

and the overall level of patient satisfaction following wrist replacement was high. This study confirms encouraging short to medium term results following Universal-2 wrist replacement although longer term follow up is required.

0040: IMPROVING THE PREOPERATIVE CARE OF PATIENTS WITH FEMORAL NECK FRACTURES THROUGH THE DEVELOPMENT AND IMPLEMENTATION OF A CHECKLIST

Riaz Agha¹, Nigel Tapiwa Mabvuure², Christian Camm³, Eric Edison⁴.
¹Addenbrookes Hospital, Cambridge, UK; ²BSMS, Brighton, UK; ³Oxford University Medical School, Oxford, UK; ⁴University College London Medical School, London, UK.

Aim: To increase the performance of vital preoperative tasks, by senior house officers, in patients admitted for femoral neck fracture operations by producing and implementing a checklist as an aide memoir.

Methods: Twelve vital preoperative tasks were identified. A baseline audit of 10 random patients showed that the mean proportion of the 12 tasks completed was 53% (range 25%–83%). A survey of 14 nurses and surgeons found that the majority of respondents agreed that there was a problem with the performance of most of the tasks. The tasks were incorporated into a checklist which was refined in three plan-do-study-act cycles and introduced into the femoral neck fracture pathway.

Results: In the week following the introduction of the checklist, 77% of the checklist tasks were completed, 24% more than at the baseline audit (53%). In week 3, the completion of checklist tasks rose to 88% and to 95% in week 4.

Conclusions: A simple checklist can markedly improve the performance and recording of preoperative tasks. We recommend the wider adoption of the new checklist to be produced as a sticker for patients' medical records. Further study is required to ascertain the effect of the checklist on clinical outcomes.

0055: PRE-OPERATIVE ANAEMIA AND LENGTH OF HOSPITAL STAY FOLLOWING ELECTIVE TOTAL HIP REPLACEMENT AND TOTAL KNEE REPLACEMENT

Ariana Spungina Sunil. *The Queen Elizabeth Hospital King's Lynn NHS Trust, King's Lynn, Norfolk, UK.*

This was a retrospective case-control study to establish the effect of pre-operative anaemia on prolonged hospital stay following total hip replacement (THR) and total knee replacement (TKR).

188 consecutive cases of THR and TKR were selected from a theatre register. The following parameters were evaluated to assess impact on the length of hospital stay (LOS); patients' age, patients' gender, type of operation (THR or TKR) and pre-operative and post-operative haemoglobin (Hb).

Study population was divided by LOS (<=4 or >4 days) and characterised by Mann-Whitney U test and Chi-square test as appropriate.

The mean pre-operative Hb for patients who stayed 4 or fewer days was 13.56 g/dL (Standard deviation 1.23) whereas those who stayed longer than 4 days was 12.71 g/dL (Standard deviation 1.16) (p< 0.0001).

In univariate analysis, pre-operative Hb had a statistically significant influence on the length of hospital stay (OR 0.556; CI 0.42-0.734; p<0.0001). Further, after adjusting for age, gender and type of surgery, using multivariable regression analysis, pre-operative Hb still had a statistically significant influence on the length of hospital stay (Adj. OR 0.6; CI 0.443-0.811; p=0.001).

In conclusion, pre-operative Haemoglobin has a statistically significant influence on the length of hospital stay following THR and TKR.

0076: METAL ON METAL (MOM) HIP ARTHROPLASTY: ABDUCTION ANGLE, ARC OF COVER, AND METAL ION LEVELS: A SEVEN YEAR FOLLOW UP IN NORTHERN IRELAND

Nicholas Hodgins, Morgan Jones, Danny Acton. *Trauma & Orthopaedic Department – Altnagelvin Area Hospital, Londonderry, UK.*

The literature describes varied results of resurfacing procedures dependent upon implant type and position. In particular associations have been drawn between implant position, blood metal ion levels and implant failure rates.

Our study aimed to determine any correlation between metal ion levels, implant abduction angle, and arc of cover in a followed up patient cohort over seven years.

