

eTable 1. Search strategy for the Excerpta Medica dataBASE (EMBASE)

EMBASE SEARCH STRATEGY
<p>Traumatic brain injury</p> <p>1. (('brain injury':ti,ab OR 'brain injuries':ti,ab OR 'brain injured':ti,ab OR 'brain injure':ti,ab OR 'brain injures':ti,ab OR 'brain trauma':ti,ab OR 'brain traumas':ti,ab OR 'brain traumatic':ti,ab OR brain:ti,ab OR brain:ti,ab OR</p> <p>'mild traumatic brain injury':ti,ab OR 'mild traumatic brain injure':ti,ab OR 'mild traumatic brain injured':ti,ab OR 'mild traumatic brain injures':ti,ab OR 'mild traumatic brain injuries':ti,ab OR 'minor traumatic brain injury':ti,ab OR 'minor traumatic brain injure':ti,ab OR 'minor traumatic brain injured':ti,ab OR 'minor traumatic brain injures':ti,ab OR 'minor traumatic brain injuries':ti,ab OR 'minimal traumatic brain injury':ti,ab OR 'minimal traumatic brain injure':ti,ab OR 'minimal traumatic brain injured':ti,ab OR 'minimal traumatic brain injures':ti,ab OR 'minimal traumatic brain injuries':ti,ab OR mtbi:ti,ab OR 'minor head trauma':ti,ab OR 'minor head traumas':ti,ab OR 'minor head traumatic':ti,ab OR 'minimal head trauma':ti,ab OR 'minimal head traumas':ti,ab OR 'minimal head traumatic':ti,ab OR concussion*:ti,ab OR 'brain concussion'/exp OR 'brain concussions'/exp OR contusions:ti,ab OR contusions/exp OR 'brain contusion'/exp OR</p> <p>'brains injury':ti,ab OR 'brains injuries':ti,ab OR 'brains injured':ti,ab OR 'brains injure':ti,ab OR 'brains injures':ti,ab OR 'brains trauma':ti,ab OR 'brains traumas':ti,ab OR 'brains traumatic':ti,ab OR brains:ti,ab OR brains:ti,ab OR</p> <p>'brainstem injury':ti,ab OR 'brainstem injuries':ti,ab OR 'brainstem injured':ti,ab OR 'brainstem injure':ti,ab OR 'brainstem injures':ti,ab OR 'brainstem trauma':ti,ab OR 'brainstem traumas':ti,ab OR 'brainstem traumatic':ti,ab OR brainstem:ti,ab OR brainstem:ti,ab OR</p> <p>'head injury':ti,ab OR 'head injuries':ti,ab OR 'head injured':ti,ab OR 'head injure':ti,ab OR 'head injures':ti,ab OR 'head trauma':ti,ab OR 'head traumas':ti,ab OR 'head traumatic':ti,ab OR head:ti,ab OR head/exp OR</p> <p>heads:ti,ab OR 'heads injuries':ti,ab OR 'heads injured':ti,ab OR 'heads injure':ti,ab OR 'heads injures':ti,ab OR 'heads trauma':ti,ab OR 'heads traumas':ti,ab OR 'heads traumatic':ti,ab OR 'heads':ti,ab OR heads:ti,ab OR</p> <p>'Brain edema'/exp OR 'Brain edema':ti,ab OR 'Brain swelling':ti,ab OR 'cerebral edema':ti,ab OR 'intracranial edema':ti,ab OR 'Hematoma'/exp OR Hematoma:ti,ab OR Haematoma:ti,ab OR 'brain hematoma'/exp OR 'Hemorrhage'/exp OR Hemorrhage:ti,ab OR Haemorrhage:ti,ab OR 'subarachnoid hemorrhage'/exp OR 'brain hemorrhage'/exp OR 'brain ventricle hemorrhage'/exp OR</p> <p>'craniocerebral injury':ti,ab OR 'craniocerebral injuries':ti,ab OR 'craniocerebral injured':ti,ab OR 'craniocerebral injure':ti,ab OR 'craniocerebral injures':ti,ab OR 'craniocerebral trauma':ti,ab OR 'craniocerebral traumas':ti,ab OR 'craniocerebral traumatic':ti,ab OR craniocerebral:ti,ab OR craniocerebral*:ti,ab OR</p> <p>'intracranial injury':ti,ab OR 'intracranial injuries':ti,ab OR 'intracranial injured':ti,ab OR 'intracranial injure':ti,ab OR 'intracranial injures':ti,ab OR 'intracranial trauma':ti,ab OR 'intracranial traumas':ti,ab OR 'intracranial traumatic':ti,ab OR intracranial:ti,ab OR intracrani*:ti,ab OR</p> <p>'intra-cranial injury':ti,ab OR 'intra-cranial injuries':ti,ab OR 'intra-cranial injured':ti,ab OR 'intra-cranial injure':ti,ab OR 'intra-cranial injures':ti,ab OR 'intra-cranial trauma':ti,ab OR 'intra-cranial traumas':ti,ab OR 'intra-cranial traumatic':ti,ab OR 'intra-cranial':ti,ab OR 'intra-crani':ti,ab OR</p> <p>'intercranial injury':ti,ab OR 'intercranial injuries':ti,ab OR 'intercranial injured':ti,ab OR 'intercranial injure':ti,ab OR 'intercranial injures':ti,ab OR 'intercranial trauma':ti,ab OR 'intercranial traumas':ti,ab OR 'intercranial traumatic':ti,ab OR intercranial:ti,ab OR intercrani*:ti,ab OR</p> <p>'inter cranial injury':ti,ab OR 'inter-cranial injuries':ti,ab OR 'inter-cranial injured':ti,ab OR 'inter-cranial injure':ti,ab OR 'inter-cranial injures':ti,ab OR 'inter-cranial trauma':ti,ab OR 'inter-cranial traumas':ti,ab OR 'inter-cranial traumatic':ti,ab OR 'inter-cranial':ti,ab OR</p>

