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On the Horizon



András Büki, M.D., Ph.D., professor and chair of the Department of Neurology at the University of Pécs, Hungary

The Path to Personalized **TBI Care**

Establishing those standardized diagnostic and treatment protocols for TBI is a major thrust of the research underway by András Büki, M.D., Ph.D., professor and chair of the Department of Neurology at the University of Pécs, Hungary. He cites the continuing use of protocols developed in the 1990's as one major problem.

"Some of the guidelines may still hold true in 2014," states Dr. Büki, and some not. It's the best we can do now, but we need more. Far more. The current onesize-fits-all protocols have to be redefined. You cannot apply the same treatment to every patient who is head-injured. We must provide customized, individualized therapy after understanding what's going on in the patient's brain, and what the danger factors are for that particular patient."

Dr. Büki is responsible for the biomarker component of an ambitious research collaboration involving more than twenty European countries. The CENTER TBI program, funded by the FP-7 framework program of the European Commission and closely connected to the U.S. Track TBI initiative, will study more than 20,000 patients in more than 60 medical centers over seven years, to more accurately describe and characterize traumatic brain injury.

"It's a complex study," he explains, "collecting not only the clinical data and the history of the patient, but also blood samples for biomarker and genetic analysis, and MR images. Very importantly, this trial is designed to override the usual and, we believe, outdated classifications of traumatic injurv states as mild, moderate and severe. We are realizing more and more that there is no head injury without any consequence, particularly in the case of repeat head injuries. Even mild traumatic brain injury is not without consequences.

"My primary vision for the future is that we will change the way we describe TBI. We will have a more detailed understanding of the disease so that when a patient comes into the ER we will be able to define the individual trauma picture of this patient, including genetics, biomarkers, imaging, clinical pattern of injury, and so on. And on the basis of this we will select individualized treatment protocol for the acute, subacute and chronic phase for that patient and also for the follow-up. We will be smarter in our treatment of TBL"