

Preoperative screening for coagulopathy in elective neurosurgical patients in Wellington Regional Hospital and survey of practice across Australia and New Zealand

CCDHB

Article Summary :

This project assessed current practice relating to screening for coagulopathy in elective neurosurgery patients locally and across Australasia. Literature search and local audit did not support current practice of using routine INR and aPTT. We propose testing based on a structured questionnaire.

Detail Content :

It is common practice to perform pre-operative coagulation screening in elective neurosurgery patients, including international normalised ratio (INR) and activated partial thromboplastin time (aPTT). We present a retrospective analysis of 1143 elective neurosurgical patients at Wellington Regional Hospital (WRH) in New Zealand between 2013 and 2017 on whom coagulation screening including INR and aPTT was performed prior to surgery. 21 patients (1.8%) had clinically significant derangements on coagulation profile defined as raised INR or prolonged aPTT. 15 (1.3%) of these patients would be expected to have derangement based on previous history and 6 (0.5%) had unexpected derangements in coagulation profile. Of the 6 patients with unexpected derangements in coagulation profile, all had raised aPTT, none had preoperative correction of coagulopathy and none had bleeding complications or mortality. The cost of coagulation screening across the duration of the study was \$68,009 New Zealand Dollars (NZD). A survey of major elective neurosurgery units in Australia and New Zealand found that 85% perform routine laboratory coagulation screening. In the 15% who do not perform laboratory coagulation screening, none use a standardised questionnaire to screen for coagulopathy. We developed a structured questionnaire to assist in detection of coagulopathy in elective neurosurgery patients. Our findings suggest that there is limited value in performing indiscriminate laboratory coagulation screening in patients with no risk factors on history. Despite this, routine laboratory coagulation screening is common practice in Australia and New Zealand. We propose a structured questionnaire to guide laboratory testing and discussions with haematology colleagues.