DML Excellence Awards 2016 Report

Project No: 272 – Connecting Cardiology services through Advanced Nursing Practice within The Dublin Midlands Hospital Group in Ireland

Address: Naas General Hospital Emergency Department in collaboration with Tallaght Hospital Chest Pain Service

Location: Dublin Midlands Hospital Group

Brief Description (up to 200 words)

Registered Advanced Nurse Practitioners' (RANPS) in Cardiology are providing clinical care by early recongnition of Acute Coronary Syndromes (ACS) early evidenced based intervention, and follow up clinics for lower risk non- ACS patients. Service inequity exists as not all hospitals have a designated Cardiology team or access to interventional diagnostics incluidng PCI (percutaneous intervtention) capable facilities. The Dublin / Midlands hospital group promotes service integration and improving of patient folow. Smaller hospitals can beneift ensuring safe management of complex patients. Two Cardiology RANPsl Naas hosptial (NGH) & Tallaght Hosptial (TH) assess non-ACS patients discharged from ED in separate local RANP chest pain clincis, incorporating advanced physical assessment, and exercise treadmil testing (ETT). A differential diagnosis is formulated which may necessitate further investigation. Computerised tomography coronary angiography (CTCA) and Coronary angiography are gold standard investigations for detection of CHD, and are unavailable in NGH. To offer accessibility for patients who present to EDs with chest pain or symptoms of SCAD (stable coronary artery disease) collaboration has occurred between two RANPs in two serpeate organisations establishing a direct RANP to RANP cardiology referral system. This innovative new service development offers equitable patient care despite geographical address and utilise cardiology expertise with a hospital group setting.

Main goal(s) and aims of the Project

Setting: Naas General Hospital, non CTCA/PCI capable facility (NGH) & Tallaght Hospital (TH) CTCA/PCI capable facility. Traditionally NGH patients requiring further investigation for suspected CAD are admitted to hospital for coronary angiogram (CA) and are managed by medical teams on call.

We aimed to eliminate referrals to the NGH medical teams for further assessment of those patients that are of low to intermediate risk of ACS.

Objectives: Offer a safe evidenced – based ANP Cardiology service. To streamline the cardiology referral system for those patients that presented to NGH ED with chest pain and who are low to intermediate risk of ACS with a differential diagnosis of suspected SCAD to Tallaght Cardiology directly.

How to objectives were indentified

Audit by NGH RANP 2016 (6 months) indicated: 108 non –ACS chest pain patients assessed by the RANP Cardiology in the ED 10 patients' required further cardiology investigation. This entailed referral to the medical NCHDs on call within NGH with an average length of stay of 2 days for subsequent inpatient coronary angiogram. Patients discharged to outpatients coronary angiogram were still awaiting procedure at time to audit in August. Certain patients may not always require an invasive procedure such as diagnostic coronary angiogram and CTCA. May be referred. NGH cannot offer this, whilst Tallaght RANP has direct access to coronary angiogram and Computerised tomography coronary angiography (CTCA). It was felt that this cohort should be managed by the NGH Cardiology RANP in collaboration with the RANP in Tallaght Hospital.

Service Goals:

1. Offer direct referral and assessment for the goal standard investigation of CA or CTCA
2. Utilise advanced practice nursing expertise
3. Admission avoidance
4. Improve patient experience times (PET)
5. Reduce hospital costs

2014 NGH HIPE data suggests 984 patients had a primary discharge diagnosis of chest pain with on overall length of stay of 4.74 days. These patients were admitted within the hospital to low risk ward areas and accounted for 1960 bed days lost. The average cost per admission of chest pain according to Groake et al (2013) is 981.00 €/day excluding diagnostic testing

Outline of Approach – main steps taken to implement the Project

The collaborative approach through open communication channels and transparency was highly successful in the integration of the RANP direct cardiology referral system between NGH and Tallaght Hospital (TH). This was driven by the two RANPs. Formal and informal meetings took place with all professions indentified. Support was obtained from the Hospital's medical directors and TH Cardiologists. A formal proposal was presented in both hospitals. This resulted in formally established referral arrangements and procedures, accepted through collaborative negotiation with the following:

- Emergency Department NGH
- Hospital Management NGH
- Cardiology Tallaght Hospital
- Chest Pain Service Tallaght Hospital
- Hospital Management Tallaght Hospital
- Cardiology administration TH

How vision was formed and sustained:

A key component of the RANP role is to act as a visionary with regard to service development and improving pathways of patient care. Advanced nursing practice fosters creativity and innovation in the delivery of patient-centred care (Furlong & Smith 2005). A proposal was jointly developed by the RANPs.

