

### **EMERGENCY**

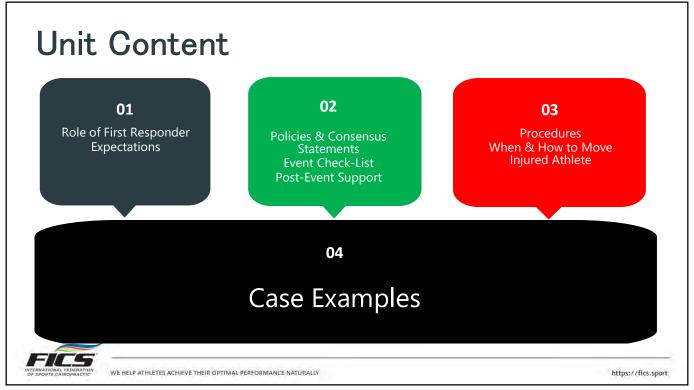
### **PROCEDURES**



**Dr Natalie Sharp:** B.Chiro.Sc., M.Chiro. AICE Sports Chiropractor. ICSC

**Trish Donoghue:** Level 1 World Rugby Instructor; Level 2 Sports Trainer Sports Medicine Australia.

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### Role of First Responder

# A person whose job entails being first on the scene of an emergency

#### Primary role:

- · Remove danger
- · Manage the athlete's pain
- Prevent further injury
- · Refer for further medical assessment & care



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# **Emergency Medical Plan**

What is the critical information needed in an emergency situation?





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# **Expectations**

Different level events and competitions will have different expectations and resources

- Local v International
- Junior v Senior





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# Policies & Consensus Statements

- Heat
- Concussion
- Spinal Injury
- Asthma
- · Sudden Cardiovascular Death
- Harassment and Abuse in Sport
- Sex Reassignment and Hyperandrogenism



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# Post-Event Support

Debrief to ensure mental health of all involved

- Players
- Spectators
- Coaches
- Medical Staff
- Volunteers



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### **S.T.O.P**

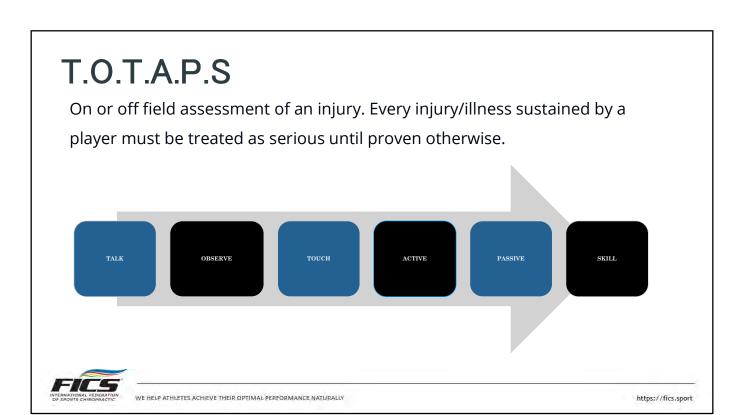
Used to prevent further injury while assessing athlete's ability to continue

- Stop the athlete from moving
- Talk to them and control their breathing
- Observe
- Prevent further injury



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# PEACE & LOVE Injury management for the initial phase (1-3 days)

- Protection
  - Load
- Elevation
- Optimism

Exercise

- Avoid Anti-Inflammatories
- Vascularisation
- Compression
- mprossion
- Education



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# Collars

Used to prevent further injury while assessing athlete's ability to continue

- Stop the athlete from moving
- · Talk to them and control their breathing
- Observe
- Prevent further injury





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### **MILS**

#### **Manual In-Line Stabilisation**

- · Kneel or lie behind head
- Place one hand on each side of the head
- Try not to completely cover ears
- Continue with DRSABCD assessment
- Instruct athlete not to move head
- Don't ask questions that encourage nodding or shaking of head
- Unless trained, do not move athlete until ambulance arrives



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# Moving the Injured Athlete

Take time to maintain the athlete's welfare and safety

- Choose appropriate method of transportation
- Prepare for the transport
- Use correct lifting technique
- Always work as a team





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# Types of Stretchers

- Scoop Stretchers
- Orange Stretchers
- Spine Boards





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### Stretcher Methods

- Requires minimum FIVE people
- Patients arms folded across their chest
- Team leader at head
- Tallest holds outer shoulder and elbow
- Next tallest holds pelvis and under outer thigh
- Smallest has hands scooped under knees and lower leg
- Roll in unison controlled by the team leader



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### **Ethical Considerations**

#### **Fair Discrimination**

- Based on individuals' differences in capability or suitability
- Must not discriminate between athletes who do and do not receive care





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### **Ethical Considerations**

#### **Unlawful Discrimination**

All people should be treated equally, not discriminated against on the basis of:

Age

- Disability
- Gender
- Pregnancy
- Religion
- Marital status
- Sexuality





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## **FICS Policy**

- Policies and protocols to protect the Sports
   Chiropractic profession when working as part
   of FICS delegations
- Creating and maintaining clear sexual boundaries between Chiropractors and patients; parents/guardian; team mates; friends; anyone in the vicinity of treatment administration.





