**Abstract title**

Management of failed analgesia in recovery; Quality improvement project

**Abstract text:**

**Background:**

Failed analgesia in recovery is a challenging problem that puts a huge burden on patients, medical teams and hospital resources. The best way to deal with it is prevention and if it happens, to follow a protocolised stepwise approach to ensure effective management.

**Aim and Objectives:**

Assessing our current practice regarding management of failed analgesia in recovery in terms of how effective it might be and whether it follows a certain protocol or not and using the data to work out how this practice could be improved including updating the current available protocol.

**Methods:**

Prospective collection of data over 3 weeks period in theatre recovery areas. We designed a form and asked recovery nurses to fill it in for any patient arriving in recovery postoperatively with pain score 5 or more as an indicator of failed analgesia.

**Main results:**

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| **Patients recruited** | |
| 50 patients out of 487 arriving at main theatres, Gynecology and ETC recoveries over 3 weeks | |
| **Demographics** | |
| **Gender** | **Age** |
| 27 males, 21 females, 2 not recorded | 10 above 60, 16 under 30 and 19 between 30-60 years |
| **Type of surgery** | |
| 8/50 included opening body cavity. 11/50 were laparoscopic. Type not recorded in 2 operations. | |
| **Type of anaesthesia** | |
| Mainly GA. 49/50 GA. 1/49 combined GA/Epidural. 2/49 GA/Spinal diamorphine. I/50 Spinal | |
| **Analgesia prescribed in recovery** | |
| Mainly opiates. 42/50 prescribed strong opiates, 7/50 combined simple analgesia and opiates, 1/50 simple analgesia but ended up requiring opiates.  1/50 had atypical analgesia; Buscopan. None had Ketamine, clonidine, Gabapentinoids, lignocaine or Magnesium. | |
| **Chronic pain issues** | |
| 6/50 were on chronic pain medications. 1/6 was on methadone. 6/6 medications were prescribed. 3/6 medications were administered. | |
| **Complications to analgesia; hypoventilation, haemodynamic instability, PONV** | |
| 0/50 hypoventilation or haemodynamic compromise  4/50 PONV | |
| **Delayed discharge from recovery** | |
| 20/50= 40% had delayed discharge from recovery  16/20 due to pain, 1/20 due to PONV, 3/20 due to bed availability | |
| **Discharge destination** | |
| 41/50 to ward, 3/50 to HDU, 4/50 day case, 2/50 not recorded | |
| **Awareness about existence of protocol** | |
| 24 nurses were aware, 14 unaware and 12 didn’t answer the question. | |
| **Pain control on discharge** | |
| 12/50 had poorly controlled pain on discharge with score of 5 or more  1/50 pain score not recorded  37/50 74% discharged with well controlled pain | |

**Conclusions:**

-We believe that more patients arrive in recovery with pain score more than 5 compared to those we managed to recruit due to issues with compliance filling in the forms we used for our project.

-We, thus, admit that our numbers might not be quite representative of the volume and complexity of operations that take place at MFT yet our project proves that certainly there is an issue with postoperative pain management in recovery.

-Minor operations represent bigger challenge in terms of failed analgesia in recovery compared to major surgery thus we believe it should be taken more seriously in terms of perioperative pain relief.

-It might sound counterintuitive but as a matter of fact patients undergoing major surgery that includes for instance laparotomy or thoracotomy will almost certainly have a multimodal plan for pain management including a regional technique, unless contraindicated, e.g.: thoracic epidural which reduces the risk of failed analgesia in recovery.

-Clinicians are less proactive in using non-opiate/opiate sparing medications for perioperative pain management e.g.: perioperative Ketamine administration, which might be due to lack of experience, familiarity or hospital protocol for their use and still depend largely on using opiates for perioperative pain control.

-Protocolising the management of failed postoperative analgesia would provide an aid to clinicians to think about alternatives for pain management and encourage them to opt for non-opiate based/ opiate sparing measures when opiate option is exhausted or when it causes complications. This would increase the efficiency of management of failed postoperative analgesia.

Thus we recommed:

-Identifying patients at risk e.g. patients on long standing opiates and formulating periop pain management plans for them.

-Our plan is to update the current trust protocol for the management of failed analgesia in recovery and increase awareness about its existence.

-Using a multimodal pre-emptive approach for pain control including regional techniques whenever applicable to ensure proper pain control postoperatively.

-Educating clinicians and medical staff and encouraging them to consider non-opiate based/opiate sparing options for the management of failed analgesia.

-Re-audit cycle after updating the trust protocol for management of failed analgesia to reassess our management of that cohort of patients.