QUIZ 24th July 2019

1. How does MCI triage differ to conventional ATS triage?

Sieve and Sort
The basic concept is to Triage to "do the most for the most". Deal with life threats to enable rapid Triage/Treatment/Transport.
When there are multiple casualties initial assessment can take place with the Adult Triage Sieve.

*The **sieve** can be applied by an experienced paramedic or doctor on scene, and is designed to RAPIDLY triage to 4 groups ((1) Immediate, (2) Urgent, (3) Delayed and (4) Dead.*

*After using the sieve to triage and moving disaster patients to a casualty clearing statio or hospital, the Revised Trauma Score can be used to **sort**. By using GCS, respiratory rate and systolic BP a score is calculated, priority can be assigned and casualties can be distributed to appropriate areas of the hospital eg – resus, hot floor, ambulatory care..*

2. What happens if you activate a 'Code Brown'?

CODE BROWN initiates the External Emergency Response to a Mass Casualty Incident (MCI)

The SVH CODE BROWN response has 3 tiers:

Code Brown ED only

The immediate response will be localised to the ED

After hours or if the number of expected casualties is <20

***Code Brown Surge Plan** – PA announced*

Indicates a whole hospital response

Occurs when >20 patients arrive from an MCI in hours

All staff are to return to their work area and standby for briefing from their manager or unit leader

Code Brown Chemical Biological and Radiation (CBR)

Immediate response will be localised to ED

Access to ED restricted until nature of incident ascertained

3. What is the ‘hot floor’?

*Surge Plan involves setting up the **"Hot Floor"** on level 5 which allows Priority 1 critically injured casualties to go straight to OT or Anaesthetic Bay for definitive / operative management as well as moving intubated patients to ICU. Bypassing ED rather than clogging up ED resus beds with patients who are better suited for OT/ ICU.*

4. List the 4 types of BLAST injuries and give an example of each.

•Primary
-direct effects of pressure changes from the blast
-causes diffuse endothelial damage, if severe
- eg ruptured TM

•Secondary
-effects of projectiles
- eg penetrating eye injuries due to shattered glass

•Tertiary
- Displacement of air by the explosion creates a blast wind that can throw victims against solid objects.Tertiary injuries may present as some combination of blunt and penetrating trauma, including bone fractures and coup contre-coup injuries. Children are at particularly high risk of tertiary injury due to their relatively smaller body weight.

•Quaternary
-burns, asphyxia, and exposure to toxic inhalants

Organ injuries

Tympanic membrane injury

•the most frequently injured organ as it requires the lowest pressure to injure
•pressure increase of 5 psi (1/3 atm, 250 mmHg) can rupture the human eardrum
•higher pressures may dislocate the ossicles of the middle ear
•dysfunction of the seventh cranial nerve or vestibular damage suggests severe trauma
•disruption of the oval or round window can cause permanent hearing loss
•clinical relevance
-if the tympanic membrane is intact, primary blast injury to other organs is unlikely in the absence of relevant symptoms
-however delayed pulmonary complications can occur without ruptured membranes
-patients with rupture of the tympanic membrane should have a CXR and be observed for at least 8 hours

Other organ injury

•pressure increase of 55 to 75 psi (3.8 to 5.2 atm) causes damage to other organs

Lung

•the second most susceptible organ to primary blast injury

-pulmonary contusion (bihilar butterfly pattern on CXR), pneumothorax, haemothorax ,pneumomediastinum, subcutaneous emphysema
-immediate onset severe pulmonary oedema has poor prognosis

Abdominal injury

•colon most frequently affected
•small intestine less frequently
•mesenteric ischaemia or infarction can cause delayed rupture of the large or the small intestine
•injury to the liver, spleen, and kidney occur with very high blast forces
•direct injury of the fetus by a blast is uncommon

Eye

•up to 25% of blast survivors may have eye injuries, especially if the blast caused shattering glass

5. Describe & Interpret the following ECG:

Sinus rhythm at a rate of 100 bpm

pr interval – normal

q waves inferiorly – deep/pathological q waves in leads II & III

STE inferior leads & V4 – V6. STE III > II suggesting RV involvement

STD I, avL, V1 – V3

QT interval – normal

IMPRESSION – inferolateral STEMI with reciprocal STD. Q waves indicate at least some time since the acute infarct.

This ECG was from an elderly patient who presented in cardiogenic shock 48 hours following an episode of chest and arm pain associated with nausea. Cardiology were consulted re revascularisation but it was thought that it was unlikely to be of benefit. An IABP was considered however the decision to palliate was made.

