



# *Clostridium difficile*

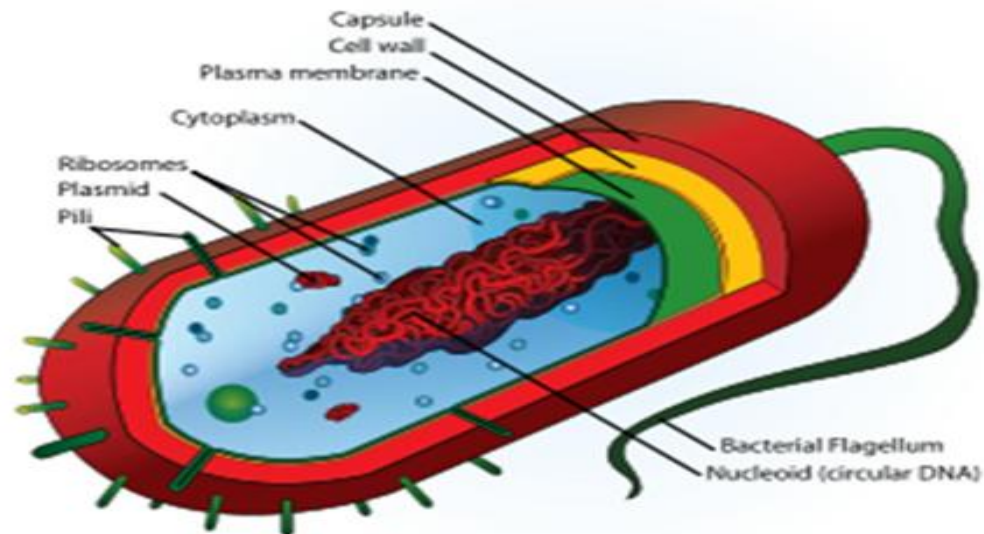
How We Decreased Our Rates

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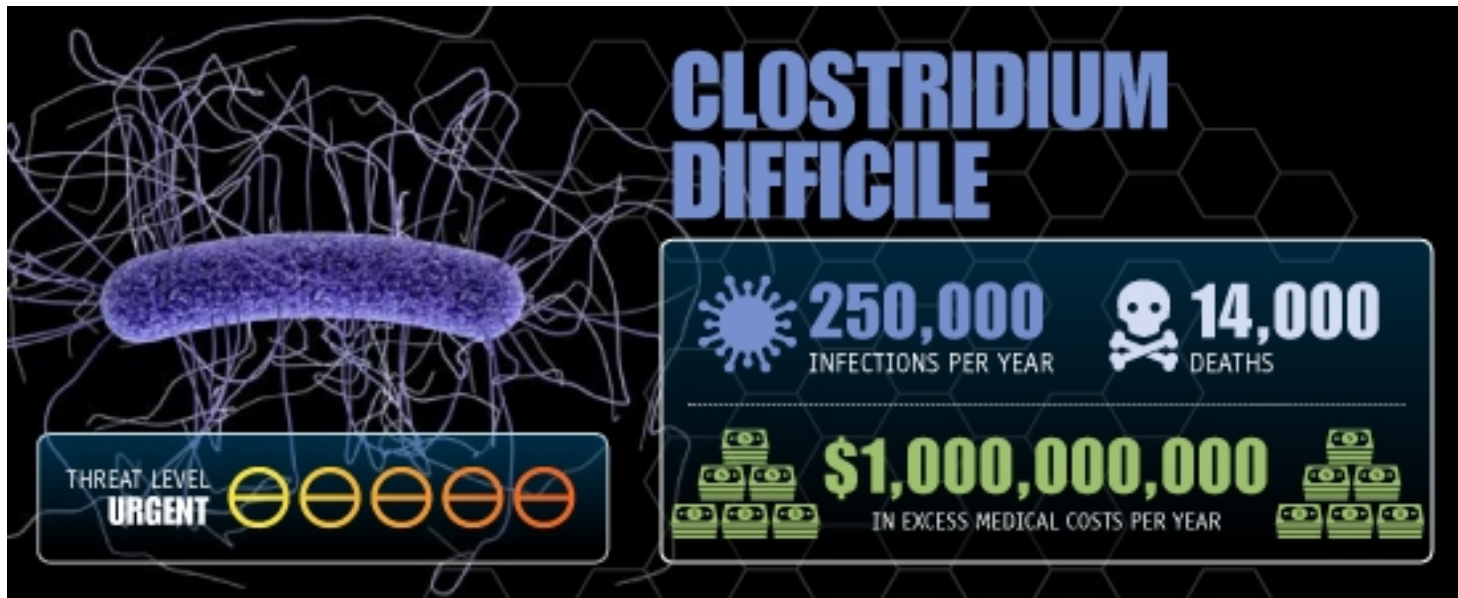
January 28, 2016

# *Clostridium difficile*

- \* Spore forming anaerobic gram positive bacteria
- \* Similar to an M & M



# Scope of the Problem



# SIX STEPS TO *C. difficile* PREVENTION

According to the Centers for Disease Control and Prevention's (CDC) March 2012 Vital Signs report, *Clostridium difficile* (*C. difficile*) infections remain at historically high levels whereas most other types of healthcare-associated infections are declining. *C. difficile* related-deaths increased by 400% between 2000 and 2007, due in part to a stronger germ strain. *C. difficile* causes an estimated 14,000 deaths annually. Almost all *C. difficile* infections (94%) are connected to all types of healthcare facilities.



