

P41

UK PRACTICE IN ANAESTHESIA FOR CHILDREN WITH CONGENITAL HEART DISEASE HAVING NON-CARDIAC SURGERY

C. McCann, D. Taylor, T. Murphy, P. Arnold, B. Beauve on behalf of CCAN UK

Introduction and aims

The number of patients with congenital heart disease (CHD) presenting for non-cardiac surgery is increasing¹. Patients with major or severe CHD have increased risk of mortality when undergoing non-cardiac surgery compared to matched controls without CHD². There are currently no UK national guidelines on the best location or individual anaesthetist to care for higher risk cases in order to optimise outcome. The aim of this survey was to gauge current practice in UK and to inform future prospective work looking at outcomes.

Methods

A national survey of UK consultant anaesthetists with a current paediatric practice was undertaken, excluding commissioned paediatric cardiac surgical centres. The survey was distributed via the APAGBI and follow up individual departments were contacted to maximise response rate and clarify data.

Results

There were 190 individual responses from 50 departments. 38 hospitals had a paediatric cardiology service on-site and 12 hospitals without an on-site service responded. Respondents had a mean of 10 years of consultant practice and spent a mean 70% of practice in paediatric anaesthesia. 20% of departments had relevant guidelines and 20% had a nominated lead for patients with CHD. Respondents reported their usual practice according to type of surgery and severity of CHD as shown in table 1 below:

		Centre without paediatric cardiology on site		Centre with paediatric cardiology on site			
Type of surgery	% Of respondents undertaking this work	Type of surgery	% Of respondents undertaking this work	Type of surgery	% Of respondents undertaking this work		
Severity of CHD	% would 'always' or 'usually' anaesthetise	Severity of CHD	% would 'always' or 'usually' anaesthetise	Severity of CHD	% would 'always' or 'usually' anaesthetise		
Minor elective	100	Minor	91	Minor elective	100	Minor	98
Major	26			Major	35		
Severe	10			Severe	15		
Major elective	77	Minor	95	Major elective	89	Minor	97
Major	19			Major	22		

Severe 8 ('usually' only)

Severe 7 ('usually' only)

Emergency 99

Minor 95

Emergency 99

Minor 98

Major 37

Major 51

Severe 12

Severe 18

Discussion and conclusion

Patients with CHD undergo non-cardiac surgery at a wide range of centres in the UK. Most respondents would undertake patients with minor CHD for all elective and emergency surgery regardless of having cardiology support on site. A smaller proportion would undertake major or severe CHD for any type of surgery, with those in a cardiology centre slightly more willing to anaesthetise these cases. In the absence of national guidance, practice will be determined by the individual anaesthetist with attendant variation in practice. In this higher risk group of patients, prospective outcome data would help inform future guidance and standardise practice.

References

1. Nasr VG, Staffa SJ, Faraoni D, DiNardo JA. Trends in mortality rate in patients with congenital heart disease undergoing noncardiac surgical procedures at children's hospitals. *Sci Rep.* 2021 Jan 15;11(1):1543
2. Faraoni D, Zurakowski D, Vo D, Goobie SM, Yuki K, Brown ML, DiNardo JA. Post-Operative Outcomes in Children With and Without Congenital Heart Disease Undergoing Noncardiac Surgery. *J Am Coll Cardiol.* 2016 Feb 23;67(7):793-801