Comment on: Antibiotic stewardship—more education and regulation not more availability?

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Sir,

As pointed out by Dryden et al.1 in their article ‘Antibiotic stewardship—more education and regulation not more availability?’, the rising tide of healthcare-associated infections and antibiotic resistance has promoted a growing realization that the indiscriminate use of antibiotics has multiple potentially harmful consequences. In line with this, we propose that the previously described antibiotic care bundles (ACBs)2 provide a practical framework for promoting and reinforcing optimal prescribing behaviour, to ensure that all patients receive the right antibiotic therapy, at the right dose, route and duration, for the right bacterial infection at the right time.

Two ACBs have been proposed, one focusing on antibiotic prophylaxis and the other for the treatment of infection in acute care. The main aims of the treatment ACB are to optimize prescribing by selecting the antibiotic most likely to cure the patient whilst minimizing antibiotic side effects, the risk of development of antibiotic resistance and the risk of Clostridium difficile infection.2 The recommended facets of the ACB for the initiation of therapy address documentation of the clinical rationale for antibiotic initiation, sending appropriate specimens to the laboratory, selecting an agent according to local policy and risk group, and consideration of removal of any foreign body, drainage of pus or surgical intervention. The facets for continuation of antibiotic therapy are the daily consideration of de-escalation, intravenous to oral switch or stopping antibiotics, all of which should be coupled with the daily clinical review of the patient. Appropriate monitoring of antibiotic drug levels is also considered. The ACB reinforces the surviving sepsis bundle, in terms of giving antibiotics in a timely fashion and improving long-term outcome.3

Our initial attempts at introducing the principals of the treatment ACB at two teaching hospitals involved assessing compliance with the separate facets as part of our antibiotic stewardship programmes. Difficulties arose, particularly with documentation issues, and this has highlighted the need for providing better systems to facilitate and reinforce the documentation of prescriptions. In particular, these should focus on two important components of best practice: the recording of the reasons for starting antibiotics; and the recording of a stop date or review date for the antibiotic prescription.

As part of the ongoing antibiotic ward round programme at Addenbrooke’s Hospital (1200 beds), 900 antibiotic prescriptions were reviewed for 552 inpatients, between September 2008 and October 2009, from a variety of medical and surgical wards. Overall, 70% of the patients had a documented indication for the antibiotic and there was considerable variation between different specialties. A smaller proportion (62%) had a planned review or stop date documented on the prescription chart. At Imperial College Healthcare NHS Trust (1300 beds), the anti-infectives serial point prevalence study in October 2009 involved pharmacist review of 1145 inpatients’ prescription charts. There were 438 patients (38%) scheduled to receive 820 courses of anti-infectives. Of these prescriptions, 19% had the indication recorded on the drug chart and 59% of anti-infectives prescribed had a duration or stop date recorded on the drug chart. Of those with no stop date or duration recorded, 18% had a review date. Measures are being introduced to facilitate and reinforce the recording of this prescribing information.

To complement the other approaches recommended by Dryden et al.,1 such as improved diagnostic methods and antibiotic-prescribing regulation, an emphasis on achieving each facet of good prescribing is critical. However, introducing user-friendly, practical systems to prompt, reinforce and aid best practice through facilitating the simple documentation of indications for treatment and review dates should help to optimize prescribing behaviours and, ultimately, patient care. These systems should be integrated and fully embedded into the process of antibiotic prescribing.

Transparency declarations

None to declare.

References