RAISE
the bar

C THE DIFF CONFERENCE 2013

LAKERIDGE HEALTH
THURSDAY NOVEMBER 21

and lower your rates

Successful presentations are understandable, memorable, and emotional.


STANDARDS
Setting goals
Opportunities
Inventory & Auditing
Transparency & Communication
Committing to change
Celebrating

What is C diff?


TRANSMISSIBLE
STINKY
DISEASE
MOTHER
INFECTIOUS
BACTERIA
EXTREME
ANTIBIOTICS
YELLOW
POOPS
PAIN
GREEN
HEADACHE
LIFECHANGER
LIQUID CONTAGIOUS
INFECTION POOPERS
GUT NUKE
COLON

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Infection-control rules skipped in C. difficile outbreak

CBC News Posted: Jul 04, 2011 11:13 AM AT | Last Updated: Jul 04, 2011 11:11 AM AT

Some doctors, nurses and janitors were not following rules to prevent the spread of C. difficile during an outbreak that saw four patients die in Cape Breton, documents show.

Some hospital staff were reprimanded for not following infection-control protocols. ((CBC))

The documents, obtained by CBC News, describe how the battle with a hypervirulent strain of C. difficile played out in the Cape Breton health district earlier this year.

Clostridium difficile are bacteria commonly found in the intestine, but infections can be life-threatening for those taking antibiotics or who have serious pre-existing health issues.

The bacteria are often picked up in hospitals. Workers can spread it by touching something – like a doorknob – if they don't wash their hands.

The documents show that some staff at Glace Bay General Hospital and

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Infection Prevention and Control

Goals & Objectives 2012-2013

Goal #1: Reduce Hospital Acquired Infections (HAIs)

Objectives:

- Catheter-Associated Urinary Tract Infection (CAUTI) Prevention
- Central Line Infection Surveillance

Goal #2: Relationship Building

Objectives:

- Occupational Health (Collaborate on projects & initiatives)
- Professional Practice (Collaborate on education roll-out)
- Engineering (Develop new Preventative Maintenance Analysis Template and Processes)
- IPAC Team (Team Building)

Goal #3: Knowledge Transfer

Objectives:

- Auditing (Routine Practices – develop simple audit tools, ICPs to audit their patient care units frequently)
- IPAC Conference (Knowledge Sharing)
- Storyboards (Telling a patient's story – C. difficile, MRSA Infection, etc.)
- Research
- Core Competency Education & Hand Hygiene Education (ICP's to collaborate with Patient Care Specialists)

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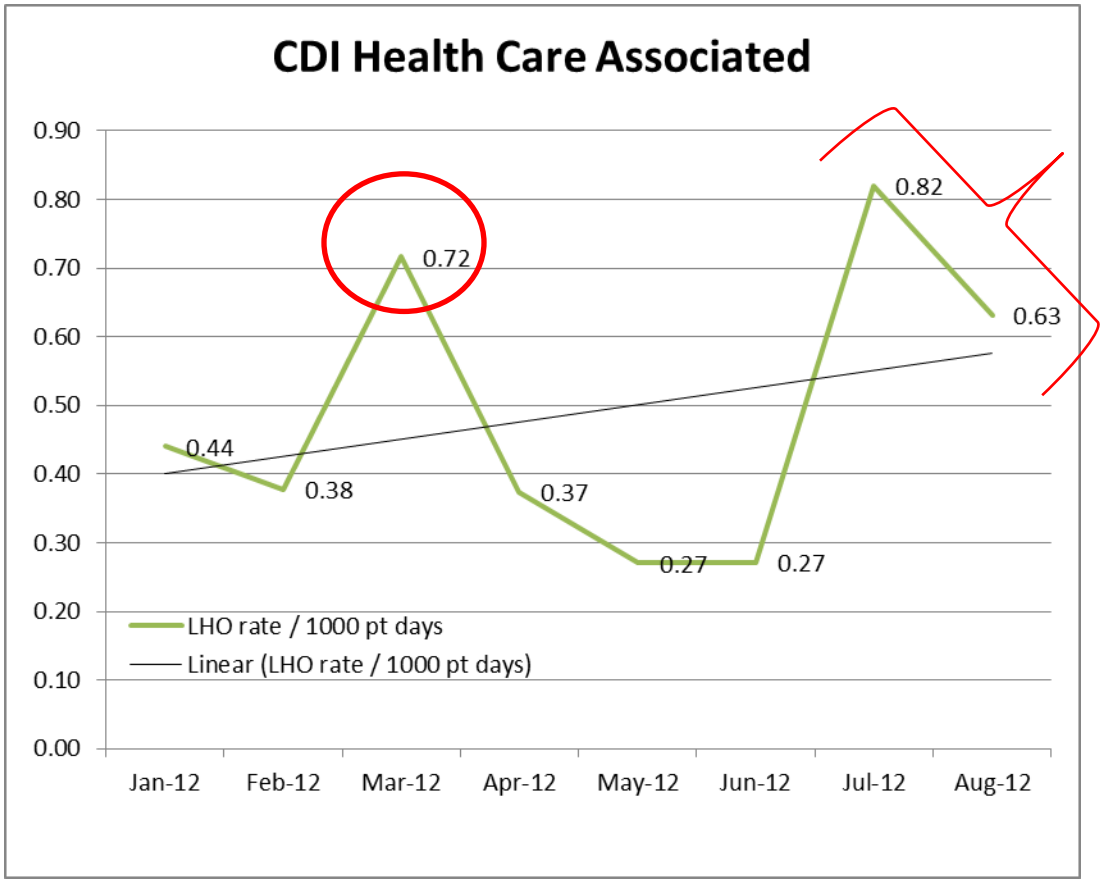

CDI Health Care Associated
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.44
0.38
0.72
0.37
0.27
0.27
0.82
0.63
LHO rate / 1000 pt days
Linear (LHO rate / 1000 pt days)
Jan-12
Feb-12
Mar-12
Apr-12
May-12
Jun-12
Jul-12
Aug-12

Aug 16, 2012

Sent: August 16, 2012 4:59 PM
To: All Email Users
Subject: Facility Wide C-Diff Outbreak Declared

To: Lakeridge Health Colleagues

From: Infection Prevention and Control

Date: Thursday August 16

Re: **Facility Wide C-Diff Outbreak Declared**

Lakeridge Health leadership met with officials from Durham Public Health this morning to discuss the increased levels of C-Difficile we are experiencing at our hospital sites.

Whether community or hospital acquired, there is no question the number of cases has spiked this summer, and we are declaring a Facility Wide C-Difficile Outbreak at Lakeridge Health Oshawa.

At This Time:

- Lakeridge Health Oshawa remains open to admissions
- There will be no changes to patient transfers
- Environmental Services staff are conducting additional cleaning
- Unit education is taking place before the start of each shift

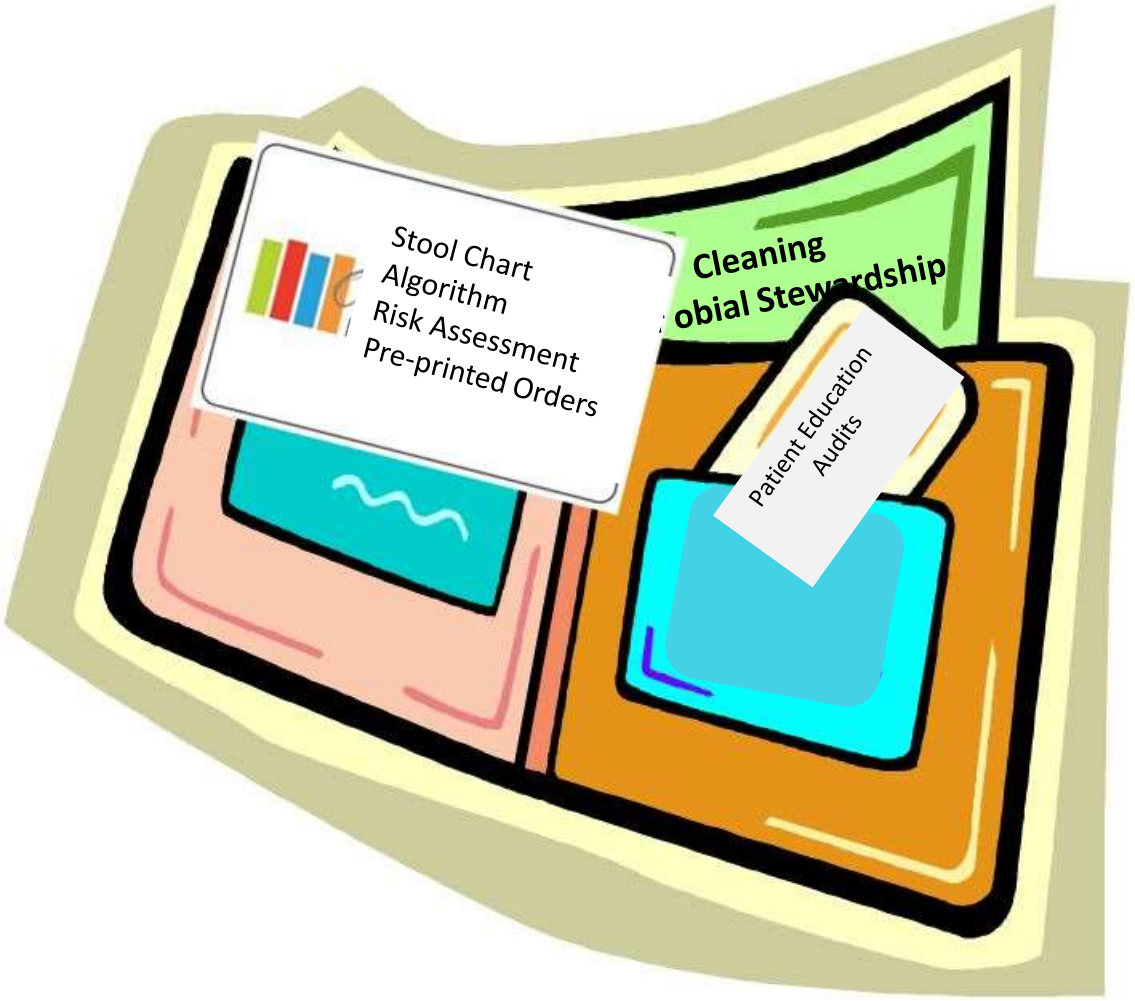
Your Mandatory Role as a Member of the Interprofessional Team:

- **Clean and disinfect all shared equipment** that has been touched by a patient (stethoscopes, bladder scanners etc.) between each patient. If you have a question about cleaning please ask your manager.


Aug 16, 2012

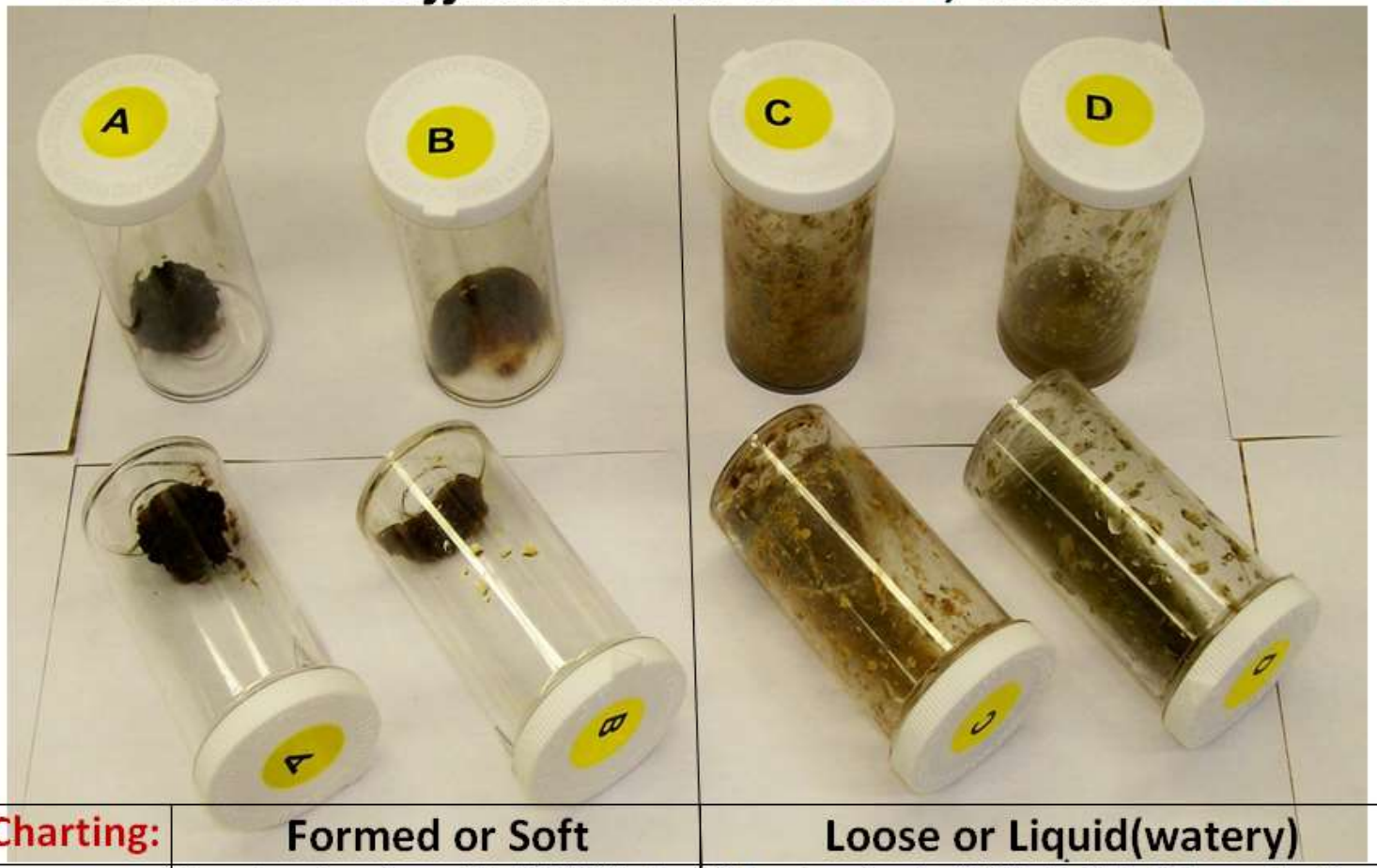
OUTBREAK = OPPORTUNITY

What's in YOUR wallet?



