

## Mass casualty and Admin - ANSWERS

### SAQ 1

You are an ED consultant driving to work one evening when you witness a small passenger bus roll over at 100kph. The driver is deceased on scene and the minibus appears to have up to 15 passengers. Two off-duty paramedics also pull over to assist you.

- a. Briefly describe a triage system you may use to manage this scene. (3 marks)

*Green – walking wounded, no help required immediately*

*Yellow – significant injury but not immediately life threatening, likely to survive if simple care w/in hours*

*Red – require immediate care, critical injury with good chance survival if simple life-saving measures applied*

*Black – deceased or unlikely to be salvageable with simple measures. Comfort care only*

- b. You contact your hospital. State three key pieces of information you will give them and one request you will make of them. (4 marks)

*Number of patients*

*Extent and type of injuries*

*ETA of patients*

*\*activate mass casualty incident plan*

- c. Define mass casualty incident (MCI). (1 mark)

*Any incident in which emergency medical services/resources (personnel, equipment) are overwhelmed by the number and severity of casualties.*

- d. Briefly describe four differences between hospital based triage and external triage. (4 marks)

*External triage more chaotic than hospital based triage*

*External triage depends less on observations/history taken at time*

*“Black”/moribund patients in external triage are palliated; in hospital are seen first as priority 1 pts*

*External triage often undertaken by senior medical officer; hospital triage by trained nurse*

### SAQ 2 (continued from SAQ 1)

You arrive at work only to find you are the most senior doctor on shift. The mass casualty protocol has been initiated and surgical/anaesthetic/ICU/Ortho are all aware of events.

- a. For each of the following categories, list three steps you will immediately undertake to prepare for the influx. (6 marks)

#### Staff

*Call in extra staff*

*Allocate roles*

*Advise triage and assign senior doctor to assist at triage*

#### Environment/space

*Clear beds/space for influx*

*Prepare resuscitation rooms*

*Allocate area for families of patients*

#### Patients currently in department

*Advise waiting room patients of delay and encourage seeing their GP/etc*  
*Speed discharges to wards*  
*Move stable patients to short stay ward or similar as needed*

- b. List five non-medical groups/staff you may need to involve in this MCI. (5 marks)

*SAPOL/police – crowd control, traffic control*  
*Fire brigade – crowd control, traffic control*  
*Media liaison*  
*Hospital coordinator*  
*Social work/pastoral care*

- c. List three ways your management of this situation would differ if the MCI involved a sarin gas attack rather than a bus accident. (3 marks)

*Containment of patients outside until safe to enter*  
*Full PPE for all staff*  
*Decontamination outside ED before being allowed entry*

### SAQ 3

You are the ED director. Your staff have been accused of inappropriately allocating triage categories.

- a. Define triage. (1 mark)

*A method for determining the order of treatment of patients based on the urgency of their need for care.*

- b. Complete the following table regarding Australasian Triage Scale (ATS) categories. (5 marks)

ATS category	Time to being seen	Goal % seen within time
1	<i>Immediate</i>	<i>100</i>
2	<i>&lt;10 mins</i>	<i>80</i>
3	<i>&lt;30 mins</i>	<i>75</i>
4	<i>&lt;1 hr</i>	<i>70</i>
5	<i>&lt; 2 hrs</i>	<i>70</i>

- c. What is the Australasian NEAT target? (2 marks)

*>90% of patients seen in ED will be discharged, admitted, or transferred to another hospital for treatment within four hours.*

- d. Briefly describe four potential negative consequences of the NEAT target. (4 marks)

*Inappropriate admission of patients to the wrong wards to achieve the four hour rule*  
*Increased ED presentations due to perceived speed of turn around*  
*Possible substandard care of patients to meet time limitations/4 hr rule*  
*Increased pressure on junior staff to meet time frame – work stress*

- e. Define Access Block. (2 marks)

*The number of patients admitted/planned for admission from ED who died, were transferred to another hospital, or discharged from ED, without achieving an inpatient bed, within 8 hours of admission.*

#### SAQ 4

You are the retrieval doctor for an intubated patient with head and chest injuries, who is to be retrieved to a tertiary hospital by fixed wing aircraft.

- a. List two pros and two cons of fixed wing aircraft compared to helicopter transfer for patient transport. (4 marks)

*Pros: greater cabin space, better temperature control*

*Cons: road transport required at each end, not as easily mobilised and needs a landing strip*

- b. List four measures you will undertake to minimise patient complications during transport. (4 marks)

*Dual IV access at least – central/arterial lines would be ideal*

*Secure ETT after confirming location*

*Bilateral chest tubes prophylactically*

*NGT/IDC in situ*

- c. List four details you will communicate to the receiving staff. (4 marks)

*ETA*

*Details of patient injuries and treatment so far*

*Needs on arrival*

*Accepting doctor*

- d. Would you give this patient seizure prophylaxis? Justify your answer. (2 marks)

*Personal preference – I wouldn't, but some would as difficult to manage seizure en route. Current recommendations are avoid seizure prophylaxis – treat seizure if happens and then give pheny/etc.*

#### SAQ 5

After a series of unfortunate incidents, you have been asked to educate the junior doctors on medicolegal principles, including capacity and competence.

