examine whether primary oral vancomycin prophylaxis (OVP) reduces the in-hospital incidence of CDAD in elderly patients treated with systemic antibiotics and its impact on 90-day readmission rate.

**Methods.** This single-center, retrospective cohort study included 484 patients ≥ 65 years who received antimicrobial therapy for ≥ 24 hours and were hospitalized for ≥ 72 hours during the study period. Patients diagnosed with CDAD within the first 48 hours of hospitalization were excluded. OVP group received ≥ 1 dose of vancomycin 125 mg once per day.

**Results.** Patients within OVP group (122; 25.2%) had higher age adjusted Charlson comorbidity index (CCI) (R: RQR 6–10 vs. 6–5, 8–6), were more often hospitalized within 3 months (62; 50.8% vs. 121; 33.4%), more commonly received piperacillin/tazobactam (60; 49.2% vs. 81; 22.4%) and carbapenems (27; 22.1% vs. 43; 11.9%) with longer duration of antibiotic therapy (14; 10–20 vs. 10; 10–14 days). CDAD was diagnosed in 3 (5.2%) patients in OVP, compared with 45 patients (12.4%, P = 0.0011) in control group. In logistic regression analysis CCI > 6 (OR 3.54; 95% CI 1.79–6.87), OVP (0.19; 0.06–0.57), nursing home residency (4.10; 2.40–7.02), carbapenems (3.14; 1.60–6.15) and piperacillin/tazobactam (5.43; 2.87–10.14) were associated with CDAD. In this cohort, 28 (23.7%) patients from OVP and 69 (23.7%) patients from control group had 90-day readmission. 6 patients in OVP (4 new episodes) and 21 (14 new episodes) in control group were admitted for CDAD. Only CDAD during index hospitalization was associated with 90-day readmission (HR 4.60; 95% CI 1.93–10.96).

**Conclusion.** Prophylactic vancomycin is an effective strategy to prevent CDI recurrence, but is associated with an increase in VRE colonization in the immediate period after administration. The risk of VRE infection should lead to careful selection of patients at the highest risk for CDI recurrence.

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### 2414. Effectiveness of Oral Vancomycin for Prevention of Healthcare Facility-Onset Clostridiodioides difficile Infection in High-Risk Patients

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**Session:** 252. HAI: C. difficile - Prevention

**Background.** Studies suggest oral vancomycin prophylaxis may be effective in preventing Clostridioides difficile infection. These studies are limited by their retrospective design, reliance on local clinical practice patterns, lack of intervention standardization, and limited risk stratification. We sought to evaluate the effectiveness of oral vancomycin for the prevention of healthcare facility-onset CDI (HCFO-CDI) in high-risk patients.

**Methods.** We conducted a randomized, prospective, open-label study at Novant Health Forsyth Medical Center in Winston-Salem, North Carolina between October 2018 and April 2019. Admitted high-risk patients (defined as ≥ 60 years of age, hospitalized ≤ 30 days prior to the index hospitalization and received systemic antibiotics during that prior hospitalization and currently receiving systemic antibiotics) were randomized 1:1 to either oral vancomycin (dosed at 125 mg once daily while receiving systemic antibiotics and continued for 5 days post completion of systemic antibiotics) or no prophylaxis. The primary endpoint was incidence of HCFO-CDI. Secondary endpoints included incidence of community-onset healthcare facility-associated CDI (CO-HCFA-CDI), development of VRE colonization after receiving OVP, and adverse effects and cost of OVP.

**Results.** A total of 100 patients were evaluated, 50 patients in each group. Baseline and hospitalization characteristics were similar in each group. No incidents of HCFO-CDI were diagnosed in the OVP group compared with 6 (12%) in the no prophylaxis group (P = 0.03). More patients were on oral vancomycin 125 mg BID. Patients were compared in two cohorts: Study group which was patients in CDI group which were matched to control group. The primary objective of the study was to evaluate the compliance of CDI guidelines and incidence of healthcare facility-onset CDI (HCFO-CDI) between CDI group and control group. The secondary objective focused on all-cause inpatient mortality and 30-day readmission between two groups.

**Conclusion.** OVP (0.19; 0.06–0.57) was associated with a reduced incidence of developing HO-CDI compared with control group. Overall compliance with CDI guidelines was higher than expected. No difference was seen in all-cause inpatient mortality and 30-day re-admission between two groups. Oral vancomycin 125 mg PO BID shows promising results as a secondary prophylaxis in patients with recurrent CDI.

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all hospitalized adult patients with prior CDI and receipt of systemic antibiotics. We sought to determine whether or not oral vancomycin prophylaxis reduced CDI recurrence in high-risk patients.