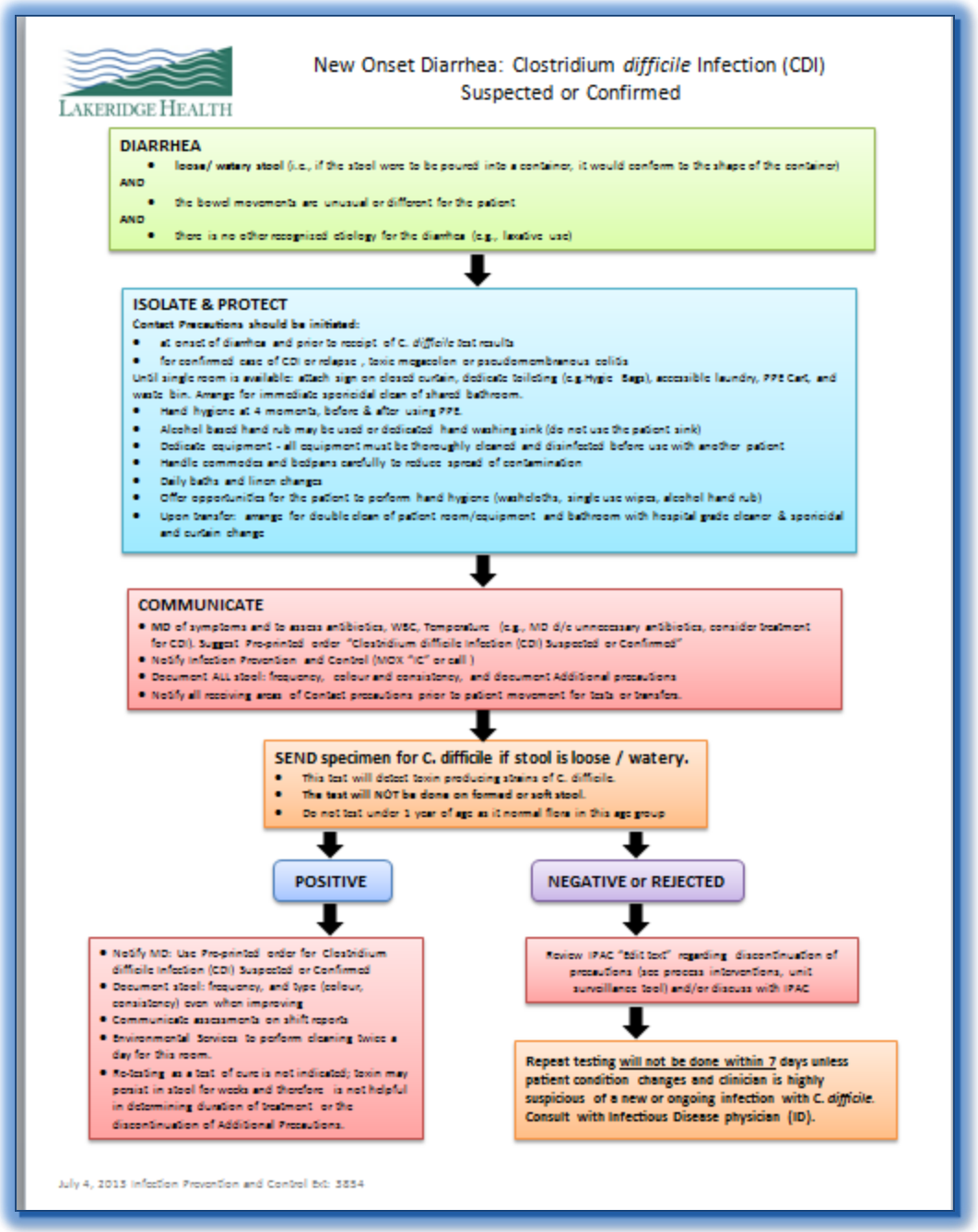
Inventory:

Stool and C. *difficile*: what to chart, what to test.



Charting:	Formed or Soft	Loose or Liquid(watery)
Test:	Formed or soft specimens will be **REJECTED** by the lab and the test is cancelled.	Only send specimen for "CDT" testing if stool is **Loose or Liquid (watery).** Repeat testing will not be done within 7 days unless patient condition changes and clinician is highly suspicious of a new or ongoing infection with C. *difficile and has consulted with Infectious Disease physician.*

Inventory: Algorithm



LAKERIDGE HEALTH

New Onset Diarrhea: Clostridium *difficile* Infection (CDI) Suspected or Confirmed

DIARRHEA

- loose/ watery stool (i.e., if the stool were to be poured into a container, it would conform to the shape of the container)

AND

- the bowel movements are unusual or different for the patient

AND

- there is no other recognized etiology for the diarrhea (e.g., laxative use)

ISOLATE & PROTECT

Contact Precautions should be initiated:

- at onset of diarrhea and prior to receipt of C. *difficile* test results
- for confirmed case of CDI or relapse , toxic megacolon or pseudomembranous colitis

Until single room is available: attach sign on closed curtain, dedicate toileting (e.g Hygic Bags), accessible laundry, PPE Cart, and waste bin. Arrange for immediate sporicidal clean of shared bathroom.

- Hand hygiene at 4 moments, before & after using PPE
- Alcohol based hand rub may be used or dedicated hand washing sink (do not use the patient sink)
- Dedicate equipment - all equipment must be thoroughly cleaned and disinfected before use with another patient
- Handle commodes and bedpans carefully to reduce spread of contamination
- Daily baths and linen changes
- Offer opportunities for the patient to perform hand hygiene (washcloths, single use wipes, alcohol hand rub)
- Upon transfer: arrange for double clean of patient room/equipment and bathroom with hospital grade cleaner & sporicidal and curtain change

COMMUNICATE

- MD of symptoms and to assess antibiotics, WBC, Temperature (e.g., MD d/c unnecessary antibiotics, consider treatment for CDI). Suggest Pre-printed order "Clostridium difficile infection (CDI) Suspected or Confirmed"
- Notify Infection Prevention and Control (MOX "IC" or call)
- Document ALL stool: frequency, colour and consistency, and document Additional precautions
- Notify all receiving areas of Contact precautions prior to patient movement for tests or transfers.

SEND specimen for C. difficile if stool is loose / watery.

- This test will detect toxin producing strains of C. difficile.
- The test will NOT be done on formed or soft stool.
- Do not test under 1 year of age as it normal flora in this age group

POSITIVE

- Notify MD: Use Pre-printed order for Clostridium difficile infection (CDI) Suspected or Confirmed
- Document stool: frequency, and type (colour, consistency) even when improving
- Communicate assessments on shift reports
- Environmental Services to perform cleaning twice a day for this room.
- Re-testing as a test of cure is not indicated; toxin may persist in stool for weeks and therefore is not helpful in determining duration of treatment or the discontinuation of Additional Precautions.

NEGATIVE or REJECTED

Review IPAC "Edit text" regarding discontinuation of precautions (see process interventions, unit surveillance tool) and/or discuss with IPAC

Repeat testing will not be done within 7 days unless patient condition changes and clinician is highly suspicious of a new or ongoing infection with C. *difficile*. Consult with Infectious Disease physician (ID).

July 4, 2013 Infection Prevention and Control Ext: 3854

Inventory: Assessing the Risk

Lakeridge Health

Assessing & Managing Risk for C. difficile Infection (CDI)

Use this tool to identify and communicate risk factors for C. difficile in a symptomatic patient.
Following these steps will help create a safe environment and plan of care.

MONITOR FOR SYMPTOMS: Identify patients with new onset diarrhea: loose/watery bowel movements (conforming to the shape of the container), the bowel movements are unusual or different for the patient, and there is no other recognized etiology for the diarrhea (e.g. laxative use).

ASSESS the RISK - This patient has DIARRHEA and the following risk factors for CDI (check all that apply):

- ☐ Antibiotics within 12 weeks
- ☐ History of CDI
- ☐ Prolonged hospitalization
- ☐ Elderly (>65)
- ☐ Bowel disease/bowel surgery
- ☐ Manipulation of GI tract including tube feeding
- ☐ Recent Surgery
- ☐ OTHER

- ☐ Proton Pump Inhibitor e.g. Pantoprazole, Lansoprazole, Rabeprazole, Omeprazole, etc.
- ☐ Immunosuppressive therapy e.g. Prednisone, Chemotherapy, Post Transplant

Risks identified by: _____

CREATE SAFE ENVIRONMENT:

☐ Initiate CONTACT precautions at onset of symptoms

- Place CONTACT precautions sign (place on curtain until single room is available).
- Dedicated toileting facilities and equipment (e.g. commode at bedside, use hygie bags).
- Accessible Laundry, PPE Cart, Waste Bin. Gown & Gloves MUST be worn when entering patient space.
- Meticulous hand hygiene with alcohol-based hand rub or soap and water.
- Provide hand hygiene opportunities for patients, e.g. alcohol hand rub, hand wipes or cloth, hand wash sink
- When patient is transferred – double clean the multi-bed room, ask ES to do a C. diff clean

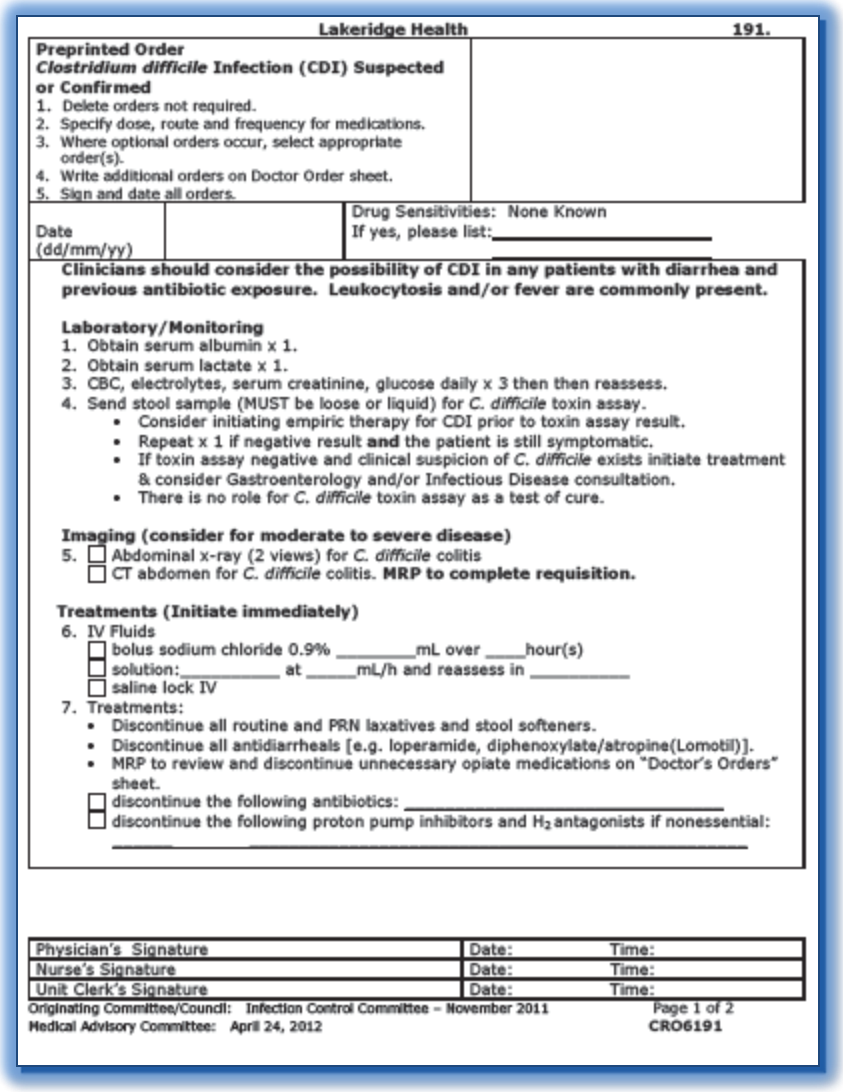
SPECIMEN COLLECTION:

☐ Obtain a specimen for C. diff testing as soon as possible after onset of symptoms. Send only stool that is loose/watery and able to conform to the shape of the container. A single negative test by enzyme immunoassay (EIA) does not rule out C. difficile; if a single test is negative, ☐ a second specimen should be sent.

COMMUNICATE:

- NOTIFY MD of SYMPTOMS to assess: antibiotics, bloodwork, vital signs, and to consider treatment if clinically indicated.
- Document findings, e.g., type and frequency of stool, and document isolation precautions.
- Notify all receiving areas prior to tests or transfers that the patient is on isolation precautions.

Inventory: Pre-printed orders



Lakeridge Health 191.

Preprinted Order
***Clostridium difficile* Infection (CDI) Suspected or Confirmed**

1. Delete orders not required.
2. Specify dose, route and frequency for medications.
3. Where optional orders occur, select appropriate order(s).
4. Write additional orders on Doctor Order sheet.
5. Sign and date all orders.

Date (dd/mm/yy)

Drug Sensitivities: None Known
If yes, please list:_____

Clinicians should consider the possibility of CDI in any patients with diarrhea and previous antibiotic exposure. Leukocytosis and/or fever are commonly present.

Laboratory/Monitoring

1. Obtain serum albumin x 1.
2. Obtain serum lactate x 1.
3. CBC, electrolytes, serum creatinine, glucose daily x 3 then then reassess.
4. Send stool sample (MUST be loose or liquid) for *C. difficile* toxin assay.
   - Consider initiating empiric therapy for CDI prior to toxin assay result.
   - Repeat x 1 if negative result **and** the patient is still symptomatic.
   - If toxin assay negative and clinical suspicion of *C. difficile* exists initiate treatment & consider Gastroenterology and/or Infectious Disease consultation.
   - There is no role for *C. difficile* toxin assay as a test of cure.

Imaging (consider for moderate to severe disease)

5. ☐ Abdominal x-ray (2 views) for *C. difficile* colitis
   ☐ CT abdomen for *C. difficile* colitis. **MRP to complete requisition.**

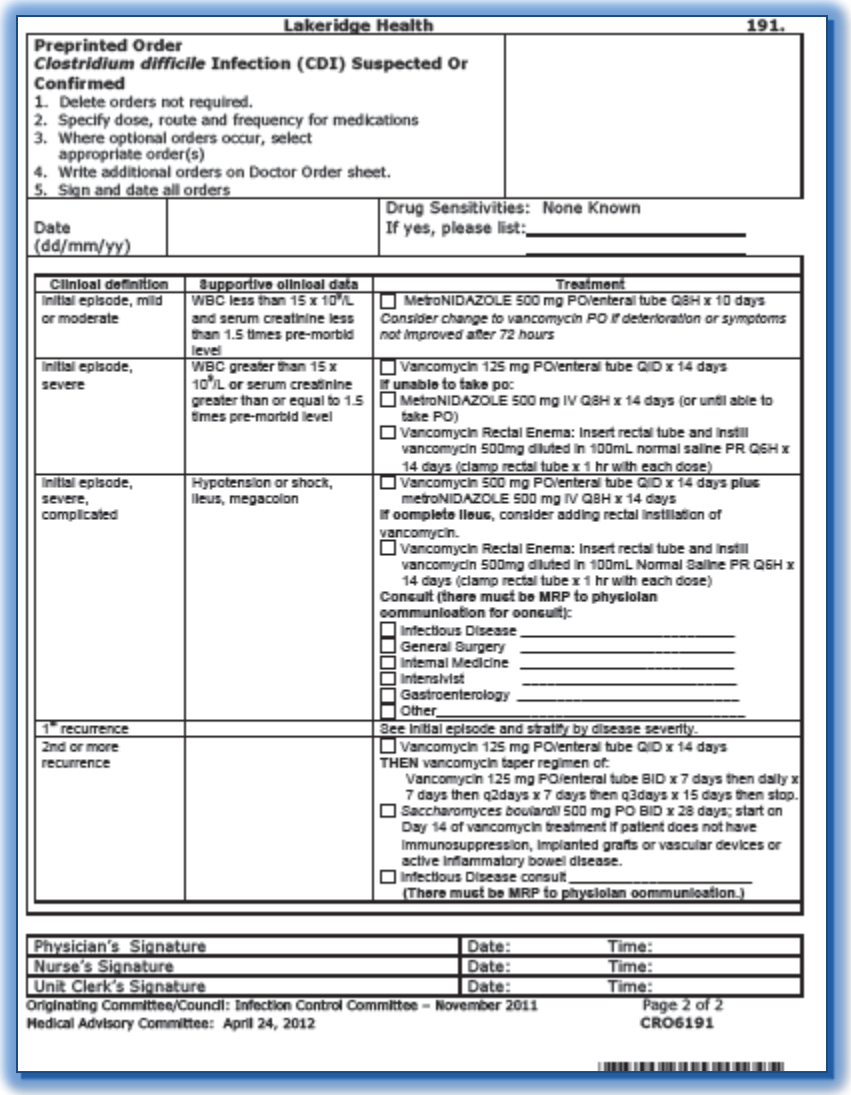
Treatments (Initiate immediately)

6. IV Fluids
   ☐ bolus sodium chloride 0.9% _____mL over ____hour(s)
   ☐ solution:_____ at _____mL/h and reassess in _____
   ☐ saline lock IV
7. Treatments:
   - Discontinue all routine and PRN laxatives and stool softeners.
   - Discontinue all antidiarrheals [e.g. loperamide, diphenoxylate/atropine(Lomotil)].
   - MRP to review and discontinue unnecessary opiate medications on "Doctor's Orders" sheet.