Inferior STEMIs account for 40-50% of all MIs

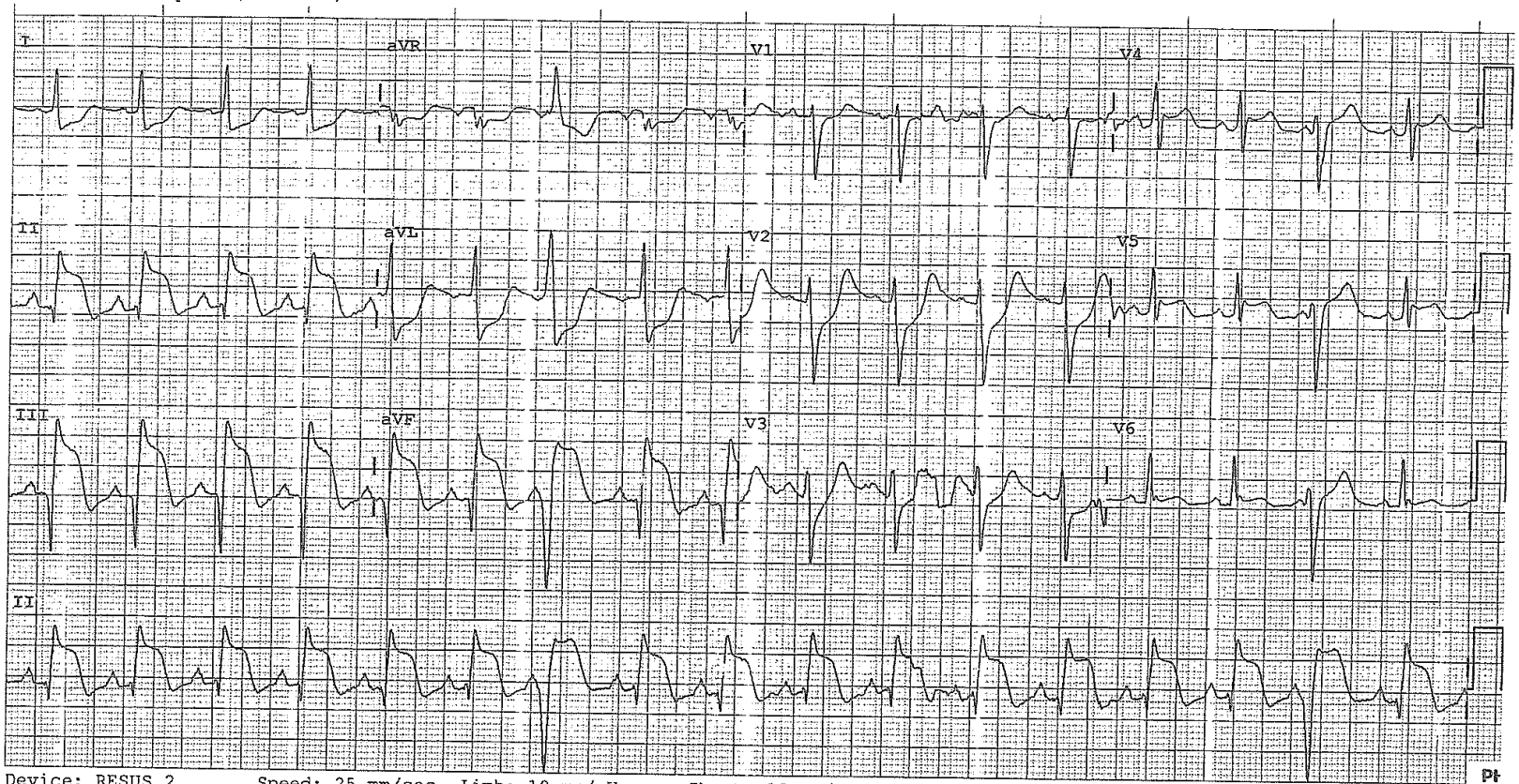
Up to 40% of patients with an inferior STEMI will also have an RV infarct. RV infarction is suggested by STE III > III, STD in lead I, STE V1 & V4.

At risk severe hypotension in response to nitrates (pre load dependant) and can develop significant bradycardia due to 2nd or 3rd degree AV block.

No Patient Admitted Non-Paced 20-Jul-2019 8:28:52 Page 1 of
ST VINCENTS HOSPITAL

HR	103 bpm	ST-I	-1.9 mm	ST-V1	-0.3 mm
PVC	17 /min	ST-II	6.2 mm	ST-V2	-3.1 mm
		ST-III	8.0 mm	ST-V3	-1.3 mm
		ST-aVR	-2.1 mm	ST-V4	1.8 mm
		ST-aVL	-4.9 mm	ST-V5	2.0 mm
		ST-aVF	7.1 mm	ST-V6	0.7 mm

12 Lead ECG Report (Standard)



Device: RESUS 2 Speed: 25 mm/sec Limb: 10 mm/mV Chest: 10 mm/mV 0.15-100 Hz