The rest to re-engagement strategy for managing patients with concussion in primary care

Make a clinical diagnosis of concussion
- Plausible brain injury mechanism documented
- Symptoms and signs consistent with altered brain functioning
- Symptom severity assessed using a scoring criteria
- Exclude more serious injury that requires emergency department referral

This process can be supported by using the Brain Injury Screening Tool (BIST)

Deliver recovery advice and reassurance

Recommend
- Mental and physical rest (24 – 48 hours)
  - In a quiet environment
  - No reading, screen time (e.g. computer, phones, TV) or strenuous activities
- Progressive re-engagement
  - Initial stages
    - Low-intensity aerobic activities (e.g. walking, light jogging)
    - Light mental stimulation (e.g. listening to music or reading)
  - Increase activity as tolerated
    - Gradually resume normal daily activities
  - If re-engagement exacerbates symptoms, the activity intensity should be temporarily reduced to a more tolerable level

Consider
- Managing headache or other pain
  - Prescribe paracetamol if required for short-term relief
  - Avoid NSAIDs and aspirin within first 48 hours, as well as opioids or other sedatives
- Other self-care techniques
  - Remain hydrated
  - Use an ice/cool pack intermittently, if required
  - Identify triggers of symptoms; avoid these initially
  - Avoid alcohol or recreational drugs, if applicable
- Managing sleep disturbances:
  - Prioritise behavioural and environmental changes over pharmacological interventions (see main text for more details)

Guidance for returning to “normal” activities after the 24 – 48 hour rest period

Work
- Consider the following factors:
  - Gradual work re-entry – e.g. flexible hours or reduced hours; building back up to fulltime work, as tolerated
  - Job placement – tasks should be matched to the person’s ability and tolerance post-injury; computer-based work may initially need to be limited
  - Ensure the workspace is appropriate for recovery – e.g. quiet, supportive and supervised
  - Driving/transformation requirements to and from work
- Complete ACC45 claim-associated medicated certificate and ACC18/eACC18 form as required

Education
1. Perform regular daily home-based activities (i.e. not school-related) if they do not aggravate symptoms, e.g. reading or watching TV; start with shorter periods, e.g. 5 – 15 minutes and progressively increase until activities can be completed without symptoms
2. Begin to incorporate school-related activities, e.g. homework or other cognitive tasks, while still remaining at home
3. Gradually return to school, guided by symptoms; partial days with lighter subjects or additional break times may be needed initially
4. Full return to school activities when tolerated

Sport* – immediately remove from play
1. Start with low-intensity non-specific aerobic exercises (do not progress to next stage until symptom-free)
2. Progress to basic non-contact sport-specific exercises (at least 24 hours)
3. Progress to more complex non-contact sport-specific exercises that have increased co-ordination and cognitive requirements – resistance training may also be added (at least 24 hours)
4. Perform medical assessment
5. Return to full contact training (if cleared) to restore confidence and assessment of functional skills by coaching staff (at least 24 hours)
6. Return to sport

Advise patients with a concussion to refrain from driving until they are cleared by a health professional.
- If transport assistance is required, contact a local Brain Injury New Zealand branch to discuss potential support options, or a disability allowance may be available through ACC.

For further information on head injuries and driving, see:
www.nzta.govt.nz/assets/resources/factsheets/36/docs/36-head-injuries.pdf

Schedule follow-up (7 – 10 days later)
- Repeat symptom scoring and consider need for further assessments to evaluate recovery progress
- Reinforce appropriate recovery advice
- Schedule additional follow-up appointments as needed
- Consider need for referral to ACC Concussion Services

* If at any point along this pathway there is recurrence of concussion symptoms, the patient should return to the previous step. People should not return to sport unless they have fully returned to work/education, if applicable. This is intended as a general guide and individual sporting authority websites may have different regulations for timeframes and criteria for a graduated return to sport plan.

Abbreviations: ACC, Accident Compensation Corporation; CNS, central nervous system; NSAIDs, non-steroidal anti-inflammatory drugs