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What to do if boundaries are crossed?



# Skye Initial Observations

23 year old female skateboarder at X-games reports to medical tent after a fall in the half-pipe competition where she fell and landed awkwardly on her left arm.



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# Skye

### **Primary Assessment**

- Pain located mid shaft of ulna
- Mild deformity noted left forearm
- No open wound





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# Skye

### **Secondary Assessment**

Pain on palpation and wrist flexion and extension





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# Skye

#### <u>DDx</u>

- Ulnar fracture
- Radius fracture





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# Skye

### **Management & Referral**

- Splint and sling left arm
- Referral to hospital for imaging and further management





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### Gord

#### **Initial Observations**

A 32-year-old ice hockey player was checked from behind resulting in a collision with their head onto the boards.

At the time of injury his head was slightly flexed, looking down at the puck on the ice.

He stated he had "heard a crack in his neck".

Witnesses reported a short loss of consciousness as he fell.



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### Gord

#### **Primary Assessment**

- He was found side lying with a torticollis deformity. He complained of neck pain with any attempted movement
- Glasgow Coma Scale 15/15
- Airway, Breathing and Circulation assessment NAD



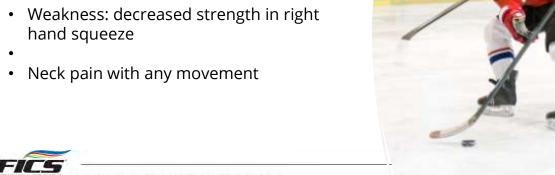


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### Gord

#### **Secondary Assessment**

- Cervical spine pain on palpation
- Extremity parasthesia: P&N in R arm





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### Gord

#### **DDx**

- Cervical burst fracture
- Fracture dislocation
- Cervical Disc injury
- Burner/Stinger





### Gord

#### **Management & Referral**

- · Call ambulance
- Apply MILS throughout the entire process of care.
- Did not align cervical spine to neutral
- Move athlete onto long spine board (log roll) and secure
- Secure athlete's head with blocks to long spine board
- Monitor vitals/level of consciousness



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### **Emily**

#### **Initial Observations**

17 year old female netballer (centre), landed with an extended Right knee when intercepting a pass.

She collapsed to the ground in extreme pain.





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### **Emily**

#### **Primary Assessment**

- The athlete reported hearing a pop in her knee.
- No obvious swelling, bleeding or deformity.
- Tenderness on palpation medial and posterolateral knee
- Active ROM limited in flexion due to pain.
- Athlete could be assisted to standing but was unable to weight bear due to pain and the feeling of instability in the knee.



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### **Emily**

### **Primary Assessment**

- No obvious swelling, bleeding or deformity.
- Tenderness on palpation medial and
- · Posterolateral knee.
- Active ROM limited in flexion due to pain.
- Athlete could be assisted to standing but was unable to weight bear due to pain and the feeling of instability in the knee.



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# **Emily**

### **Secondary Assessment**

Ligamentous testing in medical tent NAD





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# **Emily**

#### **DDx**

- ACL strain
- ACL Tear
- MCL Strain
- MCL Tear
- Meniscal Tear
- Tibial Plateau Fracture



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# **Emily**

#### **Management & Referral**

- Lay athlete down
- Splint or brace the knee in a comfortable position
- · Transport to hospital for imaging





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### **Jackson**

#### **Initial Observations**

25 year old male rugby player stays on the ground after a tackle, holding his left arm.

He appears in significant pain





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### **Jackson**

#### **Primary Assessment**

- Left arm held in Abduction
- Shoulder appears "squared off"
- Humeral head sitting anteriorly and out of the socket





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### **Jackson**

### **Secondary Assessment**

- Motor (wiggle fingers) and sensory screen normal
- Blood perfusion to fingers normal





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### **Jackson**

#### **DDx**

- Shoulder anterior dislocation
- Clavicle fracture
- AC separation





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### **Jackson**

### **Management & Referral**

- If you are not trained to relocate a joint, do not attempt
- Comfortably sling arm
- Refer for imaging and further management





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### Hansel

#### **Initial Observations**

Outdoor sports festival - 34\*C day.

