

SAQ 12

A 35 year old woman presents to the emergency department with fever, rigors and vomiting. She is 5 days post chemotherapy (4th cycle) for breast cancer.

On examination her observations are as follows:

Temp	39	°C
HR	120	/min
BP	80/60	mmHg
RR	28	/min
Sats	96%	on 3L O ₂ by nasal prongs

1. Describe your four (4) treatment priorities

2. List 5 investigations and give justification for each

Investigation	Justification

3. List four (4) factors that influence antibiotic choice

Question 16 (12 marks)

A 42-year-old female presents with fever five days after induction chemotherapy. Other than her malignancy she has no medical problems but does suffer from a rash when given penicillins.

Her vital signs are as follows:

HR 110bpm
BP 100/60mmHg
Temp 39.0 degrees Celsius
SaO₂ 98% room air
RR 24 breaths/min

You assume she is neutropenic and decide to treat empirically.

a). List two (2) options for the preferred antibiotic monotherapy for this patient. (1 mark)

b). List three (3) risk factors for tumour lysis syndrome (3 marks)

c). List three (3) metabolic features of tumour lysis syndrome other than renal impairment and hyperuricaemia (3 marks)

There is a prolonged wait for the patient to get seen by the oncology team and you are concerned that she will deteriorate if her hyperuricaemia goes untreated.

d). List two (2) interventions to treat hyperuricaemia secondary to tumour lysis syndrome in the ED. (1 mark)

The oncology registrar finally comes down to see the patient. The nurse attending to the patient comes to find you as the patient complained that the oncology registrar was abrupt and dismissive towards her and the patient is now crying.

e). How will manage this situation? (4 marks)

Question 19 (13 marks)

Your junior registrar is seeing a 46 year old woman with fevers and altered mental status who looks unwell. At this stage they haven't been able to locate a source of infection and have empirically treated her with intravenous flucloxacillin and gentamicin.

You review the patients full blood count (FBC), results below

Hb 108

WCC 6.5

Platelets 43

In ideal circumstances, below what platelet level would you organise a platelet transfusion to facilitate (1.5 marks)

Lumbar puncture (afebrile): < _____

Central venous catheter: < _____

Asymptomatic patient: < _____

What are the 5 features of TTP? (2.5 marks)

Discuss the treatment options for TTP (3 marks)

Candidate Name: _____

Complete the following table that compares the following serious causes of thrombocytopaenia (6 marks)

	TTP	DIC	ITP
Platelet count	Low	Low	Low
INR / PT			
Microangiopathic haemolytic anaemia			
Fibrinogen			
Safe to give platelets			

Candidate Name: _____

Q18

A 75 year old man is planned to receive a 2 unit packed red blood cell transfusion in your ED. He has recurrent anaemia due to myelofibrosis. His vital signs are normal.

- 1. List 4 acute immunological complications of the transfusion that might occur in the first 24 hours. (4 marks)**

- 2. List 3 acute non-immunological complications of the transfusion that might occur in the first 24 hours. (3 marks)**

One of the nurses has informed you that the patient has become unwell shortly after the transfusion was commenced.

His vital signs are:

GCS	15	
Temperature	39.5	degrees
HR	120	/min
BP	100/65	mmHg

Candidate initials: _____

3. List 3 actions you would take in this situation.

(3 marks)

4. List 3 possible complications of recurrent red blood cell transfusions.

(3 marks)

SAQ 24: (6 minutes)
(Total Marks 12)

Candidate Name:

A 14 year old girl presents to ED with a rash, as seen in the accompanying clinical photograph. The rash has been present for the last 24 hours. She has been playing rugby league today and has a headache.

She has had heavy PV bleeding for the past hour. B-hCG is negative.

She appears alert and active.
Her vital signs are as follows:

GCS	15/15
HR	88
RR	16
SpO2	100% in room air
Temp	36.5 C
CRT	< 2
BP	119/80



Questions:

1. Describe the main features present.

(2 marks)

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You perform a full blood count.

2. List 3 other investigations that you would perform in ED for this patient, with justification **(6 marks)**

Investigation	Justification

3. The patient's FBC shows the following:

Hb	112 g/dL	(115-165)
MCV	72fL	(80-100)
WCC	6 x10 ⁹ /L	(4-11)
Neutrophils	47%	(40-70%)
Lymphocytes	30%	(14-45%)
Monocytes	6%	(4-13%)
Eosinophils	1%	(0-7%)
Basophils	0%	(0-3%)
Plt	2 x 10 ⁹ /L	(150-400)

What is the most likely diagnosis in this patient?

(2 marks)

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- 4. Her PV bleeding increases and is difficult to control. Her GCS is now 12. List 2 specific treatments you would give as part of your management to stop her bleeding (2 marks)**

SAQ 18 (9 minutes)
(Total 18 Marks)

Candidate name:

A 38 year old female presents to your ED with a referral letter from her GP requesting a blood transfusion for anaemia. She does not have any obvious source of bleeding other than a history of menorrhagia.

