

P0384 Community-onset versus hospital-onset *Clostridium difficile* infection: does it matter?

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Background: Patients who are admitted to a hospital with or because of *Clostridium difficile* infection (CDI) may have other characteristics and outcomes than patients who develop CDI during admission.

Materials/methods: Clinical and microbiological data obtained for the Dutch sentinel CDI surveillance program during the last 5 years were used to compare characteristics of CDI episodes between patients who had community-onset CDI and hospital-onset CDI. CDI was defined as diarrhoea or toxic megacolon in combination with a test positive for *C. difficile* or its toxins and no alternative explanation for the diarrhoea. Community-onset CDI included all patients who had onset of CDI symptoms at home and were admitted because of or with these symptoms. Hospital-onset CDI included all patients who developed symptoms during admission and were consequently diagnosed with CDI. Patients with onset of CDI symptoms in a nursing home or other healthcare facility and patients <2 years of age were excluded for this analysis.

Results: During the 5-year surveillance period 1810 patients with community-onset and 2433 patients with hospital-onset CDI were registered in 24 participating hospitals in the Netherlands. Median age of patients with community-onset CDI was lower than of patients with hospital-onset CDI (71.1 vs 72.3 years, $p=0.000$). Antibiotic use prior to CDI was noted in 50.5% of community-onset episodes versus 83.5% of hospital-onset episodes ($p=0.000$). Compared to hospital-onset CDI, community-onset CDI episodes were more often severe (30.3% vs 12.9%, $p=0.00$) and recurrent CDI (34.1% vs 16.0%, $p=0.00$). ICU admission due to CDI was required in 1.7% and 1.2% of community-onset and hospital-onset cases, respectively ($p=0.21$). Patients with hospital-onset CDI had higher overall mortality (12.7% vs 8.6%, $p=0.000$), but CDI-associated mortality was comparable between the groups (2.3% in community-onset and 2.6% in hospital-onset cases, $p=0.63$). PCR ribotyping was available for 3406 (80.3%) of episodes and showed no differences in PCR ribotype distribution between the two groups.

Conclusions: Hospitalized patients with community-onset CDI were younger and had more severe and recurrent disease than patients with hospital-onset CDI. However, CDI-associated mortality was comparable between the two groups.

PCR ribotypes among community-onset CDI (left) and hospital-onset CDI (right)

