2019 Point Prevalence Survey in Canadian Long Term Care Facilities

Protocol

Developed by the Public Health Agency of Canada in partnership with IPAC Canada

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Background

Infections caused by antimicrobial resistant organisms (AROs) are a growing concern in long term care facilities (LTCFs). Residents are vulnerable to healthcare-associated infections, and there is increasing evidence that they may enter LTCFs with AROs that were acquired elsewhere[1,2]. Furthermore, use of antimicrobials is common in LTCFs, which may contribute to the development of antimicrobial resistance (AMR) or infection with *Clostridioides difficile*, limiting treatment options and resulting in higher morbidity and mortality[3]. In Canada, studies have shown that approximately 50% to 80% of residents in LTCFs receive at least one course of antibiotics each year, and that duration of therapy is often longer than necessary[4,5]. Due to a number of factors, colonization or infection with AROs may persist and contribute to transmission within LTCFs or to other settings[6,7].

AROs of particular concern include carbapenem-resistant organisms, methicillin-resistant Staphylococcus aureus (MRSA), vancomycin-resistant enterococci (VRE), and extended spectrum β-lactamase-producing (ESBL) organisms. In some regions, ARO prevalence in LTCFs has been found to be comparable to that observed in acute care settings[8]. Surveillance of AMR, associated risk factors, and antimicrobial use in long term care settings is increasingly being implemented to inform benchmarking and progress towards infection prevention and control goals[9]. Point prevalence surveys are a useful mechanism to feasibly monitor infection with AROs and patterns of antimicrobial use from a cross-sectional perspective. If repeated over time, these surveys can provide valuable evidence to inform and evaluate infection control and antimicrobial stewardship initiatives.

Point prevalence surveys conducted in LTCFs across several European countries found that 28% of isolates in these settings had markers for AMR and up to 11% of residents were using an antimicrobial on the survey day, with frequent prescriptions for urinary tract infections or for prophylaxis[8,10]. In Canada, there is limited knowledge of the prevalence of AMR and antimicrobial use in long term care facilities, and practices related to management of AROs and antimicrobial stewardship vary. One recent survey in Ontario LTCFs, representing over 17,000 residents, found 4.1% and 2.4% of residents infected or colonized with MRSA and ESBL, respectively, while 11% of 139 surveyed facilities had a screening program in place for carbapenemase-producing *Enterobacteriaceae*[11].

Rationale

A point prevalence survey in Canadian long term care facilities was piloted by the Public Health Agency of Canada in 2017, in partnership with IPAC Canada. Although only a small number of facilities participated, it provided preliminary information on AMR and AMU in LTCFs and demonstrated feasibility of carrying out the survey in this setting. In the 2019 phase, the aim is to expand participation to include a broader range of institutions from all regions across Canada. This will provide more robust baseline data on AMR and AMU in Canadian long term care settings and build capacity for subsequent monitoring activities. Participation in the survey is voluntary, but there are a number of benefits to facilities by taking part in this surveillance activity. All participating facilities will receive an extract of their own data, as well as a report on the results found in their institution. These can be used internally to inform policies and practices, or evidence-based benchmarking for infection prevention and control targets. The findings from all facilities will be aggregated to produce a national report that may be used to inform public health actions on AMR, antimicrobial stewardship programming, further research development, and clinical practice guidance in the long term care setting.

Objectives

The key aim of this survey is to assess the prevalence of infection or colonization caused by antimicrobial resistant organisms, and patterns of antimicrobial use among residents of long term care facilities in Canada.

The specific objectives for this surveillance project are:

a) To determine the prevalence of infection or colonization caused by selected antimicrobial resistant organisms;
b) To describe the epidemiology of antimicrobial resistant infection or colonization;
c) To examine prevalence of antibiotic use and the types of drugs used;
d) To describe practices related to antimicrobial resistant organisms and antimicrobial stewardship within long term care facilities

A schematic overview of the survey and data collection process can be found in Appendix A.

Scope

Infections
The infections assessed in this survey include *C. difficile* infection, urinary tract infection (UTI), respiratory tract infections, blood stream infections, as well as skin and soft tissue infections.

A resident is considered to have a current infection if they meet the case definition for surveillance at any point during the 24 hour observation period of the survey (*Surveillance Definitions of Infections in Canadian Long Term Care Facilities*, Appendix B).

