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Rethink the Rx: Reducing Unnecessary Antibiotic Prescribing in Primary Care

Public Health Ontario Rounds Antimicrobial Awareness Week
November 19, 2024

Dr. Jennifer Young MD, CCFP-EM

Presenter Disclosure

JENNIFER YOUNG, CCFP

CFPC Physician Advisor to Knowledge Expert and Tools Team

- Relationships with Financial Sponsors: none
- Any direct financial relationships including receipt of honoraria:
  - Ontario College of Family Physicians, PEER, PEIP honoraria as speaker
- Membership on advisory boards or speakers' bureau: none
- Patents for drugs or devices: none
- Other financial relationships or investments: Part-time physician advisor for CFPC

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Objectives

- Describe the common scenarios of antibiotic overuse in primary care settings
- Identify practical tools that support the judicious use of antibiotics
- Discuss antimicrobial stewardship strategies for improvement in practice

Should we care about Antibiotic Overuse?

- 23 million Rxs annually
- Antibiotic resistance
- WHO top 10 threats for global health in 2019

World Health Organization

"Never has the threat of antimicrobial resistance (AMR) been more immediate and the need for solutions more urgent"

Tedros Adhanom Ghebreyesus, PhD, Director-general WHO

Antibiotic Use Ontario 2020

Descriptive analysis of 341 physicians, ~500,000 encounters, with ~150,000 antibiotic Rx

- unnecessary prescribing rate 15.4%
- conditions with the highest rates of unnecessary antibiotic prescribing:
  - acute bronchitis (52.6%)
  - acute sinusitis (48.4%)
  - acute otitis media (39.3%)
  - acute pharyngitis (36.7%)

CMAJ Open 2020. DOI:10.9778/cmajo.20190175

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  - acute pharyngitis (36.7%)

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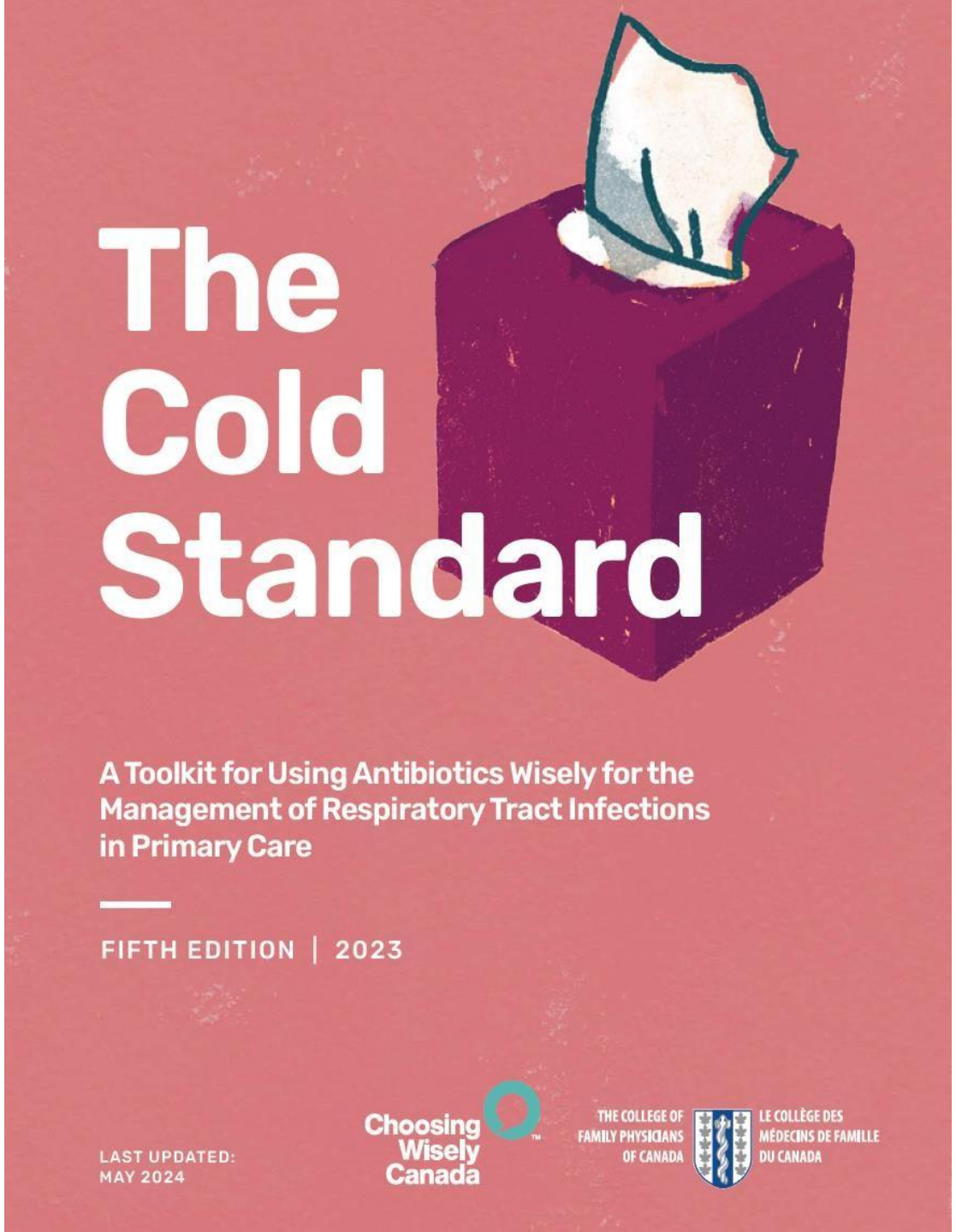
Prolonged Duration

- English primary care database: 1.3 million excess days between 2013-2015
- Observational study: 2/3 pneumonia excess duration
  - Each excess day associated with 5% increase of antibiotic associated event

AMMI guidelines 2021 doi:10.3138/jammi-2021-04-29



The Cold Standard Toolkit 5th edition (2023)

https://choosingwiselycanada.org/toolkit/the-cold-standard/

Points to Remember: Matching the Respiratory Syndrome with the Most Appropriate Approach

SYNDROME	SPECIFIC SITUATIONS WHERE ANTIBIOTICS ARE RECOMMENDED	RECOMMENDED ANTIBIOTIC DURATION	TOOLS TO SUPPORT MANAGEMENT
UPPER RESPIRATORY TRACT INFECTION (COMMON COLD)	• Not indicated	• Antibiotics never indicated	• Adult or pediatric viral prescription
BRONCHITIS/ ASTHMA	• Not indicated	• Antibiotics never indicated	• Adult or pediatric viral prescription
OTITIS MEDIA*	• Perforated tympanic membrane with purulent discharge or a bulging tympanic membrane with either: ○ Fever ≥ 39°C OR ○ Moderately or severely ill OR ○ Symptoms lasting > 48 hours	• **Age 6 months to 2 years:** 10 days • **Age greater than 2 years:** 5 days	• Adult or pediatric viral prescription in most cases, antibiotics may be needed based on criteria in table • Delayed prescription
PHARYNGITIS**	• Centor score is ≥ 2 **AND** throat swab culture (or rapid antigen test if available) confirms presence of Group A *Streptococcus* • Don't perform throat swabs at all for patients with Centor score ≤ 1 OR if there are accompanying symptoms of a viral infection such as rhinorrhea, oral ulcers or hoarseness (since a positive swab in that circumstance would likely represent colonization. Note: a positive swab doesn't distinguish colonization from acute disease).	• 10 days (once daily dosing recommended to ensure completion; 50mg/kg daily up to maximum of 1000 mg daily)	• Adult or pediatric viral prescription in most cases, throat swab only if Centor 2 or greater, and only antibiotics if GAS isolated
SINUSITIS	• Patient has at least 2 of the below **PODS** symptoms, one of those being **O** or **D** **AND**: ○ Symptoms lasting greater than 7–10 days OR ○ The symptoms are severe OR ○ There is no response after a 72-hour trial with nasal corticosteroids **P** = Facial **P**ain/pressure/fullness **O** = Nasal **O**bstruction **D** = Purulent nasal or postnasal **D**ischarge **S** = Hyposmia/anosmia (**S**mell)	• 5 days	• Adult or pediatric viral prescription and antibiotics are very rarely indicated, only for criteria in table
PNEUMONIA	• If the patient has compatible symptoms AND radiographic confirmation of pneumonia • Chest x-ray should not be performed routinely unless there are abnormal vital signs and/or physical exam findings	• 5 days	• Immediate antibiotics, no adult or pediatric viral prescription
ACUTE EXACERBATION OF COPD	• Increase in sputum purulence with either increase in sputum volume and/or increased dyspnea	• 5 days	• Inhalers and steroids, only antibiotics if meets criteria

* In patients with childhood immunizations.
** Bacterial (GAS) pharyngitis is rare in children less than 3 years of age, and testing is only indicated in outbreak settings or when scarlet fever is suspected

These recommendations are for outpatient/ambulatory patients (not hospitalized or unwell).
These recommendations only apply to individuals 6 months of age or older (excludes neonates and young infants).

