

A National Survey of Arrhythmia Nurses: Roles, Qualifications, and Professional Development Needs.

Introduction: The role of the arrhythmia nurse is increasingly vital in cardiovascular care. This survey aimed to delineate the current landscape of arrhythmia nursing in the UK, focusing on roles, responsibilities, qualifications, and professional development requirements.

Methods: A national online survey was conducted between October 2023 and March 2024, disseminated through professional bodies including the Arrhythmia Alliance, British Association for Nursing in Cardiovascular Care, British Cardiovascular Society and British Heart Rhythm Society. The survey was a scaled-up iteration of a 2022 pilot audit and gathered data on demographics, qualifications, work environment, clinical responsibilities, leadership, teaching, research involvement, and perceived development needs.

Results: 102 responses were received. 69% of arrhythmia nurses operate at Band 7, with significant experience (many over 20 years qualified). 35% have a Masters level qualification. Over half are non-medical prescribers, and most possess advanced life support qualifications and ECG interpretation skills. While most are BHRS members, few hold BHRS accreditation. Roles are diverse, encompassing various clinics (e.g., AF, syncope) and procedures (e.g., ILR implantation, DC cardioversion), with many nurses undertaking multiple roles. Leadership and teaching are common responsibilities. Areas identified for further development include specialised training, accessible online courses, and dedicated study time and budgets, which are currently lacking for many.

Discussion: This survey highlights the advanced and multifaceted nature of the arrhythmia nurse role. There is a clear need for standardised competency pathways, greater support for professional accreditation, and dedicated resources for continuous professional development to meet the evolving demands of arrhythmia care. The findings provide a foundation for workforce planning and the development of targeted educational initiatives.

Conclusion: Arrhythmia nurses are a highly skilled and an integral part of the cardiac and advanced practice team. Addressing the identified needs for structured training, accreditation support, and development opportunities is crucial for optimising patient care and advancing the specialty. Further qualitative research is planned to explore these findings in greater depth.

Keywords: Arrhythmia Nurse, Nursing, Survey, Specialist, Roles.

Introduction

Arrhythmia is a medical condition characterised by an abnormal heart rhythm, be it affecting the heart rate or rhythm (ESC, 2022). These disturbances can range from harmless to life-threatening, depending on the type and severity. Common types include atrial fibrillation [AF], supraventricular tachycardia, and ventricular arrhythmias.

Globally, arrhythmias are a significant public health issue. Atrial fibrillation prevalence is increasing globally, with nearly 60 million people affected in 2019, a trend driven by population growth, ageing, rising risk factors like obesity and hypertension and survival from other cardiac conditions (Roth et al., 2019). In parallel, better awareness and improved detection of AF have been observed (Williams et al., 2020). Research indicates a continued upward trajectory, and incident cases of AF are doubling every few decades (Lippi et al., 2021).

Arrhythmia nursing plays a central role in the ongoing management of patients with heart rhythm disorders. The role has grown significantly since its conceptualisation, particularly following national directives such as the National Service Framework [NSF] chapter on 'Arrhythmias and Sudden Death' (Department of Health, 2005). Anecdotally and through the authors experience, nurses in this field monitor cardiac rhythms, educate patients on symptom management, lead cardioversion, arrhythmia and syncope services, assist with ablations and device management, provide support during medication adjustments and as evidenced through advanced practice, take on more senior roles with autonomy over total patient care. Their close, continuous interaction with patients places them in a unique position to detect early signs of deterioration or complications.

Despite their importance, the preparation and training of nurses in arrhythmia care remains under-explored in literature. There is limited standardisation or recognition of the specialised knowledge required for arrhythmia nursing, which may hinder the optimisation of care. Enhancing nurse education and formalising roles could improve patient outcomes and support the growing need for specialised arrhythmia services.

The Arrhythmia Nurse Survey provides a contemporary (2023-2024) assessment of the evolving role of the Arrhythmia Nurse. The survey seeks to explore the roles, grades, qualifications, current working practices and experience of the Arrhythmia Nurse and its findings could advocate for more cohesive approaches to arrhythmia nurse education, competency validation, and career structuring.

Methods

This cross sectional national online survey using a voluntary response sample disseminated via professional and specialty organisations, reflects the design of a pilot survey undertaken in 2022 for the British Cardiac Society [BCS]. Face validity was established by a team of arrhythmia nurses who were recruited via the arrhythmia nurse forum. The survey consisted of 19 questions and were focussed on clinical gradings, number of arrhythmia nurses per team, qualifications, roles, society memberships, teaching and research elements, and thoughts around training and education in the speciality role. Multiple choice options were

available for selection along with the option to add free text. The survey was administered through the Joint Information Systems Committee [JISC] platform. All specialist nurses working in arrhythmia specialties were eligible to participate.

Recruitment was undertaken using an online link that was shared on multiple websites (Arrhythmia Alliance, BHRS, British Association of Nurses in Cardiovascular Care [BANCC], BCS, Royal College of Nursing [RCN]), social media feeds, and the arrhythmia nurse email forum. The survey was open from October 2023 to the end of March 2024. The survey link was sent initially, then re-sent one month later and again, in February 2024. The team had hoped to identify a list of arrhythmia nurses within U.K. cardiac centres, but these data were not available.

Results.

