Interior Health
INFECTION PREVENTION & CONTROL

C. DIFFICILE SURVEILLANCE PROTOCOL

June 2023

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CDI Toolkit

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Background

Clostridioides difficile infection (CDI) is the most common cause of hospital acquired diarrhea, caused by an anaerobic, gram-positive, spore forming bacteria *Clostridioides difficile* (1). In a healthcare setting, *C. difficile* can be spread from patient to patient via the hands of healthcare workers or through contact with contaminated equipment or other surfaces. CDI often occurs as a combination of critical events: the disruption of the normal colonic flora, by antimicrobial agents (certain antibiotics such as 3rd generation cephalosporins and fluoroquinolones pose a greater risk) or antineoplasticagents, an exposure to toxigenic strains of *C. difficile* and the presence of one or more host factors that increase their susceptibility to any infection like advanced age, use of proton-pump inhibitors, more severe underlying illnesses and length of hospital stay.

Because *C. difficile* colonization is common in hospitalized patients (2), it is critical that testing only be performed in patients who meet appropriate clinical criteria for testing. Tests are performed on patients with new, unexplained diarrhea, who have had ≥3 liquid bowel movements in 24 hours or, less frequently in patients who are presenting with complications of CDI such as ileus and toxic megacolon, if sample collection is possible. Before testing it is important to determine baseline stool patterns and other possible causes of diarrhea such as laxatives or underlying medical issues.

In certain patients, CDI may result in complications, such as ileus, toxic megacolon, or even death. Patients with these presentations may not have active diarrhea, so will not be diagnosed with conventional stool test. In patients with toxic megacolon, the colon becomes dilated and inflamed, and is susceptible to perforation. These patients typically require urgent colectomy for treatment. Pathologic examination of the colon provides findings consistent with pseudomembranous colitis and CDI.

Objectives

- To determine the incidence of recognized healthcare-associated and community-associated CDI in the populationunder surveillance in Interior Health
- Identify CDI cases by location of symptom onset (i.e., healthcare-onset or community-onset)
- To establish periodic and annual CDI incidence rates for trend analysis over time and to compare with internaland external benchmarks
- To use surveillance results to develop and evaluate Infection Prevention and Control (IPAC) interventions whichsupport safer patient care
- To identify clusters and potential outbreaks of CDI across Interior Health sites
- To describe secular trends and disease patterns, including morbidity and mortality
- To provide feedback and interpretation from IPAC to other interest groups including point of care staff, managers, directors, and senior leadership

Methodology

The IH surveillance program collects and analyze data and provide report on C. difficile infections in the health authority based on standardized protocol from the Provincial Infection Control Network (PICNet) used in British Columbia (2). Surveillance definitions are not necessarily the same as clinical definitions and may not be appropriate for clinical

decision-making and treatment. CDI surveillance program depends on the identification of CDI cases through the use of positive laboratory reports reported to IPAC Dashboard. Identification using laboratory reports requires the Infection Preventionist (IP) to evaluate the case and determine if the patient/resident meets the CDI case definitions for surveillance based on information obtained by reviewing the patient/resident file, notes or records, nurses' logs, and other available clinical information. Evaluation of cases by IPs is performed using an algorithm integrated into the IPAC Dashboard (Appendix B). Obtained information will be used to fill a Case Report Form (CRF) for CDI that is integrated into Dashboard and should be completed within one month (30 days) of identifying a confirmed CDI case or at the time of discharge if less than 30 days.

IH laboratories perform nearly all outpatient testing for the region, resulting in a more comprehensive case finding, compared to health authorities in which outpatient testing is performed by private laboratories. Additionally, many cases were being reporting as *C. difficile* infection without thorough review of patient history to see if they met case definition. In follow up of these issues, a CDI surveillance process has been developed (Appendix B), which is detailed in this procedure.

In the procedure, there are notable differences in which cases are reported to PICNet (named as P-HA-CDI in Appendix B) and overall cases which are monitored locally by IH IPAC. For PICNet, we do not submit healthcare -associated CDI cases that are identified in outpatients (named as HA-CDI in Appendix B), nor do we submit CDI cases identified in long term care (LTC). However, internally we do monitor these parameters for surveillance purposes, evaluation of trends within, and overall improvement of quality and safety of patient care in IH.

Laboratory Process

In Interior Health, a 2-step algorithm is used for diagnosis of CDI, in keeping with recommended guidelines (1). Laboratory testing is summarized in Appendix A. All liquid stools undergo either an enzyme immunoassay test (EIA) first or molecular testing (PCR) depending on the clinical situation and Most Responsible Provider (MRP). EIA test detects glutamate dehydrogenase (GDH), a protein found in all C. difficile strains, as well as Toxin B, which is found in only toxigenic (infection producing) C. difficile strains.

If a stool is positive for both GDH and Toxin, the stool is reported out as positive. If a stool is positive for GDH, but negative for Toxin result is reported as indeterminate with recommendation for clinical correlation. Careful clinical review my MRP is required in these cases to see if they represent true infections.

If PCR test is ordered and result is positive, EIA toxin test will be used to confirm presence of Toxin. This is because PCR is a very sensitive test and can detect colonization, as well as infection. If the result is PCR positive and EIA positive the final result will be reported as positive. If the PCR is positive and EIA negative the final result will be reported as inconclusive with the recommendation for clinical correlation. For indeterminate reports careful clinical review is required in these cases to see if they represent true CDI.

Patient Population

All individuals tested for CDI in IH facilities are included in the IPAC Dashboard for analysis through the laboratory reports. Cases reported for PICNet are focused on inpatients aged one year or older and admitted to acute care facilities in IH.

Surveillance Case Definitions

CDI case:

- a patient who has **ALL** of the following:
  - Diarrhea (≥3 loose stools) in 24 hours
  - Stool output greater than baseline
  - No other clinical reason for diarrhea (e.g. laxatives)

  OR

- toxic megacolon **OR**
- diagnosis of typical pseudo-membranous colitis on sigmoidoscopy or colonoscopy **OR**
- histological/pathological diagnosis of CDI with or without diarrhea **OR**

Diarrhea is defined as persistent liquid or loose stools (e.g., passing liquid or loose stools three or more times per day for more than 24 hours) or more frequently than is normal for the patient. If the patient's medical chart was reviewed and the information about the frequency and consistency of diarrhea was not available, IP will consult with the nurse or physician caring for the patient, provide education about importance of bowel charting for surveillance, request bowel charting, and will record this information in the CRF for documentation purposes and further analysis.

Colonization case:

- Indeterminate test where MRP decided that case is colonization and not treating CDI
- Positive or Indeterminate CDI laboratory test **AND** patient does **NOT** meet CDI case definition above

New case of CDI:

- A case without history of previous CDI

OR

- A case that has not had an episode of CDI in the last 8 weeks

Relapse of CDI:

- The episode of CDI reoccurred between 2 and 8 weeks after a previous CDI case*

*The period of 2-8 weeks can be calculated from the date of specimen collection or identification of previous CDI to the date of recurrence of CDI episode. Only the CDI identified within 2-8 weeks after the previous one is defined as a relapse of CDI. Recurrence of CDI episode within 2 weeks from previous CDI is considered a continuation of the previous CDI. If the CDI is identified more than 8 weeks after the previous one, it will be considered as a new case.