   ☐ discontinue the following antibiotics: _____
   ☐ discontinue the following proton pump inhibitors and H_2 antagonists if nonessential:
   _____

Physician's Signature	Date:	Time:
Nurse's Signature	Date:	Time:
Unit Clerk's Signature	Date:	Time:

Originating Committee/Council: Infection Control Committee – November 2011 Page 1 of 2
Medical Advisory Committee: April 24, 2012 CRO6191



Lakeridge Health 191.

Preprinted Order
***Clostridium difficile* Infection (CDI) Suspected Or Confirmed**

1. Delete orders not required.
2. Specify dose, route and frequency for medications
3. Where optional orders occur, select appropriate order(s)
4. Write additional orders on Doctor Order sheet.
5. Sign and date all orders

Date (dd/mm/yy)

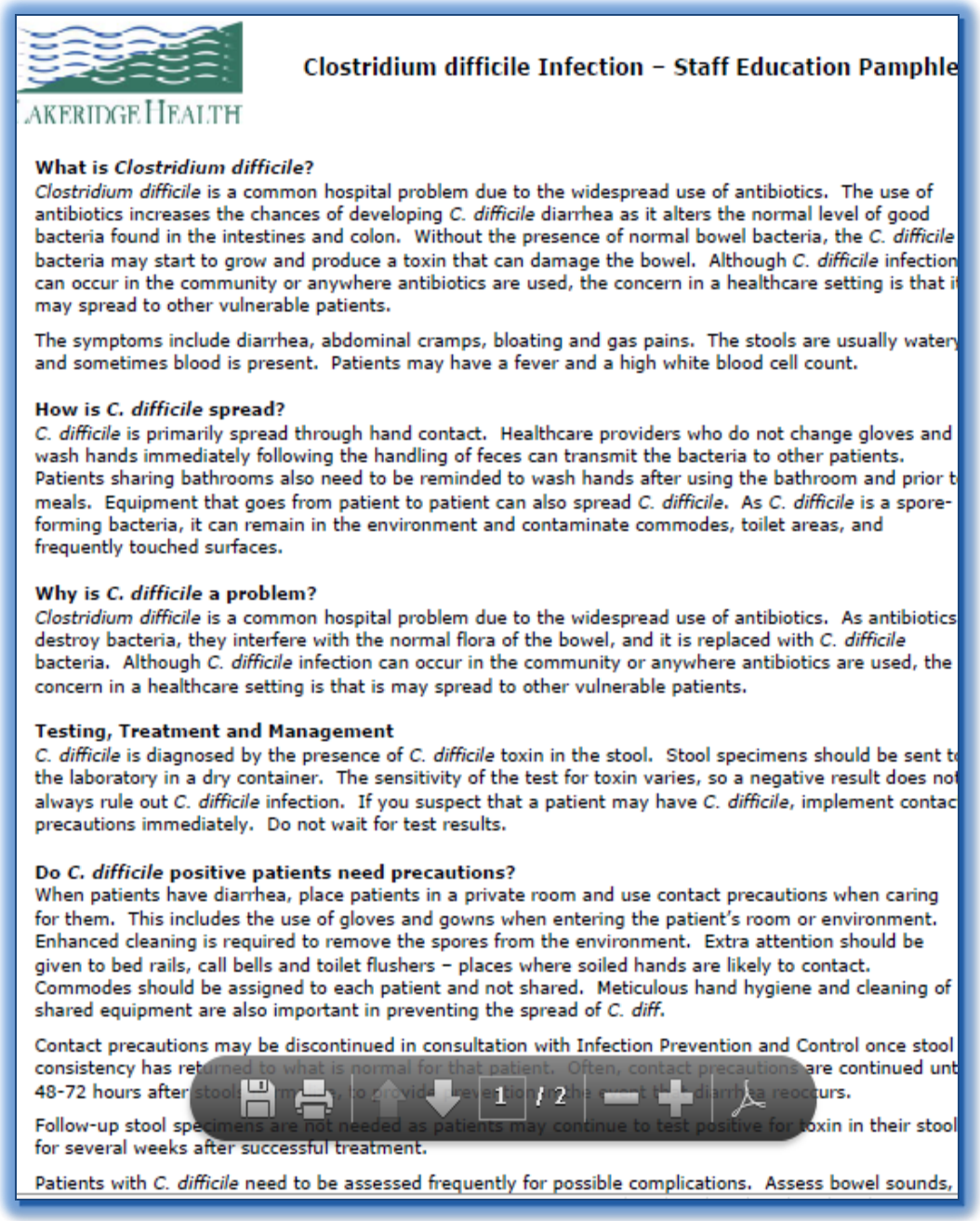
Drug Sensitivities: None Known
If yes, please list:_____

Clinical definition	Supportive clinical data	Treatment
Initial episode, mild or moderate	WBC less than 15 x 10^9/L and serum creatinine less than 1.5 times pre-morbid level	☐ MetroNIDAZOLE 500 mg PO/enteral tube Q8H x 10 days *Consider change to vancomycin PO if deterioration or symptoms not improved after 72 hours*
Initial episode, severe	WBC greater than 15 x 10^9/L or serum creatinine greater than or equal to 1.5 times pre-morbid level	☐ Vancomycin 125 mg PO/enteral tube QID x 14 days **If unable to take po:** ☐ MetroNIDAZOLE 500 mg IV Q8H x 14 days (or until able to take PO) ☐ Vancomycin Rectal Enema: Insert rectal tube and instill vancomycin 500mg diluted in 100mL normal saline PR Q6H x 14 days (clamp rectal tube x 1 hr with each dose)
Initial episode, severe, complicated	Hypotension or shock, ileus, megacolon	☐ Vancomycin 500 mg PO/enteral tube QID x 14 days **plus** metroNIDAZOLE 500 mg IV Q8H x 14 days **If complete ileus**, consider adding rectal instillation of vancomycin. ☐ Vancomycin Rectal Enema: Insert rectal tube and instill vancomycin 500mg diluted in 100mL Normal Saline PR Q6H x 14 days (clamp rectal tube x 1 hr with each dose) **Consult (there must be MRP to physician communication for consult):** ☐ Infectious Disease _____ ☐ General Surgery _____ ☐ Internal Medicine _____ ☐ Intensivist _____ ☐ Gastroenterology _____ ☐ Other_____
1st recurrence		See initial episode and stratify by disease severity.
2nd or more recurrence		☐ Vancomycin 125 mg PO/enteral tube QID x 14 days **THEN** vancomycin taper regimen of: Vancomycin 125 mg PO/enteral tube BID x 7 days then daily x 7 days then q2days x 7 days then q3days x 15 days then stop. ☐ *Saccharomyces boulardii* 500 mg PO BID x 28 days; start on Day 14 of vancomycin treatment if patient does not have immunosuppression, implanted grafts or vascular devices or active inflammatory bowel disease. ☐ Infectious Disease consult _____ **(There must be MRP to physician communication.)**

Physician's Signature	Date:	Time:
Nurse's Signature	Date:	Time:
Unit Clerk's Signature	Date:	Time:

Originating Committee/Council: Infection Control Committee – November 2011 Page 2 of 2
Medical Advisory Committee: April 24, 2012 CRO6191

Inventory: Pamphlet



AKERIDGE HEALTH

Clostridium difficile Infection – Staff Education Pamphle

What is *Clostridium difficile*?

Clostridium difficile is a common hospital problem due to the widespread use of antibiotics. The use of antibiotics increases the chances of developing *C. difficile* diarrhea as it alters the normal level of good bacteria found in the intestines and colon. Without the presence of normal bowel bacteria, the *C. difficile* bacteria may start to grow and produce a toxin that can damage the bowel. Although *C. difficile* infection can occur in the community or anywhere antibiotics are used, the concern in a healthcare setting is that it may spread to other vulnerable patients.

The symptoms include diarrhea, abdominal cramps, bloating and gas pains. The stools are usually watery and sometimes blood is present. Patients may have a fever and a high white blood cell count.

How is *C. difficile* spread?

C. difficile is primarily spread through hand contact. Healthcare providers who do not change gloves and wash hands immediately following the handling of feces can transmit the bacteria to other patients. Patients sharing bathrooms also need to be reminded to wash hands after using the bathroom and prior t meals. Equipment that goes from patient to patient can also spread *C. difficile*. As *C. difficile* is a spore-forming bacteria, it can remain in the environment and contaminate commodes, toilet areas, and frequently touched surfaces.

Why is *C. difficile* a problem?

Clostridium difficile is a common hospital problem due to the widespread use of antibiotics. As antibiotics destroy bacteria, they interfere with the normal flora of the bowel, and it is replaced with *C. difficile* bacteria. Although *C. difficile* infection can occur in the community or anywhere antibiotics are used, the concern in a healthcare setting is that is may spread to other vulnerable patients.

Testing, Treatment and Management

C. difficile is diagnosed by the presence of *C. difficile* toxin in the stool. Stool specimens should be sent t the laboratory in a dry container. The sensitivity of the test for toxin varies, so a negative result does not always rule out *C. difficile* infection. If you suspect that a patient may have *C. difficile*, implement contac precautions immediately. Do not wait for test results.

Do *C. difficile* positive patients need precautions?

When patients have diarrhea, place patients in a private room and use contact precautions when caring for them. This includes the use of gloves and gowns when entering the patient's room or environment. Enhanced cleaning is required to remove the spores from the environment. Extra attention should be given to bed rails, call bells and toilet flushers – places where soiled hands are likely to contact. Commodes should be assigned to each patient and not shared. Meticulous hand hygiene and cleaning of shared equipment are also important in preventing the spread of *C. diff*.

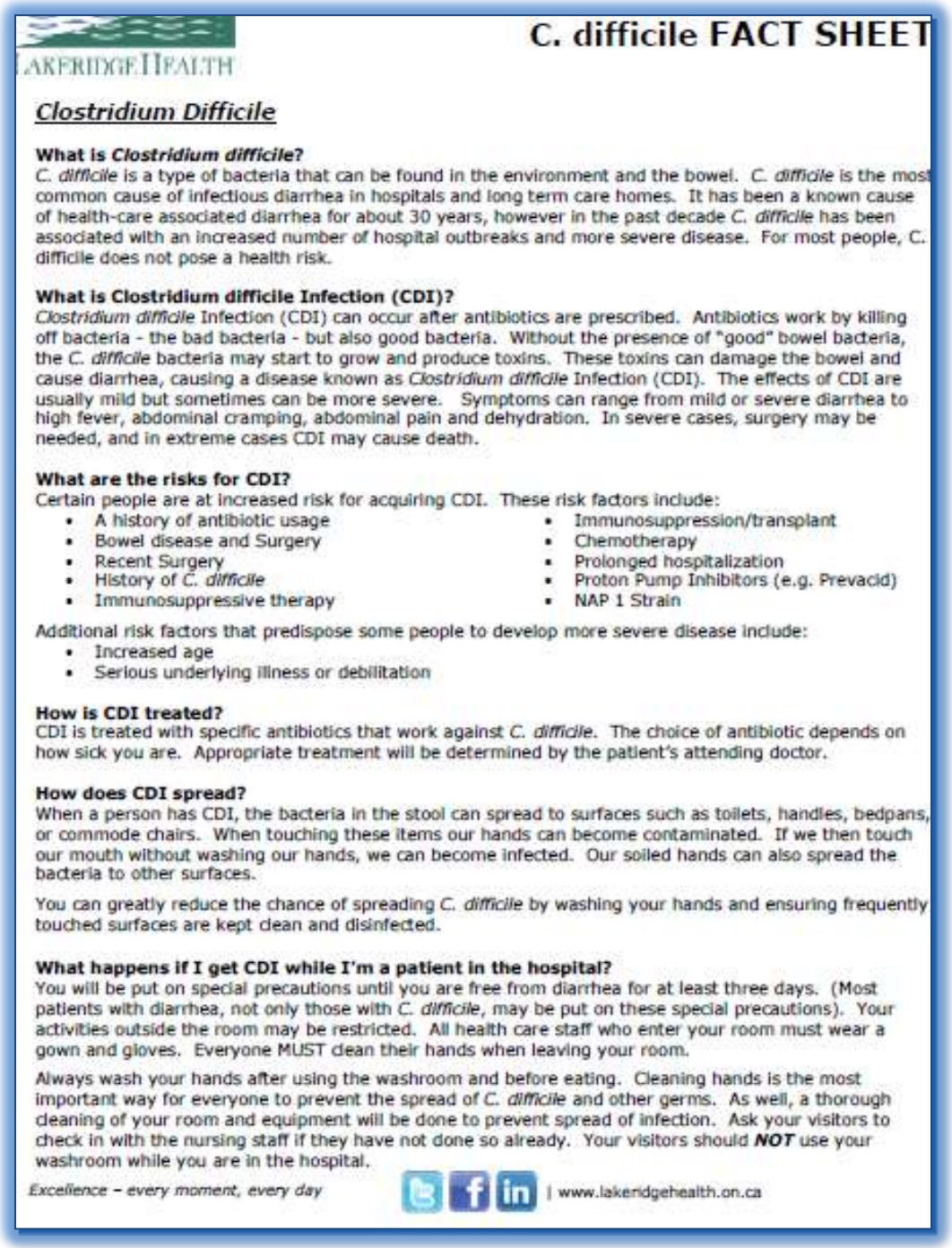
Contact precautions may be discontinued in consultation with Infection Prevention and Control once stool consistency has returned to what is normal for that patient. Often, contact precautions are continued unt 48-72 hours after stool [illegible] to provide evidence that diarrhea reoccurs.