'cerebral injury':ti,ab OR 'cerebral injuries':ti,ab OR 'cerebral injured':ti,ab OR 'cerebral injure':ti,ab OR 'cerebral injures':ti,ab OR 'cerebral trauma':ti,ab OR 'cerebral traumas':ti,ab OR 'cerebral traumatic':ti,ab OR cerebral:ti,ab OR cerebr*:ti,ab OR

'cerebellum injury':ti,ab OR 'cerebellum injuries':ti,ab OR 'cerebellum injured':ti,ab OR 'cerebellum injure':ti,ab OR 'cerebellum injures':ti,ab OR 'cerebellum trauma':ti,ab OR 'cerebellum traumas':ti,ab OR 'cerebellum traumatic':ti,ab OR cerebellum:ti,ab OR cerebel*:ti,ab OR

'forebrain injury':ti,ab OR 'forebrain injuries':ti,ab OR 'forebrain injured':ti,ab OR 'forebrain injure':ti,ab OR 'forebrain injures':ti,ab OR 'forebrain trauma':ti,ab OR 'forebrain traumas':ti,ab OR 'forebrain traumatic':ti,ab OR forebrain:ti,ab OR forebrain*:ti,ab) AND

(injury*:ti,ab OR injuries:ti,ab OR injured:ti,ab OR injure:ti,ab OR injures:ti,ab OR trauma:ti,ab OR traumas:ti,ab OR traumatic*:ti,ab OR traumato*:ti,ab OR damag*:ti,ab)) OR

TBI:ti,ab OR Glasgow coma scale:ti,ab OR GCS:ti,ab OR 'traumatic brain injury':ti,ab OR 'traumatic brain injure':ti,ab OR 'traumatic brain injures':ti,ab OR 'traumatic brain injuries':ti,ab OR

'Head injury'/de OR 'brain injury'/de OR 'brain hemorrhage'/de OR 'diffuse axonal injury'/de OR 'coma'/de OR 'brain hemorrhage'/de OR 'Glasgow coma scale'/de OR

'blast injury'/exp OR 'blast-induced brain injury'/exp OR 'Blast exposition':ti,ab OR 'blast injuries':ti,ab OR 'blast injury':ti,ab OR 'blast injure':ti,ab OR 'blast injured':ti,ab OR 'sports-related concussion':ti,ab OR 'sport-related concussion':ti,ab OR SRC:ti,ab

