

NWS and CDTV had the highest percentage of drugs listed in the red category.

**Conclusion** QuPI scores were low overall. Support for clinicians in primary and secondary care to facilitate smooth continuity of care was poorest in NI, LSC and GM, with their formularies either not listing drugs or not stating their RAG category. PM and LSC had the highest percentage of amber medicines meaning that in these areas effective collaboration and communication between secondary and primary care providers is paramount. This study shows there is a lack of standardisation in formularies with striking differences most notable in NI, GM and LSC. The findings highlight that paediatric primary care medicines access is inconsistent potentially widening health inequalities. Further work is required to determine the true impact of these findings.

## REFERENCES

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## CAPTURING OUT-OF-HOURS PHARMACIST INTERVENTIONS AT A TERTIARY PAEDIATRIC CENTRE

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10.1136/bmjpo-2024-NPPG.30

**Background** Pharmacists have a key role in patient safety. However, there are gaps in the literature around their interventions and impact in paediatric out-of-hours care.

**Aim** This study aimed to identify and assess the impact of pharmacist interventions on inpatient care at a tertiary paediatric centre during out-of-hours shifts.

**Method** A retrospective study was conducted using data from an out-of-hours pharmacist intervention database at the study site (a paediatric hospital) in the North West of England. Data was drawn from a sample of convenience of 406 entries, recorded over a 5-month period. Pseudo anonymised data was categorised by intervention, ranked by severity, and simple statistics performed using MSExcel.

**Results** Nine different intervention categories were identified, with most including subcategories, showing a wide range of pharmacist out-of-hours tasks including maintenance, medicines information enquiries, and therapeutic drug monitoring. Out of 404 interventions ranked, 91% (N= 368) were found to lead to an improvement in patient care. No interventions were classed as causing detriment to patient care, or directly leading to life-saving actions. Cost of error avoidance against rate paid per out-of-hours intervention was calculated to be ten-fold, proving the value for enhanced rates paid to pharmacists during hours of lower staffing levels.

**Conclusion** Pharmacists at a paediatric tertiary care centre have proved valuable through their out-of-hours interventions recording using a number of assessments to validate the results from this snapshot study. This research contributes to the existing gap in the literature, and will inform future similar studies.

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## TEICOPLANIN PANEL TO OPTIMISE PRESCRIBING AND MONITORING AT A STANDALONE CHILDREN'S HOSPITAL

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10.1136/bmjpo-2024-NPPG.31

**Aim** Teicoplanin is an alternative treatment option for serious Gram-positive infections where vancomycin is not appropriate. Teicoplanin is also used in surgical prophylaxis and line insertions in penicillin allergy. Prescribing of teicoplanin for treatment of infection was audited in 2020 and shown to have variability in loading and maintenance dose regimen and Therapeutic Drug Monitoring (TDM). The audit findings prompted the development of a teicoplanin prescribing panel which includes loading and maintenance doses appropriate to age and weight and automated ordering of TDM at day 3.

**Method** The teicoplanin prescribing audit resulted from anecdotal reporting of poor practice, Datix reports of missed loading or maintenance doses and medicines information enquiries on dosing due to multiple options in the British National Formulary for Children (BNFc). The audit showed that 70% of 62 teicoplanin prescriptions in one month were prescribed for appropriate indications with doses in line with BNFc. Accuracy of dosing and completion of an appropriate loading and maintenance regimen was variable in the other 30%. 44% of prescriptions had a duration of more than 3 days, only two out of 27 patients had TDM carried out. Teicoplanin was prescribed due to a documented vancomycin allergy in eight patients, half of these recorded allergies were 'Red Man Syndrome' or vancomycin infusion reaction. This is a histamine-mediated reaction caused by infusing vancomycin too quickly and is not a true allergy.<sup>1</sup>

It is recognised that teicoplanin posology is complex with different loading and maintenance regimens and administration instructions depending on age, indication and route. Non-weight-based dosing of teicoplanin in adults has been shown to result in sub-optimal levels<sup>2</sup> and the Summary of Product Characteristics (SmPC) and BNFc now recommends weight-based dosing and TDM for all indications. TDM has not been widely implemented at the Trust due to poor turnaround time and misconceptions about the lack of clinical need. Sub-optimal antimicrobial prescribing and TDM contributes to antimicrobial resistance. It is imperative that antimicrobials are prescribed only when necessary and optimised in terms of dosing and duration. It was identified that prescribing of teicoplanin could be improved in two main ways, education of pharmacists and prescribers on guidelines and appropriate choice of antibiotic for patients, i.e., reviewing allergies and secondly, through improving and standardising electronic prescribing.

**Results** The antimicrobial stewardship pharmacist and pharmacists with EPR expertise developed a teicoplanin prescribing panel for treatment of infection. This includes loading and maintenance doses automated for age and weight and TDM on day 3, infusions are automated for neonates and injections for all other ages, in line with the SmPC and Medusa. Lower doses for skin and urinary tract infections are not included as this is for treatment of serious Gram-positive infections. SmPC and Medusa links and latest creatinine and teicoplanin levels