A total of 102 completed surveys were received. One responders' answers were removed as they were a trainee and not an arrhythmia specialist.

None of the questions were mandatory and therefore, percentages and numbers who answered each question are provided. The national denominator of arrhythmia nurses is unknown, so a response rate cannot be calculated and representativeness may, therefore, be limited.

Review of memberships to the aforementioned societies and answers to questions around workforce, suggests there are approximately double this number of arrhythmia nurses across the country, so while the yield has provided an imperfect overview, it is to the best of our knowledge the only such survey in the U.K. to date and should form the basis of future research. This was a self-selected sample using methods available for dissemination and, therefore, may represent response bias, variable response rates, descriptive analysis only and only UK data which may limit generalisability. Follow on work is likely to include qualitative work in a way that can explore these findings with more depth through participant interviews and may help inform and support workforce planning and competency framework implementation.

For ease of interpretation and representation of results, each question is listed with a summary of response. (Full raw data is available via the BHRS website, nurses' section).

1. What is your job title? Job role was recorded by all participants and over two thirds of respondents (69%) were Arrhythmia Nurse Specialists. Other titles included Advanced Nurse Practitioner (8%), Clinical Nurse Specialist (6%), Consultant Nurse (4%), Arrhythmia Nurse Practitioner (1%), Arrhythmia and Inherited Cardiac Conditions Specialist Nurse (1%), Cardiac and ECMO Specialist Nurse (1%), BHF Nursing and PHD Fellow (1%), Research Nurse (1%), Lead Arrhythmia Nurse Specialist (1%), Arrhythmia Care Coordinator (1%), Arrhythmia Enhanced Practitioner (1%), and BHF Nurse Fellow (Arrhythmia) (1%).

2. What is your grade?

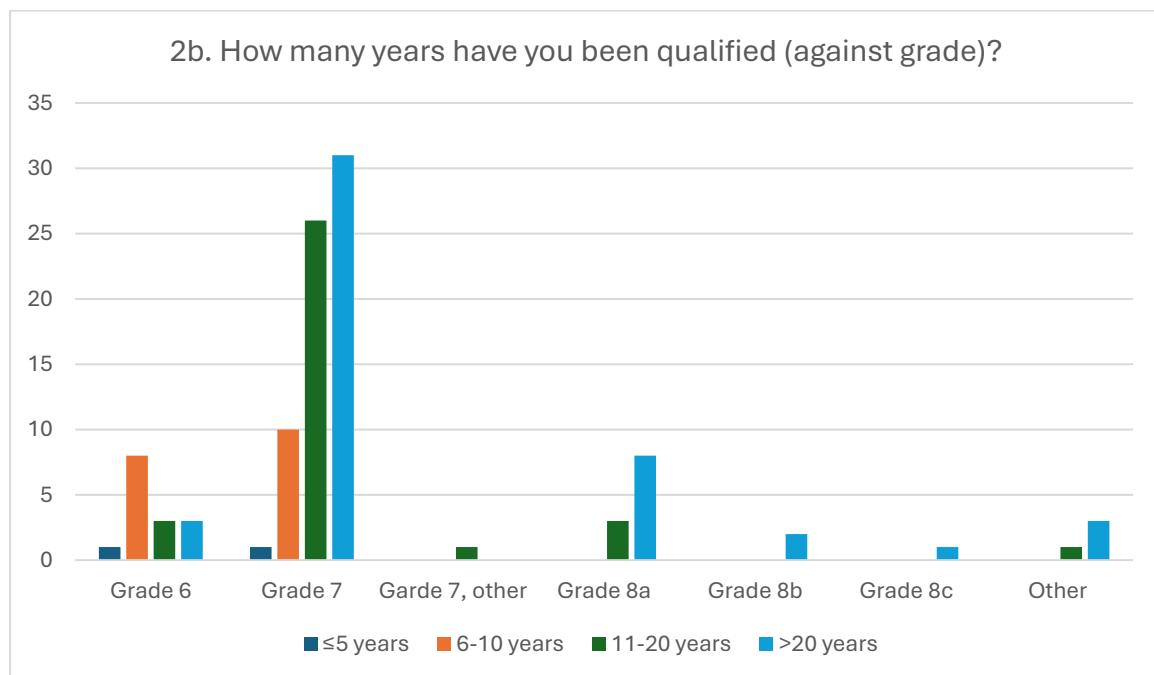
Banding was recorded in 99 cases (98%) with band 7 selected by 69% of responders (n=68), followed by 14% at band 8 (n=14) and band 6 was the recorded grade for 15% of nurses (n=15). 'Other' was selected by 2 responders with one not adding further detail and one listing band 9 as a trust lead Advanced Clinical Practitioner. *(Please note that whilst 'Banding' is widely accepted in accordance with Agenda for Change pay structures and is used in this paper, 'grade' was used in the posed questions; for standardisation throughout this paper, 'band' or 'banding' will be used).*

2a. How many years have you been qualified?

Years qualified (as a registered nurse) was recorded by all responders and almost half of the arrhythmia specialists have been a qualified nurse for more than 20 years (47%, n=47), a third for 11-20 years (33%, n=33), and 18% have been qualified for 6-10 years (n=18). Only 2% had been in post for 5 years or less (n=2).

