Background

• Delirium is an acute brain organ dysfunction and is associated with poor clinical outcomes. Delirium is a state of acute changes/fluctuation in a patient’s consciousness, accompanied by inattentiveness, disorganized thinking, or perceptual disturbances in thinking.

• In prior studies, prevalence of delirium has been reported between 16 to 80% depending on patient population (see figure 1). In these studies, delirium has been shown to be associated with longer hospital stays, readmissions, poor cognitive and functional outcomes, and increased mortality.

• Risk factors caused fall into two major categories: patient related factors (e.g. age, previous dementia, diabetes, etc.) or iatrogenic risk factors (e.g. psychoactive medications, hypoxemia, length of surgery >3 hours, etc.). Of note, benzodiazepines and opiates have been associated with development of delirium the post-operative period.

• The CAM-ICU allows for the rapid diagnosis of delirium by bedside nurses and has been used in several research studies to detect the prevalence of and risk factors for delirium in ICU. A tool was developed adapting the steps of the CAM-ICU for use in the PACU (figure 2).

• Recognition of the prevalence of delirium, and risk factors for delirium in ICU tool (figure 2). -Recognition of delirium in ICU tool.

OBJECTIVES

• To assess PACU staff knowledge of delirium

• To educate staff increasing awareness of the risk factors, complications, and current recommended treatments for delirium

• To educate PACU nurses how to use the CAM-ICU to detect delirium in their patients.

• To detect the prevalence and risk factors for delirium in the PACU using the CAM-ICU

PROCEDURE OF IMPLEMENTATION

• IRB approval was obtained for the study, this approval allowed for waiver of consent.

• The CAM-ICU tool was adapted for use in the PACU setting. Worksheets and checklists were also developed for use with the study.

• Bedside sub-investigator nurses received certification in CITI training.

• A pre-training anonymous survey on delirium was given to all nurses in the MAIN and MCE PACUs to assess baseline knowledge.

• In-services, training manuals, and videos were used to educate all of the staff on risk factors, complications, and treatment recommendations for delirium.

• Due to the waiver of consent, the bedside nurse sub-investigator were able to assess and collect delirium data on all of their patients.

• Nurse champions were trained in use of the CAM-ICU, and served as experts along with the sub-investigators in their PACUs, training all remaining bedside nurses in the use of the CAM-ICU tool.

• The CAM-ICU and RASS were subsequently added to electronic charting system (VPIMS).

PRELIMINARY RESULTS

• Training of all PACU staff currently being completed. Post-training survey will be given again.

• Data will be analyzed from bedside sub-investigators for the prevalence of and risk factors for emergence and post-operative delirium. Additional areas which could benefit Endoscopy lab, Interventional, Radiology Recovery Room, cardiac cath lab. Further research is needed to identify risk factors and treatments.

IMPLEMENTATION AND FUTURE RESEARCH NEEDS

• Training of all PACU staff currently being completed. Post-training survey will be given again.

• Data will be analyzed from bedside sub-investigators for the prevalence of and risk factors for emergence and post-operative delirium. Additional areas which could benefit Endoscopy lab, Interventional, Radiology Recovery Room, cardiac cath lab. Further research is needed to identify risk factors and treatments.

References:
