Healthcare Organization Commitment

Contact Details

Name
MELODY SAIKALI

Phone
00961 1 590 000

Email
patientsafety@hopital-libanais.com

Position
Patient Safety Officer

Organization Name
Lebanese Hospital Geitaoui – UMC

Organization Address
Geitaoui Street
Achrafieh
Bayrut, 1100
Lebanon

Commitment Details

Commitment Name
Reducing ICU rate of CLABSI by 30% in 1 year at the LHG-UMC

Participants
Antoine Saab

What Patient Safety Challenge does your Commitment address?
Challenge 2F - Central Line-Associated Bloodstream Infections

Commitment Start Date

Patient Safety Movement Foundation | patientsafetymovement.org
Commitment Summary
In our 8 bed ICU, we have recently implemented a systematic benchmarkable data collection on incidence of VAP, CLABSI and CAUTI. According to our latest infection control report (second semester 2018), the rate of CLABSI is significantly above the average range in the literature, which indicates a need to put in place a specific action plan to address this issue and decrease its impact on patient safety. CLABSIs are known to be high cause of morbidity and mortality although highly preventable according to the literature, and this gives us the opportunity to get significant improvements in our ICU if this problem is correctly tackled. Also, presence of Pseudomonas and Acinetobacter germs in ICUs in Lebanon (including ours) is relatively common, which contributes to the exacerbation of the issue.

Commitment Description & Detail
CLABSI data are collected by our ICU staff, and analyzed by our Infection Control Team, who classifies the cases and elaborates the rate of CLABSI. Further to the analysis of data by the Infection Control Committee in the last trimester in 2018, the issue was analyzed to identify the contributing factors and to set a specific action plan to address the problem. The main strategy to decrease the level of CLABSI in our ICU relies on: 1) Implement evidence-based guidelines to prevent the occurrence of CLABSIs, including: Insertion Maintenance Standardized access procedures 2) Ensure implementation of the evidence-based patient care - During insertion of a central catheter, doctors should always: Perform a “time-out”, Wash their hands with soap, clean the patient’s skin with appropriate antiseptic, place sterile drapes over the entire patient and wear a sterile mask, hat, gown, and gloves - Put a sterile dressing over the catheter site after the insertion - Standardize a central-line kit based on the needs of our hospital, including devices and technology proven to decrease the infectious risks and complications - Minimize blood sample draws from central access catheters 3) Engage staff and use data to find areas for improvement Develop a standardized educational plan for doctors and nurses to cover the insertion and maintenance of central lines Encourage continuous process improvement through the implementation of quality process measures and metrics Complete a root cause analysis (RCA) when CLABSIs are identified in the unit where the infection occurred using a multidisciplinary approach including nurses, doctors, and infection prevention specialists, and share findings with appropriate healthcare workers for optimal learning from errors

