P 44 AN AUDIT OF SEDATION PRIOR TO NON-PAINFUL PROCEDURES IN CHILDREN

Jennifer McDonnell, Penny Fletcher. *Imperial NHS Healthcare Trust*

10.1136/archdischild-2015-308634.52

Aim To audit the quality of sedation prior to procedures and identify reasons for ineffective sedation.

Method All paediatric patients (excluding intensive care) at Hospital X receiving pharmacological pre-procedural sedation were included. The sedation guideline had been recently updated but anecdotally the old guideline was being followed due to perceived sedation failures when following the new guideline. Staff nurses and ward pharmacists were asked to refer patients for the audit using a referral form. A poster was displayed in drug treatment rooms and labels attached to sedative medication to remind nurses to refer any suitable patients for the audit. Patients were also identified by looking in the ward diary for scheduled procedures. Data were collected on the day of the procedure, over a period of seven weeks (6th Jan to 21st Feb 2014) using a piloted data collection form. Data were analysed using Microsoft Excel based on drug and dose used, sedation success or failure, and on which guideline was followed.

Standards:

New guideline followed (Target 90%)

Old guideline followed (Target <10%)

Correct drug used (Target 100%)

Correct dose used (Target 100%)

Effective sedation (procedure could take place) (Target 90%)

Results:

12 patients were identified and included in the analysis.

The new guideline was adhered to in 7/12 (58%) of cases.

11/12 (92%) of patients received the correct drug and 8/12 (75%) received the correct dose according to the new guideline.

Effective sedation was achieved on time in 7/12 (58%) of patients. In 3/12 (25%) of cases the procedure was delayed, taking place later the same day following a second dose of chloral hydrate 50 mg/kg.

2/12 (17%) of cases failed sedation and the procedure had to be re-scheduled under general anaesthesia.

Four patients were given chloral hydrate 100 mg/kg, all were succesfully sedated. Chloral hydrate 50 mg/kg in combination with alimemazine 2 mg/kg achieved effective sedation in only 1/2 (50%) of patients, however one of the children receiving this combination weighed 16 kg and according to the new guideline should have received midazolam (0.5 mg/kg orally or 0.2–0.4 mg/kg intranasally). The least successful sedative was chloral hydrate at a dose of 50 mg/kg, with only a 1/4 (25%) success rate. This dose does not feature in the new guideline and should therefore never be used as a single agent. Only two patients were given midazolam, one of which (intranasal 0.33 mg/kg) resulted in successful sedation. The other, an oral dose (0.5 mg/kg) failed.

Conclusion The sample size was small but chloral hydrate 50 mg/kg appears to be an ineffective dose. Patients <15 kg should be prescribed either 100 mg/kg or co-prescribed chloral hydrate 50 mg/kg and alimemazine 2 mg/kg. Further local data are required regarding the effectiveness of midazolam.

The results do not necessitate a change in the current guideline, as procedures carried out according to the guideline were successful in the majority of cases, but rather a change in practice to reflect the guidance. Prescribers need to be made aware of the correct chloral hydrate dose and non-adherence to recommended practice.