Concussion & Post Concussion Syndrome Lunch & Learn Notes

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1. **WHAT IS A CONCUSSION?**
    - It is a **mild traumatic brain injury**"(mTBI) and is often an invisible injury.
    - Can not be seen by X-Rays, CT scans or MRIs.
    - Caused by a blow to the head, face, neck or a blow to body that jars the head.
    - Not all blows to the head cause concussions but any worker hitting their head should be examined by First Aid at work to get assessed and to document the incident. If they exhibit signs, or experience symptoms of a concussion, they should be sent to medial aid for further testing and a possible diagnosis.
    - Only a medical doctor can diagnose a concussion (not first aid, paramedics, etc.)
    - Initial symptoms may include headaches, confusion, memory lapse, dizziness, vision issues, balance issues, nausea, and vomiting.
    - NOTE – concussion symptoms can appear up to 72 hours after the incident which is why initial reporting is so important. Workers must follow up with employers if symptoms develop later. Symptoms such as sensitivity to light and noise often show up in the days following a concussion.
    - Concussions that result in loss of consciousness (LOC) can typically be more serious but only 10% of concussions have LOC.
    - Each concussion is different – symptoms, recovery time, damage to different areas of the brain. Even minor concussions can end up being serious or result in post concussion syndrome.
    - Typically concussions resolve in 2-4 weeks for adults, but 15-30% can last longer (weeks, months)
    - If worker has previous concussion history, recovery can take much longer. The cumulative effect of multiple concussions can really add up. It takes less impact to do more damage. Minor 'head bumps' can result in devastating, long lasting injuries.
    - The severity of a concussion is not necessarily an indicator of how long or short recovery can be. Much depends on the mechanism of injury, where the impact was, forces involved etc. It is impossible to predict.
    - Symptoms that are persistent (over 4 weeks) or permanent are considered to be "persistent post concussion syndrome" (PPCS) or Persistent Concussion Syndrome (PCS)

2. **ADVOCACY ISSUES: Workers with brain injuries are different than other workers and have some special initial needs**

- They are unable to navigate the WCB system (too complex, too many people involved)
- They struggle with initial injury reporting, including clear description or evidence of the mechanism of injury (MOI)
- They struggle with getting medical attention or a diagnosis of a concussion
- They struggle with gathering their financial information for wage loss calculations
- They tend to withdraw, are sometimes in denial or have persistent optimism masking the reality of the injury
- Issues with those who "present well" (to WCB, advocates, family, etc.) when they are not actually doing well. Because it is an 'invisible injury' those who present well, often come under WCB scrutiny.

WHAT ADVOCATES CAN DO:

- Ensure someone can assist them at home in their first 48-72 hours of the injury to watch for worsening condition and to help them with their initial WCB reporting. This includes getting evidence of the MOI & any First Aid reporting.
- Ensure they have seen or will see a doctor and book a follow up with their family doctor – regular check-ins are crucial for documentation.
- If they do not have a GP, find them one:
    - → **https://findadoctorbc.ca/**
    - → **Health Connect Registry**
- Advise them to call Teleclaim vs. online initial injury reporting for all head injuries. It is faster, less detailed and easier on them. Make sure a family member or friend is there to assist or step in as needed.
- Regular check-ins, increased advocacy, checking claim updates often is essential to make sure things do not go off track.
- Make sure they attend important assessments or appointments! (call, text, email them, or set up other ways to remind them)
- Encourage journaling to document symptoms, setbacks, improvements, etc. This is a good habit to start early but becomes even more important if things do not resolve well.

3. ENSURE SPECIALIST HELP ASAP for PERSISTENT CONCUSSION SYMPTOMS.

- Some concussions will resolve on their own in 2-4 weeks.
- Anything beyond that may require specialized treatment.
- WCB often uses "**Lifemark**" and "**Back in Motion**" for 4 week concussion program with Occupational Therapists (OTs) assigned to help.
- Good OTs can make a huge difference in the lives of workers struggling with brain injuries. If one is not assigned, you can try the above companies or try **Access Community Therapists**.