Biomarkers

2. biomarker*:ab,ti OR 'biomarker'/exp OR 'biologic marker':ab,ti OR 'biologic markers':ab,ti OR 'biological marker':ab,ti OR 'biological markers':ab,ti OR 'biochemical marker':ab,ti OR 'biochemical markers':ab,ti OR 'laboratory marker':ab,ti OR 'laboratory markers':ab,ti OR 'immunological marker':ab,ti OR 'immunological markers':ab,ti OR 'immune marker':ab,ti OR 'immune markers':ab,ti OR 'serum marker':ab,ti OR 'serum markers':ab,ti OR 'clinical marker':ab,ti OR 'clinical markers':ab,ti OR 'surrogate end point':ab,ti OR 'surrogate end points':ab,ti OR 'surrogate endpoint':ab,ti OR 'surrogate endpoints':ab,ti OR

'neuronal protein'/exp OR 'neuronal proteins':ti,ab OR 'neuronal protein':ti,ab OR 'neuronal marker':ti,ab OR 'neuronal markers':ti,ab OR 'nerve tissue protein':ti,ab OR 'nerve tissue proteins':ti,ab OR 'nerve protein'/exp OR 'nerve proteins':ti,ab OR 'neuronal calcium sensor'/exp OR 'neuron specific nuclear protein'/exp OR

'astrocyte protein':ti,ab OR 'astrocyte protein'/exp OR

'S-100':ti,ab OR S100*:ti,ab OR 'S100B':ti,ab OR 'S-100B':ti,ab OR 'S100BB':ti,ab OR 'S-100BB':ti,ab OR 'S-100B protein':ti,ab OR 'S100-β':ti,ab OR 'S100β':ti,ab OR 'protein S100B'/exp OR

GFAP:ti,ab OR 'GFAP'/exp OR 'glial protein':ti,ab OR 'glial proteins':ti,ab OR 'glial fibrillary acidic protein':ti,ab OR 'glial fibrillary acidic proteins':ti,ab OR 'glial intermediate filament protein':ti,ab OR 'glial intermediate filament proteins':ti,ab OR astroprotein*:ti,ab OR 'GFA-protein':ti,ab OR 'GFA-proteins':ti,ab OR 'Glial Fibrillary Acidic Protein'/exp OR

'neuron specific enolase'/exp OR 'Neuron specific nuclear protein'/exp OR NSE:ti,ab OR NSE/exp OR 'neuron specific enolase':ti,ab OR 'neuron-specific enolase':ti,ab OR 'gamma-enolase':ti,ab OR 'nervous system specific enolase':ti,ab OR 'phosphopyruvate hydratase':ti,ab OR 'Phosphopyruvate Hydratase':ti,ab OR 'enolase'/exp OR

'C-tau':ti,ab OR 'C-tau' OR 'cleaved-tau':ti,ab OR 'tau protein':ti,ab OR 'tau Proteins':ti,ab OR 'tau protein'/exp OR

'UCH-L1':ti,ab OR UCHL1:ti,ab OR 'ubiquitin carboxyl-terminal hydrolase 1-1':ti,ab OR 'ubiquitin c-terminal

hydrolase':ti,ab OR 'ubiquitin carboxy terminal esterase':ti,ab OR 'ubiquitin thiolesterase':ti,ab OR 'ubiquitin'/exp OR 'ubiquitin protein ligase'/exp OR 'ubiquitin tholesterase'/exp OR

SBDP:ti,ab OR SBDP150:ti,ab OR SBDP145:ti,ab OR SBDP120:ti,ab OR 'SBDP'/exp OR 'Spectrin'/exp OR 'fodrin'/exp OR 'spectrin breakdown product'/exp OR

'NF-H':ti,ab OR NFH:ti,ab OR 'NFP-200':ti,ab OR NFP200:ti,ab OR 'hyperphosphorylated neurofilament':ti,ab OR 'neurofilament protein':ti,ab OR 'neurofilament proteins':ti,ab OR 'neurofilament H protein':ti,ab OR 'neurofilament H proteins':ti,ab OR 'neurofilament triplet protein':ti,ab OR 'neurofilament triplet proteins':ti,ab OR 'neurofilament M protein'/exp OR 'neurofilament'/exp OR

