European Antibiotic Awareness Day 2012: general practitioners encouraged to TARGET antibiotics through guidance, education and tools

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On 18 November 2012, the UK will once again support the annual European Antibiotic Awareness Day (EAAD). In particular, hospitals will be asked to promote the Start Smart—Then Focus guidance for hospitals launched in 2011, while the Royal College of General Practitioners will publish the TARGET Antibiotics toolkit on their web site. TARGET (Treat Antibiotics Responsibly, Guidance, Education, Tools) emphasizes the need for both primary care staff and the public to use antibiotics responsibly, and provides guidance, education and tools. The web site has been developed by a multiprofessional group and hosts national antibiotic guidance, an antibiotic app, leaflets designed to be shared by patients during consultations, a presentation for clinicians, an interactive self-assessment tool, audit tools, posters and videos for the waiting room and links to other materials. The EAAD is still very relevant and worth promoting enthusiastically through all clinical professionals in an effort to encourage responsible use of antibiotics and thereby control antibiotic resistance.

Keywords: EAAD, hospitals, primary care, antimicrobial stewardship, antimicrobial resistance, toolkit

The importance of European Antibiotic Awareness Day (EAAD)
The 18 November 2012 sees the latest in the series of now annual EAADs, which started in 2008.1 The EAAD aims to increase the profile of initiatives designed to improve antibiotic use across Europe directed at the general public and healthcare professionals in both the community and hospital setting. Rates of antibiotic resistance are still increasing across Europe and as resistance is related to antibiotic use, campaigns in the hospital and community setting have been aimed at encouraging both more-appropriate prescribing to control the emergence and spread of resistant bacteria, and the development of new antimicrobial drugs.2 The antibiotic campaign in England following the publication of the 1998 Standing Medical Advisory Committee report, The Path of Least Resistance,3 led to a fall in community antibiotic prescriptions, but between 2005 and 2011 total antibiotic items prescribed have risen by ~7%.4 Despite this overall increase in antibiotic prescribing, there have been some notable successes associated with improved awareness of the importance of appropriate antibiotic prescribing, partly engendered by the EAAD campaigns. Hospital initiatives aimed at controlling methicillin-resistant Staphylococcus aureus5 and Clostridium difficile6 have led to falls both in infections caused by these organisms and cephalosporin and quinolone usage, considered one of the main drivers of these infections.7 However, there has been a steady rise in extended-spectrum β-lactamase-producing Escherichia coli and Klebsiella spp. in both the hospital and community setting over the last few years.8–10 Therefore, EAAD is still relevant and worth promoting enthusiastically through all clinical professionals.

Hospitals and EAAD 2012
In 2012, hospitals should continue to promote the very successful Start Smart—Then Focus guidance for hospitals launched in 2011 by the Antimicrobial Stewardship Sub-Group of the Department of Health’s Advisory Committee on Antimicrobial Resistance and Healthcare-Associated Infections.11 The ‘Start Smart’ part of the guidance aims to reduce mortality from sepsis, encouraging prompt effective antibiotic treatment in patients with life-threatening infections, with documentation of the route, indication, dose and duration of the antimicrobial prescribed. The ‘Then Focus’ part of the guidance encourages review by 48 h both of the clinical diagnosis and the need for continuing antimicrobials, with an active antimicrobial stewardship decision to either stop, switch, change, continue or move to outpatient parenteral antibiotic therapy.7 Optimization of the use of antimicrobials for surgical prophylaxis is also included within this guidance. An online survey undertaken in 2012 has shown that the Start Smart—Then Focus guidance has been very well received by hospitals (P. Howard, Leeds Teaching Hospitals NHS Trust, personal communication). The majority of those surveyed thought that the guidance helped to improve antimicrobial stewardship and that enthusiastic microbiologist and pharmacist input facilitated implementation. This suggests that

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to increase implementation in 2012, it will be important for BSAC members and others involved in antimicrobial stewardship to enthusiastically embrace this initiative.

**General practice antibiotic prescribing**

The fall over the last 4 years in hospital prescribing of cephalosporins and quinolones has been mirrored by a commensurate fall in community antibiotic prescriptions. The number of community prescription items for cephalosporins in the last 4 years has fallen by 49% and that of quinolones by 35% (Figure 1). In contrast, the number of prescriptions for tetracyclines, macrolides, trimethoprim and nitrofurantoin, which are the first-line antibiotics recommended by national guidance, have increased. Total antibiotic prescribing in the community setting is still increasing, and as the majority of resistance genes are plasmid-borne and frequently genetically linked to determinants of resistance to other antibiotic classes, the use of any antibiotic (e.g. amoxicillin) to which a plasmid confers resistance is likely to continue to select out resistant bacteria. Indeed, coselection by other antibiotics has been shown to be a key factor in the maintenance of resistance in studies from both Sweden and the UK. Therefore, we need to continue to encourage responsible antibiotic prescribing in the community setting.

