



Surveillance of Infections in Long-Term Care

Training Presentation

Objectives

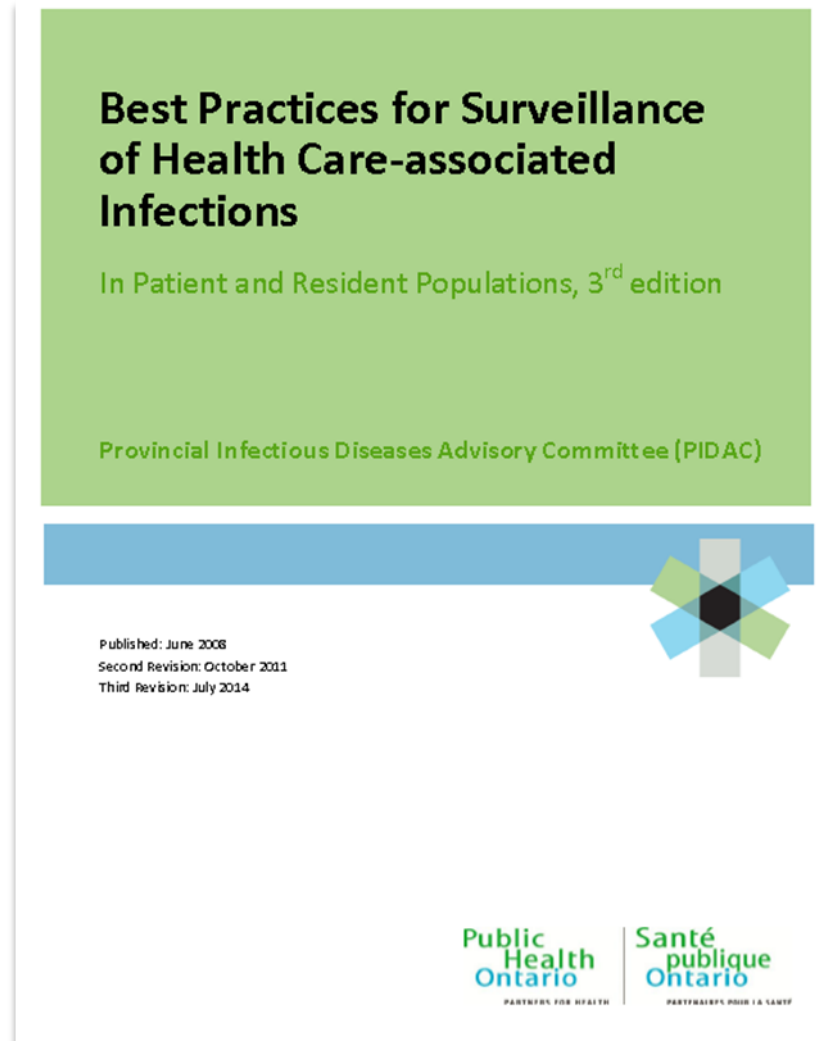
- To understand what surveillance is and why it's important
- Data collection
 - How to use the daily surveillance form
 - What happens next?

Surveillance

- What is surveillance?
 - Systematic ongoing collection, collation and analysis of data
 - Shared with those who can take action in a timely manner
 - Surveillance can reduce infections by:
 - Identifying increasing trends of infections to allow for early interventions
 - Preventing health care-associated infections (HAIs)
 - Preventing outbreaks
 - Identifying outbreaks early
 - Improved awareness of signs/symptoms of infections

Surveillance Best Practice Document

Great resource to learn more about surveillance:



Why is Surveillance Important in LTC?

- Health care-associated infections are common in long-term care (LTC)
 - 3-7 cases per 1000 resident days
- Outbreaks can be difficult to contain
 - Outbreaks result in significant cost to the organization
- It is estimated that 70% of HAIs are preventable
- The population requiring LTC is increasing and are at greater risk for infections
 - Have other underlying health conditions
 - Receive more medical care and procedures
 - HAIs are the most frequent cause of transfers to hospital

Implementation of a Surveillance Program

- The LTC Surveillance Toolkit was developed by PHO IPAC specialists in collaboration with Schlegel Villages to support LTC infection control staff in tracking and controlling infections
 - The toolkit was trialed in Schlegel Villages LTC homes, evaluated and improved

What does this mean for you?

- New data collection form will be introduced
 - The **daily surveillance form** is used to capture signs and symptoms of infections in residents on every shift
 - Sign the daily surveillance form every shift
- Enter progress notes into resident charts
- The Infection Control Professional (ICP), or designate, will regularly (daily/weekly) review daily surveillance form and collect/keep at the end of the month

Daily Surveillance Form

Infection Control Daily Surveillance Form																																				
Unit																																				
Month:		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
	D																																			
	E																																			
	N																																			
Date	Resident name	Room number	Body temperature	Respiratory	Urinary	Skin	GI	Other																												
		Room number	Body temperature	Runny nose/Sneezing	Stuffy nose or congestion	Sore throat	Cough	Increased sputum production	Myalgia, body aches	Chills	Chest Pain	Increase in frequency	Acute Dysuria/ acute pain	Hematuria	Increase urinary incontinence	Acute costovertebral tenderness	Suprapubic pain	Increased urgency	Indwelling catheter	Wound/tissue drainage	Pus at wound site	Rash/lesion	Redness or swelling at site	Nausea	≥3 liquid/watery stools in 24 hrs	≥2 vomiting episodes in 24 hrs	Abdominal pain	Specimen submitted to lab	Infection resolved	Other						

