Are you using antibiotics wisely?

Choosing Wisely Canada

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

30-50% OF ANTIBIOTICS PRESCRIBED FOR ACUTE RESPIRATORY INFECTIONS IN PRIMARY CARE ARE UNNECESSARY.

FAMILY PHYSICIANS LIKE **YOU** ARE KEY PARTNERS IN THE BATTLE AGAINST ANTIMICROBIAL RESISTANCE – AN EMERGING PUBLIC HEALTH THREAT.

KEY PRACTICE STATEMENTS

Below are key practice changes to help you optimize your antibiotic prescribing.

Using a viral prescription and/or a delayed prescription can be a better alternative to immediate use of antibiotics.

To learn more about the campaign or access evidence-informed resources, please visit:
www.choosingwiselycanada.org/antibiotics

UNCOMPLICATED OTITIS MEDIA

MOST CASES ARE VIRAL

You should consider antibiotics in vaccinated children > 6 months and adults **ONLY** in the following circumstances:

- The tympanic membrane is suspected to be perforated and there is a purulent discharge
- The tympanic membrane is red and bulging **WITH** one of the three following criteria:

1. A fever is present (≥ 39°C) **OR** 2. The patient is moderately or severely ill **OR** 3. Symptoms lasting > 48 hours

UNCOMPLICATED PHARYNGITIS

MOST CASES ARE VIRAL

You should consider antibiotics **ONLY** if a rapid strep test or a culture is **positive**.

You don't need a rapid strep test, or a culture **IF**:

1. Modified/McIsaac Centor score ≤ 1 **OR** 2. The patient has symptoms such as rhinorrhea, oral ulcers or hoarseness (these are signs of a viral infection)

MODIFIED/MCISAAC CENTOR SCORE	
Criteria	**Score**
Age 3-14 years	1
Age ≥ 45 years	-1
Tonsillar exudate	1
Tender or swollen lateral cervical lymph nodes	1
Temperature > 38° C	1
Absence of cough	1

UNCOMPLICATED SINUSITIS

MOST CASES ARE VIRAL

You should consider antibiotics **ONLY** in the following circumstance:

1. Symptoms have been present for at least 7 days **AND**
2. There are at least 2 of the **PODS** symptoms **AND**
3. One of the symptoms is O or D **AND**
4. The symptoms are severe **OR** they are still present after a 3 day trial of nasal corticosteroids

PODS	
P	Facial **P**ain, pressure, or fullness
O	Nasal **O**bstruction
D	Nasal purulence or discoloured postnasal **D**ischarge
S	Hyposmia or anosmia (**S**mell)

PNEUMONIA

Before giving an antibiotic prescription consider the following:

1. You should not make this diagnosis only on the basis of abnormal sounds (crackles) on lung exam.
2. You should confirm the presence of a new consolidation by a chest x-ray unless not possible in your setting.
3. Vaccinated children > 6 months and adults without vital sign abnormalities and a normal respiratory examination are unlikely to have a pneumonia. They most likely don't need a chest x-ray.

COPD EXACERBATIONS

You should not consider antibiotics unless there is a clear increase in sputum purulence **AND**:

1. Increase in sputum volume **AND/OR** 2. Increased dyspnea.

- **COMMON COLD**
- **INFLUENZA LIKE ILLNESS**
- **BRONCHITIS**
- **BRONCHIOLITIS**
- **ASTHMA EXACERBATIONS**

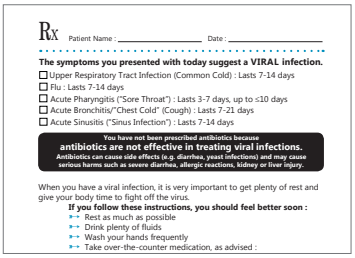
→ Antibiotics are never warranted in these syndromes **UNLESS** there is a super-imposed bacterial otitis, sinusitis or pneumonia that meets the above criteria.

RESOURCES

Please use the following link to access and download clinician tools, educational posters and other patient resources to support the recommended changes in your practice: **www.choosingwiselycanada.org/antibiotics**

You can also integrate the Viral Prescription and Delayed Prescription in your existing Electronic Medical Record by using the e-forms and instructions provided for Accuro, TELUS Health (PS Suite) and OSCAR.

VIRAL AND DELAYED PRESCRIPTION


Rx Patient Name : _____ Date : _____

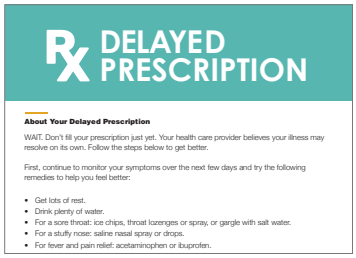
The symptoms you presented with today suggest a VIRAL infection.