Data was collected on cobalt and chromium blood levels, implant abduction angles, and implant arcs of cover in patients who underwent MoM hip arthroplasty in our institution.

58 patients were identified. 48 underwent Birmingham hip resurfacing, 8 underwent total hip replacements, and 2 hip resurfacings underwent revision procedures to non metal on metal articulations. There was a significant correlation demonstrated between acetabular component abduction angle and blood metal ion levels in those patients undergoing hip resurfacing procedures.

Cobalt ion levels showed a stronger correlation with abduction angle than chromium ion levels. Whilst correlation approached significance there was not a statistically significant correlation between arc of cover and blood metal ion levels. Cobalt ion levels showed a stronger correlation with abduction angle than chromium ion levels.

In conclusion, metal ion levels in the blood show a significant correlation with acetabular component orientation.

0102: DOES OBESITY INCREASE THE RATE OF RECURRENT HERNIATED NUCLEUS PULPOSUS AFTER LUMBAR MICRODISCECTOMY?

Conal Quah, Grant Syme, Girish Swamy, Shashi Nanjayan, Andrew Fowler, Dennis Calthorpe. *Royal Derby Hospitals, Derby, UK.*

Introduction: Given the rising incidence of obesity in the adult population, it is inevitable that orthopaedic surgeons will be treating more obese patients with lumbar disc pathologies. The relationship between obesity and recurrent herniated nucleus pulposus (HNP) following microdiscectomy remains unclear.

Objectives: To investigate the relationship between obesity and recurrent herniation of nucleus pulposus (HNP) following lumbar microdiscectomy.
Methods: A retrospective review of case notes from 2008-2011, conducted for all patients that underwent one level lumbar microdiscectomy, performed by a single surgeon. The standard criteria for microdiscectomy was used. Patient demographics, including BMI, were collected from notes.

Results: A total of 283 patients were available for analysis: 190(67%) were in the non-obese group and 93 (32.9%) in the obese group. The average BMI was 28.1 and the average length of stay was 1.3days. Dural leak was seen in 11 patients(3.9%) out of which 8(4.2%) occurred in the non-obese group and 3(3.2%) in the obese group [p=0.04]. Recurrent symptomatic HNP was seen in 27(9.5%) patients confirmed by MRI scan. 19(10%) were in the non-obese group and 8(8.6%) in the obese group [p>0.8].

Conclusion: Obesity was not a predictor of recurrent HNP after lumbar microdiscectomy and did not have increased complication rates compared to the non-obese group.

0108: LONG TERM SURVIVORSHIP FOLLOWING SCORPIO TOTAL KNEE REPLACEMENT

Alexander Martin, Conal Quah, Grant Syme, Neil Segaren, Simon Pickering. *Royal Derby Hospital, Derby, UK.*

Introduction: The Scorpio total knee replacement (TKR) is one of the most commonly used prosthesis in the United Kingdom. Concern has arisen regarding an increase in revision rates. No other study has looked at the long term survivorship of this prosthesis.

Methods: This study population consisted of 456 consecutive patients who underwent a primary Scorpio TKR between 1998-2003 in a single institution. Patients underwent clinical, using WOMAC and Oxford Knee Score, and radiological evaluation. Survival analysis for the prosthesis was calculated using Kaplan-Meier curves, with revision as an end point.

Results: At an average of 12.5 years (range 10-14 years), 196 patients were available for review; 124 (27.2%) were lost to follow-up and 136 (29.8%) patients died of unrelated causes within the follow-up period. 7 (3.6%) patients required revision surgery at an average of 5.4 years; 5 because of aseptic loosening of the tibial component and 2 because of septic loosening. The cumulative survival for the prosthesis was 99.5% for any cause at 5 years and 97.4% at 14 years. The mean Oxford Knee Score and WOMAC score at final follow-up was 29 (12-58) and 74 (18.9-100) respectively.

Conclusion: The Scorpio TKR showed good long term survivorship and functional outcomes.