



# PATIENT SAFETY

## NYHHC Woodhull Medical Center

In recognition of their organization-wide commitment to quality improvement.



### Reducing Device-Associated Hospital-Acquired Infections

#### BACKGROUND

A member of NYC Health + Hospitals, Woodhull provides outstanding health care for residents of North Brooklyn including Bushwick, Williamsburg, Greenpoint, Bedford-Stuyvesant, and Fort Greene. Woodhull has 364 beds and records more than 80,000 emergency department visits, 474,000 clinic visits, and nearly 1,300 births annually.

- Increased device usage can lead to Healthcare-Associated Infections (HAIs) which can contribute to patients' increased length of stay, morbidities, mortality, and healthcare costs. Device-associated infections (DAIs), e.g., catheter-associated urinary tract infections (CAUTI) and central line-associated blood stream infections (CLABSI), can be prevented through evidence-based practices. In addition, HAIs may lead to patients experiencing distress, or feeling isolated and fearful. Staff morale may be affected due to the devastating effect of HAIs on the patient.

- In 2022, Woodhull noticed an increase in device utilization days led to an increase in the number of hospital-acquired CAUTIs and CLABSIs. During this time, many staff members experienced lingering psychological effects of the COVID-19 pandemic. There was high staff turn-over, and many new agency staff.

- Woodhull recognized the need to build a culture of safety to ensure the provision of quality health care, reduce the rates of HAIs, and avoid financial penalties.

#### THE APPROACH

##### The Woodhull team:

- Began daily Prevention Bundle Compliance Audit of all devices with real-time feedback to clinical teams conducted by the Infection Preventionists along with the Nurse Manager, Head Nurse, and CAUTI and/or CLABSI Prevention Champion of each unit.
- Instituted Infection Preventionist review of cases meeting NHSN criteria for HAIs with the clinical teams to determine cause and review ways in which future events could be prevented.
- Presented data to the Infection Control Committee and Nursing Performance Improvement Committee monthly, and to the Medical Board and the Quality and Patient Safety Council quarterly.
- Created checklists following the CDC prevention bundle criteria.
- Initiated daily interdisciplinary team rounds to review clinical necessity of devices, prompt removal when no longer clinically indicated, and use of alternatives for those deemed clinically required.
- Involved staff in the daily assessment and discussions regarding patients with devices and during the Quarterly CAUTI/CLABSI Champions meetings. The patients are engaged in their care during the daily interdisciplinary rounds.

#### RESULTS

- The interventions led to increased team communication, improved collaboration, and decreased device utilization (central line and urinary catheters) starting with the 1Q 2023. There was an overall reduction in the number of CAUTIs and CLABSIs hospital wide.
- Woodhull maintained zero instances of CLABSI in 6 out of 8 quarters since the beginning of 2022 and has performed better than all other HQIC urban hospitals in 7 out of 8 quarters. Device utilization rates have decreased over the same period.
- The staff on units felt more appreciated because they were part of the solution, and their concerns/ideas were considered during implementation of the improvement strategies. They were more inclined to speak up and report issues or concerns to the Infection Preventionists and the team.
- Patients became more aware of the reasons for using an invasive device, and experienced increased patient satisfaction related to reduced chances for acquiring a hospital-associated infection.

#### CONCLUSION

- HAIs continue to threaten patients in acute care settings. Effectively preventing and controlling HAIs requires an interdisciplinary team working in a collaborative manner.
- Evidenced-based interventions are effective in preventing healthcare-associated infections, promoting high-quality patient care and reducing hospital costs.

Graphs below display improvement in CLABSI infections and utilization rates.