Our joint vision had the following potential patient and organisational benefits:

Potential NGH Patient Benefits:
Access to expert practitioners in the area of cardiology Tallaght
Timely access to cardiology diagnostics; coronary angiogram (CA)
Access to CA in Tallaght preventing unnecessary admission to NGH in low risk patients.
Timely access to coronary intervention (PCI) if indicated in Tallaght
Access to alternative non invasive diagnostic test (CTCA)
Early detection of CAD in a cohort of patients deemed low/intermediate risk of ACS with suspected SCAD post Exercise Treadmill Test
Potential NGH Hospital benefits:
Direct link to cardiology expertise in Tallaght
Decrease in NGH bed stays while awaiting cardiology service (Admission avoidance)
Decrease in the utilisation of NGH NCHD's medical referrals from the ED chest pain review clinic
Promote the benefits of direct RANP Cardiology to RANP cardiology referral within the DML group

Potential Tallaght Hospital benefits:
Utilising the strengths of the RANP cardiology nurse led chest pain clinic service within the Dublin Midlands Hospital Group
Utilising the highlighting TH as a centre of excellence in the management of non – ACS patients
Promoting the benefits of direct RANP Cardiology of RANP Cardiology referral
Utilising Tallaght Hospital expertise in coronary angiography and CT coronary angiography
Streamlining on-going Cardiology care for those in need of Cardiology follow up (RANP nurse led post stenting clinic) TH.

Over several months we sustained our commitment to this proposal and vision of service development through formal and informal meetings between the two hospitals within the DML hospital group.

Process of development:

1. RANP NGH identification of service need
2. Proposal development from RANP NGH to Tallaght Hospital RANP
3. Proposal to individual hospitals management
4. Acceptance of proposal
5. Strict referral criteria development and guideline adherence in Low/Intermediate Risk ACS
6. Referral route/process development
7. Additional resources/requirements identified
8. Proposal agreed and accepted by both hospitals

RISKS/PROTENTIAL RISKS indentified to the successful implementation and initiation of the direct RANP Cardiology referral system:
No buy in from stakeholders
No buy in from relevant cardiology service
No buy in from hospitals staff
No consultant/NCHD support
No hospital administration support
Poor patient outcomes

How the risks were managed:
Martin (2002) says that risks can arise from different sources and can only be appreciated through discussion with all stakeholders as each may see the project differently.
To address the above; communication was open and a proposal was written outlining realistic demand for the service i.e. that the NGH demand would not impede TH patient care or place undue demand on administration. The TH RANP was happy to incorporate the extra patients into the TH chest pain clinic. The TH Cardiologists were pleased to perform investigation as required. TH admin incorporated the patients into usual clinic admin procedures.

Potential risks to patients were managed through:
Strict referral criteria
Referral time frames
Local risk stratification utilising HEART and GRACE scoring systems
RANP TH assessment prior to further investigation
RIP outcomes at 1 year 0% mortality rates
Patient education and information

How objectives once indentified were measure during timeframe of the Project?
Within a six month timeframe (2014) with patient safety a priority audit was undertaken specifically to look at patient outcomes of the patients referred directly from the RANP Cardiology NGH to Tallaght RANP.
The aim of the audit: To assess the outcomes of a direct RANP Cardiology to RANP Cardiology referral system for those patients with potential SCAD following RANP assessment at a non CTCA/PCI capable facility post negative, inconclusive or potential SCAD following RANP assessment at a non CTCA/PCI capable facility post negative, inconclusive or positive ETT. The methods employed were a retrospective analysis of outcomes for patients referred from May to December 2014 from RANP NGH to Tallaght RANP.