Table 1 shows the answers combined for question 2 and 2a, representing the relationship between grade and years qualified.

Table 1. Combined answers for survey questions 2 and 2a representing grade and years qualified.



2c. How many years have you worked in arrhythmia care?

Years worked in arrhythmia care was answered by 99% (n=100) of responders and 34% (n=34) have worked in arrhythmia care for over 10 years and 17% for 6-10 years (n=17). Some were newer to the specialty with 6% having worked for less than 1 year in this field (n=6), 14% (n=14) recorded 1-2 years' experience and 29% of responders noted 3-5 years' worth of experience (n=29).

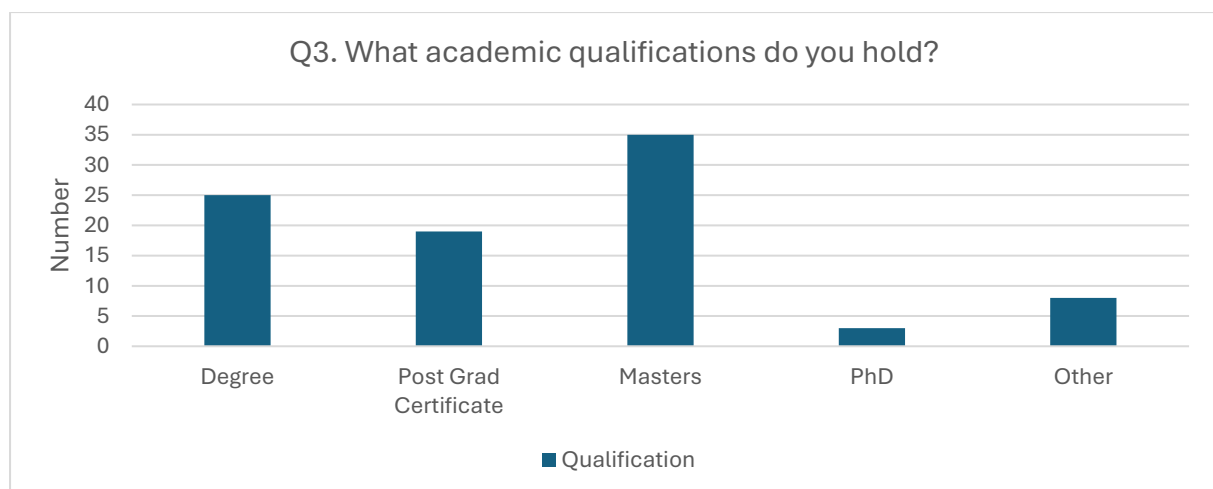
Responses combining AfC grading and experience showed that two band 8 nurses had 3–5 years in the specialty; all held degrees, and all but one had master's qualifications. One band 8 nurse held a postgraduate certificate with 11–20 years since qualifying and over 10 years in the specialty. Among band 7 nurses, 44% (n=30) had over 20 years' experience, 40% (n=27) had 11–20 years, 15% (n=10) had 6–10 years, and one had under 5 years. Specialty experience for band 7 nurses ranged from under 1 year to over 10 years, with 23 reporting more than 10 years in arrhythmia.

For band 6 arrhythmia nurses, most had qualified 6–10 years ago, while two had over 20 years of nursing experience. Of these, one had over 10 years in the specialty, though the majority had less than 5 years of arrhythmia experience.

3. What academic qualifications do you hold?

All responders answered this question and *Table 2* shows qualifications held. Under the 'other' section, a combination of qualifications such as a Diploma and Masters modules, Post Graduate Diploma and working towards Masters (modules). One responder at band 6 explained that no academic qualifications were held but they possessed lots of experience having been qualified for over 20 years with 3-5 years in arrhythmia care. Another was undertaking a PhD and 3 on a Masters pathway.

Table 2. Qualifications held by arrhythmia nurse.



4. Are you a non-medical prescriber?

A majority of 52% (n=53) selected 'yes' to being a non-medical prescriber, and 47% (n=47) were not. This was from a 99% sample with 100 responses.

5. What resuscitation qualifications do you hold?

Most arrhythmia specialists hold the advanced life support qualification (56%, n=56), with 41% (n=41) having the immediate life support training and 3% (n=3) had basic life support. 100 responses were received for this question, giving a 99% sample.

6. Do you have any qualifications in ECG interpretation?

From a 99% sample (n=100) most responders have a qualification in ECG interpretation (62%, n=62) and when asked what that entailed, the following were listed: ECG and arrhythmia interpretation at Birmingham City University, advanced ECG interpretation course, post graduate certificate in ECG interpretation and arrhythmia management, English National Board [ENB] 124 and 254 course, Diploma with BHF, and the Society for Cardiac Science and Technology [SCST] Diploma in ECG.

7. Have you undertaken a formal work based / local competency pathway?

45% of the total sample responded to this question (n=45) and most answered 'yes', they have completed work-based competencies (78%, n=35). These included implantable loop recorder [ILR] insertions, direct current cardioversion [DCCV], consultation coaching, pre-assessment clinics, arrhythmia and syncope management, critical care competencies, adaptations from BHRS competencies and competencies based on cardiology speciality training. In addition, some included arrhythmia and device focus and technical support in electrophysiology labs among their completed competencies.

