

the bacterial populations, which were regularly sampled to monitor their composition. At 3 weeks after installation, the waste traps were subjected to a drainage backflow event. Waste trap water populations continued to be monitored, and when transfer between sinks was suspected, isolates were characterized and compared using whole-genome sequencing. **Results:** Between January and June 2019, 200 samples were taken from 103 sinks. In total, 24 (23%) sinks (in 8 hospitals) harbored CRE; of which 10 (in 5 hospitals) harbored at least 1 CPE. Immediately after a backflow event in the laboratory model system, 2 KPC-producing *E. cloacae* were recovered from a waste trap in which CPE had not been previously detected. The isolates were identified as ST501 and ST31 and were genetically indistinguishable from those colonizing sinks elsewhere in the system. Following intersink transfer, KPC-producing *E. cloacae* ST501 successfully integrated into the microbiome of the recipient sink and was detected in the waste trap water at least 6 months after the backflow event. At 2 and 3 months after the backflow, other intersink transfers involving *Escherichia coli* and KPC-producing *E. cloacae* were also observed. **Conclusions:** Sink waste traps and drains are a reservoir for CPE in hospitals. Once established, CPE contamination might not be confined to a single sink and could spread through wastewater plumbing. Hospitals frequently report drainage problems, which could cause or facilitate CPE transfer between sinks and could lead to long-term establishment.

**Funding:** None

**Disclosures:** None

Doi:10.1017/ice.2020.896

#### Presentation Type:

Poster Presentation

#### Laboratory Testing, Diagnostic Coding, and Treatment for Electronic Identification of *Clostridioides difficile* Infection

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**Background:** Accurate identification of *Clostridioides difficile* infections (CDIs) from electronic data sources is important for surveillance. We evaluated how frequently laboratory findings were supported by diagnostic coding and treatment data in the electronic health record. **Methods:** We analyzed a retrospective cohort of patients in the Veterans' Affairs Health System from 2006 through 2016. A CDI event was defined as a positive laboratory test for *C. difficile* toxin or toxin genes in the inpatient, outpatient, or long-term care setting with no prior positive test in the preceding 14 days. Events were classified as incident (no CDI in the prior 56 days), or recurrent (CDI in the prior 56 days) and were evaluated for evidence of clinical diagnosis based on *International Classification of Disease, Ninth Revision, Clinical Modification* (ICD-9-CM) and ICD-10-CM codes and at least 1 dose of an anti-CDI agent (intravenous or oral metronidazole, fidaxomicin, or oral vancomycin). We further assessed the possibility of treatment without testing by quantifying positive laboratory tests and

Treatment	ICD+ n(%)	Lab + n(%)	Total n(%)
Oral Vancomycin	25,954(50.8%)	22,272(43.6%)	51,100(10.9%)
Metronidazole	64,192(15.4%)	71,940(17.3%)	416,381(88.9%)
Fidaxomicin	804(79.4%)	567(56.0%)	1,013(0.2%)
Total	90,950(19.4%)	94,779(20.2%)	468,494

Table 1.

diagnostic codes among inpatients receiving an anti-CDI agent. A course of anti-CDI therapy was defined as continuous treatment with the same drug. **Results:** Among 119,063 incident and recurrent CDI events, 70,114 (58.9%) had a diagnosis code and 15,850 (13.3%) had no accompanying treatment. The proportion of patients with ICD codes was highest among patients treated with fidaxomicin (82.6% of 906) or oral vancomycin (74.3% of 30,777) and was lower among patients receiving metronidazole (63.3% of 103,231) and those without treatment (29.9% of 15,850). The proportion of events with ICD codes and treatment was similar between incident and recurrent episodes. During the study period, there were ~470,000 inpatient courses of metronidazole, fidaxomicin, and oral vancomycin. Table 1 shows the presence of ICD codes and positive laboratory tests by anti-CDI agents. Among 51,100 courses of oral vancomycin, 51% had an ICD code and 44% had a positive test for *C. difficile* within 7 days of treatment initiation. Among 1,013 courses of fidaxomicin, 79% had an ICD code and 56% had a positive laboratory test. **Conclusions:** In this large cohort, there was evidence of substantial CDI treatment without confirmatory *C. difficile* testing and, to a lesser extent, some positive tests without accompanying treatment or coding. A combination of data sources may be needed to more accurately identify CDI from electronic health records for surveillance purposes.

**Funding:** None

**Disclosures:** None

Doi:10.1017/ice.2020.897

#### Presentation Type:

Poster Presentation

#### Lack of Evidence of Transmission of Bloodborne Viruses by Improperly Reprocessed Fiberoptic Endoscopes

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**Background:** A sterile processing service (SPS) technician was found to inadequately clean fiberoptic endoscope channels during reprocessing prior to high-level disinfection. Channels were only brushed once and 7 of 30 audited scopes had measurable bioburden. Consistent with VA policy, a retrospective investigation, along with public disclosure, was performed. **Methods:** A potentially exposed case (PEC) was defined as any patient who had flexible fiberoptic endoscopy between April 19, 2015, and June 23, 2017, when the identified SPS technician worked in the endoscope reprocessing station. Using the internal log of the automated high-level disinfection equipment (Medivators/Cantel, Minneapolis, MN), device serial numbers were matched to patients in endoscopy suite procedure logs. Additionally, the VA Corporate Data Warehouse (CDW) was queried for CPT and *International Classification of Disease, Ninth Revision* (ICD-9) and ICD-10