Organisms
This survey will collect information on infection or colonization caused by the following antimicrobial resistant organisms:

- Methicillin-resistant *Staphylococcus aureus* (MRSA)
- Vancomycin-resistant enterococci (VRE)
- *Clostridioides difficile*
- Extended spectrum β-lactamase-producing (ESBL) gram-negative bacteria
- Carbapenemase-producing organisms (CPO)

Antimicrobial use
This survey will focus on antimicrobials within the ATC code J01 class, as described by the World Health Organization. J01 class products are designated as *antibacterials for systemic use*; therefore, they are referred to as antibiotics for the purpose of this survey. Information on antibiotic use will be collected for all residents taking a J01 class drug during the 24 hour observation period, regardless of whether they have an infection or colonization with an antimicrobial resistant organism. Most of the drugs found within in the J01 class are listed in Appendix C.

Facilities
Long term care facilities in all provinces or territories may participate in this survey if they meet all of the following criteria:

i. Provide long term care (non-acute health care) to residents requiring at least some level of medical or professional nursing supervision

ii. Have 24 hour professional nursing care on-site
iii. Have at least 30 beds
iv. Are not part of a hospital, or must be physically distinct from acute-care patients located in a separate building

In addition to the above, the facility may provide rehabilitation and/or complex continuing care to elderly, physically challenged, or disabled individuals.

Facilities that are excluded from this survey are those that do not meet the above criteria, and/or facilities that exclusively provide long term care to children, persons who are developmentally delayed or psychiatrically disabled, or persons in care due to substance use or addiction rehabilitation.

Methods

Recruitment of sites
Participation is voluntary and long term care facilities will be recruited through a variety of channels. Information about the survey and an invitation to participate will be sent by email through:

- National, provincial, and regional infection prevention and control networks
- Provincial and regional public health authorities
- Regional coordinating staff affiliated with long term health care organizations

This will be a convenience sample of long term care facilities. The survey aims to include facilities in both urban and rural locations, in all provinces/territories across Canada.

Participation
Information sessions will be held via teleconference during the recruitment period, for interested facilities to learn more about the survey and the activities involved in participating. Facilities will confirm their participation by signing up on the IPAC Canada website. In-service training sessions will be held before data collection starts. IPAC Canada will generate a unique anonymous code for each facility (Facility ID), which will be used to correspond survey data to the facility. IPAC Canada will communicate with facilities to coordinate training and data submission, and it will not be possible for PHAC to know the identity of individual facilities.

Surveillance period
Each facility will designate a prevalence day for their participation. This will be a 24 hour time period starting at 08:00 am on any day within a 9 week surveillance period (March 4, 2019 to May 3, 2019).

Residents entered on the census
On the day of the prevalence, the facility will take a census of residents. This will provide the denominator for analysis of key measures. Residents will be placed on the facility census if they meet the following criteria:

- Living full-time in the facility; and
- Present at 8:00 AM on the day of the prevalence; and
- Not away from the facility overnight on the day of the prevalence (for example, a resident is included on the census if they are absent from the facility for a day appointment, but not if they become admitted to a hospital and stay overnight).

Residents admitted to the facility after the 8:00 AM start time on the prevalence day will not be included.

Residents entered in the survey
Data will only be collected for residents who are entered in the survey (not all residents on the census). Residents are entered in the survey (i.e. a resident questionnaire is completed for them) if they were listed on the facility census on the prevalence day, and they meet the following criteria:

- Have an infection or are known to be colonized by one of the antimicrobial resistant organisms under surveillance; OR
- Using at least one systemic antibiotic (ATC code starting with J01) on the prevalence date

Residents cannot be entered more than once. The following residents should be excluded:

- Residents not living full-time in the LTCF
- Residents living full-time in the LTCF but not present at 8:00 AM on the day of the prevalence
- Residents hospitalized on the day of the prevalence (i.e. hospital stay of at least one night)

Data collection
Residents will be surveyed over a 24-hour observation period starting the day of the prevalence (day 0) and finishing at the same time on the following day (day 1)[1]. Data collection may start anytime from day 1, to allow sufficient time to complete medical/nursing entries in the resident's chart or wait for laboratory results. If no additional information is available to input on resident questionnaires after day 5, no new data should be collected.