'microRNA'/exp OR 'MicroRNAs'/exp OR

'BDNF':ti,ab OR 'BDNF'/exp OR 'brain derived neurotrophic factor'/exp OR 'brain derived neurotrophic factor receptor'

Outcomes (post-concussion symptoms related terms)

3. 'post-concussion syndrome'/exp OR 'post-concussion syndrome':ti,ab OR 'postconcussion':ti,ab OR 'post-concussion symptom':ti,ab OR 'postconcussion symptoms':ti,ab OR 'postconcussion syndrom':ti,ab OR 'post concussion syndrom':ti,ab OR 'post-concussive symptom':ti,ab OR 'postconcussive symptom':ti,ab OR 'post concussive symptom':ti,ab OR 'post-concussive syndrom':ti,ab OR 'postconcussive syndrom':ti,ab OR 'post concussive syndrom':ti,ab OR 'post-concussion recovery':ti,ab OR 'postconcussion recovery':ti,ab OR 'post concussion recovery':ti,ab OR 'post-traumatic symptom':ti,ab OR 'posttraumatic symptom':ti,ab OR 'post traumatic symptom':ti,ab OR

'persistent':ti,ab OR 'persistent concussive syndrome':ti,ab OR 'postconcussion syndrome'/exp OR 'postconcussion syndrom':ti,ab OR 'long term':ti,ab OR 'permanent':ti,ab OR 'prolonged':ti,ab OR 'late recovery':ti,ab OR 'recovery':ti,ab OR 'poor outcome':ti,ab OR 'outcome':ti,ab OR 'disability'/exp OR 'disability':ti,ab OR 'sick leave':ti,ab OR 'medical leave'/exp OR 'glasgow outcome scale'/exp OR 'glasgow outcome scale':ti,ab OR 'assessment':ti,ab OR 'patient outcome assessment':ti,ab OR 'outcome assessment'/exp OR 'outcome assessment':ti,ab OR 'symptom assessment'/exp OR 'symptom assessment':ti,ab OR

'neurologic symptom':ti,ab OR 'neurologic symptoms':ti,ab OR 'neurologic manifestation':ti,ab OR 'Neurologic Manifestations':ti,ab OR 'neurological problem':ti,ab OR 'neurological problems':ti,ab OR

'neurologic disease':ti,ab OR 'cognitive symptom':ti,ab OR 'cognitive symptoms':ti,ab OR 'mild cognitive impairment':ti,ab OR 'cognitive impairment':ti,ab OR 'cognitive defect':ti,ab OR 'cognition':ti,ab OR 'Neurobehavioral manifestations':ti,ab OR 'neuropsychological symptom':ti,ab OR 'neuropsychological symptoms':ti,ab OR 'behavioral symptom':ti,ab OR 'behavioral symptoms':ti,ab OR 'behavioural symptom':ti,ab OR 'behavioural symptoms':ti,ab OR

'rivermead post-concussion symptoms questionnaire':ti,ab OR 'rivermead post-concussion questionnaire':ti,ab OR 'rivermead post concussion symptoms questionnaire':ti,ab OR 'rivermead post concussion questionnaire':ti,ab OR

'prognosis'/exp OR 'prognosis':ti,ab OR 'predictive value'/exp OR 'predictive value':ti,ab OR 'predictive values':ti,ab OR 'predictive validity'/exp OR 'predictive validity':ti,ab OR 'clinical course'/exp OR 'clinical course':ti,ab OR 'disease course'/exp OR 'disease course':ti,ab OR 'incidence':ti,ab OR 'mortality':ti,ab OR

'Quality of life'/exp OR 'quality of life':ti,ab OR 'quality of life assessment'/exp OR 'quality of working life'/exp OR 'return to work'/exp OR 'return to work':ti,ab OR