CASE CLASSIFICATIONS

A CDI case is classified as either healthcare-associated (HCA) or community-associated (CA) based on the symptom onset of CDI and the patient's healthcare encounter history in the last 4 weeks. *

*The date of specimen collection is used as a proxy for symptom onset of CDI. If the date of specimen collection is not available, the date of laboratory report or the date of diagnosis (whichever comes the earliest) can be used.

P-HA (Healthcare-associated) CDI (reported to PICNet):

- CDI case occurring > 72 hours or >3 calendar days after admission to an acute care facility

OR

- A CDI case with symptom onset in the community or occurring ≤ 72 hours or ≤ 3 calendar days after admission to an acute care facility, provided that the patient was admitted to a healthcare facility (including acute care and long-term care) for a period of ≥ 24 hours or at least overnight stay in the past 4 weeks before onset of CDI symptoms.

For the cases of HA CDI reported to PICNet, they are further classified into following groups when reporting to PICNet

P-HA CDI classifications (reported to PICNet):

- **P-HA CDI-your facility:** CDI case occurring > 3 calendar days after admission to an acute care facility
- **P-HA CDI-other facility:** Patient currently admitted to your facility for ≤3 calendar days, but was admitted to a different acute care facility for a period of ≥24 hours in the 4 weeks prior to CDI symptoms

P-Relapse CDI classifications (reported to PICNet):

- **CDI relapse-Your facility:** Relapsed CDI case in which the original case was associated with your acute care facility
- **CDI relapse-Other facility:** Relapsed CDI case in which the original case was associated with a different acute care facility

P-CA (Community-associated) CDI (reported to PICNet):

- CDI case with symptom onset in the community **OR** occurring ≤72 hours (3 calendar days) after admission to an acute care facility

AND

- Patient was not admitted to any healthcare facility (acute or LTC) for a period of ≥24 hours in the 4 weeks prior to CDI symptoms

P-LTC (Long term care) CDI (reported to PICNet):

- Patient had an admission to LTC for ≥24 hours in the past 4 weeks prior to CDI symptoms, and is now admitted/being admitted to acute care (included in final P-HA rate)

Unknown:

- A CDI case where there is not enough information to assess whether the patient had a healthcare encounter in the past 4 weeks before onset of CDI symptoms

Internally, we monitor following groups of patients for surveillance purposes, evaluation of trends within, and overall improvement of quality and safety of patient care in IH.

HA (Healthcare associated) CDI (reported internally):

- CDI case identified in outpatient or patients from the emergency department not subsequently admitted to the reporting facility at the time of testing

AND

- The patient was admitted to an acute healthcare facility (including acute care and long-term care) for a period of ≥ 24 hours or at least overnight stay in the past 4 weeks before onset of CDI symptoms

Long term care associated (LTC) CDI (reported internally):

- CDI case occurring > 3 calendar days after admission to a long-term care facility (reported internally)

OR

- Patient had an admission to LTC for ≥24 hours in the 4 weeks prior to CDI symptoms, that is NOT being admitted to acute care (community testing)

Non-IH CDI (reported internally):

- Patient had a previous admission to a non-IH facility for ≥24 hours in the 4 weeks prior to CDI symptoms, and is now testing positive on admission to an IH facility

Identifying a Potential Outbreak

Use the following criteria as a guide to trigger additional actions for a potential CDI outbreak:

- For units with ≥ 20 beds, three (3) new cases of HA CDI identified on one unit within a seven-day period OR five (5) new cases of HA CDI within a four-week period,

OR

- For units with <20 beds, two (2) new cases of HA CDI identified on one unit within a seven-day period OR four (4) new cases of HA CDI within a four-week period,

OR

- Facilities that have a HA CDI rate that exceeds their annual HA baseline rate for a period of two consecutive months. NOTE: This is not valid for a small community hospital, where a single case of HA CDI can artificially elevate the facility rate.

It should be noted that exceeding a threshold does not necessarily imply that an outbreak will be declared but warrants additional investigation.

Rate Calculation

Numerators are obtained following IP classification of cases in the IPAC Dashboard according to CDI classification algorithm (Appendix B). Denominators (numbers of inpatient admission and inpatient days) are provided by IH Analytics for each fiscal period.

Incidence rates for IH hospitalized patients Calculations	**Calculations**
P-Healthcare-associated CDI-your IH facility (Reported to PICNet)	Number of healthcare-associated CDI cases x 10,000 Number of patient-days
P-Healthcare-associated CDI-other IH facility (Reported to PICNet)	Number of healthcare-associated CDI cases x 10,000 Number of patient-days
P-CDI-relapse your IH facility (Reported to PICNet)	Number of P-CDI-relapse your IH facility cases x 10,000 Number of patient-days
P-CDI-relapse other IH facility (Reported to PICNet)	Number of P-CDI-relapse other IH facility cases x 10,000 Number of patient-days
Community-associated (CA) CDI (Reported to PICNet)	Number of community-associated CDI cases x 1,000 Number of admissions

HA CDI Healthcare-associated CDI (reported internally) are analyzed and used internally to provide better understanding of risks associated with hospital care and are provided to partners.

Complications of CDI

Patients with CDI will be followed up for 30 days after CDI diagnosis or up until the patient is discharged or transferred to evaluate whether the patient was admitted to intensive care unit (ICU), developed toxic megacolon, or required total or partial colectomy due to CDI. Only report these complications if they are associated with CDI. CDI attributable death will also be recorded. Complications are documented according to instructions in Case report form for CDI.

- **ICU admission:** admitted to ICU due to CDI episode or the complications that were associated with CDI.
  EXCLUDES:
  -Patients who developed CDI while in ICU
  -Patients who were admitted to ICU due to other medical conditions that were not related to CDI
- **Toxic megacolon:** physician diagnosis of toxic megacolon due to CDI, e.g., abnormal dilation of the large intestine documented radiologically. EXCLUDE toxic megacolon caused by other pathogens.
- **Total or partial colectomy:** documented evidence of surgical removal of part or the entire colon due to CDI. EXCLUDE colectomy that was due to other medical reasons.
- **Death attributable to CDI** (shall be reported to IPAC manager, IPAC Director and IPAC Medical director as soon as information available to IP)

All cases of death occurring within 30 days of diagnosis of a healthcare-associated CDI case that occur in hospital will be assessed by an IPAC Medical director and/or designated physicians (Medical Microbiologist on call, Infectious diseases physician and Most Responsible Physician) to determine if the death was attributable to CDI. Cause of death will be determined by the following criteria:

Criteria	Outcome
Directly related	CDI was the cause of death. The patient had no other condition that would have caused death during this admission.
Contributed to death	CDI exacerbated an existing disease condition that led to the patient's death.
Not related to death	The patient died but death was not related to CDI.
Unable to determine	Causality between CDI and death cannot be determined.