**Methods.** This retrospective cohort study included patients > 2 years of age who had at least 2 episodes of CDI within the last year prior to broad-spectrum antibiotic exposure. The ppx cohort included patients who received oral vancomycin for > 50% of the duration of broad-spectrum antibiotic therapy, and the no ppx cohort included patients who received no oral vancomycin while on broad-spectrum antibiotics. Cohorts were compared using a univariate analysis. A Kaplan–Meier analysis was used to evaluate the time-to-event for development of CDI.

**Results.** Of 108 patients who met inclusion criteria, 88 patients were included in the no ppx cohort and 20 patients in the ppx cohort. The primary outcome of CDI incidence was numerically higher in the ppx cohort [13 (14.8%) vs. 2 (10%), \( p = 0.733 \)]. Secondary outcomes within 12 weeks of broad-spectrum antibiotic initiation were similar between cohorts. The mean time from broad-spectrum antibiotic initiation to CDI recurrence was longer among the ppx cohort, suggesting a delay in time to CDI recurrence (29 ± 25.9 vs. 57.5 ± 26.1 days, \( p = 0.171 \)). This delay led to a lower incidence of hospital acquired (HA) CDI in the ppx cohort [4 (30.8%) vs. 0 (0%), \( P > 0.99 \)]. The Kaplan–Meier analysis (Figure 1) demonstrated no significant difference in time to CDI event, \( P = 0.70 \).

**Conclusion.** The use of oral vancomycin for secondary ppx of CDI was not shown to have a statistically significant difference in CDI recurrence compared with no ppx in this study. However, this may be due to the low sample size in the ppx cohort and low CDI event rates. The trend toward a delay in CDI recurrence and reduction in HA-CDI with the use of oral vancomycin is hypothesis generating. Further controlled studies are warranted to confirm the role of oral vancomycin for secondary ppx of CDI.

**Figure 1: Kaplan Meier Analysis: CDI vs. Oral Vancomycin Prophylaxis.**

The red line denotes the no ppx cohort and the blue line denotes the ppx cohort. The “+” signs indicate censoring of subjects.

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**2416. Effect of Sequential Universal Bleach Cleaning and Best Practice Alerts on Clostridioides difficile Infection Rates**

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**Session:** 252. HAI: C. difficile - Prevention Saturday, October 5, 2019: 12:15 PM

**Background.** A gap analysis prompted consideration of expanded bleach disinfection beyond rooms housing patients in isolation for C. difficile infection (CDI) and emphasis on CD testing stewardship at the University of Minnesota Medical Center (UMMC), a tertiary care center spanning two campuses in close proximity with adult patients on the East Bank (EB), adult and pediatric patients on West Bank (WB).

**Methods.** An electronic best practice advisory (BPA) went live in April 2018 on both the EB and WB (Figure 1). The BPA first discourages CD testing in the event of a prior positive within 10 days or a prior negative within 7 days. Second, the BPA discourages CD testing in patients with fewer than 3 loose stools in a 24 hour period, who have received laxatives in the last 48 hours, or who lack CDI symptoms (fever > 38°C, abdominal pain, or leukocytosis > 11,000). Providers can bypass the BPA based on clinical judgment; those who override the BPA are provided just-in-time education via email.

Following a successful pilot in three wards, the EB Environmental Services (ES) team expanded the use of bleach to include all terminal cleaning regardless of isolation status in June 2018 (Figure 1). Daily cleaning on the EB was excluded from universal bleach utilization, as were daily and terminal cleaning on the WB.

**CD testing throughout the study period occurred via polymerase chain reaction (PCR) of the toxin B gene.** ES performance, assessed by adenosine triphosphate (ATP) bioluminescence testing, and hand hygiene rates were unchanged throughout the study period.

**Results.** Adult-only hospital-onset (HO) CDI rates decreased during the study period on both hospital campuses, with the EB exhibiting a greater decrease, (Fig 1), while community-onset (CO) and community-onset healthcare facility associated (CO-HCFA) rates remained steady during the study period (Fig 3). Whole-house (adult and pediatric) CDI testing was largely unchanged while the proportion of tests triggering the BPA decreased (Fig 2).

**Conclusion.** Universal bleach utilization during terminal cleaning combined with an electronic BPA were associated with decreased adult HO-CDI rates. However, the BPA did not impact CD testing rates, suggesting that decreased HO-CDI rates may be unattributable to testing stewardship.

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

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**2417. Feasibility and Safety of Using a Probiotic Comprised of Lactobacillus acidophilus CL1285, L. casei LBC80R and L. rhamnosus CLR2 for C. difficile Infection Prevention Among Antibiotic Users: 15-Years of Prospective Results from a Single-Center Study**

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**Background.** Hospitals use multiple concurrent prevention strategies to curb nosocomial C. difficile infection, but there are limited data on the long-term feasibility or safety of using a probiotic. Pierre-Le Gardeur Hospital, Québec, has been