

# The Cold Stand



**A Toolkit for Using Antibiotics Wisely for the  
Management of Respiratory Tract Infections  
in Primary Care**

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2019 | VERSION 1.0

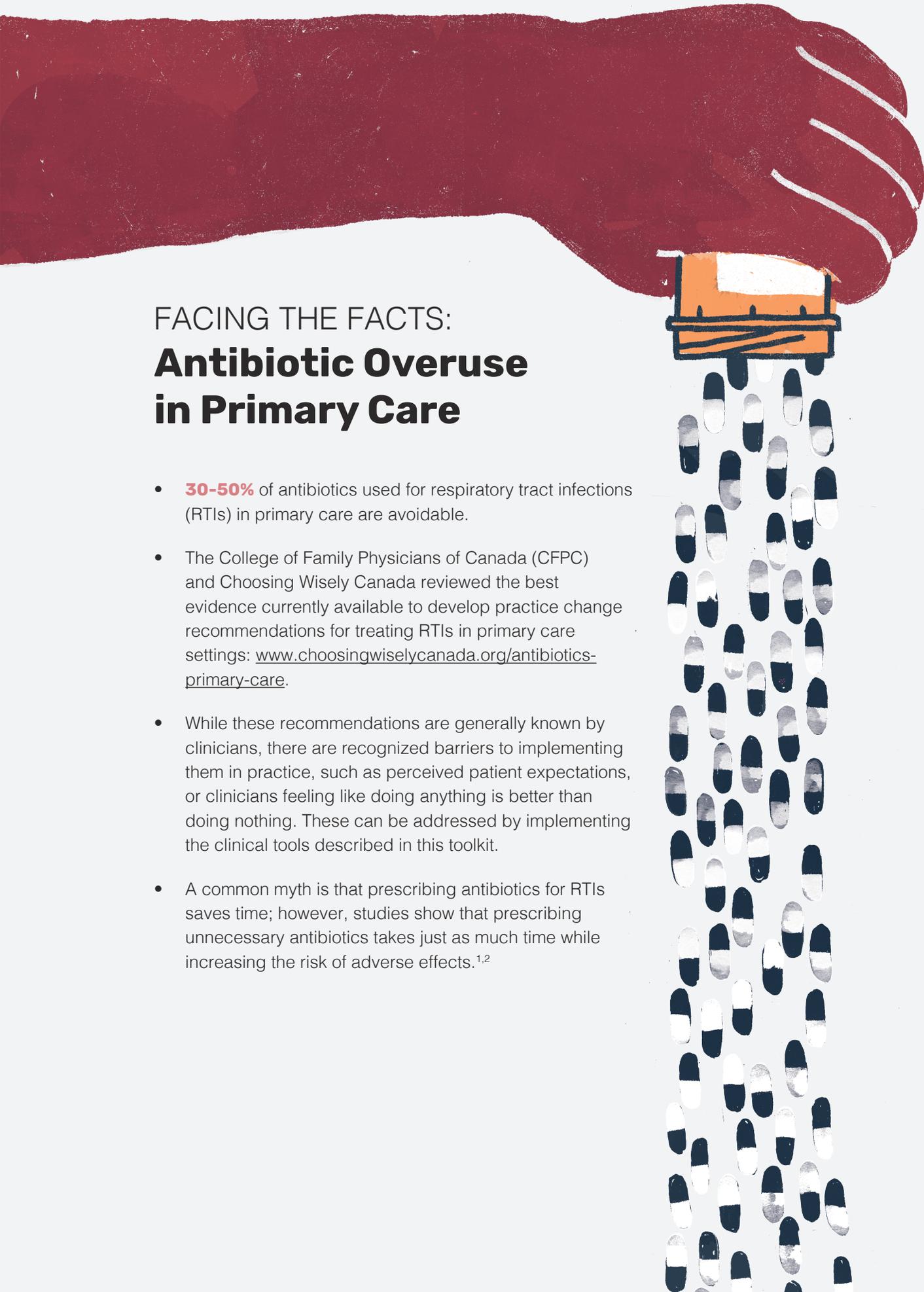
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LE COLLÈGE DES  
MÉDECINS DE FAMILLE  
DU CANADA

A large, dark red hand is shown from the top left, holding a small, orange pill dispenser. The dispenser is tilted, and a stream of black and white capsules is falling out of it, forming a vertical column on the right side of the page. The background is plain white.

