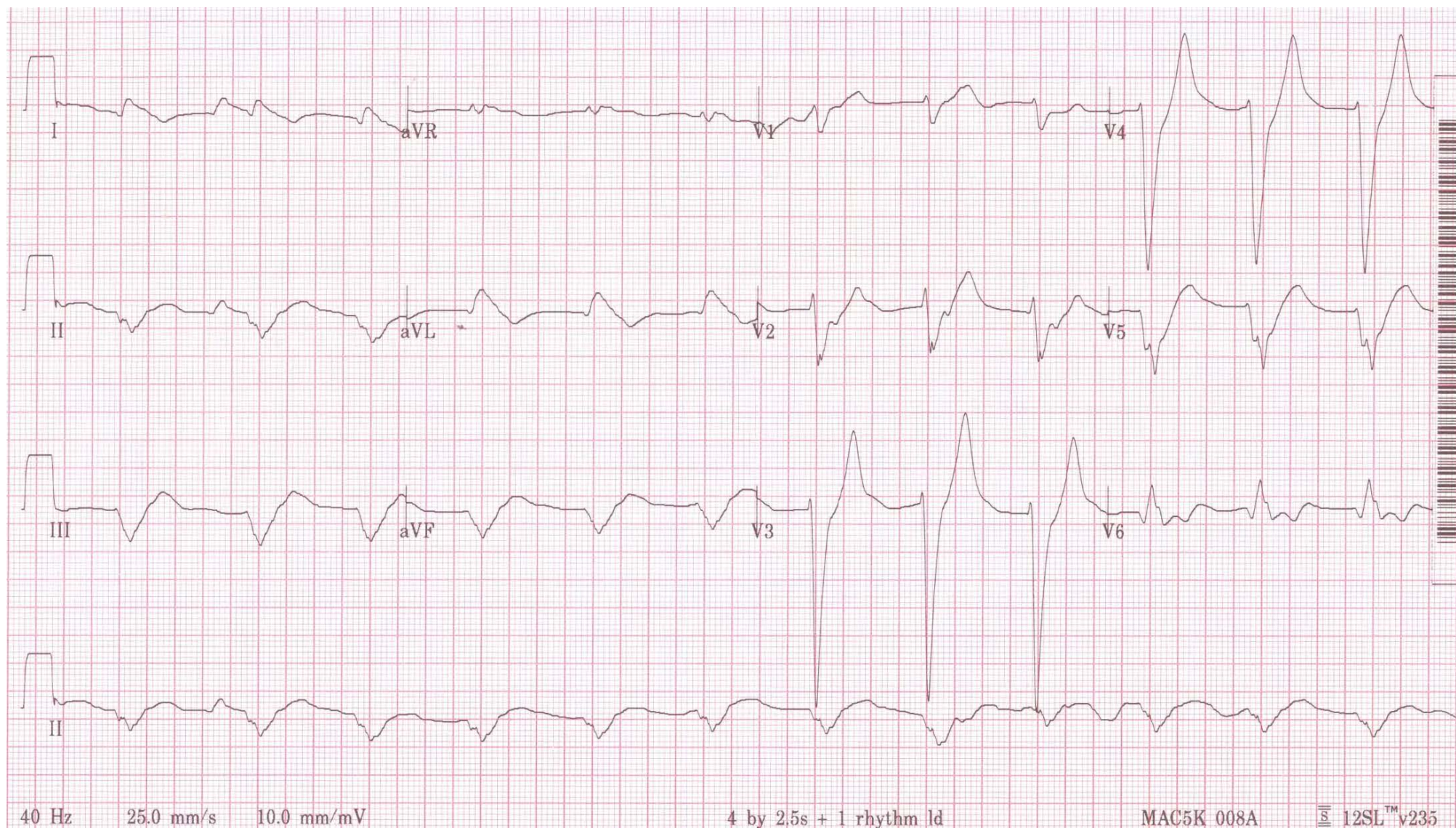


QUIZ 15th May 2019 (answers below)

