Objectives: To investigate recovery of medical decision-making capacity (MDC) over 12 months in persons with traumatic brain injury (TBI). Method: In total, 133 participants (84 TBI and 49 healthy controls) were recruited from an inpatient TBI rehabilitation unit and outpatient neurology department. Participants with TBI were stratified by injury severity: mild TBI (mTBI; n = 26), complicated-mild TBI (cmTBI; n = 17), and moderate/severe TBI (msevTBI; n = 41). Control and patient groups were compared at baseline (t1), 6 months (t2), and 12 months (t3) post-injury using the Capacity to Consent to Treatment Instrument (CCTI), which evaluates MDC performance on several consent standards including Appreciation, Reasoning, and Understanding.

Results: Patients with msevTBI performed significantly poorer than all other study groups on Understanding and Reasoning at all three time points and Appreciation at t1 and t2. For patients with mTBI and cmTBI, Understanding was poorer than controls at t1, but not at t2 or t3. Across all TBI groups, the most substantial improvement on the CCTI occurred over the first 6 months, with minimal to no improvement between months 6 and 12. Control performance was stable across time on the consent standards.

Conclusion: TBI has a dramatic impact on a patient’s ability to make sound medical decisions. Improvements in MDC do occur but only in the first 6 months following injury. For patients with msevTBI, particular attention should be paid to their ability to make sound medical decisions as this severity of TBI appears to greatly affect MDC and be less amenable to recovery.