



## Perioperative Infection Rate After Minimally Invasive Lateral Lumbar Interbody Fusion

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### Introduction

Since originally described in 2003, the lateral retroperitoneal transpsoas approach has become popular as a minimally invasive alternative to lumbar interbody fusion. It has been proven that surgical site infections (SSI) are fewer in minimally invasive versus open techniques for posterior lumbar fusions. In this retrospective study, the authors examine the postoperative infection rate at a single academic institution following minimally invasive lateral lumbar interbody fusion (MIS LLIF).

### Methods

From 2008 to 2011, 425 adult patients at a single academic institution undergoing single and multi-level MIS LLIF for a variety of indications (trauma, degenerative, deformity) were evaluated retrospectively for rates of SSI using a database and medical records. All patients received prophylactic intravenous (IV) antibiotics (vancomycin and cefepime) within 30 minutes of incision, as well as for 24 hours after surgery. Patients were followed for evidence of surgical site infections related to the index procedure.

### Learning Objectives

By the conclusion of this session, participants should be able to:

1. Discuss the low infection rate associated with lateral lumbar inter body fusions
2. Compare their infection rates with TLIF or PLIF

### Results

Four hundred twenty five patients underwent a MIS LLIF procedure during the study period. Mean follow up was 14 months, ranging from 1-36 months. Only one patient (0.2%), who underwent a multi-segmental fusion for adult degenerative scoliosis, was identified as having a wound infection. During surgical exploration and debridement, it was determined to be superficial to the fascial plane. The patient was treated uneventfully with IV antibiotics for six weeks for management of a MRSA infection.

### Conclusions

MIS lateral interbody fusion is an excellent technique for achieving arthrodesis in the lumbar spine. We believe that if the correct precautions are taken, this procedure can be performed with minimal risk of surgical site infection (0.2%). Although not statistically significant because of the low number of patients, there does appear to be a correlation with risk of infection and number of levels fused.