

FEx Net 2023:

Dermatology + Infectious Diseases SAQs

1. Blanching Rash
2. Blistering
3. Cellulitis
4. Diabetic Fever
5. Ear
6. Ear
7. Eczema
8. Erythema Multiforme
9. Face
10. Face
11. Fever
12. Hand
13. HIV
14. HIV
15. HIV
16. IVDU
17. MERS
18. Nec Fac
19. Nec Fac
20. Neck Swelling
21. Onc Fever
22. Periorbital
23. Peritoneal dialysis
24. Petechiae
25. Petechiae
26. PID
27. Pyelonephritis
28. Renal Transplant
29. Scalp
30. SJS
31. Target Lesion
32. Target Lesion
33. TENS
34. TENS
35. Travel
36. Travel
37. TTP

Question 1

An 18 month old boy has been brought to the ED with a rash.

His clinical photograph is provided below.



1. Provide a description of the clinical photograph.

(4 marks)

2. List your 5 main differential diagnoses.

(5 marks)

3. List and justify the 4 investigations you may perform on this child to elucidate the cause of the rash. (4 marks)

Question 2 (12 marks)

A 34 year male presents to the Emergency Department with a widespread blistering rash.

- a. EXCEPT for Stevens-Johnson Syndrome OR toxic epidermal necrolysis, give six (6) differential diagnoses in this patient (6 marks)

- b. Give four (4) causes of Stevens-Johnson Syndrome (4 marks)

c. What is Nikolsky's sign? (2 marks)

Question 3 (21 marks)

With regard to skin and soft tissue infections

- i. List 5 non-infectious conditions that masquerade as unilateral leg cellulitis and indicate the symptoms/signs and/or tests that help to differentiate the condition from cellulitis (10 marks)

Cellulitis mimic	Differentiating symptoms/signs/investigations

- ii. List 3 choices of oral antibiotic which cover *Streptococcus pyogenes* **and** *Staphylococcus aureus* (3 marks)

- iii. Briefly explain the pharmacodynamic advantage conferred by combining a beta-lactam antibiotic with:

(a) Probenecid (2 marks)

(b) Clavulanic acid (2 marks)

- iv. Regarding the management of abscesses, write short notes on the role of the addition of an antibiotic to simple incision and drainage of the abscess (4 marks)

Question 4

A 48 year old 100kg diabetic man has been brought to the ED with severe perineal pain.

A clinical photo is provided below.



Q4

A 48 year old 100kg diabetic man has been brought to the ED with severe perineal pain.

A clinical photo is provided in the **PROPS BOOKLET**.

1. State the diagnosis.

(1 mark)

2. List 3 findings in the photo that support your diagnosis.

(3 marks)

His vital signs are:

GCS	14	E4 V4 M6
Pulse	120	/min
BP	90/45	mmHg
O2 saturation	99%	room air
Temperature	39.5	degrees

3. State 5 components of your management.

(5 marks)

- 1) _____

- 2) _____

- 3) _____

- 4) _____

- 5) _____

4. List 3 causative organisms

(3 marks)

Question 5

A 16 year old girl has presented with right ear pain.

A clinical photograph is provided **BELOW**.



Question 5

A 16 year old girl has presented with right ear pain.

A clinical photograph is provided in the **PROPS BOOKLET**.

1. State 3 relevant findings in the clinical photograph. (3 marks)

1) _____

2) _____

3) _____

2. Give your diagnosis. (1 mark)

3. List 2 bacterial causes of this problem. (2 marks)

1) _____

2) _____

4. List 2 important complications of this condition. (2 marks)

1) _____

2) _____

5. State 3 components of your management of this patient. (3 marks)

1) _____

2) _____

3) _____

Question 6 (13 marks)

This is the ear of a 40-year-old male who has developmental delay with autism.

A CLINICAL IMAGE IS SHOWN IN THE PROPS BOOKLET, PAGE 6

- i. Describe and interpret the image (2 marks)

- ii. List two possible predisposing conditions (2 marks)

- iii. List two complications (2 marks)

- iv. Name the three bacteria typically involved (3 marks)



- v. Name one suitable antibiotic choice for this condition (1 mark)

This developmentally delayed man is distressed about being in hospital. He is currently pacing and will not come into the assessment room.

- vi. List 3 non-pharmacological strategies or techniques you can use to manage his agitation (3 marks)

Question 7

An 18 month old boy is brought into your ED by his parents with a rash to his face. The rash has been there for a few days and has been worsening. He has had a reduced oral intake and mum states that he has 'felt hot'.

He is fully immunised and has a background history of atopy.

