

EDs (89 vs 52, respectively). The most frequently touched surfaces in EDs included stretcher rails, privacy curtains, visitor chair arm rests and seats, and patient bedside tables, which together accounted for 68.8% of all touch episodes in EDs (Fig. 1). Frequently touched surfaces in HDFs included both shared and single-patient surfaces: 27.8% and 72.2% of HDF touch episodes, respectively. The most frequently touched surfaces in HDFs were supply cart drawers, dialysis machine control panels and keyboards, handwashing faucet handles, bedside work tables, and bed rail or dialysis chair armrests, which accounted for 68.4% of all touch-episodes recorded. **Conclusions:** To our knowledge, this is the first quantitative study to identify HTSs in EDs and HDFs. Our observations reveal that certain surfaces within these environments are subject to a substantially greater frequency of hand contact than others and that a relatively small number of surfaces account for most touch episodes. Notably, whereas HTSs in EDs were primarily single-patient surfaces, HTSs in HDFs included surfaces shared in the care of multiple patients, which may represent an even greater risk of patient-to-patient pathogen transmission than single-patient surfaces. The identification of HTSs in EDs and HDFs contributes to a better understanding of the risk of environment-related pathogen transmission in these settings and may allow prioritization and optimization of cleaning and disinfection resources within facilities.

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Rapid PCR Influenza Testing Decreases Inappropriate Empiric Antibiotic Use

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Background: The clinical picture of influenza-like illness can mimic bacterial pneumonia, and empiric treatment is often initiated with antibacterial agents. Molecular testing such as polymerase chain reaction (PCR) is often used to diagnose influenza. However, traditional PCR tests have a slow turnaround time and cannot deliver results soon enough to influence the clinical decision making. The Detroit Medical Center (DMC) implemented

the Xpert Flu test for all patients presenting with influenza-like illness (ILI). We evaluated antibacterial use after implementation of rapid influenza PCR Xpert Flu. **Methods:** We conducted a retrospective study comparing all pediatric and adult patients tested using traditional RT PCR during the 2017–2018 flu season to patients tested using the rapid influenza Xpert Flu during the 2018–2019 flu season in a tertiary-care hospital in Detroit, Michigan. These patients were further divided into 3 groups: not admitted (NA), admitted to acute-care floor (ACF), or admitted to intensive care unit (ICU). The groups were then compared with respect to percentage of antibacterial use after traditional RT PCR versus rapid influenza Xpert Flu testing during their hospital visit for ILL. The χ^2 test was used for statistical analyses. **Results:** In total, 20,923 patients presented with influenza-like illness during the study period: 26% (n = 5,569) had the rapid influenza Xpert Flu and 73.4% (n = 15,354) had traditional RT PCR. For a comparison of the number of patients in 3 groups (NA, ACF, and ICU) and type of influenza PCR performed among these patients, please refer to Table 1. When comparing antibacterial use in the NA group, the proportions of patients who received antibacterial agents in the traditional RT PCR group versus the rapid influenza Xpert Flu group were 24.4% (n = 695) versus 3.9% (n = 450), respectively ($P < .0001$). In the ACF group, the proportions of patients who received antibacterial agents in the traditional RT PCR group versus the rapid influenza Xpert Flu group was 62.3% (n = 1,406) versus 27.7% (n = 994), respectively ($P < .001$). In the ICU group, the proportions of patients who received antibacterials in the traditional RT PCR group versus the rapid influenza Xpert Flu group were 80.3% (n = 382) versus 38.3% (n = 204), respectively ($P < .0001$). **Conclusions:** With rising antimicrobial resistance and increasing influenza morbidity and mortality, rapid diagnostics not only can help diagnose influenza faster but also can reduce inappropriate antimicrobial use.

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Real-Time Bedside Root Cause Analysis (RCA) as a Catalyst for *Clostridioides difficile* Reduction

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Table 1: Total Number of Patients in Each Group and Type of Influenza PCR Performed

Group	Traditional Flu PCR (TF)	Rapid Influenza Xpert® Flu (RT)	Total n (%)
	n (%)	n (%)	
Not admitted group (NA)	2837 (20%)	11,287 (80%)	14,124 (67.5%)
Acute Care group (ACF)	2256 (38.9%)	3534 (61%)	5790 (27.6%)
Intensive Care Unit group (ICU)	476 (47.2%)	533 (52.8%)	1009 (4.8%)