Information may be obtained from the resident's chart, nurses' logs, laboratory reports, or other sources deemed appropriate by the participating facility. The data can be collected by any LTCF staff designated by the facility. An online survey platform to facilitate data entry will be provided. If it is not possible to submit the data electronically using this platform, staff may complete hard copy questionnaires for each resident entered in the survey and forward them to a coordinator at IPAC Canada via email, facsimile or courier.

Two questionnaires will be used:

A. Facility questionnaire
   One questionnaire will completed by each facility. This captures information on the type of facility, number of beds, ARO screening practices, outbreaks, and antimicrobial stewardship activities.

B. Resident questionnaire
   One questionnaire will be completed for each resident entered in the survey. This includes demographic data (age and sex), date of admission, room type, current infections or colonization with AROs, infection or colonization with AROs in the previous 12 months, use of medical devices, and antibiotic use.

A non-nominal unique identifier will be assigned to each resident entered in the survey (Resident ID). This code is assigned by the facility for the exclusive purpose of data collection. The Resident ID should

[1] For example, site chooses Wednesday, March 20th, 2019 as their prevalence day. They would identify residents on the facility census at 8:00 AM on Wednesday, March 20th, 2019 and would end the 24-hours observation period the morning after (March 21st). Residents would be surveyed from 8:00 AM Wednesday, March 20th until 8:00 AM Thursday, March 21st

not contain any identifying information such as name or date of birth. Also, it should not contain any numbers that are associated with the resident's care (i.e. room number, chart number or personal healthcare numbers). The Resident ID will be entered on the resident questionnaire, but there will be no ability to link the questionnaire back to an individual resident after data is submitted. Only the individual facility will have access to internal lists, if developed, corresponding residents on the census with those who were entered in the survey.

Analysis

Data will be validated, collated and analyzed by the Public Health Agency of Canada. Each facility will receive a report on the findings pertaining to their resident population. For the purpose of national reporting, results will be aggregated and no facility-level or patient-level information will be presented. If sample size permits, some analyses may be stratified based on LTCF characteristics (size of facility; urban or rural location).

Analyses will be descriptive in nature and will include the following:

1. Prevalence of ARO infections
2. Microbiology of infection and colonization
    i) Proportion of colonizations by type of ARO
    ii) Proportion of infections by type of ARO
3. Prevalence of antibiotic use
    i) Proportion of residents using antibiotics
    ii) Distribution by type of antibiotic and reason for use
4. Proportion of facilities reporting ARO screening practices or antimicrobial stewardship activities

Workload

The main activity in this surveillance project is data collection on a subset of residents on a predetermined day. Residents will be entered in the survey based on a facility census taken on the prevalence day, which can be chosen by the participating facility as any one day between Monday, March 4 and Friday, May 3, 2019. All questionnaires and data submission must be completed by May 17, 2019. The workload will involve the following:

1. Completing a facility census and identifying residents to be entered in the survey using the inclusion and exclusion criteria. All residents entered in the survey will be assigned a unique non-nominal code (Resident ID). A copy of the census will be kept at the LTCF until completion of the project, for facility use only. At no time will PHAC or IPAC Canada have access to the resident census list.

2. Completing the facility questionnaire. Each facility will be given a unique non-identifying code (Facility ID). This code must be entered on the facility questionnaire. In order to analyze data collected at each facility and produce a report on the results for each LTCF, the facility code must also be entered on each individual resident questionnaire.

3. Reviewing charts, logs, or other relevant reports (i.e. microbiology laboratory reports, as available), and completing one resident questionnaire for each resident entered in the survey.

4. Entering data from questionnaires into the online survey platform, or submitting completed questionnaires to IPAC Canada.

Ethics

This survey is observational in nature and does not involve intervention or alteration in resident care. This survey falls within surveillance activities typically considered to be routine components of quality assurance and resident care. Informed consent and research ethics board (REB) approval is not required by the Public Health Agency of Canada, but individual facilities may seek institutional REB approval according to local policies.

