

Module 1. Common Data Elements (CDEs) for Preclinical TBI Research		
<u>Animal Characteristics</u>	<u>Animal History</u>	<u>Assessments and Outcomes</u>
Species	Pre-injury subject housing	Outcome timing
Birthdate	Pre-injury conditions	Assessment date and time
Age	Pre-injury surgical procedures	Acute neurological assessment
Age group	Injury group	Apnea indicator
Sex	Injury date and time	Apnea duration
Animal vendor	Anesthetic type	Righting response time
Strain/genetic modifications	Anesthetic route	Toe pinch response
Weight measurement	Anesthesia duration	Acute physiological assessments
	Analgesia type	Brain imaging type
<u>Injury Model Characteristics</u>	Injury severity	Chronic physiologic assessments
External cause modeled	Number of injury exposures	Memory/retention tests
Injury model	Interval between injuries	Learning/acquisition tests
Device manufacturer	Post-injury surgical procedures	Sensory/motor tests
Device manufacturer other text	Post-injury conditions	Anxiety tests
Animal stabilization method	Post-injury subject housing	Social interaction tests
Impact location side	Treatment group	Body weight change
Impact location cortical region	Treatment onset	Histopathology
Impact location coordinates	Drug treatment route	
	Treatment or therapy type	
	Treatment control	
	Treatment dose	
	Survival time	
	Euthanasia date and time	
	Euthanasia type	
Module 2. Controlled Cortical Injury (CCI) Relevant Data Elements		
Invasive surgery	Impactor tip/projectile shape	Impactor dwell time
Craniotomy size	Impactor tip rigidity	Impactor velocity
Impactor angle	Impactor depth setting	Surface material
Impactor angle measurement		
Module 3. Fluid Percussion Injury (FP) Relevant Data Elements		
Craniotomy size	Connector tube material	Cap characteristics
Connector angle	Port distal diameter	Peak pressure pulse
Connector tube	Cement	Pressure wave duration
Connector tube length	Transducer manufacturer	
Module 4. Weight Drop Injury (WD) Relevant Data Elements		
Invasive surgery	Weight drop height	Impactor retraction
Surface material	Weight drop guidance	WD-specific pre-injury surgical procedures
Craniotomy size	Weight drop characteristics	WD-specific post-injury surgical procedures
Impactor/projectile mass	Impactor velocity	
Impactor/projectile material	Contact surface type	
Impactor tip/projectile shape	Contact surface area	
Impactor tip rigidity	Impactor dwell time	
Module 5. Blast-Induced Neurotrauma (BIN) Relevant Data Elements		
Blast-induced delivery device	Distance between animal and tube	Reflective surfaces
Pressure wave type	Animal orientation to blast wave	Primary blast effects
Detonation type	Overpressure peak	Secondary blast effects type
Detonation material quantity	Overpressure rise time	Secondary blast effects specifications
Driver gas	Overpressure wave duration	Tertiary blast effects
Pressure wave medium	Impulse	Tertiary blast effects specifications
Distance from detonation	Reflective wave overpressure	Quaternary blast effects
Blast tube or column area	Blast wind pressure	Systemic injury
Blast tube length	Pressure sensor orientation	Extracranial injuries
Shock tube driven section length	Pressure sensor type	BIN-specific pre-injury surgical procedures
Membrane thickness	Pressure sensor sampling frequency	BIN-specific post-injury surgical procedures
Membrane burst method	Incident pressure time history	
Membrane burst pressure	Body exposure	
Tube end configuration	Protective shielding location	
Placement relative to shock tube	Protective shielding type	

Module 6. Penetrating Ballistic like Brain Injury (PBBI) Relevant Data Elements		
Craniotomy size	Impactor tip/projectile shape	Cap characteristics
PBBI probe	Impactor tip rigidity	Peak pressure pulse
PBBI orientation	Impactor depth setting	Pressure wave duration
Balloon inflation diameter	Connector tube length	PBBI-specific pre-injury surgical procedures
Balloon inflation volume	Connector tube material	
Balloon life span	Port distal diameter	PBBI-specific post-injury surgical procedures
Brain cavity volume	Cement	
Module 7. Projectile Concussive Impact (PCI) Model Relevant Data Elements		
Projectile driver mechanism	Impactor/projectile mass	Contact pressure
Impactor/projectile material	Impactor tip/projectile shape	PCI-specific pre-injury surgical procedures
Impact distance	Peak pressure sensor film	
Projectile velocity	Contact surface type	PCI-specific post-injury surgical procedures
Helmet	Contact surface area	
Module 8. Intracranial Hemorrhage (ICH) and Subdural/Subarachnoid Hemorrhage (SD/SAH) Relevant Data Elements		
Hemorrhage cause	Injection material	ICH-specific pre-injury surgical procedures
Hemorrhage intended compartment	Hemorrhage volume	
Hemorrhage intended side	Injection duration	ICH-specific post-injury surgical procedures
Hemorrhage actual location	Peak intracranial pressure	
Hemorrhage actual side		
Module 9. Increased Intracranial Pressure (ICP) Model Relevant Data Elements		
Intracranial pressure elevation-specific surgical procedures	Increased pressure maneuver duration	Peak intracranial pressure
Module 10. Porcine Rotational Acceleration Model Relevant Data Elements		
Rotational plane	Peak angular velocity	Peak angular deceleration
Rotational motion duration	Peak angular acceleration	Angular motion range