

Press release – APRICOT study online first in Lancet Respiratory Medicine

Europe-wide anaesthesia study on severe critical events in children undergoing general anaesthesia emphasises the need for better education of anaesthesiologists and their teams and for quality improvement in paediatric anaesthesia in Europe.

On Tuesday 28 March 2017, the prospective multicentre observational study APRICOT (**A**naesthesia **PR**actice **I**n **C**hildren **O**bservational **T**rial) was published online first in Lancet Respiratory Medicine (doi 10.1016/S2213-2600(17)30116-9).

APRICOT showed that the overall incidence of severe critical events associated with anaesthesia is higher than previously believed, with a large variability among the participating centres across Europe.

Children from birth to 15 years of age undergoing elective or urgent anaesthesia for diagnostic or surgical procedures were included. With more than 260 participating centres across 33 countries and comprising more than 31,000 anaesthetic procedures, APRICOT is the largest database on paediatric anaesthesia in Europe.

The results of the study provide insight into the paediatric anaesthesia practice across Europe and the incidence, nature and outcome of severe critical events associated with anaesthesia. The occurrence of respiratory, cardiac, allergic or neurological complications requiring immediate intervention that led or may have led to major disability and/or death was recorded in detail.

“What is both surprising and concerning is that more than 5% of children undergoing anaesthesia in our study experienced at least one severe critical event. In 17% of them additional anaesthesia treatments, prolonged treatment in hospital, or both were needed” said Professor Walid Habre, APRICOT Lead Investigator. *“Our findings reinforce the urgent need to elaborate and implement standardised training programmes and good clinical practice guidelines for paediatric anaesthesia management throughout Europe.”*

The APRICOT study showed startling differences in severe critical events among European countries with a 20- to 30-times variation in incidence. Many factors are involved, but there was statistical evidence that experienced paediatric anaesthesiologists and teams with a higher volume of paediatric cases had significantly fewer severe critical events. The results suggest that children less than 3 years of age should be managed by more experienced teams with specific paediatric training and support.

APRICOT is a trial of the European Society of Anaesthesiology (ESA) and its Clinical Trial Network (CTN) that supports institutions, clinicians and scientists to work collaboratively across international borders to improve the care of patients in the field of Anaesthesiology, Intensive Care, Peri-Operative Medicine, Emergency Medicine and Pain Medicine.

Data from APRICOT will be presented in Geneva on June 5th at EuroAnaesthesia 2017, (the annual congress of the European Society of Anaesthesiology (ESA)) and in Glasgow on September 30th 2017 at the annual congress of the European Society for Paediatric Anaesthesiology (ESPA)). The study was funded by the ESA and supported by ESPA.

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