

Clinical Applications and Benefits of using Closed-Incision Negative Pressure Therapy with Novel Dressing: A Review Article

Dennis Adjepong

California Institute of Behavioral Neurosciences & Psychology, USA

Abstract

Surgical site occurrences (SSOs) are common in patients undergoing operative procedures, especially in the form of surgical site infections (SSIs). Multiple studies show that obesity, tobacco use, prolonged surgical time, and diabetes mellitus are the major risk factors for SSIs. SSIs increase healthcare costs and often result in morbidity. Many surgeons are currently using closed-incision negative pressure therapy (ciNPT) to counter SSIs. This method makes it easier for them to manage closed and surgical incisions. This technique has already been applied in the plastic surgery field. This study discusses how the use of ciNPT is helping surgeons to reduce complications related to SSOs. The technique has been reported to minimize the rate of reoperations, readmissions, and other wound-related complications. Using ciNPT with novel dressing has proved to be a significantly effective clinical intervention method in managing clean and closed wounds. The novel dressing protects the incision from external contamination and minimizes lateral tension. This study proves that the use of ciNPT is effective in reducing complications related to SSIs. The method minimizes the rate of reoperations, readmission, and other wound-related complications. Using ciNPT with novel dressing has proved to be a significant clinical and operative intervention method in managing clean and closed wounds. SSIs increase healthcare costs and often results in morbidity. The novel dressing protects the incision from external contamination and minimizes lateral tension. It also helps to normalize stress distribution, decrease lateral pressure on the incision, and increase appositional strength. We recommend that surgeons consider using ciNPT more frequently on patients undergoing procedures with a potential for high morbidity rate due to SSIs.

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Biography

Dennis Adjepong, MD. MBA is a surgeon intern at Alexandria Surgery Associates in Alexandria, VA. He graduated from Poznan University of Medical Science, Poland. His thirst for research is in the field of Neurosurgery/ Neuroscience. Dennis received his Master's in Business Administration from Strayer University, Washington DC. He is a member of the International Behavioral Neuroscience Society (IBNS) and

American Association for the Advancement of Science (AAAS). He is a published author with 15+ publications. He is an Editorial Board Member for Herald Scholarly Open Access Journal of Surgery: Current Trends & Innovations in Washington DC. Lastly, he has strong background in Computer science and Computer Network Security.