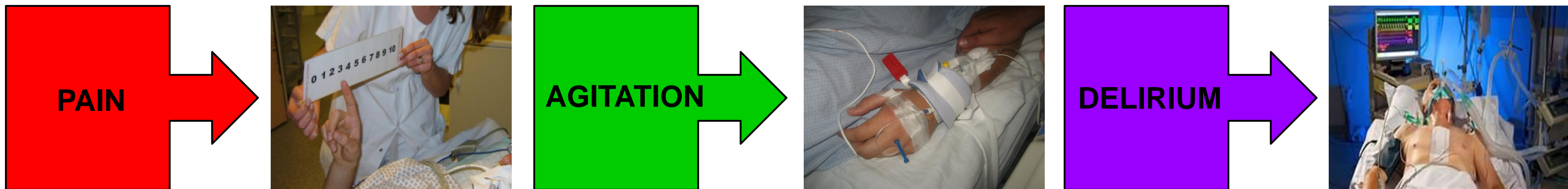


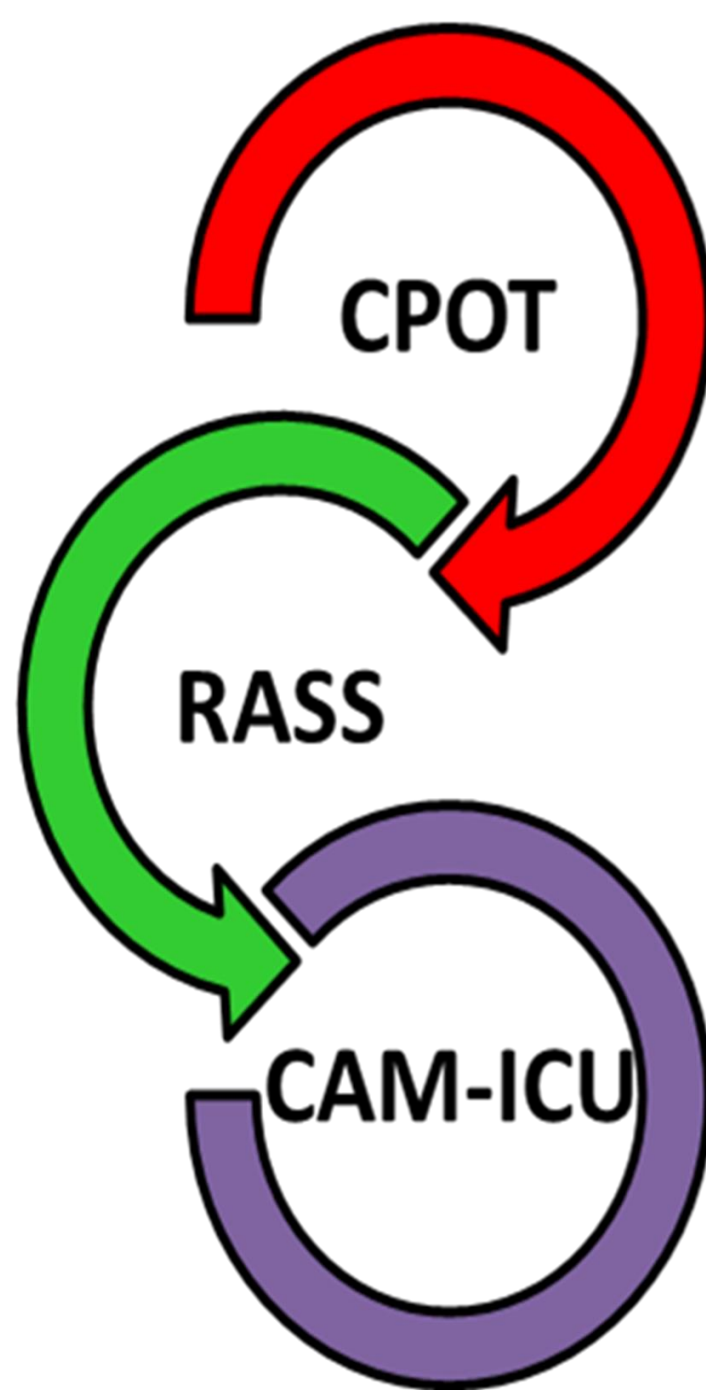
Pain, Agitation, and Delirium in the Intensive Care Unit