## FACING THE FACTS: **Antibiotic Overuse in Primary Care**

- **30-50%** of antibiotics used for respiratory tract infections (RTIs) in primary care are avoidable.
- The College of Family Physicians of Canada (CFPC) and Choosing Wisely Canada reviewed the best evidence currently available to develop practice change recommendations for treating RTIs in primary care settings: [www.choosingwiselycanada.org/antibiotics-primary-care](http://www.choosingwiselycanada.org/antibiotics-primary-care).
- While these recommendations are generally known by clinicians, there are recognized barriers to implementing them in practice, such as perceived patient expectations, or clinicians feeling like doing anything is better than doing nothing. These can be addressed by implementing the clinical tools described in this toolkit.
- A common myth is that prescribing antibiotics for RTIs saves time; however, studies show that prescribing unnecessary antibiotics takes just as much time while increasing the risk of adverse effects.<sup>1,2</sup>

# TOOLS TO SUCCEED: Implementing 3 Simple Tools to Support Practice Changes

The tools below support the practice changes developed by Choosing Wisely Canada and the CFPC and can be found here at: [www.choosingwiselycanada.org/campaign/antibiotics-primary-care](http://www.choosingwiselycanada.org/campaign/antibiotics-primary-care).

## 1. Posters



### How does it work?

A poster can educate patients and act as a behavioural 'nudge' by setting expectations. Posters have been shown to be effective as part of an outpatient antimicrobial stewardship intervention for reducing inappropriate prescriptions.<sup>3,4</sup>



### How do you implement it?

Print the poster and hang it in the waiting area or examination rooms in your practice. You can also use it as a screen saver on your clinic computers or include it in the information broadcast on your waiting room televisions.

#### 'Sorry' posters are available in:

English, French, Simplified Chinese, Spanish, Arabic, Punjabi and Tagalog.

#### 'Three Questions' posters are available in:

English, French, Simplified Chinese, Spanish, Arabic, Punjabi and Tagalog.

## 2. Viral Prescription

**Rx** Patient Name : \_\_\_\_\_ Date : \_\_\_\_\_

**The symptoms you presented with today suggest a VIRAL infection.**

Upper Respiratory Tract Infection (Common Cold) : Lasts 7-14 days  
 Flu : Lasts 7-14 days  
 Acute Pharyngitis ("Sore Throat") : Lasts 3-7 days, up to ≤10 days  
 Acute Bronchitis/"Chest Cold" (Cough) : Lasts 7-21 days  
 Acute Sinusitis ("Sinus Infection") : Lasts 7-14 days

**You have not been prescribed antibiotics because antibiotics are not effective in treating viral infections. Antibiotics can cause side effects (e.g. diarrhea, yeast infections) and may cause serious harms such as severe diarrhea, allergic reactions, kidney or liver injury.**

When you have a viral infection, it is very important to get plenty of rest and give your body time to fight off the virus.

**If you follow these instructions, you should feel better soon :**

- ➔ Rest as much as possible
- ➔ Drink plenty of fluids
- ➔ Wash your hands frequently
- ➔ Take over-the-counter medication, as advised :

Acetaminophen (e.g. Tylenol®) for fever and aches  
 Ibuprofen (e.g. Advil®) for fever and aches  
 Naproxen (e.g. Aleve®) for fever and aches  
 Lozenge (cough candy) for sore throat  
 Nasal Saline (e.g. Salinex®) for nasal congestion  
 Other : \_\_\_\_\_

(e.g. Nasal decongestant if Salinex® does not work, for short-term use only)

**Please return to your provider if :**

- ➔ Symptoms do not improve in \_\_\_\_\_ day(s), or worsen at any time
- ➔ You develop persistent fever (above 38°C, or \_\_\_\_\_ as directed)
- ➔ Other : \_\_\_\_\_

Prescriber \_\_\_\_\_

This "Viral Prescription Pad" has been adapted from the RCPSC Antimicrobial Stewardship Program [www.rcpsc.ca/antimicrobialstewardship](http://www.rcpsc.ca/antimicrobialstewardship) and is available in other languages [http://www.rxfiles.ca/rxfiles/uploads/documents/ABS\\_Viral\\_Prescription\\_Pad\\_Languages.pdf](http://www.rxfiles.ca/rxfiles/uploads/documents/ABS_Viral_Prescription_Pad_Languages.pdf)

Visit [www.RxFiles.ca](http://www.RxFiles.ca) for more information.

### How does it work?

Patients with viral infections are seeking relief from their symptoms, and antibiotics do not help them recover. However, there are some alternative treatments that can improve their symptoms. Because patients have come to expect a prescription as part of their treatment plan for bacterial infections, you can use the same approach for viral infections (minus the antibiotic, of course!).