Event mascot (35 y/o Male) presents feeling unwell. Reports dizziness, headache and nausea.

On questioning, they say they haven't eaten or drunk as much as normal due to a long shift.



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### Hansel

#### **Primary Assessment**

- Skin appears pale and cool, with slight sweating
- Body temp 37.3\*C
- Heart rate 120 BPM





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### Hansel

### **Differential Diagnosis**

- Heat Stress
- Heat Stroke
- Dehydration





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### Hansel

### **Management & Referral**

- Lie the casualty down
- Loosen and remove excessive clothing
- Moisten skin with a moist cloth/washer
- Cool by fanning
- Give them cool water to drink



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### Hansel

#### **Management & Referral**

- In this case, the mascot returned after 25 minutes with the same symptoms.
- On further questioning, it was revealed that he had just started on antidepressants (photosensitivity)
- He was advised to not complete his shift and to make sure that he had someone to take him home.



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### Wayne

#### **Initial Observations**

Tournament worker comes into the medical tent after setting up temporary fencing on the beach and hitting his toe with his shovel.

Big toe appears covered in sand and blood.



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### Wayne

#### **Primary Assessment**

- Still able to weight bear on foot.
- Once rinsed with saline, it appears that the toe
  nail on the big toe is about to fall off and there
  is a 2cm laceration on the medial side of the toe
  which is continuing to bleed.
- Palpation of the toe is pain free and movement can be produced at the MTP and IP joints pain free.



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# Wayne

#### **DDx**

Laceration





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### Wayne

#### **Management & Referral**

Wound management (cleaning & butterfly bandage) of laceration. Non-stick gauze and tape to cover entire toe.

Send for proper cleaning and dressing of wounds.

As this worker did not stop working at the event (sand) and couldn't wear shoes, further cleaning and dressing was done in the medical tent each day.



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### Bruce

### **Initial Observations**

53 year old male masters power lifter collapses with chest pain after 2nd attempt of a 150 Kg Deadlift.





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### Bruce

#### **Primary Assessment**

- Athlete reports pressure-like chest pain with left arm radiations
- Has no history of angina or heart conditions
- No loss of consciousness
- Short of breath
- Sweaty



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### Bruce

### **Secondary Assessment**

- Blood pressure 195/110
- Heart rate 170
- Glasgow Coma Scale 15/15





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### Bruce

#### **DDx**

- Heart Attack
- Angina
- Anxiety Attack





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### Bruce

### **Management & Referral**

- Have the person sit down, rest, and try to keep calm.
- Loosen any tight clothing.
- Call ambulance for immediate hospital transfer and assessment





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# Harry

#### **Initial Observations**

15 year old at national surf carnival is brought into the medical tent by parent with difficulty breathing.

No previous history of asthma, no reported allergies.





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# Harry

#### **Primary Assessment**

- Laboured breathing with wheeze
- No cyanosis
- Glasgow Coma scale 15/15
- Some limitation in the ability to talk





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# Harry

### **Secondary Assessment**

- Raised heart rate
- No immediate history of insect sting/food or medication ingestion





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# Harry

#### **DD**x

- Acute asthma attack
- Anaphylaxis
- Anxiety attack





### Harry

#### **Management & Referral**

- Calm and reassure patient
- Give 4 breaths of blue/grey reliever puffer with spacer (1 puff=4 breaths)
- 4 minutes later repeat dosage was required as there was no improvement.
- Recommend doctor's follow-up for further assessment



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# Sergio

#### **Initial Observations**

21 year old soccer player gets tackled from the side, then collapses to the ground in pain holding left leg



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# Sergio

### **Primary Assessment**

- Open wound noted mid lower leg
- Bone protruding through wound





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# Sergio

### <u>DDx</u>

- Open fracture of tibia
- Open fracture of fibula





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### Sergio

#### **Management & Referral**

- Shield injury from sight of athlete, other players and spectators
- Splint/support limb for transport
- · Stretcher athlete from field
- Once off field, keep wound clean until ambulance arrives
- Immediate hospital referral for imaging and management (likely surgery)



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### Kurt

#### **Initial Observations**

25 year old golfer stung by a bee on his hand while looking for golf ball in the rough.

