poorer outcomes. On this background, we sought to determine the epidemiology and management of emergency neurosurgical referrals in the elderly.

**Method**: Retrospective cohort observational study. The unit’s database collated patients referred to the on-call neurosurgical service over a five year period. Data was analysed with respect to age, diagnosis and initial management. Pearson’s coefficient and student’s t-test were used for statistical analysis.

**Result**: A total of 28178 referrals were made, with 8424 patients (29.9%) over 75. There was an increasing trend in total referrals (r = 0.92; p < 0.05), with no change in the proportion of elderly referrals. Trauma represented the most prevalent presentation in over 75% of patients. The majority of elderly referrals did not require further neurological involvement compared to younger patients (66.4% vs. 38.3%; p < 0.0001) and a small minority were accepted for emergency transfer (11.7% vs. 31.1%; p < 0.0001).

**Conclusion**: Emergency referrals in the elderly represent an increasing area of activity in proportion to an overall increasing referral base. As the majority of cases do not require transfer or follow-up, neurological on-call services are providing high levels of advice that is not formally recognised or remunerated.

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**0582: THE WIDE REACHING EFFECT OF INCREASING EMERGENCY THEATRE CAPACITY - THE IMPACT ON CHRONIC SUBDURAL HAEATOMA PATIENT PATHWAY**

A. Vusirikala*, L. Livermore, S. Bojanic. Department of Neurosurgery, John Radcliffe Hospital, Oxford, UK.

**Aim**: To investigate the impact of additional emergency theatre capacity on the pathway of chronic subdural haematoma (CSDH) patients with specific reference to time from admission to surgery, length of stay and time from surgery to discharge.

**Method**: A retrospective review of all patients undergoing surgery for CSDH in five month periods pre-implementation (1/8/13 to 31/12/13; n = 48) and post-implementation (1/5/14 to 30/9/14; n = 65) of additional in-hours emergency theatre capacity.

**Result**: After the reallocation of up to 25% of elective operating time to emergency theatre time, the department’s in-hours emergency theatre capacity increased from 22 emergency lists pre-implementation to 65 lists post-implementation. The mean length of stay in CSDH patients decreased from 10.0 to 8.7 days and the time from admission to surgery decreased from 2.7 to 2.0 days. There was also a reduction in the time from surgery to discharge from 7.2 to 6.8 days. Despite these findings, there was an increase in the percentage of CSDH operations undertaken out-of-hours (56% pre-implementation, 60% post-implementation).

**Conclusion**: The introduction of additional emergency theatre capacity has a wide reaching effect on the overall patient flow within a department even if these patients are not having their CSDH evacuations on these additional lists.

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**0724: NEUROSURGICAL OPERATION THEATRE UTILIZATION AND EFFICIENCY: A RETROSPECTIVE AUDIT**

F. Sharouf*, A. Baig, L. Bhatti, M. Zaben. University Hospital of Wales, Cardiff, UK.

**Aim**: In neurosurgery as in many other surgical subspecialties, much emphasis has recently been placed on theatre cancellation and time utilisation as a key hospital management performance indicator. We sought to audit theatre utilisation time and determine the causes of elective cancellation in our unit.

**Method**: We retrospectively audited all scheduled elective neurosurgical procedures over a period of 9 months. Data collected included included start time, transit time, anesthesia induction time, surgical preparation time, closing time, the number of planned, performed and cancelled procedures.

**Result**: Mean operating times of cranial and spinal procedure were 131, 130 minutes respectively. Theatre utilisation time dropped from 47.0 ± 2.4% to 38.6 ± 3.0% when theatre started late, improved to 70.8 ± 7.0% after 6 p.m. (p < 0.01). The common causes of cancellations were lack of theatre time (32%), non-availability of beds in recovery room (18.6%), unavailability of staff (4.6%), and insufficient preoperative patient preparation (5.5%).

**Conclusion**: Our theatre utilisation time is consistent with the available literature. Fifth of theatre cancellations were preventable. A pre-assessment clinic has been introduced. A newly appointed theatre manager has started looking into efficient theatre list scheduling and staffing issues. Will re-audit in 6 months.

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**0781: PATIENT-REPORTED HEALTH-RELATED QUALITY OF LIFE IN ADULTS WITH DIFFUSE LOW-GRADE GLIOMA: A SYSTEMATIC REVIEW**

D.M. Fountain*, D. Allen*, A.J. Joannides1, D. Nandi1, T. Santarius2, A. Chari4,1 School of Clinical Medicine, University of Cambridge, Cambridge, UK; 2 Imperial College School of Medicine, London, UK; 3 Department of Clinical Neurosciences, University of Cambridge, Cambridge, UK; 4 Department of Neurosurgery, Imperial College Healthcare NHS Trust, London, UK; 5 Department of Neurosurgery, Cambridge University Hospitals NHS Foundation Trust, Cambridge, UK.

**Aim**: Patient-reported health-related quality of life (HRQoL) analysis of patients with diffuse low-grade glioma (DLGG) provides important information for managing the balance between treatment interventions and treatment-related effects on quality of life.

**Method**: This systematic review, conducted according to PRISMA guidelines, sought to identify the range of HRQoL measures used, assess the quality of HRQoL reporting and perform pooled analyses to identify the effect of interventions and long-term follow-up HRQoL in patients with DLGG.

**Result**: The 26 accepted studies provided a total sample of 2,636 patients. Mean age was 41.4 years (58.9% male). Low rates of participation (mean 64.0%, range 32.7–95.3%), high rates of dropout (mean 26.0%, range 0–51.2%), and eleven different HRQoL measures were identified. Quantitative synthesis was performed on studies evaluating the effect of temozolomide chemotherapy (n = 3, EORTC QLQ-C30 data) and long-term follow-up (n = 5, EORTC QLQ-BN20 and SF-36 data), showing dispropor- tionately impaired role functioning relative to physical functioning over time. International Society for Quality of Life Research scores ranged from 20% to 94% (mean 60%).

**Conclusion**: The results demonstrate a paucity and heterogeneity of HRQoL data in the DLGG literature, highlighting the need for a standardised schedule and set of quality of life measures for future studies.

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**0788: ENHANCED NEUROSURGICAL SIMULATION**

A. Williams*, B. Green*, P. Whitfield1, Frenchay Hospital, Bristol, UK; 2 Torbay Hospital, Torquay, UK; 3 Derriford Hospital, Plymouth, UK.

**Background**: The South-West neurosurgery rotation does not provide formalised simulation. Therefore, a free, trainee-designed with awareness of the ISCP curriculum, co-ordinated neurosurgery simulation day was developed with consultant delivery and industry support. It was designed to teach areas not covered by the national Neurosurgery boot camp week.

**Method**: The neurosurgery simulation course was run over a single day. This allowed for the development of safe practice in the use of surgical instruments. There was also the ground-breaking use of 3D microscopes and Televisions to enhance simulation.

**Result**: All 11 participants completed the questionnaire. 8/11 (72%) of the participants rated the amount of content presented highly. 100% of the participants felt that the location used was more than adequate. 10/11 (90%) felt that the content was relevant to their clinical practice with 81%