'follow up'/exp OR 'follow up studies':ti,ab OR 'follow up study':ti,ab OR 'follow-up studies':ti,ab OR 'follow-up study':ti,ab OR 'comparative study'/exp OR 'comparative study':ti,ab OR 'cohort studies':ti,ab OR 'cohort study':ti,ab OR 'cohort analysis'/exp OR 'cohort analysis':ti,ab OR 'longitudinal study'/exp OR 'longitudinal study':ti,ab OR 'longitudinal studies':ti,ab OR 'randomized controlled trial'/exp OR 'randomized controlled trial':ti,ab OR 'controlled clinical trial'/exp OR 'controlled clinical trial':ti,ab OR 'clinical trial'/exp OR 'clinical trial':ti,ab OR

headache/exp OR 'headache':ti,ab OR 'Posttraumatic headache'/exp OR 'posttraumatic headache':ti,ab OR 'primary headache'/exp OR 'secondary headache'/exp OR 'dizziness'/exp OR 'dizziness':ti,ab OR 'vertigo'/exp OR 'vertigo':ti,ab OR 'nausea'/exp OR 'nausea':ti,ab OR 'nausea and vomiting'/exp OR 'nausea and vomiting':ti,ab OR 'vomiting'/exp OR 'vomiting':ti,ab OR 'hyperacusis':ti,ab OR 'loudness recruitment'/exp OR 'loudness recruitment':ti,ab OR 'noise sensitivity':ti,ab OR 'sleep disturbance':ti,ab OR 'sleep disorder'/exp OR 'sleep disorder':ti,ab OR 'sleep arousal disorder'/exp OR 'sleep arousal disorder':ti,ab OR 'dysomnia':ti,ab OR 'insomnia':ti,ab OR fatigue/exp OR 'fatigue':ti,ab OR 'mental fatigue':ti,ab OR 'dysthymia'/exp OR 'dysthymia':ti,ab OR 'chronic fatigue syndrome'/exp OR 'chronic fatigue syndrome':ti,ab OR 'irritable mood':ti,ab OR 'irritable':ti,ab OR 'irritability'/exp OR 'annoyance':ti,ab OR 'impatience':ti,ab OR 'anger'/exp OR 'anger':ti,ab OR 'despresion'/exp OR 'depression':ti,ab OR 'depressive disorder':ti,ab OR 'long term depression'/exp OR 'long-term synaptic depression':ti,ab OR 'frustration'/exp OR 'frustration':ti,ab OR 'frustrated':ti,ab OR 'Impatient':ti,ab OR 'forgetfulness':ti,ab OR 'memory disorder'/exp OR 'memory disorder':ti,ab OR 'memory disorders':ti,ab OR 'poor memory':ti,ab OR 'information processing speed':ti,ab OR 'deceleration in information processing':ti,ab OR 'impede processing speed':ti,ab OR 'speed of processing':ti,ab OR 'processing speed':ti,ab OR 'speed of information processing':ti,ab OR 'information processing'/exp OR 'working memory'/exp OR 'working memory':ti,ab OR 'short term memory'/exp OR 'short term memory':ti,ab OR 'vision disorder':ti,ab OR 'vision disorders':ti,ab OR 'visual disorder'/exp OR 'visual disorder':ti,ab OR 'visual impairment'/exp OR 'visual impairment':ti,ab OR 'visual impairments':ti,ab OR 'vision disability':ti,ab OR 'vision disabilities':ti,ab OR 'blurred vision'/exp OR 'blurred vision':ti,ab OR 'visual acuity'/exp OR 'visual acuity':ti,ab OR 'visual consequences':ti,ab OR 'visual deficit':ti,ab OR 'visual deficits':ti,ab OR 'vision loss':ti,ab OR 'visual function':ti,ab OR 'visual system function'/exp OR 'vision'/exp OR 'visual quality of life':ti,ab OR 'photophobia'/exp OR 'photophobia':ti,ab OR 'light sensitivity':ti,ab OR 'light sensitivities':ti,ab OR 'diplopia'/exp OR 'diplopia':ti,ab OR 'double vision':ti,ab OR 'Psychomotor agigation':ti,ab OR 'restlessness'/exp OR 'restlessness':ti,ab OR 'psychomotor hyperactivity':ti,ab OR 'psychomotor excitement':ti,ab OR 'Anxiety'/exp OR 'Anxiety':ti,ab OR 'Anxieties':ti,ab OR 'Nervousness':ti,ab OR 'Hypervigilance':ti,ab OR 'Anxiety Assessment':ti,ab OR 'Anxiety Disorders':ti,ab OR 'Loss of concentration':ti,ab OR 'Loss of attention':ti,ab OR 'Drowsiness':ti,ab

Finalization

4. #1 AND #2 AND #3