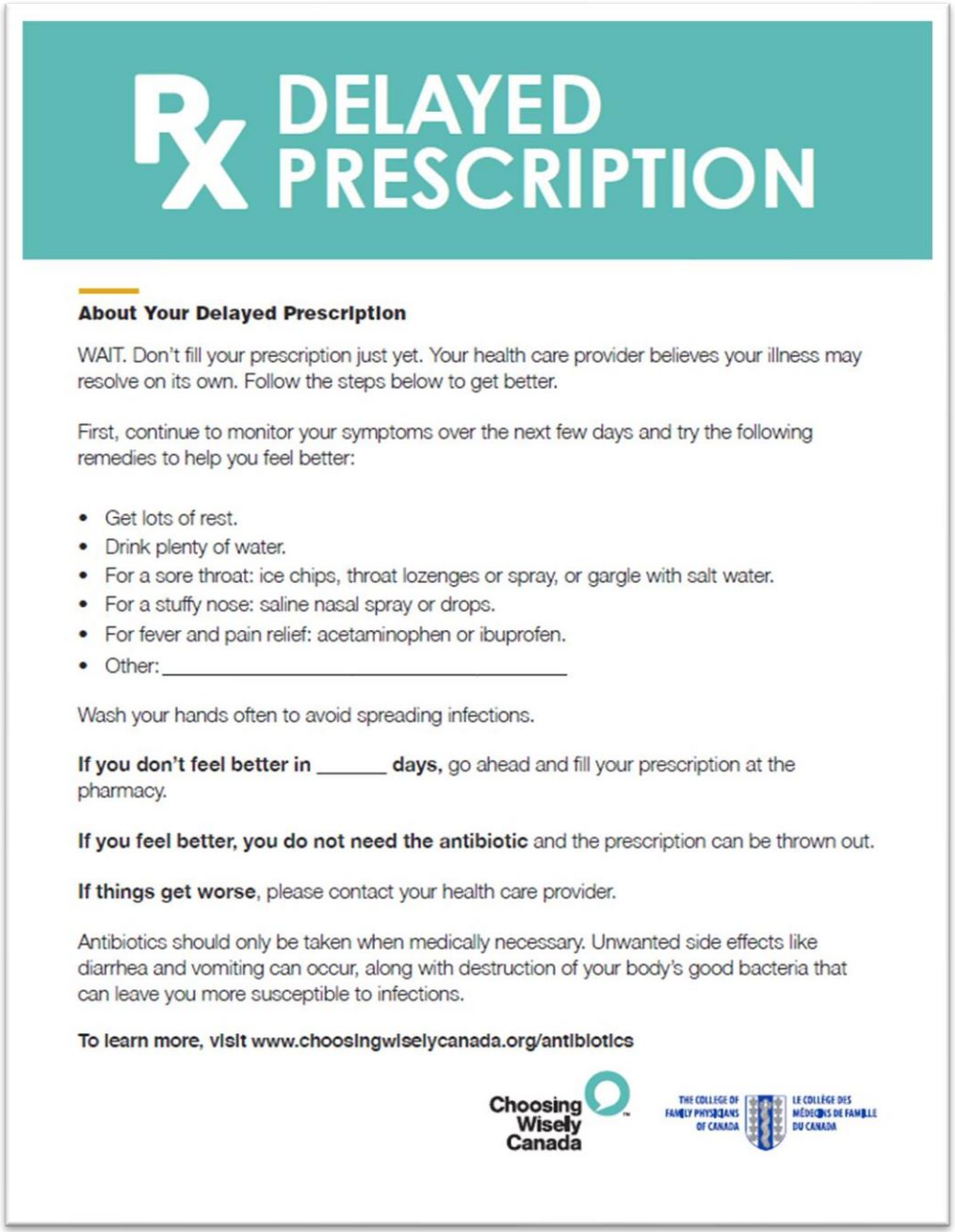
Otitis media

Specific Situations Where Antibiotics are Recommended	Recommended Antibiotic Duration	Tools to Support Management
Perforated drum with purulent discharge Bulging drum with either: • Fever >39 • Moderately or severely ill • Symptoms >48 hours	Age 6 mo- 2 years: 10 days Age >2 years: 5 days	Delayed prescription if >2 years old

Delayed Prescription

- **Available languages:**
  - English, French, Simplified Chinese, Spanish, Arabic, Punjabi and Tagalog

Decreases antibiotic use
No difference in satisfaction



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.

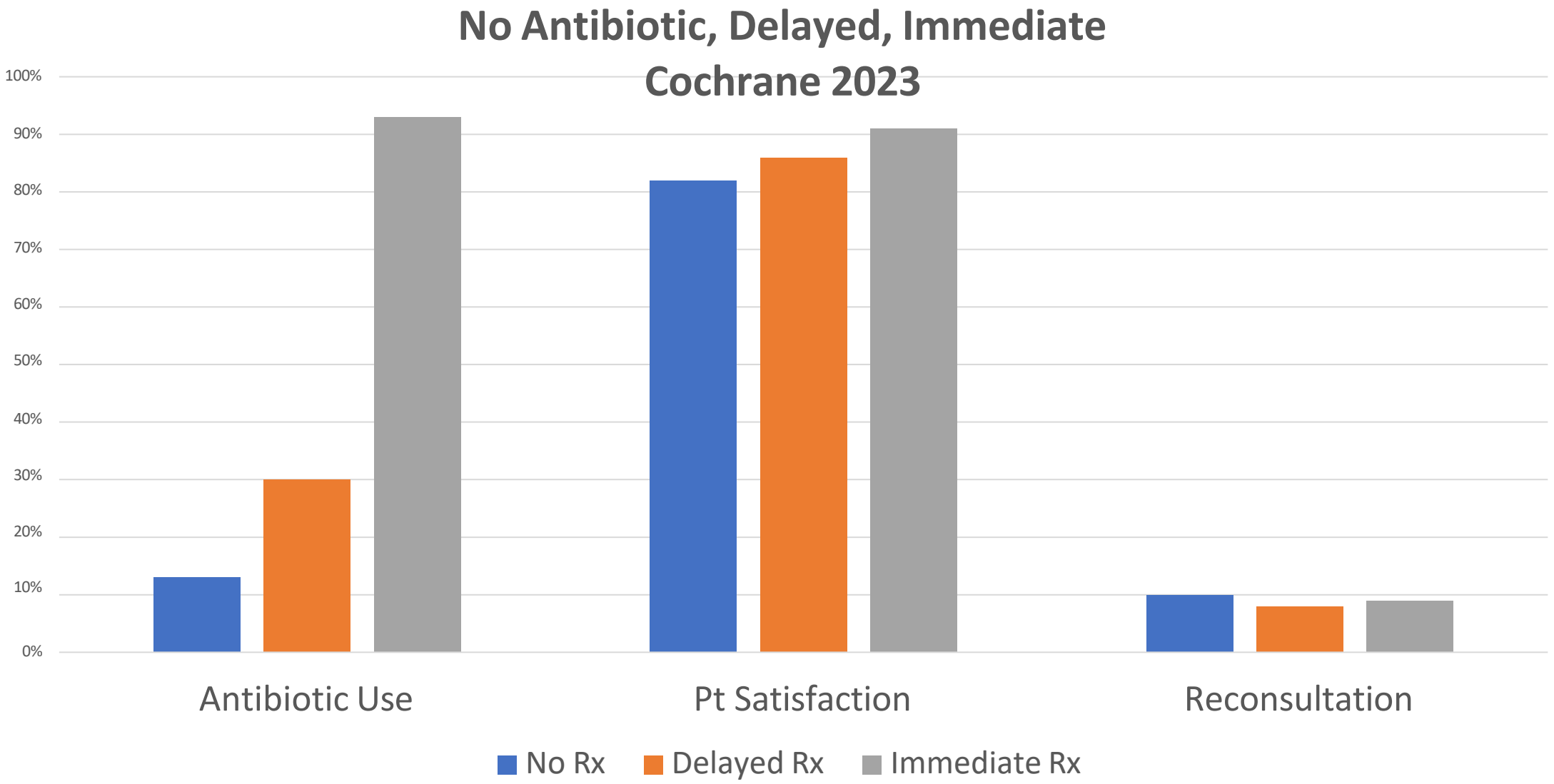
If things get worse, please contact your health care provider.

