Guideline implementation: how to reach different target groups?

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1. What does “reaching” a target group mean:
   a) Promoting awareness of the guideline
   b) Helping people find it and read it
   c) Helping people find specific recommendations
   d) Persuading people to apply the recommendation

2. Conclusions
“Reaching a target group”

Includes:

1. Making group members aware that the guideline exists
2. Helping them find it and read it
3. Helping them find the paragraph and recommendation that applies to their patient, right now
4. Persuading them to follow the recommendation
Raising awareness

1. *Making group members aware that the guideline exists*
2. Helping them find it and read it
3. Helping them find the paragraph and recommendation that applies to their patient, right now
4. Persuading them to follow the recommendation
Guideline promotion strategy

1. Construct a stakeholder map: who is interested, who might speed up / slow down implementation?
2. Agree the main messages for each stakeholder, and evidence to back them up
3. Simplify as needed, eg. “5 a day”
4. Identify suitable media / channels for each group
5. Pilot using focus groups
6. Revise messages and roll out
7. Monitor and review strategy as needed
Stakeholder map for healthy childhood eating
Helping the group find & read it

1. Making group members aware that the guideline exists
2. **Helping them find it and read it**
3. Helping them find the paragraph and recommendation that applies to their patient, right now
4. Persuading them to follow the recommendation
Improving web site & GL design

Web site design: Jacob Nielsen’s guidance (mostly evidence based):  [www.useit.com](http://www.useit.com)

“Information Design”: evidence from psychology on:

- How to arrange information to help people to find it fast
- How to format information to help people interpret it correctly

We summarised this in a 4-article review series:

- Wyatt JC, Wright P. *Medical Records* 1: Design should help use of patient data. *Lancet* 1998; 352: 1375-8

* Principles are generic, but examples are from medical records
As font legibility declines, reading slows and people give more attention to the words and less to meaning.

*Italic text and bold text are less* legible than plain text.

Printing white text on a shaded or black background makes text less legible, *unless a bolder typeface is used*.

EXTENSIVE USE OF CAPITAL LETTERS SLOWS DOWN READING - Road Signs use Capital and Small Letters.

Underlining obscures punctuation such as commas and colons; parts of the letters g, j, p, q, and y are also obscured, reducing legibility.

Depending on the background colour some colours, such as red, may be less legible than other colours, such as blue.

Double justification reduces legibility and reading speed compared to unjustified text of the same font size.

For a given size of font, short lines or long lines with too many words are more difficult to read than lines of 10 words.

Cramming lines of text close together so there is no space between them confuses the eye, reduces legibility and slows reading, making errors likely.

Helping them find the right page

1. Making group members aware that the guideline exists
2. Helping them find it and read it
3. **Helping them find the paragraph and recommendation that applies to their patient, right now**
4. Persuading them to follow the recommendation
Finding recommendations when you need them

Many possible GL users (GP, nurse, therapist, hospital Dr, social worker...) and clinical settings

Many recommendations per guideline: 30-150

Pressures of time, interruptions (Tonks ‘99) and data overload make clinical work “a humanly impossible task” (Rector 1991)

Decision support & computer-based reminders may sometimes help...
“A knowledge-rich system that uses two or more items of patient data to generate encounter-specific advice or interpretation” (Wyatt & Spiegelhalter 1991)

Automatic tools containing knowledge used to:

• Make inferences from patient data: suggest diagnoses, interpret tests, make predictions
• Issue alerts and reminders, give advice, suggest actions
Example: Regenstrief system

Alerts & reminders harvested from medical literature, eg:

If treatment includes cardiac glycoside

and last premature ventricular systoles/minute > 2

then print “Consider cardiac glycoside as cause of arrhythmia”

When these matched patient’s lab, medication or vital signs data, recommendation printed on encounter form for clinician

Recommendations doubled the rate at which doctors responded to target events - from 22% to 51%

McDonald CJ. Protocol-based computer reminders, the quality of care and the non-perfectability of man. NEJM 1976; 295: 1351-5
Why bother with DSS?

<table>
<thead>
<tr>
<th>Targeted activity</th>
<th>Success rates across trials:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Improved practice</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>40%</td>
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<tr>
<td></td>
<td>4/10</td>
</tr>
<tr>
<td>Disease management</td>
<td>62%</td>
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<tr>
<td></td>
<td>23/37</td>
</tr>
<tr>
<td>Single drug prescribing, dosing</td>
<td>62%</td>
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<td></td>
<td>15/24</td>
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<tr>
<td>Prevention</td>
<td>76%</td>
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<td>16/21</td>
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<td>Multi-drug prescribing</td>
<td>80%</td>
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<td></td>
<td>4/5</td>
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<tr>
<td>Overall</td>
<td>64%</td>
</tr>
<tr>
<td></td>
<td>62/97</td>
</tr>
</tbody>
</table>

How do decision support systems work?

Health professional

Electronic patient record

Patient data

Coded patient data

Advice

Reasoner programme

Knowledge

Decision Support system

Machine-readable knowledge base

New knowledge

Knowledge editor
Creating the DSS knowledge base from a guideline

Now – retrospective process:

- GDG → Guideline document → DSS KB

GL incomplete (lacks who, when, where); reminder inaccurate & incomplete, not easy to follow, less likely to change behaviour

Soon – prospective process:

- GDG → DSS KB → Guideline document

GL more complete & consistent, reminder accurate; recommendation more likely to be followed

In a few years:

- GDG → DSS KB → Guideline document → Patient version, etc.
Persuading the target group

Includes:

1. Making group members aware that the guideline exists
2. Helping them find it and read it
3. Helping them find the page and the paragraph that applies to their patient, right now
4. *Persuading them to follow the recommendation*
Do guidelines persuade clinicians?

Guidelines alone *rarely* change clinical behaviour (Lomas ‘89 study, Grimshaw ’92, 2002, 2004 etc. systematic reviews)

One possible explanation:

- In experiments, using specific, concrete statements helps people to understand & remember statements (Ley ’97)
- Study of 10 Dutch NHG guidelines: GPs followed GL 67% of times when wording was specific but only 36% when wording was vague (Grol ’98)
Psychological principles for providing advice (Michie ‘04)

The more precisely behaviours are specified, the more likely they are to be carried out.

Need to specify **what, who, when, where, and how** to increase “behavioural specificity”.

Rewriting reminders & alerts like this may be simplest & most effective way to reach the target groups.
Example: NICE recommendations

1. “Cognitive behavioural therapy (CBT) should be available as a treatment option for people with schizophrenia”

**What:** Offer cognitive behavioural therapy to everyone with schizophrenia  
**Who:** NHS Trust boards and health professionals responsible for offering treatment options

2. “For optimum effectiveness in preventing relapse, depot preparations should be prescribed within the standard recommended dosage and interval range”

**What:** Prescribe depot preparations within standard recommended dose and interval range for all those with schizophrenia  
**Who:** Psychiatrist responsible for drug treatment

(Michie, BMJ 2004)
Summary & conclusions

Much EB guideline development activity worldwide, but modest impact on patient care & outcomes

So, we need to:
1. Actively promote our guidelines to relevant groups
2. Use the Information Design / UseIT evidence base
3. Capture reminders & / alerts prospectively from guideline development group for DSS - not later from text
4. Structure GL recommendations more clearly (adding: who, when, where and how)
5. And share and learn from our experiences!