Data Quality

The purpose of evaluating the quality of data is to ensure that CDI-related events are being monitored efficiently and effectively. The evaluation involves the assessment of the program (i.e., the protocol, and reporting) and system (i.e., electronic data collection tool) attributes, including relevance, simplicity, flexibility, data quality, acceptability, consistency, representativeness, timeliness, and stability. Data shall be entered and analyzed by an IP in a manner that is consistent with the protocol definitions. All CDI data are evaluated on a fiscal period basis by IPAC Epidemiologist and IPAC Medical director or designate to ensure validity and data standardization.

Reporting

Communication and dissemination of surveillance reports is an integral part of surveillance to inform IPAC practice within IH facilities and provide support for interventions that improve the quality of patient care delivered. After approval by IPAC Director and IPAC Medical director the final formal CDI surveillance reports are published and sent to relevant interested parties. Formal reports are generated routinely (usually fiscal period) using reconciled and validated data and are available on the IPAC Scorecard. The reports contain information on the facility and are presented to the local IPAC or Quality Committee for information and improvement actions. Operational reports are created by local IPs or their designate and may or may not consist of reconciled and validated data, as they are often created with real-time, as is, data.

Routine IP Surveillance Procedure

<table>
<tr><th>Step</th><th colspan="2">Action</th></tr>
<tr><td>1</td><td colspan="2">• Identify suspected CDI cases as soon as possible:
○ Review the Focus Report for pending C. difficile tests twice daily
○ Review patients admitted with diarrhea or gastroenteritis
○ During rounds- follow up on any new patients on Contact Plus precautions
• Ensure patient placed in appropriate room on Contact Plus precautions with dedicated equipment and bedside nurse has initiated Bristol stool chart pending C. difficile test results</td></tr>
<tr><td>2</td><td colspan="2">If CDI case confirmed, initiate the C. difficile Case Reporting Form For Infection Preventionists in Dashboard</td></tr>
<tr><td rowspan="3">3</td><td colspan="2">Assess patient location at time of review (done as soon as possible after case identified)</td></tr>
<tr><td>If</td><td>Then</td></tr>
<tr><td>patient is admitted at Interior Health hospital or long-term care facility</td><td>• Visit ward and follow up with Primary Healthcare Worker to ensure patient is in an appropriate room with dedicated equipment, contact plus precautions are initiated, appropriate PPE is in place/available and Bristol stool chart is being used.
• If no private room, cohort with another CDI positive patient at similar stage of disease
• If providing remote support for a long-term care facility or acute site, phone bedside nurse and follow up as per above.
• Perform detailed chart review to determine if patient meets case definition and obtain information required to complete the assessment</td></tr>
<tr><td>patient is not admitted to IH Facility (including ED visits)</td><td>• Assess patient based on data available from Meditech to confirm that patient was not admitted to any healthcare facility (acute or LTC) for a period of ≥24 hours in the 4 weeks prior to CDI symptoms (required for HA or P-CA classification)</td></tr>
<tr><td>4</td><td colspan="2">Complete the Case assessment section
• Follow C. difficile infection (CDI) Surveillance Process chart (See Appendix B)
• Determine how case will be reported to IH IPAC and PICNet (See Appendix C for definitions)</td></tr>
<tr><td rowspan="4">5</td><td colspan="2">For acute care facilities, determine if there is an attributable unit for the CDI case</td></tr>
<tr><td>If</td><td>Then</td></tr>
<tr><td>Patient was on unit >72 hours immediately before onset of CDI</td><td>CDI attributed to unit</td></tr>
<tr><td>Patient admitted ≤72 hours, but has previous admission > 24 hrs in past 4 weeks
<u>AND</u>
• Patient re-admitted when the C. difficile was specimen collected
<u>OR</u>
• Patient re-admitted because of a positive C. difficile test
Note: ED visit without admission does not count as re-admission</td><td>CDI attributed to the unit patient was on immediately prior to discharge from the previous admission</td></tr>
<tr><td>Patient does not meet the above criteria</td><td>Unit unknown/Unable to determine</td></tr>
<tr><td>6</td><td colspan="2">Enter and finalize the case into the C. difficile dashboard as soon as possible (See Appendix D)</td></tr>
<tr><td>7</td><td colspan="2">Initially round on patient daily then every few days until isolation discontinued (return to baseline stool pattern for ≥ 72 hours)
• Use ICP Charting section of C. difficile Case Reporting Form to note patient's stool patterns or photocopy the bowel record.
• ICP is responsible to guide HCW in discontinuation of precautions when patient has returned to baseline stool pattern for ≥ 72 hours</td></tr>
<tr><td>8</td><td colspan="2">30-day complications and outcomes are examined for admission to the intensive care unit (ICU), toxic megacolon, total or partial colectomy, and death.
Complications are documented in CRF for further analysis and PICNet reporting. You can complete your case in dashboard and go back and enter later if any complications arise. Note: the above complications will typically occur at time of or soon after diagnosis.</td></tr>
</table>

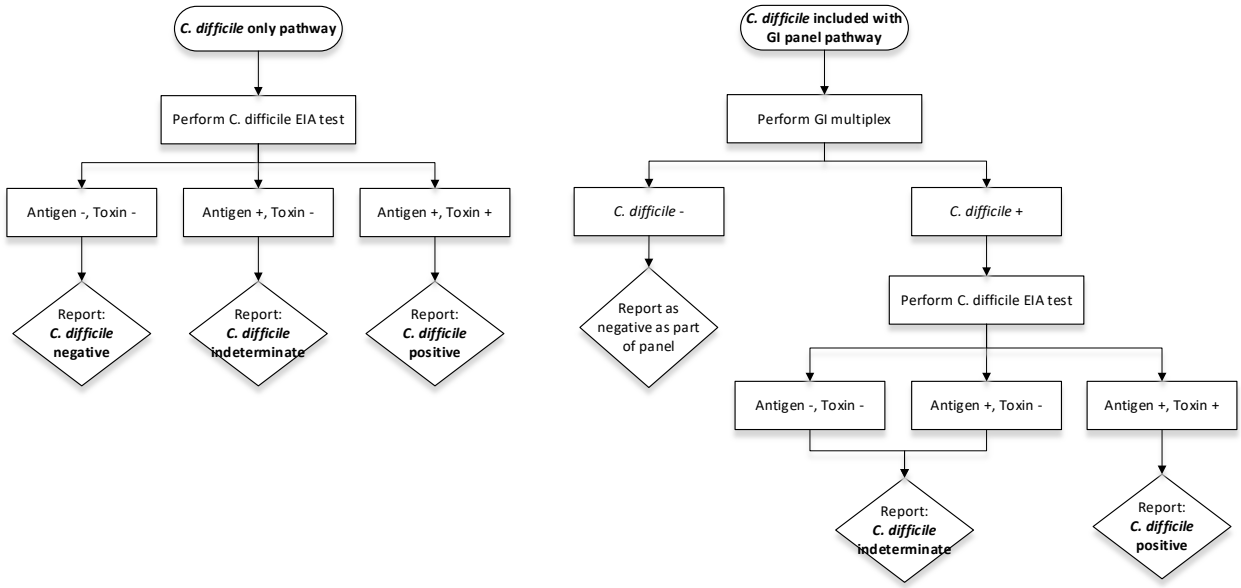
9	**Death attributable to CDI must be reported** to Manager, IPAC Director and IPAC Medical director within 24 hours of occurrence using email and SBAR format.

