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Antibiotic Allergy Documentation in Tertiary Children's Hospital; Evaluating Effective Point in Admission Pathway for De-labelling

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Rationale

Antibiotic allergy 'de-labelling' can mitigate the clinical and economic burdens of antibiotic allergy over-reporting¹, positively impacting on antimicrobial stewardship. Prior to institution of antibiotic allergy de-labelling in our tertiary children's hospital we aimed to identify best point in patient's hospital contact to implement change.

Method

Two retrospective audits of antibiotic allergy documentation were completed with institutional compliance approval. The first (June 2017) evaluated all inpatient admissions over one month. The second (August 2019) was completed in the Children's Emergency Department (CED) on six days over three weeks. For both, all medical record sources, including medication charts, were reviewed, including for prior hospitalisations for the inpatient audit.

Results

Inpatient document review of 857 admissions identified 56 patients (6.5%) with self-reporting antibiotic allergy, although only 36 (4%) were identified at current admission. The inpatient medication chart captured allergy documentation in 97% of cases, which was recorded in the medical notes for only 50%. Self-reported documented antibiotic allergy was identified in 16 of the 643 presentations (2.5%) in the CED audit. Medical assessment record was the commonest documentation site 15/16 (94%), with only 10 (62%) recorded in the CED medication chart. Two children with documented allergy were admitted. Both had antibiotic allergy documented on inpatient medication charts. Beta-lactams accounted for 70% of self-reported allergy, predominantly amoxicillin.

Conclusion

In our setting, antibiotic allergy de-labelling is best placed as an inpatient intervention, with patients identified from medication chart documentation. This would support a stewardship

pharmacist facilitated de-labelling model, incorporating risk stratification and guideline support, with focus on penicillins.

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References

1. Vyles D, Chiu A, Routes J, *et al.* Antibiotic use after removal of penicillin allergy label. *Pediatrics*: 2018;141(5):e20173466.