excluded from the study. Statistical analysis was carried out with SPSS 14.0 for Windows. We created Kaplan-Meier survival curves (at 2170 days) and calculated chi-square values (Mantel-Cox log rank test). RESULTS: Altogether N = 3346 consecutive patients from the whole country were included into the study (mean age = 77.90 ± 8.458). A total of 2558 patients (mean age = 78.14 ± 8.410) had displaced while 788 patients (mean age = 77.14 ± 8.571) had non-displaced medial femoral neck fracture. One-way analysis of variance (ANOVA) showed significant difference in the mean age of the two groups of patients (F = 8.412, $p = 0.004$). Overall survival at 5 years follow up was 33.97 % for patients with displaced and 42.26 % for patients with non-displaced medial femoral neck fracture. Statistical analysis showed that type of fracture had a highly significant effect on mortality (log rank test 18.17, $df = 1$, $p < 0.001$). CONCLUSION: We found significant difference in survival of patients depending on the type of medial femoral neck fracture (displaced or non-displaced). Although survival is influenced by significant difference in the mean age of the two groups of patients, the type of fracture is important regarding survival.

OSTEOPOROSIS & INJURIES—Cost Studies

POI3

A COST-EFFECTIVENESS ANALYSIS OF RHBMP-2 IN SPINE FUSION SURGERY IN SWEDEN AND DENMARK

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OBJECTIVES: Chronic low-back pain related to osteoarthritic changes of the lumbar spine has a significant economic impact on health care budgets worldwide. Anterior-Lumbar-Interbody-Fusion (ALIF) surgery can be an effective treatment option after non-operative therapy fails. Frequently, the affected vertebrae are fused together using bone (autograft) from patient’s hip, which requires additional surgery and leads to increased co-morbidity, blood loss, infection rate, and pelvic instability. We assessed the cost-effectiveness of rhBMP-2 compared with autograft in spine fusion surgery over two years from both a health care payer’s and societal perspectives in Sweden and Denmark.

METHODS: An economic model was developed to evaluate differences in the two-year results between spine-fusion surgery with rhBMP-2 and fusion with bone autograft. The cost and health-related quality-of-life associated with both arms were estimated for two years after surgery. Data were obtained from a previously published analysis of pooled data, in which patients in the rhBMP-2 arm showed significant clinical improvements after surgery compared to standard therapy. Costs were obtained from NordDRG and DkDRG and are reported in 2005 values. RESULTS: In Sweden, from the health care payer’s perspective, using rhBMP-2 (€2800) lead to an incremental cost-effectiveness ratio (ICER) of €7311/QALY, whereas in Denmark, using rhBMP-2 (€3100) lead to an ICER of €10,475/QALY. Significant reduction in secondary interventions, and better fusion rates associated with rhBMP-2 treatment resulted in faster return to work and reduced productivity loss. Therefore, rhBMP-2 was a dominant treatment option from societal perspective in both countries. These savings offset the upfront cost of rhBMP-2 therapy. CONCLUSION: The standard use of rhBMP-2 in ALIF surgery is a cost-effective treatment option in Sweden and Denmark from the payer’s perspective and a cost-saving option from the societal perspective, both in Sweden and in Denmark.

OSTEOPOROSIS & INJURIES—Health Care Use & Policy Studies

POI5

INPATIENT COSTS AND OUTCOMES ASSOCIATED WITH TRAUMATIC INJURY IN THE UNITED STATES BY INJURY SEVERITY AND TRAUMA CENTER DESIGNATION

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OBJECTIVES: To generate national estimates of inpatient costs, length of stay (LOS), and probability of death in US hospitalizations for blunt or penetrating trauma, stratified by injury severity and trauma center designation of the admitting facility.

METHODS: Discharge data from the 2002 HCUP Nationwide Inpatient Sample were analyzed for 596,762 hospitalizations (unweighted n = 122,706) for blunt or penetrating trauma. An injury severity score (ISS) was calculated for each admission using the ICDMAP90 software package; mutually exclusive categories corresponding to increasing injury severity were identified. Data on admitting facilities’ trauma center designation were obtained from the American Hospital Association. Stays for patients either admitted from, or transferred to, another inpatient facility were excluded. Weighted estimates of costs, LOS, and probability of death were calculated for each stay.

RESULTS: Most admissions (64.3%) were for low severity injuries (ISS = 0–9); critical injuries (ISS ≥ 25+) represented 6.4% of admissions. More than half (54.5%) of all admissions were to non-trauma centers; Level I, II, and III/IV trauma centers represented 20.5%, 20.2%, and 4.1% of admissions, respectively. Overall, inpatient costs increased substantially with injury severity, ranging from $8806 for low severity admissions to $40,255 for critical admissions. LOS and probability of death also increased from low to critical injury severity (5.2 to 13.2 days, 2.4% to 28.3%, respectively). Costs, LOS, and probability of death decreased from Level I to III/IV trauma centers ($18,696 to $5924, 7.0 to 4.7 days, 5.7% to 3.2%, respectively); for non-trauma centers, these outcomes were $11,411, 6.4 days, and 4.4%, respectively. CONCLUSION: This is one of the first studies to quantify differences in inpatient costs and outcomes for traumatic injury across varying levels of injury severity and trauma center designation, in a multi-payer US population. Substantial variation within these characteristics was observed for all outcomes evaluated. Providers, payers, and other decision makers should be aware of these differences.

POI4

WITHDRAWN