

# How Does Case Type, Length of Stay, and Comorbidities Affect Medicare DRG Reimbursement for Minimally Invasive Surgery (MIS) for Deformity?

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## Introduction

We investigated Medicare DRG based reimbursement for MIS deformity procedures in our study group hospitals based on length of stay and presence of comorbid conditions (CC).

## Methods

DRG based reimbursement was obtained for MIS anterior, posterior and circumferential 1-level and multi-level fusion for listhesis and deformity cases with and without CC from 12 institutions throughout the US. The 3 most common MIS procedures were analyzed to compare reimbursement based on DRG coding: 1. Fusion via anterior or posterior only; 2. Fusion anterior with fixation posterior percutaneous (no dorsal fusion); 3. Fusion Combined anterior and posterior.

## Results

The number of levels fused does not affect the reimbursement for all cases. Cases 1 and 2 without CC, 3-day stay reimbursed \$41,404 vs 8-day stay reimbursed \$42,808. Cases 1 and 2 with CCs, 3-day stay reimbursed \$54,476 vs 8-day stay reimbursed \$55,881. Case 3 without CC, 3-day stay reimbursed \$47,992 vs 8-day stay reimbursed \$49,397. Case 3 with CC, 3-day reimbursed \$61,806 vs 8-day reimbursed \$63,212. The increased payment for an 8-day stay was \$1,405 or \$281 per day. If a deformity case 1 or 2 is coded incorrectly as a degenerative case the decrease in payment was \$9,769 lower (-24%) with no CC and \$22,841 lower (-42%) with CC.

## Conclusions

Regardless the direct costs, Medicare DRG based reimbursement was the same for single and multi-level MIS deformity cases. The use of posterior percutaneous fixation without dorsal fusion resulted in a 13-16% lower reimbursement compared with the addition of a posterior arthrodesis. Coding a deformity case as degenerative by the hospital resulted in 24-42% lower DRG based reimbursement. In today's challenging environment it is important that physicians and hospitals better understand

## Learning Objectives

1. Deformity coding was critical and resulted in reimbursement losses of 24% to 42% if not coded properly.
2. Case type, length of stay, and concomitant medical comorbidities effect hospital reimbursement in spinal deformity surgery for MIS deformity techniques.

## References

### Medicare DRG - Table 1.

Table 1. Comparison of Medicare Reimbursements for 3-Day and 8-Day Hospital Stay

Case Type	3-Day	8-Day	Increase from 3 to 8 Days
Cases 1&2	\$41,404	\$42,808	\$1,404
with CC	\$54,476	\$55,881	\$1,405
Cases 1&2 NOT coded as deformity	\$31,635	\$33,040	\$1,405
Case 3	\$47,992	\$49,397	\$1,405
with CC	\$61,806	\$63,212	\$1,406