

Benchmarking using simulated clinical scenarios: a feasibility project

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SUMMARY

'Benchmarking' clinical practice and integrating such data with national guidelines offers a way of establishing standards for use in clinical governance. We report on a feasibility project for benchmarking clinical practice in one topic area (otitis media) using simulated clinical scenarios. Consistency and variations in clinical management were identified for different scenarios. Participants perceived the process likely to reflect actual practice and effect change in clinical management.

Keywords: benchmarking; guidelines; clinical governance; clinical practice.

Introduction

SUITABLE methods by which Primary Care Groups can implement clinical governance — the 'systematic approach to quality assurance and improvement within a health organisation'¹ — are needed. One proposal is to synthesise current standard practice with best available evidence.² Standard practice is increasingly being assessed by 'benchmarking'.³ This is the process of measuring practice against leaders or norms and is intended to lead to measurable improvements in performance.³ This already occurs in the United Kingdom (UK) for generic issues, such as prescribing analyses and cost (PACT) data; however, methods of addressing condition-specific management are also required.² Surveys may be limited owing to differences between reported and actual behaviour.⁴ We report here on a study of the feasibility of another method of benchmarking practice based in an educational setting. It addressed decisions about prescribing antibiotics for patients with otitis media.

Method

A sample of clinicians practising in South Wales were approached, ranging from established clinicians to those currently or recently completing training. The sample was selected purposefully to include group practices and single-handed or two-partner practices, affluent and deprived areas, training and non-training practices.

We conducted an hour-long benchmarking session with each group. First, views about clinical governance were sought using a semi-structured presentation with key prompt questions. Current clinical practice was then assessed by showing the clinicians different clinical scenarios (Box 1) using the Southampton Ear Diagnostic Trainer (a model head to simulate ear examination). Participants recorded their management by structured questionnaire. They then completed a second questionnaire assessing the influence of these contextual factors on the likelihood of prescribing antibiotics:

- patients attending an out-of-hours centre;
- patients attending Saturday morning surgery and the responder is on-call for the weekend;
- patients going on holiday in two days' time;
- patients who rarely attend the surgery;
- patients who frequently attend the surgery.

A summary of recent evidence⁵⁻⁸ regarding the treatment of acute otitis media was then presented and 'best practice' discussed. During this discussion the clinicians' treatment responses were processed. The group's (pooled) responses were then presented. A summary graph for each scenario

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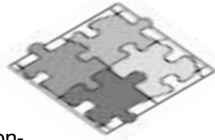
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HOW THIS FITS IN

What do we know?

Standard practice is being assessed by 'benchmarking'; however this is usually for generic outcomes and not condition-specific clinical management.



What does this paper add?

Benchmarking is feasible for clinical decision-making scenarios. Current standard practice can be assessed and, in combination with best available evidence, could form the basis of identifying standards for clinical governance.

Scenario 1

'Three-year-old girl, unwell for 24 hours, taking fluids well but has a poor appetite and no significant past medical history. She has a temperature of 37.8°C, is miserable, has rhinorrhoea and no meningism'. Examination of the ear showed a red ear drum.

Scenario 2

'Eight-year-old girl with 12-hour history of vague left-sided ear-ache, but has suffered from recurrent episodes of acute otitis media (AOM) and had bilateral grommets inserted when aged five years old. She is otherwise well and her dad was concerned that a further episode of AOM is about to follow'. On examination she was afebrile, looked well and had normal eardrums.

Box 1. Example scenarios presented to participants.

was shown and compared with data (if available) from previous groups. Finally, the clinicians completed a questionnaire regarding the feasibility and acceptability of the benchmarking process. The data were examined for evidence of consistency or variations in management plans and contextual influences. Owing to the purposeful sampling, statistical significance testing for differences between groups was not undertaken.

Results

All 63 clinicians from 43 practices approached for the study agreed to participate. There were 31 GP principals, including seven single-handers, 30 GP registrars, and two nurse practitioners. Six meetings were held.

Benchmarks

The results indicating responders' likelihood of prescribing antibiotics in two of the scenarios are shown in Table 1. They are selected on the basis of showing either broad agreement among the clinicians that antibiotics were not indicated (Scenario 2) or wider variation in suggested management (Scenario 1).

Effect of context on prescribing

Forty-eight responders (76%) indicated that they would be more likely to prescribe antibiotics to patients going on hol-

iday. Fifty-three responders (84%) indicated that they would be less likely to prescribe antibiotics to frequent attenders. Similarly, 37 (53%) felt that consulting out of hours would be unlikely to increase antibiotic prescription. There were no clear response patterns regarding infrequent attenders and weekend consulting.

Discussion

This project showed benchmarking (as we conducted it) to be feasible and acceptable to a mixed sample of clinicians. It showed that variations in intended clinical practice can be identified and participants indicated a willingness to address further topics. The strengths of the benchmarking process used here lies in allowing professionals to compare their practice using clinical examples rather than abstract discussion. It also allows discussion of differences in a non-confrontational manner, as all participants have an anonymous 'vote' on how to treat a particular scenario. In reviewing treatment plans for each scenario, 'reflection on action' is also promoted.⁹

The use of simulated clinical scenarios is artificial. However, this did not appear problematic. Despite using simulated scenarios, the participants perceived it as likely to reflect actual practice and likely to affect their practice. The method could be developed to use simulated patients, although there would be disadvantages of cost, and participants might find it a more threatening exercise.¹⁰

The results of the different scenarios showed that this benchmarking method can identify when clinicians agreed on clinical management intentions. For example, Scenario 2 described a girl with a strong past history of acute otitis media (AOM) and vague symptoms, and there was a high level of agreement between clinicians not to prescribe antibiotics. This contrasts with Scenario 1, which described a child with AOM who is systemically unwell. Here the results showed more variability, consistent with earlier literature.¹¹ As the current evidence does not support antibiotic therapy in this case, this scenario forms a good basis for discussion of implementing current evidence.¹²

Having demonstrated that variability among clinicians persists¹¹ the challenge is whether greater consistency can then be developed. This method may be more likely than others, such as postal questionnaires,⁴ to facilitate change, as it allows for in-depth discussion.⁹ Evaluation of whether changes in practice can be achieved is warranted. However, it appears that clinical benchmarks (with or without variability) can be established, even where management seems discordant with guidelines. Further work should also address their integration with national guidelines or other evidence to develop locally applicable guidelines.^{2,13} These could form the basis for the clinical standards required for clinical governance, and against which improvements in management can be audited.

Table 1. Percentage of responders indicating likelihood (agreement) of prescribing antibiotics in each scenario.

	Strongly agree/agree	Neither	Strongly disagree/disagree
Scenario 1	53.1	17.2	26.6
Scenario 2	6.3	6.3	86

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