Letters to the Editor

Transparency declarations

H. Z. has shares in Z-BioMed Inc., which is involved in the area of influenza research.

References


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Comment on: Antimicrobial policies in the neonatal units of the United Kingdom and Republic of Ireland

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SIR,

Fernando et al.1 propose the development of prophylaxis and treatment guidelines, but note that adherence to guidelines can be problematic and should be evaluated. They suggest that future studies would ‘…usefully evaluate actual practice and adherence to recommendations of antimicrobial choice and duration.’

We report results of such a survey, undertaken recently at Great Ormond Street Hospital for Children, London. Hospital-wide antimicrobial guidelines are available, and twice-weekly ward rounds [by an integrated team of microbiology, virology and infectious diseases (ID) specialists] on neonatal, paediatric and cardiac intensive care units (ICUs) provide an opportunity to reinforce these guidelines, in addition to promoting diagnostic and management discussion. Over a 6 month period, recommendations made during ID consultations were recorded in real-time on a standardized data collection sheet by a trainee present on ward rounds. Patient case notes and treatment charts were subsequently reviewed by the researchers to determine whether the advice given had been followed by the managing team. Any deviation from the recommended choice of antibiotics, route of administration or duration was defined as non-compliance. Adherence to therapeutic recommendations was defined as evidence of management advice being undertaken within 24 h of the ID ward round.

Data were collected for a total of 546 recommendations made during 296 consultations. Median age of children was 5.5 months (IQR 2–36); 55% were male. The majority (77%) of consultations were undertaken on ICUs. The most common reasons for consultations were antibiotic advice (39%), positive microbiology/virology results (19%) or clinical suspicion of infection (14%); reasons did not differ significantly between ICU and non-ICU settings. Almost half (134/296; 45%) of the children had positive microbiology/virology results, most commonly from blood cultures (63/296; 21%) or respiratory secretions (34/296; 11%). The majority (240/296; 81%) of children were already on antibiotics (median of 2 drugs; range 1–6) at the time of consultation. A median of 2 recommendations (range 1–10) were made per patient.

Overall, 82% (446/546) of recommendations were undertaken, although in only 73% of the children was every recommendation undertaken. Clinicians followed advice about choice of antibiotics (85%) more frequently than duration of antibiotics (74%; P = 0.03). Teams were more likely to follow recommendations to continue current antibiotics than to change (start or stop) antibiotics (97% versus 82%; P = 0.003). Clinicians who did follow advice to change antibiotics were as likely to stop a current antibiotic (82%) as to start a new antibiotic (82%).

We welcome the suggestion by Fernando et al.1 that guidelines for the treatment of infections in NNUs should be developed, but findings from our own study suggest that adherence to antimicrobial guidelines, even when reinforced by consultations on regular ward rounds, is not universal. Although this was not exclusively a survey of the neonatal antimicrobial policy, the majority of subjects were on ICUs, including NNU. The setting of this survey, in a tertiary and quaternary referral centre, also differs from the majority of NNUs in the UK and Ireland. Nevertheless, these are, to our knowledge, the first data on adherence to any microbiology guidance to be reported from a UK paediatric centre and are of relevance to all clinicians contemplating development of antimicrobial policies. Our findings are in line with studies conducted in adult ID units, which have reported adherence to recommendations of 46% to 95%.2–6
Antimicrobial guidelines ensure adequate coverage of important pathogens, while restricting the use of broad-spectrum antibiotics. Support from clinical ID/microbiology services, within hospitals and/or networks, underpins such guidelines with local and regional epidemiological data. However, even when a clear antimicrobial policy exists, and verbal advice is given, there remains considerable variation in choice, dosing and duration of antibiotics. Given the findings of our study, we agree with Fernando et al.\textsuperscript{1} that introduction of neonatal antimicrobial guidelines should be followed-up by assessment of their impact on actual clinical practice.

Transparency declarations
None to declare.

References


