



Long Term Care Facility *Clostridium difficile* Toolkit

Maria Bye, MPH | Epidemiologist
Janet Lilleberg, MPH | HAI/AR Unit

Introductions

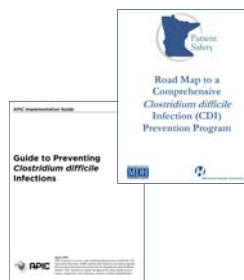
Maria Bye



Janet Lilleberg

Why This Toolkit?

- Many great resources for acute care
 - "Safe From CDI" toolkit
 - APIC Guide to the Elimination of *Clostridium difficile* in Health Care Settings
- Long term care facilities (LTCF) setting differs from acute care



7/26/2018

3

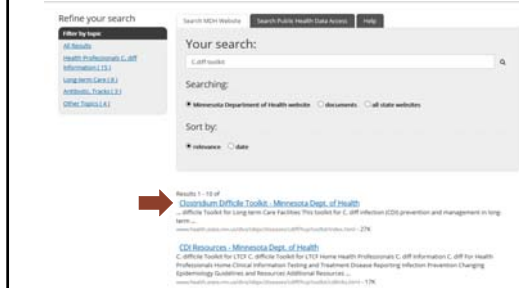
How to Access It

- Direct Link:
<http://www.health.state.mn.us/divs/idepc/diseases/cdiff/hcp/toolkit/index.html>
- Or search for it on the MDH website



4

How to Access It

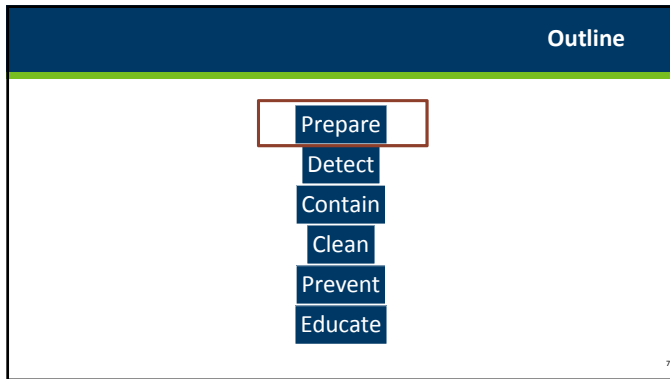


5

Outline

Prepare
Detect
Contain
Clean
Prevent
Educate

6



Prepare

- *C.diff* background
- Current CDI Prevention and Response Activities:
Early Identification and Containment Assessment Checklist
- Make a Team
- Example CDI Prevention and Control Policy
- CDI Response Algorithm

"By failing to prepare,
you are preparing to
fail."

- Benjamin Franklin

8

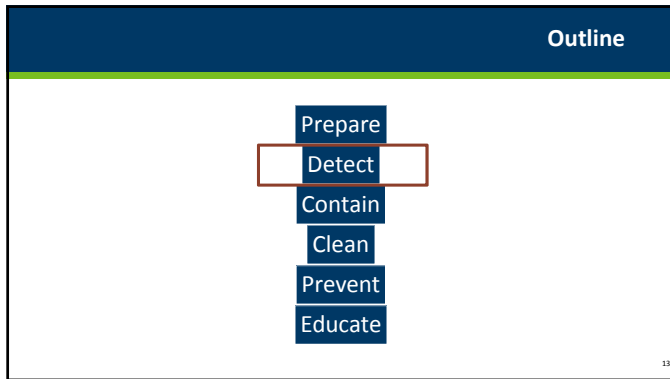
Prepare

- *C.diff* background
- Current CDI Prevention and Response Activities:
Early Identification and Containment Assessment Checklist
- Make a Team
- Example CDI Prevention and Control Policy
- CDI Response Algorithm

"By failing to prepare,
you are preparing to
fail."

- Benjamin Franklin

9



Detect

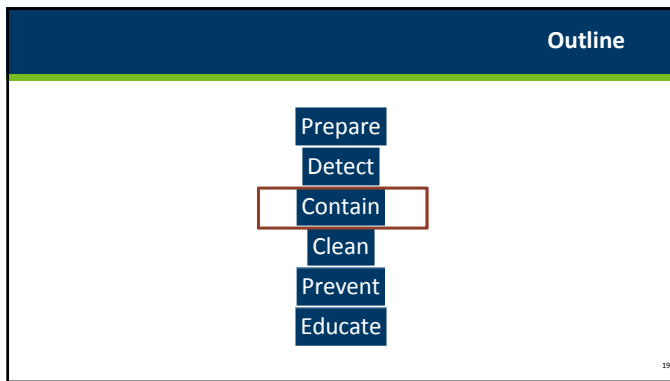
- Detection and Surveillance Self-Assessment
- Early Recognition and Testing Algorithm
- Surveillance
- Testing Recommendations
- Bristol Stool Chart
- Infections Tracking Tool

14

Detect

- Detection and Surveillance Self-Assessment
- Early Recognition and Testing Algorithm
- Surveillance
- Testing Recommendations
- Bristol Stool Chart
- Infections Tracking Tool

15



Contain

- Contact Precautions Algorithm
- Hand Hygiene Resources
- Door Signage
- Personal Protective Equipment (PPE) Resources
- Transmission-Based Precautions Audit Tool
- Inter-Facility Infection Control Transfer Form
- Isolation Precautions
- Room Placement Algorithm
- Infection Prevention and Control Isolation Compliance Checklist
- Social and Activity Precautions

20

Contain

- Contact Precautions Algorithm
- Hand Hygiene Resources
- Door Signage
- Personal Protective Equipment (PPE) Resources
- Transmission-Based Precautions Audit Tool
- Inter-Facility Infection Control Transfer Form
- Isolation Precautions
- Room Placement Algorithm
- Infection Prevention and Control Isolation Compliance Checklist
- Social and Activity Precautions

21


Personal Protective Equipment (PPE)

- PPE Assessment
- Donning and doffing recommendations

SEQUENCE FOR PUTTING ON PERSONAL PROTECTIVE EQUIPMENT (PPE)


1. GOWN

- Gown must cover front neck to knees, arms to wrist of arms, and wrap around the back
- Ties on back of neck and wrist




2. MASK OR RESPIRATOR

- Straps are to extend behind or under of head and neck
- If Mask: Secure by loose fitting
- If the strap is loose and breathe into it
- If the cloth respirator




3. GOGGLES OR FACE SHIELD

- Place over face and head and adjust to fit




4. GLOVES

- Extend to cover wrist of protective gown



USE DATE WHEN INADVISABLE TO PROTECT RELIABLY AND LIMIT THE SPREAD OF CONTAMINATION

- Use gloves for 10 minutes
- Use goggles for 10 minutes
- Use mask for 10 minutes
- Use gown for 10 minutes
- Use gloves for 10 minutes

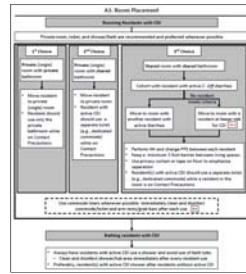


23

- Use this form when transferring residents to and from your facility.
 - Demographics
 - Current infections
 - Symptoms
 - PPE needed
 - Other MDRO Risk factors
 - Immunizations

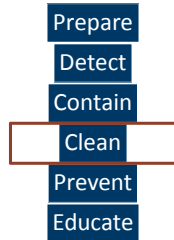
Room Placement Algorithm

- Algorithm guides facilities through:
 - Primary and secondary considerations for rooming residents
 - 1st, 2nd, and 3rd choices for cohorting residents
 - Bathing residents



25

Outline



26

Clean

- Environmental Cleaning Self-Assessment
- Environmental Cleaning and Disinfection Algorithm
- Cleaning Recommendations
- List K: Registered Antimicrobial Products Effective Against *C. difficile* Spores
- C. difficile* Cleaning Audit Tool for Infection Prevention and Control
- CDC Environmental Checklist for Monitoring Terminal Cleaning
- Environmental Hygiene Daily Resident Room Skills Checklist

27

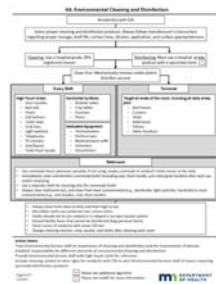
Clean

- Environmental Cleaning Self-Assessment
- Environmental Cleaning and Disinfection Algorithm
- Cleaning Recommendations
- List K: Registered Antimicrobial Products Effective Against *C. difficile* Spores
- *C. difficile* Cleaning Audit Tool for Infection Prevention and Control
- CDC Environmental Checklist for Monitoring Terminal Cleaning
- Environmental Hygiene Daily Resident Room Skills Checklist

28

Environmental Cleaning and Disinfection Algorithm

- Cleaning responsibilities for every shift
- Terminal cleaning
- Cleaning the bathroom
- Other general recommendations



7/26/2018

List K

- One of the most requested resources
- Three chemistries registered for hard surface disinfection
 - Bleach
 - Peroxyacetic acid (PAA)
 - Sodium dichloro Isocyanurate (NaDCC)

LIST K: EPA's Registered Antimicrobial Products Effective against Clostridium difficile Spores

Product No.	Product Name	Active Ingredient
100-100	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-101	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-102	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-103	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-104	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-105	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-106	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-107	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-108	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-109	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-110	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-111	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-112	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-113	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-114	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-115	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-116	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-117	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-118	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-119	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-120	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-121	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-122	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-123	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-124	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-125	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-126	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-127	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-128	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-129	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-130	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-131	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-132	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-133	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-134	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-135	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-136	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-137	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-138	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-139	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-140	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-141	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-142	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-143	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-144	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-145	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-146	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-147	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-148	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-149	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-150	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-151	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-152	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-153	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-154	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-155	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-156	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-157	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-158	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-159	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-160	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-161	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-162	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-163	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-164	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-165	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-166	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-167	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-168	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-169	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-170	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-171	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-172	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-173	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-174	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-175	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-176	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-177	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-178	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-179	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-180	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-181	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-182	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-183	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-184	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-185	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-186	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-187	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-188	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-189	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-190	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-191	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-192	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-193	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-194	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-195	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-196	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-197	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-198	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-199	CLOROX Disinfectant Bleach	Sodium Hypochlorite
100-200	CLOROX Disinfectant Bleach	Sodium Hypochlorite

30

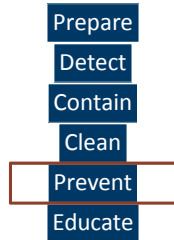
C. difficile Cleaning Audit Tool

- Thorough audit tool that lists high touch and often forgotten places to clean
- Also includes 27 question assessment to evaluate general cleaning practices

7/26/2018

31

Outline



32

Prevent *Clostridium difficile*

Prescribing

Antibiotic
StewardshipCDI
Treatment

7/26/2018

33

Prevent - Current Prevention Activities Assessment

Knowledge and Competency

Infection Prevention Policies and Infrastructure

Monitoring Practices

7/26/2018

34

Prevent *Clostridium difficile* - Antibiotic Prescribing

Prescribing

Antibiotic
Stewardship

CDI
Treatment

7/26/2018

35

Prevent - Minimum Criteria for Initiating Antibiotics

The screenshot displays a document with multiple sections of criteria for initiating antibiotics. The text is small and partially illegible, but it appears to be a checklist or a set of guidelines. The document is organized into several columns and rows, with some sections highlighted in red. The criteria likely include patient history, current medications, and clinical findings.

7/26/2018

<http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/hcp/lcabcxcard.html>

36

Prevent *Clostridium difficile* - Antibiotic Stewardship

Prescribing

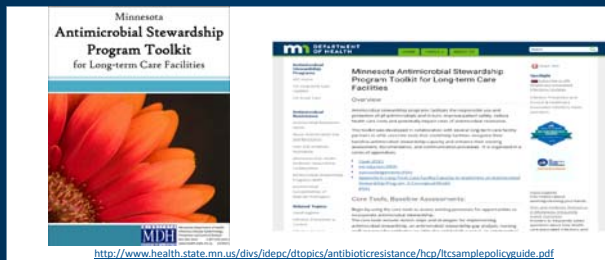
Antibiotic
Stewardship

CDI
Treatment

7/26/2018

37

Prevent - Minnesota Antimicrobial Stewardship Program Resources



<http://www.health.state.mn.us/divs/depc/dtopics/antibioticresistance/hcp/ltsamplepolicyguide.pdf>

7/26/2018

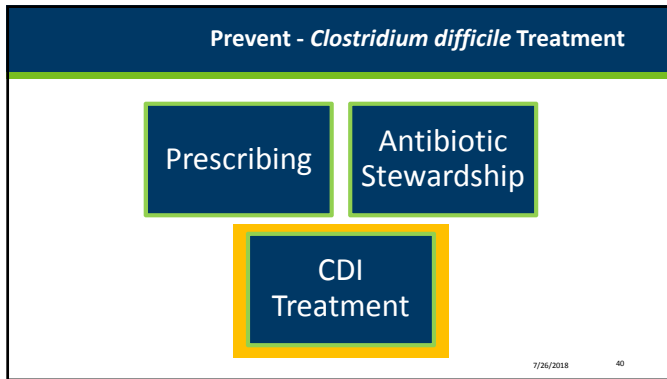
38

Prevent - Minnesota Antimicrobial Stewardship Program Toolkit

- Companion Guide to Using the Minnesota Sample Antibiotic Stewardship Policy for Long-Term Care
- Antimicrobial Stewardship Gap Analysis Tool-Appendix C
- Antibiotic Use Attitudes and Beliefs: Nursing Survey-Appendix D
- Educational Modules for CDI Prevention
- Appendix L-Antibiotic Use and infection status tracking tool

7/26/2018

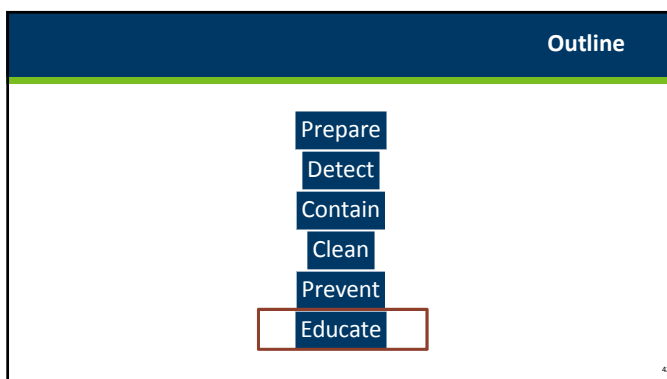
39



Prevent - Guidance for CDI Treatment

- *C. difficile* is treated with an antibiotic such as metronidazole, vancomycin, or fidaxomicin. (Metronidazole should not be used for severe *C. difficile* infections).
- Other antibiotics should be discontinued whenever possible
- *C. difficile* recurs in about 20% of cases. Usually, repeat treatment with the same antibiotic the first time. After that treat with oral vancomycin or fidaxomicin.
- Transplanted stool from a healthy person to the colon has shown success
- Probiotics are not recommended due to limited data

7/26/2018 41



Educate

Educate section of the *Clostridium difficile* Toolkit for Long-Term Care Facilities

★ Current facility education activities assessment tool

- Answers to common *C. diff* questions
- Resident and Family education
- Employee Environmental Cleaning Education
- Resources - *C. diff* infections



7/26/2018

43

Educate - Assess Education Activities

Does your facility:

- Provide CDI prevention education for all HCP
- Provide cleaning and disinfection education for nursing and ancillary/support staff
- Provide education and competency testing for environmental services trainers
- Provide competency testing to environmental services staff

7/26/2018

44

Educate

Educate section of the *Clostridium difficile* Toolkit for Long-term Care Facilities

• Current facility education activities assessment tool

- Answers to common *C. diff* questions

★ Resident and Family education

- Employee Environmental Cleaning Education
- Resources - *C. diff* infections



7/26/2018

45

Educate - CDI Resident and Family Education



- What is *Clostridium difficile*?
- How does it spread?
- What do nursing home staff do to prevent the spread?
- What can visitors do to prevent spreading it?

Educate

Educate section of the *Clostridium difficile* Toolkit for Long-Term Care Facilities

- Current facility education activities assessment tool
- Answers to common *C. diff* questions
- Resident and Family education
- ★ Employee Environmental Cleaning Education
- Resources - *C. diff* infections

7/26/2018

47

Educate - Employee Environmental Cleaning

Rationale for environmental hygiene

Demonstration of current evidence-based methods

Cleaning products and their use - dilution and contact time

Delineation of responsibilities

7/26/2018

48

Educate - Additional Resources

- APIC
- Centers for Disease Control and Prevention CDC
- IDSA & SHEA

7/26/2018

49

Acknowledgements

- Kathie Nichols
- Dr. Stacy Holzbauer
- APIC LTCF Committee
- Medora Witwer
- Tory Whitten





Thank you!
 maria.bye@state.mn.us
 janet.lilleberg@state.mn.us