His vital signs are:

GCS 15/15

HR 130 bpm

CRT <2sec

Temp 37.8

Below is a picture of the rash:



Questions:

1- Describe the features of the rash

(4 marks)

2- What is the most likely diagnosis? List two other alternative diagnoses. (3 marks)

3- List 4 management priorities for this child (4 marks)

Question 8

A 2 year old girl has been brought to your ED with a rash. She has been unwell with fever for 5 days. She had been seen by her local doctor 2 days ago.

Her rash is shown in the clinical image below.



1. In point form, describe the image.

(4 marks)

2. Give your diagnosis for the rash.

(2 marks)

3. List the 2 most common aetiological groups responsible for this rash, and 4 specific agents in each group.

(6 marks)

Group	Specific agent

Question 9 (17 marks)

A 70 year old man presents with a painful facial rash that started 5 days ago. There have been no new skin lesions for 24 hrs. Vital signs are normal but he is distressed with pain.

A CLINICAL IMAGE IS SHOWN BELOW

- i. Describe the appearances seen in this photograph (3 marks)

- ii. List the most likely diagnosis (1 mark)

- iii. List 4 complications of this condition. For each of these, list one examination finding that would support the existence of the complication (8 marks)



iv. Outline your management for this patient (5 marks)

Question 10

A 22 year old man presents with facial pain and a rash.

A clinical photograph is shown below.



1. What is your provisional diagnosis?

2. Describe four (4) features on the clinical photograph that support this diagnosis.

3. List five (5) important complications of this presentation.

3. List three (3) key features on assessment that would mandate admission.

Question 11**(12 marks)**

A 34-year-old woman self-presents with fever, headache, body aches and generalised malaise. She takes no regular medications and has a reported penicillin allergy (rash as a child). Her observations are as follows: RR 18 breaths/min, saturations 97% on RA, BP 100/55, HR 115 bpm, temperature 39.5 degrees Celsius. She is GCS 15/15. Weight approximately 60 kg.

A Chest X-ray (CXR) is performed and is shown in the Props Booklet (Figure 7).

a) List two positive and one negative findings on this CXR. (3 marks)

b) Provide the most likely diagnosis for this patient (1 mark)

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c) List five other criteria required to make a formal diagnosis? (5 marks)

d) What is the empiric treatment recommended for this patient? (3 marks)



Question 12

A 14 year old boy has presented to the ED with a painful right hand. He injured his index finger 2 days prior while climbing a tree. The patient has type 1 diabetes mellitus.

A clinical photograph of the right hand is provided below.



Question 12

A 14 year old boy has presented to the ED with a painful right hand. He injured his index finger 2 days prior while climbing a tree. The patient has type 1 diabetes mellitus.

A clinical photograph of the right hand is provided in the **PROPS BOOKLET**.

1. List 4 abnormalities in the photograph. (4 marks)

1) _____

2) _____

3) _____

4) _____

2. List the most likely diagnosis. (1 mark)

3. List and justify 3 investigations you would perform. (3 marks)

Investigation	Justification

The patient's vital signs are:

Temperature	38.5	degrees
-------------	------	---------

Pulse	90	/min
-------	----	------

BP	110/75	mmHg
----	--------	------

- 4. State 5 steps in your management of this patient. Include doses and end-points where relevant. (5 marks)**

Question 13

A 45 year old man known to be HIV positive presents to your department with fever, non-productive cough, weight loss and mild confusion.

His vital signs are:

PR 105/min
BP 110/70
Sats 94% on room air
Temp 38.6 degrees
BSL 5.4

1. List 4 important differential diagnoses to be considered in this patient.

(2 marks)

2. List and justify 4 specific investigations that will help in differentiating the cause of this patient's illness

(4 marks)

Investigation	Reason

- 3. The patient's new girlfriend is in attendance. She is concerned regarding her risk of contracting HIV. List 4 factors that influence your decision to commence Post Exposure Prophylaxis (PEP) in this patient. (2 marks)**

- 4. List 4 things that a clinician must discuss with patients to whom they are prescribing PEP. (4 Marks)**

Question 14

A 22 year old HIV negative male presents to an urban district emergency department with a history of unprotected anal intercourse with an anonymous male partner the previous night. He is asymptomatic and requesting post-exposure prophylaxis (PEP).

- I. List (4) other factors on assessment that are important in determining his risk of contracting HIV in this setting?**

(4marks)

- II. List (6) important principles of discharge advice that you will provide to the patient.**

(6 Marks)

III. What other condition may require urgent treatment in this setting and what will determine if this is required? (2 Marks)

Question 15

A 45 year old man with known HIV has presented to the ED with shortness of breath.

