MEDICAL PHARMACIES TABLET

Drug information and news for health care providers

April 2014

INFECTION CONTROL

The 2014 edition of Accreditation Canada's Required Organizational Practices (ROPs) handbook has been published. ROPs are defined as "an essential practice that organizations must have in place to enhance patient/client safety and minimize risk."[1]

Infection control is one of the six patient safety areas reviewed in the ROP handbook. The goal of infection control is to "reduce the risk of healthcare-associated infections and their impact across the continuum of care/service."[1]

HAND HYGIENE IS CRITICAL

Hand hygiene is an essential element of an effective infection prevention and control program in long-term care.[2] Unfortunately, adherence to hand hygiene protocols is estimated at only 20% to 50%.[3] As a result, approximately 220,000 patients develop healthcare-associated infections and between 8,000 and 10,000 patient deaths occur annually.[4]

Appropriate hand hygiene is deemed to be one of the most effective ways to reduce healthcare-associated infections.[3]

FOUR MOMENTS FOR HAND HYGIENE

Circumstances where hand hygiene is always indicated include the following:[2]

1. Before initial contact with the resident or the resident's environment
2. Before performing a clean/aseptic procedure
3. After body fluid exposure risk
4. After touching a resident or his/her environment

ALCOHOL-BASED HAND RUB VS. SOAP AND WATER

Alcohol-based hand rub:

- Is preferred when hands are not visibly soiled.
- Should contain 70%-90% alcohol to be effective against all pathogens.
- Takes less time than handwashing.
- Is more effective than handwashing with soap and water when hands are not visibly soiled.
- Mechanical rubbing action is important to kill transient microorganisms.
- Is less drying to hands than soap and water.

Hand washing with soap and running water:

- Is necessary when hands are visibly soiled, because alcohol is inhibited by organic matter.
- Mechanical action of washing, rinsing, and drying removes most transient microorganisms.
- Hands should be washed when they are visibly soiled. Otherwise, alcohol-based hand rub should be used.[5]
- Hands must be scrubbed for a minimum of 15 seconds.

HOW TO HANDWASH

1. Wet hands with warm water and then apply enough soap to cover all hand surfaces.
2. Rub hands palm to palm.
3. Right palm over left dorsum with interlaced fingers and vice versa.
4. Palm to palm with fingers interlaced.
5. Backs of fingers to opposing palms with fingers interlocked.
6. Rotational rubbing of the left thumb clasped in right palm and vice versa.
7. Rotational rubbing, backwards and forwards, with clasped fingers of right hand in left palm and vice versa.
8. Rinse hands with warm water.
9. Pat hands dry thoroughly with a single-use towel.
10. Use paper towel to turn off faucet and discard paper towel in garbage.

HOW TO USE HAND RUB

1. Apply 1 to 2 pumps of alcohol-based hand rub to dry palms.
2. Rub palms together.
3. Rub between and around fingers.
4. Rub back of each hand with the palm of the other hand.
5. Rub fingertips of each hand in opposite palm.
6. Clasp thumb in palm of opposite hand and rub; repeat with other thumb.
7. Rub hands until product is dry. Do not dry with a paper towel.

GLOVE CONSIDERATIONS

It is important to note that the use of gloves does not replace the need for hand hygiene. Although gloves help to reduce transmission of pathogens in healthcare settings, they do not provide complete protection against hand contamination. Following are some important recommendations regarding gloves:[3]

- Hand hygiene should be performed before donning gloves and after glove removal.
- Hands should be dried completely before donning gloves to reduce hand irritation.
- The same pair of gloves should never be used for the care of more than one resident.
- Gloves should be removed immediately and discarded after the activity for which they were used.
- Gloves should never be washed with soap and water or alcohol-based hand rub.

HAND HYGIENE RESOURCES

1. BC Ministry of Health. Best Practices for Hand Hygiene. Available online at http://www.health.gov.bc.ca/library/publications/year/2012/best-practice-guidelines-handhygiene.pdf
2. Canada's Hand Hygiene Challenge. Available online at http://www.handhygiene.ca/English/Pages/default.aspx
3. Canadian Public Health Association. Handwashing and Hygiene. Available online at http://www.cpha.ca/en/portals/idp/hygiene.aspx
4. Just Clean Your Hands from Public Health Ontario. Available online at http://www.publichealthontario.ca/en/BrowseByTopic/InfectiousDiseases/JustCleanYourHands/Pages/Just-Clean-Your-Hands.aspx **MPT**

The New Class of Antihyperglycemics on the Horizon

How can the kidneys be utilized to reduce blood glucose levels? The kidneys are responsible for approximately 20% of total glucose released into the blood in normal fasting individuals.[6] Glucose is reabsorbed from the proximal tubules of the kidney through the actions of a high-capacity, low-affinity sodium-glucose co-transporter 2 (SGLT2).[6] Researchers have developed an antihyperglycemic agent that inhibits the activity of SGLT2, thereby lowering the renal threshold for glucose and allowing a higher percentage of glucose to pass out of the body in the urine instead of being reabsorbed. The drug name of the first oral, once-daily SGLT2 inhibitor is canagliflozin.

Canagliflozin is currently approved for use in the USA and is undergoing regulatory review in Canada. In the USA, canagliflozin is indicated as an adjunct to diet and exercise to improve glycemic control in patients with type 2 diabetes.[6] In studies, canagliflozin treatment has significantly improved glycemic control and reduced body weight compared with placebo.[6]

Canagliflozin has been generally well tolerated in patients with type 2 diabetes participating in clinical trials, including those with moderate renal impairment. The most common adverse events were female genital mycotic infections, urinary tract infections, and increased urination.[6] These adverse effects are due to the extra glucose in the urine secondary to the drug's mechanism of action.

As with any newly introduced drug, there are still questions being asked about the drug's place in therapy and adverse effect/precaution profile.[7] Please refer to the product monograph when it becomes available. **DN**

1. Accreditation Canada. Overview; in Required Organizational Practices, 2014
2. Accreditation Canada. Hand-Hygiene Education and Training. Required Organizational Practices 2014: p. 59
3. BC Ministry of Health. Best Practices for Hand Hygiene. Available online at http://www.health.gov.bc.ca/library/publications/year/2012/best-practice-guidelines-handhygiene.pdf
4. Safer Healthcare Now. Hand Hygiene Self-Assessment Framework. Available online at https://shn.med.utoronto.ca/hh/
5. World Health Organization. How to Handwash. Available online at http://www.who.int/gpsc/tools/HAND_WASHING.pdf
6. Elkinson S, Scott SJ. Canagliflozin: First Global approval. Drugs 2013;73:979-988
7. Tucker ME. Experts welcome canagliflozin approval, but questions remain. Medscape Multispecialty. Available online at http://www.medscape.com/viewarticle/791602#2