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Publication: Title and Journal/Conference

Use of a 3.15%CHG/70%IPA Disinfection for Sustained CLABSI Reduction in a Large Urban Teaching Facility

Presented at AVA Annual Conference. September 15-18, 2018, Columbus, OH.

Methodology/Study Design

A pre- and post-intervention study design was used to evaluate the impact of 3.15% CHG/70% IPA swab on CLABSI reduction.

Experiment

- 677 bed, level II trauma, level II-III neo-natal intensive care unit with 103 bed intensive care unit facility.
- Implemented house-wide for use on all central venous catheters (CVCs) and peripheral lines to disinfect needleless connectors (NC) to further reduce CLABSIs.
- Pre-intervention period: January 2015- September 2016.
- Post-intervention period: October 2016-December 2017.
- Pre- and Post-intervention CLABSI rates compared to assess for **Prevantics®** Device Swab impact
- Education on appropriate use of 3.15%CHG/70%IPA with a 5s scrub/5s dry time.
  - Education provided by vendor at time of initial implementation and continued at new employee orientation and during safety huddles to ensure compliance.
- No additional changes made to CVC insertion practices or care/maintenance bundles during study period.
- Product usage as surrogate for product compliance and utilization
- Note: **Prevantics** Device Swab was initially introduced within facility via side by side swab. packette. Due to an uptick in CLABSI the hanging strips were introduced (Q2 of 2017) to increase NC disinfection compliance prior to every line accession.

Results/Conclusions

- Pre-intervention CLABSI rate was 0.76/1000 central line days (CLD).
- Post-intervention CLABSI rate was 0.42/1000 CLD.
  - Central line utilization remained consistent 2015-2017.
- Statistically significant 45% reduction in CLABSI rate (p=0.04).
- Seven of 12 months in 2017 were CLABSI-free.
- Estimated cost- savings of $706,517 based on $33,618 per CLABSI event avoided.
- Estimated 355-day length of stay decrease.

Limitations

- Alcohol swabs were not removed from units allowing for their potential use on needleless connectors during the study.
- Compliance audits were not performed to ensure appropriate use of **Prevantics** Device Swab.