8. Are you a member of the British Heart Rhythm Society?

The majority of responding nurses (99%, n=100) are members with the BHRS (55%). When asked why they were not current members, respondents said they had let previous memberships lapse or did not find it cost-effective to rejoin. Five nurses specifically cited cost, expecting employers to pay or not seeing sufficient value especially given expenses for other professional groups or societies.

9. Do you hold BHRS accreditation?

This was answered by 99% of the total sample (n=100) and only 8% (n=8) held the BHRS accreditation at the time of survey completion.

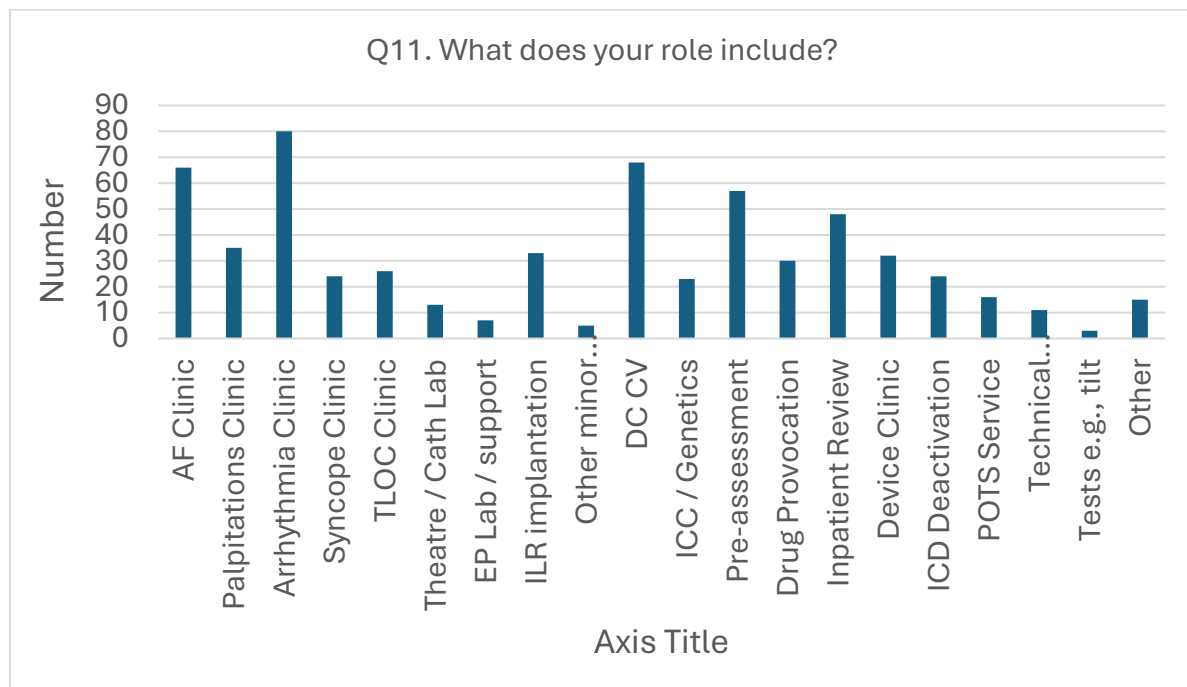
10. Professional bodies, committees or council membership (other than BHRS).

This was answered by 50% of the sample (n=51) in a way that included the Nursing and Midwifery Council [NMC] and the Royal College of Nursing [RCN] among responders listed memberships, although the question was primarily focused on cardiac specific groups and perhaps could have been worded more clearly. Nevertheless, the committees with most members included the BCS (n=8), BANCC (n=7) and European Society of Cardiology [ESC] (n=5) and Arrhythmia Alliance [AA] having the same number (n=5). There were small numbers in other groups including the British Cardiovascular Intervention Society (n=2), Association of Inherited Cardiac Conditions [AICC] (n=3), the Scottish Cardiac Society (n=1) and the Association of Cardiac Nurses & Allied Professionals [ACNAP] (2). Some nurses listed membership of 3 different organisations or committees (n=10), with slightly more (n=12) having membership with 2 different groups. The remaining nurses who provided an answer, were members to just one committee or organisation.

11. What does your role include?

Nearly the total sample completed this question (99%, n=100), revealing a diverse range of roles undertaken, representing the volume and speciality of work of the arrhythmia nurse. *Table 3* demonstrates these roles. From the total number, 66% (n=66) of nurses perform 5 or more roles and 14% (n=14) selected 8 or more roles encompassing their day-to-day work.

Table 3. Roles undertaken by arrhythmia nurse.



**other – screening, helplines, wound reviews, GP practice role*

When comparing roles with banding, band 8 arrhythmia nurses typically held broad remits, often covering eight or more roles (*Table 3*). These included some distinct duties such as senior input with the POTS service, cardioversions, arrhythmia clinics, inpatient work and technical support for ablation. All were actively involved with primary research and doctoral level studies. All were independent prescribers. Level of resuscitation training varied from basic to advanced life support.

