Introduction:
Orthotopic liver transplantation (OLT) is one of the most extensive of all abdominal surgeries. Due to the lengthy and complicated nature of this surgery, as well as the poor health of most OLT patients, the main focus of perioperative management for these patients is reducing mortality and morbidity. Because of the paucity of data on pain and its management in OLT, we conducted a retrospective, quality improvement study aimed at investigating the pain experience and its management for liver transplant recipients at our centre.

Method:
We conducted a descriptive, retrospective study of OLT recipients at our Centre over a period of 5 years (January 2011-January 2016). The study was approved by our institution’s Research Ethics Board. We included adult patients who had no history of chronic pain and were extubated within 48 hours after surgery. Data was obtained from the hospital Electronic Medical Record (EMR) and patients' charts. The collected data included patient's demographic information, duration of intubation, preoperative pain scores and pain medication required, length of hospital stay and pain score after extubation during their admittance to the ICU and Multi Organ Transplant Unit (MOTS). Data regarding pain management modalities, type of opioid analgesics, route of administration and opioid related side effects was collected.

Result:
During the study period, 300 patients were identified that received OLT. After excluding those patients that did not meet the study criteria, the data of 200 patients were included in the analysis. The patients were 72% male with a mean age of 53.34 years (±11.72) and mean weight 78.24 kg (±18.12). The mean duration of the surgical procedure was 6.635 hours (±1.65). The mean duration of intubation in the ICU was 9.93 hours (±0.54), while the mean duration of stay in the ICU was 2.32 days (± 2.47). The mean visual analogue scores (VAS) were: day 1 (3.40 ±1.71), day 2 (4.99 ± 0.11) and day 3 (4.75 ±0.12). During their stay in the ICU; 178 patients received intermittent boluses (89%), 9 patients received a continuous infusion of opioids (4.5%) and 13 patients received PCA (6.5%). Regarding the type of opioids; 130 patients received hydromorphone (65%), 63 received fentanyl (31.5), and 7 received morphine (3.5%). The mean length of hospital stay was 14.86 days (± 8.60). There were no reports of serious side effects such as respiratory depression or severe sedation related to the analgesic medications that were administered.

Discussion:
This study reports that OLT patients experience moderate pain during the first 3 days following extubation. The data obtained from this investigation will help us formulate a better understanding of post OLT pain and optimize a pain management protocol that is more efficient and effective.

References: