

The role of preoperative blood parameters to predict the risk of surgical site infection

Edin Mujagic, Walter R. Marti, Michael Coslovsky, Jasmin Zeindler, Sebastian Staubli,
Regula Marti, Robert Mechera, Savas D. Soysal, Lorenz Gürke, Walter P. Weber



PII: S0002-9610(17)31336-3

DOI: [10.1016/j.amjsurg.2017.08.021](https://doi.org/10.1016/j.amjsurg.2017.08.021)

Reference: AJS 12489

To appear in: *The American Journal of Surgery*

Received Date: 23 June 2017

Revised Date: 17 August 2017

Accepted Date: 21 August 2017

Please cite this article as: Mujagic E, Marti WR, Coslovsky M, Zeindler J, Staubli S, Marti R, Mechera R, Soysal SD, Gürke L, Weber WP, The role of preoperative blood parameters to predict the risk of surgical site infection, *The American Journal of Surgery* (2017), doi: 10.1016/j.amjsurg.2017.08.021.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Background

Routine preoperative blood work is not recommended but selected biochemical markers may predict the risk of surgical site infection (SSI). This study examines the association between preoperative biochemical markers and the risk of SSI.

Methods

This observational cohort study, nested in a randomized controlled trial, was conducted at two tertiary referral centers in Switzerland.

Results

122 (5.8%) of 2093 patients experienced SSI. Preoperative increasing levels of albumin (OR 0.93), CRP (OR 1.34), hemoglobin (OR 0.87) and eGFR (OR 0.90) were significantly associated with the odds of SSI. The same accounts for categorized parameters. The highest area under the curve from ROC curves was 0.62 for albumin. Positive predictive values ranged from 6.4% to 9.5% and negative predictive values from 94.8% to 95.7%. The association of CRP, mildly and moderately decreased eGFR and hemoglobin with the odds of SSI remained significant on multivariate analysis.

Conclusions

Our results do not support generally delaying elective surgery based on preoperative blood results. However, it may be considered in situations with potentially severe sequelae of SSI.

Download English Version:

<https://daneshyari.com/en/article/8830694>

Download Persian Version:

<https://daneshyari.com/article/8830694>

[Daneshyari.com](https://daneshyari.com)