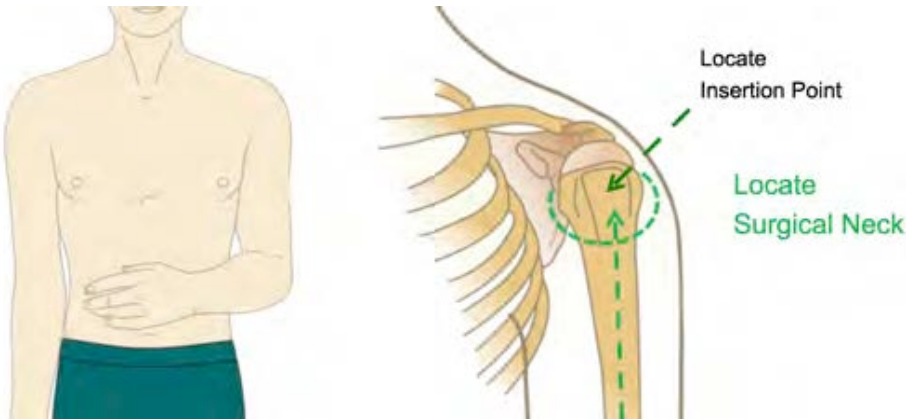
1. What is the landmark for intraosseous insertion in the humeral head?
2. What are the Canadian CT head rules?
3. What is A-WPTAS?
4. What discharge advice do you give to patients with mild traumatic brain injury?
5. Describe and interpret the following ECG.



QUIZ answers 15th May 2019

1. What is the landmark for intraosseous insertion in the humeral head?

The intraosseous needle is to be inserted into the humeral greater tuberosity. The patient's arm is internally rotated to turn the bicipital groove medially and hence out of the way. The surgical neck of the humerus can be palpated and the bony prominence of the greater tuberosity can be felt. Insertion point is 1cm above the surgical neck. The angle is perpendicular to the greater tuberosity – so pointing 30 - 45 degrees caudal and 30 - 45 degrees posterior.



2. What are the Canadian CT head rules?

CT Head Rule is only required for patients with minor head injuries with any one of the following:*

High risk (for neurological intervention)

- *GCS score <15 at 2h after injury*
- *Suspected open or depressed skull fracture*
- *Any sign of basal skull fracture (haemotympanum, raccoon eyes, CSF otorrhoea/ rhinorrhoea, Battle's sign)*
- *Vomiting ≥ 2 episodes*
- *Age ≥ 65 years*

Medium risk (for brain injury on CT)

- *Amnesia before impact >30 min*
- *Dangerous mechanism (pedestrian struck by motor vehicle, occupant ejected from motor vehicle, fall from height >3 feet or five stairs)*

**Minor head injury is defined as witnessed loss of consciousness, definite amnesia, or witnessed disorientation in patients with GCS 13 - 15*

3. What is A-WPTAS?

Abbreviated Westmead Post Traumatic Amnesia Scale.

The (unabbreviated) Westmead Post Traumatic Amnesia Scale is a standardised test that measures the length of posttraumatic amnesia (PTA) in patients with a traumatic brain injury. It is 12 standardised questions performed each day, at the same time, same place and preferably by the same examiner. A patient needs to score perfectly 3 days in a row to be regarded as having emerged from PTA. This is called "formal PTA testing".

The Abbreviated-WPTAS (3 picture memory questions + GCS 15 = total score 18) is a screening tool in mild traumatic brain injury patients for prolonged PTA that may require admission for formal PTA testing. A patient is considered screened out of PTA as soon as they score 18/18. A-WPTAS is used alongside clinical judgment.

A-WPTAS is only for patients within 24 hours of injury with a GCS 13 – 15. They need to have had a significant head injury where there has been an impact to the head resulting in confusion, disorientation, anterograde or retrograde amnesia, or brief LOC. They need to have their eyes open and be able to obey commands. Intoxicated patients can participate once they meet these criteria, keeping in mind that this is a high-risk group for significant brain injury.

The test is done at hourly intervals. If a patient is unable to score 18/18 after 4 hours post injury, they should be considered for admission for formal PTA testing. A rehabilitation physician should be consulted. Consideration needs to be given to other causes of test failure – drug and alcohol, dementia, etc.

4. What discharge advice do you give to patients with mild traumatic brain injury?

See the attached Mild Head Injury factsheet, conveniently brought to you by ITIM, the ECI and NSW Health.

It is readily available for printing in multiple languages on the ACI website:

<https://www.aci.health.nsw.gov.au/networks/eci/clinical/ed-factsheets>

Mild brain injury discharge advice (for adults)

You have had a mild brain injury, often called a concussion.

Most people will make a full recovery. You should start to feel better in a few days and be back to normal in a few weeks. In a very small number of cases, serious complications can develop in the first 24 hours after the injury.

Make sure you go home in the care of an adult.

Warning signs: the first 24 hours after injury

If you or your carer notices any of these symptoms, see your local doctor immediately, go to the hospital's emergency department or call triple zero (000):

- feeling faint or drowsy
- cannot be woken up
- acting strangely, saying things that do not make sense
- have a constant severe headache or a headache that gets worse
- cannot remember new events, recognise people or places
- pass out or have a blackout or a seizure
- cannot move parts of your body
- clumsiness
- have blurred vision or slurred speech
- have fluid or bleeding from the ear or nose
- have loss of hearing
- vomiting more than twice



Can I go to sleep?

