Perioperative Quality Improvement (QI) Project for Pediatric patients aged 6 months to 14 years, with Emphasis on Anxiety and Premedication in a Tertiary level Hospital.

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Background:

The Anesthetic Department undertook a QI project during 2017 to address the management of preoperative anxiety and sedative premedication among children. The collected data revealed only 10% received sedative premedication and 30% showed moderate to severe anxiety during induction. The findings indicated room for improvement.

Methods:

From April to September 2017, awareness regarding the use of sedative premedication was raised through in-service lectures to staff in the Anesthetic Department and perioperative Nursing. A Sedative Pre-Medication Guideline was drafted and disseminated. Plan, Do, Study & Act (PDSA) technique was used to identify and overcome obstacles.

Results:

Data were collected from 137 patients coming through Day Surgery Unit (DSU). The patients were divided into groups by age (Group I = 6 months to 6 years; Group II = 7 to 14 years).

There were 79 patients in Group I and 58 patients in Group II. 40% of patients (n=55) received sedative premedication of which 69% were in Group I (n=38) and 31% in Group II (n=17).

53% (n=57) received EMLA cream in acceptable time before intravenous cannula insertion.

Moderate to severe anxiety was exhibited at induction of anesthesia by 33% of patients (n=45) as per VAS scale and 45% (n=62) as per the Induction Compliance Checklist (ICC) assessment tool. In this subgroup 27% (n=17) received sedative premedication. On closer subgroup analysis we found that all 17 patients either received too low dose in relation to weight or inadequate timing of premedication in relation to induction of anesthesia.

Conclusion:

We are working in a multi-cultural hospital where only 40% of health care staff speaks Arabic with a patients population that is almost exclusively Arabic speaking. This implies that sedative premedication is an important tool to deliver high qualitative care. A small investment in multiprofessional awareness was noted to have improved anxiety management by increasing sedative premedication to pediatric patients. VAS-5 grade-scale was selected because it was considered recognizable for the staff. However, we saw that the VAS-instrument was much more accurate in describing anxiety compared with the ICC-tool. In the next step we will focus on implementing non-pharmacological methods such as information package to both children and relatives before anesthesia and we are trying to change the OR sign-in procedure to a more silent and soft atmosphere where today no account is taken of a slightly sedated child.

Pre-Medication in
Pre-school vs School age
Spring vs Autumn 2017

Moderate to Severe
Stress and anxiety
during Induction of
Anesthesia