Her FBC is shown below.

Hb 74 g/L
MCV 75
WCC 7.4
Plt 380

Questions:

1. List 5 possible causes for her anaemia.

(5 marks)

2. List three indications for a blood transfusion in this patient?

(3 marks)

The patient is deemed to require a blood transfusion and you have a discussion with her regarding consent for this. However, she refuses the transfusion due to concerns about the risks.

3. List 4 early and 4 late complications of blood transfusion.

(8 marks)

Early Complications	Late Complications

4. List 2 alternative treatment options you could consider in this patient.

(2 marks)

Question 1 (19 marks)

An 84 year old woman presents to the ED after a coughing episode yesterday lead to spontaneous abdominal wall bruising. It has worsened overnight and this morning has been brought in by an ambulance after a syncopal episode at home. She is also complaining of significant left sided abdominal pain.

Her main comorbidity is that she has atrial fibrillation and has had a “valve replacement” following rheumatic fever as a child. She is on metoprolol and warfarin. Her INR at her GP was 2.9 earlier in the week.

Her vital signs are:

T 35.1

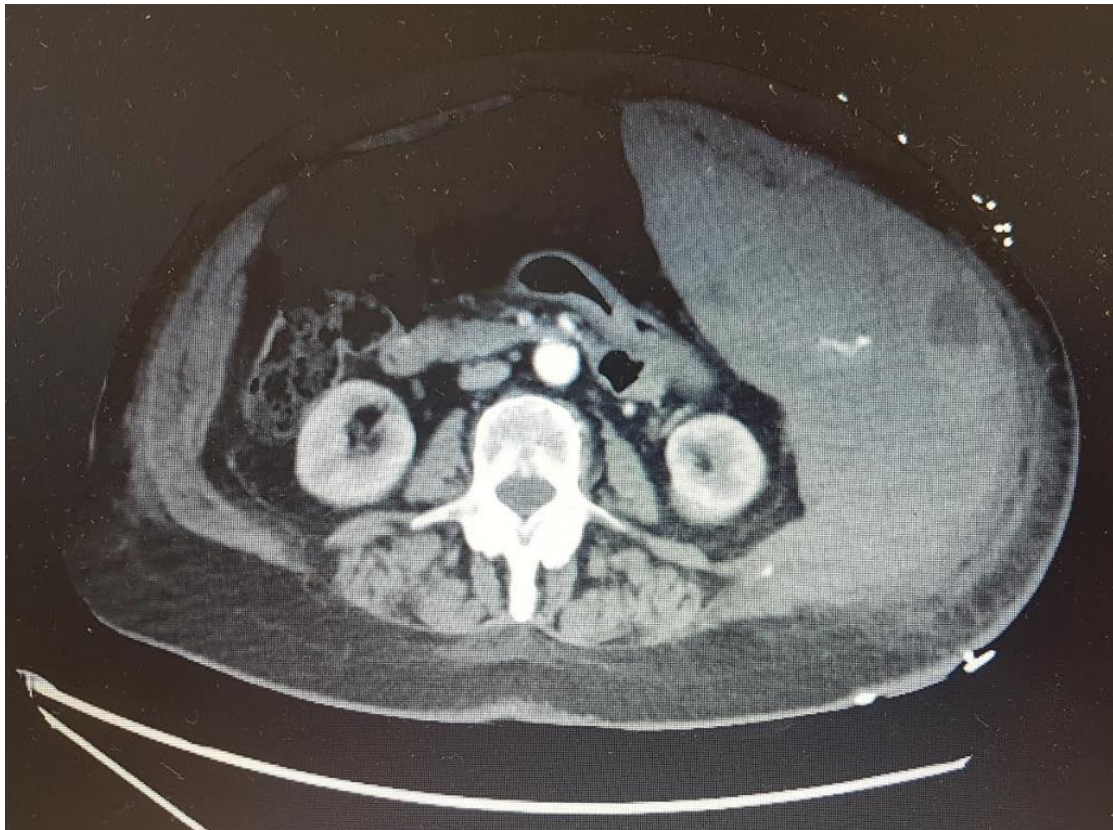
P 91

BP 73/50

RR 24

SaO₂ 92% RA

She receives 2 unit of packed red blood cells and her blood pressure improves sufficiently to be taken for a CT abdomen/pelvis. A single axial slice is shown below.



Candidate Name: _____

Describe the findings on the CT image provided (3 marks)

You are considering reversing the anticoagulation, regarding prosthetic valve thrombosis, name 2 factors (relating to the valve) that effect this risk of this upon reversal (2 marks)

What is the daily thrombosis risk? (1 mark)

You decide to fully reverse the patient's warfarin, outline your approach (3 marks)

The patient requires a massive transfusion, name 6 laboratory targets for massive transfusion (6 marks)

Candidate Name: _____

Excluding resuscitation and reversal, outline your management plan for this patient (4 marks)

Candidate Name: _____