No identifying information on residents will be submitted on questionnaires. The facility census or any documents linking the resident's non-nominal unique identifier (Resident ID) to their name can only be used internally at the LTCF for the purpose of establishing the list of residents to be surveyed. These documents will be stored in a secure location at the facility and will not be submitted to PHAC or IPAC Canada. Information on questionnaires will only be associated with the anonymous Resident ID, so it will not be possible for PHAC or IPAC Canada to link data back to an individual resident.

References

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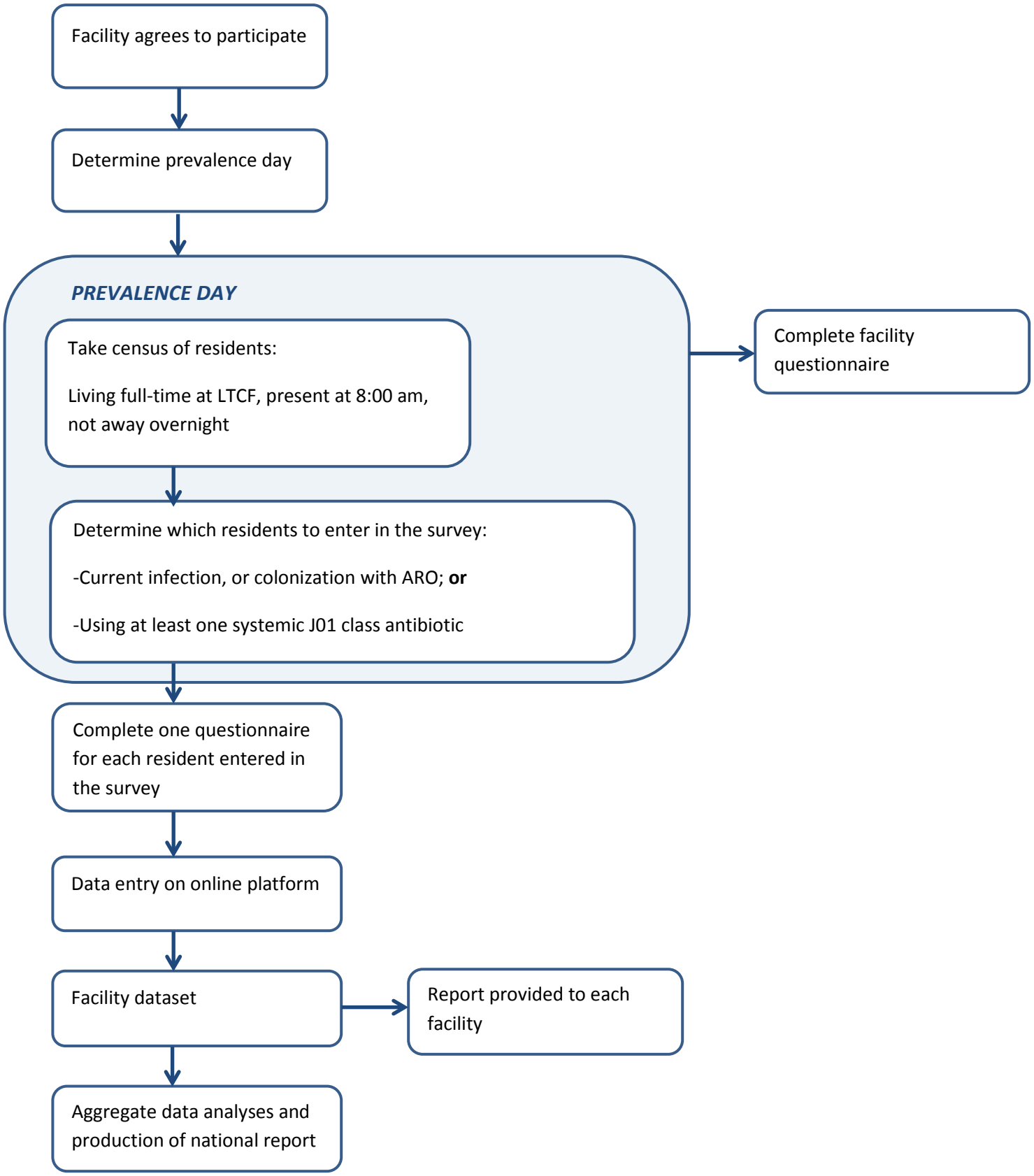
Appendix A: Overview of activities



Appendix B: Case definitions for surveillance

Unless indicated otherwise, all definitions are from *Surveillance Definitions of Infections in Canadian Long Term Care Facilities, 2017.* Available at: http://www.patientsafetyinstitute.ca/en/About/PatientSafetyForwardWith4/Documents/Canadian%20LTC%20Surveillance%20Definitions.pdf

For the purpose of this project, definitions for following conditions are not shown as they are outside the scope of this surveillance activity: common cold syndrome, influenza-like illness, scabies, fungal infections, herpesvirus skin infections, gastroenteritis and norovirus gastroenteritis.

