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Should nurses be more involved in antimicrobial management?

European Antibiotic Awareness Day (EAAD) in November 2010 focused on the prudent prescribing of antibiotics in hospital settings. This annual initiative centres on creating international awareness of the diminishing pharmacological options to treat infection and the impact of prescribing behaviours on the emergence of micro-organisms increasingly resistant to antimicrobials. Although there has been growing international concern about prescribing behaviours, the nurses’ role in preventing the development of antimicrobial resistance (AMR) has been relatively unexplored in the UK, Europe or the United States. The article titled ‘Covering more territory to fight resistance’ featured in this issue considers how the nurse’s role in the management of antimicrobials might be enhanced to have a positive impact on AMR and healthcare associated infections (HCAI) in acute care settings. The article illustrates many areas of practice in which nurses already participate that have the potential to impact on outcomes.

There is a direct relationship between the use of antimicrobials and the development of AMR (Livermore, 2005; Taconelli et al, 2008) and inappropriate use of antimicrobials contributes to the development of HCAI such as Clostridium difficile infection (CDI) (Barbut and Petit, 2001; Bartlet, 2008). In 2003, the Department of Health allocated £1.2 million over three years as part of the ‘Hospital pharmacy initiative for promoting prudent use of antibiotics in hospitals’, which provided for the expansion of the specialist antimicrobial pharmacist (AP) role, and facilitated hospital pharmacists to improve monitoring and control of antimicrobial use in the UK (Chief Medical Officer, 2003). By 2005, 141 APs had been employed across 130 NHS trusts in England and significant reductions in antibiotic acquisition costs had been demonstrated (Wickens and Jacklin, 2006).

The proliferation of AMR and HCAI has impacted upon numerous aspects of the practice of nurses and other healthcare professionals throughout acute care settings. Infections caused by pathogens resistant to antimicrobials result in an increased morbidity and mortality, often associated with prolonged and more intense medical treatment compared with infections caused by non-resistant organisms (Cogasprove, 2006). The need to isolate patients as a result of AMR infections or CDI can result in the transfer of patients throughout wards and/ or hospitals, which often absorbs the time and effort of members of the nursing team. Furthermore, the social and economic impact of AMR should not be ignored as the increased morbidity associated with AMR infections means patients are away from work longer and that there are more costs associated with treatment (Frank, 2007). NHS trusts risk further economic repercussions not only in the form of increased length of in-hospital stay and need for resources (Plowman et al, 2001), but also as a penalty for breaching targets set by external stakeholders. Furthermore, public loss of confidence in the delivery of health care and in the medical and nursing profession (Frank, 2007), has the potential to impact on service provision of and trust healthcare professionals.

A multidisciplinary approach to the management of antimicrobials is advocated in Saving lives: antimicrobial prescribing – a summary of best practice (Department of Health, 2007) and the role of APs across the healthcare economy and the training of medical students was highlighted in the themed issue of this journal (July 2010). As a result, the importance of APs and their collaboration with epidemiologists, microbiologists, prescribers and infection control teams has contributed to the success of antimicrobial stewardship programmes (ASP) throughout the UK.

ASPs have been implemented throughout many hospitals in the UK as a means of optimising antimicrobial use in practice. These initiatives have primarily entailed a multimodal approach to changing prescribing practice including the implementation of policies, guidelines, education, surveillance, prevalence reports and audit of practice (MacDougall and Polk, 2005). For ASPs to be successful, collaboration between healthcare professionals is required to ensure consistency in approach, a sharing of knowledge and a widespread diffusion of practice (Charnari et al, 2010). It is crucial that nurses start to consider how they can contribute to interventions aimed at reducing the development of AMR and infections associated with the use of antimicrobials. An excellent example of how this might be achieved is the 2010 Nursing Times ‘Team of the Year’ Award that went to a group of nurses from South Tees Foundation Trust who developed an outpatient antibiotic therapy service that ensures antimicrobial therapy is administered and completed for patients with chronic wound and other infections.

Many elements of nursing focus on managing or preventing transmission of infection, but nurses have taken limited opportunities to consider the aspects of practice that contribute to the development of AMR and antibiotic associated HCAI. The management of antimicrobials needs to be considered as an element of infection prevention and control practice which reaches beyond the responsibility of prescribers and pharmacists. Given the education, resources and professional forums to actively contribute to the management of antimicrobials, it is likely that nurses can enhance the positive outcomes already being produced in stewardship programmes throughout the UK.

Enhancing the nurses’ role in ASPs could not only impact on the development of AMR and HCAI, but also decrease workload of nurses in the long term and make best use of a vital resource. If nurses are able to facilitate a more proactive approach to ensuring antimicrobials are used appropriately across the healthcare economy, there is the potential for incidence of CDI and AMR infections to decrease, and as such, the nursing management of these complications reduce. As patient advocates and educators, nurses have a responsibility to help patients understand the need for prudent prescribing and medication adherence as well as ensure that treatment regimes are appropriate and safe.

The EAAD initiative is a timely and necessary reminder of the weakening arsenal of antimicrobials to fight infection, yet the
persistent focus on medical and non-medical prescribers’ behaviour results in loss of a potentially valuable resource by not considering nurses’ role in antimicrobial management. Given the increasing prevalence of AMR and HCAI, it is critical that healthcare professionals increase their efforts to work together across disciplines for the protection and safety of their patients. The NHS has made reduction of HCAI a priority for increasing patient safety and reducing associated healthcare costs. The climate is primed for innovative change, providing new opportunities for healthcare professionals to identify initiatives to increase patient safety and well-being. Nurses need to consider their role in managing antimicrobials and enhancing nurses’ role in AS could be a strategy that contributes to slowing the emergence of AMR and improves quality of patient care.

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