- 1) List 2 specific laboratory findings that would support a diagnosis of Acquired Immunodeficiency Syndrome (AIDS). (2 marks)**

1) _____

2) _____

- 2) List 4 AIDS defining illnesses. (4 marks)**

1) _____

2) _____

3) _____

4) _____

Your assessment is consistent with pneumonia and severe immunodeficiency. The patient is moderately unwell and will require admission to hospital for intravenous antibiotics.

- 3) List 3 key pathogens that must be considered in this situation. List the antibiotic you will choose to treat each pathogen. (6 marks)**

Pathogen	Antibiotic

Question 16 (15 marks)

A 30y old male, presents to your ED with a productive cough, fever, shortness of breath and haemoptysis. He has a history of IV drug use but no other significant past medical history.

His observations are temperature 38.6, respiratory rate 30, saturating 91% on room air, pulse 140bpm (sinus rhythm) and BP 90/55

- a) Please list three (3) of the most important abnormalities on his chest X. **(see image below)**
(3 marks)

1.

2.

3.

- b) Please list the three (3) most common infectious organisms and two (2) non-infectious causes that could produce a similar appearance on chest X-ray (5 marks)

Infectious organisms:

1.

2.

3.

Non-infectious causes:

4.

5.

- c) List and justify the four (4) most important investigations that may assist in establishing a diagnosis (4 marks)

