

The role of the Specialist Arrhythmia Nurse

Arrhythmia care is often best when supported by a team of specialists.

Jayne Mudd and Angela Griffiths, both Arrhythmia Nurse Specialist highlight their innovative work which has led to the expansion of local arrhythmia services.

It is now widely recognised that the skills and expertise nurses bring to arrhythmia services are extremely valuable. This has resulted in a dramatic increase in the number of nurses specialising in arrhythmia management within the United Kingdom. The role of the specialist arrhythmia nurse is diverse and varies dependent on local service needs. Some nurses will focus on one specific aspect of arrhythmia management for example providing care for patients with Atrial Fibrillation (AF). Others may work as part of a large team providing specialist care for all patients with arrhythmias.

“First level degree and Masters level qualifications”

Although there may be differences in the specific areas that the nurses focus on there are a number of generic aspects to the roles. Central to the roles is that the nurses will have undertaken general nurse training and then extended their skills and knowledge within arrhythmia management in order to provide a comprehensive service for patients with heart rhythm problems and their families/carers. This often requires the nurses to take on roles that have traditionally been considered as doctor or physiologist roles for example clinical examination, catheter ablation technical support, or device interrogation. The development of these skills requires the nurses to complete comprehensive competency based training programmes within their clinical areas and to achieve first level degree and masters level qualifications pertinent to arrhythmia management. The

majority of specialist arrhythmia nurses are therefore skilled in clinical assessment and examination, able to initiate investigations and interpret results, make accurate diagnosis, advise on and deliver treatment plans and obtain informed patient consent for specific procedures. Many of them will also have or be working towards non medical prescribing qualifications enabling them to prescribe and titrate medical therapy pertinent to arrhythmia management. The nurses will have clinical mentors that provide training and support who will ideally be consultant cardiologists with a specialist interest in arrhythmia management.

Jayne Mudd and Angela Griffiths are nurses who have chosen to specialise in arrhythmia management. They have both developed their roles to meet the needs of their local patient groups and within this article describe how they deliver their services.

Jayne is based at The James Cook University Hospital (JCUH), Middlesbrough which is a large tertiary centre serving a population of 1.7 million. Jayne has worked in arrhythmia management for nine years and is part of a multi disciplinary team specialising in providing care for patients with heart rhythm disorders. The team is made up of doctors, specialist nurses and cardiac physiologists. There are seven specialist nurses within the team and Jayne has taken the lead alongside Consultant Cardiologist Nick Linker in developing this role at JCUH since its inception in 1999.

When first in post Jayne worked in isolation and was only able to focus on one area of arrhythmia

management which centred on patients who had implantable cardioverter defibrillators (ICD's). The increase in the numbers of nurses within the team has now allowed for the development of a fully comprehensive specialist nurse service which serves patients with or suspected of having an arrhythmia, their families/carers and other health care professionals. The nurses work across the hospital trust and also provide outreach services into the local community. Their role is extremely varied and allows them to follow the patient through their journey facilitating continuity of care. An outline of the service they provide is given below.



Education: Providing education is an extremely important part of the specialist arrhythmia nurse role. This is continuous through the information and advice that is given to patients/carers on a daily basis in clinics and within the ward areas. The nurses expertise and knowledge allow them to provide patients and carers with all the relevant information relating to their condition and treatment options. They spend time with the patients and carers and encourage them to ask any questions they may have. The provision of education/information is essential in allaying patient concerns/anxieties. It enables patients to be involved in their care and to make informed decisions with regards to their treatment options. The nurses also provide education for other

health care professional in the form of teaching sessions and presentations with the aim of increasing awareness of arrhythmias their detection, diagnosis and available treatments. The nurses within the team deliver teaching sessions/presentations, locally, regionally and nationally. The team have also developed masters level modules in arrhythmia management which are run at the local university to ensure that other health care professionals have the appropriate skills and competencies to deliver care for patients with heart rhythm problems.

Arrhythmia telephone helpline: The telephone helpline is available for patients/carers and other Health Care Professionals. Manned by the specialist nurses 8 am to 8pm Monday to Friday this aspect of the service allows for the provision of ongoing support and advice. The service is used by patients/carers who may have concerns about their condition, current medications or other aspects of their treatment. Health Care Professionals such as GP's and Practice Nurses often use the helpline for advice with regards to medication changes or specific patient problems. The service is available for all patients/carers even after they have been discharged from the service. It facilitates easy access to the specialist cardiac rhythm management team and is extremely well utilised.

Nurse led clinics: The nurses run new patient, pre admission and review clinics with the tertiary centre. Within the new patient clinics the nurses provide verbal and written specialist advice and information with regards to the patient's diagnosis and treatment options. They work with the patient to ensure that all aspects of diagnosis and care are understood. Patients are given time to discuss treatment options and ask questions about their condition.

Pre admission allows for patients to be fully prepared prior to being admitted to undergo procedures. Within pre admission the nurses are able to assess and clinically examine patients, initiate tests and interpret results, reiterate advice pertinent to forthcoming procedures and allay any patient/carer concerns or anxieties. Nurse led review involves the nurses re-assessing the patients following changes to medical therapy or after a procedure has been performed for example a device implant or an ablation. The nurses can titrate and initiate medical therapy and if is appropriate they are able to discharge the patient providing ongoing support via the arrhythmia helpline or through patient support/education meetings.

“care professionals often use the helpline for advice”

Ward rounds: The nurses take part in the consultant cardiologist ward rounds which means that they are aware of what is happening with the patients treatment plans therefore ensuring timely provision of specialist nurse intervention if required. Taking part in the ward rounds is also a valuable educational opportunity for the nurses.

