

CHG gel dressing reduces misalignment MercyOne Sioux City

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Background

In 2018 we identified central line dressing as an area for improvement by the Practice and Quality Committee of the Nursing Council. We took our first survey and did targeted education on central line dressing changes in October of 2018 for dressing application. However, as a facility we remained noncompliant with CHG disc placement on central lines.

Purpose

To eliminate CHG misalignment to reduce CLABSIs at MercyOne Medical Center by 25%.

Project Design and Implementation

MercyOne Siouxland Medical Center was one of the first Trinity Health-owned ministries to upgrade to chlorhexidine gluconate (CHG) gel dressings to improve Consumer Experience. One of the features of the new dressing is how easy it is to see the insertion site when assessing for phlebitis and extravasation. The gel molds easily around the line, eliminating misalignment common with the separate bio patch.

The 3M Dressing passed review by the Value Analysis products committee, Practice and Quality Council, and nursing leadership in August of 2020.

3M product representatives did hands on training sessions over 3 days October 2020 with key stakeholders including anesthesia, ICU and ED staff. New dressings were loaded in all departments in November of 2020

We followed Kotter's 8 step change model to guide the project. Our short-term goal was to have 100 staff trained on the new dressing. Our second short term goal was to eliminate CHG misalignments. and our long-term goal was CLABSI reduction of 25% year over year.

Type	#Central Line Sites Audited	CHG Placement in Alignment with Facility Protocol
CVC IJ/Sub 8/19	10	10%
CVC IJ/Sub 2/20	10	30%
CVC IJ/Sub 8/20	14	55%
CVC IJ/Sub 2/21	4	100%
PICC 8/19	18	50%
PICC 2/20	9	55%
PICC 8/20	5	60%
PICC 2/21	13	92%
Port 8/19	5	20%
Port 2/20	3	100%
Port 8/20	2	100%
Port 2/21	2	100%
Dialysis 8/19	5	20%
Dialysis 2/20	3	67%
Dialysis 8/20	4	50%
Dialysis 2/21	3	100%
Groshong 2/21	2	100%

HAI CLABSI								
	ICU	6SE	6SW	7SW/ COVID T	8SE	8SW	6C	
Q 1 2019	2	2	2	1	0	0	0	7
Q 2 2019	0	2	0	1	0	0	0	3
Q 3 2019	1	0	2	0	1	0	0	4
Q 4 2019	0	0	0	1	1	0	0	2
Q 1 2020	2	0	0	0	0	0	0	2
Q 2 2020	6	0	0	0	1	0	0	7
Q 3 2020	2	0	0	0	0	0	0	2
Q 4 2020	9	0	0	0	0	0	0	9
Q 1 2021	2	2	0	0	0	0	0	4
Q 2 2021								
Q 3 2021								
Q 4 2021								

Results

We were able to eliminate line misalignment after deployment of the CHG gel dressings. Only 1 PICC line was misaligned in our spring 2021 surveillance study, out of 24 central line patients assessed. 81 learners completed hand on training while 3M was on site, short of our 100 staff goal. However, we were in our 2nd surge of COVID 19 patients during the training days. New hires are trained on the CHG gel dressing during the first week of nursing orientation. We have seen a decrease in CLABI from Q4 2020 to Q1 2021.

Additional Opportunities

After our move to CHG gel dressings we reached out to affiliated organizations to provide education materials including a video link and demonstration dressing to local rehabilitation, skilled care, and long-term care facilities as well as hospice and outside home medical services. MercyOne Home Medical changed dressing soon after our Medical Center transition. Packets of training materials were sent to colleges to prepare their students for clinicals at MercyOne Sioux City.

References

Karpanen, T. J., Casey, A. L., Das, I., Whitehouse, T., Nightingale, P., & Elliott, T. S. J. (2016). Transparent Film Intravenous Line Dressing Incorporating a Chlorhexidine Gluconate Gel Pad: A Clinical Staff Evaluation. *Journal of the Association for Vascular Access*, 21(3), 133–138. <https://doi.org/10.1016/j.java.2016.03.008>

Thokala, P., Arrowsmith, M., Poku, E., Martyn-St James, M., Anderson, J., Foster, S., Elliott, T., & Whitehouse, T. (2016). Economic impact of Tegaderm chlorhexidine gluconate (CHG) dressing in critically ill patients. *Journal of Infection Prevention*, 17(5), 216–223. <https://doi.org/10.1177/1757177416657162>

Acknowledgements

The team would like to thank Chief Nursing Officer Tracy Larson and supply chain nurse Bridget Davis for their help getting the product approved for our facility.