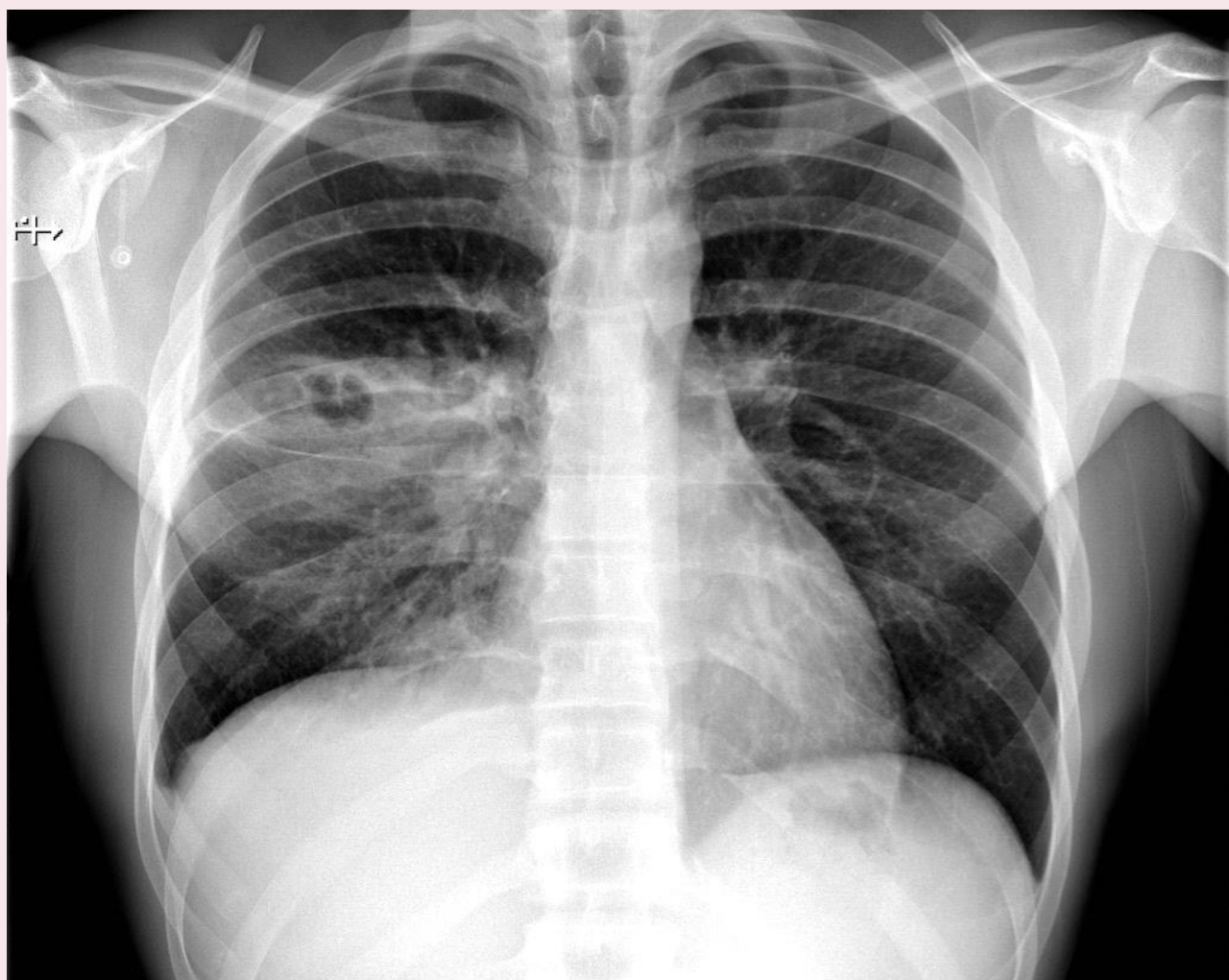
Investigation	Justification
1	
2	
3	
4	

- d) Briefly outline three (3) of the most important initial treatments you would institute in this patient (3 marks).

1.

2.

3.



Question 17 (14 marks)

A recently returned traveller is concerned about M.E.R.S. CoV (Middle East respiratory syndrome coronavirus).

(i) List three (3) aspects of the history which would make MERS CoV MOST likely (3 marks)

i)

ii)

iii)

Five (5) travelling companions of the concerned patient present to triage. You are concerned about the possibility of these patients also having MERS CoV.

(ii) List four (4) steps you would take to prepare the ED (4 marks)

i)

ii)

iii)

iv)

(iii) List four (4) personal protective precautions to take when treating these patients (4 marks)

i)

ii)

iii)

iv)

While waiting in isolation, one of the patients becomes agitated and demands to leave.

(iv) State three (3) management principles underlying an approach to this patient (3 marks)

i)

ii)

iii)

Question 18 (18 marks)

A 30-year-old man presents with a skin infection to his left lower leg.

He has no past history other than swelling of his throat with penicillins.

He has a fever and is haemodynamically stable.

During the process of completing your assessment you become concerned about the possibility of necrotising fasciitis.

- a) Aside from fever, complete the following table for six (6) MOST RELEVANT features in his history and examination that would alert you to the possibility of necrotising fasciitis? **(6 marks)**

History features (3 marks)	Examination features (3 marks)

The patient becomes hypotensive.

He is moved to a resuscitation bay and an arterial line is inserted.

An arterial blood gas is taken from the arterial line and **is shown in the props booklet**.

b) Complete the table below in regard to explaining the key findings on the ABG. **(6 marks)**

	Finding	Likely Reason
pH		
PCO ₂		
Anion Gap		

Arterial Blood Gas:

pH	7.39		(7.35 – 7.45)
PO ₂	175	mmHg	(80 – 110)
PCO ₂	30	mmHg	(35 – 45)
HCO ₃ ⁻	17.9	mmol/L	(22 – 28)
Base Excess	-7.9	mmol/L	(-3.0 - 3.0)
Sodium	143	mmol/L	(137 – 145)
Chloride	105	mmol/L	(100 – 109)
Potassium	4	mmol/L	(3.1 – 4.2)

- c) State the three (3) MOST IMPORTANT management priorities along with justified reason or detail. **(6 marks)**

Management Priority	Justification/detail

Question 19

A 65 year old man cuts the lateral aspect of his right lower leg on a rusty piece of wire while gardening. He washes the area with fresh water from his garden shed kettle, and wraps the wound in an old cloth, before seeing his GP the next day.

- I. List 5 types of wound that are more likely to favour the growth of tetanus (ie. are considered 'tetanus prone')**

(5 Marks)

Even though the next day his GP considers the wound to be "*just a nasty scratch really*" and wipes the area down with disinfectant then changes the dressing, the GP does believe it is 'tetanus prone'. He gives the man a tetanus toxoid vaccine, but wonders if intramuscular tetanus immunoglobulin (TIG) is also needed?

- II. List 3 indications for giving TIG to a patient in addition to tetanus vaccine.**

(3 marks)

Three days later the man returns to his GP concerned that his leg is infected. The GP suspects necrotising fasciitis.

III. List seven (7) features on history and examination that would support a diagnosis of necrotising fasciitis.

(7 Marks)

The man is transported urgently to your ED. He looks unwell, and you agree that he has likely **necrotising fasciitis**.

IV. List three (3) priorities in his immediate management.

(3 Marks)

Question 20

A 44 year old man has presented with pain and swelling under his jaw.

His clinical photo is shown.



1. List 3 important abnormalities in the clinical photo. (3 marks)

2. Give your interpretation of the photograph. (2 marks)

On examination, the patient has the following vital signs:

GCS	15	
Pulse	120	/min
BP	100/65	mmHg
Temp	38.5	degrees
RR	18	/min
O2 saturation	99%	room air

He can only open his mouth to allow one finger between his incisors.

