Do air support surfaces reduce development of pressure ulcers?

Robert Adamic

Abstract

Background, significance, purpose: Around 2.5 million patients are affected by pressure ulcers each year, and 60,000 patients die as a result of a pressure ulcer each year. Hospital stays resulting from a pressure ulcer has an annual potential cost of $700,000. The time for a pressure injury to occur is from two to six hours. The present study will experimentally investigate if air support surfaces will reduce the development of pressure ulcers among patients admitted to Wellstar Cobb hospital.

Brief literature review: A study in Baltimore, Maryland, was conducted to determine if manually repositioning patients prevented the formation of pressure ulcers. The study required additional studies to determine efficacy; however, the study found that patients were repositioned at least two hours on only 53% of the days. The low level of repositioning was consistent with several other studies. Reasons for not regularly repositioning was due to the lack of time and lack of staff. Based on the beforementioned statistics, repositioning patients every two hours is not solely sufficient in preventing pressure injuries.

Methods: Patients with no pressure injuries will be placed on an air support surface, such as a Waffle overlay, and monitored every two hours, where the sacrum and both heels will be assessed for potential skin breakdown.

Evaluation: A pre- and post-pressure rate will be captured by utilizing a pressure mapping tool. The amount of pressure decrease or increase will determine if the study was successful.

Keywords: Hospital, at-risk population, bedbound, air support surfaces, pressure ulcer