Action Plan
Use of current evidence-based guidelines and/or implementation aids regarding the prevention of CLABSIs, in special reference to the PSMF guidance documents: Insertion • Create a standardized central line insertion kit or line cart that contains all needed supplies •
Ensure the implementation of an insertion checklist • Wear sterile clothing—gowns, mask, gloves, and hair covering • Cover patients with a sterile drape, except for a very small hole where the central line goes in • Maintain strict sterile techniques when placing the central line • Perform hand hygiene procedures, either by washing hands with conventional soap and water or with alcohol-based hand rubs o Hand hygiene should be performed before and after palpating catheter insertion sites, as well as before and after inserting, replacing, accessing, repairing, or dressing an intravascular catheter o Palpation of the insertion site should not be performed after the application of antiseptic, unless an aseptic technique is maintained • Use ultrasound guidance for all non-emergent central line placements • For directly inserted central lines, avoid veins in arm and leg, which are more likely to get infected than veins in chest • Perform a “time-out” before commencing the procedure • Position patient appropriately Prepare insertion site • Prepare clean skin with a 0.5% chlorhexidine preparation with alcohol before central venous catheter and peripheral arterial catheter insertion and during dressing changes o If there is a contraindication to chlorhexidine, tincture of iodine, an iodophor, or 70% alcohol can be used as alternatives • Don’t use iodine ointment - Do not use topical antibiotic ointment or creams on insertion sites, except for dialysis catheters, because of their potential to promote fungal infections and antimicrobial resistance • When inserting near the lungs, ensure line aspirates blood to ensure proper catheter placement • Apply a sterile dressing to the site • Use a prepackaged or filled insertion cart, tray, or box – cart/tray/box that contains all the necessary supplies • Use an insertion checklist with staff empowerment to stop non-emergent procedure: o Include a checklist to ensure adherence to proper practices • Use a full sterile barrier for providers and patients: o Use maximal sterile barrier precautions, including the use of a cap, mask, sterile gown, sterile gloves, and a sterile full body drape, for the insertion of CVCs, PICCs, or guidewire exchange o Use a sterile sleeve to protect pulmonary artery catheters during insertion • Provide insertion training for all providers Maintenance • Perform daily assessments of need for line and remove when no longer needed: o Have daily discussion of line necessity, functionality, and utilization including bedside and medical care team members • Healthcare personnel that are properly trained should be doing the maintenance on the central line o Discuss with the medical team continued necessity of line o Discuss with the medical team the function of the line and any problems o Discuss with the medical team the frequency of access and utilization of the line • Consider bundling labs and line entries o Consider documentation as best practice • Document that the discussion occurred in the patient’s medical record • Conduct regular assessment of dressing to assure clean/dry/occlusive: o Replace catheter site dressing if the dressing becomes damp, loosened, or visibly soiled o Replace dressings used on short-term central venous catheter sites according to hospital protocol • Perform daily CHG bathing and linen changes • Perform weekly rounds • Send monthly data to team and leadership o Celebrate successes o Perform in-depth case reviews when infections do occur o Identify the risks that could’ve been avoided and modifications needed moving forward, if any o Use a systematic approach to review all hospital-acquired CLABSIs Standardized access procedure • Disinfect cap before all line entries by scrubbing with an appropriate antiseptic and accessing the port only with sterile devices • Scrub the hub: o Alcohol (15 second scrub + 15 second dry) o CHG (30 second scrub + 30 second dry) • Follow standardized dressing, cap, and tubing
change procedures/timing: o Scrub skin around site with CHG for 30 seconds (2 minute for femoral site), followed by complete drying o Note: there may be institutional preference for CHG use for infant < 2 months of age • Change crystalloid tubing no more frequently than every 72 hours • Change tubing used to administer blood products every 24 hours or more frequently per institutional standard • Change tubing used for lipid and TPN infusions every 24 hours • Document date dressing/cap/tubing was changed or is due for change • Consider when hub of catheter or insertion site are exposed, wear a mask (all providers and assistants), shield patient’s face, endotracheal tube (ETT), or trach with mask or drape • Provide staff training • Nursing education—care and maintenance bundle • Central Line Simulation Program • Develop education for attendings, residents, and nurses • Key Curriculum Concepts—reinforcement • Hand hygiene • Appropriate gowning and gloving • Key Curriculum Concepts—new • Standardized central line insertion best practice • Ultrasound guided cannulation • Updated insertion checklist • Maintaining sterile technique – immediate feedback • Central Line Navigator documentation • General Medical Education (GME) • MD rounding navigators (removal prompt) • Resident infection prevention training • Evidence-based practice adherence • Remain current with new literature findings: • “Guidelines for the Prevention of Intravascular Catheter-Related Infections” 2011 compendium by the CDC (Miller et al., 2010) • Patient education document

Commitment Timeline
A follow up on the progress of this commitment will be given in April 2020

Impact Details

Lives Saved

Lives Spared Total =
3.222

For reporting purposes, the number has been rounded up to the nearest whole number.
Lives Spared Total
1