



Xpert®
C. difficile/
Epi

Identify. Differentiate. Prevent.

 **Xpert® *C. difficile/Epi***

45-minute Detection & Differentiation of
Clostridium difficile & the Epidemic 027 Strain

 **Cepheid®**
A better way.



The epidemic strain of Clostridium difficile (027/NAP1/BI) is known to produce a significantly higher number of C. difficile spores^{1,2} and toxins^{2,3}. The epidemic strain has also been identified as a cause of hospital outbreaks worldwide^{4,5,6,7,8}. Healthcare professionals can now be informed on the epidemic C. difficile strain and make appropriate infection control decisions.

Xpert[®] C. difficile/Epi **Identify. Differentiate. Prevent.**

The Need

Numerous outbreaks caused by the epidemic strain of C. difficile (027/NAP1/BI strain) highlight the need for rapid and accurate differentiation of C. difficile 027/NAP1/BI strains in order to stay ahead of an outbreak:

- Higher risk of cross contamination with 027/NAP1/BI strain due to more efficient sporulation^{1,2,3}
- 027/NAP1/BI strain has been identified as a cause of outbreaks around the world^{4,5,6,7,8}
- Incremental costs due to C. difficile infection can be as high as \$7,179⁹ per patient

The Solution

Xpert C. difficile/Epi is the first commercially available test in the world to detect and differentiate the epidemic strain of C. difficile (027/NAP1/BI). With rapid and accurate identification of the epidemic strain, Infection Control professional can stay ahead of potential outbreak.

- Innovative multiplex design enables detection of C. difficile Infection (CDI) and 027/NAP1/BI strain call-out in a single cartridge
- On-Demand testing of samples from suspected CDI patients provides On-Demand epidemiological surveillance data clinicians can act on
- Monitoring and reporting of the epidemic strain enables clinicians to improve infection control efforts

Cepheid's Xpert C. difficile/Epi test provides on-demand results you can trust and empowers your clinical team to better manage patients.

Performance

Performance characteristics of Xpert® *C. difficile*/Epi were determined against broth enriched toxigenic culture and strain typing methods.

PERFORMANCE CHARACTERISTICS OF XPERT *C. DIFFICILE* /EPI VS. ENRICHED TOXIGENIC CULTURE AND PCR-RIBOTYPING

		Reference Culture & PCR-Ribotyping			
		Toxin B + 027+	Toxin B + 027 -	NEGATIVE	TOTAL ^b
Xpert <i>C. difficile</i> /Epi ^a	Toxin B + 027/NAP1/BI +	89	5	31	125
	Toxin B + 027/NAP1/BI -	0	217	86	303
	NEGATIVE	1	21	1841	1863
	TOTAL	90	243	1958	2291

^a Xpert results shown are for first or second attempt. Approximately 3.2% of the specimens were indeterminate on the first attempt.

^b 2 specimens were culture positive but were not strain typeable due to contamination and are not included in the performance characteristics above.

TOXIGENIC *C. DIFFICILE*

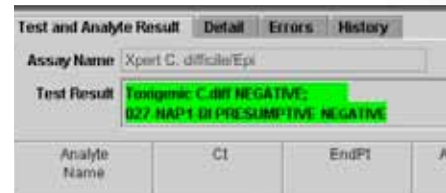
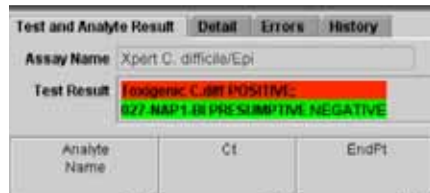
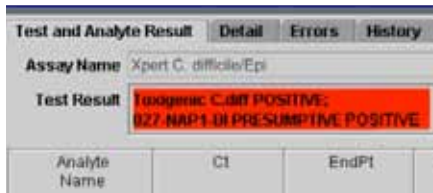
SENSITIVITY: **93.39% (311/333)**
SPECIFICITY: **94.02% (1841/1958)**

TOXIGENIC *C. DIFFICILE* /027/NAP1/BI

POS AGREEMENT: **98.89% (89/90)**
NEG AGREEMENT: **98.36% (2165/2201)**

Simple Results

Delivers a simple result that is easy to understand.



Stop the Spread



TOXIGENIC *C. DIFFICILE* NON-027 STRAINS PRODUCE TOXIN AND *C. DIFFICILE* SPORES
INFECTION CONTROL RISK



TOXIGENIC *C. DIFFICILE* 027 STRAIN PRODUCES HIGHER VOLUME OF TOXIN AND SPORES COMPARED TO A WILD-TYPE
HIGHER OUTBREAK RISK

45-minute Detection & Differentiation of *Clostridium difficile* & the Epidemic 027 Strain. Xpert® *C. difficile*/Epi

- Fully automated process reduces handling time to just minutes
- Random access for flexibility and workflow optimization
- Fully integrated reagent and instrument system for accuracy and reproducibility

WORKFLOW:

3 Easy Steps

Total hands-on time: <1 Minute

1

Insert swab into Elution reagent vial and break at score



2

Vortex and dispense Sample into Port 5



3

Insert cartridge and start assay.



ORDERING INFORMATION

Xpert *C. difficile*/Epi kit (10 Cartridges with reagents) Catalog No. GXCDIFF/EPI-10

References:

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5. Kuijjer et al., Eurosurveillance Vol 12, Issues 3-6, Apr-Jun 2007
6. Muto et al., Clinical Infectious Diseases 2007; 45:1266-73
7. McDonald et al., New England Journal of Medicine 2005;353:2433-41
8. Loo et al., New England Journal of Medicine 2005;353:2442-9
9. Jarvis et al., American Journal of Infection Control, 2009;37:263-70

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The molecular revolution is here.

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