Management of Concussion/Mild Traumatic Brain Injury - Evidence Based Practice

Introduction

1) The Centers for Disease Control and Prevention has estimated that each year, approximately ______ Americans survive a traumatic brain injury.
   a) 500,000
   b) 1 million
   c) 1.5 million
   d) 2 million

2) Of the total reported TBIs ______ experience post-injury symptoms of a long lasting nature.
   a) 10%
   b) 20%
   c) 30%
   d) 40%

Section 1

3) Which classification of TBI severity has a Glasgow Coma Scale rating of < 9?
   a) None
   b) Mild
   c) Moderate
   d) Severe

4) The terms “concussion” and “mTBI” can be used interchangeably.
   a) True
   b) False

5) Which would rule out a diagnosis of mTBI?
   a) Loss of consciousness lasting 45 minutes
   b) Disorientation
   c) Dysfunction of memory immediately before the time of injury
   d) Transient confusion

6) Rapoport et al. (2003) states that posttraumatic complaints after concussion can be due to
   a) Patients seeking benefit from litigation claims
   b) Delays in seeking treatment
   c) Symptom overlap with other diagnoses
   d) An underlying mood disorder
7) McCrea (2003) states that somatic, cognitive and behavioral symptoms after concussion rapidly resolve by _____ in the majority of individuals.
   a) 2 to 4 weeks
   b) 4 to 6 weeks
   c) 6 to 8 weeks
   d) 2 to 4 months

Section 3

8) Which can produce symptoms that overlap with those commonly produced by TBI?
   a) Psychiatric disorders
   b) Substance disorders
   c) Cranial and cervical trauma
   d) All of the above

9) 9) Altered consciousness, pupillary asymmetry and seizures are examples known as _____ which may indicate an acute neurological condition that requires urgent specialty consultation.
   a) Condition 1
   b) Higher order
   c) Red Flags
   d) Warning Beacons

10) Laboratory testing is necessary to confirm or manage symptoms associated with mTBI.
    a) True
    b) False

11) Neuroimaging is not recommended in patients who sustained a concussion beyond the emergency phase - _____ post-injury, except if the condition deteriorates.
    a) 48 hours
    b) 72 hours
    c) 1 week
    d) 2 weeks

12) Patients who have sustained a concussion may complain about post-injury symptoms that can be grouped into each of the following categories EXCEPT
    a) Vocational
    b) Physical
    c) Cognitive
    d) Emotional/Behavioral
13) Which of the following statements is true?
   a) Over-reporting of mTBI symptoms is associated with higher levels of education
   b) mTBI is associated with reduced awareness of symptoms
   c) mTBI is associated with reduced awareness of cognitive problems
   d) Use of self-reported symptomatology in mTBI is an appropriate assessment methodology

14) “Perceived altruism” is an example of which risk communication approach?
   a) Caring and empathy
   b) Dedication and commitment
   c) Competence and expertise
   d) Honesty and openness

Section 4

15) Ghaffar et al. (2006) suggests that the more comprehensive, multidisciplinary treatment should be targeted toward those with
   a) Pre-injury psychiatric problems
   b) A history of prior mTBI
   c) Symptom duration of greater than 1 month
   d) Co-morbid physical symptoms

16) Education for patients who sustain a mTBI would include all EXCEPT
   a) Symptoms and expected outcome
   b) Normalizing symptoms
   c) Reassurance about expected positive recovery
   d) Vocational/educational options should they not recover

17) Borg (2004) assessed five studies that supported the idea that _____ was as effective as more elaborate assessments and interventions.
   a) Placebo
   b) Tylenol
   c) Physical therapy
   d) A single session intervention

18) Activity restriction involves a restful pattern of activity throughout the day with minimal _____ exertion.
   a) Physical
   b) Mental
   c) Both
   d) Neither
19) The Cantu Guidelines defines a _____ concussion as involving a loss of consciousness for less than 5 minutes.
   a) Grade I
   b) Grade II
   c) Grade III
   d) Grade IV

Section 5

20) An evaluation for physical complaints of a patient with concussion should include
   a) Establishing a thorough medical history
   b) Minimizing low yield diagnostic testing
   c) Identifying treatable causes for patient’s symptoms
   d) All the above

21) “Relaxation” is mentioned as a non-pharmacologic treatment for
   a) Headaches
   b) Feeling dizzy
   c) Nausea
   d) Sleep disturbances

22) Comprehensive neuropsychological/cognitive testing is not recommended during the first _____ post injury.
   a) 5 days
   b) 10 days
   c) 20 days
   d) 30 days

23) Individuals who sustain a concussion and present with _____ and/or _____ should be provided reassurance regarding recovery and offered a several week trial of pharmacologic agents.
   a) Sleep disturbance, Depression
   b) Depression, Anxiety symptoms
   c) Anxiety symptoms, Irritability
   d) Irritability, Sleep disturbance

24) SSRIs are recommended for all the following EXCEPT
   a) Cognitive difficulties
   b) Fatigue
   c) Feeling anxious
   d) Emotional difficulties
25) Medication for ameliorating the neurocognitive effects attributed to concussion is not recommended.
   a) True
   b) False

Section 6

26) All patients should be followed up in _____ to confirm resolution of symptoms and address any concerns the patient may have.
   a) 3 to 5 days
   b) 1 to 2 weeks
   c) 4 to 6 weeks
   d) 8 to 12 weeks

Section 7

27) In a functional assessment, the question “Have there been any changes in productivity” would pertain to which key domain?
   a) School
   b) Work
   c) Legal
   d) Financial

28) Which is not a pre-injury risk factor for poorer outcomes of a concussion?
   a) Older age
   b) Lower socio-economic status
   c) Lower education
   d) Male gender

29) According to Binder & Rohling, (1996), at the time of assessment, what has consistently been associated with greater levels of symptoms and poorer outcomes?
   a) Headaches
   b) Litigation
   c) Pregnancy
   d) Nausea

30) Regarding patients with non-validated symptoms, the focus of the provider-patient interaction should be on
   a) Uncovering of motivations
   b) Validating diagnoses
   c) Making the most appropriate referral
   d) Development of a therapeutic alliance
31) Iverson (2007) states that for all individuals with an initial mTBI, < _____ may have persistent difficulties by 12 months.
   a) 5%
   b) 10%
   c) 15%
   d) 20%

32) Which refers to a subset of assistive technology used to compensate for cognitive impairments in memory, attention, and executive function?
   a) DALEK
   b) COMCON
   c) SATCOM
   d) ATC

Section 9

33) All the following are true of tension-like headaches EXCEPT
   a) Duration is usually less than 4 hours
   b) Nausea is not present
   c) Location is usually unilateral
   d) Pain is dull, aching, or pressure

34) Chronic use of acetaminophen may lead to
   a) Addiction
   b) Tolerance
   c) Rebound headaches
   d) Sleep disruption

35) The most serious side effect of acetaminophen use is _____ damage.
   a) Heart
   b) Kidney
   c) Gall bladder
   d) Liver

Appendix D

36) Dizziness, impaired balance and altered coordination have been reported in as many as _____ of people after mTBI.
   a) 30%
   b) 40%
   c) 50%
   d) 60%

Cont…
37) Fatigue is the _____ most common symptom reported in concussion.
   a) Second
   b) Third
   c) Fourth
   d) Fifth

Appendix E

38) The use of benzodiazepines in mTBI should be avoided if at all possible.
   a) True
   b) False