Follow-up stool specimens are not needed as patients may continue to test positive for toxin in their stool for several weeks after successful treatment.

Patients with *C. difficile* need to be assessed frequently for possible complications. Assess bowel sounds,

1 / 2

Inventory: Patient education



LAKERIDGE HEALTH

C. difficile FACT SHEET

Clostridium Difficile

What is *Clostridium difficile*?
C. difficile is a type of bacteria that can be found in the environment and the bowel. *C. difficile* is the most common cause of infectious diarrhea in hospitals and long term care homes. It has been a known cause of health-care associated diarrhea for about 30 years, however in the past decade *C. difficile* has been associated with an increased number of hospital outbreaks and more severe disease. For most people, C. difficile does not pose a health risk.

What is Clostridium difficile Infection (CDI)?
Clostridium difficile Infection (CDI) can occur after antibiotics are prescribed. Antibiotics work by killing off bacteria - the bad bacteria - but also good bacteria. Without the presence of "good" bowel bacteria, the *C. difficile* bacteria may start to grow and produce toxins. These toxins can damage the bowel and cause diarrhea, causing a disease known as *Clostridium difficile* Infection (CDI). The effects of CDI are usually mild but sometimes can be more severe. Symptoms can range from mild or severe diarrhea to high fever, abdominal cramping, abdominal pain and dehydration. In severe cases, surgery may be needed, and in extreme cases CDI may cause death.

What are the risks for CDI?
Certain people are at increased risk for acquiring CDI. These risk factors include:

- A history of antibiotic usage
- Bowel disease and Surgery
- Recent Surgery
- History of *C. difficile*
- Immunosuppressive therapy
- Immunosuppression/transplant
- Chemotherapy
- Prolonged hospitalization
- Proton Pump Inhibitors (e.g. Prevacid)
- NAP 1 Strain

Additional risk factors that predispose some people to develop more severe disease include:

- Increased age
- Serious underlying illness or debilitation

How is CDI treated?
CDI is treated with specific antibiotics that work against *C. difficile*. The choice of antibiotic depends on how sick you are. Appropriate treatment will be determined by the patient's attending doctor.

How does CDI spread?
When a person has CDI, the bacteria in the stool can spread to surfaces such as toilets, handles, bedpans, or commode chairs. When touching these items our hands can become contaminated. If we then touch our mouth without washing our hands, we can become infected. Our soiled hands can also spread the bacteria to other surfaces.

You can greatly reduce the chance of spreading *C. difficile* by washing your hands and ensuring frequently touched surfaces are kept clean and disinfected.

What happens if I get CDI while I'm a patient in the hospital?
You will be put on special precautions until you are free from diarrhea for at least three days. (Most patients with diarrhea, not only those with *C. difficile*, may be put on these special precautions). Your activities outside the room may be restricted. All health care staff who enter your room must wear a gown and gloves. Everyone MUST clean their hands when leaving your room.

Always wash your hands after using the washroom and before eating. Cleaning hands is the most important way for everyone to prevent the spread of *C. difficile* and other germs. As well, a thorough cleaning of your room and equipment will be done to prevent spread of infection. Ask your visitors to check in with the nursing staff if they have not done so already. Your visitors should ***NOT*** use your washroom while you are in the hospital.

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Inventory: Discharge Info for ALL

Antibiotic-Associated Diarrhea

If you have had an Antibiotic in the last month or two, you could be a risk to develop Antibiotic Associated Diarrhea. Please read on for some helpful information.

What is it?
Frequent watery bowel movements (diarrhea) after taking antibiotics.

Why would I get sick from taking antibiotics?
Your bowels are home to millions of bacteria. Many of these bacteria are very helpful and important. Some of the bacteria are potentially dangerous, but are usually kept in check by the good bacteria. The balance between the two can be disturbed by illness, medication or other factors. Antibiotics can destroy "good" bacteria along with harmful ones. Without enough good bacteria, the "bad" bacteria can grow out of control producing toxins that cause diarrhea and can damage the bowels.

Why is this important?
Most often, antibiotic-associated diarrhea is mild and clears up shortly after stopping the antibiotic. In some cases, the diarrhea could lead to colitis, an inflammation of your colon. A more serious form of colitis called C. difficile infection or pseudomembranous colitis can also develop.

Symptoms to watch for:

- Fever
- Watery diarrhea
- Nausea, loss of appetite
- Tummy pain or tenderness.

Will my family get sick too?

Seek Medical attention if you develop:

- Diarrhea that is bothersome or severe
- Bloody diarrhea
- Abdominal pain
- Fever
- Diarrhea which continues after antibiotic is finished

These signs and symptoms are common to a number of conditions, so your doctor may recommend tests to determine the cause.

DO NOT take anti-diarrhea medications that you can buy without a prescription unless you have checked with your doctor. If you have antibiotic associated diarrhea or clostridium difficile, the anti-diarrhea medication may cause a more serious health condition.
DO NOT take someone else's antibiotics. Only use antibiotics prescribed for you.

Remind your doctor that you have recently been on antibiotics. Having antibiotic-associated diarrhea once increases the chance that antibiotics may cause the same reaction again. Your doctor may select an antibiotic that is less likely to cause diarrhea.

Clostridium difficile (C-diff) is a "bad" bacteria that can live in your bowels, or in the environment. C-diff can create toxins which in turn cause diarrhea. This may develop when the "bad" bacteria outgrow the "good" bacteria in your bowels.

Risk Factors for *C-diff:*
Anyone who takes a course of antibiotic is at risk of developing *C-diff* infection. Symptoms can start as soon as a couple of days after starting the antibiotic, or take a few weeks to develop. Typically, it does not affect those under 1 year of age.

Inventory:

Send Germs Packing

Infection Prevention and Control for Patients & Visitors

How to protect yourself:

While healthy eating, adequate sleep and physical activity may help to maintain good health, proper personal hygiene practices are the most effective ways to protect yourself and others.

Cover your cough:

Cover your mouth and nose with a tissue when you cough or sneeze. If you don't have a tissue, cough or sneeze into your upper shirt sleeve, not your hands. Dispose of tissue and clean your hands.

Avoid touching your eyes, nose, or mouth:

Influenza or other illnesses are often spread when someone touches a contaminated object and then touches his or her eyes, nose or mouth.

Visitors are to stay home when sick:

If visitors are experiencing new onset of cough, fever, aches & pains, recent vomiting or diarrhea, they need to stay at home and get some rest.

Wash your hands frequently:

Illnesses often spread when people touch contaminated objects.
Frequent hand washing can protect you.
When to clean your hands:

- After using the washroom

Inventory: Human Resources

- Hand Hygiene Auditor(s)
- IPAC Team
- Environmental Services (education)
- Infectious Diseases Physician
- Supportive Director
- Supportive Senior Management
- Durham Region Health Department
- Managers, Specialists, Directors

Inventory: Human Resources

ANTIMICROBIAL STEWARDSHIP Team (of 2)

Inventory & Auditing = Toolkit

Clostridium difficile Infection (CDI) Suspected or Confirmed Toolkit

Clinical Tools (Front line staff)

Suspected/Confirmed Clostridium difficile Toolkit Checklist

STEP ONE: C. difficile Infection (CDI): what to chart, what to test

STEP TWO: Clostridium difficile Infection (CDI) Suspected or Confirmed Algorithm

STEP THREE: Assessing and Managing Risk for C. difficile Infection (CDI)

STEP FOUR: Preprinted Order Clostridium difficile Infection (CDI) Suspected or Confirmed

STEP FIVE: Clostridium difficile Infection - Staff Education Pamphlet
C. difficile Fact Sheet (Patient and Visitor Information)
Information about Isolation Precautions for Patients & Visitors
Antibiotic-Associated Diarrhea Handout

Managerial Toolkit (Patient Care Managers/Specialists or Delegate)

SPOT CHECK TOOLS:
Utilize #1 for patients with CDI/undiagnosed diarrhea on your unit
Utilize #2 for all other isolated patients on your unit
1) SPOT CHECK for CDI/Undiagnosed Diarrhea Patient Management
2) SPOT CHECK for Isolated Patient Management

IPAC SAFETY HUDDLE CHECKLIST:
IPAC Safety Huddle Checklist (PCM/PCS or Delegate) General

Suspected/Confirmed
Clostridium difficile Tool Kit Checklist

LAKERIDGE HEAL

Patient Care Unit: _____ HCP: _____ Date: _____ Time: _____

This checklist is to aid the HCP in following the essential steps for suspected /confirmed C. difficile patient. To be completed for every patient with suspected/confirmed C. difficile.

	Completed	
Step 1: Confirm if stools are loose or abnormal	YES	Comments
Review C. difficile Infection (CDI): what to chart, what to test - to assess formation of patient's stool		
Stool formation documented in patient's chart (under Elimination). Document frequency, and type (colour, consistency)		
Step 2: Trigger Tool	YES	Comments
Follow the Clostridium difficile Infection algorithm		
Place patient on Contact isolation and place a sign at entrance of door if private room. • If private room unavailable, place isolation sign on patient's curtain and on the door to the room.		
Transfer patient into a single room (double clean previous room) • If room transfer cannot be done immediately, notify Environmental Services to clean the washroom right away.		
Dedicate toileting facilities (a dedicated commode should be given to the patient if the patient is in a multi-bed room. If using a commode/bedpan Hygie Bags must be used to line the commode bucket)		
Send stool sample for CDT testing		
Dedicate equipment (if equipment cannot be dedicated it MUST be cleaned between patients)		
Notify Infection Prevention and Control		
Notify Bed Allocation		
Step 3: Assessing CDI Risk Factors	YES	Comments
Complete "Assessing and Managing Risk for C. difficile Infection (CDI)"		
Completed form is filed in the patient's chart		
Step 4: Inform the Physician	YES	Comments
Notify MD/Physician of loose or abnormal stools		
Refer to MD/Physician the Preprinted Order – Clostridium difficile Infection (CDI) Suspected or Confirmed		
Completed Preprinted Order – Clostridium difficile Infection (CDI) Suspected or Confirmed filed in the chart		
Step 5: Provide Education	YES	Comments
Staff education pamphlet is reviewed		
Patient is educated on hand hygiene practices and access to hand hygiene prior to eating and after using the washroom. (AHBR or alcohol based hand		

Putting it all together

SPOT CHECK for CDI/Undiagnosed Diarrhea Patient Management

Patient Care Manager / Patient Care Specialist

Lakeridge Health

Patient Care Unit: _____ Patient Room #: _____ Date: _____

	Completed		
CDI Assessment	**YES**	**NO**	**Comment/NA**
Has the Assessing & Managing Risk for CDI worksheet been completed?			
Accommodation	**YES**	**NO**	**Comment/NA**
Patient in single room?			
If single room not available, ES notified to clean washroom immediately. Dedicate commode and use Hygie Bags.			
Contact precaution sign on patient door for single room, if single room not available sign to be placed on patient's curtain and on door to room.			
Personal Protective Equipment	**YES**	**NO**	**Comment/NA**
PPE available outside patient room.			
A laundry hamper is placed close to the patient's bed space as possible.			
Gowns worn by HCW before entering patient's room?			
Gloves worn by HCW before entering patient's room?			
Gloves/gowns discarded in patient's room upon exiting?			
Hand Hygiene	**YES**	**NO**	**Comment/NA**
Hand hygiene before patient/environment contact?			
Hand hygiene after patient/environment contact?			
Hand hygiene before aseptic technique?			
Hand hygiene after body fluid exposure?			
Hand Hygiene before donning PPE			
Hand hygiene after doffing PPE			
Staff assisting patients with their Hand Hygiene prior to meals?			
Dedicated patient equipment?	**YES**	**NO**	**Comment/NA**
If patient is in a multi-bed room a commode chair is dedicated for the patient's use if dedicated toilet facilities unavailable. Hygie bags are used to line commode bucket/bedpan.			
Dedicate Equipment - examples include (but are not limited to): • Transfer belt • Stethoscope • BP Cuff • Therapeutic Wheelchair • Thermometer			
Shared equipment is cleaned after patient use? Disinfectant used:	**YES**	**NO**	**Comment/NA**
Shared equipment may include (but are not limited to):			
• Bladder Scanner • Pulse Oximeter • IV Pumps • Portable vital signs monitor • Wheelchair • Other:			

1 / 1

Auditing

Auditing

SPOT CHECK for Isolated Patient Management

Patient Care Manager / Patient Care Specialist

Patient Care Unit: _____ Patient Room #: _____ Date: _____

Note: The use of these checklists are for unit based learning

	Completed		
Accommodation	**YES**	**NO**	**Comment/NA**
Isolated patient in single room? (*If single room not available, ES notified to clean washroom immediately. Dedicate commode and use Hygie Bags for diarrhea*)			
Isolation sign on patient door for single room, if single room not available sign to be placed on patient's curtain and on door to room.			
Personal Protective Equipment	**YES**	**NO**	**Comment/NA**
PPE easily accessible.			
PPE by HCW before entering patient's room?			
PPE discarded in patient's room upon exiting?			
Hand Hygiene	**YES**	**NO**	**Comment/NA**
Hand hygiene before patient/environment contact?			
Hand hygiene after patient/environment contact?			
Hand hygiene before aseptic technique?			
Hand hygiene after body fluid exposure?			
Hand Hygiene before donning PPE			
Hand hygiene after doffing PPE			
Dedicated patient equipment for isolated patients?	**YES**	**NO**	**Comment/NA**
If patient is in a multi-bed room and has symptomatic undiagnosed diarrhea a commode chair is dedicated for the patient's use if dedicated toilet facilities unavailable. Hygie bags are used to line commode bucket/bedpan.			
Dedicate Equipment - examples include (but are not limited to): • Transfer belt • Stethoscope • BP Cuff • Therapeutic Wheelchair • Thermometer			
Shared equipment is cleaned after patient use? Disinfectant used:_____	**YES**	**NO**	**Comment/NA**
Shared equipment may include (but are not limited to):			
• Bladder Scanner • Pulse Oximeter • IV Pumps • Portable vital signs monitor • Wheelchair • Other:			
Patient Education	**YES**	**NO**	**Comment/NA**
Patient education is provided (fact sheets, hand hygiene) by staff.			
Staff Documentation	**YES**	**NO**	**Comment/NA**

IPAC Safety Huddle Checklist (PCM/PCS/Delegate)

General (This tool is to be used for daily safety huddles on each patient care unit.)