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

Choosing Wisely Canada

THE COLLEGE OF FAMILY PHYSICIANS OF CANADA | LE COLLÈGE DES MÉDECINS DE FAMILLE DU CANADA



Cochrane Database Syst Rev. 2023 Oct 4;10(10):CD004417.

Considerations for observation vs. delayed prescription

Provider/Setting:

- What is your/your clinic availability for follow-up?

Patient/Caregiver:

- Can the patient travel?
- Can the caregiver be relied upon to be re-evaluated?
- Is there a complete understanding/clear communication?

Pharyngitis

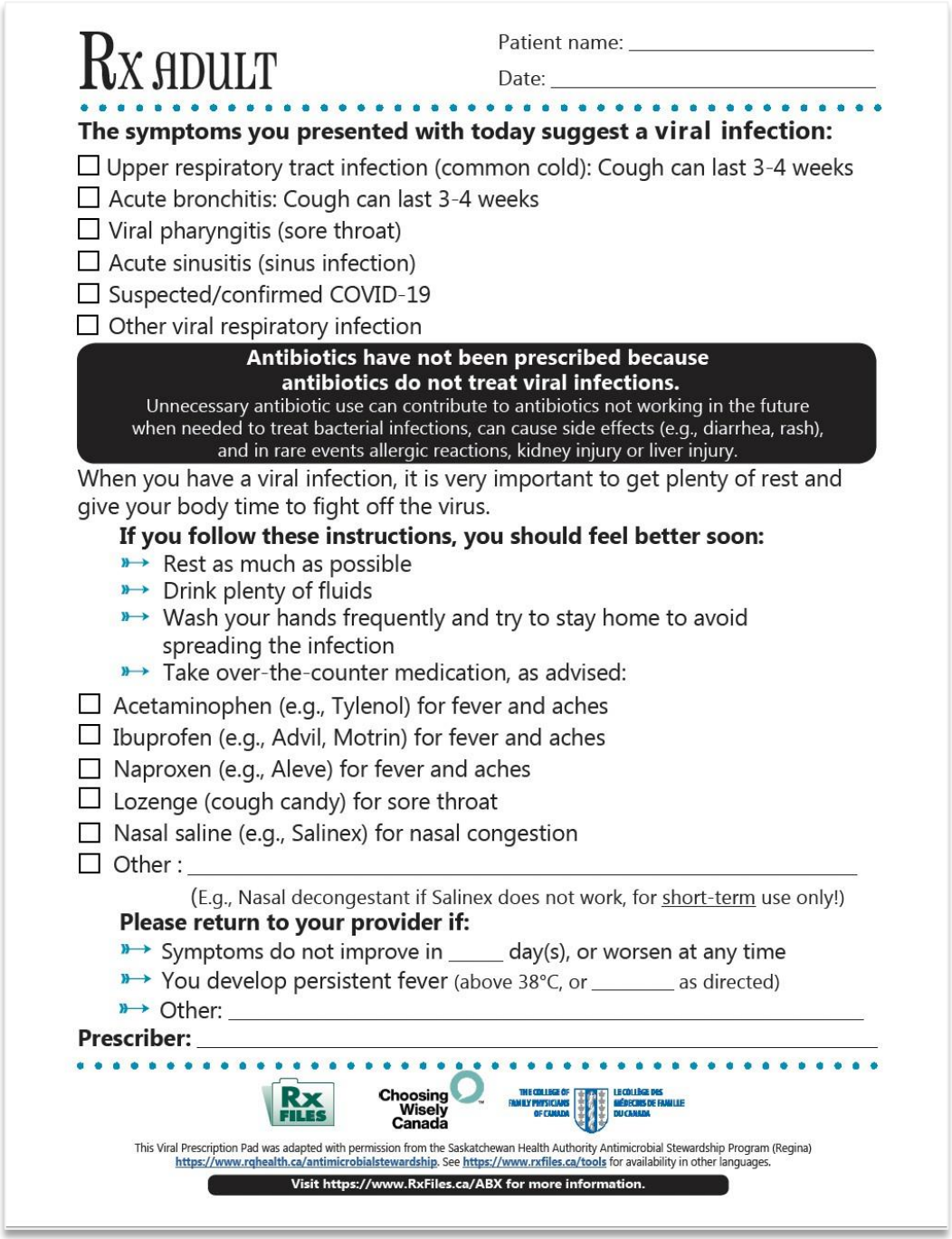
Specific Situations Where Antibiotics are Recommended	Recommended Antibiotic Duration	Tools to Support Management
Centor score >= 2 AND throat swab (or rapid strep) positive Don't do swabs for Centor <=1 Or if accompanying symptoms of rhinooreha, oral ulcers or hoarseness. Positive swab in this siuation is likely colonization.	10 days	Adult or pediatric viral prescription Rapid strep if Centor >= 2

Viral Prescription (Adult)

Available languages:
English, French, Arabic, Chinese (Traditional and Simplified), Farsi (Persian), German, Hindi, Romanian, Russian, Spanish, Ukrainian, Urdu

Available via EMR

Satisfaction linked to reassurance, info, and symptom relief



Rx ADULT

Patient name: _____

Date: _____

The symptoms you presented with today suggest a viral infection:

- ☐ Upper respiratory tract infection (common cold): Cough can last 3-4 weeks
- ☐ Acute bronchitis: Cough can last 3-4 weeks
- ☐ Viral pharyngitis (sore throat)
- ☐ Acute sinusitis (sinus infection)
- ☐ Suspected/confirmed COVID-19
- ☐ Other viral respiratory infection

Antibiotics have not been prescribed because antibiotics do not treat viral infections.
Unnecessary antibiotic use can contribute to antibiotics not working in the future when needed to treat bacterial infections, can cause side effects (e.g., diarrhea, rash), and in rare events allergic reactions, kidney injury 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 and try to stay home to avoid spreading the infection
- ➳ Take over-the-counter medication, as advised:

- ☐ Acetaminophen (e.g., Tylenol) for fever and aches
- ☐ Ibuprofen (e.g., Advil, Motrin) 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: _____

