Surgical site infections after craniotomy: A matched health care cost and length of stay study

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Aim: The purpose of this research study was to assess the extra health care cost and length of stay resulted from surgical site infection, as well as, to identify the most frequent etiologic microorganisms of surgical site infections among Jordanian patients underwent craniotomy surgery.

Methods: A retrospective, descriptive, correlational and nested 1:1 matched case-control design was used. A computerized list of patients, who underwent craniotomy surgery during the period between May 2009 and March 2015, has been generated from IT department in the targeted hospital. Financial affairs department was contacted to determine the final bill for every selected patient.

Results: The surgical site infection-group had higher mean of HCC by 5,642.20 JOD (=7,899.08 USD) and hospitalization period by a mean of 23.17 of additional days more than the non-surgical site infection group. Furthermore, Acinetobacter baumannii and Staphylococcus aureus were determined as the most predominant causative agents of SSIs with a percentage of 39.1% and 26.1% respectively.

Implications & Conclusion: The results of present study may be considered as a baseline data for national benchmarking to evaluate the quality of care that provided to the targeted patients. This study encourages nurse administrators to adopt protocols and strategies that promote infection control measures, as well as to develop new methods of surveillance to the universal precautions adherence, which could ultimately lead to limit the pathogens contamination to the surgical wound, shorten length of stay, and decreasing health care cost.

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