

PRACTICE IMPROVEMENT ACTIVITY (PIA) Osteoporosis: Bisphosphonate Drug Holidays

Associated module: Osteoporosis (February 2024)

INTRODUCTION

Evolving and conflicting guidelines around drug holidays and when to repeat BMD testing have left many patients on bisphosphonates for too long, exposing them to the risks of the drug without evidence for benefit. This PIA provides a system and tool for prescribing drug holidays in alignment with 2023 Osteoporosis Canada guidelines.

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PIA Coordinator:	Stephanie Derka
Audience:	Small Group PBLP members, Individual PBLP members, Pathway to Small Group PBLP members, Residents
Domains of quality addressed:	Patient safety, effectiveness, efficiency, patient-centeredness
CanMEDS roles addressed:	Communicator, health advocate, collaborator, scholar
Timeline:	3 months. You may work on the Practice Improvement Activity for a longer period (e.g., 6 months or more) and submit for credits as long as you are a member of one of our programs.
Number of hours (estimate):	20
Credits awarded:	40 Mainpro+ Assessment Credits
Type of data collected:	Quantitative data: chart audit and/or EMR search
Level of quality improvement skills:	Low. Few PDSA cycles will be required.
Clinic/staff resource requirement:	Low. Staff may do EMR searches and place flags on charts (where capable) and offer handouts.

Included components:

1. Practice Improvement Activity Outline (i.e., this document). *This is the file you will submit back to FMPE by uploading it on Members Online.*
2. Planning and Tracking Chart
3. Sample Template/Stamp for EMR

Optional resources:

Refer to the Review of Quality Improvement presentation under the My Documents section of Members Online (<https://members.fmpe.org/>) for more information about quality improvement methodology.

Disclosures of competing interests:

No disclosures of competing interests were declared for Lori Teeple, Melissa Vyvey, or Stephanie Derka.

Disclosure of financial support: No financial support was received from external entities or organizations. There are no other investments or relationships that could be seen by a reasonable, well-informed participant as having the potential to influence the educational activity content.



OBJECTIVES:

The purpose of this guide is to assist you in implementing a practice improvement that you identified while working through the module Osteoporosis (February 2024).

The key area of improvement addressed by this practice change activity is appropriately planning a drug holiday from bisphosphonates.

The recommended approach is to make small improvements toward planning a drug holiday from bisphosphonates in realistic increments. Below you will find a step-by-step guide. A suggested goal and a predetermined strategy are provided. This is meant as a guide—if at any point you would prefer to use your own goal and/or strategy, we encourage you to do so.

STEPS

Note: *In order to be awarded credits, ensure that you record answers in every step unless indicated otherwise (e.g., Steps 3, 4, and 7 may not need any further information; not all cells in the tables in Step 5 need to be filled).*

Step 1. Reflect on your current practice regarding bisphosphonate drug holidays.

In what ways are you doing well with planning bisphosphonate drug holidays with your patients?

What are some areas where you are not doing as well with planning bisphosphonate drug holidays with your patients?

Step 2. Assess your motives and what informs them.

What led you to choose this improvement activity?

What evidence or insight informed your choice?

**Comment on any areas that apply:**

- Self-reflection: _____
- Patient feedback: _____
- Staff feedback: _____
- Feedback from family or friends: _____
- A particular patient case: _____
- A particular event in your life: _____
- Other: _____

Step 3. Set a goal.**Here is the provided goal:**

“Over the next 3 months, I will begin enrollment in a ‘pathway toward a drug holiday’ 50% of target patients seen for annual health review or bisphosphonate renewal during that time.*

*Target patients are women over 65 who are on bisphosphonates.

You can modify the goal here if you wish:

Your goal should be for a specific targeted group of patients; actionable over a defined timeline; and feasible, evidence-based, and measurable.

