IMPLEMENTATION OF NURSE-LED CARDIOVERSION

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Introduction

• Atrial fibrillation
  – A disturbance of the normal rhythm of the heart.
  – The most common persistent arrhythmia in adults and carries an increased risk of thromboembolism and stroke.

• Direct current cardioversion remains the most effective method for restoring sinus rhythm in patients with persistent atrial fibrillation.
Electrical (DC) cardioversion

• The delivery of an electric current synchronised to the activity of the heart using a defibrillator.
• Electrical (DC) cardioversion
  – should be attempted within 3 months of onset of persistent AF
    – with concurrent anticoagulation therapy.
• If successful health benefits to patients
  – improvement in well being
  – improved exercise capacity.
  – Eraducate the need for long term anticoagulation therapy
The past – a need for change

- Inadequate resources
- Safety issues
- Patient issues
- Resulting in the cardioversion being stopped as an elective procedure.
Service development

• A group was set up that incorporated key stakeholders.
• An integrated care pathway (ICP) was developed.
• Trust procedure developed.
• Nurse-led cardioversion service setup.
Service development

Referral from Cardiologist

Day case ECV waiting list

- Patient contacted 4 weeks prior to ECV
- Pre-assessment 48 hours before procedure
- ECV performed in day surgery
- Discharge and appointment follow-up arranged
Nurse –led pre-assessment clinic

- As an integral part of the cardioversion process the patients attend a pre-assessment clinic 48 hours before the day of the procedure.
  - Full history of patient obtained
  - Series of bloods taken
  - Observations recorded
  - Procedure explained to patient
Aims of the pre-assessment session

• To ensure the ECV is needed
• To ensure the patient is fully informed
• To exclude patients from the procedure
• To reinforce administrative details
• Informed written consent is obtained
Exclusion Criteria

- Atrial fibrillation or flutter not evident on ECG
- INR <2 or >3
- Serum potassium outside range
- Urea and creatinine outside range
- Hyper or hypotensive
- Recent illness or infection
- Poor EF as assessed by cardiologist
- Documented valvular dysfunction
- HR <55bpm
Day of procedure

- Patients attend CCU
- ECG is recorded prior to transfer to day theatre
- ECV performed
  - In safe controlled environment
  - in presence of anaesthetists
  - CCU nurse according to trust policy (maximum 3 shocks given)
- Patients monitored for recovery
- Patient taken back to CCU
- Patient reviewed by nurse and Doctor post procedure.
- Future management discussed with the patient.
  - Advice given and OPD appointment arranged
Today’s picture

- Total patients cardioverted 72 since October 2005 to present date.
- 9 patients on waiting list at present.
- Approx waiting time 16 weeks currently
- Recent audit conducted patients undergone elective cardioversion from August 2006 to August 2007 total patients.
RESULTS SUCCESSFUL CARDIOVERSION

Successful 79% [23]

Failed/immediate recurrence 21% [6]
Future Development

- Extend the role of nurse-led service
- Closer liaison with the anticoagulation service
- Two monthly theatre slots
- Atrial fibrillation nurse status
- Nurse-led follow up clinic
Nice Guidelines

- One year post cardioversion
  - 50% of patients are back to AF
- Complete shock failure
  - 25% of patients
- In comparison with nice guidelines number of patients in AF
  - >4/52 53%
Conclusion

• Nurse-led cardioversion offers a practical and safe solution.

• An ECV service can be safely operated by an appropriately trained nurse.

• This model of care is effective
  – reducing waiting times.
  – reducing pressure on acute beds and junior doctors.
The Nurse-led service

• Has utilised resources efficiently.

• improved communication with other disciplines.

• most importantly.

Improved patient care
Any Questions?