COMPARING COMFORT SCORES WITH SBS IN TWO INTENSIVE CARE UNITS WITHIN A HOSPITAL TRUST IN PREPARATION FOR IMPLEMENTATION OF PAEDIATRIC CRITICAL CARE DELIRIUM SCREENING.

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AIM

The aim of this project was to assess correlation of a pre-existing Comfort score with SBS, in order to proceed with implementation of delirium screening.

INTRODUCTION

- Paediatric critical care delirium is associated with increased morbidity and mortality in critical care [1]
- Validated screening tools indicate an assessment of arousal by SBS (State Behavioral Scale) or RASS (Richmond Agitation-Sedation Scale)
- The units in question used a locally developed "Comfort" score for arousal assessment.

METHODOLOGY

- Over 2 weeks, nurses documented SBS and Comfort scores 12 hourly
- Data was taken from the CICU (Children's Intensive care Unit) & the CPICU (Cardiac Paediatric Intensive Care Unit) at the University Hospitals Leicester NHS trust.
- Data was collected retrospectively every 48 Hours
- Incomplete data was excluded from analysis
- Raw data was plotted to identify when delirium screening was indicated by SBS screening (≥-1) and compared to when it was indicated by target comfort scores (≥ 17).

PEDIATRIC DELIRIUM ASSESSMENT STEP 1 Arousal Assessment + STEP 2 Content Assessment State Behavioral Scale (SBS) SCALE LABEL + 2 AGITATED UNABLE to console / Increased movement (thrashing, kicking legs) UNSAFE (biting ETT, pulling lines) / Fights ventilator +1 RESTLESS Increased Movement (RESTLESS) / Asynchrony when on ventilation + 0 AWAKE Spontaneous ATTENTION (Able to Calm) RESPONSE to VOICE / Able to calm with touch or voice RESPONSIVE RESPONSE to VOICE or LIGHT TOUCH (Gentle Touch/Voice) BRIEF attention with stimulation / Able to comfort If SBS is $\geq (-1) \rightarrow PROCEED$ to STEP 2 (pCAM-ICU). – 2 RESPONSIVE **RESPONSE to NOXIOUS stimuli** (Noxious Stimuli) Occasional movement of extremities / UNABLE to pay attention – 3 UNRESPONSIVE NO response to NOXIOUS stimuli Does NOT move / Does NOT distress with ANY procedure If SBS is (-2) or $(-3) \rightarrow STOP$ and REASSESS patient later.

RESULTS

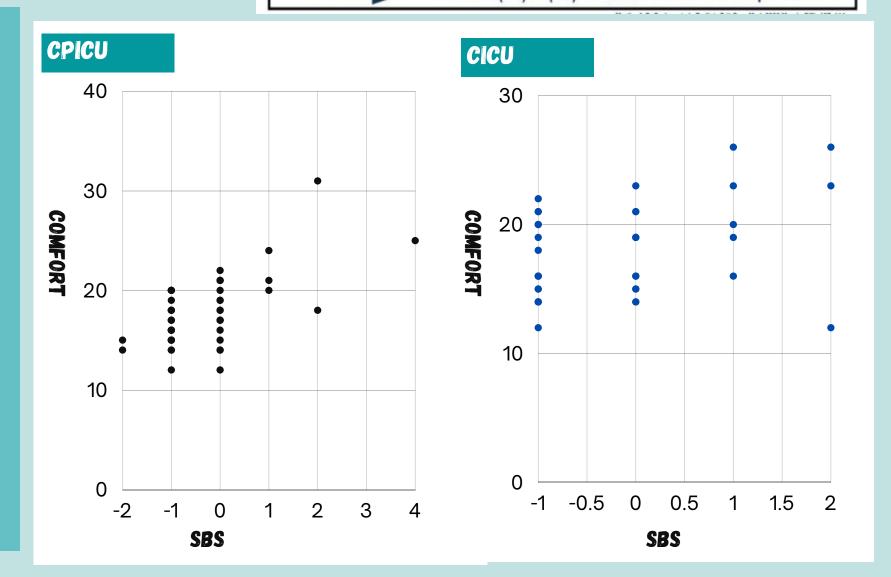
- 104 patient episodes were captured
- 86 were complete and analysed.
- 50 entries were from CPICU and 36 were from CICU.

CPICU: Pearson correlation coefficient of 0.6125 (p<0.0001; 0.5) - shows moderate correlation

CICU: Pearson correlation coefficient of 0.3633 (p< 0.195; 0.5) - shows low correlation.

Using SBS as an arousal score (\geqslant -1) - 86 patients were eligible to be screened for delirium.

Using the Target Comfort Score (≥17) - 50 patients would have been screened for delirium.



CONCLUSION

Comfort Scores did not have a strong correlation with SBS in this study.

Using target comfort score thresholds resulted in several missed opportunities for screening for hypoactive delirium.

Accurate arousal assessment is necessary to proceed with delirium assessment.

DISCUSSION

This study was carried out as a part of a larger project to implement delirium screening in 2 units. The results highlighted discrepency in compliance and the use of Comfort arousal assessment in both units. Literature search showed that there were no studies validating the use of delirium screening tools with this particular Comfort scoring tool.

Local nursing consensus were keen to use a more reliable arousal score prior to implementation of delirium screening and education.

Whilst this study was limited by sample size and duration, it has set the scene for further work to implement delirium screening successfully.