- a. Define capacity and competence. (2 marks)

*Capacity is a functional term referring to the mental or cognitive ability to understand the nature and effects of one's acts.*

*Competence is a legal term: "duly qualified; having sufficient capacity, ability or authority"*

- b. You explain to the juniors that competence may be demonstrated if four elements are present. What are the four elements required to demonstrate competence? (4 marks)

*Maintain and communicate a choice*

*Understand the relevant information*

*Appreciate the situation and its consequences*

*Manipulate the information in a rational fashion*

- c. A 58 year old female living alone, usually independent, presents with acute ischaemic gut. She requires immediate surgery to survive. Who can consent for this patient? (2 marks)

*The patient herself*

*The doctor if acting in best interests of patient*

*Relatives of patient CANNOT consent unless they hold medical power of attorney but can indicate how patient would have responded to the situation if well.*

- d. The patient is judged competent and declines surgery. Her pain is well controlled by strong oral opiates and she wishes to discharge herself home “to die”. List four ethical principles you will consider in deciding whether to allow her to self-discharge. (4 marks)

*Autonomy – respect for individual choices*

*Beneficence – doing good*

*Non-maleficence – do no harm*

*Justice – fairness*

### SAQ 6

You are the ED director. Your CEO has decided to save costs and reduce bed block by setting up a GP clinic adjacent to the ED to see priority 4 and 5 patients.

- a. List three positive aspects and three negative aspects of this idea. (3 marks)

*+ low priority patients may be seen quicker at GP clinics*

*+ May reduce ED presentations by a small amount*

*+ May improve patient satisfaction*

*- patients unlikely to choose GP clinic over ED*

*- GP patients don't have a significant effect on ED workload*

*- GP clinics near ED don't reduce demand on ED or promote effective, sustainable business practices*

- b. “GP style” patients are perceived by many to significantly increase ED numbers. What effect do these patients actually have on ED waiting times and access block? (2 marks)

*GP type patients do not significantly impact on ED waiting time (<5% of ED LOS is due to these pts)*

*Access block is unlikely to be reduced by reducing these type of pts – hospital issues need addressing more*

- c. You draft a pithy letter back to the CEO regarding access block, listing 6 factors which are proven to reduce access block. State them. (6 marks)

*Increased number of beds in hospital*

*Increased flow in hospital – early discharge, nurse led discharge*

*Community outreach programs – eg MRU, H@H*

*Improved access to pathology/radiology in ED*

*Senior decision making in ED – particularly early in patient journey*

*Improved access to Allied Health/Pharmacy*

*Increased use of transit lounge, increased ED staff numbers, increased rehab/respice/NH beds...*

- d. You also elect to educate him regarding what doesn't work to reduce access block, listing the following three failed options. (3 marks)

*Increased GP availability*

*Telephone help lines – eg health direct*

*Ambulance diversion, GP clinics, television ads about ED, etc.*

## SAQ 7

Your favourite registrar has just been assaulted...by a patient. The nurses point out that assaults have been more common recently.

- a. List 3 possible reasons for an increase in violence in your ED. (3 marks)

*Increased number of patients – increased likelihood of attacks due to number/waiting times etc*  
*Increased use of illicit drugs by patients*  
*Poor staff training of potentially violent patients*  
*Inappropriate triage*  
*Situational – low SES, poor ED design, other reasonable....*

- b. Briefly describe how you would investigate this problem. (4 marks)

*Plan, do, study, act....*

- c. List 6 possible solutions to reduce the number of violent attacks in your ED. (6 marks)

*Staff training – recognition and prevention of attacks*  
*Alert system for patients with history of aggression*  
*Seclusion area away from high traffic areas*  
*Higher priority for agitated/potentially violent patients*  
*Early security input for potentially aggressive patients*  
*Duress alarms, CCTV, etc.*  
*Ensure all patients with a history of violence are searched and dangerous items removed*

- d. The patient who attacked the Registrar is still aggressive. He was brought in by ambulance after a bar fight and is a frequent presenter for alcohol-related issues. The nurses ask if security can escort him off the premises. Briefly describe your response to the nurses and your next actions, with justification. (4 marks)

*Advise the nurses that the patient may be medically unwell and cannot be turfed out as a result. Place him under a section 57 or similar, restrain him chemically or physically as needed, and ensure no medical cause to his behaviour (head injury, low BGL, intoxication, etc). Cannot assume he is just a drunk arsehole, must assume he is a medically unwell one first and ensure you don't kill him by sending him home to herniate his tonsils or choke on his vomit....*