



## C0152 - IN WHICH PATIENTS IS EMERGENCY NEUROSURGICAL INTERVENTION FUTILE?

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### Resumen

**Objectives:** A proportion of patients referred to the emergency neurosurgical service are not candidates for any intervention on grounds of futility. This study seeks to study the characteristics of these patients including the extent of neurological injury, clinical status, co-morbidities and pre-morbid function.

**Methods:** Retrospective study of all patients referred to the on-call neurosurgery registrar over a 12 month period (September 2014 to August 2015) in whom neurosurgical intervention was deemed futile.

**Results:** 150 patients were identified, representing 2.1% of all emergency referrals, most of who were referred by emergency departments (85%). Mean age of patients was 73 (range 16-94). Diagnoses included trauma (31%), spontaneous intracerebral haemorrhage (47%), subarachnoid haemorrhage (10%) and ischaemic stroke (6%). Cardiorespiratory arrest had occurred in 9%. Mode Glasgow Coma Score on referral was 3 (range 3-9, mean 4.5). Unreactive pupils were documented in 81%. Co-morbidities in referred patients included active cancers (10%), dementia (12%), cerebrovascular disease (13%), chronic kidney disease (5%) and ischaemic heart disease (9%). A significant proportion of patients had been taking anticoagulant (19%) and antiplatelet therapy (22%). Frailty or non-independent functional status was documented in 20%. Quality of documentation, including clinical reasons why intervention was considered futile, was to a satisfactory standard in 84% and all cases had been discussed with a Consultant Neurosurgeon. Only in 14% was re-referral suggested should the patient improve clinically and these included the majority of patients with poor grade subarachnoid haemorrhage.

**Conclusions:** This study describes the profile of patients in whom emergency neurosurgical intervention is deemed futile and not in the patients' best interests. As such, an understanding of these patients may lead to better informed decision making by the on-call neurosurgical registrar.