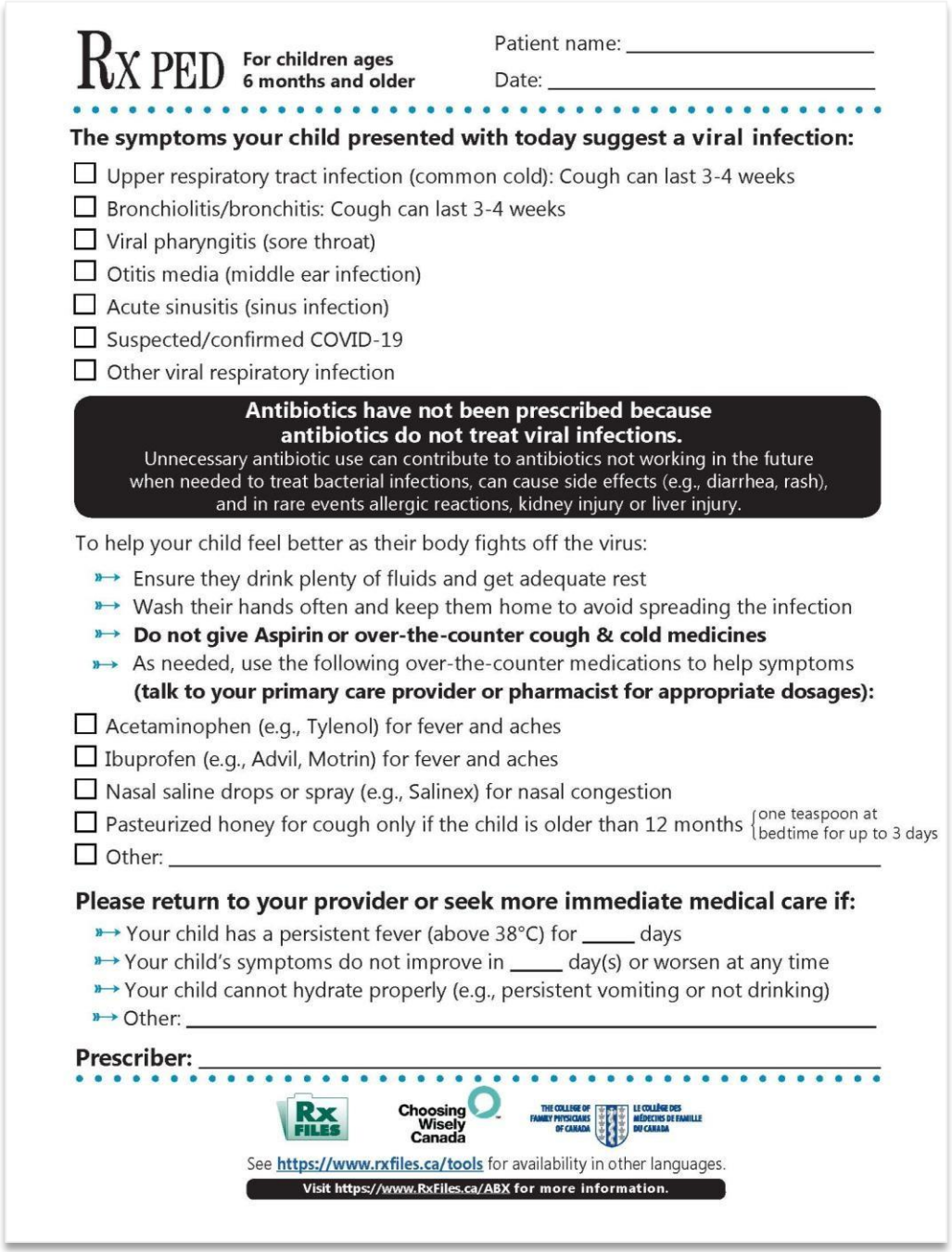
Rx FILES · Choosing Wisely Canada · The College of Family Physicians of Canada · Le Collège des médecins de famille du Canada

This Viral Prescription Pad was adapted with permission from the Saskatchewan Health Authority Antimicrobial Stewardship Program (Regina) https://www.rqhealth.ca/antimicrobialstewardship. See https://www.rxfiles.ca/tools for availability in other languages.

Visit https://www.RxFiles.ca/ABX for more information.

Viral Prescription (Children)

The pediatric viral prescription pad provides other ways to help relieve symptoms to avoid unnecessary antibiotic prescriptions.



Rx PED For children ages 6 months and older

Patient name: _____

Date: _____

The symptoms your child presented with today suggest a viral infection:

- ☐ Upper respiratory tract infection (common cold): Cough can last 3-4 weeks
- ☐ Bronchiolitis/bronchitis: Cough can last 3-4 weeks
- ☐ Viral pharyngitis (sore throat)
- ☐ Otitis media (middle ear infection)
- ☐ Acute sinusitis (sinus infection)
- ☐ Suspected/confirmed COVID-19
- ☐ Other viral respiratory infection

Antibiotics have not been prescribed because antibiotics do not treat viral infections.
Unnecessary antibiotic use can contribute to antibiotics not working in the future when needed to treat bacterial infections, can cause side effects (e.g., diarrhea, rash), and in rare events allergic reactions, kidney injury or liver injury.

To help your child feel better as their body fights off the virus:

- ➳ Ensure they drink plenty of fluids and get adequate rest
- ➳ Wash their hands often and keep them home to avoid spreading the infection
- ➳ **Do not give Aspirin or over-the-counter cough & cold medicines**
- ➳ As needed, use the following over-the-counter medications to help symptoms **(talk to your primary care provider or pharmacist for appropriate dosages):**

- ☐ Acetaminophen (e.g., Tylenol) for fever and aches
- ☐ Ibuprofen (e.g., Advil, Motrin) for fever and aches
- ☐ Nasal saline drops or spray (e.g., Salinex) for nasal congestion
- ☐ Pasteurized honey for cough only if the child is older than 12 months { one teaspoon at bedtime for up to 3 days
- ☐ Other: _____

Please return to your provider or seek more immediate medical care if:

- ➳ Your child has a persistent fever (above 38°C) for _____ days
- ➳ Your child's symptoms do not improve in _____ day(s) or worsen at any time
- ➳ Your child cannot hydrate properly (e.g., persistent vomiting or not drinking)
- ➳ Other: _____

Prescriber: _____

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See https://www.rxfiles.ca/tools for availability in other languages.

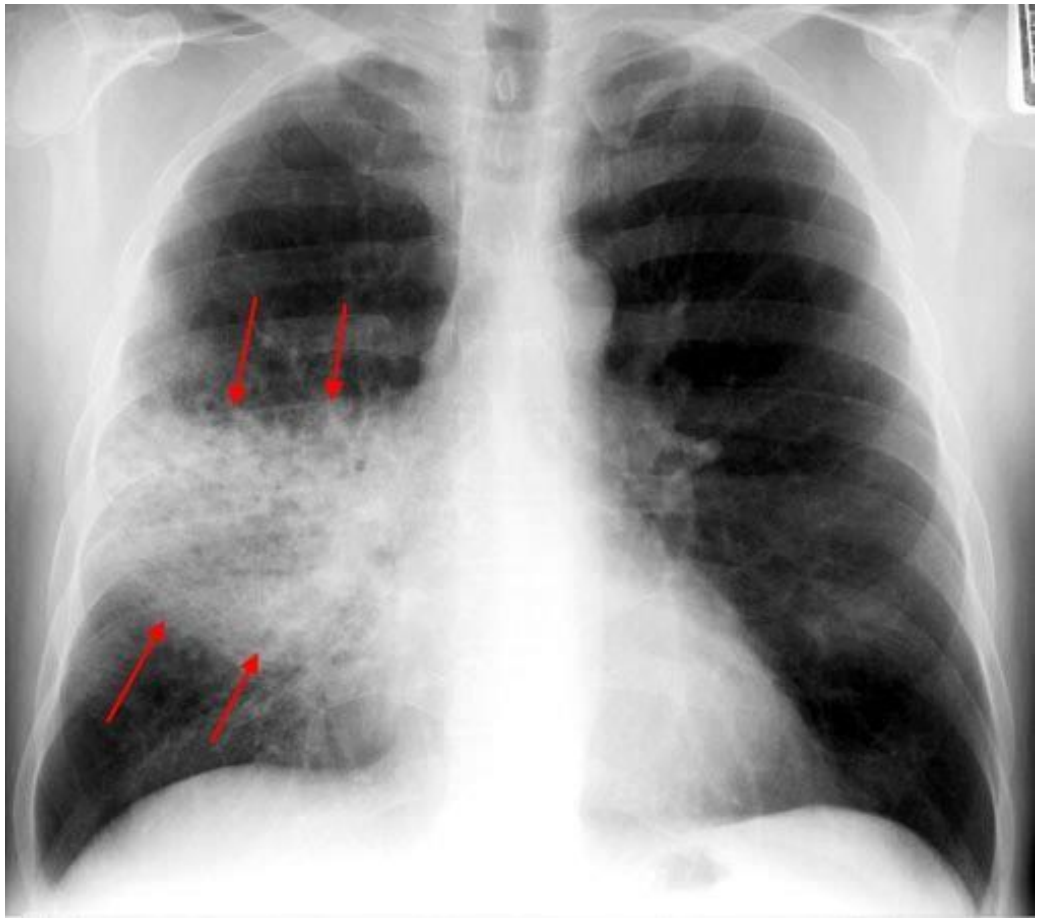
Visit https://www.RxFiles.ca/ABX for more information.

