# Development of a Pain Management and Education Strategy within Radiology

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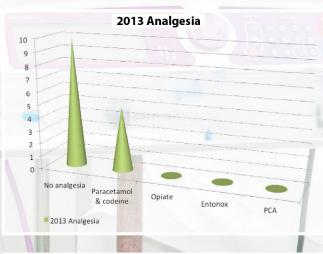
#### Introduction & Background:

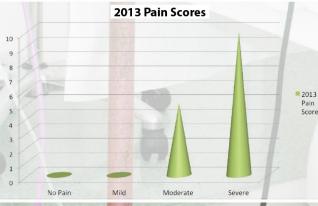
Radiology staff contacted the Acute Pain Team (APT) on numerous occasions to report that patients undergoing certain procedures were reporting severe pain which they were unable to manage. The APT were required to visit the Radiology department a number of times to administer IV paracetamol, IV diclofenac, boluses of opiates and also to set up PCAs. Wilson-Smith (2011) emphasised the importance of good procedural pain control. Gregory (2008) agrees and suggests if a patients pain is controlled while undergoing procedures they are much more able to tolerate painful treatments.

#### Aim:

To ensure that all patients undergoing painful Radiological procedures receive safe, appropriate and effective analgesia and all staff are educated to ensure this takes place. The APT initially audited female patients undergoing Uterine Fibroid Embolisation procedure as pain during this procedure is complex and difficult to control (Jagait 2012) Patients often develop post procedural pain often causing major problems for ward staff (Lipszyc et al 2011) including delayed discharges and negative feedback from patients

#### Initial audit results: 2013





# **Patient and Staff Comments:**

"Really frustrating looking after these patients as we cant seem to get in control of their pain and they appear to be in agony" (Staff)

"As soon as the injection finished I was in agony, it took the nurse a very long time to try and get on top of the pain (Patient)

# Improvement Strategy:

- Training programme developed for all qualified nursing staff in Radiology Department to include Pain Assessment, Balanced Analgesia with completion of PCA and Entonox competencies
- All Consultant Radiologists to attend Pain/Analgesia Education Session with Acute Pain
- · Ward Protocol produced for pre, peri and post procedure analgesia

This protocol ensured that all patients were given regular pre and post procedure analgesia with a Fentanyl Patient Controlled Analgesia (PCA). Entonox was also made available in the radiology department and all staff were trained to administer it by the APS.

#### **Uterine Fibroid Embolisation: Ward Protocol**

Admit to gynaecology ward No solid food after early light breakfast; clear fluid allowed up to one hour before procedure

Pre-med.: IV Paracetamol, Codeine and Ibuprofen
Patient Controlled Analgesia (IV fentanyl, 40mcg in 2ml): PCA pump set up on the ward and ready for

Regular anti emetics prescribed whilst on PCA (Ondansetron 4 – 8mgs TDS)

#### **Post Procedure Care**

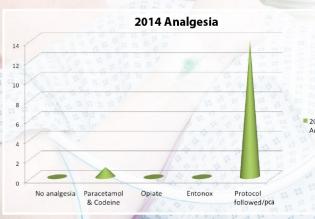
Puncture site observation as per care sheet PCA as required, Regular IV Paracetamol, Codeine and regular Ibuprofen 400mgs QDS (for up to 7 days) Discharge after 24 to 36 hours if pain and temperature satisfactory

#### Suggested Follow-up

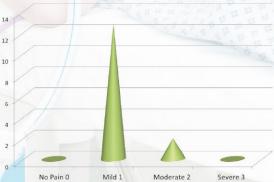
view in gynaecology clinic Initially at 6 weeks at 6 months after MRI scan at 12 months after US scan

### Follow up audit: 2014

Follow up audit carried out once training had been completed and protocol had been established.



# 2014 Pain Scores



# Patient and Staff Comments:

"I was dreading the procedure but with the Entonox and PCA it was manageable" (Patient)

"Patients pain seems much better controlled, they are easier to manage post procedure" (Staff)

> "Patients arrive back to the ward much more settled

"Procedures are carried out quicker as we don't have to keep stopping to draw up other analgesia" (Staff)

# Conclusion:

- Reduction in pain scores and increase in patient and staff satisfaction/experience.
- · Earlier discharge for patients.
- Reduction in level of complaints.
- Increase in quality of care.

# **Future Plans:**

- Protocol to be adapted for Catheter Directed Arterial Thrombolysis Procedure.
- Rolling programme of education to maintain competencies for all staff.
- Annual patient satisfaction audits

Jagit 2012. Pen-procedural pain Aug 2012 vol 23 Issue 8 Pg 1111

Gregory J (2008) using nitrousoxide and oxygen to control pain in primary care. Nursing Times 104:37, 24-26 n-Smith (2011) Procuderal pain management in Neonates. Infants and Children, British Journal of Pain, Sept 2011 vol.no 5 3 4-12