☐ 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 :


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.

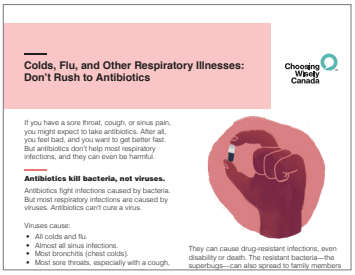
POSTERS FOR WAITING ROOMS


ANTIBIOTICS:
THREE QUESTIONS TO ASK YOUR HEALTH CARE PROVIDER

1) Do I really need antibiotics?
Antibiotics fight bacterial infections, like strep throat, whooping cough and bladder infections. But they don't fight viruses – like common colds, flu, or most sore throats and sinus infections. Ask if you have a bacterial infection.

2) What are the risks?
Antibiotics can cause unwanted side effects such as diarrhea

PATIENT PAMPHLETS


Colds, Flu, and Other Respiratory Illnesses: Don't Rush to Antibiotics

Choosing Wisely Canada

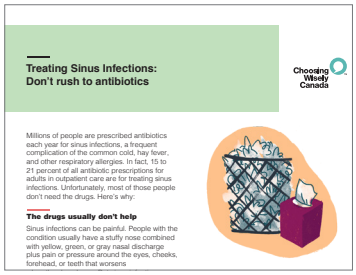
If you have a sore throat, cough, or sinus pain, you might expect to take antibiotics. After all, you feel bad, and you want to get better fast. But antibiotics don't help most respiratory infections, and they can even be harmful.

Antibiotics kill bacteria, not viruses.

Antibiotics fight infections caused by bacteria. But most respiratory infections are caused by viruses. Antibiotics can't cure a virus.

Viruses cause:
- All colds and flu.
- Almost all sinus infections.
- Most bronchitis (chest colds).
- Most sore throats, especially with a cough.

They can cause drug-resistant infections, even disability or death. The resistant bacteria—the superbugs—can also spread to family members


Treating Sinus Infections: Don't rush to antibiotics

Choosing Wisely Canada

Millions of people are prescribed antibiotics each year for sinus infections, a frequent complication of the common cold, hay fever, and other respiratory allergies. In fact, 15 to 21 percent of all antibiotic prescriptions for adults in outpatient care are for treating sinus infections. Unfortunately, most of those people don't need the drugs. Here's why:

The drugs usually don't help

Sinus infections can be painful. People with the condition usually have a stuffy nose combined with yellow, green, or gray nasal discharge plus pain or pressure around the eyes, cheeks, forehead, or teeth that worsens

Reducing low-value care for bronchiolitis patients

Physician Learning Program

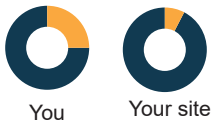
Inelda Gjata, Shawn Dowling, Antonia Stang, Charlene Feuffel, Christopher Rice, Maria-Alexandra Restrepo-Gonzalez, Joe McGillivray, Kelly Burak

Bronchiolitis is...

a viral respiratory infection

the leading cause of infant hospitalization in Canda

Low-value tests & medications increase costs, length of stay and do not improve patient outcomes. We aimed to:



Establish baseline management of bronchiolitis by pediatric emergency physicians

Deliver interdisciplinary group facilitated feedback session to identify strategies for practice improvement

Evaluate the effects of the intervention

Project timeline

Individual data reports and interdisciplinary group facilitated feedback session

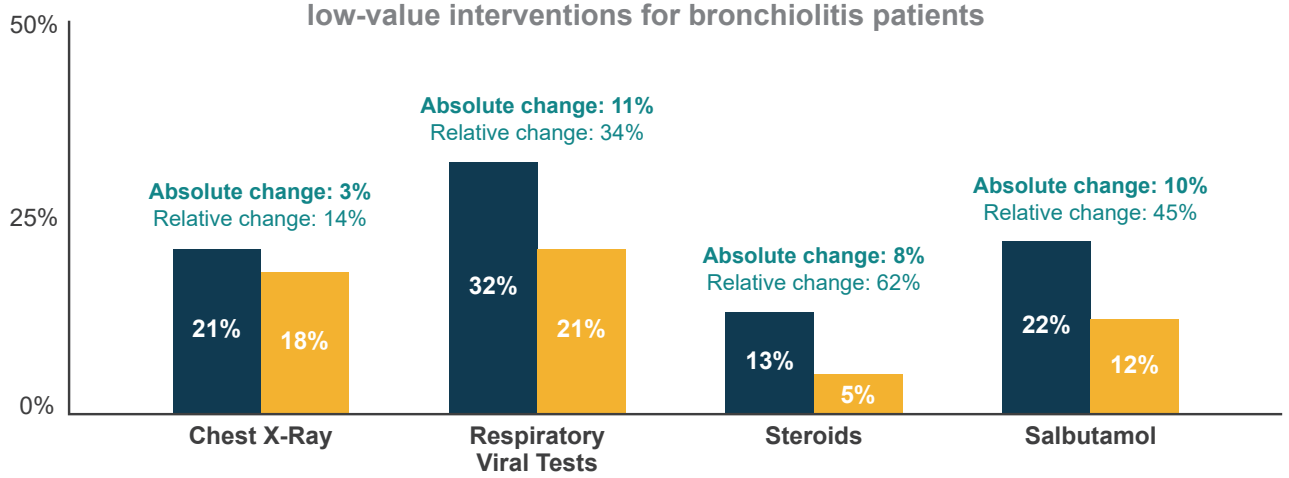
Discussion:
- Individual reflection on practice
- Care pathways
- Align with inpatient care
- Repeated data reports