Sinusitis

Specific Situations Where Antibiotics are Recommended	Recommended Antibiotic Duration	Tools to Support Management
2 of **PODS** symptoms, one of **O** or **D** AND Symptoms >7-10 days OR Symptoms are severe OR No response after 72 hour trial of nasal corticosteroids **P**= facial **P**ain/pressure/fullness **O**= Nasal **O**bstruction **D**= Purulent nasal **D**ischarge **S**= hyposmia/anosmia (**S**mell)	5 days	Adult or pediatric viral prescription for vast majority

Pneumonia – need objective evidence

- Physical exam alone not sufficient
  - A wet cough or crackles on exam are not diagnostic of PNA
- Do not prescribe unless:
  - CXR confirms presence of new consolidation
- Normal vital signs & no findings on physical exam
  - Unlikely to be pneumonia
  - No CXR needed



Pneumonia

Specific Situations Where Antibiotics are Recommended	Recommended Antibiotic Duration	Tools to Support Management
Compatible symptoms AND CXR confirmation No CXR unless abnormal vital signs or physical findings	5 days	Immediate antibiotics

Exacerbation of COPD

Specific Situations Where Antibiotics are Recommended	Recommended Antibiotic Duration	Tools to Support Management
Increase in sputum purulence with either increase in volume and/or increased dyspnea	5 days	Inhalers and steroids and antibiotics only if meets criteria

Bronchitis/Asthma

Specific Situations Where Antibiotics are Recommended	Recommended Antibiotic Duration	Tools to Support Management
Not indicated	Not indicated	Adult or pediatric viral prescription

Bronchiolitis

- Viral infection with wheezing and respiratory distress, usually children <2 years old
- Treatment is symptomatic
- No indication for antibiotics

- (also no indication for bronchodilators or corticosteroids!)

Double Harm of Chest X-Rays

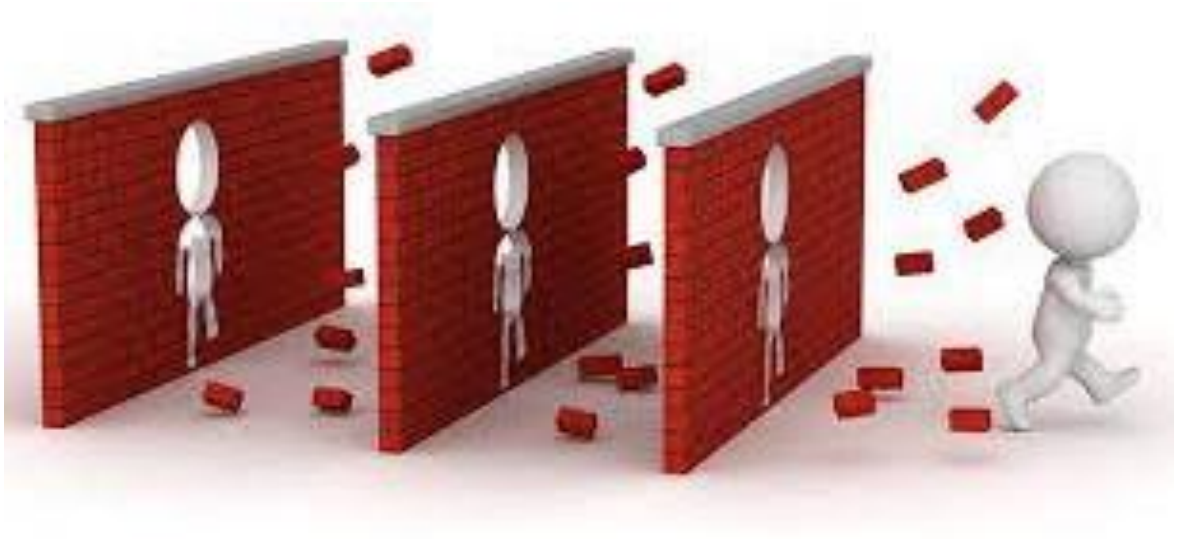
- Unnecessary radiation
  - CXR often ordered as exam findings can be inconclusive with bronchiolitis

- Unnecessary antibiotics use
  - **Infants undergoing CXR at least 10 times more likely to receive antibiotics**
  - False positive misinterpreted as pneumonia
  - Prevalence of underlying secondary bacterial infection is low

SAY NAY TO THE X-RAY

Diagnosing bronchiolitis should be based on history and physical examination. Using chest X-rays can lead to an incorrect diagnosis of bacterial pneumonia and unnecessary antibiotic treatment.

What are the barriers to not prescribing antibiotics for viral URTIs in your practice?




I've always done this
The patient wants it
Time constraints
Better to do something than do nothing

What Are Patient/Caregiver Expectations?

- MDs were wrong about 50% time about whether or not parents expected antibiotics.
  - Better knowing if parents did not want antibiotics (75% correct) than DID want antibiotics (41% correct)

- IF MD thought they wanted an antimicrobial, they prescribed them 62% of the time versus 7% of the time when they did not think the parent wanted them.

Mangione-Smith et al. Pediatrics. 1999; 103 (4) 711-718.
McNulty et al. BMJ Open. 2019; 9(10).

What Are Patient/Caregiver Expectations?

- Clear information about diagnosis
- Advice on symptom relief
- Reassurance
- Safety net advice (ie. Contingency plan)– follow-up instructions if things don't improve and/or what to look out for
- Patients are receptive to communication that stresses the impact of antibiotic overuse

Mangione-Smith et al. Pediatrics. 1999; 103 (4) 711-718.
McNulty et al. BMJ Open. 2019; 9(10).

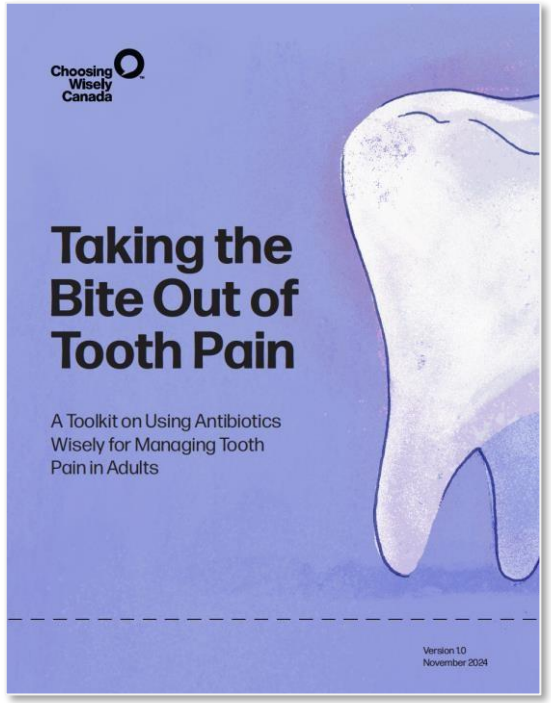
Takes too much time! ….or?

