

# Coordinating locally 'owned' treatment guidelines

**ABSTRACT**—South West Thames Regional Health Authority established and commissioned a regional guidelines unit to coordinate the introduction of a set of treatment guidelines on the management of common medical emergencies into all the acute intaking National Health Service (NHS) hospitals throughout the region. All hospitals were offered a set of template guidelines to be used at their discretion for producing their own customised equivalent. They were also offered full typing and production facilities, together with printing costs if publication was achieved by a target deadline (1 August 1993). In 11 of the 14 NHS hospitals guidelines were available to hospital staff by the target deadline, and one set was produced for a non-NHS hospital. In two hospitals the target date was not met, and one other declined to take part. As part of the project the unit assessed the extent to which the published guidelines were adapted to meet the requirements of each individual hospital. The template offered guidelines on 34 topic titles. No hospital used all core titles of the original template; titles were omitted or replaced in some, and added in others. Where the original guideline titles were used, there was almost always some customisation—changes in sentence structure, names or contact numbers, alterations in drugs and doses or the addition or omission of entire sections. By using an established resource, sets of customised, locally determined treatment guidelines were introduced with relative ease into most of the acute hospitals in a UK health region.

The pressures on doctors to practise according to explicit treatment guidelines are increasing. It is argued that such guidelines will ensure high quality standardised health care, provide a basis for clinical audit, and offer an interface between purchasers and providers that will help establish cost-effective practice [1]. Much advice on treatment is published but its translation into practice is not straightforward [2]. To

be of value, guidelines should be clear, readable and based on knowledge rather than on belief [3]. In addition, Grimshaw and Russell [4] suggest that they are more likely to influence practitioners if locally produced, introduced through an educational framework, and relevant to individual doctor/patient consultations. But if every hospital and general practice group had to reinvent the guideline wheel from scratch, much time, money and expertise would be wasted. One way to reduce this wastage might be to use the skills and resources of an experienced centre to coordinate and support 'local' production.

At St George's Hospital, London (hospital A, Table 1), a 70-page booklet, *Guidelines for the management of common medical emergencies*, has been produced since 1979 [5]. The guidelines, locally referred to as the 'Grey Book', currently cover 34 therapeutic (core) topics and are revised and updated six-monthly, with a print run of over 1,000.

## Methods

In 1992 South West Thames Regional Health Authority established a regional guidelines unit at St George's Hospital. A prime objective of the unit was to work with the 14 acute hospitals in the region (hospitals B–O, Table 1) to facilitate the introduction of booklets containing local guidelines for the management of common medical emergencies on a range of core topics similar to those in the Grey Book.

The project was initially announced through the regional audit network. Presentations describing the project were made by one of us (JC), at a meeting of district health authority audit assistants (September 1992) and of chairpersons of the 13 district medical audit committees (DMAC) (October 1992). Later a letter was sent to all DMAC chairpersons repeating the main themes of the project, informing them of the appointment of the project coordinator, and offering a visit to the hospital to present the project.

Where local approval for the project was obtained, a named 'link person' for the hospital was identified by the DMAC chairperson. The link person's task was to work with the project coordinator to produce a first draft of the customised guidelines reflecting the integrated views of the hospital staff, correct the proofs, design the cover, and finally to organise the distribution of the completed booklet. Each link person was given a copy of the Grey Book printed so as to leave plenty of space for comment. The link person then distributed the template, either as the complete booklet or in its various sections, to the local topic

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specialists for comment. Specialists were specifically asked to amend the advice given in the guidelines and to substitute or add new sections as they felt appropriate.

Comments were then either sent back piecemeal to be integrated by the link person, with or without the project coordinator, or they formed the basis of a round-table discussion in which specialists presented their views on their individual topics. The coordinator was present at these discussions, as were representatives of junior medical staff, pharmacy and laboratory disciplines. Whatever the mechanism for integrating local views, the final 'customised' draft was produced in the unit by the coordinator.

The published booklets were analysed to assess their consistency with the original template and thus to estimate the degree of customisation. The latter was scored on a scale from 1–4 according to how closely each entry adhered to the contents of the equivalent section in the template.

1. Text differences essentially those of sentence structure, staff names and contact numbers.
2. More substantial changes covering, for example, choice of drugs or doses.
3. Major changes to the text, with some sections entirely omitted and/or others added.
4. All new text for a particular entry.

No score was given to guideline topics for which there was no equivalent in the template text. An overall adherence factor was then calculated for each booklet by adding the score for each topic and dividing by the total number of topics scored. If there were only minor changes, the adherence factor was 1; if all sections were rewritten, it was 4.

