Quality Improvement Project to Improve Adherence to Hand Hygiene in a Level III NICU

Background: Hand hygiene (HH) is a simple and effective measure to decrease Healthcare-Associated-Infections. Aim: To improve adherence to HH in the NICU at NYC Health + Hospitals, Kings County, by 20% within a six-month period.

Methods: HH compliance in the unit was assessed by covert observations of the Health Care Workers (HCW) including physicians, nurses and respiratory therapists at nine HH opportunities: a) before touching patient b) after touching patient c) before a clean/aseptic procedure d) after body fluid exposure e) after touching patient surroundings f) at entry into unit g) at exit from unit h) before wearing gloves i) after removing gloves. Low baseline compliance was noted at the last 5 HH opportunities, which was addressed by HCW education. The importance and misconceptions of HH, the “five-moments” model, the glove and nail policies were also discussed. Second intervention done was repeat HCW education. NICU staff’s knowledge, perceptions, and barriers to HH were assessed by individual surveys. The outcome measure for this QI project was the compliance percentage, the process measure was the number of educational interventions and the balancing measure was perceived increase in work burden and interference with patient care. The chi-squared test for proportions was used for analysis.

Results: We had a total of 377 observations at baseline, 319 for the first PDSA cycle and 265 for the second one. The baseline overall compliance was 31.6%, which rose by 6% after the 1st intervention, with increases of 5.96% to 20% at the 9 HH opportunities. There was no change after the 2nd intervention. Common barriers to HH noted were the work burden (83.3%), skin irritation (66.7%) and empty/broken dispensers (66.7%).

Conclusion(s): This QI initiative increased HH compliance in our NICU by 6% after two PDSA cycles. Further interventions include immediate feedback to the staff by NICU leaders and giving individual rewards, to bring about a change in HH behavior.