Step 4. Choose a strategy that might help you achieve this goal.**Here is the provided strategy:**

“I will search the EMR and place a flag on the charts of all target patients. When they present for annual health review or bisphosphonate renewal, the flag will prompt me/staff to enroll them in a ‘pathway toward a drug holiday’ using an EMR template/stamp.”

Note: Sample template provided. This template may be added to my existing annual health review template, used as an adjunct or stand-alone.



You can modify the strategy here if you wish:

A good QI strategy is one that you believe will help you meet your goal. It has the following qualities:

- It is a small idea for change.
- It will promote behaviour change in you or in your office procedures.
- It is very specific to the goal.
- It is feasible in your setting.

Remember, your strategy will no doubt be adapted and tweaked as you go along.

I will track my progress using the Planning and Tracking chart provided.

If you prefer to use a different tracking method, outline that here.

Step 5. Imagine the supports and barriers you may experience in implementing this strategy. Select and expand on only those that apply.

	Supports	How can I harness this support?
Time		
Resources		
Fellow clinicians		
Support staff or clinic management staff		
Patients		
My own skills		
My own confidence		
Other		



	Barriers	What can I do about this barrier?
Time		
Resources		
Fellow clinicians		
Support staff or clinic management staff		
Patients		
My own skills		
My own confidence		
Other		

Step 6. Reflect on any unintended consequences of implementing this strategy.

Below are some examples of unintended consequences that may occur upon implementing your strategy. You do not need to track all of them. Be aware and monitor based on your situation.

- Patients may have questions about a drug holiday that prolong an annual health review beyond scheduled appointment time.
- There may be a long waitlist for BMD testing, risking patients being “lost to follow-up.”

Document here other unintended consequences you can imagine in your setting:

Step 7. Determine how you will know if you are achieving your goal.

Goal: *“Over the next 3 months, I will begin enrollment in a ‘pathway toward a drug holiday’ 50% of target patients seen for annual health review or bisphosphonate renewal during that time.”*

Your modified goal:



This part of the exercise will help you quantify your goal and plan how to measure your success. This is also how you will determine if the changes you are making are resulting in an improvement. You may follow this method of measurement:

- At the beginning of the project, I will determine what percent of target patients I have considered for bisphosphonate drug holiday in my practice. This can be done by:
 - Random chart audit of 10 target patients to determine what percentage have been considered for drug holiday (i.e., you started toward a “drug holiday pathway” with them whether they were due for drug holiday or you were just giving advance notice and setting expectations for future).
 - Reflection on current practice. If you know you do not do this currently because it is a new guideline then your current rate is zero.
- At the end of the project, I will search the EMR for all target patients seen during the project to find the new rate (goal is 50%). This can be done by:
 - Comparing the total number of target patients seen with how many have been enrolled in a “pathway toward a drug holiday.” (Calculate enrollment—whether the patients have completed the pathway or not by the end of the project, whether they are “due” for a drug holiday or not does not matter—the measurement is about being enrolled in the pathway.) This is the new rate (goal is 50%).

Note: To facilitate the EMR search, the stamp is labelled “pathway toward bisphosphonate drug holiday” as a unique search term. You may choose an alternate unique identifier.

Or choose measurements and time frames that work better for you.

If you modify the goal and/or strategy (from Steps 3 and 4), you may need to modify the way you measure your success.

Step 8. Implement your improvement strategy.

Below is a task list of specific steps you can take to implement the suggested strategy from Step 4. The tasks will help you decide how and when to monitor your strategy, set the strategy in motion, and then take your strategy through any necessary tweaks. This is a PDSA cycle: Plan the strategy, Do it, Study how it’s working, and Act (i.e., tweak and relaunch). This cycle gets repeated as needed until you strike upon the method that works for your practice.

