Inaugural experiences developing deprescribing guidelines

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#deRx2018

Session resources available at deprescribing.org/resources
Deprescribing guidelines – over the last 5 years
Our experience

• The plan in 2013
• What actually happened
• Thoughts on whether we could have or should have done it differently
  • Easier?
  • Credible?
  • Reach?
Investigator Team
Discuss priorities for guidelines and develop Delphi Survey

Experts in Geriatric Care
Identify priorities for guideline development by participation in Delphi Survey (n=65)

Guideline Methods Committee
Develop standard approach for deprescribing guideline development and oversee guideline development teams

Guideline Development Team 1
Develop Guideline 1

Guideline Development Team 2
Develop Guideline 2

Guideline Development Team 3
Develop Guideline 3

Site Implementation Teams
(3 Family Health Teams and 3 Long Term Care Facilities)
Implement guideline into everyday practice

Developmental Evaluation
Observations
Narrative Reports

Impact Evaluation
Interviews
Meeting minutes
E-mails

Observations
Interviews

Surveys
Chart audits
Patient interviews
Original timeline

Year 1
• Identify guideline priorities
• Determine guideline methodology

Year 2
• Develop, test and feedback on guideline 1
• Develop, test and feedback on guideline 2

Year 3
• Develop, test and feedback on guideline 3
• All analysis and publications
Priorities for deprescribing guidelines

1. Benzodiazepines
2. Atypical antipsychotics
3. Statins
4. Tricyclic antidepressants
5. Proton-pump inhibitors
6. Urinary anticholinergics
7. Typical antipsychotics
8. Cholinesterase inhibitors
9. Opioids
10. Selective serotonin reuptake inhibitors

Preparation
• Establish topic of interest
• Form GDT

1. Define scope and purpose of the guideline

2. Generate key questions (e.g., safety, effectiveness of continuing vs. reducing or discontinuing medication)

3. Agree on criteria for admissible evidence, use/conduct systematic review

4. Synthesize evidence, assess quality of studies, consider additional information (e.g., benefits, harms, values, resource implications, other guidelines)

5. Formulate recommendations and assess strength of recommendations

6. Add clinical considerations

7. Conduct review and piloting: clinical and stakeholder review using AGREE II

8. Update recommendations and evidence pre-publication

Revise guideline content

Develop one-page decision-making algorithm based on guideline

Implement guideline and algorithm in pilotsites

Incorporate implementation site feedback

Fig 1. Overall methodology for deprescribing guideline preparation, development, implementation and revision.

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0161248
What happened – guideline development

• Development process longer than anticipated
• Required ++ resources (people, money)
• Created some tension within the team
• Forced us to distill a vast amount of information and evidence into something users could use
What happened – during implementation

• 6 practice sites
• Presented long powerpoint presentations outlining the evidence and recommendations
• Everyone was bored until we showed this...
Proton Pump Inhibitor (PPI) Deprescribing Algorithm

Why is patient taking a PPI?
- If unsure, find out if history of endoscopy, if ever hospitalized for bleeding ulcer or if taking because of chronic NSAID use in past, if ever had heartburn or dyspepsia
- Mild to moderate esophagitis or GERD treated x 4-8 weeks (esophagitis healed, symptoms controlled)
- Peptic Ulcer Disease treated x 2-12 weeks (from NSAID; H. pylori)
- Upper GI symptoms without endoscopy; asymptomatic for 3 consecutive days
- ICU stress ulcer prophylaxis treated beyond ICU admission
- Uncomplicated H. pylori treated x 2 weeks and asymptomatic
- Barrett’s esophagus
- Chronic NSAID users with bleeding risk
- Severe esophagitis
- Documented history of bleeding GI ulcer

Recommend Deprescribing

Strong Recommendation (from Systematic Review and GRADE approach)
- Decrease to lower dose (evidence suggests no increased risk in return of symptoms compared to continuing higher dose), or
- Stop PPI (daily until symptoms stop) (1/10 patients may have return of symptoms)
- Stop PPI
- Continue PPI or consult gastroenterologist if considering deprescribing

Monitor at 4 and 12 weeks
- If verbal:
  - Heartburn
  - Dyspepsia
  - Regurgitation
  - Epigastric pain
- If non-verbal:
  - Loss of appetite
  - Weight loss
  - Agitation

Use non-drug approaches
- Avoid meals 2-3 hours before bedtime; elevate head of bed; address if need for weight loss and avoid dietary triggers

Manage occasional symptoms
- Over-the-counter antacid, H2RA, PPI, alginate prn (ie. Tums®, Rolaids®, Zantac®, Olex®, Gaviscon®)
- H2RA daily (weak recommendation – GRADE; 1/5 patients may have symptoms return)

If symptoms relapse:
- If symptoms persist x 3 – 7 days and interfere with normal activity:
  1) Test and treat for H. pylori
  2) Consider return to previous dose

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Contact deprescribing@bruyere.org or visit deprescribing.org for more information.

## Deprescribing algorithm uptake (from website) – open access

<table>
<thead>
<tr>
<th>Algorithm</th>
<th>English</th>
<th>French</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Proton pump inhibitors</td>
<td>19,590</td>
<td>620</td>
</tr>
<tr>
<td>2. Benzodiazepine receptor agonists</td>
<td>13,551</td>
<td>501</td>
</tr>
<tr>
<td>3. Antipsychotics</td>
<td>6,987</td>
<td>27</td>
</tr>
<tr>
<td>4. Antihyperglycemics (different website)</td>
<td>236</td>
<td>167</td>
</tr>
</tbody>
</table>
Other algorithm uptake?

