

A Simple Dressing for Prevention of Central Line Infections in Pediatric Burn Patients



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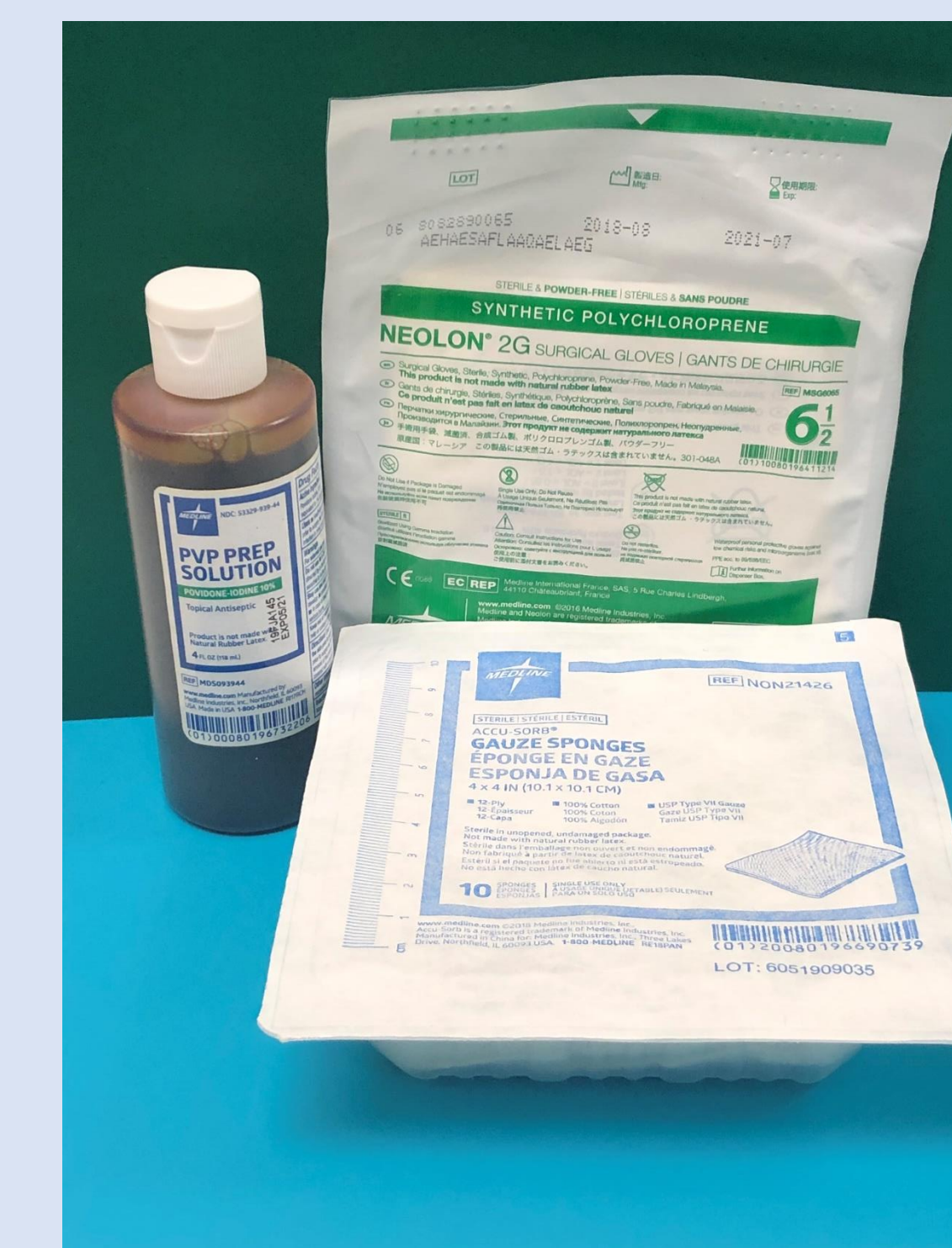
A dramatic decrease in central line infections can be achieved with a painless and low cost betadine dressing.

Introduction:

Population: 16 patients with major burns from a level I pediatric trauma center between 2017-2018. A major burn is considered a total body surface area of 20% or greater. The burns ranged from 20% to 85% total body surface area, with an average of 44.14%. Of those 16 patients, 8 required central lines that could not maintain a traditional occlusive central line dressing.

Technique:

A 4x4 gauze soaked in betadine is placed over the central line insertion site. The gauze is moistened with the betadine solution, then rung out so that the gauze is not oversaturated. That gauze is placed directly over the insertion site using sterile technique. A dry gauze is then placed over the wet one to protect from pathogens in the environment. Both gauze pads are then changed every 4 hours to keep the dressing moist and working as an antimicrobial agent.



Low Cost:

The cost of each occlusive central line dressing in our facility is \$2.10, whereas the betadine method costs \$0.97. These supplies can be used for more than one dressing change compared to the occlusive dressing that can only be utilized once.

Traditional Occlusive Dressing		Betadine Dressing:	
Central Line Dressing Kit:	\$2.10	4x4 Gauze 10 pack:	\$0.34
		Betadine Solution (4 fluid oz.):	\$0.63
Total:	\$2.10	Total:	\$0.97

Conclusion:

A decrease in Central Line Associated Blood Stream Infection (CLABSI) rates in large burns was seen. Rates went from 4.1 infections per 1000 catheter days to 0 infections/1000 catheter days. This technique allows for antimicrobial coverage over the insertion site over a line that cannot safely maintain an occlusive dressing, which also does not interfere with the integrity of grafted or burned skin.