

Pressure ulcers. Are you doing enough to prevent them?

WebQuest Description: The average cost for hospital treatment associated with stage IV pressure ulcers and related complications was \$129,248 for hospital acquired ulcers during one admission. The cost was \$124,327 for community-acquired ulcers over an average of 4 hospital admissions (Brem,H., Maggi, J., Nierman, D., et al, 2010). Stopping the formation of pressure ulcers will be paramount to help control the high cost of healthcare now and in the future. It is imperative that nurses understand what causes pressure ulcers, the risk factors involved, how to treat them and most importantly, how to prevent them. (Brem,H., Maggi, J., Nierman, D., et al. High Cost of Stage IV pressure ulcers.(2010) American Journal of Surgery. 200(4): 473-477)

Grade Level: College / Adult

Curriculum: Health / PE

Keywords: Pressure ulcer, decubitus ulcer, bed sore, pressure ulcer prevention, causes of pressure ulcers

Published On: 2015-11-12 13:39:43

Last Modified: 2015-11-07 16:31:38

WebQuest URL: <http://zunal.com/webquest.php?w=295135>

Introduction

Margaret is a 72 year old female with a history of coronary artery disease, diabetes and COPD. She underwent a CABG 7 days ago. She was on the operating table for 11 hours due to post-operative bleeding. While in the ICU, Margaret was on a ventilator for 5 days due to complications with her COPD and new onset CHF. She was on a pressure redistribution mattress but was unable to turn herself. She has been weaned off the ventilator and has been transferred to your unit on day 7 post-op. Upon review of her records from the ICU, you note that an open area on her coccyx was documented in her EHR on day 4, but no measurements were recorded. No treatment is in place and there has been no further documentation of the wound. You perform an assessment of Margaret's wound. You find the wound to be covered with black eschar measuring 6cm x 4cm, with a sloughy edge. Yellowish exudate with erythema surrounds the wound. You will refer back to this scenario as you make your way through this Webquest.

Tasks

Upon completion of this webquest, you will be able to: 1. Differentiate between the various stages of pressure ulcers and correctly classify the stage of Margaret's ulcer. 2. Identify body areas most prone to pressure ulcer development. 3. Recognize conditions that place a person at risk for development of pressure ulcers and compare them to risk factors identified in Margaret's scenario. 4. Create an educational tool that includes interventions to prevent the occurrence of pressure ulcers. 5. Select a treatment regimen for Margaret based on current recommendations. 6. Correctly classify the stages of pressure ulcers as evidenced by receiving an 85% or greater on the quiz located in the evaluation section of this webquest.

Process

**** Indicates work that will need to be turned in to your instructor following the completion of this Webquest. Differentiate between the various stages of pressure ulcers and correctly classify the stage of Margaret's Ulcer. The National Pressure Ulcer Advisory Panel is the foremost authority on prevention and treatment of pressure ulcers. They utilize public policy, education and research to improve patient outcomes in relation to pressure ulcers. Please go to their site to refresh your memory regarding the definition of a pressure ulcers and the various stages. After visiting the site, think about Margaret. What stage would you classify her pressure ulcer as? <http://www.npuap.org/resources/educational-and-clinical-resources/npuap-pressure-ulcer-stages/categories/> Now go to the following site to review the healing stages of pressure ulcers: <https://members.nursingquality.org/NDNQIPressureUlcerTraining/Module1/HealedPU2.aspx> Identify the body areas most prone to pressure ulcer development. While pressure ulcers usually are associated with bony prominences, other areas of the body can be just as vulnerable. Go to http://members.nursingquality.org/NDNQIPressureUlcerTraining/module1/PressureUlcerLocations_1.aspx for a closer look at susceptible areas. Scroll to the bottom of the first page and hit the "next" button. Continue to hit the "next" button until you have reached next section which is healing of pressure ulcers. Recognize conditions that place a person at risk for development of pressure ulcers and compare them to risk factors identified in Margaret's scenario. The term "bedsore" often conjures up images of little old ladies confined to a nursing home bed. While nursing home patients are more vulnerable to pressure ulcers, they are not the only vulnerable population. The perioperative patient lying flat on his back for hours during surgery, a young paraplegic who does not reposition himself in the wheelchair or an infant in the NICU are all examples of types of patients that are prone to pressure ulcer development. There are certain circumstances when pressure ulcers are more likely to develop. This may be due to the vulnerability of the population, a type of service they are receiving or the type of medical device they are wearing. View the following video: Operating room ulcers: Who is at risk? Can they be prevented? <http://www.npuap.org/resources/educational-and-clinical-resources/complimentary-educational-webinars/> The Braden Scale for Predicting Pressure Sore Risk is a widely used tools for risk assessment in relation to pressure ulcer development. It was created by Dr. Barbara Braden and Dr. Nancy Bergstrom right here in Omaha, Nebraska in 1983. Dr. Braden was project director of the Creighton University Teaching Nursing Home Project funded by the Robert Wood Johnson Foundation. The Braden Scale is one of the tools recommended for use in the Clinical Practice Guidelines on Pressure Ulcers in Adults, published by the Agency for Health Care

