**Audit of Current Analgesic Trends in Major Colorectal and Urological Surgery**

**Background**

After the amalgamation of three smaller acute hospitals in our region into one large centre, our acute pain team noted many differing anaesthetic techniques of providing post-operative analgesia for similar operations. We wanted to use this opportunity to assess our current practice and note if there were any obvious advantages to one particular technique over another with regards post-operative pain scores and side-effects.

**Aim and Objectives**

Our primary aim was to document the current anaesthetic techniques in our department for major colorectal and urological procedures and record post-operative pain scores.

Our secondary objectives were to assess the rate of nausea and vomiting after each technique and document any technique complications.

**Methods**

We retrospectively collected data by reviewing the electronic patient record, which allowed us to review the anaesthetic chart and post-operative observation charts.

We used a data collection tool to collect the following information –

Patient demographics, type of surgery, anaesthetic technique, the worst post-operative pain score in the first three days, side-effects and complications from the anaesthetic technique.

**Main Results**

We collected data for a total of 51 patients (29 male, 22 female).  There were 29 urology cases and 22 colorectal cases.

All patients had a general anaesthetic plus one of the following four techniques –

1. Epidural alone 23.5% of cases

2. Intrathecal opiates alone /

 Intrathecal opiates + patient controlled analgesia 19.6% of cases

3. Regional catheter\* + intrathecal opiates /

 Regional catheter\* + patient controlled analgesia 29.4% of cases

\* Rectus sheath or transverse abdominis plane (TAP) block

4. Patient controlled analgesia (PCA) only 27.5% of cases

Pain Scores

All pain scores were measured using a numerical rating scale (1-10).  The mean pain scores for each group were –

1. Epidural only group 6.3

2. Intrathecal group 5.2

3. Regional catheter group 6.6

4. PCA only group 6.3

Nausea and Vomiting

The percentage of patients in each group with nausea and vomiting were -

1. Epidural only group 33.3%

2. Intrathecal group 60%

3. Regional catheter group 60%

4. PCA only group 35.7%

It is important to note that for those who had a PCA in group 2, the average total consumption was 104.8mg, compared with 43.8mg in group 4.

Complications

One third of the epidural group required the epidural to be discontinued due to failure. These were replaced by morphine PCAs.

**Conclusions**

It appears from our data that those receiving intrathecal opiates with or without a PCA had better pain scores than the other groups.

Epidurals do not seem to confer improved pain scores compared to the other sub-groups, and have a failure rate of 33.3% in our institution.

On further analysis, group 4 had a larger proportion of laparoscopic procedures than the other groups, therefore it is difficult to draw any firm conclusions when comparing this group to the others, but we can see a trend in increased rates of nausea and vomiting with larger PCA consumption.