**Variable Knowledge, Use and Perceptions of the IMPACT Model among Physicians during Prognostication Meetings for Critically-ill Traumatic Brain Injury Patients – Results from a Qualitative Study**

Jesse Moskowitz, BS1;Thomas Quinn, BS1; Muhammad W. Khan, MBBS1, Lori Shutter, MD2; Robert Goldberg, PhD3; Nananda Col, MD, MPP, MPH4; Kathleen M. Mazor, EdD5,6; Susanne Muehlschlegel, MD,MPH1,7,8

1Departments of Neurology (Neurocritical Care), University of Massachusetts Medical School; 2Departments of Critical Care Medicine and Neurology, University of Pittsburgh School of Medicine, Pittsburgh, PA; 3Department of Quantitative Health Sciences, University of Massachusetts Medical School; 4Shared Decision Making Resources, Georgetown, ME; 5Meyers Primary Care Institute, 6Internal Medicine, 7Anesthesiology/Critical Care and 8Surgery, University of Massachusetts Medical School

**Introduction:** The International Patient Decision Aid Standards, a framework for the creation of high-quality decision aids, calls for the presentation of probabilities. To inform the content of a goals-of-care decision aid in critically-ill TBI (ciTBI) patients, we examined physician’s awareness, perceptions, and use of the IMPACT-model, the most widely validated ciTBI outcome model, and explored their preferences for communicating prognostic information towards families.

**Methods:** We conducted a qualitative study using semi-structured interviews in 20 attending physicians (neurocritical care, neurosurgery, trauma, palliative care) at 7 U.S. academic medical centers. We useddescriptive statistics and performed qualitative content analysis of transcribed interviews to identify major themes.

**Results:** Only 12 physicians (60%) expressed awareness of the IMPACT-model; two stated that they “barely” knew the model. Seven physicians indicated using the model at least some of the time in clinical practice, although none used it exclusively to derive a patient’s prognosis. Four major themes emerged: the IMPACT-model is intended for research but should not be applied to individual patients; mistrust in the IMPACT-model derivation data; the IMPACT-model is helpful in reducing prognostic variability among physicians; concern that statistical models may mislead families about a patient’s prognosis.

**Conclusions**: We identified substantial variability in the awareness of, use, and attitude toward the IMPACT model among physicians. Understanding knowledge, use, and barriers to using existing models, like IMPACT, is vital for creating and implementing a meaningful shared decision-making tool to improve goals-of-care discussions.

**Contact:**

Jesse Moskowitz

University of Massachusetts Medical School

MD Candidate ~ Class of 2018

[Jesse.moskowitz@umassmed.edu](mailto:Jesse.moskowitz@umassmed.edu)