3764 visits (1995-2000); U.S. primary care practices

- Dx: acute URTI, nasopharyngitis, bronchitis, sinusitis, pharyngitis, AOM; age 18-60 (mostly healthy patients)
- Antibiotics prescribed 67% of the time
- When antibiotic prescribed: 14.2 minutes
- When antibiotic not prescribed: 15.2 minutes
- Multivariate analysis : 42 sec less (CI : 0 sec – 78 sec less)

Linder JA et al., Clin Ther 2003 25(9):2419-30

New Toolkit For Dentists and Community Providers



Target Audience

- dentists, physicians, and other healthcare professionals managing adults presenting with tooth pain in settings where dental treatment may or may not be immediately available

Purpose

- reduce inappropriate prescriptions of antibiotics for tooth pain with useful chairside aids and patient engagement tools

Non-Dental Settings

Standardized Approach to Managing Tooth Pain in Adults

Symptom(s)	Recommendation	Tools
Pain +/- localized swelling (i.e., adjacent to the tooth root)	Pain management[10,11,12] + recommend dentistry follow up for definitive diagnosis and management	Tooth Pain Prescription Poster FAQ - Patients
Pain +/- localized swelling (i.e., adjacent to the tooth root) and **systemic involvement** (i.e., fever, malaise, trismus, spreading swelling to face)	Pain management[10,11,12] and antibiotic[13,14,15] + Recommend urgent dentistry follow-up for definitive diagnosis and management	Antibiotic Treatment For Tooth Pain with Systemic Signs Of Infection FAQ - Health Care Providers FAQ - Patients

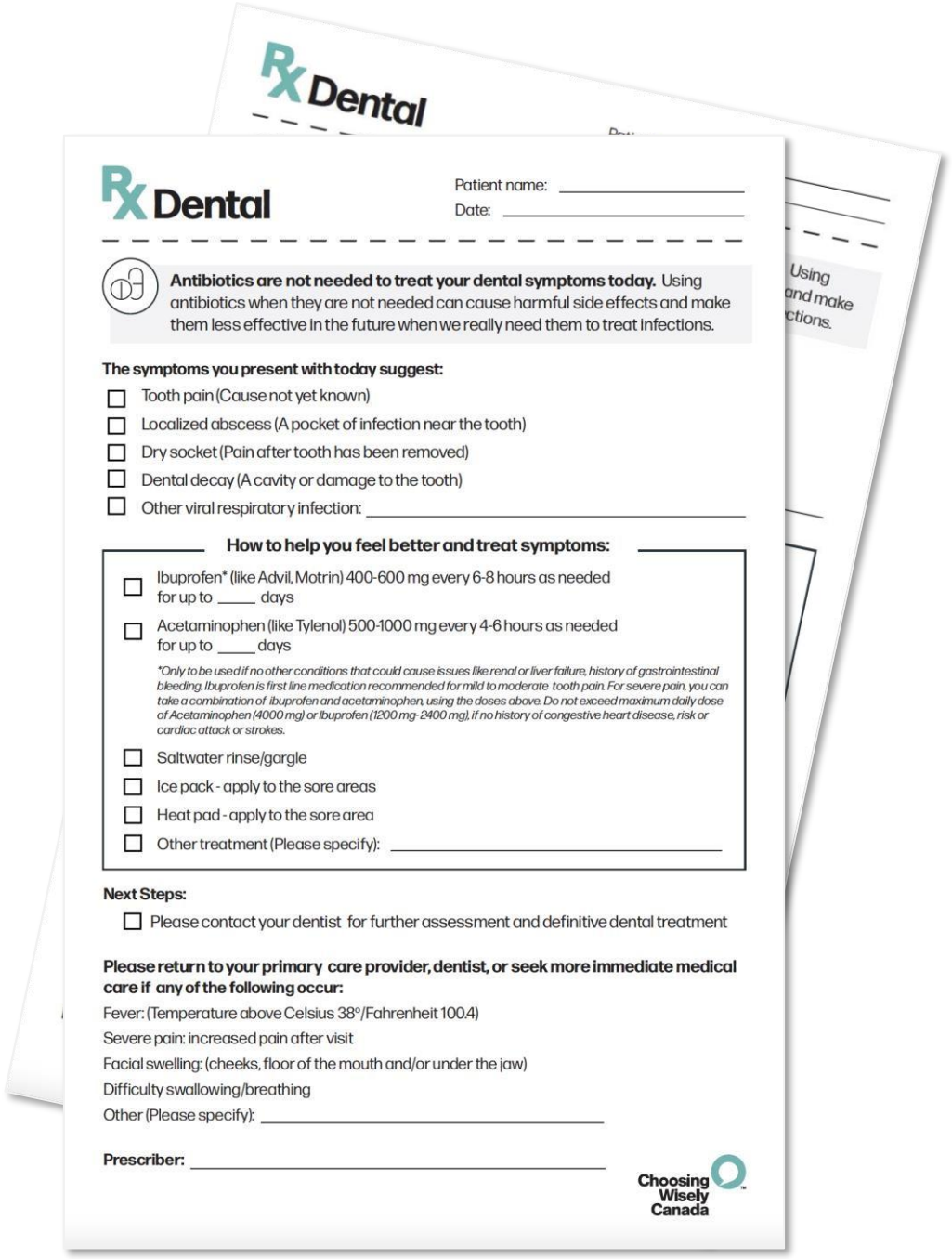
Dental Settings

Standardized Approach to Managing Tooth Pain in Adults

Symptom(s)	Clinical Finding(s)	Treatment	Recommendation	Tools
Pain Only	**Vital Tooth**	Investigate further to identify and treat cause	Pain Management[10,11,12]	Tooth Pain Prescription Poster FAQ - Patients
	Non-Vital Tooth	Root canal therapy or dental extraction		
Pain and Swelling	**Non-Vital Tooth** with localized periapical abscess with/ without drainage	Root canal therapy, or dental extraction +/- incision and drainage of the abscess	Pain Management[10,11,12]	Antibiotic Guidelines FAQ - Health Care Providers FAQ - Patients
	Non-Vital Tooth with periapical abscess and **Systemic Involvement** (i.e., fever, trismus, malaise, spreading facial swelling)	Root canal therapy or dental extraction +/- incision and drainage of the abscess	Pain Management + Antibiotic [13,14,15] Re-evaluate efficacy of treatment after 2 days/48 hours in person, virtually, or via phone call	

Dental Prescription

Provides other ways to manage pain without antibiotics



Rx Dental

Patient name: _____

Date: _____

Antibiotics are not needed to treat your dental symptoms today. Using antibiotics when they are not needed can cause harmful side effects and make them less effective in the future when we really need them to treat infections.

