

APAGBI SURVEY AND AUDIT SUB-COMMITTEE

Template Report for Surveys of the APA Membership

Survey Title: Multicentre survey of Pulmonary Aspiration in Paediatric Anaesthetic Practice.

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Brief Description of Purpose:

To provide a snapshot of the safety of paediatric anaesthetic practice in UK specialist paediatric centres in terms of pulmonary aspiration.

To report the incidence of the problem in elective and emergency patients in a large multicentre project over the course of a one year period.

To look at the risk factors and impact of anaesthetic technique if possible.

Category of Membership Surveyed: (e.g. all, home, overseas, linkmen, trainee)

Each centre had a link Consultant anaesthetist who identified the patients for that centre and liaised with the audit dept and IT dept of that trust.

Dates of Survey: 1st May 2010 – 30th April 2011.

Number of Responses: 24 cases of pulmonary aspiration reported.

Outline Findings of Survey:

There were 24 cases of pulmonary aspiration reported over a one-year period in the eleven specialist paediatric centres that took part in this project. The denominator data shows that over the year there were a total of 117,371 cases. The overall incidence of pulmonary aspiration is therefore 2/10,000.

The emergency incidence is 6/26,988 = 2.2/10,000.

The elective incidence is 18/90,383 = 2/10,000.

The M:F split was 12:12

ASA classification 1 = 3 patients, 2 = 9 patients, 3 = 12 patients with no 4 or 5s.

Age range: <1 = 3, 1-5 = 6, 6-10 = 4, >10 = 11.

Risk factors were identified in many patients and only 4 patients had no risk factors.

Some patients had multiple risk factors

1 risk factor = 11 patients, 2RFs = 6 patients, 2 patients = 3RFs, 1 patient = 5RFs.

The timing of the aspiration was split evenly between induction and maintenance with no episodes in recovery. i.e. 12:12, Induction: Maintenance.

16/24 deteriorated immediately or within one hour, and the other 8 patients did not deteriorate.

No patients died. 8 patients suffered a mild deterioration requiring medical treatment and oxygen. 5 patients required PICU management and ventilation. All fully recovered.

Intended Publication/Presentation:

Presentation possibly later this year at the joint European meeting if allowed the study leave.

Publication intended for Pediatric Anesthesia.

Follow up Actions Required:

Other Comments:

Interesting comparisons to be made with previously published work. Warner from the Mayo clinic in 1999 reports an overall incidence of 4/10,000 over a 12-year period in 63, 180 GAs. The emergency incidence is equivalent to 25/10,000 (1 in 373cases). Our results show an equal emergency to elective incidence in a large sample of 2-2.2/10,000 cases in a one-year time period where anaesthetic practice is probably similar. The lower incidence suggests current practice is of a high quality, and the low mortality is reassuring.

Date Submitted to Survey Lead: 18th Feb 2012

Submitted by: Dr Robert Walker