Adherence was analysed in more detail for one topic, status epilepticus. The sequence in which interventions were advised was compared, as were the drugs (and doses) suggested, and when the patient should be referred to a specialist. This topic was chosen as it was brief, provided well defined objective criteria amenable to semi-quantitative analysis, and appeared in the booklets published in all 12 hospitals.

## Results

The designation and size of the hospitals involved in the project are given in Table 1, and also the number of booklets produced for each hospital. In addition to St George's, 11 had produced booklets by the 1 August deadline, one declined to participate in the project, two which had intended to produce booklets failed to meet the deadline. Two of the hospitals had published theirs prior to the start of the project, both based on the Grey Book. In all, 4,460 booklets were published, varying in size from 58–85 pages, and in cost per booklet from £1.07–1.29, depending on size.

At the launch of the project, meetings were held in

**Table 1.** Details of hospitals, link persons and numbers of booklets published by 1 August 1993.

Name	Hospital		No. booklets published	Background of link person
	Status	Size (no. beds)		
A	Acute/ cardiothoracic/ geriatric	850	1,000	Consultant clinical pharmacologist
B	Acute	468	450	District pharmaceutical officer
C	Acute	550	280	Consultant diabetologist
D	Acute	457	280	Consultant endocrinologist
E	Acute	770	400	Consultant gastroenterologist
F	Acute	507	200	Consultant gastroenterologist
G	Acute	430	330	Clinical pharmacist
H	Acute	419	330	Consultant geriatrician
I	Acute	413	300	Clinical pharmacist
J	Acute	519	500	Clinical manager medicine and care of the elderly
K	Acute	500	280	Consultant chemical pathologist
L	Private	150	110	Consultant physician
M	Acute	557	None	Clinical pharmacist
N	Acute	375	None	Consultant physician
O	Declined to participate			



five of the 14 hospitals to introduce the project to the staff and to resolve any issues through discussion. Although many welcomed the initiative and were keen to accept the offer of financial and organisational support, suspicions were also raised which were common to all hospitals. Staff throughout the region wished to be reassured that the project was not a clandestine way of extending the influence of the teaching hospital, and that the provision of guidelines would neither increase the risk of prescribers being sued for negligence nor restrict the clinical freedom of consultants.

The background of those who worked as link persons varied (Table 1). In eight instances the first nominee remained throughout the project. Where there were changes, these were generally sought by the unit when it felt that an incumbent was not providing the necessary support.

The initial aim was for each booklet to include advice on at least the 34 core therapeutic titles covered in the Grey Book. In the 11 booklets that used the St George's template, the adherence to particular core titles varied; all of them omitted some titles and most included some additional ones (Table 2). The titles in the Grey Book most commonly omitted were antibiotic advice (the Grey Book complement of ten areas was not fully matched in five), sickle cell crisis and acute painful joints (not published in five and four, respectively). The reasons for omission varied: in some instances because the consultants saw no need for advice (eg on sickle cell crisis) and in others because equivalent advice had already been published in the hospital in another form (eg as part of the formulary). The additional titles covered included septic arthritis/osteomyelitis (in four), prophylaxis of bacterial endocarditis (four), malaria (two), spontaneous

pneumothorax (one), head injury (one), hepatic encephalopathy (one), hypothermia (one), hyponatraemia (one) and coma (one). In most instances the consultants used guidelines that already existed, in others they were specially written.

The results of the comparison of the text, expressed as an adherence factor, are shown in Table 2. In only one (hospital L) was there essentially complete adherence, in eight the changes were marked although most of the text was originally based on the Grey Book (adherence factor 1.8–3.4), while in two the bulk of the text was produced locally (3.5 or above).

## Discussion

This paper describes a project in which the long established set of treatment guidelines in St George's Hospital was used as a template to assist the production of guidelines in the acute hospitals throughout the health region. 'Locally owned' guidelines covering a similar range of topics were available to the staff in 11 of the 14 acute intaking hospitals or hospital groups in the region by the target date, 1 August 1993, two hospitals did not meet the deadline, and one declined to take part in the project.

A key requirement of the project was that each set of guidelines should be locally centred, with the defined coordinating member(s) in each hospital liaising with colleagues to ensure that the guidelines reflect local needs and opinions. The task of the central guidelines unit was to support and encourage the local coordinators, provide information, resources, attend (and sometimes convene) local meetings, suggest methodology, help to resolve problems, produce drafts, and finally to publish the booklet. The project was established through the audit network. This offered the initial links with each hospital, and may well provide the basis for the project's continuation, but other staff, particularly pharmacists and physicians, acted as the local coordinators. The selection of the local coordinator(s) was critical: in our view it would be impossible to produce a guideline locally without respected and enthusiastic coordinators.

