

**Publication****Associations of Hospital Length of Stay with Surgical Site Infections****JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 4485187**Author(s)** Mujagic, Edin; Marti, Walter R.; Coslovsky, Michael; Soysal, Savas D.; Mechera, Robert; von Strauss, Marco; Zeindler, Jasmin; Saxer, Franziska; Mueller, Alexandra; Fux, Christoph A.; Kindler, Christoph; Gurke, Lorenz; Weber, Walter P.**Author(s) at UniBasel** [Zeindler, Jasmin](#) ;**Year** 2018**Title** Associations of Hospital Length of Stay with Surgical Site Infections**Journal** World Journal of Surgery**Pages / Article-Number** 9

Surgical site infections (SSI) are a major cause of morbidity and mortality in surgical patients. Postoperative and total hospital length of stay (LOS) are known to be prolonged by the occurrence of SSI. Preoperative LOS may increase the risk of SSI. This study aims at identifying the associations of pre- and postoperative LOS in hospital and intensive care with the occurrence of SSI.; This observational cohort study includes general, orthopedic trauma and vascular surgery patients at two tertiary referral centers in Switzerland between February 2013 and August 2015. The outcome of interest was the 30-day SSI rate.; We included 4596 patients, 234 of whom (5.1%) experienced SSI. Being admitted at least 1äday before surgery compared to same-day surgery was associated with a significant increase in the odds of SSI in univariate analysis (OR 1.65, 95% CI 1.25-2.21,  $p < 0.001$ ). More than 1äday compared to 1äday of preoperative hospital stay did not further increase the odds of SSI (OR 1.08, 95% CI 0.77-1.50,  $p = 0.658$ ). Preoperative admission to an intensive care unit (ICU) increased the odds of SSI as compared to hospital admission outside of an ICU (OR 2.19, 95% CI 0.89-4.59,  $p = 0.057$ ). Adjusting for potential confounders in multivariable analysis weakened the effects of both preoperative admission to hospital (OR 1.38, 95% CI 0.99-1.93,  $p = 0.061$ ) and to the ICU (OR 1.89, 95% CI 0.73-4.24,  $p = 0.149$ ).; There was no significant independent association between preoperative length of stay and risk of SSI while SSI and postoperative LOS were significantly associated.

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