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	D																															
	E																															
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- Place one of these forms on each unit
 - Used by front line nurses to document signs and symptoms of infections
 - Responsible nurse initial each shift
 - Doesn't replace complete documentation in progress notes

Daily Surveillance Form

Date	Resident name	Room number	Body temperature	Respiratory							Urinary							Skin			GI			Other										
				Runny nose/Sneezing	Stuffy nose or congestion	Sore throat	Dry Cough	Increased sputum production	Myalgia, body aches	Chills	Chest Pain	Increase in frequency	Acute Dysuria/ acute pain	Hematuria	Increase urinary incontinence	Acute costovertebral pain/tenderness	Suprapubic pain	Increased urgency	Indwelling catheter	Wound/tissue drainage	Pus at wound site	Rash/lesion	Redness or swelling at site	Nausea	Liquid stool frequency	Vomiting frequency	Abdominal pain	Eye	Ear	X-ray	Antimicrobial treatment	Lab result	Other	
4	Jane Doe	101	40.2	X		X	X																											

- Nurses enter date, resident name showing signs/ symptoms of infection and the room number
- Body temperature is entered as a number (e.g. 40.2°C)
- Indicate all signs/symptoms that the resident develops

Case Definitions

- Must record all signs and symptoms accurately because cases will be based on case definitions
- Specific definitions for fever
 - single oral temperature $>37.8^{\circ}\text{C}$ **OR**
 - repeated oral temperatures $>37.2^{\circ}\text{C}$ or rectal temperatures $>37.5^{\circ}\text{C}$ **OR**
 - single temperature $>1.1^{\circ}\text{C}$ over baseline from any site (oral, tympanic, axillar)

Case Definitions

URINARY TRACT INFECTION (UTI) Standard Case Definitions

Urinary tract infection includes only symptomatic urinary tract infections. Surveillance for asymptomatic bacteriuria (defined as the presence of a positive urine culture in the absence of new signs and symptoms of urinary tract infection) is not recommended, as this represents baseline status for many residents.

Symptomatic Urinary Tract Infection

Indwelling catheter NOT present

Both of the following criteria must be met:

1. The resident has **at least one** of the following signs and symptoms:

- Acute dysuria or acute pain, swelling, or tenderness of the testes, epididymis, or prostate

OR

- Fever or leukocytosis (see Box, above) and *at least one* of the following:
- acute costovertebral angle pain or tenderness
- suprapubic pain
- gross hematuria
- new or marked increase in incontinence
- new or marked increase in urgency
- new or marked increase in frequency

OR

In the absence of fever or leukocytosis, **two or more** of the following are present:

- suprapubic pain
- gross haematuria
- new or marked increase in incontinence
- new or marked increase in urgency
- new or marked increase in frequency

AND

2. The resident has **one** of the following microbiologic criteria:

- At least 10^5 CFU/mL of no more than two species of microorganisms in a voided urine sample
- OR**
- At least 10^2 CFU/mL of any number of organisms in a specimen collected by in-and-out catheter

Indwelling catheter present

Both of the following criteria must be met:

1. The resident has *at least one* of the following signs or symptoms:

- a) Fever, rigors, or new onset hypotension, with no alternate site of infection
- b) Either acute change in mental status or acute functional decline, with no alternate diagnosis, and leukocytosis (see box, Section A.III)
- c) New onset suprapubic pain or costovertebral angle pain or tenderness
- d) Purulent discharge from around the catheter or acute pain, swelling, or tenderness of the testes, epididymis, or prostate

AND

2. The resident has a urinary catheter specimen culture with at least 10^5 CFU/mL of any organism

Classification of UTI

Classification of a healthcare-associated UTI in a non-catheterized resident:

- Resident must meet the criteria for UTI – indwelling catheter not present
- Onset of symptoms occur > 48 hours after admission to LTCH or after readmission to LTCH OR symptoms develop within 72 hours of discharge.

Classification of a healthcare-associated UTI in a catheterized resident:

- Catheter must be in place > 48 hours prior to the onset of symptoms OR if not present on the day of onset of symptoms, removed within 24 hours prior.
- Resident must meet the criteria for UTI – indwelling catheter present
- Onset of symptoms occurs > 48 hours after admission to LTCH or within 72 hours of discharge

The Process

- Monitor residents for signs and symptoms of infections on every shift
- Record signs and symptoms of infections on daily surveillance form
- Initial daily surveillance form each shift
- ICP will regularly review the forms for completeness and will collect at the end of the month
 - Data gets entered into a surveillance reporting form
 - Cases are validated using case definitions
 - Rates of infections are calculated
 - Will be able to identify trends for infections
 - Compare infections rates to own LTCH and to other LTCHs