



## Introduction

Neurosurgical emergencies constitute approximately 18% of all hospital admissions in the developed world. Less than 0.3% of the medical school curriculum is reserved for neurosurgical education. The relatively high incidence of morbidity and mortality of neurosurgical disease necessitates a focus on neurosurgery as an essential facet of medical training. The purpose of this study was to prospectively assess the base level of neurosurgical knowledge in interns from multiple countries and determine if any correlation between length of the neurosurgical curriculum and tests scores exist.

## Methods

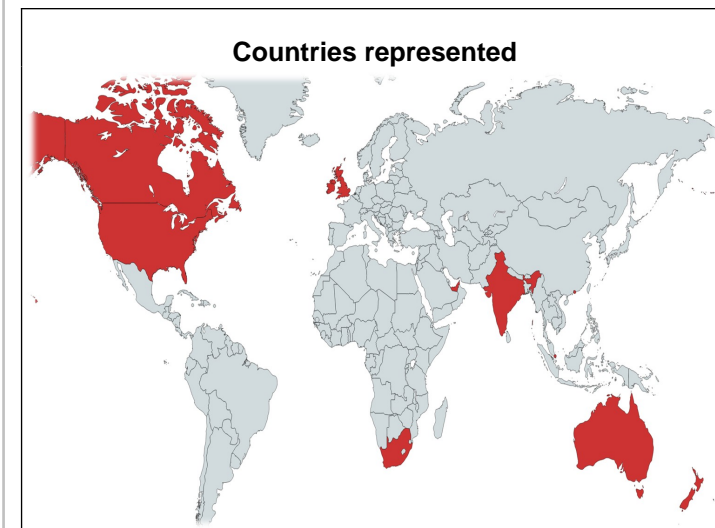
A standardized 10-question multiple-choice examination was conducted with medical interns in several countries. . Anatomy, physiology, image interpretation and clinical based scenarios were tested. Examinations were performed in a simulated environment, and the scores calculated. Interns were classified into groups based on their current hospital, year of graduation, university attended, length of neurosurgical rotations at their institutions and previous neurosurgical experience. A statistical analysis was performed comparing examination scores to curriculum length.

## Results

767 interns from 11 countries and 57 universities participated in the study. The mean length of their neurosurgical curriculum was 2.2 weeks. The mean score achieved in the examination was 42%. 325 (42.3%) interns had an examination score of less than 50% and no intern scored 100%. Statistical analysis indicated that longer neurosurgery curricula (minimum of six weeks) were associated with higher test scores ( $p < 0.001$ ).

## Conclusions

The performance in a cross-geography standardized test revealed that intern performance correlates with length of neurosurgical training during undergraduate studies. A high percentage (42%) of interns failed the test. Consideration should be given to lengthening the neurosurgical curricula or changing tuition methods to ensure higher levels of competency.



**Linear Regression Curve - Demonstrating relationship between length of curriculum and test score**