Goal: *“Over the next 3 months, I will begin enrollment in a ‘pathway toward a drug holiday’ 50% of target patients seen for annual health review or bisphosphonate renewal during that time.”*

Your modified goal:

Strategy: *“I will search the EMR and place a flag on the charts of all target patients. When they present for annual health review or bisphosphonate renewal, the flag will prompt me/staff to enroll them in a ‘pathway toward a drug holiday’ using an EMR template/stamp.”*



<p align="center">Summary of Tasks</p> <p align="center">Refer to Planning and Tracking Chart for details and space to enter your own progress/tweaks/deadlines.</p>	<p align="center">Check upon completion</p>
<p>Discuss project with clinic team. Educate re: importance of drug holidays, gain collaboration and ideas, identify staff who might be capable of searching and flagging charts.</p>	<p align="center"><input type="checkbox"/></p>
<p><i>Modify/add task or comments upon completion:</i></p>	
<p>Do pre-project chart audit (refer to Step 7).</p>	<p align="center"><input type="checkbox"/></p>
<p><i>Modify/add task or comments upon completion:</i></p>	
<p>Evaluate sample template/stamp and embed in EMR or create your own custom stamp.</p>	<p align="center"><input type="checkbox"/></p>
<p><i>Modify/add task or comments upon completion:</i></p>	
<p>Add the patient handout from the module to EMR for printing at appointments.</p>	<p align="center"><input type="checkbox"/></p>
<p><i>Modify/add task or comments upon completion:</i></p>	
<p>Flag charts of target patients.</p>	<p align="center"><input type="checkbox"/></p>
<p><i>Modify/add task or comments upon completion:</i></p>	
<p>Enroll target patients in the pathway at suitable visit: add stamp/template to chart, assess appropriateness of treatment duration based on risk, discuss drug holiday with patient. Some patients will simply be educated and given advanced notice re: drug holiday process; other patients will be due for a drug holiday. Give handout from the module PRN, order BMD as appropriate, determine follow-up or place follow up reminder on chart as needed (per stamp).</p>	<p align="center"><input type="checkbox"/></p>
<p><i>Modify/add task or comments upon completion:</i></p>	
<p>Complete the post-project search and audit.</p>	<p align="center"><input type="checkbox"/></p>
<p><i>Modify/add task or comments upon completion:</i></p>	

**ASSESSMENT PHASE:****Step 9. Assess your improvement activity.**

Consider the measures you chose in Step 7 to help you determine if your strategy worked to help you achieve your goal. Enter your data/results and analysis here:

Share your project /outcome with your PBLP group (if you have one) at a regular meeting or at a follow-up meeting when your group is completing the Follow-Up Practice Reflection Tool for the module. If you do not have a PBLP group, discuss your findings with a trusted colleague.

When you shared this practice activity with your PBLP group or colleagues, what additional perspectives did they provide? Describe the feedback from this discussion:

Based on the measure(s) that you identified, what impact did your improvement activity have on your practice (e.g., did implementing a template/stamp make planning drug holidays more seamless)?

Are there any modifications you could make to your overall goal and/or the strategy you used that would further improve your results? How might you embed this strategy into your ongoing practice? How might you change your initial bisphosphonate prescribing habits (counselling, setting expectations) to facilitate future drug holiday planning?

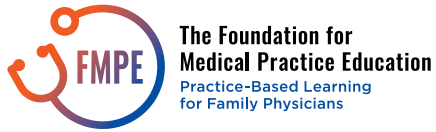
After having tried this practice improvement activity, what seemed to work well and what did not work well to help you improve?



Step 10. Reflect on practice change.

Describe how this activity inspired you to pursue any further practice improvements:

Describe the pearl(s) that you will take away from this exercise that would inform your future practice improvement activities:



PLANNING AND TRACKING CHART FOR PRACTICE IMPROVEMENT ACTIVITY

Osteoporosis: Bisphosphonate Drug Holidays

Goal: “Over the next 3 months, I will begin enrollment in a ‘pathway toward a drug holiday’ 50% of target patients* seen for annual health review or bisphosphonate renewal during that time.”

*Target patients are women over 65 who are on bisphosphonates.

