

**SQ 10**

A 45 yr old male presents following a motor vehicle accident. He complains of chest pain after striking his chest on the steering wheel.

**a. List 4 cardiac injuries associated with blunt chest trauma (4 Marks)**

1 Mark each up to 4 marks from

- Pericardial rupture
- Pericardial effusion / tamponade
- Valvular injury
- Coronary artery injury
- Cardiac chamber rupture
- Myocardial contusion

**b. List 2 investigations that can rule out blunt cardiac injury (2 Marks)**

1 Mark each from

- Normal ECG
- Normal troponin (timing controversial)

If both normal the blunt cardiac injury ruled out (level 2 recommendation)

**c. List 8 ECG findings associated with blunt cardiac injury (4 Marks)**

1/2 Mark each up to 4 marks from:

- Sinus tachycardia
- QT Prolongation
- ST segment elevation / depression
- New Q waves
- RBBB
- Fascicular block
- AV blocks - 1st, 2nd, 3rd degree
- Atrial extra-systoles
- Ventricular extra-systoles
- Ventricular tachycardia
- Ventricular fibrillation
- Sinus bradycardia
- Atrial tachycardia
- Electrical alternans

Answers taken from Eastern Association for the Surgery of Trauma (EAST) guideline 'Screening for Blunt Cardiac Injury' (<http://www.east.org/resources/treatment-guidelines/blunt-cardiac-injury,-screening-for>) and American Association for the Surgery of Trauma (AAST) 'Blunt Cardiac Injury' (<http://www.aast.org/BluntCardiacInjury.aspx>) and Diagnosing cardiac contusion: old wisdom, new insights by Sybrandy et al. Heart May 2003;89(5):485-489 (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1767619/>)