

UNDERSTANDING THE C. diff TEST RESULTS

- UMMC tests for C. diff by first looking for C. diff DNA in stools via PCR (STEP 1)
- If C. diff DNA is DETECTED, a 2nd test (STEP 2) automatically checks if the bacteria is toxin-producing. The toxin causes damage to the intestine → signs and symptoms of C. difficile infection

Step 2: If C. diff DNA is found, lab looks for TOXIN

Step 1: Look for C. diff DNA

Results when C. diff DNA is NOT found	Results when C. diff DNA is found
"NEGATIVE" No further testing will be performed	"DNA Detected See Toxin Result" <u>Move on to Step 2</u>



Results when Toxin A or B is found	Results when Toxin A or B is NOT found
Positive Result = "POSITIVE" <i>Infection likely</i>	Negative Result = "NEGATIVE" <i>Positive PCR with negative toxin test = Colonization with C. difficile likely</i>

- Patients with positive C. diff bacteria (DNA), but negative toxin, may have the bacteria in their colon without having an infection. This is called **being colonized with the bacteria**.
 - Continue Enhanced Contact Precautions – these patients still shed C. diff spores in their environment
- C. difficile DNA may be found for several weeks after successful treatment of infection
 - "Test of Cure" should **NOT** be performed

	TEST RESULT in EPIC	ISOLATION PRECAUTIONS
Results when C. diff DNA is NOT found	"NEGATIVE" No further testing will be performed	RETURN TO PRIOR ISOLATION STATUS
Results when C. diff DNA is found	"DNA Detected See Toxin Result"	ENHANCED CONTACT PRECAUTIONS Must interpret Toxin results
Results when Toxin A or B is NOT found	"NEGATIVE"	ENHANCED CONTACT PRECAUTIONS Patient colonized with C. diff
Results when Toxin A or B is found	"POSITIVE"	ENHANCED CONTACT PRECAUTIONS Patient with active C. diff infection

ROOT CAUSE ANALYSIS

- Performed on all hospital-acquired C. difficile cases
 - Hospital-acquired if the patient is found to have a C. diff infection after being in the hospital for >3 days
- A Root Cause Analysis (RCA) with the patient's recent care team to discuss if or how this infection could have been avoided to help prevent infection in the next potential case
 - Define the problem
 - Collect the data
 - Identify causal factors
 - Identify the root cause(s)
 - Recommend or implement solutions

SOME TOPICS TO CONSIDER DURING THE RCA:

- Antibiotic usage?
- History of C. difficile?
- Comorbidities?
- Nearby patients with C. diff?
- Previous patient in the room with C. diff?
- Daily room cleaning?
- Hygiene, bathing?

YOUR INSIGHT INTO THE PATIENT'S CASE IS INVALUABLE.

Make every effort to attend the RCA if invited

