

Title: Clinical profile of patients admitted to acute stroke units

Objective: To characterize patients admitted to stroke units through "via verde AVC" pathway

Methods: Observational, descriptive and prospective study conducted in 5 stroke units (SU) of 4 teaching hospitals and 1 central hospital of the center and northern regions of Portugal, over a 15-month period (from February 2018 to April 2019). This is a part of a larger study aiming to validate a dysphagia screening tool for nurses. Age, gender, stroke type and lesion location, therapeutic decision (fibrinolytic or endovascular), relevant clinical history, Glasgow Coma Scale (GCS) score and National Institute of Health Stroke Scale (NIHSS) score data were collected to first time stroke patients. Data were analysed using SPSS version 25.0.

Results: From a cohort of 226 patients, 51% were male (115) and the mean age was 69.4 ± 14.2 years, ranging from 24 to 98. Concerning stroke type, 83% (187) were ischemic strokes and the most frequent lesion location was the middle cerebral artery (109). Location was confirmed by neuroimaging. Ninety nine were right lesions and 106 left. The most frequent risk factors overall were hypertension (140) and dyslipidemia (98). Fifty one patients had history of diabetes, 37 smoking and 34 a history of alcohol abuse. Regarding the GCS score, 0.9% were classified as severe (sum score <8), with the lowest score as four; 10.2% moderate (sum score 9-12) and 88.9% mild (13-15). Of these, one hundred and fifty patients had a score of 15. As to NIHSS, the stroke-related neurologic deficit was severe in 4% of the patients (sum score 21-42), with the highest score of 25, moderate to severe in 10.2% (sum score 16-20), moderate in 39.4% (sum score 5-15), minor stroke in 32.3% (sum score 1-4) and 6.2% had no stroke symptoms (score 0). NIHSS score was not recorded in 18 patients. About therapeutic decision, 91 patients underwent reperfusion treatment: 31 were submitted to both thrombolysis and thrombectomy, other 36 patients to thrombolysis and 24 to thrombectomy.

Discussion: "Via verde AVC" is a clinical pathway that aims to obviate any situation that causes delays in the access of the person with suspected stroke, from house door or from any other place to the door of the appropriate health unit and from there until the beginning of the appropriate treatment, improving door to needle time. From the 187 patients with ischemic stroke, 48% were submitted to reperfusion therapy, which is higher than the last available data from the Portuguese health department (43% in 2014), probably pointing to the fact that the access to these treatments is increasing in Portugal. Most patients admitted to SU had mild to moderate strokes, according to NIHSS score and GCS, which can also suggest that reperfusion therapy was effective, increasing the likelihood of disability-free recovery after acute ischemic stroke. About location, middle cerebral artery was the most affected, which is line with available data. Risk factors of this cohort of patients are also in line with the available evidence, reinforcing the need for health providers to educate on healthy lifestyles and stroke modifiable risk factors, where nurses play a dynamic and crucial key role, for they are often the frontline of healthcare.