Discharge post procedure: Once the patients have undergone their procedures the nurses will assess them and make a decision as to whether the patient is fit for discharge home. This involves checking wounds, chest X-rays, ECG's and blood results post procedure. The nurses will also make sure the patients have all the relevant information with regards to post procedure care and that any concerns/anxieties have been addressed. Any drugs that need prescribing or titrating at this point can also be done by the nurses.

Informed consent: When patients

are undergoing procedures such as ablation or device implant they will be asked to sign a consent form to say that they understand what the procedure involves and are aware of the success rates and potential complication rates. The nurses spend time with the patients discussing this prior to obtaining signed consent from them. The nurses have to complete competency based training which is signed off by a consultant cardiologist before they are deemed competent to take informed consent.

Patient Support/Education Meetings: The nurses organise and run patient support and education meetings three times a year. Currently these meetings are only provided for patients who have implantable cardioverter defibrillators (ICD's) and their carers. This group of patients have quite diverse needs and tend to need ongoing support and advice. During the meetings the nurses provide advice and information pertinent to the patients' condition/device. The meetings also enable patients to meet others who are in a similar position and who may have the same concerns or anxieties.

Community outreach services: The ethos of the CRM (Cardiac Rhythm Management) specialist nurse team has always been to provide innovative and quality care for patients. Following the publication of Chapter 8 of the National Service Framework for Coronary Heart Disease the team were keen to introduce new ways of working to ensure that they were meeting the quality requirements set out in the document and thus continuing to improve the patient experience. The development of the community outreach service has enabled them to do this. This is the CRM teams' most recent development and has enabled them to take their specialist services into the community thus improving access for patients. The specific aims and objectives for

the service are:

- to achieve a single referral point for patients with suspected arrhythmia
- to provide a triage system ensuring that patients are signposted to the most appropriate care setting
- to improve access for patients/carers
- to provide a one stop shop model in the patients own local settings
- to treat patients in primary care where appropriate
- to ensure equity of access for patients to specialist procedures
- to fast-track patients with potentially life-threatening conditions
- to reduce waiting times in secondary care for patient appointments and procedures, achieving the 18 week referral to treatment target
- to offer support and education to patients with arrhythmias and their carers
- to ensure delivery of the national service framework for coronary heart disease and national institute for clinical excellence standards relating to arrhythmia care

The service consists of nurse led community arrhythmia clinics and ongoing support and advice provided through the existing arrhythmia helpline. The community arrhythmia clinics offer a nurse-led, triage, assessment and treatment service for patients presenting to primary care with the symptoms of arrhythmia. The team provide a responsive service for GP referrers and their patients, giving rapid assessment of patients' clinical condition and needs, through a one stop shop model. Patients are assessed, clinically examined, echocardiograms are performed and further tests such as ambulatory ECG monitoring and trans telephonic monitoring are initiated to aid diagnosis. The

service allows for fast-tracking of patients to secondary care who require more specialist tests or procedures whilst allowing patients with more benign conditions to be managed within Primary Care. It ensures equity of access for patients relating to clinical need and avoids unnecessary hospital appointments. The clinics are based in primary care settings to offer local access. The service enables the local community to make effective use of scarce resources and clinical expertise, thereby reducing patient waits and releasing consultant time.

The service is led by the specialist nurses with sessional support from physiologists, health care assistants and dedicated administration. All patient care plans are discussed with a consultant cardiologist with a specialist interest in arrhythmia management and time is allocated in their work plans to allow for this.

Patients are provided with comprehensive verbal and written information with regards to investigations, diagnosis and treatment options. Written information is provided in the form of booklets and fact sheets developed by the Arrhythmia Alliance (AA) and the Atrial Fibrillation Association (AFA). As part of the service package, patients are also given access to the Arrhythmia Service help-line at JCUH, for any queries about their condition.

Service Development: The development of services for patients is ongoing and the nurses are involved in introducing and developing new ways of working to improve care delivery for patients. By working closely with the patients the nurses are in an ideal position to assess their needs and act as their advocate with regards to

Angela Griffiths has specialised in arrhythmia management since 1992, where she worked at St George's Hospital for Professor John Camm. Her role at the John

Radcliffe Hospital was instigated in 2001. Initially she was the only arrhythmia nurse specialist, working alongside one Cardiologist who specialises in heart rhythm management. Since then the Cardiac Rhythm Management Team has expanded to include 3 Consultants, an Electrophysiology Fellow, Registrars, Cardiac Physiologists, 1 further Arrhythmia Nurse Specialist and 2 Implantable Cardioverter Defibrillator (ICD) Nurse Specialists.

To begin with, Angela's main responsibilities were in the development of an Atrial Fibrillation clinics, education and research. Much of her role is similar to that of the nurse specialists in JCH, Middlesborough.

However there are some differences, which reflect the local requirements of the service. Since being joined by Tara Meredith in 2007, the arrhythmia nurses role has developed to include additional responsibilities such as, technical support during catheter ablation.



This unique role within the UK came about due to a shortage of electrophysiologically trained cardiac physiologists in the Oxford area. The arrhythmia nurses have taken on this role, after a period of competency-based training and further academic study. Providing technical support involves assisting the Consultant during invasive EP procedures in the form of operating the electrophysiological system, interpreting the intracardiac electrograms and utilising the energy delivery system during catheter ablation. In addition to enabling service provision within CRM, the skills that the nurses have gained means that continuity of care is provided for the arrhythmia patients.