Europe

Europe is a diverse continent with a population of nearly 750 million living in over 40 countries.Healthcare in Europe is provided by a wide range of systems run at national levels with a state-run system being the prevailing model. Specialist training in neurosurgery varies across the continent. In many countries, entry into a specialist training programme is a competitive process that follows award of a medical degree. In other countries, foundation (internship) and basic surgical experience is first required, providing a platform for further learning. The duration of training varies and there is no unifying curriculum. The requirements for certification, or licensing, differ from one country to another and there are variations in the levels of operative experience between trainees [1)]

Considering the European centers, recent surveys among neurosurgical residents report very low satisfaction rates for the theoretical and practical aspects of training in some countries [2)]

Another survey demonstrated a large variation in the number of critical care beds across countries. Moreover, no clear central policies to facilitate planning to meet the demand and optimal utilization in the future exist [3)].

History

see Neurosurgery History in Europe.

Hospitals

Austria

Belgium

Bulgaria

Croatia

Cyprus

Czech Republic

Denmark

Estonia

Finland

France

Germany

Greece

Hungary

Ireland

Italy

Latvia

Lithuania

Luxembourg

Malta

Netherlands

Poland

Portugal

Romania

Slovakia

Slovenia

Spain

Sweden

United Kingdom

Societies

see European Association of Neurosurgical Societies.

see European Board Examination in Neurosurgery.

Neurosurgical training

see Neurosurgical Training in Europe

The aim of study was to describe current approaches and to quantify variability between European intensive care units (ICU)s in patients with traumatic brain injury (TBI). Therefore, Huijben et al. conducted a provider profiling survey as part of the 'Collaborative European NeuroTrauma Effectiveness Research in Traumatic Brain Injury' (CENTER-TBI) study. The ICU Questionnaire was sent

to 68 centers from 20 countries across Europe and Israel. For this study, they used ICU questions focused on 1) hemoglobin target level (Hb-TL), 2) coagulation management, and 3) deep venous thrombosis (DVT) prophylaxis. Sixty-six centers completed the ICU questionnaire. For ICU-patients, half of the centers (N= 34; 52%) had a defined Hb-TL in their protocol. For patients with TBI, 26 centers (41%) indicated a Hb-TL between 70 and 90 g/l and 38 centers (59%) above 90 g/l. To treat trauma related hemostatic abnormalities the use of fresh frozen plasma (N= 48; 73%) or platelets (N= 34; 52%) was most often reported, followed by the supplementation of vitamin K (N= 26; 39%). Most centers reported using DVT prophylaxis with anticoagulants frequently or always (N= 62; 94%). In the absence of hemorrhagic brain lesions, 14 centers (21%) delayed DVT prophylaxis until 72 hours after trauma. If hemorrhagic brain lesions were present, the number of centers delaying DVT prophylaxis for 72 hours increased to 29 (46%). Overall, a lack of consensus exists between European ICUs on blood transfusion and coagulation management. The results provide a baseline for the CENTER-TBI study and the large between-center variation indicates multiple opportunities for comparative effectiveness research [4].

1)
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2)
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3)
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4)
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