Follow up:
- Interdisciplinary group facilitated feedback session
- individual data reports

Outcomes

Providing physicians with individual practice data along with identifying areas for improvement in a collaborative group setting is an effective way to reduce low-value care

Pre-Feedback Session and Post-Feedback Session Intervention usage rates of low-value interventions for bronchiolitis patients



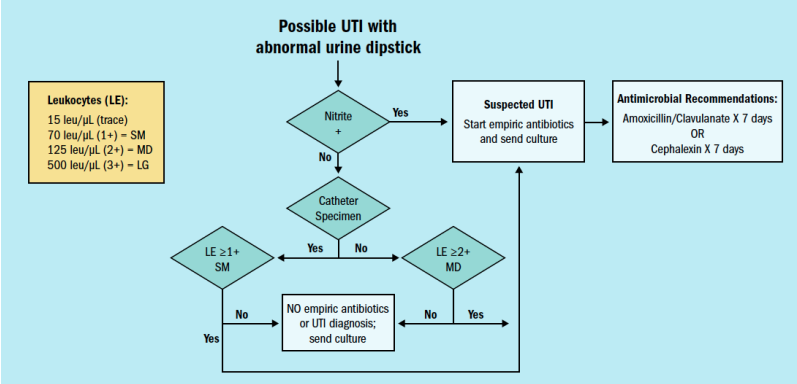
Urinary Tract Infections in the Paediatric Emergency Department: A Choosing Wisely Initiative to Promote Diagnostic and Antimicrobial Stewardship

Presenter: Olivia Ostrow, MD
Contact Info: Department of Paediatrics, Division of Emergency Medicine, The Hospital for Sick Children, 555 University Avenue, Toronto, Ontario, M5G 1X8, Telephone 416-813-2197, olivia.ostrow@sickkids.ca

Aim: To improve UTI diagnostic accuracy by 50% and promote antimicrobial stewardship through timely antibiotic discontinuation for negative cultures and standardized antimicrobial treatment duration for uncomplicated UTIs in a 12-month period

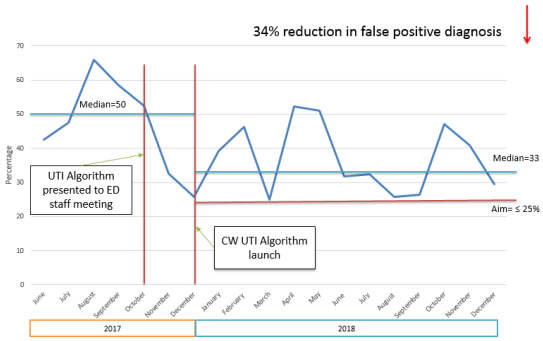
Multifaceted Intervention:

- An evidence-based empiric UTI diagnostic algorithm to aid with diagnostic decision-making
- A daily call-back system where patients were contacted to stop antibiotics with negative cultures
- An EMR practice alert as a reminder of the standardized antimicrobial prescription duration

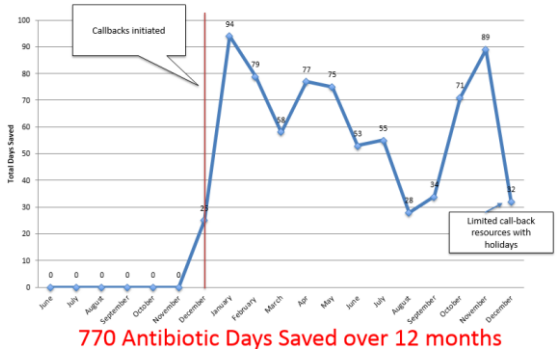


Impact

False Positive UTI Diagnosis



Total Antibiotic Days Saved By Month



770 Antibiotic Days Saved over 12 months

Challenges & Lessons Learned

- Consistency of call backs was variable and less likely to occur on weekends and holidays due to limited staffing.
- It takes time to change behaviour and motivate practice changes. Sometimes it's easier for outsiders to recognize the problem before those that are 'buried in the trenches'.
- The balancing measure only accounts for patients returning to our ED within 72 hours (1 return visit in 5 months), but there is the potential for some patients to have sought healthcare elsewhere
- Switching to a new hospital-wide EMR during implementation can lead to data and other delays.

