

Beyond the Bundles: A Pilot to Evaluate a Silver Based Bathing Product to Reduce Central Line-Associated Bloodstream Infections

Lisa Pinner, RN, MSN, CNS, CPON, BMTCN, Rachel Frisch, BSN, BMTCN, Jenna Kruger, MPH, CPHQ and Lianna Marks, MD.

Purpose

To complete a six-month trial to compare Theraworx, a silver-based bath wipe, to the conventional Chlorohexidine (CHG) wipes used to clean the skin of Hematology/Oncology and Stem Cell Transplant patients with tunneled central lines.

Background

Central Line Associated Bloodstream Infection (CLABSI) is associated with poor outcomes in Hematology/Oncology and Stem Cell Transplant patients.

Despite adopting multiple initiatives:

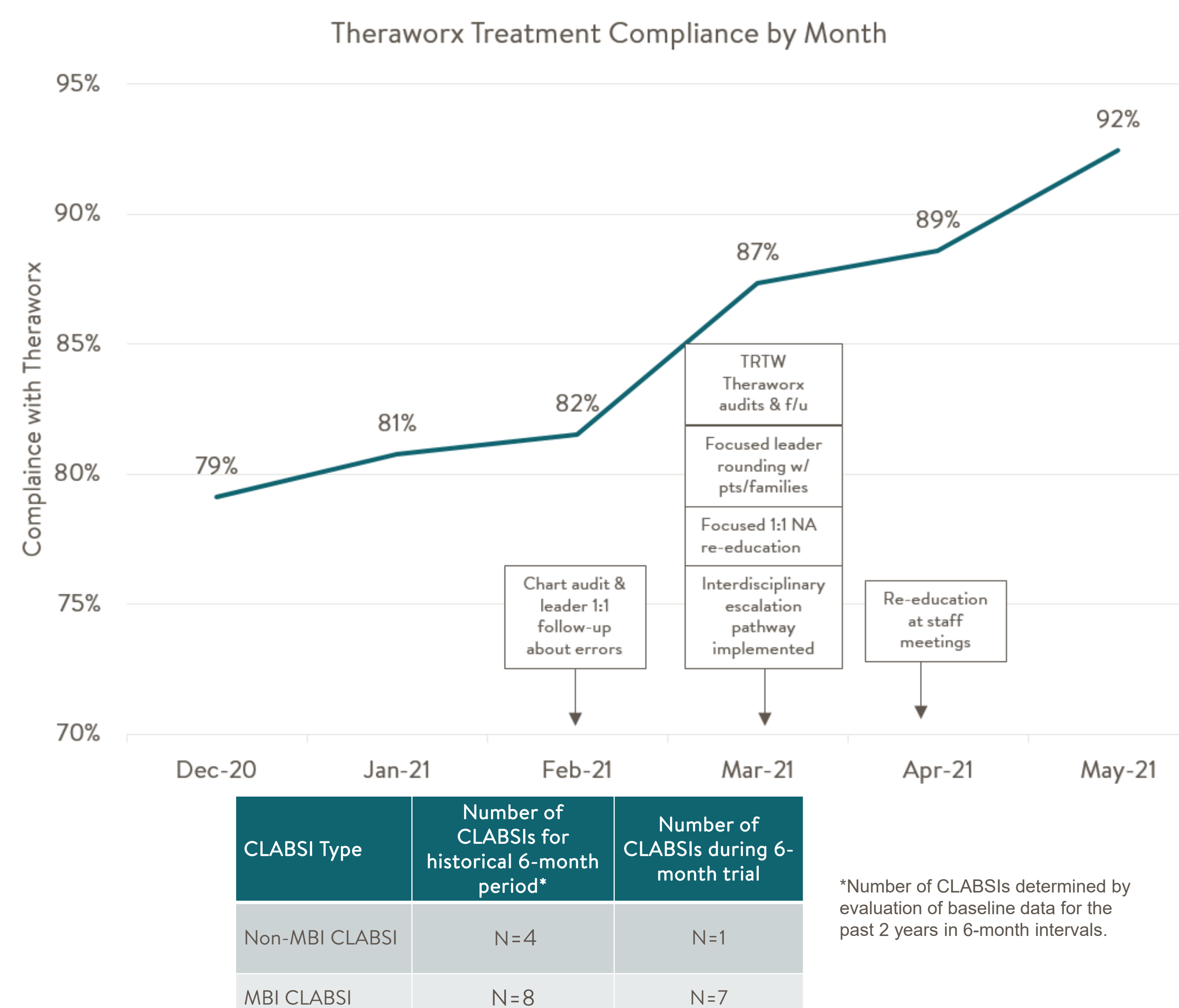
1. In 2012 we initiated CHG wipes for patients with central lines.
2. In 2015 we instituted CLABSI bundle prevention rounds.
3. In 2019 we trialed a Hibiclens 4% CHG solution for patients old enough to shower.

Our unit's non-mucosal barrier injury (non-MBI) CLABSIs continued to be a significant problem. Adherence to CHG daily bathing has been challenging to achieve with an average rate of 75% despite the multiple improvement efforts. Therefore, alternative strategies were needed to help achieve our goal of reducing CLABSI rates.

Methods



Results



Conclusion

- Bathing compliance increased by 23% by the end of the trial (75% w/ CHG compared to 92% with Theraworx).
- Of the 322 unique patients receiving the new bathing product, only 1 had a documented allergy.
- The non-CLABSI rate during the trial decreased by 75% compared to the historical 6-month data (n=1 vs. n=4).
- 86% of patients and families were satisfied/very satisfied with Theraworx.
- The cost of the silver-based wipes is projected to save approximately \$15,000 a year compared to CHG.
- The estimated cost avoidance for CLABSIs during the trial is \$135,000 (approximately \$45,000 for each CLABSI eliminated).

Discussion

A multi-disciplinary approach for patient education and care team engagement were key to increasing compliance with daily Theraworx treatment and decreasing non-MBI CLABSIs. Future efforts will focus on sustaining Theraworx compliance and monitoring for continued trends in CLABSI reduction.

Acknowledgements

We would like to thank the team members that were key to this project's success: Kim Williams, Brandon Porter, Kelsey Parkinson, Angela Helms, Meredith Purganan, Jenny Shaffer, Sarah Ferrari, Camry Rogers, Charlotte Musgrove, Brianne Riley, Merian Van Eijk, Tsering Sangpo and the Bass Center Local Improvement Team (LIT)