.
Database Coordinator	An individual employed by NICOR to ensure the steady flow and high quality of information received by the national audit.
Defibrillation	Defibrillation is a process in which a device gives an electric shock to the heart. This helps re-establish a normal rhythm in a heart having dangerous rhythm disturbance or cardiac arrest.
Device implant	Implantation of any device designed to improve the heart rhythm of a patient.
Dual-chamber pacemaker	A pacemaker which send electrical pulses to both the upper and lower chambers of the heart in order to restore normal heart rhythm.
ECG (Electrocardiogram)	A recording of the heart beat either on a monitor or on paper.
EHRA	The European Heart Rhythm Association - an organisation affiliated to the European Society for Cardiology. EHRA collates activity data on all member countries each year.
Electrophysiology European Society of Cardiology (ESC)	The study of the mechanisms behind abnormal heart rhythms. The ESC is a professional association for cardiologists across Europe, which aims to facilitate improved diagnosis and treatment of cardiovascular disease in Europe. It runs numerous education and training events, and edits and publishes nine journals on cardiology. The ESC has produced a Clinical Practice Guideline for acute and chronic heart failure, and a set of standards for delivering heart failure care, which the audit uses, along with NICE guidance, as a benchmark for good practice.

Health Quality Improvement Partnership (HQIP)	The Healthcare Quality Improvement Partnership (HQIP) is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing and National Voices. Its aim is to promote quality improvement, and in particular to increase the impact of clinical audit in England and Wales. HQIP hosts the contract to manage and develop the National Clinical Audit and Patient Outcomes Programme (NCAPOP). The programme comprises 40 clinical audits that cover care provided to people with a wide range of medical, surgical and mental health conditions.
Heart failure	A syndrome characterised by the reduced ability of the heart to pump blood around the body, caused by structural or functional cardiac abnormalities. The condition is characterised by symptoms such as shortness of breath and fatigue, and signs such as fluid retention.
High energy device	An implanted device that can sense a life-threatening heart rhythm and deliver a high voltage internal shock to return the heart rhythm to normal. In addition, some high energy devices (CRT-D) can also deliver therapy for heart failure.
ICD (Implantable Cardioverter Defibrillator)	An implanted device that can sense a life-threatening heart rhythm and deliver a high voltage internal shock to return the heart rhythm to normal.
Implanting centre	A hospital which implants cardiac devices.
Interventional procedure	An interventional procedure is any procedure that involves making a cut or a hole to gain access to the inside of a patient's body - for example, when carrying out an operation or inserting a tube into a blood vessel.
LAT	Local Area Team - an administrative group defined in the most recent NHS England reorganisation.
Lead displacement	Accidental dislodgement of one of the leads which connect a pacemaker or other device to the heart. The displacement can lead to loss of device function and can be life-threatening.
Lead perforation	A situation where a lead connecting an implanted device to the heart pushes its way through the wall of the chamber to which it is connected. The lead will need to be replaced or repositioned to restore proper functioning of the device.
Left ventricle	The left lower chamber of the heart that pumps blood out under high pressure to all parts of the body.
Left Ventricular Ejection Fraction (LVEF)	A measurement of how much blood is pumped out of the left ventricle with each heartbeat. An ejection fraction of below 40%

may be an indication of heart failure.