4. WHAT IS POST CONCUSSION SYNDROME (PCS)?

- Aka **Persistent Post Concussion Syndrome (PPCS)** or **Persistent Concussion Syndrome(PCS)**
- PCS is when concussion symptoms do not resolve by the 4-week mark post injury and it can continue for months, years or indefinitely.
- Females and older workers are at higher risk of prolonged symptoms.
- Note - up to 70 symptoms have been described after a concussion, especially in people who have sustained multiple concussions.
- **Most pervasive symptoms:**
  1) **Post-Traumatic headache** – most common/vast majority
  2) **Fatigue –**
  3) **Vestibular (Balance/ Dizziness) –** Persistent vertigo, dizziness, imbalance and visual disturbance are common.
     - Episodes of vertigo, nystagmus *(involuntary, rapid, repetitive eye mvmt.)* and nausea with sudden changes in position (including rolling over in bed, looking up, etc.).
     - Dizziness can also be caused by PC migraines, autonomic dysregulation, medications, other peripheral vestibular disorder.
     - Patients with dizziness frequently experience concurrent psychological disorders such as anxiety.
  4) **Sleep-Wake Disturbances** - >50% report sleep disturbances post-concussion, specifically insomnia, hypersomnia, obstructive sleep apnea, poor sleep quality or sleep, early awakening, delayed sleep onset, or alterations in circadian cycle.
  5) **Mental Health Disorders**:
     Biologically - Insult to the brain and injuries to the body (e.g., whiplash injuries, falls, etc.), pain, sleep issues, can further cause changes in the neurobiology of the brain.
     Psychologically - May experience acute stress from the trauma or injury, & consequences of their resulting functional abilities.
     - Become isolated from others - may be intolerant of or unable to engage in social interactions.
     - Injury may disrupt their occupational status, leisure activities, interpersonal interactions or relationships.
     - May incur losses (e.g., reduced quality of life and independence; lowered income or reduced educational attainment, changes in relationship functioning, etc.).
     - Depression and anxiety are common
  6) **Cognitive Difficulties –** Attention/concentration, processing speed, Learning/memory and execution function, mental fog – all disrupt everyday function.
  7) **Emotional Symptoms –** Irritability, increased anxiety, low mood, emotional liability (rapid/exaggerated changes in mood), PTSD.

8) **Vision Dysfunction -** May have impairment of visual acuity, accommodation (trouble adjusting to moving objects), versional eye movements (both eyes synchronous), vergence eye movements (enables near & far vision), visual field integrity and may experience photosensitivity (sensitivity to light).
   - Complex visual symptoms including diplopia (double vision) and/or impaired vision should be referred to a **neuro-ophthalmologist.**
   - Patients with impairments of accommodation, version or vergence movements, and/or photosensitivity may benefit from rehabilitative techniques rendered by **qualified optometrists.**
   - **Computer Screen Intolerance** (CSI - aka Cyber Sensitivity, Digital Eye Strain, etc.) is a syndrome which can cause headaches, nausea, dizziness, etc. and can prevent or prolong RTW.

5. WCB – COMMON ISSUES THAT CAUSE BIG PROBLEMS

- Acceptance of a concussion from a minor blow
- Acceptance if recovery from a concussion takes longer than usual
- Acceptance if there is previous concussion history

6. ACCEPTANCE OF PCS as a COMPENSABLE CONSEQUENCE, ESPECIALLY as a PERMANENT CONDITION

- Incomplete inclusion of symptoms for referral to LTDS
  - So many symptoms are possible and some symptoms cause others (i.e., dizziness can cause headaches, headaches can cause sleep issues, etc.)
  - Psych, vision, & other compensable consequences not adjudicated or supported
  - Get GP to refer them for a vision check up regardless of symptomology. Vision prescriptions can change with a concussion, so a normal optometrist check up is prudent.
  - Fatigue (cognitive/physical intolerances) – also challenging getting this appropriately recognized in VRS.
  - Inappropriate assessments and/or lack of medical evidence - How do we get these PCS recognized?
    - → Request Cognitive Functional Capacity Evaluation (CFCE)
    - → Ask worker to track and report the time/hours they can be functional outside the home (ask worker to keep a journal!)
    - → Importance of GP and other medical/support specialists to get info on functional capacity outside WCB influence (OTs, physios, chiropractors, naturopaths, any other specialists that can document their status and progress)
  - Due to above, inadequate restrictions/limitations often impact VRS process and the wellbeing of the worker.
    - → Unrealistic expectations for RTW or retraining puts huge stress on worker to perform with exacerbated symptoms.