Yes. It is all right for you to sleep, but you should be in the care of an adult for the first 24 hours. If it is necessary, your doctor may advise that you be woken up and checked.

Common symptoms after a mild brain injury:

If you experience any of these symptoms your doctor can monitor them for you.

Physical

Mild headaches (that won't go away)
Feeling dizzy or sick without vomiting (nausea)
More sensitive to noise or light
Balance problems

Thinking/remembering

Difficulties concentrating or paying attention
Memory difficulties or forgetfulness
Feeling vague or 'foggy thinking'
Difficulty in problem solving and making decisions

Sleep

Difficulties sleeping
Sleeping too much
Not sleeping enough
Feeling more tired and having no energy

Mood/behaviour

Losing your temper
Getting annoyed easily
Feeling anxious or stressed
More emotional or sad

Remember, most people will make a full recovery within a few days or weeks.

See your doctor if you:

- experience any of the warning signs
- are concerned about any of your symptoms
- want to return to contact sport
- are taking any other medications
- are wondering if you can return to driving or operating machinery
- are concerned about returning to work or study
- have family or friends worried about you.



The first 4 weeks after injury



Rest/sleeping

For the first 24 hours make sure you are in the care of a responsible adult. If it is necessary your doctor may advise that you be woken up and checked.

It is important to get adequate amounts of sleep and mental rest to allow your brain to recover.



Pain Relief

Use paracetamol or paracetamol/codeine for headaches.

Do not use aspirin or an anti-inflammatory pain reliever such as ibuprofen or naproxen (NSAIDs).



Driving

Do not drive or operate machinery for at least 24 hours.

You should not drive or operate machinery until you feel much better and can concentrate properly.

Talk to your doctor if you are uncertain.



Drinking/drugs

Do not drink alcohol, take sleeping pills or recreational drugs for 48 hours. All of these will make you feel much worse. They also make it hard for other people to tell whether the injury is affecting you or not.

If you are taking medication prescribed by your doctor, do not stop taking them unless advised to do so by a doctor.



Sports

Do not play sports or do strenuous physical activities for 48 hours and until you are free from any symptoms.

It is dangerous for the brain to be injured again if it has not recovered from the first injury. Talk to your doctor about a graduated return to sports and physical activities. **If in doubt, 'sit it out'.**



Work/study

You may need to take time off work or study if you are having trouble concentrating or remembering things. Everybody is different.

Discuss this with your doctor and your employer/supervisor.



Relationships

Sometimes your symptoms can affect your relationship with family and friends, such as having a short temper or anxiety. Talk to your doctor if you, your family or friends have any concerns.

Disclaimer: This health information is for general education purposes only. Always consult with your doctor or other health professional to make sure this information is right for you.

Persistent Post Concussion Symptoms:

A minority of people may suffer from persistent post-concussion symptoms. If you still have post-concussion symptoms a few days after a Mild Head Injury, you should see your local doctor. Your local Doctor will monitor these symptoms, which would normally improve within four weeks. Your local doctor may refer you to a Traumatic Brain Injury Clinic or a Neurologist for specialist review if your symptoms persist.

With a GP referral:

Liverpool Brain Injury Unit 9828 5495

Illawarra Brain Injury Service 4276 4717

Sydney Children's Hospital (under 16 years of age) 9382 1685

Adapted from "Mild Head Injury Discharge Advice" by Dr Duncan Reed (2007), Director of Trauma, Gosford Hospital. NSW Institute of Trauma and Injury Management.



NSW Institute of
Trauma and Injury
Management



Emergency
Care Institute
NEW SOUTH WALES



State Insurance
Regulatory Authority

ity

Motor Accidents Insurance Regulation, Level 25, 580 George Street, Sydney
NSW 2000

General phone enquiries 1300 137 131
or Claims Advisory Service 1300 656 919
Website www.sira.nsw.gov.au

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5. Describe and interpret the following ECG.

<i>Rhythm</i>	<i>Regular 75/min</i>
<i>P waves</i>	<i>Can't see any</i>
<i>QRS</i>	<i>Very wide 0.20sec Left axis deviation -60 degrees Poor R wave progression with clockwise rotation Bizarre appearance Approaching sine wave appearance in lead II</i>
<i>ST segment</i>	<i>QRS complex goes straight into T wave</i>
<i>T wave</i>	<i>Tall and wide V1-4 TWI V6 and aVL</i>

*Such wide QRS suggests a toxic or metabolic cause
Sine wave appearance suggests hyperkalaemia*

➔ *Hyperkalaemia 8.7mmol/L*