Patient Care Unit: _____ Educator: _____ Date: _____

Spot Check Feedback(Previous Day)	YES	NO	Comments
Provide feedback to staff on the previous days SPOT CHECK AUDIT			
Infection Control Information			
Staff aware of how to access infection prevention and control policies and procedures on the WAVE (i.e. HOT ZONES)			
Infection Control Patient Management	**YES**	**NO**	**Comments**
FRI SCREENING All staff to be assessing /monitoring patients for new onset of respiratory symptoms and/or diarrhea and completing the FRI Screening tool to notify Infection Prevention and Control.			
IPAC SCREENING QUESTIONNAIRE Staff to ensure IPAC screening questionnaire is completed electronically for all new admissions to the unit (i.e. from transfers from ER and/or direct admissions to the unit)			
ARO SWABS • Patients that meet screening criteria to be swabbed for AROs and have not been swabbed within 12 hours of admission. • All inpatient to be swabbed every 30 days while in hospital			
UNDIAGNOSED DIARRHEA (SUSPECTED OR CONFIRMED CDIFFICILE) Staff to be completing the CDI Toolkit (located on the WAVE) for all undiagnosed diarrhea			
DISCONTINUATION CRITERIA FOR ISOLATION • Staff to assessing patients daily • Discontinuing precautions based IPAC criteria met (outlined in their TOA and/or FRI)			
HAND HYGIENE • **Patients** - Promote/assist patients to practice hand hygiene prior to eating meals and after using the washroom. Wet washcloth/order hand wipes (can be ordered from Stores) • **Staff** –conducting hand hygiene at the four moments.			
PPE USE Staff to be wearing the appropriate PPE for those on additional precautions. • **Contact** – gown and gloves • **Droplet-Contact** – gown, gloves and mask with visor • **Airborne-Contact** – gown, gloves and [illegible] • **Airborne-Droplet-Contact (confirmed/suspected coronavirus)** Gown, gloves, N95 and eye protection			
SHARED EQUIPMENT CLEANING & DISINFECTION			

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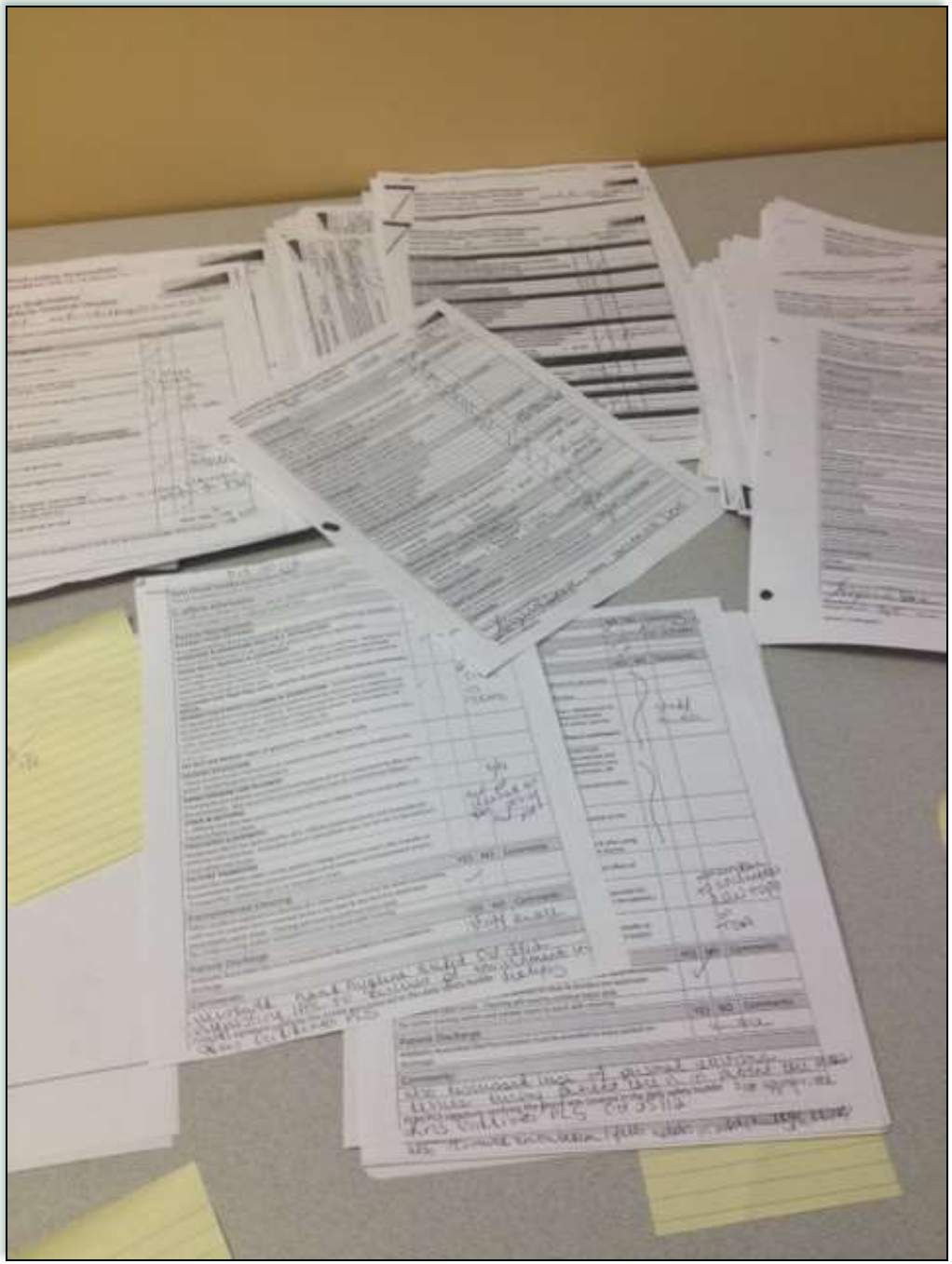
Auditing



Audits = Results

- Supported by Senior Team
- 200 audits by Managers and Educators

Is this an Outbreak?

C5: genetically indistinguishable from NAP1 - Toxin A/B/Binary toxin gene detected
C7: genetically indistinguishable from NAP1 - Toxin A/B/Binary toxin gene detected
G8: genetically indistinguishable from NAP1 - Toxin A/B/Binary toxin gene detected

G5: genetically closely related to NAP1 - Toxin A/B/Binary toxin gene detected
G5: genetically closely related to NAP1 - Toxin A/B/Binary toxin gene detected
G8: genetically closely related to NAP1 - Toxin A/B/Binary toxin gene detected
C7: genetically closely related to NAP1 - Toxin A/B/Binary toxin gene detected
ICU: genetically closely related to NAP1 - Toxin A/B/Binary toxin gene detected
ICU: genetically closely related to NAP1 - Toxin A/B/Binary toxin gene detected

genetically indistinguishable from NAP4 - Toxin A/B toxin gene detected, Binary toxin not detected
genetically closely related to NAP6 - Toxin A/B toxin gene detected, Binary toxin not detected
Unique PFGE pattern and has been arbitrarily designated as Pattern A for this outbreak
- Toxin A/B toxin gene detected, Binary toxin not

Communication:

How YOU Can Help

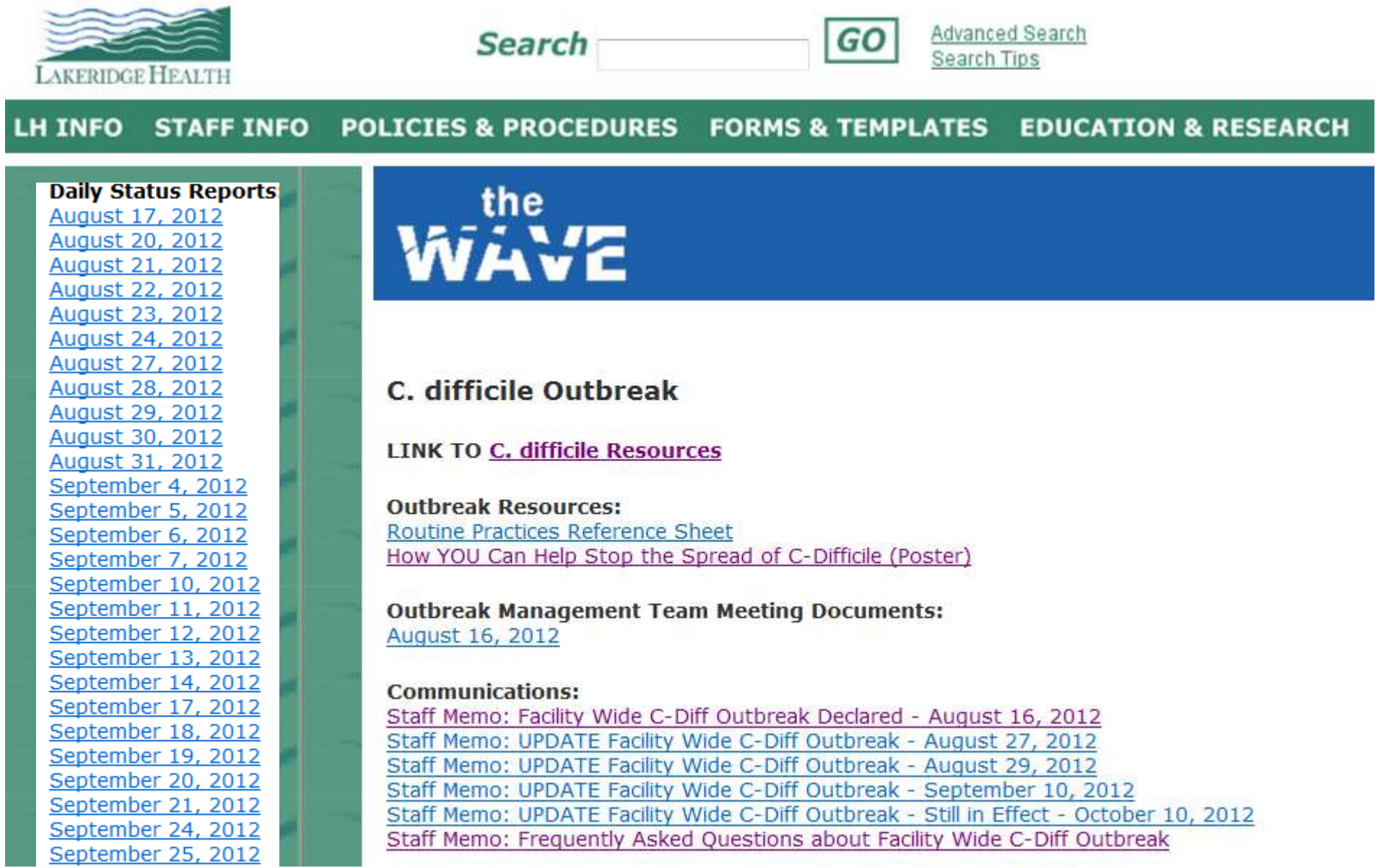
Stop the Spread of C-Difficile

- Our Goal — Early identification, isolation and treatment of suspected C-diff patients.
- Clean Between. Clean your hands and shared equipment between patients.
- Wear Personal Protective Equipment (PPE) when visiting isolated patients.
- Teach your patients proper hand hygiene.
- De-clutter so cleaning can occur.
- Use Hygie Bags in bedpans/commodes.
- Review necessity, duration and spectrum of antibiotics.