Low energy device	An implanted heart device which does not have the ability to deliver high voltage shocks in the event of an immediately life-threatening rhythm disturbance.
Median	The number falling in the middle of a ranked series of numbers.
Mortality	Death.
National Clinical Audit and Patient Outcomes Programme (NCAPOP)	A group of 40 national clinical audits, funded by the Department of Health and overseen by HQIP that collect data on the implementation of evidence based clinical standard in UK Trusts, and report on patient outcomes.
National Health Service Trust (NHS Trust)	A hospital, or group of hospitals delivering healthcare in England.
National Institute of Cardiovascular Outcomes Research (NICOR)	Part of the National Centre for Cardiovascular Prevention and Outcomes, based in the Institute of Cardiovascular Science at University College London. NICOR manages seven national clinical audits, including the National Cardiac Rhythm Management Audit, and three new technology registries.
New York Heart Association class (NYHA)	<p>NYHA classification is used to describe degrees of heart failure by placing patients in one of four categories based on how much they are limited during physical activity:</p> <p>Class I (None): No limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, or dyspnoea (shortness of breath).</p> <p>Class II (Mild): Slight limitation of physical activity. Comfortable at rest, but ordinary physical activity results in fatigue, palpitation, or dyspnoea.</p> <p>Class III (Moderate): Marked limitation of physical activity. Comfortable at rest, but less than ordinary activity causes fatigue, palpitation, or dyspnoea.</p> <p>Class IV (Severe): Unable to carry out any physical activity without discomfort. Symptoms of cardiac insufficiency at rest. If any physical activity is undertaken, discomfort is increased.</p>
NICE	The National Institute for Health and Care Excellence (NICE) provides national guidance and advice to improve health and social care.
Office of National Statistics (ONS)	ONS is the UK's largest independent producer of official statistics and the recognised national statistical institute of the UK. www.ons.gov.uk .

Pacemaker	A small implantable device which regulates the heart beat by delivering electrical pulses to the heart.
Physiological pacing	Therapy delivered by an implanted device which aims to mimic the normal sequence of heartbeat - in other words, the upper chambers (atria) beat first, followed by the lower chambers (ventricles).
PM	A pacemaker.
pmp	"per million population"
Postcode provision	Also known as "postcode lottery" - variations in delivery of healthcare not related to clinical need but rather due to local/regional practice.
Primary prevention	Primary prevention seeks to prevent the onset of specific diseases via risk reduction: by altering behaviours or exposures that can lead to disease, or by enhancing resistance to the effects of exposure to a disease agent.
Project Manager	An individual employed by NICOR to manage the objectives of the national audit.
Secondary prevention	Secondary prevention aims to prevent further dangerous events after the patient has already suffered a 'primary' event.
Sick sinus syndrome	<p>Sick sinus syndrome is a group of heart rhythm disorders that include:</p> <p>Sinus bradycardia: the heart does not send out a signal telling the heart to beat often enough. The heart beat rate is slow.</p> <p>Sinus pauses or arrest: This occurs when the natural pacemaker of the heart stops sending out signals telling to heart to beat for periods of time. People with these disorders may also have other abnormal heart rhythms, such as:</p> <p>Supraventricular tachycardia: This is a fast heart rate that starts in the upper chambers of the heart (atria).</p> <p>Bradycardia-tachycardia: This is a pattern of alternating slow and fast heart rhythms (sometimes called "tachy-brady syndrome").</p>
Sinus node	The sinus node is the heart's natural pacemaker. The sinus node consists of a cluster of cells that are situated in the upper part of the wall of the right atrium (the right upper chamber of the heart). Electrical impulses are generated there which govern the normal functioning of the heart.

Symptomatic bradycardia	A slow heart rate (bradycardia) which the patient notices and which affects how the patient feels.
Ventricle	Lower chamber of the heart. There is a left and right ventricle. These chambers are the heart's main pumps and contract in response to electrical impulses in the heart. The right ventricle pumps blood to the lungs, the left ventricle pumps blood to the rest of the body.
Ventricular fibrillation	Ventricular fibrillation is a condition in which there is uncoordinated contraction of the cardiac muscle of the ventricles in the heart, making them quiver rather than contract properly. Ventricular fibrillation is the most commonly identified arrhythmia in cardiac arrest patients.
Ventricular tachyarrhythmia	A term that includes ventricular fibrillation and ventricular tachycardia.
Ventricular tachycardia	Ventricular tachycardia is a type of tachycardia (rapid heartbeat) that starts in the bottom chambers of the heart, called the ventricles. It is not as immediately life threatening as ventricular fibrillation but it can, if not treated, lead to cardiac arrest and death.