Spine Surgery at an Ambulatory Surgery Center
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Purpose: The purpose of this paper is to ascertain whether spine surgery can be safely performed at an ambulatory surgery center (ASC). This question has important ramifications for providing quality spine surgery care at lower costs. Seven hundred and ten consecutive spine surgeries performed at an ASC from spring 2005 through 2008 were prospectively evaluated.

Materials and methods: All cases were evaluated with ODI, NDI and VAS values. The patients were evaluated at pre-op, three-month, six-month, one-year and often two-year follow-up. The analysis also included minutes in the operating room, recovery and convalescent center as well as patient satisfaction. This data will be presented. Insurance analysis of costs at an ASC vs. hospital was performed by an outside BCBS analysis. Surgery type and patient numbers are listed below.

Instrumented Spine Surgery
333 Patients
Anterior Cervical Fusion
1 Level: 108 Patients
2 Level: 82 Patients
3 Level: 3 Patients
Cervical Artificial Disc: 57 Patients
Lumbar Artificial Disc: 83 Patients

Non-Instrumented Spine Surgery 377 Patients
Lumbar microdiscectomies and/or nerve decompressions

In 193 anterior cervical fusion patients, there were no perioperative complications and no unplanned transfers with statistically significant improvement at two year follow up in NDI and VAS values (p < 0.01). Cervical artificial disc replacements were performed in 57 patients. There was statistically significant improvement in NDI and VAS at two-year follow-up to a p-value < 0.02. There were no perioperative complications and no unplanned transfers in these patients. Lumbar artificial disc replacements were performed in 83 patients. One patient had an unplanned hospital transfer. There was a statistically significant improvement in ODI and VAS to a p-value < 0.001 at two-year follow-up.

Non-instrumented spine surgery was performed in 377 patients. One patient had a perioperative complication. There were no unplanned transfers to the hospital. All of the patients undergoing an anterior cervical fusion, cervical and lumbar artificial disc replacement and non-instrumented lumbar spine surgery were released home within 24 hours of their surgery.

Outside insurance audits indicate a 60% cost savings when performing these procedures at an ASC versus a standard hospital setting. Patients reported a 97% satisfaction rate.

Conclusions: Prospective analysis of 710 spine cases at an ASC indicate anterior cervical fusion, lumbar nerve decompression, discectomy, lumbar and cervical artificial disc replacements can be safely performed with efficacy at an ASC.