should have been. Additionally, the need to reallocate untrained staff to COVID-19 units was a recognized problem. To optimize staffing, we had to reassess the adequate nurse–patient ratio, and a pool of nurses was daily redeployed to areas with more need. To mitigate the insufficient preparedness of the new staff on infection control practices, we planned to replace face-to-face training (which was suspended during the COVID-19 pandemic) with online training. Compensating for the shift of infection preventionists activities to SARS-CoV-2–related issues in the pandemic situation was even more challenging.[1] Perhaps better coordination between regional hospitals with common protocols would help infection preventionists deal with conflicting guidelines.

Our study had several limitations. The survey was conducted in a single center with a moderate response rate and potential recall bias. We do not have information on nonrespondents, who might have identified different problems. However, the respondents included a variety of HCWs and medical departments, making data more generalizable to a range of contexts.

Our survey results emphasizes the negative effect of the COVID-19 pandemic on basic infection control practices. The use of double gloves, suboptimal hand hygiene practices, the incorporation of untrained personnel, and the reassignment of infection preventionists to COVID-19 duties have been major issues. Seeking to achieve infection control excellence should be a priority during future pandemic waves.

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Universal admission testing with a rapid molecular point-of-care test and real-time polymerase chain reaction (PCR) assay for the detection of severe acute respiratory coronavirus virus 2 (SARS-CoV-2): Comparative performance and infection prevention implications

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The coronavirus disease 2019 (COVID-19) pandemic has strained hospitals and healthcare systems worldwide, with bed capacity and throughput posing considerable challenges during surges.[1] In the United States, >70% of hospitals have <200 beds and most have a combination of single- and multiple-occupancy rooms, which complicates the placement of COVID-19 patients in cohorts.[2] With an estimated 30% of cases asymptomatic, rapid and reliable testing is important to safely placing inpatients in cohort.[3] Small and critical-access hospitals often lack the volume or capacity for on-site molecular testing. Many safety-net hospitals are

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Table 1. Diagnostic Accuracy of IDNOW for SARS-CoV-2

IDNOW Result	COBAS Positive, No.	COBAS Negative, No.	Diagnostic Accuracy (95% CI)
All admissions (N = 2,163)			
IDNOW positive	77	11	Sensitivity: 74% (64.5%–82.1%)
ID NOW negative	27	2,048	Specificity: 99.5% (99%–99.7%)
			PPV: 87.5% (78.7%–93.6%)
			NPV: 98.7% (98.1%–99.1%)
Admissions with clinical suspicion of COVID-19 (N = 479)			
IDNOW positive	55	4	Sensitivity: 84.6% (73.5%–92.4%)
IDNOW negative	10	410	Specificity: 99% (97.5%–99.7%)
			PPV: 93.2% (83.5%–98.1%)
			NPV: 97.6% (95.7%–98.9%)
Admissions without clinical suspicion of COVID-19 (n = 1,684)			
IDNOW positive	22	7	Sensitivity: 56.4% (39.6%–72.2%)
IDNOW negative	17	1,638	Specificity: 99.6% (99.1%–99.8%)
			PPV: 75.9% (56.5%–89.7%)
			NPV: 99% (98.4%–99.4%)

Note. CI, confidence interval; PPV, positive predictive value; NPV, negative predictive value.

financially vulnerable and lack capital for new large-throughput molecular testing equipment.[4] Point-of-care (POC) tests can be easily deployed in these settings. The IDNOW SARS-CoV-2 test (Abbott Laboratories, Abbott, IL) is a rapid POC test that provides results within 15 minutes. Our urban safety-net community hospital deployed admission testing using IDNOW in patients with and without COVID-19 symptoms. Paired parallel swabs were sent to a reference laboratory for confirmatory testing. We evaluated IDNOW accuracy and its impact on infection prevention workflow.

Methods

In June 2020, severe acute respiratory coronavirus virus 2 (SARS-CoV-2) testing for all admissions was implemented regardless of patient symptoms at our 151-bed hospital. Two computerized provider orders were created, one for testing patients with symptoms suggestive of COVID-19 and one for screening patients without suspicion of COVID-19. Each order triggered paired parallel nasal sample and nasopharyngeal sample collection. Testing was performed on site using IDNOW testing with nasal samples and at a reference laboratory using the Roche COBAS SARS-CoV-2 assay (Roche Diagnostics, Mannheim, Germany) with nasopharyngeal samples. The nasopharyngeal samples for COBAS were collected and placed in viral transport media (VTM) and were then refrigerated at 4–8°C. Samples were transported thrice daily to the reference laboratory 10.7 km (6.7 miles) away. The nasal samples were collected and transported immediately at room temperature in a sterile tube to the laboratory on site, where IDNOW testing was performed in accordance with the manufacturer's instructions. Results were posted in the electronic medical record (EMR). Positive results were considered critical and were communicated to clinicians verbally.