Communication: making sense of alphabet soup

HAI: Orange
H-Other: Blue
CAI: Yellow
Previous: Green
Unknown: white/clear

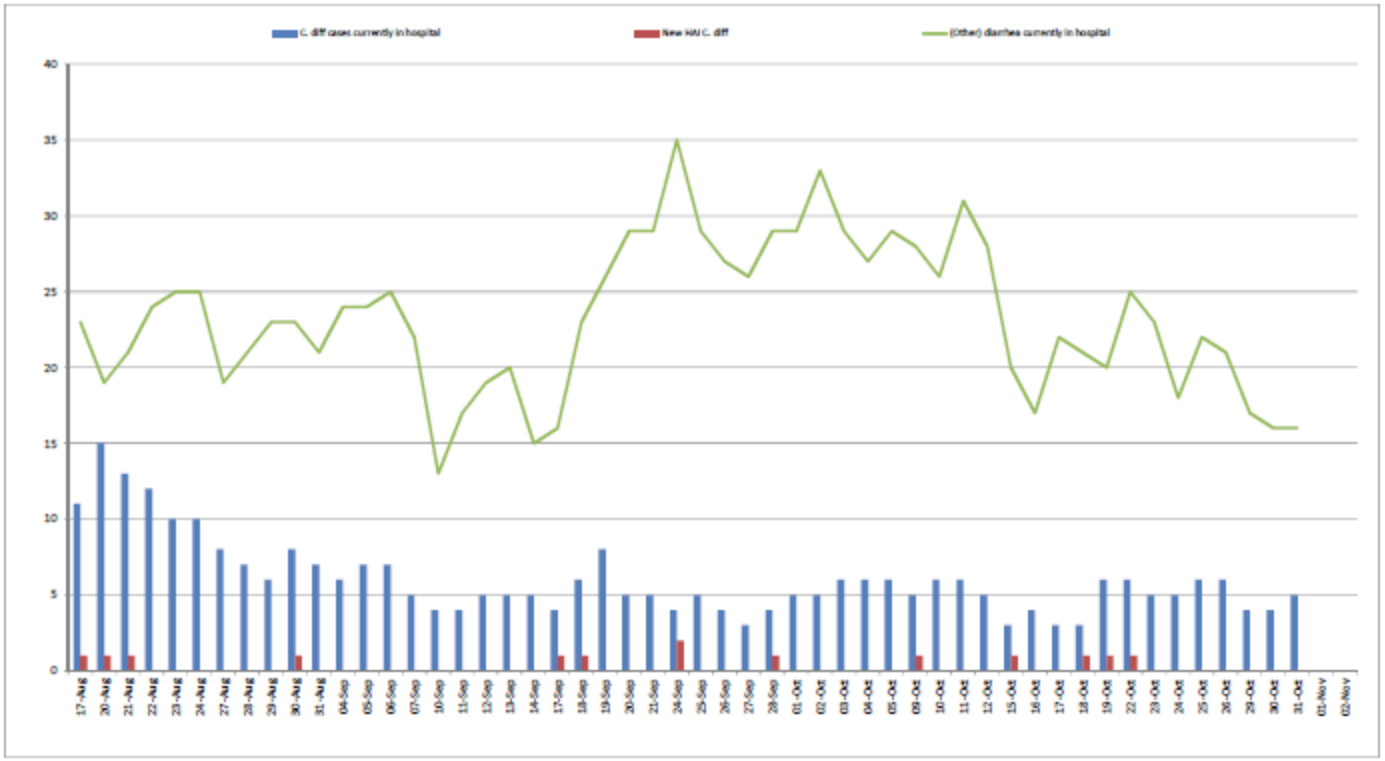
Transparency & Communication



Transparency & Communication

Lakeridge Health Oshawa C. difficile Facility Wide Outbreak

Trending Report 2012



Daily fluctuations in total cases may be due to relapse of a previous case

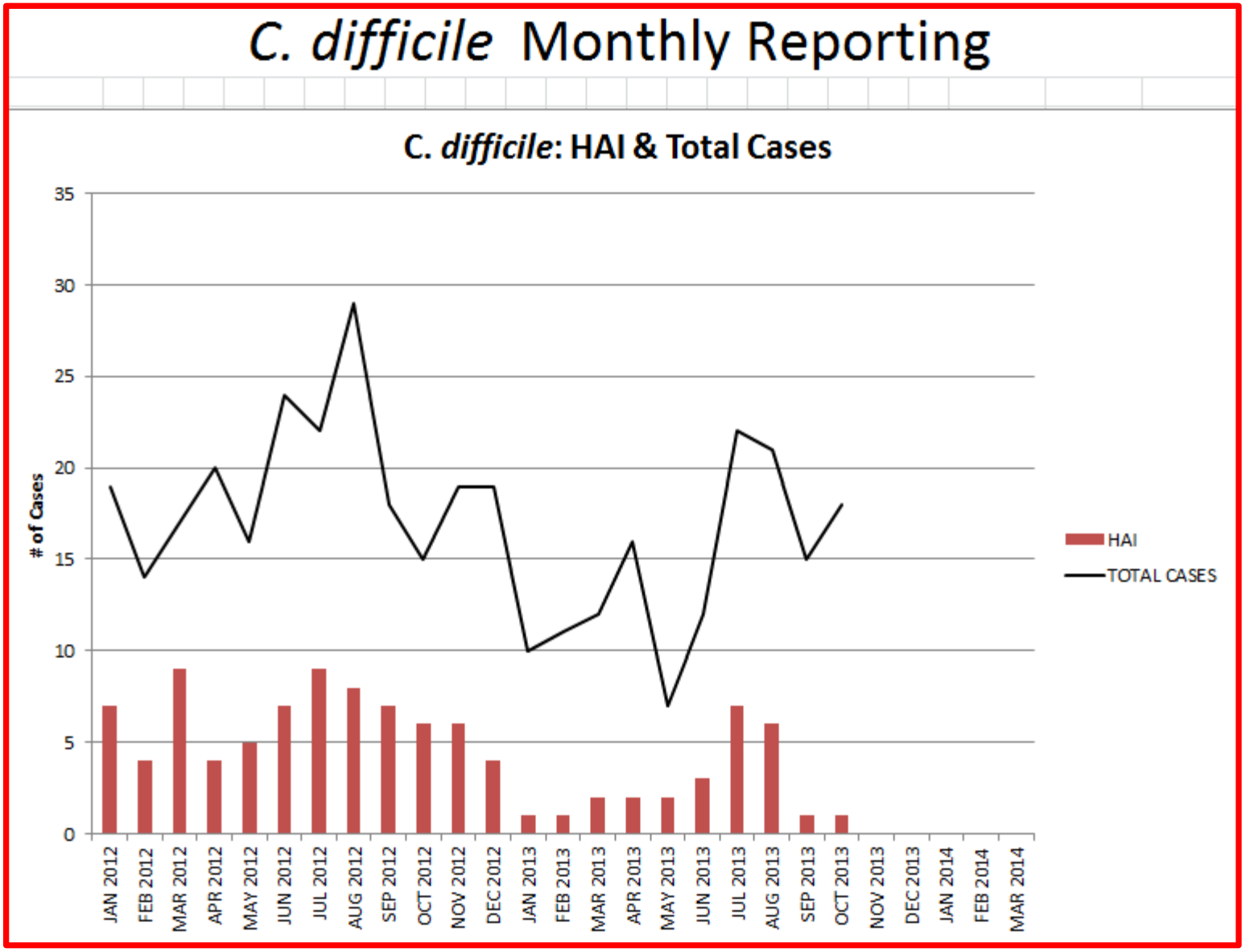
C. difficile cases currently in hospital: total number of cases that have been identified as Health Care Acquired Infection (HAI), Community Acquired Infection (CAI) and Other Health Care Acquired Infection (another health care institution) or Previously Positive.

New HAI C. difficile: new C. difficile Hospital Acquired Infection (HAI) since the last report.

(Other) diarrhea currently in hospital: total number of patients with diarrhea currently in hospital not diagnosed with C. difficile.

Transparency & Communication

C. difficile Monthly Reporting



Transparency & Communication

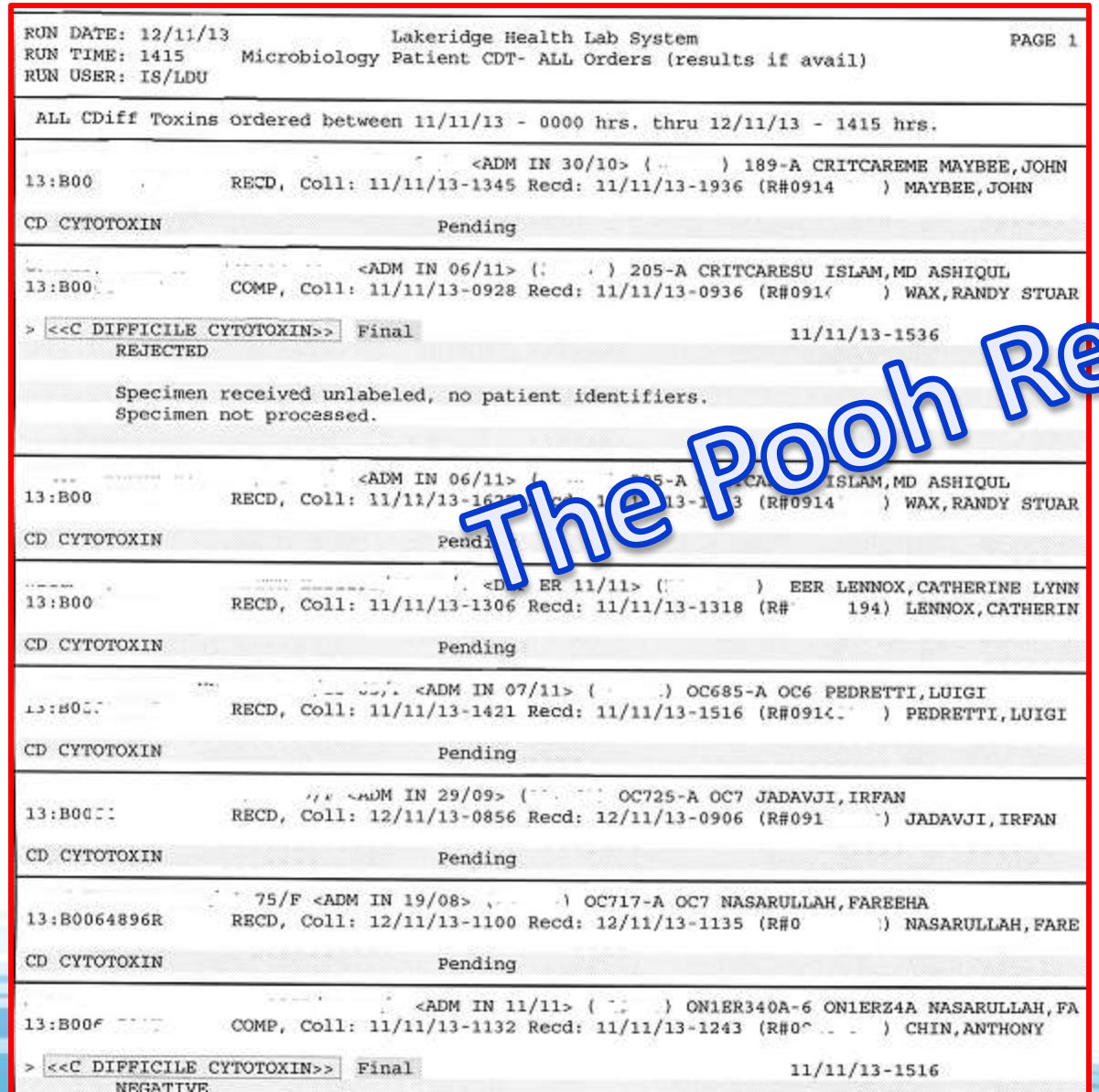
10/11/13 0025 Isolation Rooms Needing to have a 2nd Cleaning Daily PAGE: 1

The following rooms require 2nd daily clean due to confirmed or suspected cases of C difficile (pseudomembraneous colitis, diarrhea) and certain cases of Multiresistant Organisms (MRO).

** Cleaner for CDiff: sporacidal product MRO: hospital grade disinfectant

FACILITY	LOCATION	ROOM	REASON(S)
LHO	ER		Extra clean of hoppers & toilets 3 x a day
	CRITCARECT	165 A	MRO
	CRITCAREME	187 A	Cdiff
	OC4	OC423 A	Cdiff
		OC449 B	Cdiff
		OC453 A	Cdiff
		OC457 B	Cdiff
	OC5	OC579 B	Cdiff
	OC5R	OC541R A	MRO
		OC543R A	Cdiff
		OC565R B	Cdiff
	OC6	OC625 A	Cdiff

Transparency & Communication



RUN DATE: 12/11/13 Lakeridge Health Lab System PAGE 1
RUN TIME: 1415 Microbiology Patient CDT- ALL Orders (results if avail)
RUN USER: IS/LDU

ALL CDiff Toxins ordered between 11/11/13 - 0000 hrs. thru 12/11/13 - 1415 hrs.

<ADM IN 30/10> ( ) 189-A CRITCAREME MAYBEE,JOHN
13:B00 RECD, Coll: 11/11/13-1345 Recd: 11/11/13-1936 (R#0914) MAYBEE,JOHN

CD CYTOTOXIN Pending

<ADM IN 06/11> ( ) 205-A CRITCARESU ISLAM,MD ASHIQUL
13:B00 COMP, Coll: 11/11/13-0928 Recd: 11/11/13-0936 (R#091) WAX,RANDY STUAR

> <<C DIFFICILE CYTOTOXIN>> Final 11/11/13-1536
REJECTED

Specimen received unlabeled, no patient identifiers.
Specimen not processed.

<ADM IN 06/11> (205-A ISLAM,MD ASHIQUL
13:B00 RECD, Coll: 11/11/13-16 13-1 3 (R#0914) WAX,RANDY STUAR

CD CYTOTOXIN Pendi

<D ER 11/11> ( ) EER LENNOX,CATHERINE LYNN
13:B00 RECD, Coll: 11/11/13-1306 Recd: 11/11/13-1318 (R# 194) LENNOX,CATHERIN

CD CYTOTOXIN Pending

<ADM IN 07/11> ( ) OC685-A OC6 PEDRETTI,LUIGI
13:B0 RECD, Coll: 11/11/13-1421 Recd: 11/11/13-1516 (R#091) PEDRETTI,LUIGI

CD CYTOTOXIN Pending

<ADM IN 29/09> (OC725-A OC7 JADAVJI,IRFAN
13:B00 RECD, Coll: 12/11/13-0856 Recd: 12/11/13-0906 (R#091) JADAVJI,IRFAN

CD CYTOTOXIN Pending

75/F <ADM IN 19/08> ( ) OC717-A OC7 NASARULLAH,FAREEHA
13:B0064896R RECD, Coll: 12/11/13-1100 Recd: 12/11/13-1135 (R#0) NASARULLAH,FARE

CD CYTOTOXIN Pending

<ADM IN 11/11> ( ) ON1ER340A-6 ON1ERZ4A NASARULLAH,FA
13:B00 COMP, Coll: 11/11/13-1132 Recd: 11/11/13-1243 (R#0) CHIN,ANTHONY

> <<C DIFFICILE CYTOTOXIN>> Final 11/11/13-1516
NEGATIVE

The Pooh Report

Transparency & Communication

To: Lakeridge Health Colleagues

From: Incident Management Team

Re: **Frequently Asked Questions about Facility Wide C-Diff Outbreak**

---

1. **What is the current status of the Facility Wide C-Difficile Outbreak at Lakeridge Health Oshawa?**

   A Facility Wide C-Difficile Outbreak was called in late August and still remains in effect for Lakeridge Health Oshawa. Although our health care team has done a great job addressing this outbreak, **we have had five (5) new hospital acquired cases in October.** We also have a large number of patients with undiagnosed diarrhea. Continuing with regular and enhanced precaution is essential to preventing hospital transmission.

2. **Why are we in outbreak?**

   Lakeridge Health decided to declare an outbreak based on discussions with the Durham Region Health Department about the growing number of C-Diff cases in the community and several hospital acquired cases in various units at Lakeridge Health Oshawa. We believe some of the acquired cases in our hospital may be a result of practice issues that this outbreak has now given us the opportunity to address.

3. **When will the outbreak be declared over?**

   Durham Region Health Department makes the decision to declare the outbreak over based on a complex set of criteria that involves our hospital and provincial baseline rates. We will continue to communicate the outbreak status.

4. **What will happen when the outbreak is over?**

The Bluebird of Happiness

Public Health Ontario: PIDAC

Annex C:
Testing, Surveillance and Management of *Clostridium difficile*

In All Health Care Settings

Provincial Infectious Diseases Advisory Committee (PIDAC)

Revised: January 2013

Prevention and Control Measures for CDI

There are two major components to successful control of CDI – effective infection prevention and control (IPAC) measures and antibiotic stewardship.

A. IPAC Measures

Sustained control of CDI may be achieved with infection prevention and control measures directed at interrupting the horizontal spread of *C. difficile*.[4, 5] CDI prevention and control requires:

- a system for identification and prompt isolation of suspected or known CDI cases
- appropriate environmental services policies and procedures for CDI cases, including use of sporicides
- a hand hygiene program
- a system for disposal of faeces that prevents environmental contamination
- access to appropriate and timely laboratory testing.

1. Initiation of Contact Precautions

In addition to Routine Practices, Contact Precautions should be initiated by any regulated health care provider (e.g., physician, nurse) at onset of diarrhea and prior to receipt of *C. difficile* test results.

Contact Precautions should also be initiated when:

- there is a suspected or confirmed case of CDI
- there is toxic megacolon or pseudomembranous colitis.

While the majority of patients with CDI have diarrhea, some cases of CDI may present with isolated elevations in white blood cell count and ileus.[34]

Discontinuation of precautions should only be done under the direction of Infection Prevention and Control.

- Refer to PIDAC's *Routine Practices and Additional Precautions in All Health Care Settings* for more information regarding Contact Precautions. Available at: http://www.oahpp.ca/resources/pidac-knowledge/best-practice-manuals/routine-practices-and-additional-precautions.html.

2. Accommodation

Decision-making regarding accommodation for patients/ residents with CDI is based on the mode of transmission of *C. difficile* (i.e., contact spread of *C. difficile* spores) and the patient/ resident's

CDC Home

Centers for Disease Control and Prevention

CDC 24/7: Saving Lives. Protecting People.™

A-Z Index A B C D E F G H I J K L M N O P Q R S T U V W X Y Z #

Healthcare-associated Infections (HAIs)

Healthcare-associated Infections

- HAIs: The Burden
- Monitoring HAIs
- Types of Infections
  - Central Line-associated Bloodstream Infections
  - ***Clostridium difficile* Infection**
  - Patients
  - Clinicians
  - FAQs about *C. difficile* for Healthcare Providers
  - *C. difficile* Excerpt
  - Facilities/Settings
  - State Health Departments
  - Surgical Site Infection
  - Catheter-associated Urinary Tract Infection
  - Ventilator-associated Pneumonia
- Diseases and Organisms
- Preventing HAIs

Healthcare-associated Infections > Types of Infections

Recommend Tweet Share

Clostridium difficile Infection

People getting medical care can catch serious infections ca
While most types of HAIs are declining, one – caused by th
high levels. *C. difficile* causes diarrhea linked to 14,000 Am
are people, especially older adults, who take antibiotics and
guidelines and tools to the healthcare community to help
as provides resources to help the public safeguard their ow

Resources for...