Choosing Wisely NL

Decrease in Antibiotic Utilization by General Practitioners in NL

Choosing Wisely Canada Recommendations

1. Don't use antibiotics for upper respiratory infections that are likely viral in origin, such as influenza-like illness, or self-limiting, such as sinus infections of less than seven days of duration.
2. Don't prescribe antibiotics in adults with bronchitis/asthma and children with bronchiolitis.
3. Don't use antibiotics in adults and children with uncomplicated sore throats.
4. Don't use antibiotics in adults and children with uncomplicated otitis media.
5. Don't prescribe antibiotics for asymptomatic bacteriuria (ASB) in non-pregnant patients.

Practice Point

1. The rate of antibiotic prescriptions per 100 inhabitants in Canada is 64. The rate in NL per 100 inhabitants is 95.5.

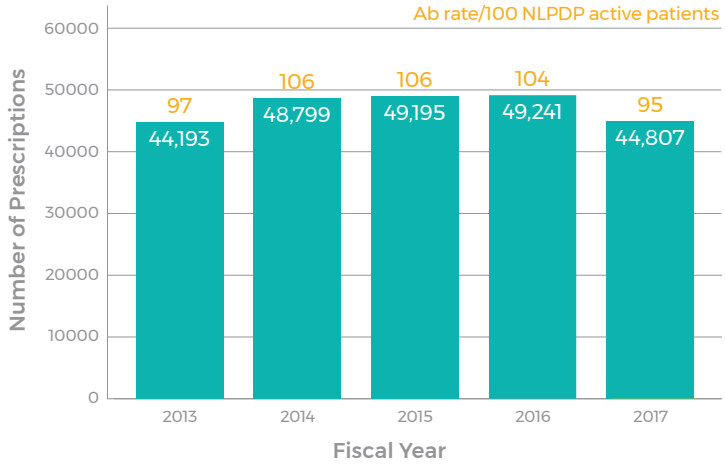
Method

1. Data was obtained from the NLPDP program for active patients aged 65 years and older (received at least one prescription for any drug) 1 Apr 2013–30 Mar 2018.

Results

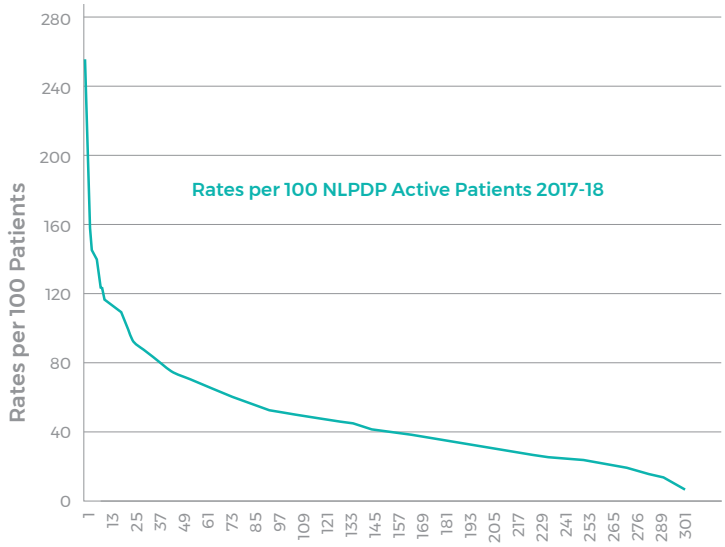
- 84% (N = 236,235) of antibiotic prescriptions were provided by General Practitioners (GPs).
- There is **9.0% decrease** in the number of antibiotics prescriptions by GPs in 2017 compared to 2016.

Number of Antibiotics Prescriptions Ordered by GPs by Fiscal Year



Note: The rate per 100 active patients in the NLPDP program is similar to that of NL per 100 inhabitants.

Rate of Antibiotics Prescription by GP



GPs with less than 10 antibiotics prescriptions are excluded

Limitation: some GPs may also have worked in Emergency Rooms (ER). Their rate includes both clinic and ER prescriptions.

Conclusions

1. During the past year, the volume of antibiotic prescriptions provided in the NLPDP program has decreased by 9.0%. However, antibiotic use remains high.
2. As part of an audit and feedback program, GPs will receive their personal data compared to their peers, both as an absolute volume and as a rate per 100 patients aged 65 years and older seen annually.