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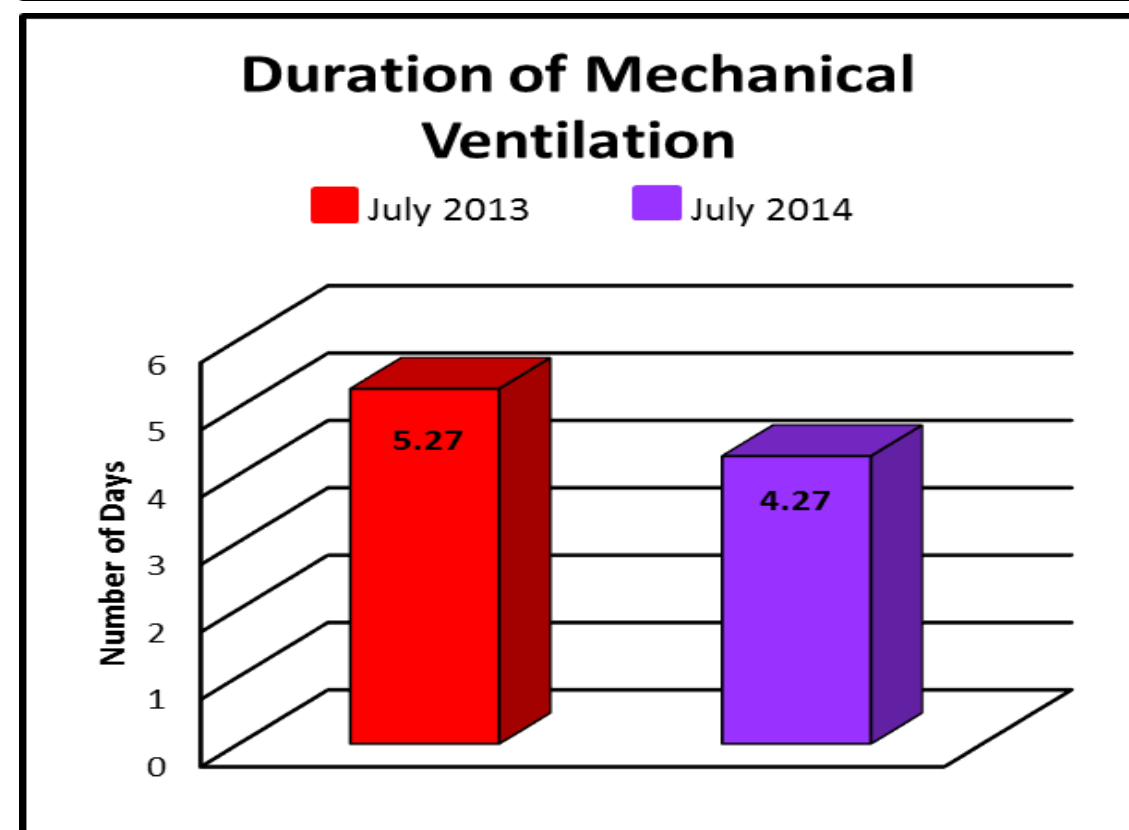
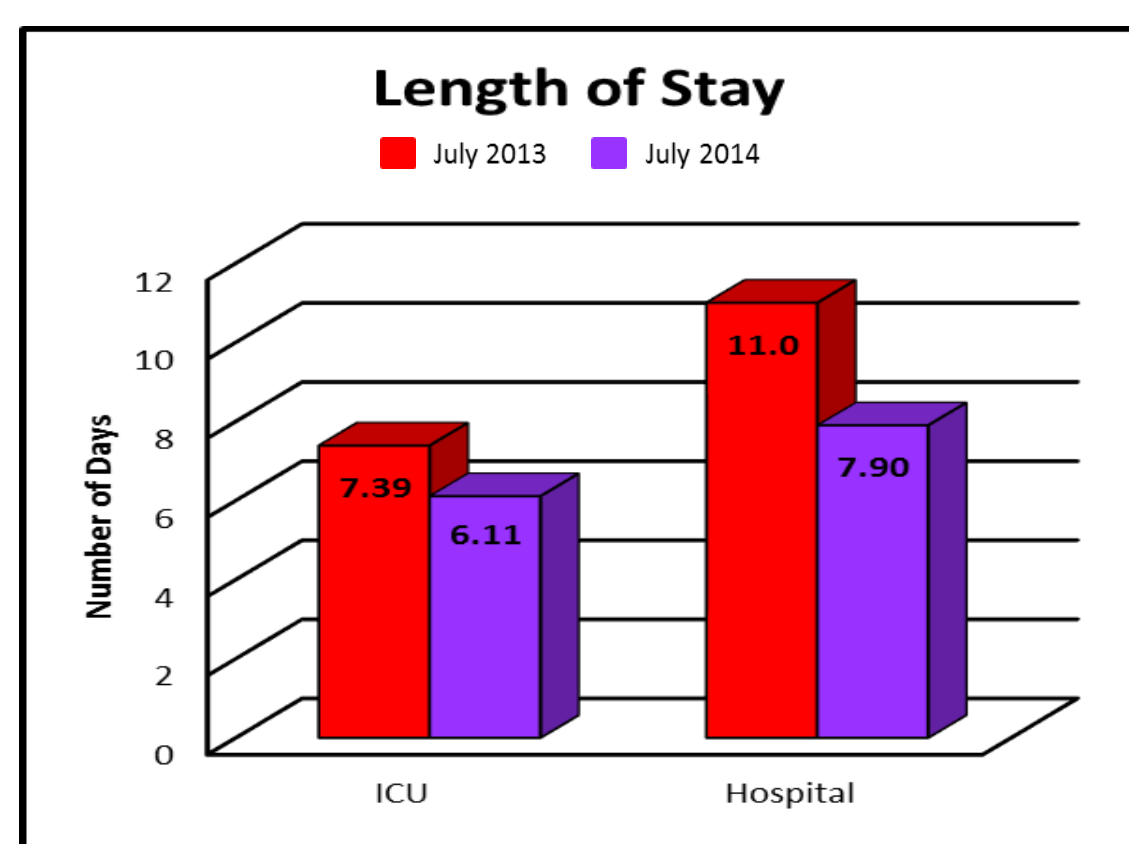
INTRODUCTION

