



CDI Validation – Form C CDI Validation Findings

Display validation results using 2x2 tables to demonstrate both the accuracy and completeness of CDI surveillance and reporting.

CDI Example

Positive <i>C difficile</i> tests reviewed for validation = 65		Validation Review ("Gold Standard" or truth)	
		CDI	Not CDI
Identified and Reported by Hospital	CDI 55	54	<u>1</u> Reported in error
	Not CDI 10	<u>4</u> Missed	6

Sensitivity =

$$\frac{54 \text{ True positives}}{54 \text{ True pos.} + 4 \text{ False neg.}} \times 100$$

93%

Specificity =

$$\frac{6 \text{ True negatives}}{6 \text{ True neg.} + 1 \text{ False pos.}} \times 100$$

86%

Positive Predictive Value (PPV) =

$$\frac{54 \text{ True positives}}{54 \text{ True pos.} + 1 \text{ False pos.}} \times 100$$

98%

Interpretation:

From the 65 positive *C difficile* tests reviewed, the validation reviewers found **5** disparities compared to the hospital surveillance report.

The hospital had identified and reported 55 CDI. The validation reviewers determined only 54 should have been reported; **1** did not meet the surveillance criteria.

The calculated **positive predictive value (PPV)** reveals that what was reported as CDI meets the CDI LabID criteria 98% of the time.

For the other 10 positive *C difficile* tests reviewed in which routine hospital surveillance did not report CDI, the validation reviewers identified **4** additional CDI.

The calculated **sensitivity** reveals routine hospital surveillance is identifying 93% of the CDI occurring.

The calculated **specificity** reveals hospital routine surveillance accurately "rules out" CDI 86% of the time.



Data Validation for CDI

Hospital: _____

Surveillance time period: _____

From *C difficile* Review, Form B

		Validation Review	
		CDI	Not CDI
# positive <i>C difficile</i> tests reviewed = _____		A	B <i>Reported in Error</i>
Identified and Reported by Hospital	CDI _____ <i>Form B, total Q1 = Yes</i>	A	B <i>Reported in Error</i>
	Not CDI _____ <i>Form B total Q1 = No</i>	C <i>Missed</i>	D

$$\text{Sensitivity} = \frac{A}{A + C} \times 100 = \underline{\hspace{2cm}}$$

$$\text{Specificity} = \frac{D}{D + B} \times 100 = \underline{\hspace{2cm}}$$

$$\text{Positive Predictive Value} = \frac{A}{A + B} \times 100 = \underline{\hspace{2cm}}$$