



Speaking Notes

ESSENTIAL CARE PROVIDER (ECP) EDUCATION SESSIONS

ANTIMICROBIAL RESISTANCE (AMR)

- Antibiotics are medicines that are used to kill bacterial infections (not for viruses like COVID or influenza).
- Many residents are given antibiotics unnecessarily – when they don't have an infection.
 - A recent review study of 500 randomly selected prescriptions given to residents of long-term care homes in Newfoundland found 57.8% of prescriptions were considered unneeded or inappropriate^a.
- So what can happen:
 - The resident may develop side effects from the antibiotic such as nausea, vomiting, diarrhea, fever, headache, or less commonly tendon ruptures, and nerve damage.
 - Antibiotics can also kill 'friendly' germs in the body. For example this can lead to vaginal yeast infections. It can also lead to other infections such as severe diarrhea or c-difficile, hospitalization, and even death.
 - Another issue is when an infection occurs that is caused by bacteria, the preferred antibiotic given may not work.
 - This is because antibiotics may also help 'drug-resistant' bacteria grow. These bacteria are harder to kill and cause illness that is harder to cure. Your health care provider may have to try several antibiotics, which increases the risk of complications.
- Antibiotic resistance occurs when bacteria change over time and no longer respond to medicines.
 - The World Health Organization has recognized AMR as one of the top ten global health threats facing humanity^b.
 - Globally, 4.95 million deaths in 2019 were associated with antibiotic-resistant bacterial infection, with 1.27 million of these directly attributable to AMR^b.

^a Penney, C. C., Boyd, S. E., Mansfield, A., Dalton, J., O'Keefe, J., & Daley, P. K. (2018). Antimicrobial use and suitability in long-term care facilities: a retrospective cross-sectional study. *Official Journal of the Association of Medical Microbiology and Infectious Disease Canada*, 3(4), 209-216.

^b Murray CJ, Ikuta KS, Sharara F, et al. Global burden of bacterial antimicrobial resistance in 2019: A systematic analysis. *The Lancet*. 2022

- In Canada, it was estimated that in 2018 over one-quarter of bacterial infections were resistant to at least one antibiotic. 14,000 Canadian deaths were associated with AMR, of which AMR was directly responsible for 5,400^c.

URINARY TRACT INFECTION (UTI)

- A common example is when you think the resident you care for might have a urinary tract infection:
 - Often people have bacteria in their urine, but this does not always mean they have an infection.
 - More than 20% of females over 80 years of age and 6-15% of men older than 75 years of age, have bacteria in their urine that is not causing symptoms^d. This is called asymptomatic bacteriuria.
 - This is not a problem and does not benefit from antibiotic treatment. It is not recommended to test for or treat (exceptions: pregnant persons, persons undergoing urologic procedures in which mucosal bleeding is anticipated, patients who recently received a renal transplant.).
- It can be difficult to recognize UTI in a person with dementia if they are not able to communicate that they are in pain or discomfort. Family, friends, and caregivers who know the person well may be able to spot subtle changes in their appearance or behaviour.
 - For example, a resident touching their stomach more than usual may indicate pain there that could be a sign of UTI.
 - A sudden change in a resident with advanced dementia may be a sign of delirium. It is important not to assume that delirium is always caused by a UTI.

ROLE OF ECPS

- Help prevent the resident you care for from getting a UTI with these tips:
 - Encourage drinking plenty of water.
 - Encourage them to go when they feel the need.
 - Use good hygiene.
 - Use catheters briefly, if at all.
- Help your healthcare provider recognize UTI, by:
 - Keeping record of any changes your resident may experience such as:
 - Fluid intake.
 - Is your resident refusing to drink?
 - Wellbeing (physical, social, emotional).

^c Council of Canadian Academies (CAC) 2019, Forecasting the future of antimicrobial resistance (AMR) in Canada. Available: <https://cca-reports.ca/forecasting-the-future-of-amr/>

^d Nicolle L. E. (2003). Asymptomatic bacteriuria: when to screen and when to treat. Infectious disease clinics of North America, 17(2), 367–394. [https://doi.org/10.1016/s0891-5520\(03\)00008-4](https://doi.org/10.1016/s0891-5520(03)00008-4)

follow-up with more information (contact form also linked at the end of the questionnaire is out of their “usual” norm?

- Changes to daily routine.
 - Have they had a bed move or a new resident move in that may upset their daily routine?
- Medications.
 - Little changes in medications may cause side effects to appear such as nausea, vomiting and/or diarrhea (most common) or is the new “agitation” medication working or causing further increase in agitation?
- Bowel movement regularity.
- Sudden changes to resident’s mental state (agitation/restlessness, difficulty concentrating, hallucinations (seeing/hearing things that are not there), delusions (strongly believing things that are not true), becoming unusually sleepy or withdrawn.
- And finally be informed – ask your healthcare provider if antibiotics are needed.

ADDITIONAL RESOURCES

- For more information, refer to the Choosing Wisely Canada handout (<https://choosingwiselycanada.org/pamphlet/antibiotics-urinary-tract-infections/>) or talk to your health care provider.
- Urinary tract infections (UTIs) and dementia (<https://www.alzheimers.org.uk/sites/default/files/2019-09/528LP%20UTIs%20and%20dementia.pdf>)