- \$16 billion dollars annually in U.S. ¹
- Associated with increased length of ICU and hospital stays, ventilator days, patient mortality and morbidity, and long term neuropsychological deficits ²
- Further need for research evaluating an integrated clinical bundle (ICB) to streamline the assessment process
- ICB includes CPOT, RASS, and CAM-ICU
- Compare dosages, ICU and hospital LOS, and medication and hospital charges



METHODOLOGY

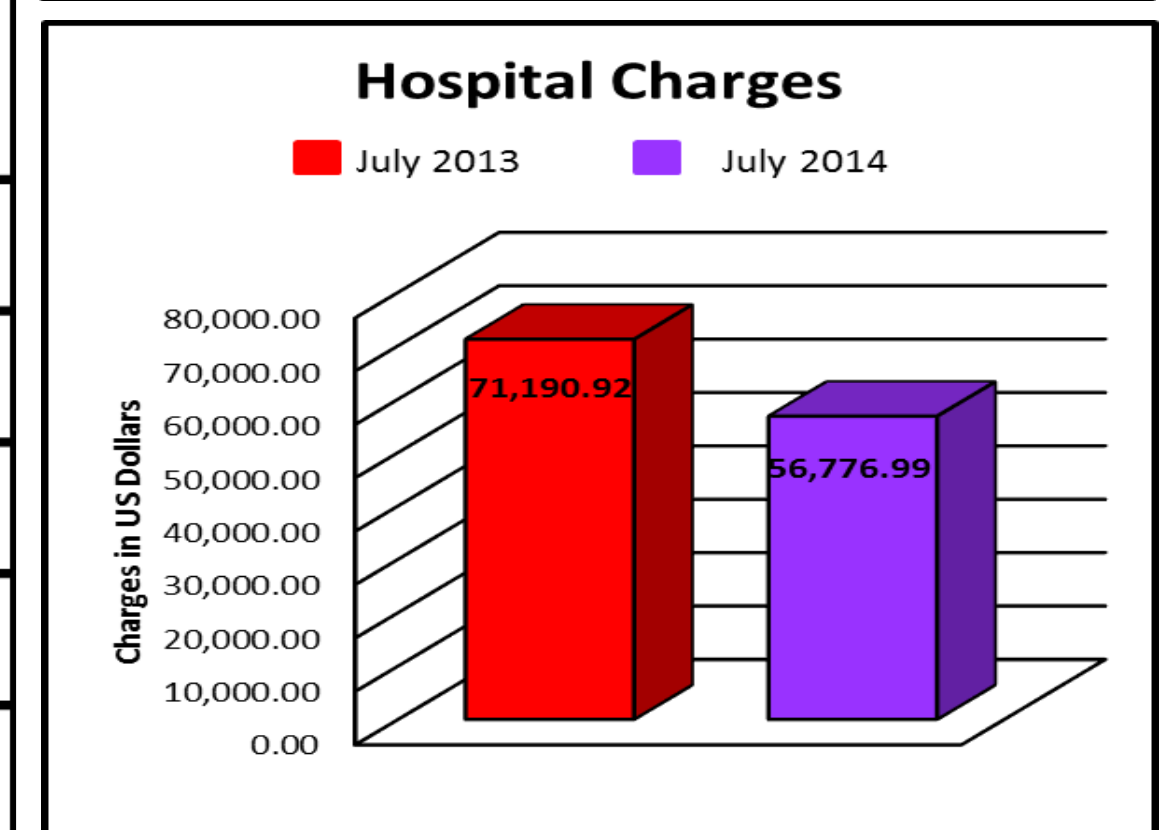
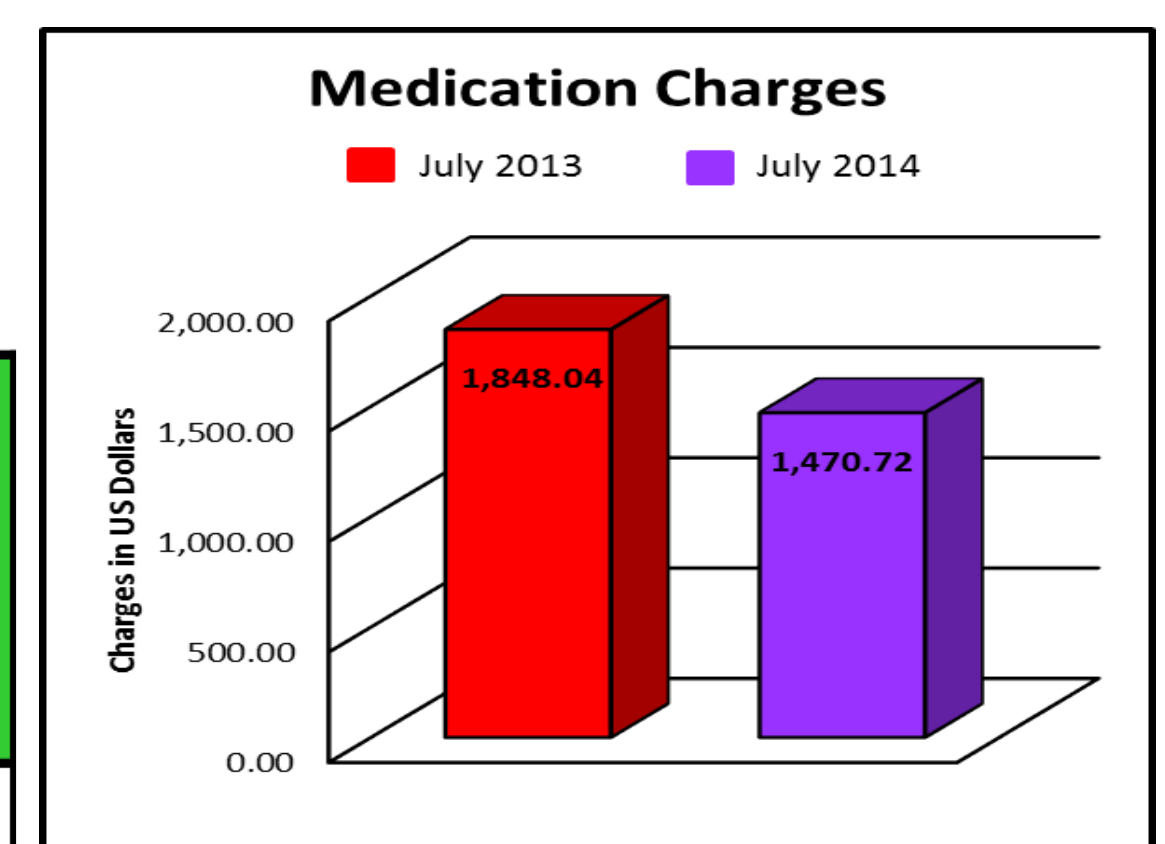
- Descriptive pilot study with convenience sample
- ICB implemented into 24 bed mixed ICU setting
- Adult mechanically ventilated patients ($n=99$)
- Receiving sedative and analgesic medications including morphine, fentanyl, midazolam, propofol, and dexmedetomidine
- Evaluated regarding dosages, ICU and hospital LOS, mechanical ventilation duration, and charges for medications and hospitalization
- Outcome indicators were assessed to substantiate need for the ICB



RESULTS & DATA ANALYSIS

Comparison of Medication Dosages: July 2013 and July 2014

Medication	July 2013 Dosages	July 2014 Dosages	p-Value*
Morphine sulfate (mg/hr)	5,745.11	1,708.33	0.02*
Fentanyl (mcg/hr)	4,551.30	4,066.56	0.11
Midazolam (mg/hr)	86,910.00	29,833.00	0.24
Propofol (mcg/kg/hr)	735.74	352.50	0.12
Dexmedetomidine (mcg/kg/hr)	2.53	10.16	0.07



DISCUSSION

- Use of evidence-based assessment tools within the ICU setting continues to be recommended ⁴
- Support use of ICB by decreasing ICU and hospital LOS, MV days, medications, and both medication and hospital charges
- Identifies effectiveness of bundling three tools
- Need for the development of a comprehensive PAD protocol to be used for all ICU patients who are mechanically ventilated and receiving parenteral infusions of analgesia and/or sedation

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