The use of pure Hypochlorous Acid (pHA) based cleanser in the management of pressure injuries in Hospital inpatient place of service.

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INTRODUCTION

The application of pure pHA for wound cleansing has gained widespread recognition in the effective management of extensive pressure injuries, as endorsed by comprehensive guidelines. Particularly, Stage III and IV pressure injuries exhibit responsiveness to primary closure when overseen by a plastic surgeon. The systematic removal of microbial colonies and reduction of bacterial presence have proven instrumental in enhancing healing rates for chronic wounds. In this study, we delve into a 10-month retrospective analysis, spanning from March 2023 to the present, during which we meticulously examined the Electronic Medical Records (EMR) database to scrutinize the utilization of pHA. Our focus is on presenting key findings that encapsulate the visual trajectory of wound outcomes, from admission to discharge, following the application of pHA in the management of chronic wounds. Given the fragility of these patients in the LTAC unit where this study was performed, the study primarily looked at patient safety issues.



METHOD

Our investigation involved querying the EMR database for all Stage III and IV pressure injuries under the care of a single surgeon dedicated to chronic wound management. This scrutiny aimed to evaluate the frequency of pHA involvement in wound closure at any point between admission and discharge over a 10-month period.



RESULTS

The results section encompasses a comprehensive visual before and after images to show the ability of the pHA to assist in the mechanical debridement of necrotic tissue present in the wound. Use of Vashe was BID with soaked gauze. OR and bedside debridement was implemented to remove pHA loosened necrotic tissue. In general, all wounds responded well to the pHA treatment.

Stage 4 pressure injury with right buttock unstageable, odor





Initial assessment 3/21

Follow up 4/11, Debridement 4/10

Stage 4 with adherent slough and odor





Follow up 4/2 – Unable to debride at bedside due to pain, not OR candidate due to low H&H

Stage 4 with adherent slough and heavy odor





Initial assessment 2/29

Follow up 3/12 Unable to obtain consent for debridement

Stage 4 with adherent slough moderate odor





Initial assessment 3/15 Follow up 3/28, Bedside debridement 3/20

Stage 4 with heavy adherent slough





Initial assessment 3/14

Follow up assessment 3/27 Debridement 3/20

Stage 4 with heavy adherent slough





Initial assessment 12/26

Follow up assessment 1/17 Debridement 1/10

Unstageable, evolved to stage 4





Initial assessment 1/26

Follow up assessment 1/30 S/P Debridement 1/24

Stage 4, adherent slough





Initial assessment 11/24

Follow up assessment 12/15 Debridement 11/29 and 12/13

Stage 4, adherent slough





Initial assessment 11/27 Follow up assessment 12/11 OR Debridement 12/06

Stage 4, adherent slough





Initial assessment 7/27

Follow up assessment 8/8 No debridement due to bleeding at the site

DISCUSSION

- pHA will continue to be valuable tool in our toolkit in helping remove necrotic tissue burden from wounds
- Additional refinements may include the use of instillation with NPWT, something that is not performed on these patients shown.
- Microbiological status, pre post pHA treatment can and should be quantified.
- Other new technologies that remove necrotic tissue are likely compatible with HOCl, and these need to be used with HOCl on the types of patients shown.
- Compatibility with HOCl with almost all following treatments/dressings are true

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