Among band 7 nurses, 76% (n=52) performed five or more roles. Qualifications ranged from degrees to master’s-level study, with most holding ILS or ALS certification. 44% (n=30) had completed local competencies and 69% held ECG interpretation qualifications. Leadership was reported by 57% (n=39), teaching by 81% (n=55), and research by 26% (n=18). Band 6 nurses all held degrees, with one postgraduate certificate and one master’s; none were independent prescribers, though half had signed competencies. Most had leadership and teaching roles, with several managing team rotas or engaging in limited research activities such as patient recruitment.

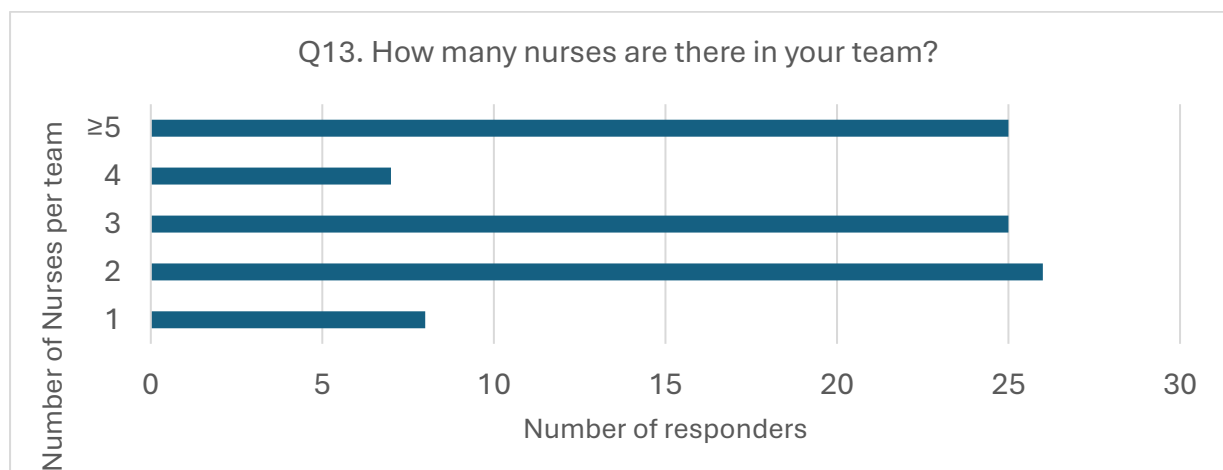
12. If you manage the care of patients with Postural Orthostatic Tachycardia Syndrome, do you hold qualifications in this field?

Of 16 who said they are involved with POTS care, 12.5% (n=2) nurses said they hold a qualification in this field.

13. How many nurses are there in your team?

A near complete sample answered this question (99%, n=100). The total number equalled 288 nurses but it is not clear how many are arrhythmia nurses specifically. Most teams have either 2 or 3 nurses in their team (n= 25 each). There are 4 in the team for 11 of the responders and just 1 nurse for 8 nurses. There are 5 nurses in the team for 7 of those who answered (see *Table 4*).

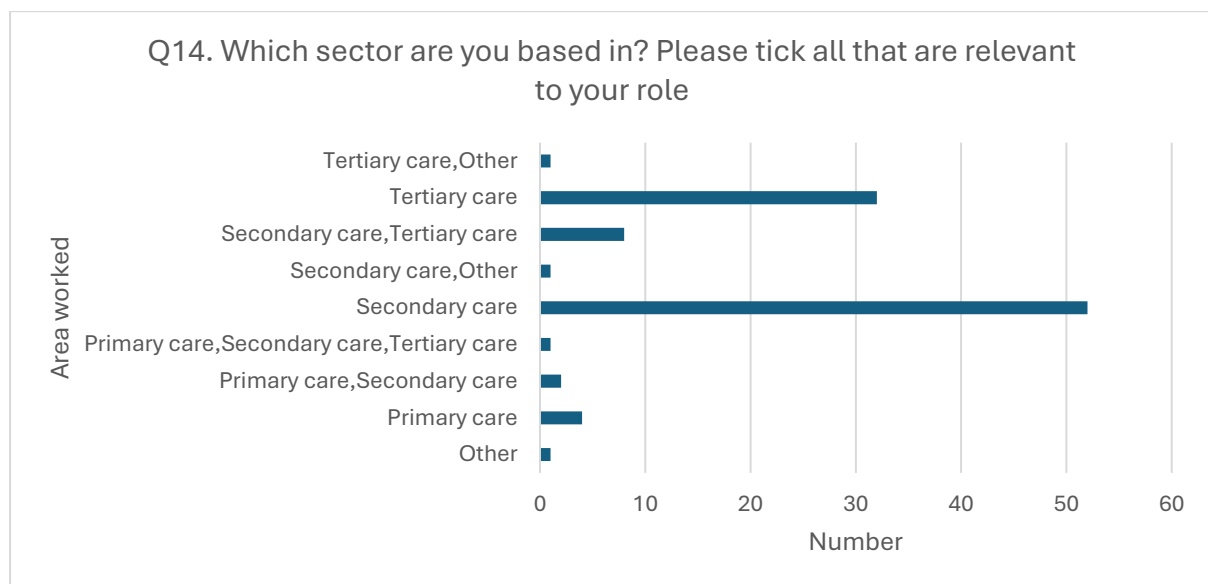
Table 4. Number of nurses within the team.