• Canadian Family Physician publications
• Choosing Wisely toolkits
• Canadian Deprescribing Network (CaDeN)
• Institute for Healthcare Improvement (IHI) partners
• North York General Hospital, Toronto, ON
• The Moncton Hospital, Moncton, NB
• Winnipeg Regional Health Authority, Winnipeg, MB
• PrescQIPP webkit, UK
• Stanton Health Care Services, US
• Alberta Health Services, AB
• Deprescribing Fair events
Do you just need an algorithm?

**Yes**

*(skip the rigorous process)*

- Would save time and be less expensive

**No**

*(the process adds credibility)*

- Referenced by, or incorporated into reputable publications – e.g. RxFiles, Choosing Wisely
Preliminary results: qualitative analysis of guideline development processes

• Guideline development supported by:
  • Content, implementation and methods expertise
  • Staff support (e.g. coordinator, librarian)
  • Structured team meetings
  • Access to resources and networks of experts

• Challenges:
  • Guideline scope & team member responsibilities not always clear
  • Demanding rigor of systematic review time and resource intensive
Successes

- Endorsements and publication
- 2 new guidelines beyond original 3 funded
- One-page algorithm with recommendations seen as greatest facilitator
- Non-pharmacologic strategies included
- Uptake of support tools
- Knowledge mobilization through website and Twitter
- Additional funding for KT tools – patient pamphlets, infographics, whiteboard videos
# Publication uptake

<table>
<thead>
<tr>
<th>Publication</th>
<th>Views</th>
<th>Downloads</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are priorities for deprescribing for elderly patients? Capturing the voice of practitioners: a modified Delphi process; PLOS One, 2015</td>
<td>19,187</td>
<td>5,870</td>
<td>32</td>
</tr>
<tr>
<td>Developmental evaluation as a strategy to enhance the uptake and use of deprescribing guidelines; Implementation Science, 2015</td>
<td>N/A</td>
<td>4,146</td>
<td>10</td>
</tr>
</tbody>
</table>
## Uptake of support tools

<table>
<thead>
<tr>
<th>Tool</th>
<th>English downloads (version date)</th>
<th>French downloads (version date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proton pump inhibitors patient pamphlet</td>
<td>3,874 (September 2016)</td>
<td>210 (September 2016)</td>
</tr>
<tr>
<td>Proton pump inhibitors infographic</td>
<td>Stats unavailable</td>
<td>In development</td>
</tr>
<tr>
<td>Benzodiazepine receptor agonists patient pamphlet</td>
<td>3,424 (June 2016)</td>
<td>105 (June 2016)</td>
</tr>
<tr>
<td>Benzodiazepine receptor agonists infographic</td>
<td>Stats unavailable</td>
<td>In development</td>
</tr>
<tr>
<td>Antipsychotics patient pamphlet</td>
<td>2 (January 2018)</td>
<td>In development</td>
</tr>
<tr>
<td>Antipsychotics infographic</td>
<td>Uploaded in March 2018</td>
<td>In development</td>
</tr>
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<td>Antihyperglycemics patient pamphlet</td>
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### Whiteboard video uptake and feedback

<table>
<thead>
<tr>
<th>Video</th>
<th>Uptake</th>
<th>Feedback</th>
</tr>
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<tbody>
<tr>
<td>Developing Deprescribing Guidelines to Help Manage Polypharmacy and Improve Outcomes for Patients</td>
<td>2,141 views</td>
<td>Video rated as ‘excellent’ (71%) and ‘very good’ (24%)</td>
</tr>
<tr>
<td>Using the PPI Deprescribing Algorithm - When to Reduce or Stop PPIs and How?</td>
<td>2,368 views</td>
<td>Video indicated as ‘very’ or ‘totally’ relevant by patients (78%), family caregivers (100%), and health care providers (83%)</td>
</tr>
<tr>
<td>Using the Antihyperglycemic (AHG) Deprescribing Algorithm - When to Reduce or Stop AHGs and How?</td>
<td>1,062 views</td>
<td>Video indicated as ‘very’ or ‘totally’ relevant by patients (60%) and health care providers (93%); no data available for family caregivers</td>
</tr>
</tbody>
</table>
Twitter (@deprescribing)
Challenges

• Use of terms ‘strong’, ‘weak’ and ‘low quality’ of concern to reviewers/users
• Some non-pharm strategies costly
• Desire for alternative agents
• Requests for modification of algorithms
• Coping with translation requests
• Attribution of authorship
• Additional tools time-consuming to develop; uptake?
• Open access limits ability to acquire funds for supports
Learning carried forward

- Co-locate guideline lead and coordinator
- Expand GDT membership
- Establish good team functioning
- Use a roles/responsibilities document
- Clarify scope at outset
- Begin with end in mind (algorithm)
- Balance desire for alternative strategies with evidence and safety
- Involve knowledge users in creation of tools
Symposium goals

• Encourage development and uptake of evidence-based deprescribing guideline methodology internationally
• Facilitate sharing of evidence-based deprescribing guideline implementation strategies, successes and challenges among stakeholders
• Build knowledge, skills and support for health care provider behaviour change to integrate use of evidence-based deprescribing guidelines into practice
• Identify deprescribing guideline evaluation strategies and relevant outcome measures