Patients
General information for you and your family about *Clostridium difficile*, FAQs, resources f patients...

Clinicians
FAQs, guidelines and recommendations, Cl expert commentaries...

Facilities/Settings
Clostridium difficile infections tools, evaluatir environmental cleaning tools...

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY MAY 2010, VOL. 31, NO. 5

SHEA-IDSA GUIDELINE

Clinical Practice Guidelines for *Clostridium difficile* Infection in Adults: 2010 Update by the Society for Healthcare Epidemiology of America (SHEA) and the Infectious Diseases Society of America (IDSA)

Stuart H. Cohen, MD; Dale N. Gerding, MD; Stuart Johnson, MD; Ciaran P. Kelly, MD; Vivian G. Loo, MD; L. Clifford McDonald, MD; Jacques Pepin, MD; Mark H. Wilcox, MD

Since publication of the Society for Healthcare Epidemiology of America position paper on *Clostridium difficile* infection in 1995, significant changes have occurred in the epidemiology and treatment of this infection. *C. difficile* remains the most important cause of healthcare-associated diarrhea and is increasingly important as a community pathogen. A more virulent strain of *C. difficile* has been identified and has been responsible for more-severe cases of disease worldwide. Data reporting the decreased effectiveness of metronidazole in the treatment of severe disease have been published. Despite the increasing quantity of data available, areas of controversy still exist. This guideline updates recommendations regarding epidemiology, diagnosis, treatment, and infection control and environmental management.

Infect Control Hosp Epidemiol 2010; 31(5):431-455

EXECUTIVE SUMMARY

This guideline is designed to improve the diagnosis and management of *Clostridium difficile* infection (CDI) in adult patients. A case of CDI is defined by the presence of symptoms (usually diarrhea) and either a stool test positive for *C. difficile* toxins or toxigenic *C. difficile*, or colonoscopic or histopathologic findings revealing pseudomembranous colitis. In addition to diagnosis and management, recommended methods of infection control and environmental management of the pathogen are presented. The recommendations are based on the best available evidence and practices, as determined by a joint Expert Panel appointed by SHEA and the Infectious Diseases Society of America (IDSA) (the SHEA-IDSA Expert Panel). The use of these guidelines can be impacted by the size of the institution and the resources, both financial and laboratory, available in the particular clinical setting.

I. Epidemiology: What are the minimum data that should be collected for surveillance purposes and how should the data be reported?

1. To increase con use available standard of (1) healthcare fa CDI; (2) community- community-associate
2. At a minimum, HCP-associated CDI to detect outbreaks a
3. Express the rate number of cases per
4. If CDI rates are facilities or if an outb location in order to

II. Diagnosis: What is t CDI in the clinical labo options?

5. Testing for C. formed only on diar due to *C. difficile* is s

From the Department of Internal Medicine, Division of Infectious and Immunologic Diseases, University of California (S.H.C.); the Research Service, Edward Hines Jr. Veterans Affairs Hospital, and Infectious Disea University Chicago Stritch School of Medicine, Maywood, Illinois (D.N.G, S.J.); the Division of Gastroente Boston, Massachusetts (C.P.K.); the Department of Microbiology, McGill University Health Center, Montre Healthcare Quality Promotion, National Center for Preparedness, Detection, and Control of Infectious Disease Atlanta, Georgia (L.C.M.); the Department of Microbiology and Infectious Diseases, University of Sherbrook of Microbiology, Leeds Teaching Hospitals National Health Service Trust and Institute of Molecular and Cellu Kingdom (M.H.W.).

Received February 4, 2010; accepted February 5, 2010; electronically published March 22, 2010.

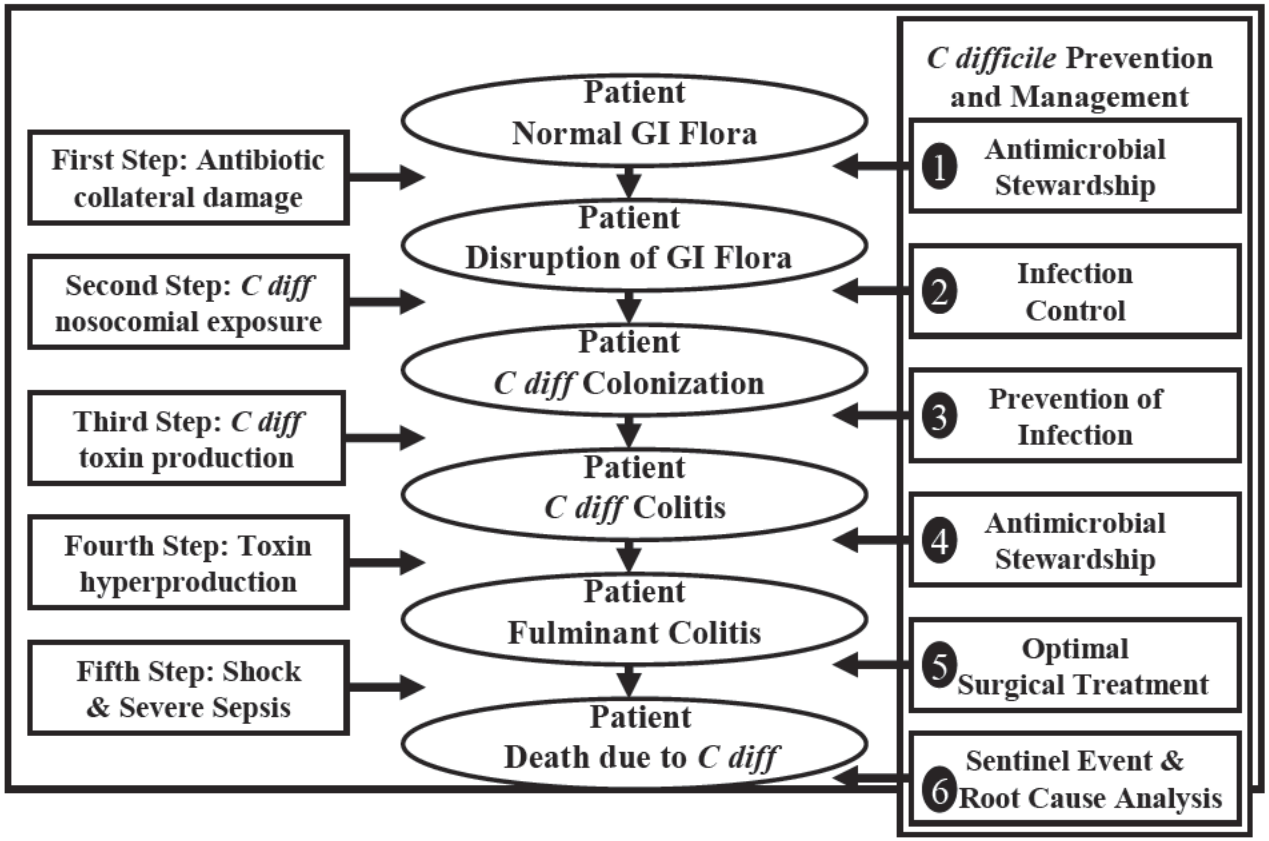
APIC Implementation Guide

Guide to Preventing *Clostridium difficile* Infections

APIC

About APIC
APIC's mission is to create a safer world through prevention of infection. The association's more than 14,000 members direct infection prevention programs that save lives and improve the bottom line for hospitals and other healthcare facilities. APIC advances its mission through patient safety, implementation science, competencies and certification, advocacy, and data standardization.

Your opportunities to intervene



Committing to change: *C.diff* toxin testing

- 2012 Meridian toxin (EIA) testing
  - Jan 9 –June 17, 2013 added GDH

✓ EIA negative & GDH negative = NEG

✓ EIA negative & GDH **positive**= send for PCR

EIA	GDH	PCR
24 neg	24 pos	8 positive

Committing to change: **GO PUBLIC**

Multipronged Approach in Reducing Rates of Nosocomial CDI Cases in a Facility-Wide Outbreak with the Implementation of the CDI Toolkit.

Lakeridge Health Infection Prevention and Control Team

Lakeridge Health, Oshawa, Ontario, Canada

Issue: Clostridium *difficile* infection (CDI) ranges from mild diarrhea to severe illness such as pseudomembranous colitis and toxic mega colon. Failure to recognize risk, symptoms and initiate prompt management can lead to possible transmission. Several tools had been developed at our hospital to help mitigate the risk of CDI and prevent transmission, but these were not well utilized.

Clostridium difficile Infection (CDI) Suspected or Confirmed Toolkit

Clinical Tools (Front Line Staff)

- Suspected/Confirmed *Clostridium difficile* Toolkit Checklist

STEP ONE: *C. difficile* Infection (CDI): What to Chart, What to Test

STEP TWO: *C. difficile* Infection (CDI) Suspected or Confirmed Algorithm

STEP THREE: Assessing and Managing Risk for *C. difficile* Infection (CDI)

STEP FOUR: Pre-printed Order *Clostridium difficile* Infection (CDI) Suspected or Confirmed

STEP FIVE: *C. difficile* Infection—Staff Education Pamphlet
C. difficile Fact Sheet (Patient & Visitor Information)
Information about Isolation Precautions for Patients & Visitors
Antibiotic-Associated Diarrhea Handout

Managerial Toolkit (Patient Care Managers/Specialists or Delegate)

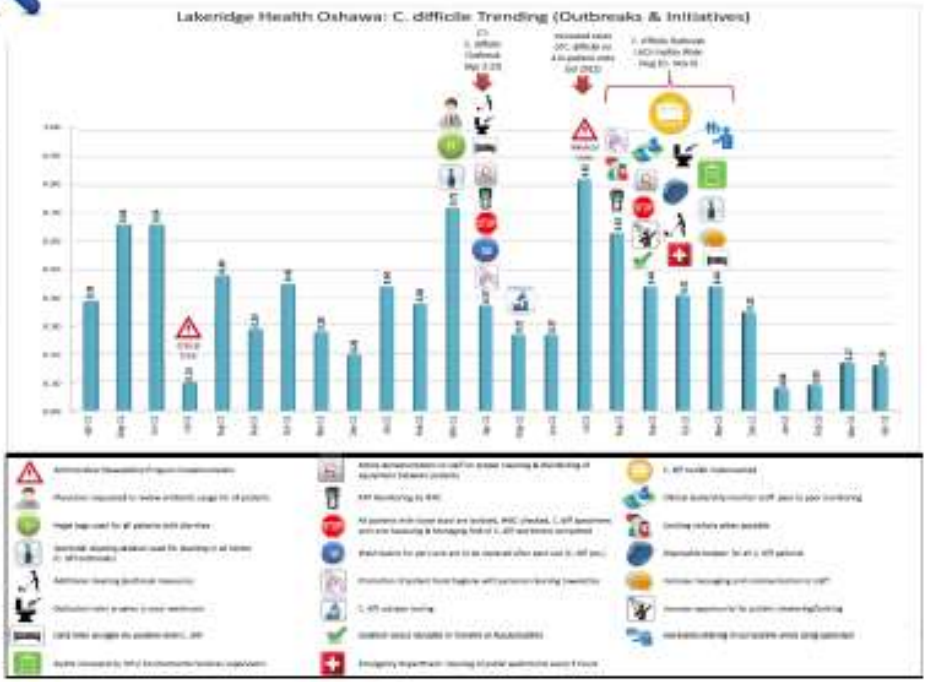
SPOT CHECK TOOLS:

1) SPOT CHECK for CDI/Undiagnosed Diarrhea Patient Management
2) SPOT CHECK for Isolated Patient Management

Project: During our facility outbreak for CDI, these previous tools were assembled together into a bundle known as the CDI toolkit. This toolkit was intended for clinical staff to identify risks and early signs and symptoms of suspected CDI cases to manage them appropriately with the initiation of early infection prevention measures, treatment and cleaning protocols. During the outbreak, an incident Management Team was mobilized with senior management. This team helped disseminate accountability to the unit leadership to implement this CDI toolkit. The unit leadership were given audit tools to measure its' utilization.

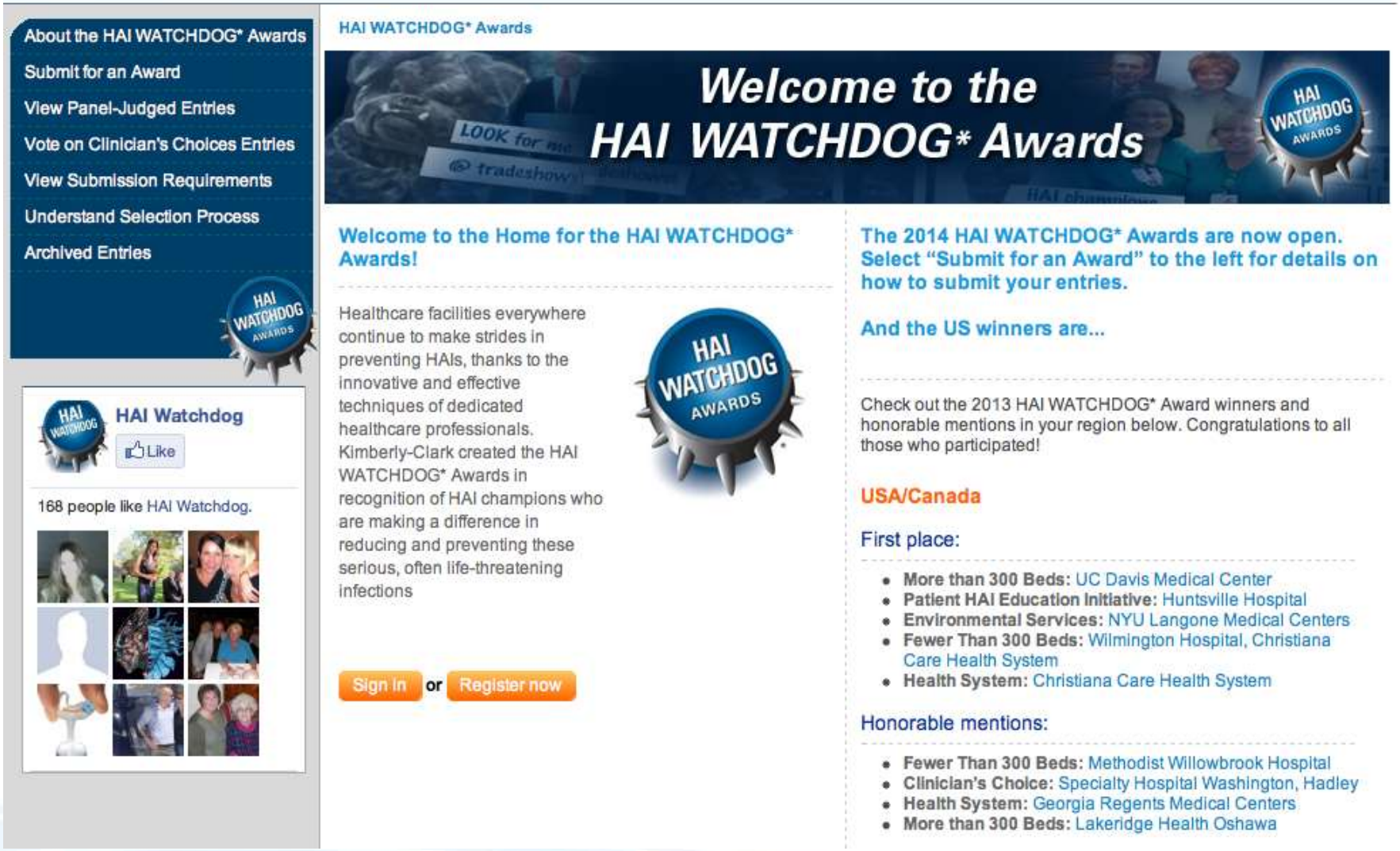
Results: With this multipronged approach in the implementation of the CDI toolkit, we were able to measure a sustained decrease in transmission. It is too soon to determine the long term effect on nosocomial CDI rates but have seen a decline in transmission rates which in turn shortened the duration of the outbreak.

