

November 20, 2018

To: All Health Care Practitioners

Subject: Prescribing Antibiotics

The overuse and misuse of antibiotics is contributing to the development of antibiotic resistance. Adults aged 60 years and older are prescribed antibiotics 1.5 times more than any other age group in Canada. Asymptomatic bacteriuria and upper respiratory infections, including sinusitis, are the most likely conditions where antibiotics are prescribed unnecessarily. Up to 80% of patients with asymptomatic bacteriuria receive antibiotics. This can lead to adverse events such as *C. difficile* infections. Antibiotics are rarely indicated for upper respiratory illnesses, which are often viral or, if bacterial, are typically self-limited.

Asymptomatic bacteriuria:

- The presence of bacteria in the bladder/urine without symptoms pertaining to the urinary tract is referred to as asymptomatic bacteriuria. This represents a colonization state rather than a bacterial infection.
- Pyuria (white blood cells in urine) is very common in asymptomatic bacteriuria and is not an indication for antibiotic therapy.
- Screening urine for bacteriuria or pyuria in an asymptomatic patient or a patient with non-specific symptoms is not recommended.
- Foul smelling, cloudy urine typically indicates dehydration and not a urinary tract infection. These alone are not an indication for sending a urine sample for analysis.
- Non-catheterized patients will typically have specific or localizing symptoms to the urinary tract, such as dysuria, frequency or urgency when a urinary tract infection is present (in older women, acute dysuria is the most discriminating symptom for a urinary tract infection).
- Do not attribute delirium to a urinary tract infection before considering:
 - Dehydration
 - New medication/drug interaction
 - Sleep disturbances
 - Trauma
 - Hypoxia
 - Hypoglycemia
 - Infections other than urinary tract infection

Upper respiratory infections:

- Don't prescribe antibiotics in older adults for:
 - Bronchitis
 - Uncomplicated sore throats (note that strep throat is uncommon in older adults)
 - Uncomplicated otitis media
 - Upper respiratory infections, including influenza-like illness as these tend to be viral in origin
 - Sinus infections of less than seven days in duration
 - Cough, unless bacterial pneumonia is suspected. The mean duration of a viral cough is 18 days. Note that tachypnea is an important sign that may indicate pneumonia.
 - Acute asthma exacerbations without clear signs of bacterial infection.

Vaccinations:

- As a preventative measure, review current vaccinations for older patients and ensure they are up to date.

For more information on prescribing antibiotics wisely please visit the Government of Canada website: <https://www.canada.ca/en/public-health/services/publications/drugs-health-products/prescribe-antibiotics-wisely.html>.

Sincerely,



Dr. Jennifer Russell, BA, BSc, MD, CCFP
Chief Medical Officer of Health