For *C. difficile* prevention tips and educational resources, visit: [www.cloroxhealthcare.com/cdiff](http://www.cloroxhealthcare.com/cdiff)



Clorox® Germicidal Wipes and DISPATCH® Hospital Cleaner Disinfectant Towels with Bleach are the **most trusted** bleach wipes EPA-registered to kill *C. difficile* spores.\*

\*Use products as directed on hard nonporous surfaces.

# Interventions

- \* Drilled down the hospital onset cases and discovered that a large portion of them were simply late specimens
- \* Initiated a C. diff protocol
- \* Proactive isolation while waiting for the test result
- \* In-services to every unit about the importance of getting the specimen before 48 hours after admission
- \* Emergency room (ER) nurses have been especially vigilant in getting these specimens early

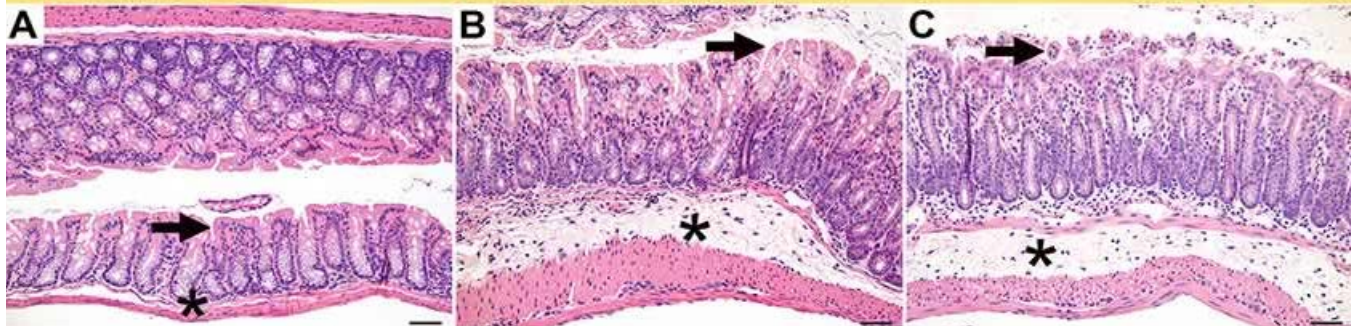
# Interventions

- \* “Don’t be fooled, get the stool!” flyers placed on every unit as reminders
- \* Education on the disease process, exactly what *C. diff* does to the intestinal lining
- \* When nurses know the “why” of something, they are more apt to “comply”
- \* Antimicrobial Stewardship here is still in its infancy; Our pharmacy does have a strong IV to oral program



# Educational Flyer

## What does *C. difficile* do to the gut?



**24 hours after exposure:**  
Cells of colon lining are normal

**30 hours after exposure:**  
*C. difficile* toxin has started to damage cells, triggering inflammation & fluid buildup

**36 hours after exposure:**  
Inflamed cells burst & die.  
*C. difficile* spores leave colon via diarrhea & await next host.

**M** | MEDICAL SCHOOL

# Interventions

- \* Environmental Services (EVS) clean all *C. diff* isolation rooms with bleach
- \* Nursing communicates with EVS by leaving the isolation caddy in place after discharge
- \* Then EVS knows which type of disinfectant to use



# RESULTS

- \* Before interventions

**2014 SIR = 0.822**

We were above the 0.750 achievement threshold for CMS.

- \* After Interventions

**2015 SIR = 0.582**

Now we are below all achievement thresholds including VBP for 2016 which is 0.794.

# Ongoing Interventions

- \* Building our antimicrobial stewardship program
- \* Encouraging physician prescription of Pepcid rather than Protonix for a high-risk patient
- \* Continued vigilance and education of all front line staff
- \* Electronic surveillance of all admission diagnoses

## References:

- [http://www.cdc.gov/HAI/organisms/cdiff/Cdiff\\_clinicians.html](http://www.cdc.gov/HAI/organisms/cdiff/Cdiff_clinicians.html)
- <http://www.health-choices-for-life.com/superbugs.html>
- <http://nursing.advanceweb.com/Web-Extras/Online-Extras/What-You-Can-Do-to-Help-Stop-C-diff.aspx>
- <http://www.tufts.edu/med/apua/consumers/consumers---practioners---cdc-vital-signs.shtml>
- <http://www.uofmhealth.org/news/archive/201502/stalking-wily-foe-u-m-scientists-figure-out-how-c-difficile>