The Standing Medical Advisory Committee’s (SMAC) report *The Path of Least Resistance* found that antibiotic regimens recommended in antibiotic guidelines were very variable. Basic information on antibiotic dose and total length of course was often omitted. The SMAC report recommended that local prescribing information should, wherever possible, be harmonized with that in the British National Formulary (BNF) and should take its cue from national guidelines produced under the aegis of the National Institute for Clinical Excellence (NICE). It suggested that guidelines should be modified locally when appropriate, based upon local microbiological and epidemiological advice. A recent questionnaire survey of general practitioners’ (GPs) opinions of microbiology services, research and development indicated that GPs confirmed the need for antibiotic guidelines. Evidence is not available for all aspects of antibiotic prescribing in primary care, therefore NICE will obviously take some years to produce evidence-based guidelines on prescribing. In the interim, advice on the management of infections is needed in primary care. Such advice would be in the form of guidance rather than guidelines, as management advice may only be called guidelines if it is completely evidence based. A Public Health Laboratory Service (PHLS) project team was established to produce antibiotic guidance for primary care in line with the recommendations of the SMAC report. Electronic production and delivery were chosen as these facilitate adherence to common standards and modification of the guidance throughout the country appropriate to local resistance data. It also reduces printing costs.

The draft guidance was circulated widely for consultation to those with expertise in each subject area, GPs and the public. Draft antibiotic guidance developed by Primary Care Groups and the Public Health Laboratory Service was posted on the PHLS website for consultation. An explanatory letter containing the website address was sent to all regional prescribing leads, asking them to draw it to the attention of all those involved in the development of antibiotic guidance. As a result of the numerous comments received from around the UK in the 18 months after posting on the website, 125 substantial changes were made and grading of evidence was added. The electronic production of guidance greatly facilitated the open review process and consequent modifications and reduced printing costs.
microbiologists. We ensured that there was a consistent approach between Prodigy and the PHLS guidance. Prodigy (http://www.prodigy.nhs.uk) is the computerized clinical support system on the management of all common conditions presenting to primary care and is used by 30% of GPs. It is funded by the Department of Health (DH). The Prodigy system was designed so that GPs could use it on their own practice computer system during consultations.

The PHLS antibiotic guidance was posted on the PHLS website, in the Advice and Guidelines section, in January 2000 with an accompanying note explaining the site development. In order to draw the guidance to the attention of all those involved with the development of primary care antibiotic guidance, the website (http://www.phls.co.uk/advice/antibiotic/antibiotic%20guidance.htm) was advertised in the Communicable Disease Report Weekly, which is circulated to 4000 individuals with an interest in infectious disease, and an explanatory letter containing the website address was sent to regional prescribing leads, regional directors of public health in England and Wales, and relevant British professional societies.

The CDR information, letter and notes on the website explained that the guidance template was in draft format and that we welcomed and actively encouraged opinions on the range of topics covered and advice given. We recommended that suggestions or comments should be accompanied by supporting evidence or references. We asked addressees to draw the guidance to the attention of all relevant personnel involved in antibiotic guidance development. We indicated that the website antibiotic guidance template was designed to be downloaded, and that the antibiotics and advice given could be changed to suit local circumstances.

In the four months after posting the guidance on the website numerous e-mailed and written comments were received from around the UK from microbiologists, pharmacy advisors and GPs involved in the production of guidance. Some typographical errors were identified but most of the comments were about the antibiotic choice, dose and duration of course. As a result of the comments received, 59 substantial changes were made to the comments column in the guidance; 14 changes were made to the antibiotics listed and the dose or duration of treatment. Several requests were made for the guidance to be graded to the strength of each recommendation and fully referenced so that writers of local guidance could read the relevant papers. Grading of evidence used was added to 47 statements on advice in line with a previous review of relevant papers. Grading of evidence used was added to the strength of each recommendation and fully referred to the range of topics covered and advice given. We recommended that suggestions or comments should be accompanied by supporting evidence or references. We asked addressees to draw the guidance to the attention of all relevant personnel involved in antibiotic guidance development. We indicated that the website antibiotic guidance template was designed to be downloaded, and that the antibiotics and advice given could be changed to suit local circumstances.

In the four months after posting the guidance on the website numerous e-mailed and written comments were received from around the UK from microbiologists, pharmacy advisors and GPs involved in the production of guidance. Some typographical errors were identified but most of the comments were about the antibiotic choice, dose and duration of course. As a result of the comments received, 59 substantial changes were made to the comments column in the guidance; 14 changes were made to the antibiotics listed and the dose or duration of treatment. Several requests were made for the guidance to be graded to the strength of each recommendation and fully referenced so that writers of local guidance could read the relevant papers. Grading of evidence used was added to 47 statements on advice in line with a previous review of this subject. All the major papers and systematic reviews used in the development of the guidance were quoted. The guidance was updated again in January 2001 (24 alterations) and July 2001 (23 alterations) taking account of further comments from users of the guidance and any new evidence and systematic reviews on the management of infectious disease. Changes were referenced where appropriate.

The electronic production and posting of this antibiotic guidance greatly facilitated the open review process and consequent modifications. Electronic review is non-confrontational, does not require travel to meetings and allows much wider review, including by the end-users. Typographical errors that often occur in printed copies can be corrected very easily and other changes can be made quickly if important new evidence comes to light. The website can be accessed rapidly if the address is stored or the guidance can be printed if the clinician prefers that format.

Printed guidance can become outdated easily; this does not occur with regularly reviewed electronic guidance. We plan to review the guidance at six monthly intervals with any comments received, recent systematic reviews and any other evidence. Recently, draft guidelines for the prevention of catheter-associated UTIs were posted on the internet for consultation before submission to the DH for approval and subsequent publication. We would encourage the electronic production of all guidance that is targeted at a large population of end-users.

Acknowledgements

We thank all who have reviewed the guidance and sent helpful comments; the Cheltenham & Tewkesbury PCG and the South Devon Joint Formulary Group; the PHLS South West Antibiotic Guidance Project Team: Dr A. Johnson, Dr M. Morgan, Dr R. Cunningham, Dr R. Spencer, Dr A. Telfer-Brunton, Dr D. Lewis, Dr W. Jones and Dr K. Jacobson; and the PHLS Primary Care Co-ordinators: Dr G. Smith, Dr D. Marossey, Dr R. Lockley, Dr D. Tompkins, Dr E. Kaczmarski, Dr C. Brightman, Dr A. Fife and Dr R. Salmon.

References


Web-based review of antibiotic guidance


Received 12 April 2001; revised 30 October 2001; accepted 25 November 2001