Lessons Learned: Senior management support and the use of audit tools were instrumental in achieving success with the uptake of the CDI toolkit by putting the accountability to unit leadership. The shift of accountability made it feasible for staff to utilize the CDI toolkit.



Helen Gibson, Dr. Daniel Nicoluta, Michelle Alexander, Lynda Bowen, Alice Brink, Chris Brown, Elise Haley, Betty-Jean Macdonald, Judy McCarten, Janessa McGuire, Teri Mundluff, Nicole Saunders

Committing to change: **GO PUBLIC**



Committing to change: **GO PUBLIC**

HAI (HealthCare Associated infection) WATCHDOG AWARD:
"Kimberly-Clark created the HAI WATCHDOG Awards in recognition of HAI champions who are making a difference in reducing and preventing serious, often life-threatening infections.
Applicants are scored based on innovation and impact of the program in reducing Health Care Associated infections.
The panel of judges are comprised of professionals from the healthcare industry with expertise in infection prevention". Lakeridge Health entered the C difficile Toolkit along with trending data to show the reduction in C difficile infection rates. We received the second highest score of 29 entries received from across North America and the UK.

Celebrating (and a free lunch?)

IPAC Honoured for Fight Against C. diff

Keeping Lakeridge Health safe is a top priority for the Infection Prevention and Control team and their efforts to stop the spread of hospital-acquired infections have led to an international honour.

The HAI WATCHDOG Awards presented the IPAC team with an honourable mention for developing the C. difficile toolkit, which helps clinical staff identify and manage patients with potential or confirmed C. diff.

In the last year, C. diff rates across Lakeridge Health have dropped dramatically. The toolkit is one resource staff and doctors can use to keep C. diff at bay. It includes information on the signs and symptoms of C. diff and assists clinical staff in making critical decisions about the care of a patient with C. diff and those around them.

"We've seen a dramatic drop in infections because of the work we've been doing with this toolkit," says Dr. Dan Ricciuto, lead Infection Prevention and Control doctor.

The HAI WATCHDOG Awards recognize healthcare facilities that strive to prevent hospital-acquired infections (HAI) through the innovation and effective efforts of dedicated healthcare professionals.

"We're proud to receive this honour and we want to share it with everyone at Lakeridge Health who does their part to prevent and reduce C. difficile infections," says Judy McCarten, Infection Control Practitioner. "Many staff have incorporated parts of the toolkit into

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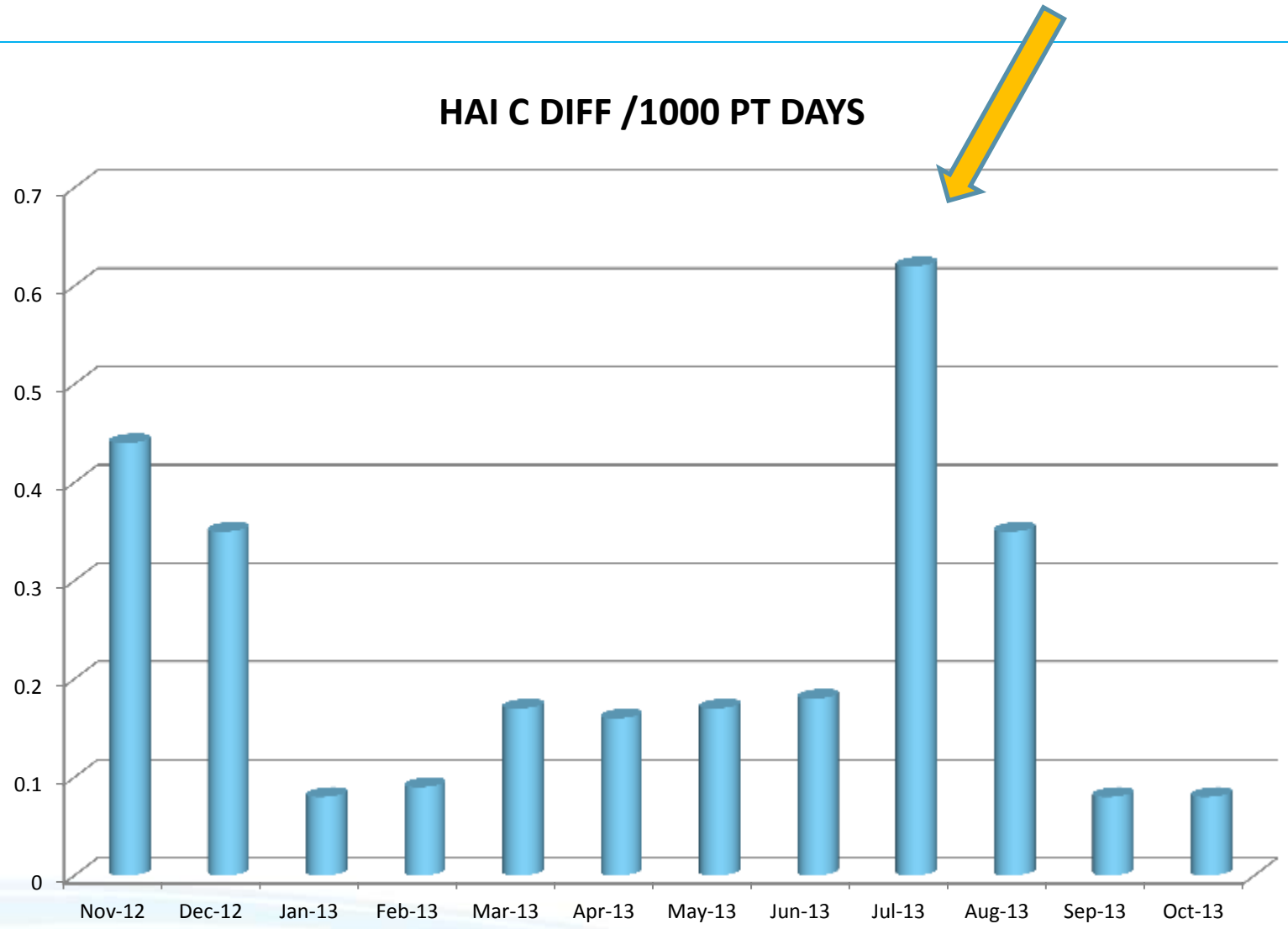
Michelle Dudar (right) from the Kimberly-Clark Corporation presents an HAI Watchdog

Committing to change: **don't let your guard down**



Is this an Outbreak?

OG7: Nap 2
OG7: Pattern A
OG7: Nap 4
ICU: Pattern B

Committing to change:

A year later … finding the gaps:

- ✧Improving documentation (The Bristol Stool Chart)
- ✧Sporacidal (cleaning everywhere?)
- ✧Treating all positive lab results (wait, what?)
- ✧STOP sending urine for C/S (does the smell tell?)
- ✧Why is everyone on lactulose?
- ✧Toilet brushes
- ✧Patient Hand Hygiene

BRISTOL STOOL CHART

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on the surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces. **Entirely Liquid**

The Bristol stool chart was developed by Dr. Ken Heaton at the University of Bristol and first published in 1997.

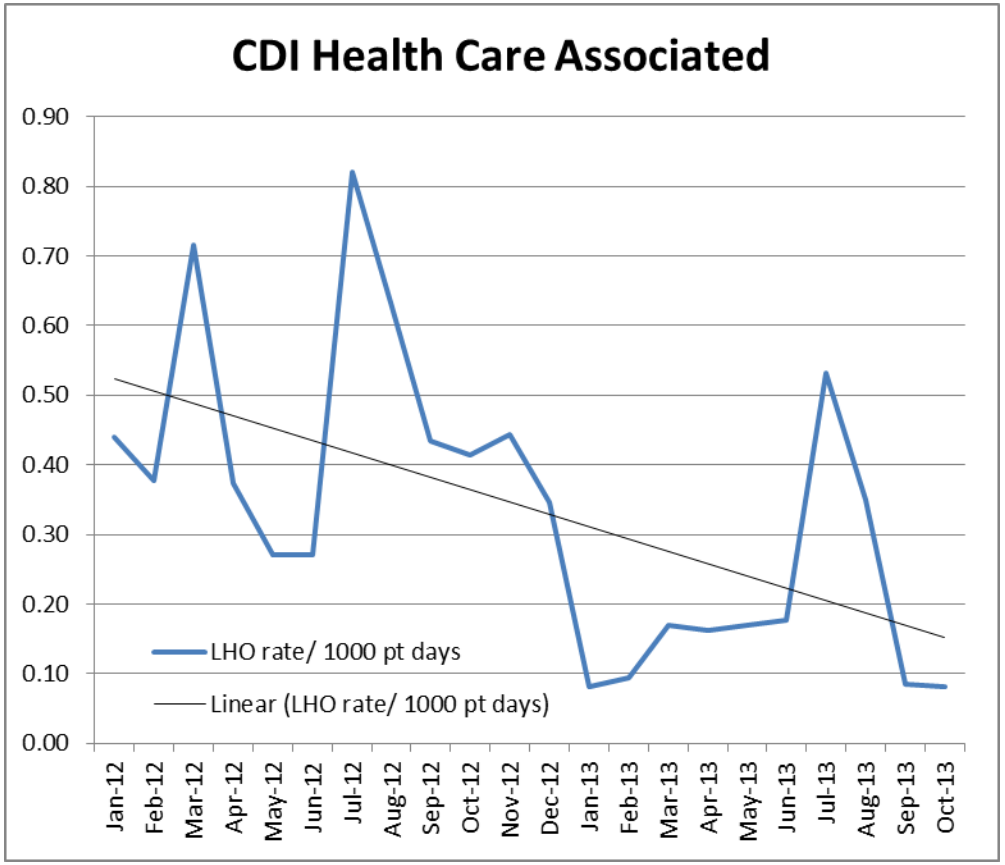
IPAC HUDDLES

- ✓15 minutes daily
- ✓White board tracking
- ✓Agenda items

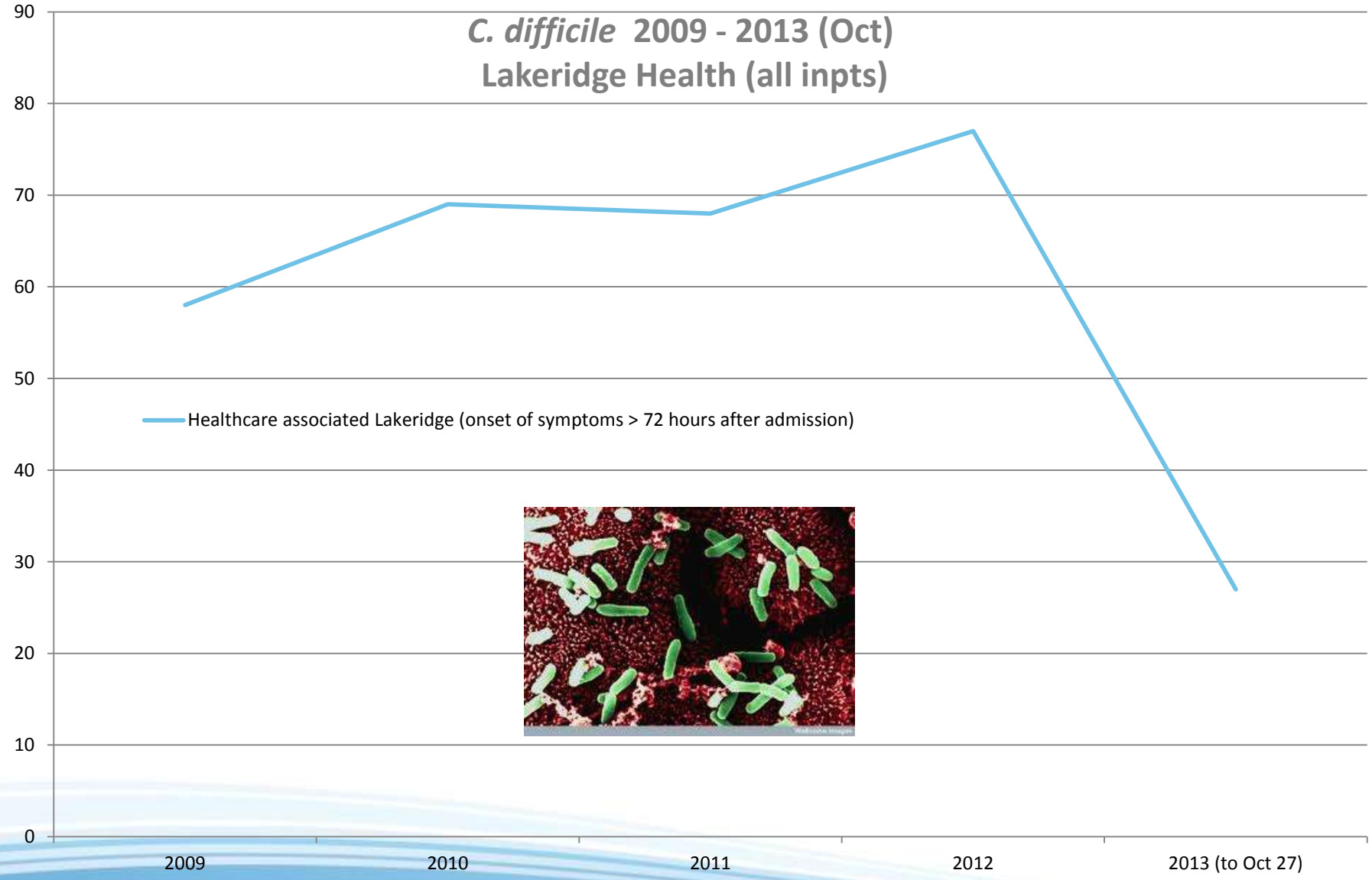
Committing to Change

ANTIMICROBIAL STEWARDSHIP Team of 3 !

Committing to Change



Committing to Change




Thanks
RPN
Nurses
Environmental
Doctors
Pharmacy
Microbiology
Respiratory
Managers
Imaging
Social
Physiotherapist
Diagnostic
Managment
IPAC
PSW
Public
Communications
Senior
Services
Team
Occupational
Specialists
Health
Patients
Work

Where is your bar?

DON'T
FORGET
TO BE
AWESOME.

YOU CAN MAKE!!!