Paediatric Surgical Prophylaxis guidelines in the UK. A National survey

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Table 1: Surgical prophylaxis guidelines

BACKGROUND

- Paediatric surgical prophylaxis is often prolonged as shown in several studies¹
- We conducted a national survey of of surgical antimicrobial prophylaxis guidelines in the UK to establish what is the recommended practice

METHODS

- 27 surgical units in the UK undertake specialist paediatric surgery
- Antimicrobial prophylaxis guidelines were collected through hospital websites, the MicroGuide app or personal contacts
- Procedures were classified into clean; clean contaminated and contaminated according to the SIGN guidelines.

RESULTS

Guidelines from 10/24 centres were collected and compared. One centre had no guidelines. Centres with guidelines had separate advice for children with penicillin allergy. The antimicrobial choice was variable: for clean-contaminated procedures , 4/9 centres recommended co-amoxiclav alone or with metronidazole, 3/9 centres recommended cefuroxime and metronidazole, 1/9 centres amoxicillin, metronidazole and gentamicin and 1/9 centres amoxicillin and metronidazole

General surgery – 9 guidelines	No Prophylaxis	Single dose	Other	SIGN guidelines
Clean procedures–e.g. splenectomy; Upper GI	5/9			None
Clean contaminated–e.g interval appendicectomy		8/9	1/9 Induction +/- 24 hours therapy	Single dose
Complicated appendicectomy–non gangrenous		7/9	1/9 Induction +/- 24 hours therapy	Single dose
Urology – 8 guidelines				
Clean contaminated–e.g pyeloplasty, VUR surgery		5/9		Single dose
Catheter left in situ			4/8 induction + 5-7 days oral prophylaxis or to catheter removal	Single dose +/- oral to catheter removal
ENT – 8 guidelines				
Tonsillectomy	2/8	1/8 < 2 yrs old	1/8 5 days when suction diathermy is used	None
Grommet insertion		3/8		None
Orthopaedic surgery – 8 guidelines				
Compound fractures or open surgery of closed fractures		2/8	Induction +1-2 doses 1- 5 days if metal implants Induction + 2 doses if implants	Single dose

CONCLUSIONS

- The data collection of the remaining surgical guidelines is still on-going
- The majority of paediatric general surgical guidelines suggest single prophylactic antibiotic dose at induction for clean-contaminated and contaminated procedures
- Not all major paediatric surgical units do not have prophylaxis guidelines.
- Stewardship programmes need to ensure surgical prophylaxis guidelines are available and followed

¹Versporten, Ann, et al. *J. Antimic Chemott* 71.4 (2016): 1106-1117.