

AIM: Proposal paper for Cardiac Nurse Specialist performing implantable cardiac monitoring procedure

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Author: Simon Adams Staff Nurse Cardiac Cath Lab

Executive Summary

The paper aims to provide information regarding the development of a new role in cardiology. Discussion will review learning and assessment opportunities with reference to NPSA competencies.

Background

It has become apparent for the need to develop this specialist role in Cardiology, with ever increasing waiting times to be met and at the same time a way in which money can be saved for the Trust. This exciting new role would help to address both those issues within Cardiology.

This new role has recently been established in Weston General Hospital by a Cardiac Physiologist, and is showing how a service like this is able to deliver efficient and cost effective care for its patients. The intention is to formally adopt and implement the role at Musgrove Park Hospital.

Introduction

Historically, Implantable Cardiac Monitoring procedures have been carried out by doctors – usually Cardiology Consultants, Associate Specialists in Cardiology and Cardiology Specialist Registrars. In recent years other professionals have started to implant these devices including Cardiac Physiologists at St Thomas’s Hospital in London, New Cross Hospital in Wolverhampton and Weston General Hospital.

An Implantable Cardiac Monitor (ICM, also Known as a Reveal device or Implantable Loop Recorder) is a patient activated and/or automatically-activated monitoring system that records the electrocardiogram. It is indicated in the following cases:

- Patients with clinical syndromes or situations at increased risk of cardiac arrhythmias
- Patients who experience transient symptoms, such as syncope, that may suggest a cardiac arrhythmia.

From 2007 to date, the department has seen an increase in the amount of ILR devices being implanted (Appendix 1). From roughly one a month in 2007, two a month in 2008, two to three a month in 2009 and in 2010 on average we have implanted five a month, this will increase especially now with the current NICE guidelines outlining Total Loss of Consciousness (TLoC) state that TLoC infrequency (less than once every 2 weeks) offer an implantable event recorder (NICE 2010). This recommendation of practice will lead to an increase in the amount of devices that we implant in this hospital in the near future. By setting up this service now it place the department in a good position to meet the growing needs of our patients.

Key issues – Provision of training

The Cardiac Nurse Specialist (CNS) will be trained to perform the procedure by a Consultant Cardiologist according to an agreed procedure guidelines. The CNS will be directly observed and supervised carrying out the procedures; this should include at least 5 observed implants, where the Dr is doing the procedure and at least 10 directly observed implants by the CNS or until deemed competent to carry out the procedure independently. Competency will be assessed by the Consultant Cardiologist. Competency testing and updating audit will take place annually, or before if appropriate. And will be documented in the learning contract. (Appendix 2)

Assessment Strategy

To enable the CNS to recognise anatomical and tissue landmarks and be able to prescribe and administer local anaesthesia for successful implantation of ICM, also be able to give explanation and setting up of ICM device. The majority of teaching will be delivered by the Consultant as live teaching cases, (written consent to be gained from patient first).

Consent will need to be taken from the patient by the CNS prior to the procedure being carried out.

Assessment plan

A Surgical course to be undertaken to gain the necessary skills needed for suturing. Anatomical and tissue teaching will be given by a Consultant Cardiologist. Observation of at least 5 implants to be documented in the log book.

A PGD will be created to allow the CNS to record and administer local anaesthetic. They would be required to read, understand and sign the PGD for Lidocaine 1% and Adrenaline 1:200,000 as per Trust protocol. (Appendix 3)

The CNS will undertake training in order to gain consent. This will be done by attending a study session provided by the trusts own learning and Development department. They will also observe consent being taken by the Dr, prior to ICM implantation, when ready they themselves will be observed taking consent from the patient by the cardiologist, this will be recorded in the learning contract. When competent to do so consent will be taken

independently of the Doctor. Consent will be documented on the appropriate consent form as per Trust policy (appendix 4).

Practical

To gain experience in basic surgical skills and wound care in order to deliver a safe and effective service.

This would be gained through a basic surgical skills course, which would be delivered by Training 4 Doctors. It is a one day course that covers all aspects of minor surgery, cost of course is £235 and is held at the SIMTR Conference Centre in Solihull.

Medtronic are currently in the process of setting up a reveal implantation course for non medical practitioners; course dates to be confirmed late 2011.

Practical demonstration; through observation of at least 5 implant procedures, documented in log book.

Direct supervision, 10 implants performed under direct supervision of the Consultant Cardiologist.

Indirect supervision. The CNS will review the case notes, obtain consent, prepare the patient and perform the procedure without the supervisor being present for 10 further implants. The log book will be completed with regular review from Consultant Cardiologist. The Cardiologist will be contactable in case of queries.

Assessment Strategy:

A Learning contract and assessment checklist will be utilised to support consolidation of learning to enhance competence.

Practical demonstration of at least five implants by cardiologist to be documented in log book.

Direct supervision of at least 10 implants under the supervision of cardiologist, Indirect supervision, CNS will obtain notes, review case, prepare the patient, gain consent, perform the procedure without direct supervision from Cardiologist. The Cardiologist will be available to review case and complete log book.

On successful completion of log book, CNS will be allowed to practice independently of Supervision when they feel ready.

Regular review of service and CNS to be arranged with Cardiologist. A procedure book will be commenced to demonstrate self governance and provide an audit trail, this information can be used and reviewed on a regular basis at local MDT; and will also highlight any training needs.

Audit

The Implantable Cardiac Monitor log book will be completed for each procedure in order to audit the CNS activity and for use in identifying further training and development needs, as well as departmental records. Review of service will be carried out at an annual appraisal, also a report to the CSSG to be done yearly, if review is needed earlier then can be presented at the Cardiology MDT.

Cost implications

The overall cost for setting up this service would be minimal as the department implants ILR devices so service provision already exists. The main cost would come from the re-banding of the practitioner, this would need to be discussed with ward manager. A basic surgical course would need to be undertaken, the cost of this is around £235.

Reveal implants would become more cost efficient as a Dr would no longer be required at implant, there would only be a need for and operator and Nurse/HCA to be present in the room.

If implant rates continue as they are, we would have enough patients for two lists a month, these would have to be slotted into the pacing room time table. This service could allow for a more flexible service.

Decision wanted

Approval from CSSG for the proposed training and assessment strategies.

Endorsement from PSGC

Approval from local Division

Appendices

1. Reveal Implants since 2007
2. Learning contract
3. Lidocaine and Adrenaline PGD
4. Consent form

References

National Institute for Health and Clinical Excellence (August 2010) Transient Loss of consciousness, page 22 paragraph 1.3.2.4

