The Impact of a Pro-active Pain Team

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INTRODUCTION

Scientific evidence supports the following peri-operative analgesic interventions [1]:

- Intra-operative use of paracetamol
- Post-operative use of regular paracetamol
- Use of regular oral opioids when possible
- Limiting the use of Patient Controlled Analgesia (PCA) if the oral route is available
- The use of scoring systems to guide administration of appropriate anti-emetics to prevent and treat post-operative nausea and vomiting (PONV)

- In addition, the Safe Anaesthesia Liaison Group (SALG) also recommend that intra-operatively administered paracetamol is documented on the ward drug chart to prevent duplication errors. [2]

Over the past 10 years the Acute Pain Team (APT) at the West Suffolk Hospital (WSH) has devised initiatives to ensure compliance with these interventions. A rolling audit programme carried out by the APT measured the effectiveness of these interventions.

AIM

This poster demonstrates the effect that a proactive pain team, utilising targeted strategies, can exert on anaesthetic practice in order to ensure compliance with scientific evidence.

METHOD

Since 2004, the pain team has audited the analgesic strategies utilised by the anaesthetic department. Data collection is performed by the recovery staff contemporaneously during February each year. The data collected includes appropriateness of documentation, analgesia and anti-emetic prescription and incidence of PONV. This data has been analysed to assess the impact of interventions intended to improve compliance in the areas outlined above.

RESULTS

Intra-Operative Use of Paracetamol

In late 2004 the APT introduced the intravenous preparation of paracetamol to the WSH. Prior to that only enteral forms were available. The subsequent data demonstrates a significant and consistent upward trend in the use of intra-operative paracetamol (Fig 1).

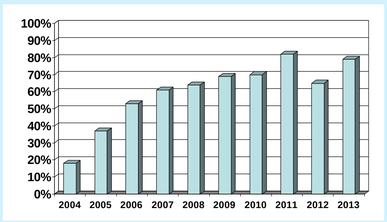

Fig 1. Use of intra-operative paracetamol

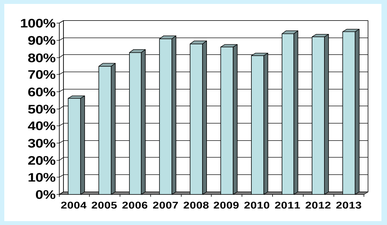

Fig 2. Prescription of regular post-operative paracetamol

Post-Operative use of Regular Paracetamol

In 2004, in an effort to increase the administration of regular post-operative paracetamol, the APT introduced pre-printed prescription stickers for regular paracetamol. Fig 2 shows the subsequent and sustained increase in regular post-operative paracetamol use.

Post-Operative use of Regular Strong Oral Opioids

To provide effective relief of severe pain the regular administration of strong opioids rather than 'as required' opioid analgesia is recommended. The oral route is preferred when possible. The intramuscular (IM) and subcutaneous (SC) routes confer less predictable absorption, unpredictable onset, a greater risk of infection, involve painful injections, and require 2 nurses' signatures for administration. [1]

In late 2005, the APT promoted the 'deregulation' of the 2mg/ml solution of oral morphine (Oramorph®) at the WSH. This initiative was introduced alongside the introduction of pre-printed prescription stickers for regular and 'as required' Oramorph® with age-appropriate dosing. This meant that a single nurse could administer a strong oral opioid. The subsequent data shows that the increase in these prescriptions correlates with a reduction in the use of IM and SC morphine (Fig 3).

In addition, as the anaesthetists and the ward staff became more familiar with Oramorph®, the reliance on Patient Controlled Analgesia (PCA) decreased (Fig 3). It is now acknowledged that PCAs should be avoided where the oral route is available because they prevent mobilisation [3].

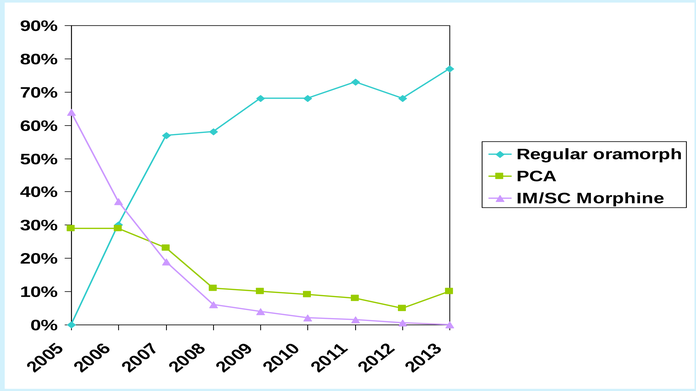

Fig 3. The impact of deregulation of oral morphine on the post-operative use of regular oral morphine, PCA and intramuscular or subcutaneous morphine

Algorithms for prophylaxis and treatment of Post-Operative Nausea and Vomiting (PONV)

In 2008 the APT introduced algorithms for assessing, preventing and treating PONV. The data shows a sustained reduction in the prevalence of PON and POV following this intervention (Fig 4).

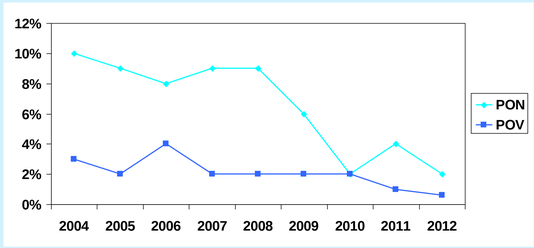

Fig 4. The impact on post-operative nausea and vomiting of the introduction of an algorithm for assessment and treatment

Documentation of Intra-Operatively Administered Drugs

In May 2013, the SALG issued recommendations for the safe administration of intravenous paracetamol and suggested that all doses of paracetamol administered in the operating theatre should be recorded on the ward drug administration chart as well as in the anaesthetic record [2].

The acute pain team at the WSH had already recognised the potential for this incident and in 2011 introduced a specific ward drug chart for Day Surgery to reduce the risk of ward staff inadvertently administering drugs that had already been administered in theatre. After this intervention the correct documentation of all doses of paracetamol increased from 53% to 97%. In addition, the correct documentation of non-steroidal anti-inflammatories, antibiotics and anti-emetics given in theatre were improved by similar margins.

DISCUSSION

In its Guidelines for the Provision of Anaesthetic Services the Royal College of Anaesthetists sets out the objectives of an Acute Pain team including [4]:

- Providing systems for assessment and treatment of acute pain
- Development of guidelines to deal with side effects of analgesia
- Provision of education for healthcare professionals
- Performing audit of strategies for managing acute pain

This data demonstrates that an effective acute pain team can influence peri-operative care. We believe this should be an additional objective of an acute pain team.

REFERENCES:

1. Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine. Acute Pain Management: Scientific Evidence, Third Edition. 2010.
2. Safe Anaesthesia Liaison Group. Intravenous Paracetamol. May 2013.
3. Grass JA. Patient Controlled Analgesia. *Anaesthesia and Analgesia.* 2005; 101:S44-S61
4. James DN. and the Royal College of Anaesthetists. Guidelines for the Provision of Anaesthetic Services, Chapter 11, Acute Pain. 2013