14. Which sector are you based in?

From a sample of 99% (n=100), 62% stated they were based in secondary care (n=62), followed by tertiary care (42%, n=42), as seen in *Table 5*. Some nurses work across multiple sectors, as seen more clearly in *Table 5*. Those selecting 'other', added being community based but seeing primary and secondary care patients.

Table 5. Numbers working within primary, secondary and / or tertiary care.



14a. If you work in primary care, do you have access to a Cardiologist?

Just 20 participants answered this question (20% of the total sample) and 55% (n=11) have access to a Cardiologist.

14b. If you work in secondary or tertiary care, do you deliver community clinics?

Of 95 who previously selected secondary and / or tertiary care, 91% (n=86) answered this question and 19% (n=16) deliver community clinics as part of their role.

15. Does your role include leadership responsibilities?

An almost complete sample answered this question (94%, n=95) and just over half said their role includes some level of leadership (63%, n=60) and roles listed are displayed in *Table 6*.

Table 6. Leadership roles undertaken by the arrhythmia nurse.

Leadership Role
<p><u>Team management:</u> Acting up or being substantive as a non-medical prescribing lead Managing the arrhythmia team Service lead for teams beyond arrhythmia nurses Group lead for advanced clinical practitioners</p>
<p><u>Clinical leadership:</u> Managing procedure lists Leading student nurse placements Mentorship roles Managing the virtual ward Holding the departmental bleep</p>
<p><u>Service development:</u> Leading on quality improvement projects Budget responsibilities Business cases Strategy planning Representing directorates at business meetings</p>

16. Does your role involve teaching?

Of the total sample, 94% (n=95) responded to questions on teaching, with 85% (n=81) reporting it as part of their role. Teaching covered a wide range of topics and audiences, including nurses, ACPs, paramedics, and doctors, across primary, secondary, and tertiary care, as well as universities and online platforms. Activities ranged from local sessions to national conferences and university lecturing, covering subjects such as ECGs, arrhythmias, devices, pharmacology, and specialist areas like POTS and electrophysiology. Teaching was delivered both informally and through structured sessions.

Most nurses (82%, n=67) spent less than 5 hours per week teaching, 14% (n=11) spent 6–10 hours, and 4% (n=3) dedicated 11–20 hours weekly.

17. Does your role involve research?

Research forming part of their role was answered by 80% (n=81) of the total sample and 59% (n=48) said it was part of their role.

17a. What research activity do you undertake?

When asked for detail around what constitutes their role in research, recruitment (10%, n=8), data collection (7%, n=6), primary research as part of an academic pathway and / or doctoral studies (7%, n=6), patient reported outcome measures were listed (7%, n=6). Some listed more than one e.g., data collection and participant identification or recruitment. The remaining sample did not comment or listed audit as their contribution.

17ai. How many hours of your working week are devoted to research responsibilities?

Less than 5 hours a week are assigned to research activity for 80% (n=51), but this question was also answered by those who selected 'no' to research forming part of their role, so was less valid. Just 8% (n=4) selected 6 to 10 hours, the same number for 11 to 20 hours and 4% (n=2) dedicate 21 to 30 hours per week to research.

18. In your view, what type of course / programme could help and support arrhythmia nurses in their professional development?

Answers were provided by 73% of the total sample (n=74) and answered in two ways, one demonstrating existing training that has been beneficial, and two, suggestions for ongoing training, support and education. These are summarised in *Table 7*.

Table 7. Existing beneficial training and desired, ongoing training suggestions.

Existing beneficial training	Suggestions of ongoing training
<p>University-Based Training: ECG, arrhythmia management, cardiac rhythm/device management, ACP pathways (Teesside, Middlesex, Leeds, Bradford).</p>	<p>Pathways to Advanced Practice: Consolidated modules in arrhythmia management, physical assessment, prescribing → ACP qualification.</p> <p>MSc-level programmes (incorporating prescribing, competencies, project management, teaching, digital health).</p>
<p>Professional Organisations: Society for Cardiac Science and Technology ECG interpretation diploma, BHRS accreditation (suggested compulsory).</p>	<p>Specialist Focus Areas: Exercise & arrhythmia. POTS & syncope services (currently under-supported).</p> <p>Ablation-specific arrhythmia training. Device and AF-focused study days.</p>

<p>Networking and Peer Support: Annual Wales arrhythmia nurse forums; need for wider UK-wide events or service-exchange opportunities.</p>	<p>Flexible & Accessible Learning: Multiple arrhythmia module offerings per year, with online and multi-site options.</p> <p>Online updates on new devices, drugs, and policy.</p> <p>Opportunities for service visits/placements in other centres.</p>
<p>Additional Training Needs: Non-medical prescribing, leadership, Practitioners with a Special Interest [PWSI] courses.</p>	<p>Ongoing Development & Support: Regular updates post-PGCert/NMP.</p> <p>ECG/arrhythmia interpretation for new staff.</p> <p>Clinical supervision, audit, QI, business case writing.</p> <p>Strategic service development and guideline update sessions.</p>

This table underscores the multifaceted needs of arrhythmia nurses. There is some cross over in the table columns, demonstrating that some nurses are aware of and can access specific training and others, are perhaps less aware of what is available.

19. Do you have an allocated study budget and study time allowance?

From 27% who responded (n=27), the majority (71%, n=19) selected ‘no’ and that they did not have allocated study budget or time.