Policy and Research. This tool is used not only in the United States, but around the world. Please go to the website to review the history of the Braden scale and the contribution made by one of Omaha's famous nurse researchers. http://www.bradenscale.com/about%20us.htm Once you have reviewed the history of the Braden Scale, go to the following website and print a copy of the Braden Scale for yourself. http://www.bradenscale.com/products.htm After reviewing this tool, think about Margaret. Could her pressure ulcer have been prevented? Could the use of the Braden scale have changed the outcome of Margaret's pressure ulcer? Why or why not? Create an educational tool that includes interventions to prevent the occurrence of pressure ulcers. Pressure ulcers are costly in terms of both total dollars spent and in the time spent in the treatment of them. According to Brem, Maggi and Nierman (2010), the average cost for a hospital stay related to a stage IV pressure ulcer, along with related complications was \$129,248 for hospital-acquired ulcers during one admission, and \$124,327 for community-acquired ulcers over an average of 4 admissions. In this era of health care reform and cost control, what is a better way to control costs than to stop pressure ulcers from developing in the first place. Please go to the following site to review the article. After reading the article, answer the questions below. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2950802/Brem, H., Maggi, J., Nierman, D. High cost of stage IV pressure ulcers. (2010). American Journal of Surgery. 200(4):473-477. doi:10.1016/j.amjsurg.2009.12.021. Answer the following questions and turn in to your instructor.

- The authors discuss the increased financial burden to hospitals in relation to hospital-acquired stage III and IV pressure ulcers. Why do hospital-acquired pressure ulcers increase the financial burden?
- Reflect back on Margaret's scenario. Do you think it is "fair" to withhold funding from the hospital for patients with acquired-pressure ulcers? Why or why not?
- What can hospitals do to decrease the financial impact from these pressure ulcers? What can you do to minimize the financial impact of pressure ulcers?
- Do you think this could lead to hospitals failing to report hospital-acquired pressure ulcers? Why or why not?
- This article states that halting the progression of pressure ulcers is a feasible goal. At what stage of pressure ulcer development would this be a feasible goal and why? The Institute for Healthcare Improvement has created a "How-to-guide" for preventing pressure ulcers. This guide was developed for the "5 Million Lives Campaign". This campaign was designed to support the improvement of medical care in US hospitals by reducing illness or medical harm such as adverse drug events or surgical complications and reducing death over a period of two years (December 12, 2006 through December 9, 2008). Go to the website for the Institute for Healthcare Improvement and click on the link for the pdf for the How-to Guide: Prevent Pressure Ulcers. Cambridge, MA: Institute for Healthcare Improvement; 2011. Create a handout that outlines interventions that can be used in the Operating room to reduce the development of pressure ulcers. Outline the steps that should have been taken to prevent Margaret's pressure ulcer from getting worse once Margaret was transferred to the ICU. Select a treatment regimen for Margaret based on current recommendations. Utilize the following sites to answer these questions regarding Margaret.

- How often will you assess Margaret's wound? Provide your rationale.
- What instrument will you utilize to assess the wound? Provide your rationale.
- What treatment options will you utilize for Margaret's pressure ulcer? Provide your rationale.
- What ramifications do you foresee occurring from the development of Margaret's pressure ulcer?
- Who shares the liability for the development of Margaret's pressure ulcer? Provide your rationale.

