Information needs in primary care

October 26th 2004
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Introduction - objectives

- To describe
  - the information needs of primary care clinicians
  - the barriers to meeting information needs
  - how information might be used to support evidence based health care
  - the role of information services in facilitating evidence based health care

- Explore teleconferencing to share learning and experience
Why is this important?

Breadth of primary care

Information jungle

Changing roles in primary care

“Resourceful patient” (1)
Mrs Brown attends surgery. She is 78, has been fit and well all her life and is the main carer of her husband who has been wheelchair bound since a stroke last year.

She recently developed indigestion and (reluctantly) had an endoscopy which she found distressing. The gastroenterologist told her she has “Barrett’s oesophagus”.

He explained she would need to have endoscopies every two years, because of her risk of getting cancer. He also advised her to take medicine (lansoprazole) all her life. She is extremely anxious about all this - only last year her brother died of cancer.
Imagine you are the primary care clinician trying to help this patient.

What information would help you manage this patient?

Make a list of the information needs or questions which arise
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Information needs

- Published information
- The "evidence"
- The patient health record
- Patient values, concerns, preferences
Evidence based medicine

- Convert information needs into answerable questions
- Track down the best evidence
- Critically appraise the evidence to assess validity and relevance
- Implement results into practice
- Evaluate performance (2)
Information is not enough!
Interactive exercise
Answering questions

- Librarians - Why may you not have heard from Mrs Brown’s GP with a question?

- Health professionals – Why may you not have asked a librarian for help with your questions?
Things we know about GPs’ questions

- How many? – between 0.5 per half day and 2 per 3 patients \(^{(3-6)}\)
- Most (70\%) are not pursued \(^{(3,4)}\)
- May be higher for nurse practitioners?
- Factors influencing whether a question is pursued include \(^{(5)}\)
  - belief that an answer exists
  - problem of an urgent nature
And...

- GPs are more likely to ask a colleague than pursue other routes to answer a question \(^{(3)}\)
- Most GPs support the notion of EBM \(^{(8)}\)
- Only 5% of GPs feel that the best way to move towards EBM is by identifying and appraising primary literature and systematic reviews themselves \(^{(8)}\)
Perceived barriers to practising EBM

- Lack of personal time
- Personal and organisational inertia
- Problems with the “evidence”
  - Lack of evidence
  - Evidence not related to the primary care context
- Attitudes of colleagues
- Patients’ expectations \(^{(8)}\)
Obstacles to answering questions

- Finding information - excessively time consuming
- Modifying original question
- Selecting optimal search strategy
- Knowing when to stop the search
- Failure of an information resource to cover the topic
- Synthesising multiple source of evidence into a clinically useful statement (9)
From EBM to “Information Mastery”

- EBM takes too long
- “Information mastery” is a more realistic alternative (10)
- Shaughnessy’s “usefulness equation”

Usefulness = relevance x validity / work
In other words...

- Relevant knowledge
- Right time
- Right place
- Right amount
- Right format (11)
Imperial informaticist project

- “Path lab” analogy
- Strong research component
  - Detailed recording of “process”
  - Data collection about the questions
  - User satisfaction / usefulness of answers
- Standardised approach to answering questions
  - Search cascade
  - Focus on academic rigour of answers \(^{(12)}\)
Use of the service

- In 10 months, 22 of 34 participants used service
- 60 questions (2/3 on therapy)
- Wide variability in use of service
  - 14/60 questions from one group practice
- Without the service
  - 1/3 would take “no action”
  - 1/3 would “ask a colleague”
  - 1/3 – other forms of action e.g. books (12)
Answering questions

- Time consuming (median 130 mins) \(^{(12,13)}\)
- Median “turnaround” time 9 days
- 72% questions answered within 2 weeks
- Requested timescales met for 82% of questions
  - Only 12% answers were requested in less than 1 week
  - 2/3 answers requested between 1 and 3 weeks \(^{(12)}\)
What did they ask?

- Does breast examination reduce mortality from breast cancer?
- Is quinine sulphate effective for nocturnal leg cramps?
- In a 73 yr old lady with osteoarthritis, does oral glucosamine reduce pain or slow onset of disease?
Was the service valued?

- High levels of satisfaction with answers
- 1/3 answers changed management (index patient)
- 1/2 answers would change management (future)
- Other spin-offs:
  - promoted discussion
  - provided reassurance
  - led to new learning
  - encouraged further use of the service
  - led to consideration of a piece of research (12)
## Models of Service

<table>
<thead>
<tr>
<th>Imperial (14, 15)</th>
<th>Basildon (15, 16)</th>
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</thead>
<tbody>
<tr>
<td>“like a laboratory test service”</td>
<td>“friendly local facilitator”</td>
</tr>
<tr>
<td>Low emphasis-personal contact</td>
<td>High emphasis-personal contact</td>
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<tr>
<td>Strong research component</td>
<td>Strong service component</td>
</tr>
<tr>
<td>Focus on academic rigour and technical excellence</td>
<td>Focus on identifying important questions through face to face dialogue</td>
</tr>
<tr>
<td>All relevant primary and secondary sources identified and appraised</td>
<td>Pragmatic approach – “find out what we can and share it” using easily accessible sources</td>
</tr>
<tr>
<td>None of project team involved in local service general practice</td>
<td>Strong local links of project leader (a local GP) enabled integration into a clinical effectiveness unit</td>
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Two dimensions

Technical quality of answers

Questions from wide range of practitioners
High quality answers that are implemented and disseminated in practice

Facilitation of questioning behaviour

Low

High

Low

High
Bridging the divide

- Clinician / information specialist gap
  - close working links are rare
  - practice information management focussed on patient records
  - the geographical divide
  - the “cultural divide”\(^{(17)}\)
Need for partnership

- personalised community based services
- explicit aim of facilitating information seeking
- tailor service / information provided to the context
- trust between professionals
- flexibility to adapt to varying organisational cultures
- “problem orientated” approach \(^{(18, 19)}\)
- integration of information services into primary care, akin to clinical medical librarianship? \(^{(20)}\)
Conclusions (1)

- Primary care information needs – vast /expanding
  - originate largely from direct patient care
- The implementation of EBM is much more complex than the plugging of “information gaps”
  - it is not likely to be achieved by individual practitioners searching for and appraising evidence themselves
- The process of meeting information needs, using the evidence based approach is time-consuming
Conclusions (2)

- Providing quality answers to questions can result in real change in practice

- Information providers need to combine academic and service dimensions

- Primary care professionals need to work with information specialists to identify ways of shaping services to meet local contextual variations
References (1)


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18. Lacey Bryant S. The information needs and information seeking behaviour of family doctors. Health Information and Libraries Journal; 21: 84-93