Strategy: “I will search the EMR and place a flag on the charts of all target patients. When they present for annual health review or bisphosphonate renewal, the flag will prompt me/staff to enroll them in a ‘pathway toward a drug holiday’ using an EMR template/stamp.”

Note: Sample template provided. This template may be added to my existing annual health review template, used as an adjunct or stand-alone.

Tasks	Suggested timelines to review progress and identify obstacles & successes	Tweak 1 Modifications to the strategy/tasks/timelines (PDSA), if needed	Tweak 2 Modifications to the strategy/tasks/timelines (PDSA), if needed

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ASSESSMENT PHASE

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EMR Stamp/Template:

Pathway Toward Bisphosphonate Drug Holiday For Women Over 65

Date bisphosphonate started: _____ Initial FRAX (or CAROC) score before meds started: _____

If risk is low, reconsider medication using <https://frax.canadiantaskforce.ca/>.

Notes:

- Conversation with patient re: new guidelines for drug holidays
- Handout from the module given regarding behavioural modifications and risks/benefits of medications
- Anticipatory deprescription discussed
- On bisphosphonates < 3 years: Reminder placed on chart to revisit/consider repeat BMD 1 year 2 years
- On bisphosphonates > 3 years: BMD ordered
- Results reviewed of last BMD

Initial FRAX score < 20	
<ul style="list-style-type: none"> <input type="checkbox"/> BMD stable or improving <input type="checkbox"/> No high-risk factors identified <input type="checkbox"/> Drug holiday prescribed after joint decision-making Date: _____ <input type="checkbox"/> Patient voices understanding <input type="checkbox"/> Reminder placed on chart for risk score and BMD in 3 years <p>Notes:</p>	<ul style="list-style-type: none"> <input type="checkbox"/> BMD worsening or stable <input type="checkbox"/> High-risk factors identified <input type="checkbox"/> No drug holiday prescribed Date: _____ <input type="checkbox"/> Adherence checked/counselling given <input type="checkbox"/> Recheck for secondary causes of osteoporosis initiated <input type="checkbox"/> Bisphosphonate continued <input type="checkbox"/> Medication changed _____ (side effects and pros/cons discussed with patient) <input type="checkbox"/> Referral made <input type="checkbox"/> Reminder placed on chart for repeat BMD and review in <input type="checkbox"/> 1 year or ___years <p>Notes:</p>
High-risk factors:	
<ul style="list-style-type: none"> • Age ≥ 70 at the time the bisphosphonate started • Previous history of a hip or vertebral fracture, or multiple non-vertebral fractures • Ongoing oral glucocorticoid therapy ≥ 7.5 mg prednisolone/day or equivalent • One or more fragility fractures during the first 5 years of treatment • Other new or ongoing clinical risk factors associated with rapid bone loss/secondary osteoporosis: <p>https://www.aafp.org/content/dam/brand/aafp/pubs/afp/issues/2015/0815/p261-t4.gif</p>	
Initial FRAX Score > 20	
<ul style="list-style-type: none"> <input type="checkbox"/> BMD stable or improving <input type="checkbox"/> No high-risk factors identified Date: _____ <input type="checkbox"/> Bisphosphonate continued for 3 years; expectations set for holiday after this time <input type="checkbox"/> Reminder placed on chart for review and BMD in 3 years <p>Notes:</p>	<ul style="list-style-type: none"> <input type="checkbox"/> BMD worsening or stable <input type="checkbox"/> High-risk factors identified Date: _____ <input type="checkbox"/> Adherence checked/counselling given <input type="checkbox"/> Recheck for secondary causes of osteoporosis initiated <input type="checkbox"/> Bisphosphonate continued OR <input type="checkbox"/> Medication changed _____ (side effects and pros/cons discussed with patient) <input type="checkbox"/> Referral made <input type="checkbox"/> Reminder placed on chart for repeat BMD and review in <input type="checkbox"/> 1 year or ___years <p>Notes:</p>