Canadian Nosocomial Surveillance Program (CNISP) IP Surveillance Procedure

Step	Action
1	Once case has been filed in dashboard, complete the CNISP line list spreadsheet, located at Saved file at F:\IHA Teams\IH Infection Control\Surveillance
2	Once data entered by IP into CNISP form they will be submitted to CNISP.
3	IPAC Manager/Epidemiologist will review spreadsheet quarterly for accuracy and quality purposes
4	Epidemiologist will submit data to CNISP quarter following approval from IPAC Director and IPAC Medical director.

Appendix A: Summary of laboratory Testing for C. difficile infection

***C. difficile* Reporting Scheme**



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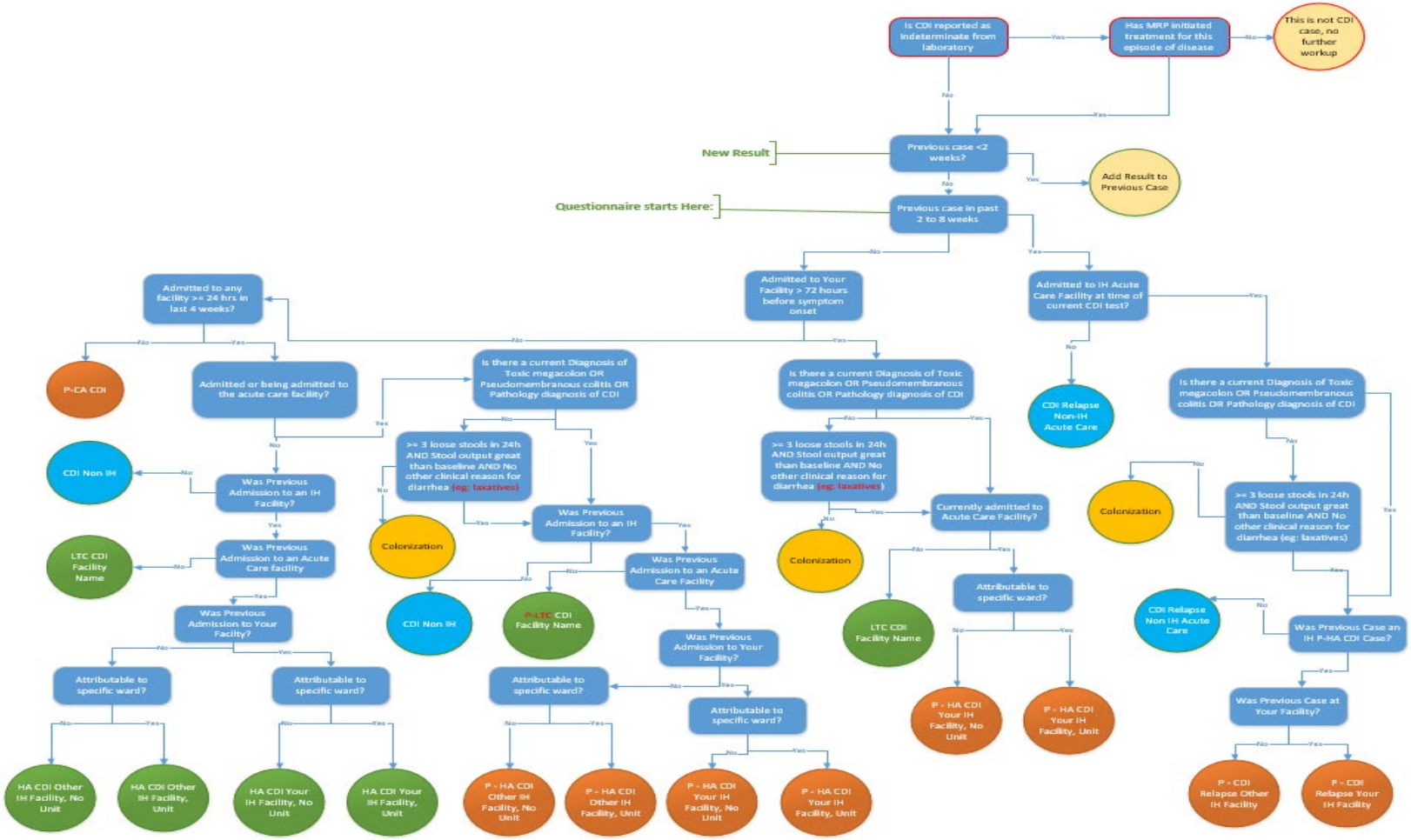
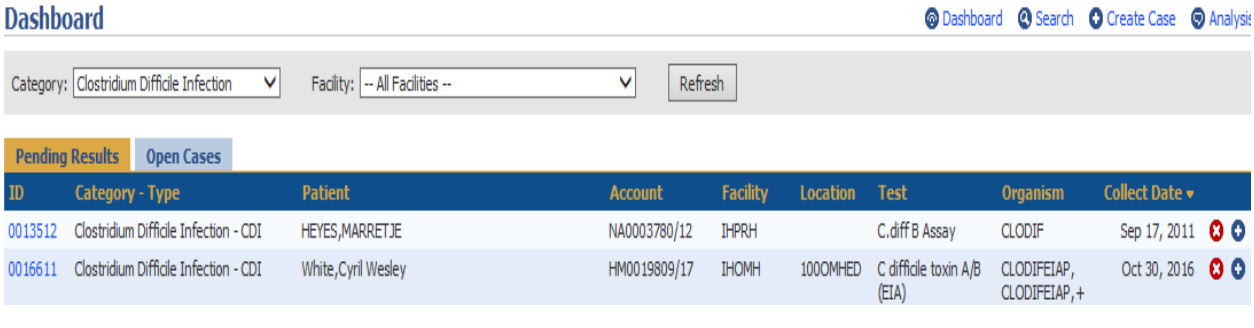
Appendix B: C. difficile Infection (CDI) Surveillance Process Chart

