To understand the relationship between postsurgical pain and through a retrospective analysis of data from the Premier Research Database. The database is a comprehensive source of all hospitalizations in the United States and contains records on approximately 50 million hospitalizations across more than 1,000 hospitals allowing for a broad representation of the nation’s surgical patients.

Data Source

This study comprised a retrospective analysis of data from the Premier Research Database. The database is a comprehensive source of all hospitalizations in the United States and contains records on approximately 50 million hospitalizations across more than 1,000 hospitals allowing for a broad representation of the nation’s surgical patients.

Objective

• To determine the incidence of postoperative ileus in patients receiving opioids for pain management following laparoscopic/open colectomy and cholecystectomy.
• To assess the relationship between postsurgical-opioid use and postoperative ileus following laparoscopic/open colectomy and cholecystectomy.
• To determine the impact of opioids on outcomes of hospital length of stay (LOS), total visit cost and 30-day re-admission.

Methods

Patient Selection

The database was queried to identify patients with the following characteristics:

Adult (18+ years of age) patients having a laparoscopic colectomy, laparoscopic cholecystectomy, open colectomy, open cholecystectomy
• Post-surgical opioid administration identified through charge master records
• Hospital discharge between 2008 and 2010

Table 1. Demographics of Individuals in Study Population by Surgery Type

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Study Population</th>
<th>Intact Population</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laparoscopic Colectomy</td>
<td>n=138,069</td>
<td>n=160,000</td>
<td>0.001</td>
</tr>
<tr>
<td>Open Colectomy</td>
<td>n=30,000</td>
<td>n=30,000</td>
<td></td>
</tr>
<tr>
<td>Laparoscopic Cholecystectomy</td>
<td>n=658</td>
<td>n=780</td>
<td>0.432</td>
</tr>
<tr>
<td>Open Cholecystectomy</td>
<td>n=5,000</td>
<td>n=5,000</td>
<td></td>
</tr>
</tbody>
</table>

Results

Occurrence of ileus significantly increased length of stay, total hospital cost, and 30-day re-admissions across all gastrointestinal surgeries, even in laparoscopic procedures where the incidence of ileus is less common. The potential extent of these outcomes was associated with higher dosages of morphine.

Conclusion

Use of observational databases has noted limitations which include selection bias and reliance on accurate and complete EOR coding and billing, as utilized in this study.