LOW RISK CHEST PAIN
ASSESSMENT PROTOCOL
RESULTS OF WREXHAM
MAELOR HOSPITAL’S PILOT PROJECT

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OCTOBER 2006
WHY NEAR PATIENT TESTING?

BACKGROUND

- Several trusts throughout the UK have a system in place for assessing low risk chest pain admissions to A+E – Northern General, Sheffield Leighton hospital, Crewe
- 2 separate audits in Wrexham early 2005 suggested 25% of admissions to the cardiology ward were inappropriate
WHY NEAR PATIENT TESTING?

BACKGROUND

- A majority of the patients admitted were awaiting a TNI then discharged if negative
- Access to diagnostics and emergency clinics was seen as a possible alternative
- A+E had purchased a near patient testing system
- Task and Finish group set up
THE PROJECT – AIM AND PRE-LAUNCH

- To bring about early, safe discharge of patients presenting to A+E with low risk chest pain
- Secondment of nurse to initiate protocol – title, Chest Pain Assessment Nurse
- A+E staff education
THE PROJECT – PRE-LAUNCH

- Negotiation with cardio-respiratory dept for ETT slots
- Training for Chest Pain Assessment Nurse
- Documentation, audit and database set up
- Visit to Northern General, Sheffield
THE PROJECT – PRE-LAUNCH

INCLUSION CRITERIA

- Chest pain possibly cardiac in origin
- Normal ECG
- Able to undertake ETT
EXCLUSION CRITERIA

- Known IHD with recurrent or persistent pain
- Abnormal ECG
- Unlikely cardiac origin i.e. pleuritic, positional or reproduced by palpation
- Co-morbidity requiring admission
- Suspected or proven alternative cause e.g. PE, dissecting AA
THE PROJECT - LAUNCH

- March 06 – July 06 (20 weeks)
- Mon – Fri 9am – 5pm
- Chest Pain Assessment Nurse on a bleep
- all patients reassessed by nurse after referral from A+E clinician
THE PROJECT - LAUNCH

- Triple marker (CKMB, TNI and myoglobin) on admission and at 2 hours
- ECG on admission then hourly
- If all results normal patients undertook an ETT
- 2 or more risk factors required ETT on the same day (aged over 65, diabetes mellitus, dyslipidaemia, hypertension, smoker or stopped smoking <1yr, PMH of MI/CABG/PCI, positive family history of cardiac disease under the age of 65)
- Chest Pain Assessment Nurse took every patient through the protocol
THE PROJECT – PATIENT RESULTS

- Results reviewed by Cardiologist, SpR or ACS Specialist Nurse
- Medications initiated as appropriate
- Patient given health education as required or referred to cardiac rehab angina clinic if proven IHD
- Communication with GP
- Patients given follow up appointment for repeat ECG and TNI after 48 hours of presentation
THE PROJECT - RESULTS

- 50 patients completed the 20 week project protocol, 34 patients discharged (68%)
- 16 patients admitted (raised markers, unresolved pain, ECG abnormalities and abandoned/high risk/inconclusive ETT)
THE PROJECT - RESULTS

- 15 week period comparison data for patients who went through the protocol and those that did not and were consequently admitted
- 39 patients through protocol, 23 discharged (58.98%)
- Retrospective review undertaken of A+E attenders with a cardiac triage in the 15 week period
THE PROJECT - RESULTS

- 82 more patients could have been seen if the project was run 24/7
- mean LOS for those 82 patients was 1.67 days
- estimated 419 patients annually could go through protocol
THE PROJECT - RESULTS

PROTOCOL
- 59% had ETT
- 33% saw Consultant cardiologist
- no patients represented to A+E or admitted

NON PROTOCOL
- 29% had ETT
- 19% saw Consultant cardiologist
- 10 patients readmitted (why no coding available)
THE PROJECT - COSTS

- triple marker £28 per patient – annual cost £11,745 based on 419 patients
- F grade nurse to facilitate protocol £32,464

TOTAL COST £44,209 PER ANNUM
THE PROJECT – COST SAVINGS

- discharge rate (59% for 15 week period) = 247 patients would not need to be admitted annually
- bed days saved 415.63
- cost of LOS £650.70 x 247 = £160,722.90
- TPNI test saving £4,253.34

**TOTAL SAVING = £164,976.24**
THE PROJECT – COST SAVINGS

- net cash release = £120,767.17 if protocol was to run 24/7
- net cash release = £17,010.98 if protocol was to run Mon – Fri 9am – 5pm
THE PROJECT – BENEFITS FOR PATIENTS

- Not having to be admitted to hospital, reassurance and advice.
- During October 2006 all 50 patients (20 week project) were contacted by telephone none had represented to A+E or been admitted with chest pain.
- 2 patients assessed on the protocol were found to have a high risk ETT and were referred to CTC for PCI.
THE PROJECT – BENEFITS FOR THE ORGANISATION

- Reduced number of admissions
- Reduced costs
- Improved communication between A+E Dept, Cardio-Respiratory Dept, the Cardiology Ward and the Modernisation Team
- Chest Pain Assessment Nurse in A+E dept to provide advice when required
THE PROJECT – BENEFITS FOR THE ORGANISATION

- Potential to broaden scope of project e.g. toxicology screening, D dimer
- 12 months further funding secured on the strength of this pilot project
- The protocol aligns with the Trust’s strategy for incorporation into NEW ERA (North East Wales Emergency Response Area) project
THANK YOU FOR LISTENING

ANY QUESTIONS?