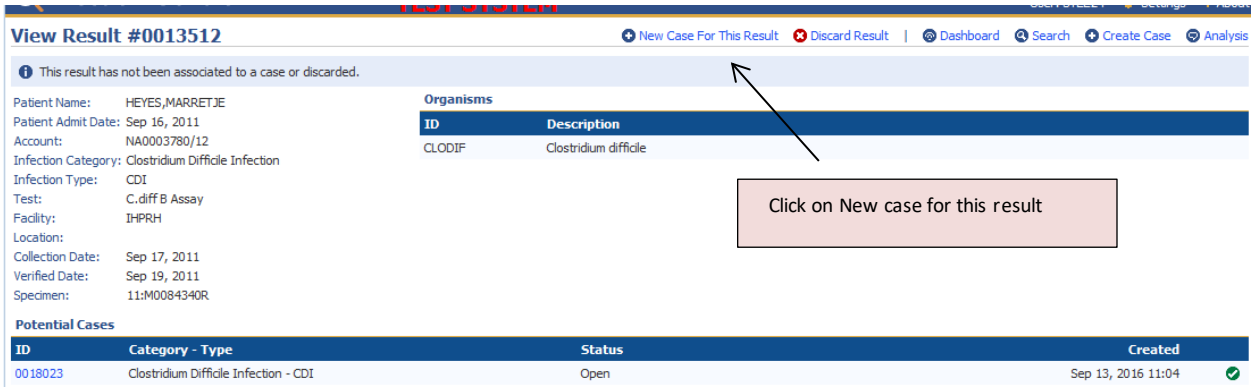


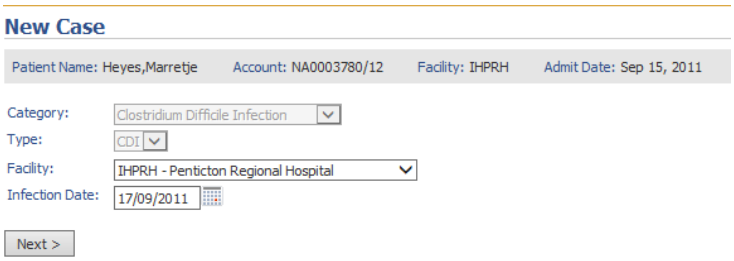
Appendix C: Examples of reporting classifications

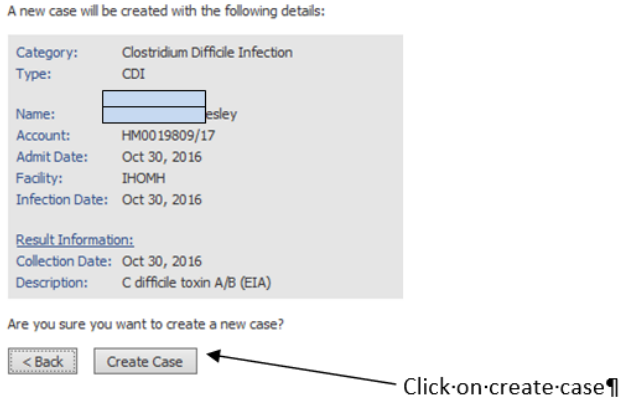
Scenario	PICNet reporting	IH IPAC reporting
Patient admitted to KGH 5B for 30 days develops CDI.	KGH would evaluate case and report as: **P-HA CDI-Your IH facility, unit**	HA CDI-KGH 5B
Patient admitted to VJH 7th floor for 4 days, then transferred to KGH. Two days after admission, patient develops CDI.	KGH would evaluate case and report as: **P-HA CDI-Other IH facility, unit**	HA CDI-VJH 7
Patient admitted to Vancouver General Hospital for 4 days, then transferred to KGH. Two days after admission, patient develops CDI.	KGH would evaluate case and report as: **CDI Non IH**	HA CDI-Non-IH-Vancouver General Hospital
Patient develops CDI while admitted to KGH on alternate level of care. Six weeks after initial episode, patient develops CDI relapse.	KGH would evaluate case and report as: **P-CDI relapse-Your IH facility**	CDI relapse-KGH
Patient develops CDI while admitted to KGH. Patient is repatriated to SLH and develops CDI relapse 3 weeks later.	SLH would evaluate case and report as: **P-CDI relapse-Other IH facility**	CDI relapse-KGH
Patient admitted to KGH with CDI symptoms, who has no hospitalizations within the past 4 weeks	KGH would evaluate case and report as: **P-CA CDI**	CA CDI

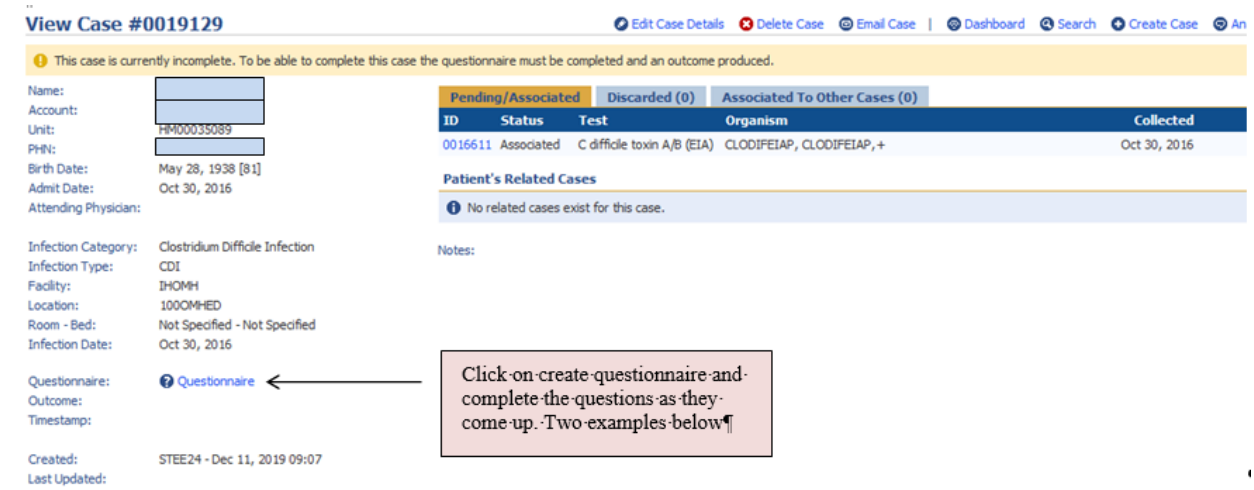
Appendix D: Instructions for entering cases into the Infection Control Dashboard

