Hospital prescribing: it's all about the culture

As the pen once again scores out the 'U' which looks like an 0 on the drug chart below and replaces it with 'units', there is an internal sigh. Why do some doctors still continue to write 'U', a blacklisted abbreviation, on an inpatient drug chart? Next the eye is drawn to the prescription 'Augmentin'. Don't people know that this causes mistakes? There are still people who do not know that 'Augmentin' contains penicillin and alarmingly there are still UK hospital laboratories which report antibiotic sensitivities using brand names.

According to the General Medical Council (2006), prescribing is a fundamental skill, integral to good practice, which is used thousands of times a day by doctors, dentists, nurses and pharmacists throughout the UK. Those doing a large proportion of this work are junior doctors. The importance of this essential skill has been the topic of much debate and has sparked a renewed interest among those running medical schools, including the Medical Schools Council (2007).

Why are we still not getting this right?

The National Patient Safety Agency (2011) records show that medication errors are increasingly common, with a year-on-year rise: 96 593 medication incidents in 2008–9, 115 872 in 2009–10 and 133 099 in 2010–11, accounting for 9.6%, 10% and 11% of all incidents reported annually respectively. Even taking into account increased reporting of errors, which is encouraging, it is apparent that the approach to prescribing at present is still, at best, piecemeal. The majority of these incidents, 73% in 2010–11, occur in acute and general hospital settings, where junior doctors bear the brunt of prescribing.

Medication incidents are multifactorial and not all represent prescription errors by junior doctors. Even so this undoubtedly plays a role, evidenced by the EQUIP study (Dornan et al, 2008), and therefore they, and their undergraduate counterparts, are a suitable target for intervention.

Undergraduate education

At an undergraduate level, each medical school has its own variation on a prescribing curriculum; some have more dedicated time than others and the assessment of prescribing is inconsistent. That said, as commented in *The Lancet* (2009), since previous observations, the undergraduate medical curriculum has moved significantly forward. A national 'Prescribing Skills Assessment' is in the process of being developed, which is likely to take the form of an open-book 1-hour online pass/fail assessment, which undergraduates will be required to pass before graduation. How this computer-based exam will translate to real life prescribing and reducing medication errors is yet to be seen. The British Pharmacological Society (2008) reported that an initial pilot of 1300 medical students across 11 medical schools was well received. Resources are being developed for this impending and inevitable change, and include e-learning initiatives such as online learning modules and www.prescribe.ac.uk.

Following medical school, the developments have been less evident. Hospitals may or may not have set 'safe' prescribing guidelines and even if they do, many junior doctors have never heard of them, let alone used them. This leads to a prescribing ethic which would seem to contribute to the '7% of orders, 2% of bed days and 50% of hospital admissions affected by prescribing' described by Lewis et al (2008). In the EQUIP study, foundation year 1 and foundation year 2 doctors had an error rate of 8.4% and 10.4% respectively.

Doctors begin with a limited knowledge of prescribing and, as their experience and exposure to clinical practice increases, bad habits soon flourish and become increasingly difficult to weed out. Four years on from the EQUIP study, although changes are afoot, there is still no uniform teaching or assessment of prescribing at an undergraduate level, prescribing initiatives in trusts for doctors post-graduation are scant and medication incidents are on the rise.

How can we improve prescribing?

Despite some advances, we still have little evidence to inform us on what are the best methods of improving prescribing. In their systematic review, Ross and Loke (2009) found that the evidence points to the disheartening reality that education alone may never provide a magic bullet for prescribing, despite best efforts. What is crucial is that a culture of safe prescribing is propagated and partnered in a seamless fashion from undergraduate to postgraduate level. Indeed the EQUIP study noted:

> **'a "safety culture" was conspicuous by its absence from respondents' discourses of their prescribing errors'. (Dornan et al, 2008)**

Early foundations must be built which should be reinforced with continuing education and non-education based interventions. Electronic prescribing systems, more supported prescribing using clinical pharmacists and increased audit and change are all necessary to partner cultural and educational revolution (Tully, 2012).

Education is vital

It is also the responsibility of foundation schools and hospital trusts to engage early with today's doctors to ensure that safe practice is nurtured and not allowed to rot as confidence and knowledge is built. The wider picture is one built within a framework of patient safety – a culture, embedded deep within the hospital trust infrastructure, led from the top down. Frequent references, reminders, educative events and an ethos oozed by all staff are critical to ensure success.

Induction training in safe prescribing, clear prescribing guidelines easily available to staff, a clear repeated message from senior consultants and pharmacists, patient safety as part of the teaching curriculum, a

monthly 'medication safety newsletter', safety feedback sessions, e-mail correspondence, constant encouragement to report incidents and, vitally, a no-blame culture can all be used to engage and recruit the postgraduate cohort to realize that patient safety matters. The authors have experience of this type of culture first hand; take it from us: it works. Prescribing matters. The minimum standard should be no errors, but when they do occur completing an incident form should be a matter of routine for a junior doctor. Highlighting a concern to a senior member of staff should always be well received and acted upon.

Most importantly, the education must begin with senior staff and then permeate all echelons of the hospital hierarchy. Many senior doctors are unaware of many of the new safe prescribing rules; unsurprising as they have never been taught them and perhaps crucial to understanding why prescribing errors are so rife. BJHM

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KEY POINTS

- Prescribing is a fundamental skill relevant to all doctors and other health-care professionals.
- Medication and prescribing errors continue to rise year on year.
- Prescribing education is still piecemeal at best in the UK.
- Prescribing education should continue in a framework of a high profile patient safety culture following graduation.
- Education, still largely unproven in efficacy, should be combined with novel system-based initiatives to improve prescribing.

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