Introduction: With the increasing popularity of enhanced recovery protocols and the growing opioid epidemic, recent pain management pathways have emphasized opioid-sparing measures. As a result, gabapentinoids are being used following surgery and have become one of the most common opioid-sparing analgesics prescribed. However, they are not without risk, with several cases of respiratory depression and oversedation being reported.
Methods: This systematic review and meta-analysis aimed to evaluate the impact of gabapentinoids on sedative complications following abdominal surgery in order to guide future clinical decisions. The Pubmed and Embase databases were searched according to PRISMA guidelines to identify randomized controlled trials comparing gabapentinoids with placebo following abdominal surgery with respect to sedation complications. The Cochrane Risk of Bias Tool was used to assess study quality. A comparative meta-analysis was performed on the data.
Results: Of the 3,988 studies retrieved, 19 were eligible for meta-analysis. Eleven of the 19 studies assessed pregabalin (100 to 1,200 mg) and eight assessed gabapentin (300 to 1,200 mg). Postoperative sedation scores were higher in the gabapentinoid group ($p<0.01$) relative to placebo. Subgroup analyses demonstrated higher scores two hours after surgery for gabapentinoids ($p=0.03$), but no statistical difference at 24 hours ($p=0.19$). Different doses did not yield any differences on forest plot analyses.
Respiratory depression rates were higher in the gabapentinoid group, compared with placebo ($p=0.02$).
Conclusions: The preoperative use of gabapentinoids is associated with sedative complications, including respiratory depression. These results may help guide future perioperative pain protocols.

OP157 Evaluating The Clinical And Economic Impact Of Adopting A Closed Peripheral Intravenous Catheter System In A Japanese Hospital

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Introduction: Up to 90 percent of inpatients require an intravenous catheter during their hospitalization. A closed, integrated peripheral intravenous catheter (PIVC) system has been shown to protect veins for longer and reduce the risk of complications and unnecessary restarts when compared with an open system. This study evaluated the annual clinical and economic outcomes of adopting a closed, integrated PIVC system, instead of an open system, for inpatients in a Japanese hospital.
Methods: A budget impact analysis was developed to estimate the clinical and economic impact for a 500-bed hospital with an 85 percent occupancy rate and a 96-hour catheter replacement protocol. For the analysis, the average length of stay for patients was 12 days and 90 percent of inpatients required a PIVC. Inputs such as catheter failure rate, complication rate, consumables costs, and complication management costs were informed by global and local data sources. The outcomes evaluated included consumables utilization, complication events, nurse time, and overall cost impact.
Results: The analysis estimated that 12,604 patients required PIVCs. Moving from an open to a closed, integrated PIVC system resulted in a 68 percent reduction in consumables (3,786 fewer catheters and 36,315 fewer connecting accessories). Complications (occlusion, extravasation, phlebitis, and bending) were reduced by 62 percent (3,682 fewer episodes). Blood exposure was reduced by 98 percent (3,565 fewer episodes), and nurse time decreased by 17 percent (786 fewer hours). This resulted in a potential overall cost saving of JPY3,955,140 (USD28,756) annually, after offsetting the acquisition cost of JPY888,247 (USD6,458) associated with the closed system.
Conclusions: PIVC is the most common vascular access device used in hospitals, and insertion and maintenance are often performed by nurses. Fewer complications can be expected with a closed system, leading to better patient outcomes. In addition, nurses spend less time managing complications and replacing PIVCs, and consumables utilization is reduced. This results in improved operational efficiency and potential cost savings for hospitals.

OP159 Quality Of Evidence For Clinical Benefit Of Cancer Medicines Assessed For Funding In Australia

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Introduction: This study aimed to describe the type of evidence available for and the clinical benefit of cancer medicines assessed for funding in Australia by the Pharmaceutical Benefits Advisory Committee (PBAC). The evidence was assessed with the European Society of Medical Oncology Magnitude of Clinical Benefit Scale version 1.1 (ESMO-MCBS).
Methods: All data on applications submitted to PBAC between 2010 and 2020 were independently extracted in duplicate from PBAC Public Summary Documents available online. Any disagreements were resolved through discussion. ESMO-MCBS ratings were retrieved from the ESMO-MCBS website. Substantial benefit for the ESMO-MCBS was defined as a grade A or B for (neo)adjuvant intent and four or five for palliative intent.
Results: In the study period, 182 cancer indications for 100 cancer medicines were examined by PBAC, including 124 (68%) for solid tumors (116 in the palliative setting) and 58 (32%) for hematological cancers. A total of 138 (76%) indications were recommended for public funding, 40 (22%) were rejected, and four (2%) were deferred. Randomized controlled trials (RCTs) were the main source of evidence in 154 indications (85%) and single-arm studies in 27 (15%) indications. RCTs were available in 113 (91%) and 41 (71%) of the solid tumor and hematological cancer indications, respectively. In submissions with RCTs, mature overall survival (OS) was reported in 81 (53%) indications. For indications with a statistically significant improvement in OS, the median gain was 3.0 months (range 0.9 to 17.0) for solid tumors and 8.2 months (range 1 to 9.1) for hematological cancers. The ESMO-MCBS score was available for

https://doi.org/10.1017/S0266462323001551 Published online by Cambridge University Press