The symptoms you present with today suggest:

- ☐ Tooth pain (Cause not yet known)
- ☐ Localized abscess (A pocket of infection near the tooth)
- ☐ Dry socket (Pain after tooth has been removed)
- ☐ Dental decay (A cavity or damage to the tooth)
- ☐ Other viral respiratory infection: _____

How to help you feel better and treat symptoms:

- ☐ Ibuprofen* (like Advil, Motrin) 400-600 mg every 6-8 hours as needed for up to _____ days
- ☐ Acetaminophen (like Tylenol) 500-1000 mg every 4-6 hours as needed for up to _____ days

**Only to be used if no other conditions that could cause issues like renal or liver failure, history of gastrointestinal bleeding. Ibuprofen is first line medication recommended for mild to moderate tooth pain. For severe pain, you can take a combination of ibuprofen and acetaminophen, using the doses above. Do not exceed maximum daily dose of Acetaminophen (4000 mg) or Ibuprofen (1200 mg-2400 mg), if no history of congestive heart disease, risk or cardiac attack or strokes.*

- ☐ Saltwater rinse/gargle
- ☐ Ice pack - apply to the sore areas
- ☐ Heat pad - apply to the sore area
- ☐ Other treatment (Please specify): _____

Next Steps:

- ☐ Please contact your dentist for further assessment and definitive dental treatment

Please return to your primary care provider, dentist, or seek more immediate medical care if any of the following occur:

Fever: (Temperature above Celsius 38°/Fahrenheit 100.4)

Severe pain: increased pain after visit

Facial swelling: (cheeks, floor of the mouth and/or under the jaw)

Difficulty swallowing/breathing

Other (Please specify): _____

Prescriber: _____

Choosing Wisely Canada

Cellulitis

- Make sure of the diagnosis (stasis dermatitis, DVT, insect bite reaction)!
- Uncomplicated non-purulent: 5-7 days
- Skin abscess – incision and drainage!
  - if >2cm, or if MRSA suspected – consider antibiotics for 7 days

AMMI guidelines : doi:10.3138/jammi-2021-04-29

Cystitis

- Antibiotics are indicated
- Duration can be shortened:
  - Nitrofurantoin - 5 days
  - Beta-lactams, TMP-SMX - 3 days
  - Fosfomycin - 1 day

Ciprofloxacin NOT indicated first line – resistance increasing, risk of C. difficile increased

ADULT GRAM-NEGATIVE (≥18 years old)	*n*	Ampicillin	Amoxicillin/ Clavulanate (PO)	Piperacillin/ Tazobactam	Cephalexin[a]	Cefixime	Ceftazidime	Ceftriaxone	Ertapenem	Meropenem	Imipenem	Gentamicin	Tobramycin	Ciprofloxacin	Levofloxacin	Trimethoprim/ Sulfamethoxazole	Nitrofurantoin[a]
Citrobacter freundii complex	90	R	R	[b]	R	[b]	[b]	[b]	99	99		93	89	71		77	91
Citrobacter koseri	49	R	96	98		98		98	100	100		100	100	96		98	80
Enterobacter cloacae complex	249	R	R	[b]	R	[b]	[b]	[b]	90	99		98	96	87		89	44
Escherichia coli (ALL)	1727	54	76	97	83	83		86	100	100		91	91	63		75	96
Escherichia coli (ESBL only)	208	R			R	R	R	R	100	100		71	66	5		44	88
Haemophilus influenzae	80	76															
Klebsiella (Enterobacter) aerogenes	49	R	R	[b]	R	[b]	[b]	[b]	100	100		100	100	92		98	
Klebsiella oxytoca	135	R	94	96		98		96	100	100		99	99	93		93	82
Klebsiella pneumoniae	438	R	92	96	92	93		93	100	100		97	97	83		89	32
Morganella morganii	48	R	R	[b]	R	[b]	[b]	[b]	100	100		83	96	79		79	R
Proteus mirabilis	180	85	96	100	97	98		98	100	100		91	93	87		80	R
Pseudomonas aeruginosa (CF)	106	R	R	90		R	82	R	R	85	73		84	67		R	
Pseudomonas aeruginosa (non-CF)	481	R	R	95		R	91	R	R	92	89		97	83		R	
Serratia marcescens	63	R	R	[b]	R	[b]	[b]	[b]	100	100		100	97	92		98	R
Stenotrophomonas maltophilia	160	R	R	R			41	R	R	R	R	R	R		91	99	

Underlined values represent a ≥10% decrease from the previous year.

[a]Urinary tract isolates only with at least 30 unique isolates only.

[b]This organism may develop resistance to third generation cephalosporins and beta-lactam/beta-lactamase inhibitor combinations *in vivo*.


LITTLE YELLOW INFECTION CONTROL BO
NARY TRACT INFEC
IT IS A BACTERI
BU A SYMPTO JTI?
plans Region Infection Control
2019

Asymptomatic Bacteriuria in the elderly

- Prevalence: Women 25-50%; Men 15-35%; Catheterized >30d 100%

- Overtreating as “infection” is an international problem
  - inappropriate prescribing has been found in 35% to 93% of antibiotic prescriptions for UTIs in patients living in nursing homes

PHO UTI Program in LTC:
Reduced cultures by 29%, urinary antibiotics by 41% and overall antibiotics by 27%

The UTI Program: Five Practice Changes

Loeb Minimum Criteria for Ordering Urine Cultures in Nursing Home Residents

1. Fever >37.9 degrees C or 1.5 degree increase from baseline on 2 occasions over 12 hours

- PLUS 1 or more of dysuria, urinary catheter, urgency, flank pain, shaking chills, urinary incontinence, frequency, gross hematuria and/or suprapubic pain

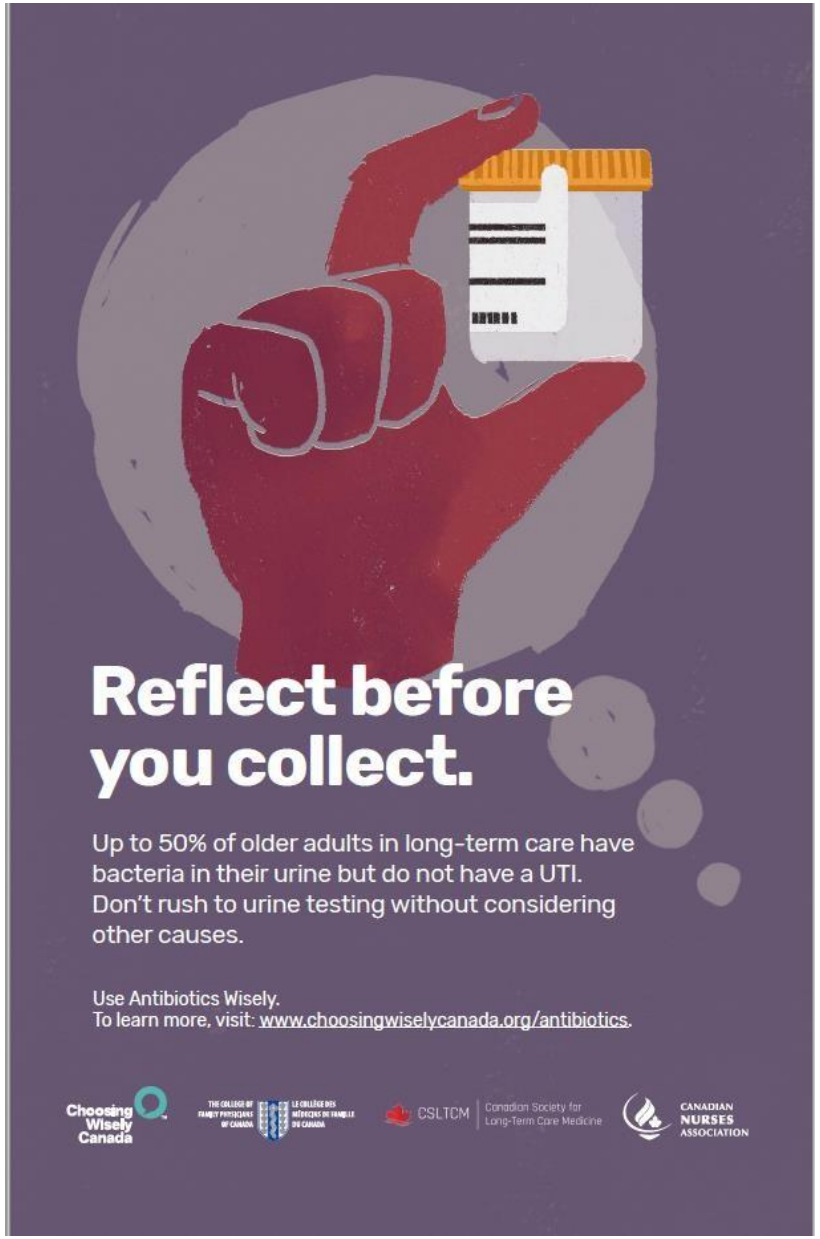
2. Indwelling catheter and no other identifiable causes of infection

- PLUS 1 or more: new costovertebral tenderness, rigors and/or new-onset delirium (if OTHER sources of delirium have been ruled out)

3. New onset dysuria or 2 or more urgency, flank pain, shaking chills, urinary incontinence, frequency, gross hematuria and/or suprapubic pain

Use of Dipsticks in the elderly?