Constitutional Criteria

A. Fever

1. Single oral temperature >37.8°C **OR**
2. Repeated oral temperatures >37.2°C or rectal temperatures >37.5°C **OR**
3. Single temperature >1.1°C over baseline from any site (oral, tympanic, auxiliary)

B. Leukocytosis > 10 x 10^9 leukocytes/L

C. Acute change in mental status from baseline (**all** criteria **must** be present)

1. Acute onset
2. Fluctuating course
3. Inattention
4. Either disorganized thinking or altered level of consciousness

D. Acute functional decline: A new 3-point increase in total activities of daily living (ADL) score (range, 0–28) from baseline, based on the following 7 ADL items, each scored from 0 (independent) to 4 (total dependence).

1. Bed mobility
2. Transfer
3. Locomotion within LTCF
4. Dressing
5. Toilet use
6. Personal hygiene
7. Eating

Respiratory Tract Infections

Note: Epidemiological confirmation, instead of a laboratory positive specimen, can be used to meet case definition criteria. A case is considered epidemiologically linked by direct contact to a laboratory-confirmed case through person-to-person transmission (e.g., common caregiver), if there is geographic proximity in the facility, or through a common exposure.

Pneumonia: Criteria **1 and 2** must be present, **OR** criteria **1 and 3**:

1. Interpretation of a chest radiograph as demonstrating pneumonia or the presence of a new infiltrate

2. **At least 1** of the following respiratory subcriteria
    a. New or increased cough
    b. New or increased sputum production
    c. O_2 saturation <94% on room air or a reduction in O2 saturation of >3% from baseline
    d. New or changed lung examination abnormalities
    e. Pleuritic chest pain
    f. Respiratory rate of ≥25 breaths/min

3. **At least 1** constitutional criteria

Lower respiratory tract infection (bronchitis or tracheobronchitis; **all 3** criteria **must** be present)

1. Chest radiograph not performed or negative results for pneumonia or new infiltrate
2. **At least 2** of the respiratory subcriteria (a–f) listed above
3. **At least 1** of the constitutional criteria

Comment: For both pneumonia and lower RTI, the presence of underlying conditions that could mimic the presentation of a RTI (e.g., congestive heart failure or interstitial lung diseases) should be excluded by a review of clinical records and an assessment of presenting symptoms and signs.

Urinary Tract Infection (UTIs)

Note: A urinalysis negative for leukocytes effectively rules out a UTI while a urinalysis positive for leukocytes does not differentiate symptomatic UTI from asymptomatic bacteriuria colony-forming units (cfu).

For residents without an indwelling catheter: (criteria **1 and 2 must** be present with no other identified source of infection, **OR** criteria **2 and 3**):

1. **At least 1** of the following sign or symptom subcriteria:

a. Acute pain, swelling, or tenderness of the testes, epididymis, or prostate in males
b. Fever or leukocytosis **and** at least **1** of the following localizing urinary tract subcriteria:
    i. Acute dysuria
    ii. Acute costovertebral angle pain or tenderness
    iii. Suprapubic pain
    iv. Gross hematuria
    v. New or marked increase in incontinence
    vi. New or marked increase in urgency
    vii. New or marked increase in frequency
c. In the absence of fever or leukocytosis, then **2 or more** of the following localizing urinary tract subcriteria:
    i. Acute dysuria
    ii. Suprapubic pain
    iii. Gross hematuria
    iv. New or marked increase in incontinence
    v. New or marked increase in urgency
    vi. New or marked increase in frequency

Comment: UTI should be diagnosed when there are localizing genitourinary signs and symptoms and a positive urine culture result. A diagnosis of UTI can be made without localizing symptoms if a blood culture isolate is the same as the organism isolated from the urine and there is no alternate site of infection. In the absence of a clear alternate source of infection, fever or rigors with a positive urine culture result in the non-catheterized resident or acute confusion in the catheterized resident will often be treated as UTI. However, evidence suggests that most of these episodes are likely not due to infection of a urinary source.