We included patients who underwent paired parallel testing in the emergency department for admission from June 1, 2020, to October 31, 2020, when testing protocols changed. We assessed demographic characteristics and the diagnostic accuracy (ie, sensitivity, specificity, and positive and negative predictive values) of IDNOW testing comapred to COBAS was calculated using McNemar testing with exact binomial 95% confidence intervals (CIs). To evaluate the impact of test accuracy on infection prevention, median times between IDNOW and COBAS results were calculated for all admissions and for false-negative IDNOW results. We searched for nosocomial cases, defined as those who tested positive after initial dual negative tests on admission. The University of Illinois at Chicago Institutional Review Board approved this study and granted a waiver of the requirement for informed consent. The Abbott and Roche companies were not involved in the study design or analysis.

Results

Overall, this study included 2,674 admissions with 2,163 (81%) paired IDNOW and COBAS results. Demographically, 1,122 (52%) patients were male, median age was 43 years (IQR, 28–57), 789 (36%) were Black, and 1,153 (53%) were Hispanic or Latino. The diagnostic accuracy of IDNOW compared to COBAS is summarized in Table 1. During the study period, the SARS-CoV-2 test positivity rate in Chicago ranged from 4% to 11%. The median times from sample collection to IDNOW and COBAS results were 0.8 hours (IQR, 0.6–1.2) and 33.8 hours (IQR, 24.2–47.2), respectively. Among 27 false-negative IDNOW results, the median time difference was 15.8 hours (IQR, 1.0–39.2) between IDNOW and COBAS results. No nosocomial cases were identified during our study.

Discussion

Universal SARS-CoV-2 testing on admission can be an important strategy to safely place patients in cohorts in hospitals with double-occupancy rooms. IDNOW was easily deployed and identified 74%

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of patients with COBAS-confirmed SARS-CoV-2. Sensitivity was higher (85%) for patients admitted with clinical suspicion of COVID-19 and lower (56.4%) for those without. These results align with prior studies demonstrating lower accuracy of IDNOW compared with other platforms.[5,6] Many reasons for this have been postulated, including sample collection modality, symptom onset, user variability, and lag between sample collection and testing.[7] Despite these limitations, IDNOW played an important role in identifying cases early and improving throughput in combination with robust infection prevention protocols and engineering controls. The attack rate of COVID-19 in double-occupancy rooms is high. One report showed that 39% of exposed roommates converted within 5 days after exposure.[8] Nosocomial transmission risk has increased with new highly contagious variants.[9] At our facility, patients with negative IDNOW results and suspected COVID-19 were placed in single-occupancy rooms pending COBAS results. Patients without symptoms of COVID-19 and negative IDNOW results were placed in cohorts using a zoned double-occupancy strategy that involved floor-to-ceiling plexiglass barriers, face masks for source control, and the use of a commode to defer sharing a bathroom pending COBAS results.[10] With a median time difference of 33.8 hours between IDNOW and COBAS, significant exposure and nosocomial transmission pose a risk in dual occupancy rooms. Despite this risk, no nosocomial cases were identified in our study period, highlighting the importance of engineering controls and infection prevention protocols.

This study had several limitations. It was conducted before the emergence of highly infectious variants such as SARS-CoV-1 o (omicron), and it was conducted at a single site, potentially limiting generalizability. Nevertheless, these results contribute a valuable assessment of the diagnostic accuracy of IDNOW in symptomatic and asymptomatic individuals. We have also provided real-world data on pragmatic implementation of rapid testing and infection prevention strategies. Our hospital is representative of many safety-net hospitals with double-occupancy rooms, and our approach may provide a valuable model for testing, infection prevention protocols, and engineering controls.

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Peripheral venous catheters: An underrecognized source of *Staphylococcus aureus* bacteremia

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Healthcare-associated *Stapyhlococcus aureus* bacteremia (SAB) has traditionally been caused by surgical-site infections or central-line–associated bloodstream infections. However, peripheral venous catheters (PVCs) are responsible for many cases of healthcare-associated SAB.

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Previous authors have evaluated the impact of PVC bacteremia infections in case series[1–3] or case–control studies.[4] These researchers reported that PVC infections were more common in the antecubital site, in PVC present for ≥4 days, and in PVC placed in the emergency department or outside the institution. We assessed baseline rates of healthcare-associated SAB due to PVC and performed a case–control study to determine the risk factors for SAB due to PVC. We hypothesized that we would identify modifiable risk factors to improve the safety of patients with PVCs.