set included WCC (< 4, 12–19.9, or ≥20 × 10^9/L), BUN≥11 mmol/L, serum albumin <25 g/L, heart rate > 90/minute, and respiratory rate >20/minute. A predictive score of min 0 and max 13 points was derived. A score ≥7 points was associated with 70% cases of cCDI, showed 68% sensitivity (95% CI, 55–80) in the derivation set and 70% (51–88) in the validation set, a specificity of 73% (69–76) and 76% (72–81) respectively, 17% PPV (9–25), and 97% NPV (95–99) in both sets.

Conclusion. Using a large multicenter prospective cohort and robust modeling approach, we derived a predictive score that included easily available measures at the bedside. The score showed acceptable performance. Further validation is needed on cohorts with different characterstics (non-outbreak setting, higher rate of cCDI). Other approaches such as combination of biomarkers could be more predictive of cCDI.

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1308. Are Patients with Prior *Clostridium difficile* Infection (CDI) a Potential Source of Transmission during Hospital Admissions?

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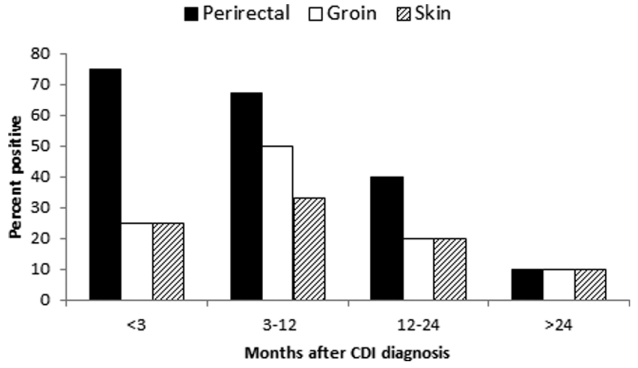
Background. Many patients with *Clostridium difficile* infection (CDI) continue to shed spores asymptomatically after completion of CDI therapy. However, the duration of shedding and the potential for transmission during subsequent healthcare exposures is unknown.

Methods. During a 6-month period, we collected perirectal, groin, and skin (chest/abdomen and hands) cultures for toxigenic *C. difficile* from patients with a prior history of CDI who were admitted to the hospital. We calculated the frequencies of perirectal and skin shedding of *C. difficile* at the time of admission, stratified by the time since the prior CDI diagnosis.

Results. Of 28 patients with a prior history of CDI enrolled in the study, 10 (36%) had positive perirectal cultures for toxigenic *C. difficile* upon admission, and 6 of 10 (60%) had positive skin cultures. The figure shows the percentages of CDI cases with positive perirectal, groin, or skin cultures, stratified by the time since the prior CDI diagnosis.

Conclusion. Patients with prior CDI often shed spores asymptomatically during hospital admissions. Further studies are needed to determine whether these carriers contribute significantly to transmission.

Figure. Percentages of CDI cases with positive perirectal, groin, or skin cultures, stratified by the time since the prior CDI diagnosis



Disclosures. **All authors:** No reported disclosures.

1309. External validation of clinical scores to predict complications of *Clostridium difficile* infection

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Background. *Clostridium difficile* infection (CDI) is the most common cause of nosocomial diarrhea. About one in 5 patients with CDI (median 18%) develop a complication (cCDI), including mortality. Many predictive scores have been published to identify patients at risk of cCDI but none is currently recommended for clinical use and few were validated. We conducted an external validation study of predictive tools for cCDI.

Methods. Predictive tools were identified through a systematic review. We included those reporting at least an internal validation process. We performed the external validation on a multicenter prospective cohort of 1380 Canadian adults with confirmed CDI. Most cases were elderly (median age 71), had a healthcare facility-associated CDI (90%), and cCDI occurred in 8%. NAP1 strain was found in 52%. The performance of each scoring system was analyzed using individual outcomes. Modifications in predictors were made to match available data in the validation cohort.

Results. We assessed 3 predictive scores and one predictive model. The performance (95% CI) of higher thresholds are shown in the Table. All scores had a low sensitivity and PPV, and moderate specificity and NPV. The model of Shivashankar 2013 (age, WBC> 15, narcotic use, antacids use, creatinine ratio > 1.5) predicted 25% probability of cCDI. All showed similar AUC (0.63–0.67).

Study, outcome (%)	Predictors (points)	Sen %	Spe %	PPV %	NPV %	LR+	Accuracy (%)
Na 2015 (2–3 patients) ICU admission, megacolon, colectomy, attributable 30-day death (8%).	Age ≥ 65 (1) WBC ≥ 20 (1) Creatinine ≥ 2 mg/dL (1)	46 (36–55)	87 (85–89)	23 (17–29)	95 (94–96)	3.5 (3–4)	84 (82–86)
van der Wilden 2013 (≥ 6 patients) ICU, colectomy, attributable 30-day death (7%).	Age >70 (2) WBC ≥20 or ≤2 (1) Cardiorespiratory failure (7) Abdominal pain (6)*	61 (51–57)	55 (52–58)	9 (7–11)	95 (93–97)	1.35 (1.3–1.4)	55 (53–58)
Hensgens 2013 (≥ 4 patients) ICU, colectomy, all-cause 30-day death (15%).	Age (50–84, ≥ 85) (1, 3) Diagnosis in ICU (3) Abdominal surgery (-3) MAP ≤65mmHg (2)* Diarrhea (2)	26 (19–32)	90 88–92)	30 24–37)	87 85–89)	2.5 2–3)	80 (78–82)

*Modified

Conclusion. The predictive tools included in our study showed moderate performance in a validation cohort with a low rate of cCDI and high proportion of NAP1 strains. Further research is needed to develop an accurate predictive tool to guide clinicians in the management of CDI.

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1310. Hospital-Nursing Home Transfer Patterns and Influence on Nursing Home *Clostridium difficile* Infection Rates

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