19a. Please specify the number of hours that are allocated to your own professional development each week.

A small number, just 18% (n=18) responded with 94% of this sample (n=17) having less than 5 hours allocated for professional development each week. The remaining nurse selected 6-10 hours allocated time for professional development per week.

Discussion.

The collated results reveal valuable insights for nurses in the arrhythmia field that may support service delivery and professional development. As the first survey of its kind, there is limited opportunity for comparison. However, the BHF’s 2023–2024 cardiac workforce survey offers a broader perspective across cardiology specialities in England, highlighting

subspecialty distribution, gender differences, age trends, and pay grades (BHF, 2024). Their survey gathered responses from 191 nurses working in heart rhythm management. By contrast, the arrhythmia-specific survey was unable to reach similar numbers, despite extensive efforts to engage the wider community. The absence of an up-to-date and comprehensive list of heart rhythm centres continues to be a barrier. Collaborating with partner organisations to increase response rates and ensure representative data would be a practical step forward, while working to minimise duplication of effort.

Nursing **job titles** continue to be used interchangeably with variation even within this subspecialty. Arrhythmia Nurse as the most reported title was cross referenced to banding, showing correlation to band 6 and 7 in most cases.

A study examining specialist nursing roles across the UK identified 595 different job titles within 17,960 specialist posts (after removing the specialty-specific terms) (Leary et al, 2017). This striking variation highlights the lack of standardisation and consistency in specialist nursing titles and roles, reflecting how diverse and fragmented the structure of specialist nursing has become across the healthcare system. The most common titles in that dataset were Clinical Nurse Specialist, Nurse Specialist / Specialist Nurse, Advanced Nurse Practitioner, Nurse Practitioner (Leary et al, 2017). Other variants include titles with prefixes or suffixes for technical or seniority functions (e.g., 'Senior', 'Lead', 'Trainee', 'Prescriber', 'Arrhythmia', or 'Inherited Cardiac Conditions') (Leary et al, 2017).

A higher AfC **banding** may indicate the broad scope of responsibilities carried out by senior nurses. The survey findings support this observation, although such wide-ranging roles were not limited to those in higher banded positions. The advanced or seniority of role includes prescribing as a key component, reinforcing this as an important qualification for many nurses working with autonomy. Most specialist and advanced practice nurses teach and only a small number have responsibilities for research. This seems incongruent with the role of an advanced clinical / nurse practitioner or consultant nurse, when the four pillars of advanced practice clearly stipulate research as one of the integral roles (Health Education England, 2025).

The survey reveals that **banding** does not always align with a defined set of responsibilities, as many band 6 nurses state that they manage services in a way that compares to those who answered the same question but identify themselves as being banded at higher grades. A significant number of band 6 arrhythmia nurses also report undertaking managerial duties as part of their roles. This raises important questions about how grading, career progression, and qualifications are determined and how these factors vary across different localities. A deeper exploration of these issues could help clarify inconsistencies in how responsibility and seniority are reflected in banding.

Evidence shows that nursing **career development** has shifted in recent years, with newer cohorts progressing more quickly (Stoye & Warner, 2024). Progression, however, remains uneven and is shaped by geography, role availability, employer policy, and demographic factors. Nurses in London are more likely to reach band 6+ than those in the Northeast, and younger and male nurses tend to advance faster (Church, 2024). While experience and

qualifications support progression, regional funding and inconsistent recognition of advanced practice continue to create barriers. This survey did not collect age, gender, or regional data which is an important consideration for future work. The BHF Cardiac Workforce Census (2023–2024) highlights gender disparities, with men more represented in subspecialties like arrhythmia and more often holding full-time band 8 roles. These findings reinforce the need for clearer, fairer pathways to ensure consistent recognition, opportunity, and development across nursing.

Many respondents reported not completing **competencies**, though it is unclear whether this reflects limited workplace implementation or a lack of achieved competence. Until recently, no national arrhythmia-specific competencies existed, leaving departments to create their own frameworks. Now, two national documents—one developed collaboratively by an Arrhythmia Nurse in London and endorsed by the BCS and BHRS, and another produced directly by the BHRS—provide clear, standardised benchmarks for both new and experienced arrhythmia nurses (BHRS, 2025b; Ting et al., 2024).

Competencies are essential within arrhythmia nursing, where advanced knowledge and skills are required to manage complex patients (Neubeck et al., 2023). UK frameworks such as BHRS accreditation outline core requirements including ECG interpretation, device management, pharmacology, and autonomous decision-making, skills and roles often needed for band 6 and 7 roles (BHRS, 2025a; BHRS, 2025b). Demonstrating competence supports safe, high-quality care and directly affects clinical autonomy, responsibility, and career progression, with formal competence now increasingly central to securing specialist posts and professional recognition.

Building on the discussion around nurse competencies and accreditation, professional engagement through specialist societies represents another key avenue for maintaining and developing expertise, yet participation remains inconsistent. Encouraging nurses to join **societies** in their field of interest can be challenging, with barriers including cost, time, and perceived lack of value commonly cited (Delesky, 2003; White & Olson, 2004). Some societies work to reduce these barriers via discounts, reduced rates for nurses and conference attendance for example. Benefits in specialist roles also include networking opportunities, continuous professional development, recognition, access to training and council representation. But without systems such as employers, job specifications, or career pathways recognising their value, many nurses may not see enough return on investment to make membership a priority.