- Public Health Ontario - The use of dipsticks as a screening tool in suspected UTIs in the elderly is NOT recommended
- Choosing Wisely Canada - Don't perform urine dipstick/urinalysis to diagnose a UTI
- Public Health England - against the use of urine dipsticks in frail older patients


Reflect before you collect.
Up to 50% of older adults in long-term care have bacteria in their urine but do not have a UTI. Don't rush to urine testing without considering other causes.
Use Antibiotics Wisely.
To learn more, visit: www.choosingwiselycanada.org/antibiotics.
Choosing Wisely Canada
CSLTCM
Canadian Society for Long-Term Care Medicine
CANADIAN NURSES ASSOCIATION

Antimicrobial Stewardship Principles for clinicians: 3 daily opportunities

Initiation

- Preventing Infections
- Judicious and appropriate lab testing
- Treat infection, not colonization

Choice

- Use correct dose and frequency
- Verify / Confirm allergies
- Use local resistance patterns to guide empiric choices

Duration

- Narrow therapy when causative agent identified
- Discontinue therapy if cultures are negative
- Use shortest duration

Public Health Ontario | Santé publique Ontario

Login

Antimicrobial Stewardship in Primary Care

We promote and support antimicrobial stewardship to improve and optimize antimicrobial therapy and clinical outcomes for patients in primary care. In Canada, it has been estimated over 90% of antibiotics dispensed are used in the community. Antimicrobial stewardship promotes the judicious use of antimicrobials to limit the development of antimicrobial resistant organisms.

PHO recognizes the growing interest and activity in antimicrobial stewardship in primary care. We offer our new resources to encourage antimicrobial stewardship in that setting. For more information see **frequently asked questions** or contact **asp@oahpp.ca**.

MyPractice
Primary Care

A tailored report for quality care

MyPractice: Primary Care Report

Overall Indicators Summary

	My FHT's Prescribing Rate is Higher Than Most of Family Health Teams (higher than 60% of my peers)	My FHT's Prescibing Rate is Around Average (between 25th - 60th percentile)	My FHT's Prescribing Rate is Better Than Most of Family Health Teams (lower than 75% of my peers)
Antibiotic Prescribing in my FHT (pages 5-8) NEW	Antibiotic Initiation Antibiotic Prolonged Treatment	None	None

Audit and Feedback Ontario

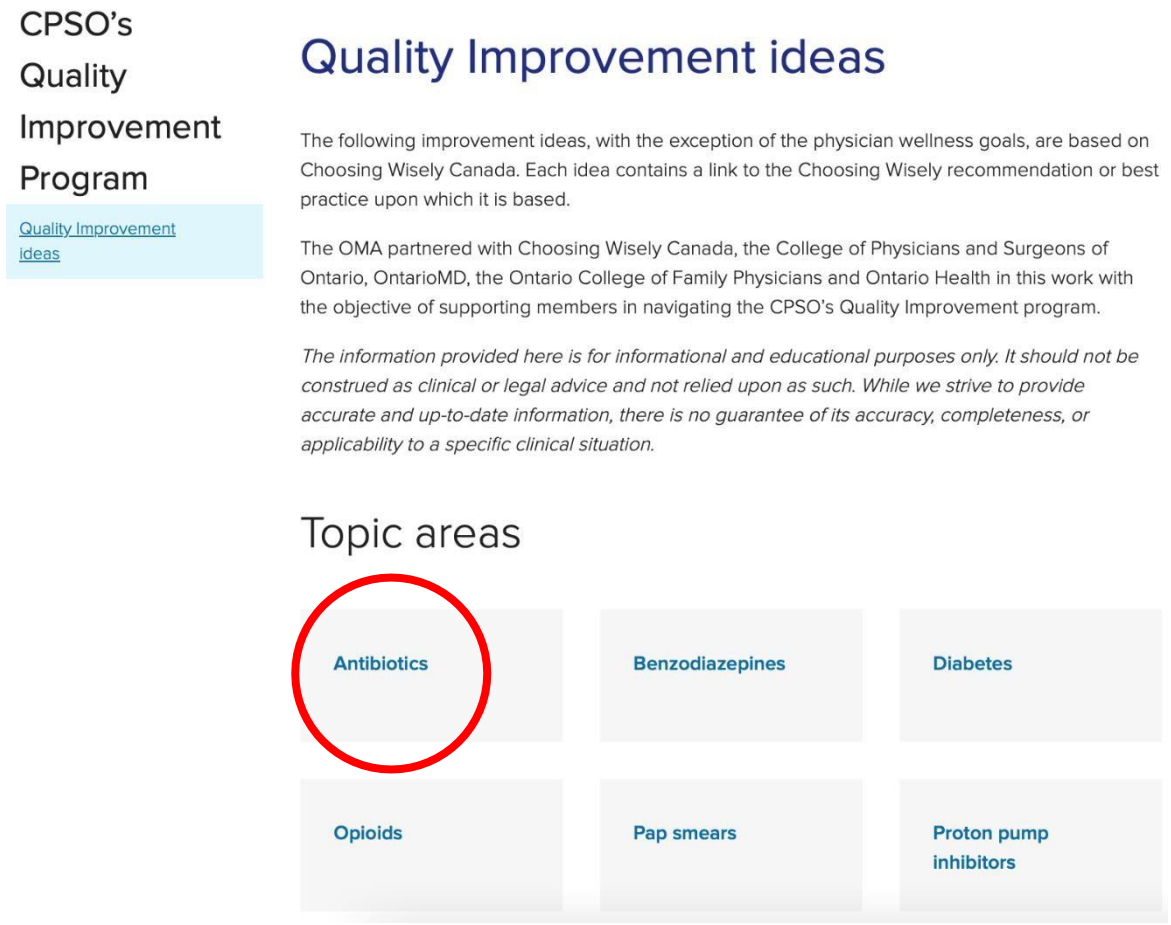
Family physicians (N=5046) two letters with peer-compared, case-mix adjusted feedback, harms messaging, neither or both on total antibiotic Rx and duration for 65+ year olds (limited by only 1/3 opening the letters)

- Overall Rx reduced by 3.5/1000, long duration by 1.8/1000, broad-spectrum by 2.4/1000

High prescribers (N=3500) sent single letter targeting antibiotic initiation or duration compared to no letter, comparing to peers.

- 4.2% relative difference in overall prescribing and $1.7 million
- 8.1% relative difference in prolonged Rx

QI in a box
OMA/CPSO/OCFP/Choosing Wisely



CPSO's Quality Improvement Program

Quality Improvement ideas

Quality Improvement ideas

The following improvement ideas, with the exception of the physician wellness goals, are based on Choosing Wisely Canada. Each idea contains a link to the Choosing Wisely recommendation or best practice upon which it is based.

The OMA partnered with Choosing Wisely Canada, the College of Physicians and Surgeons of Ontario, OntarioMD, the Ontario College of Family Physicians and Ontario Health in this work with the objective of supporting members in navigating the CPSO's Quality Improvement program.

The information provided here is for informational and educational purposes only. It should not be construed as clinical or legal advice and not relied upon as such. While we strive to provide accurate and up-to-date information, there is no guarantee of its accuracy, completeness, or applicability to a specific clinical situation.

Topic areas

Antibiotics

Benzodiazepines

Diabetes

Opioids

Pap smears

Proton pump inhibitors

Antimicrobial Stewardship is in our hands!