Assessment of the wound: http://healthinsight.org/Internal/events/Nursing_Home/Assessment_and_Documentation_Pressure_Ulcers%20_0110719_Color.pdf
Wound bed preparation using TIME: http://www.smith-nephew.com/global/assets/pdf/products/wound/wbp_time_table.pdf
Wound dressing options: http://www.woundsource.com/PUSH tool for healing; http://www.npuap.org/resources/educational-and-clinical-resources/push-tool/Negative Pressure Wound Therapy;
http://www.kci1.com/cs/Satellite?blobcol=urldata&blobheadername1=Content-type&blobheadername2=Content-disposition&blobheadername3=MDT-Type&blobheadervalue1=application%2Fpdf&blobheadervalue2=inline%3B+filename%3D861%252F344%252F2-B-128g_Clinical%252BGuidelines-WEB.pdf&blobheadervalue3=abinary%3B+charset%3DUTF-8&blobkey=id&blobtable=MungoBlobs&blobwhere=1226697053729&ssbinary=true
article: http://www.goriskresources.com/Docs/NF/article_pulcers.pdf
AHRQ study on pressure ulcer treatment strategies: http://effectivehealthcare.ahrq.gov/ehc/products/308/1491/pressure-ulcer-treatment-report-130508.pdf
Correctly classify the stages of pressure ulcers as evidenced by receiving an 85% or greater on the quiz located in the evaluation section of this Webquest. In order to evaluate what you have learned, please go to the evaluation section and click on the link to take a short quiz. You should be able to correctly classify the stage of each pressure ulcer presented to you.

Evaluation

Not only is the identification of specific stages of pressure ulcers paramount in helping to determine the proper treatment regimen, but current standards require routine assessment of pressure ulcers with accurate identification of the current stage. Please go to the NDNQI website and take the pressure ulcer staging test. Once at the site, click on option 2, hit the "next" button. Enter your first and last name. This is for your certificate of completion at the end of the test. Hit the "begin" button, then go to the pressure ulcer staging test. If you prefer, you may review the other sections of the website first to refresh your memory. You should score an 85% or greater. Print out proof of completion and hand in to your instructor. https://members.nursingquality.org/NDNQIPressureUlcerTraining/SelectModule.aspx

Category and Score					Score
				Total Score	

Conclusion

Margaret may have been able to go home following her discharge from the hospital if it weren't for the unstageable acquired pressure ulcer on her coccyx. She will likely be transferred to a skilled nursing facility (SNF) for treatment of that pressure ulcer, along with physical and occupational therapy post CABG. Admission to the SNF due to the pressure ulcer adds to the already high cost of the extended hospital stay. This case study, along with the information you have read during your exploration of this Webquest, highlights the importance of education regarding pressure ulcers. Remember, the more educated you are on pressure ulcers, the less chance for your patients to develop pressure ulcers. Science, medicine and nursing are constantly researching new alternatives and challenging the way we do things. It is imperative that you keep up to date with the most recent information regarding treatment and prevention of pressure ulcers. The quality of life of your patient may depend on it, not to mention the financial status and ranking of your hospital. While this Webquest has led you to explore pressure ulcer definitions, staging, sites prone to pressure ulcer development and prevention, there is so much more to review. Infection control, medications, nutrition and the role of the physical therapist are just a few examples of topics yet to be covered. For more information please review the following sites. You may also go back to any of the sites utilized during this Webquest and explore them in greater depth. Physical therapist role in wound care: <http://www.todayswoundclinic.com/articles/examining-increased-role-physical-therapist-within-wound-care-industry> WHO recommendations for infected wounds: <http://www.who.int/hac/techguidance/tools/Prevention%20and%20management%20of%20wound%20infection.pdf> Nutritional aspects of wound healing: http://journals.lww.com/aswcjournal/Fulltext/2012/02000/The_Role_of_Nutrition_in_Wound_Care.5.aspx Hyperbaric oxygen therapy: <http://woundeducators.com/hyperbaric-oxygen-therapy/>

Teacher Page

Standards

Credits

Other