**General practice and EAAD 2012**

This year for EAAD, general practitioners (GPs) across the UK will be encouraged to make antimicrobial stewardship a clinical priority through the launch of a new toolkit, TARGET Antibiotics, on the Royal College of General Practitioners (RCGP) website (Table 1). The TARGET Antibiotics toolkit aims to increase primary care clinicians’ awareness of the importance of antimicrobial resistance and the consequential need for responsible antibiotic use. The acronym TARGET is short for Treat Antibiotics Responsibly, Guidance, Education, Tools, thus emphasizing the need for both GPs and the public to use antibiotics responsibly; the toolkit also provides the resources to do this, in the form of guidance, education and tools that GPs can share with their patients during consultations. The resources have been developed by a multiprofessional group including GPs, nurses, microbiologists, pharmacists and patients.

Guidance will include the HPA national management of infection presentation template to be used by commissioners, medicine managers, microbiologists or GP champions at regional or local interactive meetings with GPs for GPs, which medicine managers and GPs may download and adapt. Educational resources will include a PowerPoint template presenting the evidence that resistance is increasing and is related to GP use of antibiotics. The presentation also encourages interaction and clinicians will be asked to reflect on their own local antibiotic-prescribing figures compared with those from other practices, the barriers that are preventing the responsible use of antibiotics and how these barriers can be overcome by making use of some of the tools on the RCGP web site. There will also be links from the web site to other educational clinical modules (e.g. those on the RCGP and other web sites) covering antibiotic treatment of infections, including respiratory and urinary tract infections. The tools within TARGET will include an interactive self-assessment tool to assess locality and GP surgery antibiotic stewardship programmes, guidance, education and audit.

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**Figure 1.** Trends in prescribing of antibacterial items (excluding penicillins) in English general practices, with change since 2007–08.4
Clinicians will be able to compare their performance with others and learn how they could improve by directing them to other resources. There will also be audit tools to help GP surgeries understand and improve responsible antibiotic use.

The TARGET Antibiotics web site will also include resources to share with patients. The aim of these resources is to increase the confidence of patients and parents to self-care for uncomplicated infections and to be able to recognize when they should return for more help. The web site will host a booklet to share with parents of young children, which has led to reductions in antibiotic prescribing and reduced intention to consult with future infections, without reducing satisfaction with care. This concept has also been used to develop, with patient input, a shorter single-page leaflet. We suggest that this patient leaflet is shared with patients in a consultation where the possibility of prescribing antibiotics is raised. The clinician can share information with the patient about the usual duration of their current illness, what they can do to ease the symptoms and when they should contact their GP surgery or NHS Direct because of particular symptoms. The clinician can then tick boxes on the patient’s leaflet to highlight if they have been given a delayed antibiotic prescription and how they can collect it, and if time allows explain the other information on the leaflet about why the patient may not have been given an antibiotic and why antibiotics should only be taken when they are needed. The TARGET Antibiotics web site will also include links to other patient resources and posters and videos to run in the GP surgery waiting room, highlighting the importance of responsible antibiotic use and that antibiotics do not help most coughs, colds and sore throats.

Concluding remarks
Clinicians in both primary and secondary care are encouraged to participate in the EAAD and, in particular, to actively promote the use of the resources locally. The resources can all be accessed via the Department of Health web site (www.dh.gov.uk) or by searching Google with the terms ‘EAAD’, ‘2012’ and ‘England’.

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Transparency declarations
C. A. M. M. leads the writing and review of the HPA Management of Infection guide for primary care and is a member of the Department of Health Advisory Committee on Antimicrobial Resistance and Healthcare-Associated Infections and the Prescribing Sub-Group and Chair of the Public Education Sub-Groups of this Committee, and was also a member of the NICE self-limiting respiratory tract infection guideline development group.

Antibiotic Action and EAAD
EAAD will again be an opportunity to further champion Antibiotic Action, a global initiative set up by the BSAC and being taken forward by Professor Laura Piddock, the first BSAC Chair in Public Engagement. Antibiotic Action is the forum through which the BSAC is calling all parties—governments, healthcare professionals, industry and charities—to identify and implement solutions to stimulate and regenerate the discovery and development of antibacterial drugs.

References

Table 1. Resources on the RCGP TARGET Antibiotics web site

<table>
<thead>
<tr>
<th>TARGET resources</th>
<th>For clinicians</th>
<th>For patients</th>
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</thead>
<tbody>
<tr>
<td>Guidance Education</td>
<td>antibiotic guidance for local adaptation; antibiotic app PowerPoint presentation template for local adaptation; links to clinical modules covering antimicrobial use (e.g. RTI and UTI) on RCGP and other web sites</td>
<td>guidance for GPs on how to optimize use of the patient materials</td>
</tr>
<tr>
<td>Tools</td>
<td>self-assessment tool to assess locality and GP surgery antimicrobial stewardship programmes, guidance, education and audit; audit materials to evaluate GP surgery antimicrobial use</td>
<td>materials to share with the patient during the consultation; life channel antibiotic videos to run in the waiting room; links to e-Bug educational activities</td>
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RTI, respiratory tract infection; UTI, urinary tract infection.


14. RCGP and Members of the Antimicrobial Stewardship in Primary Care Group. TARGET Antibiotics. www.rcgp.org.uk/TARGETAntibiotics/

