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## ORIGINAL ARTICLES

- 399 Trends in Inpatient versus Outpatient Anterior Cervical Discectomy and Fusion in the United States of America: An Epidemiologic and Economic Analysis**  
FJR Pencle, S Rosas, NT Britton, EA Hothem, KR Chin, A Simela  
*Review of national trend in outpatient anterior cervical fusion showed an increase over four years. There was no correlation to reimbursements in data-base sample.*
- 404 Trends in Inpatient versus Outpatient Lumbar Microdiscectomy in the United States of America: An Epidemiologic and Economic Analysis**  
FJR Pencle, MD Brown, S Rosas, TY Law, I Onyekwelu, KR Chin, A Mesfin  
*This is a significant increase in outpatient microdiscectomy over the study period of seven years. This has been shown to be due to increase reimbursement.*
- 409 Body Mass Index and Smoking Status as Predictors Predictors of Progression to Surgery, Complications, and Postoperative Pain in Non-traumatic Back Pain Patients**  
KR Chin, AY Jorgensen, JR Eiszner, FJR Pencle  
*Positive smoking history leads to an increased risk of*

*patients with non-traumatic back pain progressing to surgery. Surgical patients also have a higher post-operative complication rate. Higher body mass index leads to an increased risk of complication and post-operative pain.*

- 416 Biomechanical Comparison of Same Size Transfacet Screws Versus Pedicle Screws Across the L5-S1 Native Disc**  
KR Chin, FJR Pencle, AGU Newcomb, MT Reis, PM Reyes, D Malhotra, WD Yu, CA Bruce, NR Crawford  
*The use of transfacet pedicle screws is a method for posterior fixation. Bilateral transfacet screws provided better immediate stability than equivalent-sized unilateral or a bilateral standard pedicle screws at L5-S1.*
- 424 Avoiding Transfusion in 700 consecutive Outpatient Spine Surgery Patients Using Less Exposure Surgery Techniques**  
FJR Pencle, NT Britton, CF Packer, JA Seale, KR Chin  
*Blood loss requiring the need for transfusion is a major potential in spine surgery. There is a need to decrease the risk of transfusion to transition to outpatient surgery. This study demonstrated that no patients required transfusion using several tips and techniques.*

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- 428 Transitioning Lumbar Fusions to Outpatient Using Midline Less Exposure Surgery Techniques with Transfacet and Mediolateral Cortical Bone Pedicle Screws**  
KR Chin, FJR Pencle, RM Harris II, JA Seale  
*The combined approach of unilateral pedicle screws plus contralateral facet screw has equivalent outcomes to bilateral traditional pedicle screw. This study demonstrates the feasibility of an alternative of posterior fixation.*
- 434 Are Lumbar Drains Necessary After Outpatient Lumbar Interbody Fusion Using Less Exposure Surgery Techniques?**  
KR Chin, FJR Pencle, AM O'Neill, KJ Conklin, MJ McGarry, JA Seale  
*The concerns of haematoma formation in posterior lumbar interbody fusion may be heightened in outpatient surgery. Innovative techniques for surgery have decreased the need for drains in outpatient single level posterior lumbar interbody fusion.*
- 440 Safety and Outcome of Outpatient 2-Level Hybrid Anterior Cervical Discectomy and Fusion plus Adjacent Total Disc Replacement**  
KR Chin, FJR Pencle, AV Coombs, JA Seale  
*Hybrid anterior cervical discectomy and fusion (ACDF) and total disc replacement (TDR) have been found to exhibit similar outcomes in the treatment of cervical spondylosis.*
- 445 Experience and Benefits of Using a Pre-drilled Screw Hole before Placing Anterior Cervical Plates in 330 Consecutive Patients during Anterior Cervical Discectomy and Fusion**  
KR Chin, FJR Pencle, AV Coombs, L Lendvai, JA Seale, VB Cumming, CA Bruce  
*The use of a pre-drilled pilot hole prior to anterior cervical plate placement decreases the size of the plate used. There is improved accuracy while placing the plate and it reduces adjacent segment encroachment.*
- 450 Incidence and Risk Analysis of Surgical Site Infection in Spine Surgery Patients in an Outpatient versus Hospital Cohort**  
KR Chin, FJR Pencle, CF Packer, NT Britton, AV Coombs, RF Douglas, JA Seale  
*A surgical site infection is a well-documented form of patient morbidity. A significant decrease was noted in an outpatient setting. Modifiable risk factors such as weight, smoking, alcohol use and numbers of levels necessary for operation should be considered.*