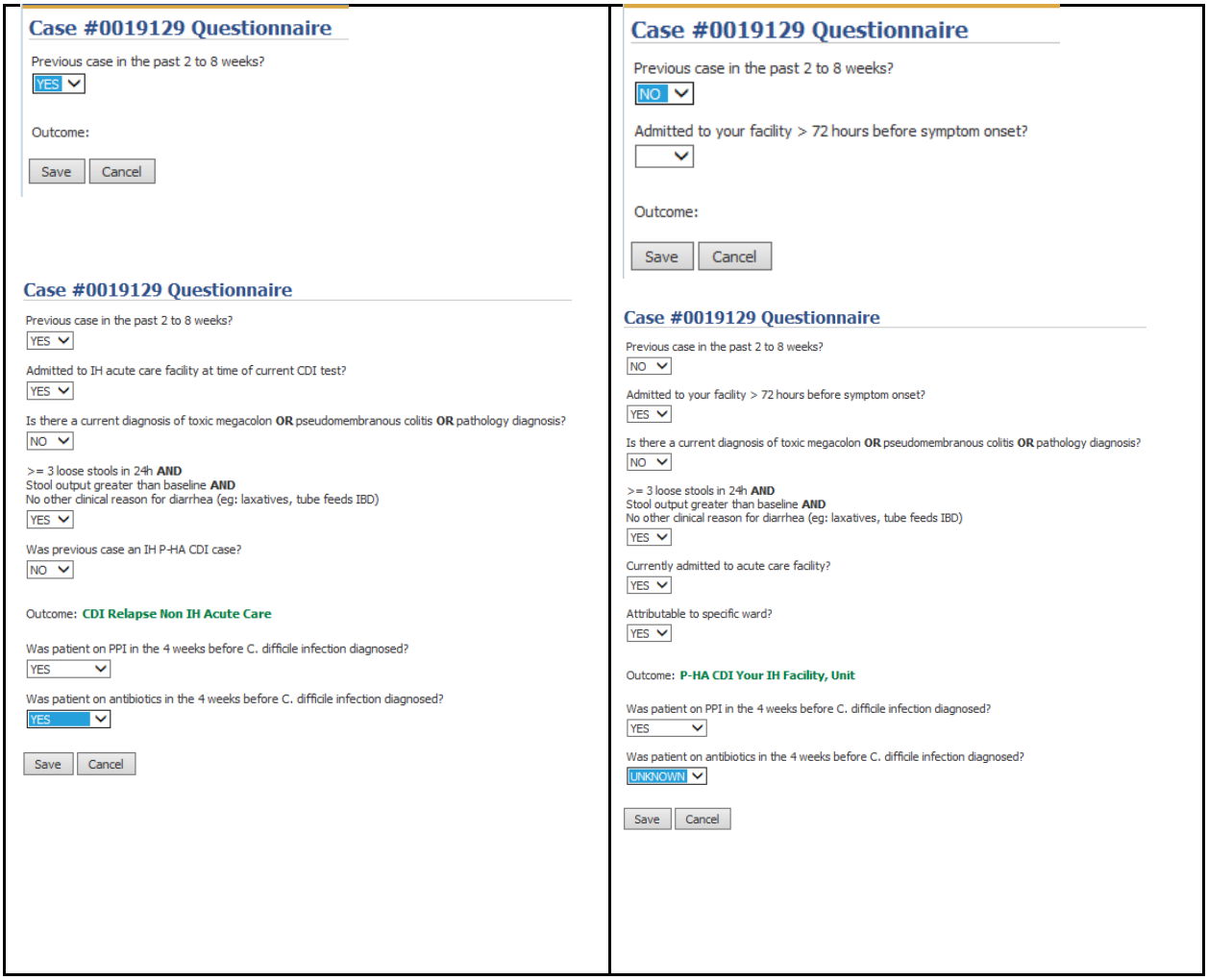


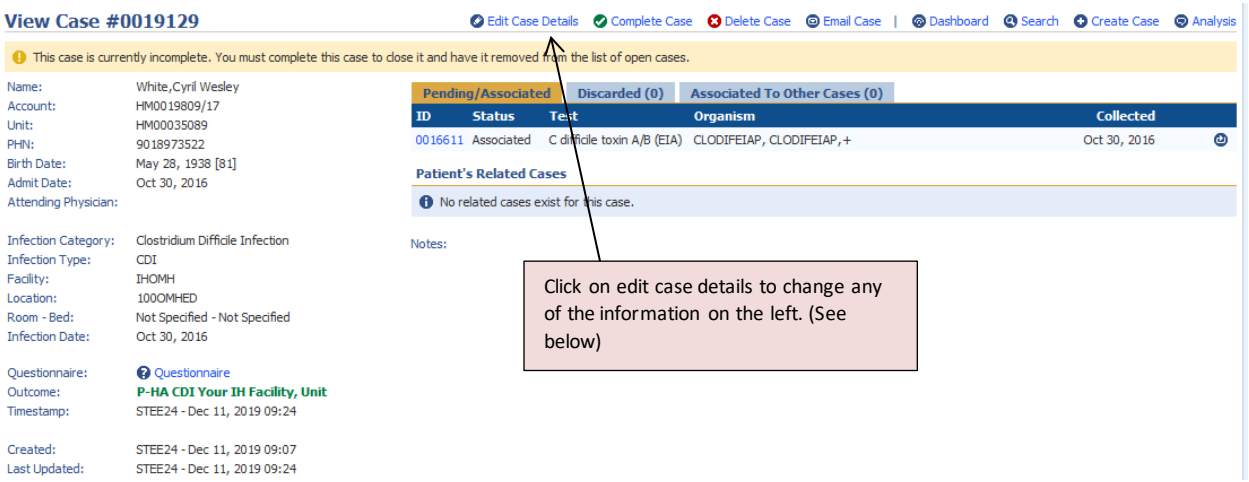


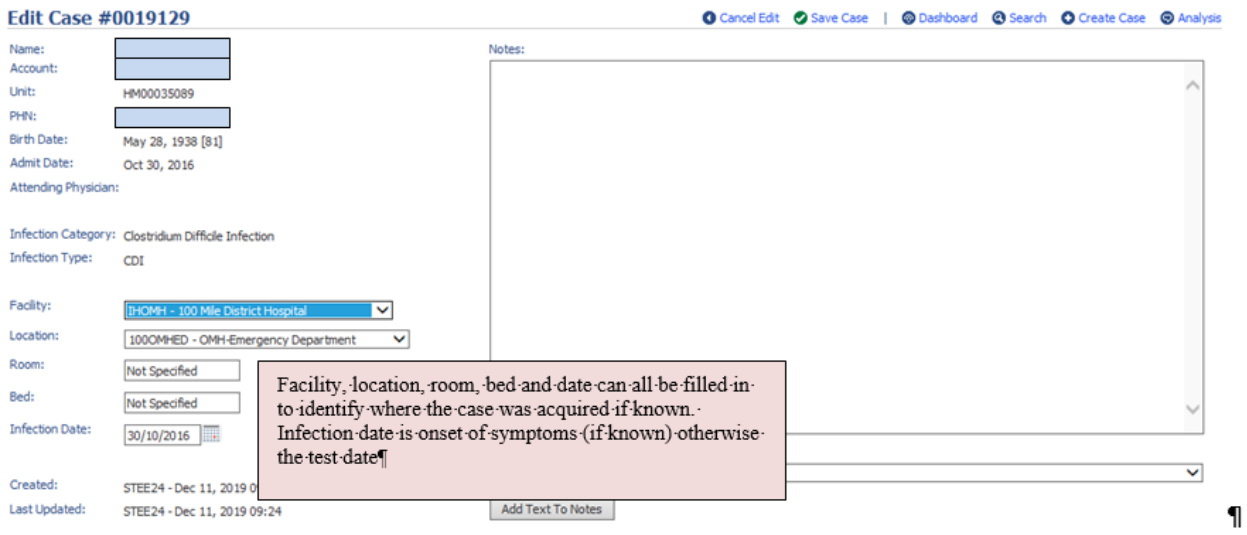




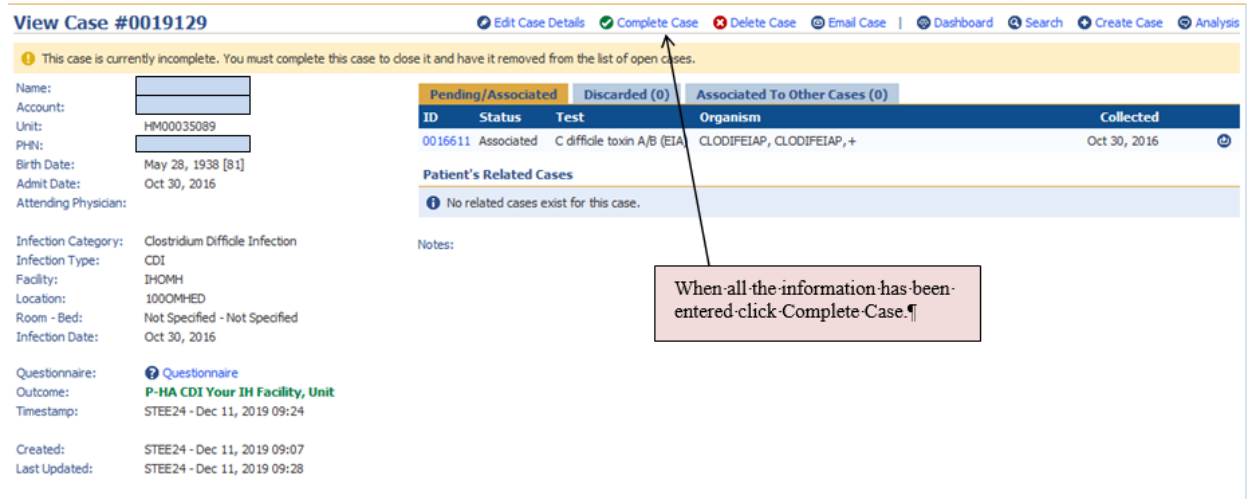

View Case #0019129
Edit Case Details
Delete Case
Email Case
Dashboard
Search
Create Case
This case is currently incomplete. To be able to complete this case the questionnaire must be completed and an outcome produced.
Name:
Account:
Unit: HM00035089
PHN:
Birth Date: May 28, 1938 [81]
Admit Date: Oct 30, 2016
Attending Physician:
Pending/Associated
Discarded (0)
Associated To Other Cases (0)
ID Status Test Organism Collected
0016611 Associated C difficile toxin A/B (EIA) CLODIFEIAP, CLODIFEIAP, + Oct 30, 2016
Patient's Related Cases
No related cases exist for this case.
Infection Category: Clostridium Difficile Infection
Infection Type: CDI
Facility: IHOMH
Location: 100OMHED
Room - Bed: Not Specified - Not Specified
Infection Date: Oct 30, 2016
Notes:
Questionnaire:
Questionnaire
Outcome:
Timestamp:
Created: STEE24 - Dec 11, 2019 09:07
Last Updated:
Click on create questionnaire and complete the questions as they come up. Two examples below¶


Case #0019129 Questionnaire
Previous case in the past 2 to 8 weeks?
YES
Outcome:
Save
Cancel
Case #0019129 Questionnaire
Previous case in the past 2 to 8 weeks?
YES
Admitted to IH acute care facility at time of current CDI test?
YES
Is there a current diagnosis of toxic megacolon OR pseudomembranous colitis OR pathology diagnosis?
NO
>= 3 loose stools in 24h AND
Stool output greater than baseline AND
No other clinical reason for diarrhea (eg: laxatives, tube feeds IBD)
YES
Was previous case an IH P-HA CDI case?
NO
Outcome: CDI Relapse Non IH Acute Care
Was patient on PPI in the 4 weeks before C. difficile infection diagnosed?
YES
Was patient on antibiotics in the 4 weeks before C. difficile infection diagnosed?
YES
Save
Cancel
Case #0019129 Questionnaire
Previous case in the past 2 to 8 weeks?
NO
Admitted to your facility > 72 hours before symptom onset?
Outcome:
Save
Cancel
Case #0019129 Questionnaire
Previous case in the past 2 to 8 weeks?
NO
Admitted to your facility > 72 hours before symptom onset?
YES
Is there a current diagnosis of toxic megacolon OR pseudomembranous colitis OR pathology diagnosis?
NO
>= 3 loose stools in 24h AND
Stool output greater than baseline AND
No other clinical reason for diarrhea (eg: laxatives, tube feeds IBD)
YES
Currently admitted to acute care facility?
YES
Attributable to specific ward?
YES
Outcome: P-HA CDI Your IH Facility, Unit
Was patient on PPI in the 4 weeks before C. difficile infection diagnosed?
YES
Was patient on antibiotics in the 4 weeks before C. difficile infection diagnosed?
UNKNOWN
Save
Cancel


View Case #0019129
Edit Case Details
Complete Case
Delete Case