2. $\geq 10^8$ cfu/L of no more than 2 species of microorganisms from a midstream urine OR $\geq 10^5$ cfu/L of any number of organisms in a specimen collected by an in-and-out catheter

Comment: Urine specimens for culture should be processed as soon as possible, preferably within 2 hours. If urine specimens cannot be processed within 30 minutes of collection, they should be refrigerated. Refrigerated specimens should be cultured within 24 hours. In and out catheter collection is the gold standard for urine collection in residents without an indwelling catheter.

3. A blood culture isolate is the same as the organism isolated from the urine and there is no alternate site of infection.

For residents with an indwelling catheter: a single urine specimen or in a midstream voided urine specimen from a resident whose catheter has been removed within the previous 48 hours (criteria **1 and 2 must** be present with no other identified source of infection, **OR** criteria **2 and 3**).

1. At least 1 of the following sign or symptom subcriteria:

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
c. New-onset suprapubic pain or costovertebral angle pain or tenderness
d. Purulent discharge from around the catheter
e. Acute pain, swelling, or tenderness of the testes, epididymis, or prostate in males

Comment: Recent catheter trauma, catheter obstruction, or new onset hematuria are useful localizing signs that are consistent with UTI but are not necessary for diagnosis.

2. Urinary catheter specimen culture with **≥** 10^8 cfu/L of any organism(s)

Comment: Urinary catheter specimens for culture should be collected following replacement of the catheter (if current catheter has been in place for **>**14 days).

3. A blood culture isolate is the same species as the organism isolated from the urine, with the same resistance pattern, and there is no alternate site of infection.

Skin, Soft Tissue, and Mucosal Infections

Cellulitis, soft tissue, or wound infection (**at least 1** of the following criteria **must** be present)

1. Pus present at a wound, skin, or soft tissue site
2. New or increasing presence of **at least 4** of the following sign or symptom subcriteria
   a. Heat at the affected site
   b. Redness at the affected site
   c. Swelling at the affected site
   d. Tenderness or pain at the affected site
   e. Serous drainage at the affected site
   f. One constitutional criterion
3. Non-commensal organism isolated with 1 or more signs or symptoms from criterion 2

Comment: Presence of organisms cultured from the surface (e.g., superficial swab sample) of a wound is not sufficient evidence that the wound is infected. More than 1 resident with streptococcal skin infection from the same serogroup (e.g., A, B, C, G) in a long term care facility (LTCF) may indicate an outbreak.

Common commensal organisms include: diphtheroids (*Corynebacterium spp.* not *C. diphtheria*), *Bacillus spp.* [not *B. anthracis*], *Propionibacterium spp.,* coagulase-negative staphylococci (including *S. epidermidis*), viridans group streptococci, *Aerococcus spp.,* and *Micrococcus spp.*

Conjunctivitis (**at least 1** of the following criteria **must** be present)

1. Pus appearing from 1 or both eyes, present for at least 24 hours
2. New or increased conjunctival erythema, with or without itching
3. New or increased conjunctival pain, present for at least 24 hours

Comment: Conjunctivitis symptoms (“pink eye”) should not be due to allergic reaction or trauma.

Blood stream infection

Refer to CDC's National Healthcare Safety Network (NHSN) definitions
Available at: https://www.cdc.gov/nhsn/pdfs/pscmanual/pcsmanual_current.pdf

Clostridioides difficile infection

Both criteria **1 and 2** must be present:

1. **One** of the following **GI subcriteria**:
    a. Diarrhea: 3 or more loose or watery stools (i.e. conforming to the shape of the specimen collection container) above what is normal for the resident within a 24 hour period
    b. Presence of toxic megacolon (abnormal dilatation of the large bowel, documented radiologically)

2. **One** of the following **diagnostic subcriteria**:
    a. A stool sample yields a positive laboratory test result for *C. difficile* toxin A or B, **or** a toxin-producing *C. difficile* organism is identified from a stool sample culture or by a molecular diagnostic test such as PCR
    b. Pseudomembranous colitis identified during endoscopic examination or surgery or in histopathologic examination of a biopsy specimen

    Comment: A primary episode of *C. difficile* infection is defined as one that has occurred without any previous history of *C. difficile* infection or that has occurred 8 weeks after the onset of a previous episode of *C. difficile* infection. A recurrent episode *C. difficile* infection is defined as an episode of *C. difficile* infection that occurs 8 weeks or sooner after the onset of a previous episode, provided that the symptoms from the earlier (previous) episode have resolved.

