

DVBIC/DCoE MAY08		Concussion Management Grid		Table 1
Symptom Cluster	Presenting Symptoms or Complaints Assess frequency, severity, aggravating factors	Special Assessment related to complaint	Assessment Red Flags And <u>Immediate</u> Referral	Treatment Options by Symptom Cluster NOTE: Treat headache, sleep & irritability first as other symptoms often improve with pain control & rest Inclusion does not imply FDA approved use. See full prescribing information.
Headache	Headache Sensitivity to light/sound Tinnitus Nausea	Examine: Neurologic exam Musculoskeletal exam including cervical spine Refer: Any abnormality- 24 hours referral to Neurology	Neurology referral Worsening headache Seizures Blackout Emergency Department (ED) Fever Stiff neck	Episodic: (prn at HA onset, up to 3 days/week): ibuprofen 600-800 mg.; Naproxen; Triptans, compazine, Phenergan Chronic Daily Headache (Preventive) - onset ~4 weeks Propranolol 10- 240mg (BP & PTSD effects) Amitriptylline or Nortriptylline 10-100mg q HS (sleep) AED's gabapentin 300-900 mg q HS to BID sodium valproate 500-1500 mg (draw levels) topiramate 25-100mg q day to BID
Vision	Blurry vision Double vision (diplopia) Difficulty reading or focusing	Examine: Fundoscopic exam, visual acuity, visual fields Consider fluoresceine exam of cornea if foreign body suspected	Neurology referral Papilledema Cranial nerve deficit Optometry or ophthalmology referral Evidence of foreign body (FB)	Optometry evaluation- request binocular testing
Balance & Hearing	Dizziness Vertigo Balance difficulties Coordination problems Ringing in the ears	Examine: Dix- Hallpike Maneuver, Romberg, Cerebellar function (finger to nose, rapid alternating movement), nystagmus ENT/Audiology- otoscopic exam, bedside hearing test, audiogram if avail. Administer: consider Dizziness Handicap Inventory (DHI) normal ≤ 11	Neurology referral Lateral abnormality, nystagmus, abnormal Romberg ED or emergent Neurosurgery referral CSF leak ENT referral Hemotympanum, FB, TM perforation	ENT/Audiology/Vestibular PT referral depending on local resources if Positive Dix-Hallpike- or DHI > 11 or persistent dizziness complaints
Sleep	Fatigue/Loss of energy Difficulty falling asleep Difficulty staying asleep Easily tired Nightmares/sleep walking	Administer: Epworth Sleepiness Scale, consider PSQI Examine: neck size, airway, height, weight Evaluate: sleep routine, medication/supplement use, alcohol & substance abuse, sleep activity, nightmares, frightened arousal	Sleep Study referral Apnea ESS>12 BMI >30	Zolpidem 5-10 mg qHS max duration 10 days Trazodone 25-50 mg qHS max dose 150 mg (sleep maintenance) Amitriptylline 25 mg qHS max dose 100mg (headache benefit) Quetiapine 25 mg qHS Max dose 100mg (PTSD, nightmare benefit)
Irritability	Anger Depression Mood swings Anxiety Tension Easily overwhelmed	Administer: PCL-M Screening Questionnaire, consider PHQ-9 or other depression inventory Evaluate: specific history & symptoms: physical fighting, alcohol intake, relationship problems, suicidal, homicidal	Psychiatry/Psychology/Social Work referral Outward violence Excessive alcohol intake Suicidal ideation Homicidal ideation	Sertaline 25-50 mg qD Titrate q7-10d max dose 150mg/d Citalopram 10 mg/day titrate to max dose 40 mg/day Allow 3-4 week therapeutic trial of each drug Refer: treatment failure of two meds
Cognition	Memory loss or lapse Forgetfulness Poor concentration Decreased attention Slowed thinking Executive dysfunction	Administer: MACE if injury within 24 hours, Other neurocognitive testing as available (eg ANAM or other neuropsychological testing) Gather: Collateral information from family, command and others		Normalize sleep & nutrition Pain control Refer: Speech/language pathology Occupational therapy Neuropsychology