It is increasingly common for nurses in specialist fields, including arrhythmia nurses, to hold **a broad range of responsibilities**. This reflects both the expanded scope of advanced practice roles and staffing pressures in the NHS (Gress Halasz et al, 2021; Sguanci et al, 2025). However, there are important considerations around workload, safety, job planning, and role clarity. Evidence that specialist nurses often cover multiple responsibilities comes not only from survey results, but from arrhythmia nurse job descriptions and wider scoping evidence around advanced practice in cardiology (Sguanci et al, 2025). From an arrhythmia perspective, these include arrhythmia, palpitation, device and syncope clinics, inpatient reviews, electrophysiological support and intervention, catheter lab and operating

department responsibilities. Patient and staff education, audit, research, managerial roles including service leadership and quality improvement, along with management of remote monitoring and virtual working also encompass the role. Advanced Practice roles within cardiovascular nursing support these dynamic and multifaceted dimensions within areas including heart failure, interventional cardiology, genetics, inherited conditions, rehabilitation and the novel cardio-oncology role (Albert et al, 2008; Connolly et al, 2021; Kind-Dailey et al, 2022; Johnson, 2011). The **breadth** of arrhythmia nurse roles may in part, relate to workforce shortages, particularly of Cardiologists and Cardiac Physiologists, leading to task-shifting to nurses (BHF, 2022; Ismail & Lewin, 2012). Nurse-led care also offers potential benefits such as reduced waiting times, improved continuity, and lower costs. With non-medical prescribing and advanced assessment skills, nurses can practise more independently. However, these expanded roles risk overloading nurses. Juggling multiple services without adequate support can cause burnout, dilute expertise, and compromise patient safety (Li et al, 2024; Stalter & Gustin, 2021). Services stretched too thin may become unsustainable, particularly when role expansion is not matched with fair pay, job planning, or protected time for training and audit (Gerrish et al, 2012). The RCN has echoed these concerns, calling for clear job plans, recognition of specialist workloads, and safe staffing levels (RCN, 2024).

Arrhythmia Nurses are increasingly expected to manage wide-ranging responsibilities, reflecting both trust in their skills and the evolution of advanced practice. Yet to remain safe and sustainable, these roles require structured planning, adequate resources, and recognition of their complexity.

Various **courses and programs** were suggested to support arrhythmia nurses' personal development, including advanced ECG interpretation, arrhythmia management modules, prescribing courses, and leadership programs. There was a call for more accessible online courses, opportunities to visit other departments, and specific training in subspecialty areas. The idea of compulsory BHRS accreditation with preparatory courses was also suggested. Many nurses reported not having an allocated study budget or study time, though a significant number have less than 5 hours per week allocated for professional development.

It is important that extended, and specialist roles are supported and underpinned by appropriate theoretical components whereby the nurses' knowledge complements their theoretical experience. There is no prescribed pathway of post-graduate training an arrhythmia nurse should complete. This leaves the quality and access open to individuals' interpretation with variations including courses with accreditation, CPD recognition, face to face or virtual, awareness, availability and choice. Accreditation is also not mandatory for arrhythmia nurses. The BHRS offer this through adoption and completion of their course but to date, this has largely been left to individuals or local departments to determine their priorities.

Recommendations

Combining organisations for future survey collection would be preferable, to save duplication of work and reach more participants. Collaborative work would enable greater reach and encourage feedback as a collective approach. The BHF workforce survey obtained information relating to participants demographics and this would be a useful addition for future surveys. Greater detail around role constituents would add clarity, along with exploration of leadership and research involvement. Further analysis through qualitative work would facilitate this whereby clarification around banding, role expectations and study time provision could be explored. This could provide detail around inconsistencies between responsibilities and professional development opportunities. This would also assist with deeper understanding around individuals' experiences and potential barriers. Research featured infrequently and it would be worthwhile exploring this further.

This work can assist with workforce planning and mandatory implementation of standardised competency frameworks as well as fairness and access to protected study and development time. Variable access to formal accreditation can lead to inconsistencies with scope of practice and supervision and a level of importance should be placed here in view of potential risks to patient safety as well as workforce sustainability.

Conclusion

The Arrhythmia Nurse Survey 2023–2024 reveals that the role of arrhythmia nurses is becoming increasingly complex, yet professional development opportunities and structural support have not kept pace. The survey highlights gaps or awareness in access to study time, specialised training, and formal accreditation. Ensuring consistency between responsibilities and available support in the multifaceted arrhythmia nurse role is important to help mitigate against risks of burnout, limitations to career progression, and threats to the quality and consistency of arrhythmia care across the UK.

The survey's findings, supported by national-level data, call for action to establish standardised competency frameworks, expand educational access, and improve professional recognition. These insights expose a workforce that is skilled and experienced and sets the scene for further exploration of required educational and support standards for this cohort of specialist nurses. Addressing these challenges is not only essential for sustaining the arrhythmia nursing workforce but also for ensuring high-quality cardiovascular care within the NHS. The Arrhythmia Nurse Survey 2023–2024 offers the robust evidence needed to drive these evidence-based reforms and secure a sustainable, well-supported future for this vital specialty.

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