Email Case
Dashboard
Search
Create Case
Analysis
This case is currently incomplete. You must complete this case to close it and have it removed from the list of open cases.
Name: White,Cyril Wesley
Account: HM0019809/17
Unit: HM00035089
PHN: 9018973522
Birth Date: May 28, 1938 [81]
Admit Date: Oct 30, 2016
Attending Physician:
Infection Category: Clostridium Difficile Infection
Infection Type: CDI
Facility: IHOMH
Location: 100OMHED
Room - Bed: Not Specified - Not Specified
Infection Date: Oct 30, 2016
Questionnaire: Questionnaire
Outcome: P-HA CDI Your IH Facility, Unit
Timestamp: STEE24 - Dec 11, 2019 09:24
Created: STEE24 - Dec 11, 2019 09:07
Last Updated: STEE24 - Dec 11, 2019 09:24
Pending/Associated
Discarded (0)
Associated To Other Cases (0)
ID Status Test Organism Collected
0016611 Associated C difficile toxin A/B (EIA) CLODIFEIAP, CLODIFEIAP,+ Oct 30, 2016
Patient's Related Cases
No related cases exist for this case.
Notes:
Click on edit case details to change any of the information on the left. (See below)


Edit Case #0019129
Cancel Edit
Save Case
Dashboard
Search
Create Case
Analysis
Name:
Account:
Unit: HM00035089
PHN:
Birth Date: May 28, 1938 [81]
Admit Date: Oct 30, 2016
Attending Physician:
Infection Category: Clostridium Difficile Infection
Infection Type: CDI
Facility: IHOMH - 100 Mile District Hospital
Location: 100OMHED - OMH-Emergency Department
Room: Not Specified
Bed: Not Specified
Infection Date: 30/10/2016
Created: STEE24 - Dec 11, 2019
Last Updated: STEE24 - Dec 11, 2019 09:24
Notes:
Add Text To Notes
Facility, location, room, bed and date can all be filled in to identify where the case was acquired if known. Infection date is onset of symptoms (if known) otherwise the test date¶

¶


View Case #0019129
Edit Case Details
Complete Case
Delete Case
Email Case
Dashboard
Search
Create Case
Analysis
This case is currently incomplete. You must complete this case to close it and have it removed from the list of open cases.
Name:
Account:
Unit: HM00035089
PHN:
Birth Date: May 28, 1938 [81]
Admit Date: Oct 30, 2016
Attending Physician:
Infection Category: Clostridium Difficile Infection
Infection Type: CDI
Facility: IHOMH
Location: 100OMHED
Room - Bed: Not Specified - Not Specified
Infection Date: Oct 30, 2016
Questionnaire: Questionnaire
Outcome: P-HA CDI Your IH Facility, Unit
Timestamp: STEE24 - Dec 11, 2019 09:24
Created: STEE24 - Dec 11, 2019 09:07
Last Updated: STEE24 - Dec 11, 2019 09:28
Pending/Associated
Discarded (0)
Associated To Other Cases (0)
ID Status Test Organism Collected
0016611 Associated C difficile toxin A/B (EIA) CLODIFEIAP, CLODIFEIAP,+ Oct 30, 2016
Patient's Related Cases
No related cases exist for this case.
Notes:
When all the information has been entered click Complete Case.¶