### How do you implement it?

Print the handout and review it with, and give it to, the patient. Offices using electronic health records (EHRs) can incorporate this tool into a patient's electronic medical record (EMR) by following the instructions included in the [downloadable file](#).

## 3. Delayed Prescriptions

**Rx DELAYED PRESCRIPTION**

**About Your Delayed Prescription**

WAIT. Don't fill your prescription just yet. Your health care provider believes your illness may resolve on its own. Follow the steps below to get better.

First, continue to monitor your symptoms over the next few days and try the following remedies to help you feel better:

- Get lots of rest.
- Drink plenty of water.
- For a sore throat: ice chips, throat lozenges or spray, or gargle with salt water.
- For a stuffy nose: saline nasal spray or drops.
- For fever and pain relief: acetaminophen or ibuprofen.
- Other: \_\_\_\_\_

Wash your hands often to avoid spreading infections.

**If you don't feel better in \_\_\_\_\_ days**, go ahead and fill your prescription at the pharmacy.

**If you feel better, you do not need the antibiotic** and the prescription can be thrown out.

**If things get worse**, please contact your health care provider.

Antibiotics should only be taken when medically necessary. Unwanted side effects like diarrhea and vomiting can occur, along with destruction of your body's good bacteria that can leave you more susceptible to infections.

To learn more, visit [www.choosingwiselycanada.org/antibiotics](http://www.choosingwiselycanada.org/antibiotics)

### How does it work?

You can use delayed prescriptions for select patients (e.g., otitis media, uncomplicated sinusitis; see the table on page 5) or give them to the parents/guardians of paediatric patients. Contrary to what many clinicians think, delayed prescriptions only get filled one third of the time and there is no difference in satisfaction between receiving an immediate prescription and a delayed prescription.<sup>5</sup> Note that this tool should not be used for all patients with RTIs since the majority should receive no antibiotics at all.

### How do you implement it?

Print the handout to accompany the prescription. Offices using EHRs can incorporate this tool into a patient's EMR by following the instructions included in the [downloadable file](#).

**The Delayed Prescription is available in:**

English, French, Simplified Chinese, Spanish, Arabic, Punjabi and Tagalog.

# Managing Respiratory Tract Infections

Syndrome	Tool	When are Antibiotics Indicated?
<b>Uncomplicated otitis media</b>	<p><u>Patient resources</u></p> <p>Re-assessment as needed or <u>delayed prescription</u></p>	<p>For vaccinated individuals aged 6 months and older, either a perforated tympanic membrane with purulent discharge or a bulging tympanic membrane with one of the three following criteria:</p> <ol style="list-style-type: none"> <li>1. Fever (<math>\geq 39^{\circ}\text{C}</math>)</li> <li>2. Moderately or severely ill</li> <li>3. Significant symptoms lasting <math>&gt; 48</math> hours</li> </ol>
<b>Uncomplicated pharyngitis</b>	<p><u>Viral prescription</u></p> <p>Throat swab not indicated if Centor score <math>\leq 1</math></p>	<p>Patient's modified Centor score is <math>\geq 2</math> AND throat swab culture (or rapid antigen test if available) confirms presence of Group A Streptococcus.</p>
<b>Uncomplicated sinusitis</b>	<p><u>Viral prescription</u></p> <p>Re-assessment as needed or <u>delayed prescription</u></p>	<p>Symptoms have persisted for more than 7–10 days without improvement.</p> <p>Antibiotics should only be considered if the patient has at least 2 of the PODS symptoms listed below, one of those being O or D, AND the patient meets one of the following criteria:</p> <ol style="list-style-type: none"> <li>1. The symptoms are severe</li> <li>2. The symptoms are mild to moderate with no response after a 72 hour trial with nasal corticosteroids.</li> </ol> <p><b>P:</b> Facial Pain/pressure/fullness;  <b>O:</b> Nasal <b>O</b>bstruction;  <b>D:</b> Purulent/dicoloured nasal or postnasal <b>D</b>ischarge;  <b>S:</b> Hyposmia/anosmia (<b>S</b>mill)</p>
<b>Upper respiratory infection (common cold)</b>	<p><u>Viral prescription</u></p>	<p>No role unless clear evidence of secondary bacterial infection.</p>
<b>Influenza like illness</b>	<p><u>Viral prescription</u></p>	<p>No role unless clear evidence of secondary bacterial infection.</p>
<b>Pneumonia</b>	<p>Chest x-ray only if indicated by physical exam</p> <p>Patients with no vital sign abnormalities and a normal respiratory examination are unlikely to have pneumonia and don't need a chest x-ray.</p>	<p>Chest x-ray, where available, showing pneumonia (Physical examination alone, demonstrating respiratory crackles, is not sufficient to establish a diagnosis).</p>
<b>Bronchitis/asthma/bronchiolitis</b>	<p>Consider steroids and short-acting bronchodilators</p>	<p>No role unless clear evidence of secondary bacterial infection.</p>
<b>Acute exacerbation of chronic obstructive pulmonary disease</b>	<p>Consider steroids and short-acting bronchodilators</p>	<p>Clear increase in sputum purulence with either increase in sputum volume and/or increased dyspnea.</p>