- → Worker trying and failing in VR can be a huge mental health blow. Be cognizant that they are being hit hard with their new reality and may have to find simple or possibly demoralizing work (from their perspective).
- In VR, trying online courses – causing symptom flairs – get OT to recommend WCB provide flicker free monitors (available for under $200) for their computer or laptop.
- Insufficient recognition of disability (low PFIs)
  - → The need to fight for the real damage done and a PFI that reflects the life altering reality and losses of those suffering with brain injuries.

JANET PATTERSON – Legal Examples

CONCUSSIONS & POST-CONCUSSION SYNDROME (PCS)

RE Policy & Practice:

#C3-12 RSCM II identifies concussions as a personal injury (PI). Practice Directive #C3-5 sets out when and how a psychological condition can be accepted as a compensable consequence of a PI.

The Board has a fact sheet on concussions which basically describes self-care but it also references a 2014 Guide from GF Strong on concussions - [Microsoft Word - Concussions - A Guide to Understanding Symptoms and Recovery_Apr-2014.doc]. This guide is more helpful and specific and emphasizes the need for an immediate medical assessment after a head injury and when to seek additional medical help.

The Board Evidence-Based Practice Group (EBPG) has also done 2 systematic reviews on concussions:

- August 2018 – "*Post-Concussion Syndrome (PCS) – Validated Symptom Measurement Tools*" - this is a helpful summary of key tests and studies and the cluster of symptoms that are generally considered to be part of PCS in the academic world. Some also develop tools to measure "symptom exaggeration.'
- April 2019 – "*Concussion Recovery Path and Past Head Traumas*" . The review seeks to find predictive factors for concussions that have prolonged recovery, or do not recover (none were identified). This is because, as the study notes:

When mTBI cases are work-related, they strain the worker compensation systems; both with prolonged recovery for the worker and with the increased cost of ongoing health care services use. [One study} found an increase in health care service utilization for accidents, poisoning, violence, nervous system diseases, and mental disorders two years after an mTBI related claim. They also observed an elevated health care usage for comorbidities such as neoplasms, musculoskeletal disorders, and cardiovascular diseases. (page 5)

<u>Case Study – WCAT A1602865 (June 5, 2017) and WCAT A 1801514 (November 5, 2018) .</u>

Sometimes, there are issues about the acceptance of the original concussion or PCS. The following 2 WCAT decisions (involving the same worker) give some helpful guidance about relevant evidence and arguments.

WCAT A1602865 – *ISSUE: Did the worker suffer a concussion when a kiln gun misfired?* The Board denied that the worker suffered a concussion based on employer evidence of the mechanism of injury (MOI) and the BMAs opinion that the action (as described) was not sufficient to have caused a concussion. At WCAT, the worker brought photographs, a written statement from a co-worker, evidence of the safety issues around the kiln, his ER report from the day after the incident as well as expert medical evidence. WCAT accepted that he had suffered a concussion.

WCAT 1801514 – *ISSUE: The employer appealed the Board's finding that the worker had PCS (after the concussion resolved) & that he was entitled to 4 months TWL, before the PCS became permanent and he was referred to DA and VR. The employer argued that PCS was a separate condition not accepted by the Board and which the worker did not have, although he had mental health issues*. WCAT found that PCS was not a separate condition from concussion but was a "compensable consequence" of the accepted concussion (as accepted by WCAT). The panel also considered expert medical reports, as well as BMA reports, and concluded that while other factors may have contributed to and prolonged the PCS in the worker's case, the PCS condition remains compensable and that it became permanent after 4 months. The worker is entitled to both 4 months of TWL and a referral to DA.