Positive on admission with recent stay at acute care IH facility in past 4 weeks

Case #0019130 Questionnaire

Previous case in the past 2 to 8 weeks?
NO

Admitted to your facility > 72 hours before symptom onset?
NO

Admitted to any facility >= 24 hrs in last 4 weeks?
YES

Positive or symptomatic on current admission?
YES

Is there a current diagnosis of toxic megacolon **OR** pseudomembranous colitis **OR** pathology diagnosi
NO

>= 3 loose stools in 24h **AND**
Stool output greater than baseline **AND**
No other clinical reason for diarrhea (eg: laxatives, tube feeds IBD)
YES

Was previous admission to an IH facility?
YES

Was previous admission to an acute care facility?
YES

Was previous admission to your facility?
YES

Attributable to specific ward?
YES

Outcome: **P-HA CDI Your IH Facility, Unit**

Was patient on PPI in the 4 weeks before C. difficile infection diagnosed?
UNKNOWN

Was patient on antibiotics in the 4 weeks before C. difficile infection diagnosed?
UNKNOWN

Save Cancel

Positive on admission with no facility stay in last 4 weeks

Case #0019130 Questionnaire

Previous case in the past 2 to 8 weeks?
NO

Admitted to your facility > 72 hours before symptom onset?
NO

Admitted to any facility >= 24 hrs in last 4 weeks?
NO

Outcome: **P-CA CDI**

Was patient on PPI in the 4 weeks before C. difficile infection diagnosed?
UNKNOWN

Was patient on antibiotics in the 4 weeks before C. difficile infection diagnosed?
UNKNOWN

Save Cancel

Colonized

Admitted to your facility > 72 hours

Case #0019130 Questionnaire

Previous case in the past 2 to 8 weeks?
NO

Admitted to your facility > 72 hours before symptom onset?
YES

Is there a current diagnosis of toxic megacolon **OR** pseudomembranous colitis **OR** pathology diagnosi
NO

>= 3 loose stools in 24h **AND**
Stool output greater than baseline **AND**
No other clinical reason for diarrhea (eg: laxatives, tube feeds IBD)
YES

Currently admitted to acute care facility?
YES

Attributable to specific ward?
YES

Outcome: **P-HA CDI Your IH Facility, Unit**

Was patient on PPI in the 4 weeks before C. difficile infection diagnosed?
YES

Was patient on antibiotics in the 4 weeks before C. difficile infection diagnosed?
YES

Save Cancel

Positive on admission with previous admission to non-IH facility in past 4 week

Case #0019130 Questionnaire

Previous case in the past 2 to 8 weeks?
NO

Admitted to your facility > 72 hours before symptom onset?
NO

Admitted to any facility >= 24 hrs in last 4 weeks?
YES

Positive or symptomatic on current admission?
YES

Is there a current diagnosis of toxic megacolon **OR** pseudomembranous colitis **OR** pathology diagnosis?
NO

>= 3 loose stools in 24h **AND**
Stool output greater than baseline **AND**
No other clinical reason for diarrhea (eg: laxatives, tube feeds IBD)
YES

Was previous admission to an IH facility?
NO

Outcome: **CDI Non IH**

Was patient on PPI in the 4 weeks before C. difficile infection diagnosed?
UNKNOWN

Was patient on antibiotics in the 4 weeks before C. difficile infection diagnosed?
UNKNOWN

Save Cancel

Symptomatic on admission from LTC

Case #0019130 Questionnaire

Previous case in the past 2 to 8 weeks?
NO

Admitted to your facility > 72 hours before symptom onset?
YES

Is there a current diagnosis of toxic megacolon **OR** pseudomembranous colitis **OR** pathology diagnosis?
NO

>= 3 loose stools in 24h **AND**
Stool output greater than baseline **AND**
No other clinical reason for diarrhea (eg: laxatives, tube feeds IBD)
NO

Outcome: **Colonization**

Was patient on PPI in the 4 weeks before C. difficile infection diagnosed?
UNKNOWN

Was patient on antibiotics in the 4 weeks before C. difficile infection diagnosed?
UNKNOWN

Save Cancel

Case #0019130 Questionnaire

Previous case in the past 2 to 8 weeks?
NO

Admitted to your facility > 72 hours before symptom onset?
NO

Admitted to any facility >= 24 hrs in last 4 weeks?
YES

Positive or symptomatic on current admission?
YES

Is there a current diagnosis of toxic megacolon **OR** pseudomembranous colitis **OR** pathology diagnosis?
NO

>= 3 loose stools in 24h **AND**
Stool output greater than baseline **AND**
No other clinical reason for diarrhea (eg: laxatives, tube feeds IBD)
YES

Was previous admission to an IH facility?
YES

Was previous admission to an acute care facility?
NO

Outcome: **LTC CDI IH Facility**

Was patient on PPI in the 4 weeks before C. difficile infection diagnosed?
UNKNOWN

Was patient on antibiotics in the 4 weeks before C. difficile infection diagnosed?
UNKNOWN

Save Cancel

References

1. Clinical Practice Guidelines for Clostridium difficile Infection in Adults and Children: 2017 Update by the Infectious Diseases Society of America (IDSA) and Society for Healthcare Epidemiology of America (SHEA). McDonald et al. Clinical Infectious Diseases 2018;66(7): e1–e48.

2. Understanding Clostridium difficile Colonization. Crobach et al. Clin Microbiol Rev 31: e00021-17. Accessed online at: https://doi.org/10.1128/cmr.00021-17

3. Surveillance Protocol for Clostridium difficile Infections (CDI) in BC Acute Care Facilities. Provincial Infection Control Network of BC (PICNet). Accessed online at: https://www.picnet.ca/wp-content/uploads/PICNet-surveillance-protocol-for-CDI-2019.pdf

4. *Clostridium difficile* infection (CDI) surveillance Protocol: Saskatchewan. Saskatchewan Infection Prevention and Control Program. Accessed online at: https://www.ehealthsask.ca/services/resources/Resources/CDI%20Surveillance%20Protocol%20March%202016.pdf

5. *Clostridium difficile* Infection (CDI) Protocol. Infection Prevention and Control Alberta Health Services and Covenant Health. Accessed online at: https://www.albertahealthservices.ca/assets/healthinfo/ipc/hi-ipc-sr-cdi-protocol.pdf

Revision History

Effective Date	June 2023		
Last Reviewed			
Approved By	IPAC		
Owner	Infection Prevention and Control		
Revision History	Date	Section	Revision

For more information contact IPAC@interiorhealth.ca