Presents 20 minutes later complaining of Localised pain and swelling, shortness of breath and tingling in lips. No history of allergic reactions/anaphylaxis to bee stings



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# Kurt

### **Primary Assessment**

- On questioning, athlete reports feeling weak and dizzy
- Pale appearance to face





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# Kurt

### **Secondary Assessment**

- Audible wheeze
- Tachycardic





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### Kurt

#### **DDx**

- Allergic reaction
- Anaphylactic reaction
- Asthma attack





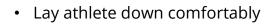
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### Kurt

### **Management & Referral**





- Administration of epipen
- Immediate referral to hospital for further testing and observation





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### Josie

#### **Initial Observations**

36 year old female show jumper thrown from horse after a refusal at the jump.

She lands on her right side gluteal region.

Athlete is found conscious but unable to move due to pain.





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### Josie

#### **Primary Assessment**

Right hip appears ABducted and externally rotated

No blood noted from rectum or vagina

Glasgow Coma Scale 15/15





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# Josie

### **Secondary Assessment**

Motor and sensory screen appear normal





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# Josie

#### **DDx**

- Pelvic Fracture
- Hip Dislocation
- Hip Labral tear





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### Josie

#### **Management & Referral**

- Remove danger (horse)
- Call Ambulance
- Do not remove clothing
- Monitor vital signs and manage shock





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### Lauren

#### **Initial Observations**

23 y/o Female sport climber falls from height (approx 3 metres) during climb

Casualty is conscious with 5cm laceration on left temporal region of head

Bleeding noted from left ear



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### Lauren

#### **Primary Assessment**

- Casualty is conscious with 5cm laceration on left temporal region of head
- Bleeding noted from left ear
- First responder notes casualty has difficulty hearing questions





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### Lauren

#### **Secondary Assessment**

- Severe pain reported at site of laceration, dull ache through whole head
- Battle sign on left
- No altered sensation or pain reported in upper or lower limbs
- Dizziness reported



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### Lauren

#### **Secondary Assessment**

- (MILS until cervical screen cleared)
- Palpate cervical spine for pain (negative)
- Motor and sensory assessment upper and lower limb (NAD)
- Active and passive cervical (full with little pain)





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### Lauren

### **Differential Diagnosis**

- Head laceration
- Skull fracture
- Traumatic brain injury





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### Lauren

#### **Management & Referral**

- Clean and dress wound with non-stick gauze
- Immediate referral to hospital for imaging, further medical assessment (including concussion) & management





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### Carol

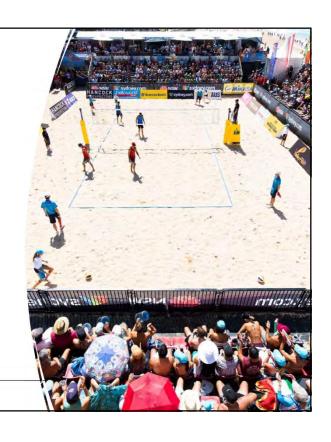
#### **Initial Observations**

47 year old female reports to medical tent at a world tour beach volleyball event after being hit in the head with a flag pole that came loose from the grandstand.

No loss of consciousness was noted at time of injury. She reports minor pain at the site of impact.



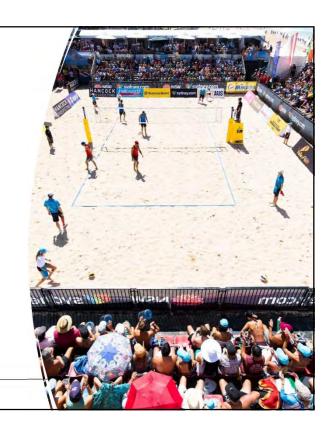
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### Carol

### **Primary Assessment**

- No obvious head injury (no bleeding or deformities)
- Cervical ROM full and pain free





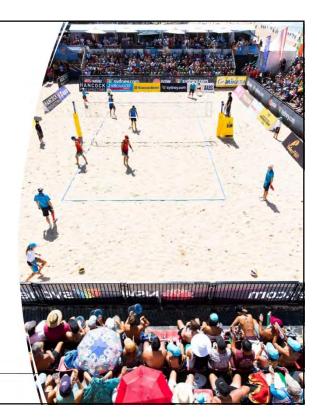
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# Carol

### **Secondary Assessment**

- Glasgow coma scale 15/15
- SCAT5



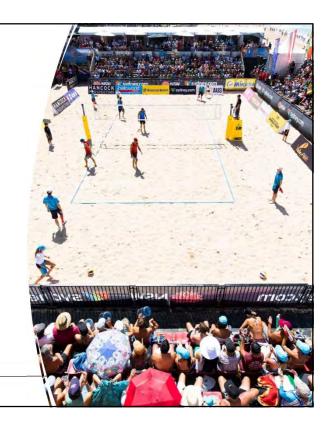


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### Carol

### **Management & Referral**

Recommend follow-up assessment from doctor to assess concussion





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