How far did the various guidelines compare with the original St George's template? As can be seen from Table 2, in none of the guidelines were the core topics identical to those in the Grey Book; in some, titles were omitted, in some replaced, and in others added. These changes were made for various reasons, some reflecting the particular interests of the local consultants, others the perceived needs of the local population: for example, the omission of advice on sickle cell crisis in a population in which there are few Afro-Caribbeans, and the inclusion of advice on malaria for a hospital serving a large international airport.

The wide variation in adherence to the template (Grey Book) text provides evidence that the project allowed local autonomy to those producing guidelines. Moreover, even where adherence of the final text was

**Table 2.** Summary of variation in content of guideline booklets produced in South West Thames Region.

Hospital	Core titles included	New topics	Adherence factor (of core titles)
A	34	N/A	1.0
B	26	5	2.9
C	33	3	2.4
D	32	3	3.0
E	26	15	3.5
F	14	7	3.6
G	33	3	2.0
H	34	3	2.1
I	30	4	2.4
J	33	1	1.8
K	28	9	2.4
L	33	0	1

N/A = not applicable



high there appeared to be similar levels of local consultation and discussion, a key factor in the development of local ownership.

In addition to assessing overall adherence, adherence to the clinical advice given on a single topic—the treatment of status epilepticus—was analysed in detail. This was chosen as a well defined clinical entity on which advice appeared in all texts. The analysis involved a comparison of advice given on the general measures and alternative drug interventions. Six of the guidelines were identical; discrepancies in the remaining five varied. There were differences, for instance, on how and when to tackle hypoglycaemia as a possible precipitating cause. Interestingly, this issue was not addressed in the advice on the treatment of status epilepticus in the British National Formulary (BNF) current during the project. The choice of benzodiazepine varied between diazepam, clonazepam or lorazepam, all of which are options mentioned in the BNF. The amount of advice given in the BNF varies, with most advice offered for diazepam and least for lorazepam, whereas in the guidelines the amount of advice was similar for all three; overall, the guidelines suggested more aggressive use of the benzodiazepines than is recommended in the BNF. This could reflect a greater feeling of urgency for those at the bedside, or perhaps a greater confidence in the effectiveness of the specific benzodiazepine antagonist flumazenil if serious unwanted effects develop.

There was little variation in the advice given in the guidelines on when to use phenytoin, but there were obvious differences on when to seek specialist advice. Those that suggested that specialist advice should be sought early (after only two drugs had been tried) may be from hospitals where advice is rapidly available; it might not be appropriate in hospitals where such advice takes time to obtain, and so trying a third or even a fourth drug has a rationale.

Now that the booklets have been published it is possible for the different hospitals to compare their practices and share ideas and experiences. It will be interesting to see whether this will mean that advice in subsequent editions will converge or diverge. Already the St George's 'template' in a subsequent edition (published on 1 February 1994) included a section giving advice on the treatment of malaria, based on an article produced by another hospital.

Large resources, both at local and national level, have been directed towards the production of treatment guidelines and increasingly the debate has centred around the methods used for their development, dissemination and implementation [4,6]. Coupled with this has been discussion on the value of locally produced versus national guidelines [7]. While the former are more likely to be used, it is argued that they are less likely to be valid (knowledge rather than belief based). In practice, these approaches are not mutually exclusive, but further research is needed to identify how nationally produced acceptable

guidelines can be modified for local use without compromising their standards.

This paper describes one approach to maximising the advantages of 'locally owned' guidelines while minimising the preliminary work of their creation and production. A locally produced template, such as the Grey Book, has the potential disadvantage that it might perpetuate advice based on the opinions of a few individuals rather than on the results of clinical trials or formal consensus. The validity of the template used in this study can be questioned, although it has the advantage of longevity (15 years of production) with frequent review (currently six monthly)—arrangements which should have minimised obvious flaws while offering scope for continuous updating. The project emphasised what was already apparent from the clinical audit programme when disseminating advice, designated individuals plus project supervisors are essential.

The production of a guideline does not necessarily mean that the guideline will be used to improve clinical care. To be effective it needs to be updated, disseminated, read, kept and referred to. These features hold for the Grey Book [5], but whether they will also be a feature of the newer booklets will need evaluation. The guidelines should certainly be valuable as part of audit since there is considerable evidence to suggest that local guidelines used in the context of clinical audit programmes can improve clinical practice. The belief that contracting will also be a stimulus to the use of guidelines is behind the recent NHS Executive's advice to health care purchasers to utilise guidelines in monitoring the quality of care [1].

From the experience gained in this project, it seems that the most cost-effective way to produce guidelines in the National Health Service (NHS) is to produce a template produced at national level which would then need to be modified at local level, possibly through coordinating centres at regional level.

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