# Measuring Success

## Process Measures: How often clinical tools are used in practice

- Count data over time—the simplest way to measure uptake of the tools in your practice, but note this may be influenced by seasonality.
  - Number of times a viral/delayed prescription or patient resource is given each week/bi-weekly/monthly
  - Number of clinicians that are giving viral/delayed prescriptions bi-weekly/monthly
- Proportion data over time—a better measure, but requires knowing the denominator of unique patient visits to your office with RTI. One way to obtain this is having a member of the office staff count these visits each week. This allows you to track:
  - Number of times a viral/delayed prescription or patient resource is given each week per unique patient visit for RTI or specific viral syndrome
- Survey—can be developed to address the number of clinicians in the clinic that are aware of the recommendations.

## Outcome Measures: Antibiotic use for patients with RTI

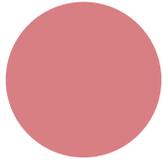
- Antibiotic prescribing for RTI
  - Number of unique patient visits (or visits per 1000 patient visits) for RTI or specific viral syndrome; for example, bronchitis
- If you are unable to separate RTIs, measure and track antibiotic prescriptions over time.
- You can obtain data using any of the following methods:
  - Manual audit—Have a member of the office staff count every unique patient visit or every visit for a RTI as the denominator, then count each prescription for antibiotics (or viral/delayed Rx) given for a RTI
  - Automated audit with your EMR—Some EMRs allow searches by prescription or by diagnostic codes, which can be generated and normalized per patient visit
  - Prescriber-level report from your provincial ministry of health. Contact your health authority to find out availability in your region.

## Balancing Measures: Unintended consequence not expected to change

- Patient visits to another urgent care centre after their initial encounter in the clinic (e.g., emergency department, walk-in clinic, urgent care centre, etc.)
  - Clinicians in a capitated system may receive reports on emergency department visits by their patients (these may decrease)
- Patient satisfaction (this could be an outcome measure)
  - Patient satisfaction surveys can be used in the waiting room or sent by email to determine if patients are satisfied with their care (this may improve)
- Return visits to the clinic
  - Number of return visits within 10 days for the same diagnosis (this would not be expected to increase)

# Examples From the Field

The Regina Family Medicine Unit has been using the RTI tools for over a year and have the additional support of the Saskatchewan Clinician Report, which provides audit and feedback information to clinicians regarding their antibiotic prescribing data. Here is what clinicians are saying:



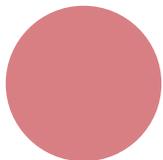
*The informational poster promoting antibiotic awareness allows me to reinforce the information when explaining why an antibiotic is not indicated for a viral infection and provides an easy to understand graphic for patients to see that the vast majority of upper respiratory infections are viral.*

Clara Rocha Michaels, MD, CCFP

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*Using the viral pad is providing excellent patient care since it outlines the standard of care treatments for viruses. Patients are provided with education and quality medical care when inappropriate antibiotics are avoided.*

Marty Heroux, MD, CCFP



*I use the viral prescription regularly in my practice because the information it provides is the same education I would verbally provide. It is a visual reinforcement and resource for the patient once they leave and need a reminder of what the typical treatment for a viral infection is.*

Barb Beurivage, NP

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*As a physician working with resident physicians on a regular basis, I have seen the efficacy of the Viral Rx pads in helping residents in their conversations with patients about what they can do to treat their viral illnesses without antibiotics.*

Solveig Nilson, MD CCFP



- Quality improvement is a great way to obtain CME credits.
- Earn up to five Mainpro+® credits using a Linking Learning to Practice exercise to document how this tool has affected your practice.

Visit [www.cfpc.ca/Linking\\_Learning\\_exercises](http://www.cfpc.ca/Linking_Learning_exercises) to learn more.

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