    Individuals previously infected with *C. difficile* may remain colonized even after symptoms resolve. During a GI infection outbreak, individuals could have positive test results for the presence of *C. difficile* toxin because of ongoing colonization and also be co-infected with another pathogen. It is important that other surveillance criteria be used to differentiate infections in this situation.

Appendix C: Examples of antibiotics within the J01 class of drugs

Classification	Generic Name
Penicillins	Amoxicillin Amoxicillin/Clavulanate Ampicillin Cloxacillin Penicillin G Penicillin V Piperacillin PiperacillinTazobactam
Carbapenems	Ertapenem Imipenem Meropenem
Aminoglycosides	Amikacin Gentamicin Tobramycin
Cephalosporins 1st generation	Cefadroxil Cefazolin Cefalexin
Cephalosporins 2nd generation	Cefprozil Cefoxitin Cefuroxime Cefuroxime axetil
Cephalosporins 3rd generation	Cefixime Cefotaxime Ceftazidime Ceftolozane-tazobactam Ceftriaxone
Cephalosporins 4th generation	Cefepime
Cephalosporins advanced generation	Ceftolazane-tazobactam
Macrolides	Azithromycin Clarithromycin Erythromycin
Fluoroquinolones	Ciprofloxacin Levofloxacin Moxifloxacin Norfloxacillin
Tetracyclines	Doxycycline Minocycline Tetracycline Tigecycline
Other antibacterial	Aztreonam Clindamycin Colistin Daptomycin Linezolid Metronidazole Nitrofuratoin Sulfamethoxazole/Trimethoprim Vancomycin

2019 Point Prevalence Survey for Antimicrobial Use and Antimicrobial Resistant Organisms in Long Term Care Facilities | Facility Questionnaire

One questionnaire must be completed for each facility

Facility ID:	**Census date:**

A. Facility information	
Total number of beds:	
Number of residents present at 8am and not away overnight on day of prevalence (total number on census):	
Number of residents entered in the survey:[1]	
In addition to long term care and 24 hour nursing care, do you have any of these services at your facility? (select all that apply): □ Rehabilitation □ Complex continuing care (e.g. renal dialysis, mechanical ventilation, spinal cord injury care) □ Other, please specify:	
Do you have at least one staff at your facility who is a trained Infection Control Professional (ICP)? □ Yes □ No	

B. Screening practices					
Please indicate what type of screening, if any, is done for the following organisms (select all that apply):					
	All residents on admission	Targeted/higher risk residents*	Symptomatic residents	Periodic surveys**	None
MRSA					
VRE					
ESBL					
CPO					
C. difficile					
Comments					

*May include residents who had: previous infection or colonization; known exposure (outbreak, close contact); other risk factors (travel, hospitalization, medical procedures, immune-compromised)

**Screening for surveillance, monitoring of specific units, or in response to an outbreak

C. Practices related to antimicrobial resistant organisms (ARO)

Please indicate if any of these activities take place at your facility (select all that apply):

□ Line list of residents who are colonised or infected with an ARO
□ Alerts/flags in resident chart if known to be colonised or infected with an ARO
□ Written protocol on management of residents with ARO
□ Surveillance program, regular reports or periodic surveys on ARO infections
□ None of the above
□ Other, please specify:

D. Antimicrobial stewardship activities

Please indicate if any of these activities take place at your facility (select all that apply):

□ Implemented one or more policies/procedures to support optimal antibiotic use
□ Infectious disease specialist or pharmacist available for consultation
□ Monitoring at least one measure and at least one outcome of antibiotic use
□ Education to staff, residents, or families on antibiotic resistance or appropriate antibiotic use
□ Reports or information shared with appropriate stakeholders to guide or improve practices
□ Lead(s) for antimicrobial stewardship activities identified
□ List of antimicrobials maintained that are for restricted use
□ Local antimicrobial resistance profiles (antibiogram) available for reference
□ None of the above
□ Other, please specify:

E. Outbreaks

At the time of this survey, is your facility experiencing an outbreak (as defined by your facility)?
□ Yes □ No

If yes, please comment on the type of outbreak (organism) and approximately how long the outbreak has been going on:

[1]Residents on the census (living full-time in the facility, present at 8:00AM, and not away from facility overnight on day of prevalence) who meet the following criteria: have an infection **OR** are known to be colonized by one of the antimicrobial resistant organisms under surveillance; **OR** using at least one systemic antibiotic (ATC code starting with J01) on the prevalence date.

2019 Point Prevalence Survey for Antimicrobial Use and Antimicrobial Resistant Organisms in Long Term Care Facilities | Resident Questionnaire

One questionnaire must be completed for each resident that meets survey criteria[1] *on the day of the prevalence*
Facility ID: **Resident ID:**

Resident Information		
On the day of the survey (select all that apply):		
Resident has a current infection meeting the surveillance case definition	□	Complete section A, B, C
Resident is known to be colonized or previously infected with an ARO	□	Complete section B, C
Resident is taking antibiotics	□	Complete section D

Age (years):	Sex: □ Male □ Female
Date of first admission to your facility: _____ DD / MMM / YYYY	Admission to acute care hospital in the last 12 months: □ Yes □ No
Number of occupied beds in the resident's room (including this resident):	Does the resident have their own bathroom? □ Yes □ No

Does the resident have any of the following devices (select all that apply):
□ Endotracheal or tracheotomy tube
□ Urinary catheter
□ Central venous or peripherally inserted central venous line
□ Peripheral intravenous line / Hypodermic needle
□ Gastrostomy tube (G-tube)
□ Dialysis shunt
□ Peritoneal dialysis catheter
□ None
□ Other, please specify:

A. Current infection			
Infection 1			
What type of infection does the resident have? (please select one)*:*		*What organism is the cause of this infection?* (please select one)*:*	
Urinary tract infection	□	MRSA	□
Pneumonia	□	VRE	□
Other respiratory tract infection	□	ESBL	□
Skin/soft tissue infection	□	CRO	□
Bloodstream infection	□	*C. difficile*	□
C. difficile infection	□	Other (specify):	□
Other (specify):	□	Unknown / not tested	□
		Sample submitted for testing	□

Infection 2 (if applicable)			
What type of infection does the resident have? (please select one)*:*		*What organism is the cause of this infection?* (please select one)*:*	
Urinary tract infection	□	MRSA	□
Pneumonia	□	VRE	□
Other respiratory tract infection	□	ESBL	□
Skin/soft tissue infection	□	CRO	□
Bloodstream infection	□	*C. difficile*	□
C. difficile infection	□	Other (specify):	□
Other (specify):	□	Unknown / not tested	□
		Sample submitted for testing	□

B. Colonization or previous infection			
Is the resident known to be colonized or previously infected with an ARO? This does not include any infections on the day of the survey (select all that apply):			
	Currently colonized	Colonized in last 12 months	Infection in last 12 months
MRSA	□	□	□
VRE	□	□	□
ESBL	□	□	□
CRO	□	□	□
C. difficile	□	□	□
Other (specify):	□	□	□

C. Infection control measures			
What measures are being used to care for this resident (select all that apply):		*Type of room accommodation (select one):*	
□	Routine practices	□	Private room
□	Contact precautions	□	In room with other resident(s) with same organism
□	Droplet precautions	□	In room with other resident(s) with different organism
□	Airborne precautions	□	In room with lower risk resident(s)
□	Other, please specify:	□	Other, please specify:

D. Antibiotic use			
Please indicate which antibiotic(s) the resident is taking on the day of the survey. Write the name of each drug in the space below:			
Antibiotic 1:		Antibiotic 2 (if applicable):	
Why is the resident taking the antibiotic?		*Why is the resident taking the antibiotic?*	
To treat infection described in section A	□	To treat infection described in section A	□
To treat another infection or condition	□	To treat another infection or condition	□
To prevent infection	□	To prevent infection	□
Other, please specify:	□	Other, please specify:	□