3. List your priorities for this patient's management, including details of drugs and doses where appropriate. (6 marks)

Question 21

A 32 year old lady has presented with a fever and malaise for 12 hours. She is currently undergoing chemotherapy for breast cancer.

1. List 5 important features you would seek in your history.

(5 marks)

(1) _____

(2) _____

(3) _____

(4) _____

(5) _____

2. List 3 important features of your examination.

(3 marks)

- (1) _____

- (2) _____

- (3) _____

Her full blood examination reveals severe neutropaenia.

3. List and justify 5 important factors that will impact your antimicrobial prescribing for this patient.

(5 marks)

- (1) _____

- (2) _____

- (3) _____

- (4) _____

- (5) _____

Question 22 (16 marks)

A 6 year old girl is brought to the emergency department by her mother. She has had a cold for 1 week, and for the last 24 hours her right eyelid has become very red and swollen. She is unable to open her eye. Her temperature is 38.4 degrees Celsius.

- i. In the table below list 4 examination findings for each condition that may differentiate pre-septal from post-septal cellulitis (8 marks)

Pre-septal	Post-septal

- ii. List 2 bacteria that can cause this presentation (2 marks)

- iii. List appropriate antibiotic therapy (include route and dose) for pre-septal and post-septal cellulitis (2 marks)

	Antibiotic (Dose and Route)
Pre-septal cellulitis	
Post-septal cellulitis	

- iv. List 4 complications of peri-orbital cellulitis (4 marks)

Question 23

A 56 year old man has presented to the ED with abdominal pain for the last 24 hours.

He has end-stage renal failure managed with peritoneal dialysis.

Your junior medical officer is concerned that he might have peritoneal dialysis related peritonitis.

1. State the assessment findings that would be consistent with this diagnosis. (3 marks)

	Assessment finding
History	
Examination	
Peritoneal fluid white blood cell count	

- 2. List 4 features of your history and/or examination that would suggest a surgical cause for this patient's abdominal pain. (4 marks)**

1) _____

2) _____

3) _____

4) _____

The patient has peritoneal dialysis related peritonitis.

His vital signs are normal.

- 3. State 3 treatments you would use. (3 marks)**

1) _____

2) _____

3) _____

Question 24 (17 marks)

A 10 year old girl is brought to the ED by her parents who noticed a rash on her chest. She is normally well and fully vaccinated although she has an intercurrent upper respiratory tract infection and cough. Her vital signs are normal except for a fever of 38.5°C

A CLINICAL IMAGE IS SHOWN BELOW

- i. Describe the rash (1 mark)

- ii. List 5 possible causes of this presentation (5 marks)

Question 24



- iii. Briefly describe 5 clinical developments or investigation findings that would raise your level of suspicion for a serious bacterial infection in this patient (5 marks)

The patient's Full Blood Count results are displayed.

Component	Result	Normal Range
White Cell Count	16.1	4-11
Haemoglobin	110	115-175
Platelet Count	97	150-450
Haematocrit	0.30	0.36-0.56
MCV	79	79-96
MCH	28	27-32
MCHC	32	30-36
Neutrophil	2.1	2.9-7.9
Lymphocyte	9.8	1.8-4.0

- iv. Given these blood results, list 2 possible differential diagnoses for the presentation. For each differential diagnosis outline clinical or investigation findings that would either support that diagnosis or make it less likely (6 marks)

Question 25 (12 min)

A 3 year old boy has been brought to the ED by ambulance. He has been unwell with fever and vomiting for 2 days. He has developed lethargy and a rash this morning.

The child is unvaccinated.

A clinical photograph has been provided in the **PROPS BOOKLET**.

1. List 3 descriptive features from the photo. (3 marks)

- 1) _____
- 2) _____
- 3) _____

Your initial assessment suggests bacterial infection as the most likely cause of the presentation.

2. List 4 of the most likely bacterial pathogens that could cause this presentation. (4 marks)

- 1) _____
- 2) _____
- 3) _____
- 4) _____

3. Other than bacterial infection, list 3 differential diagnoses for this presentation. (3 marks)

- 1) _____
- 2) _____
- 3) _____

Question 25

A 3 year old boy has been brought to the ED by ambulance. He has been unwell with fever and vomiting for 2 days. He has developed lethargy and a rash this morning.

The child is unvaccinated.

A clinical photograph has been provided **BELOW**.



The patient's initial vital signs are:

AVPU	responds to voice	
Pulse	180	/min
BP	80/35	mmHg
Temperature	34.5	degrees
O2 sats	98%	room air

Your clinical assessment is consistent with septic shock.

- 4. Other than coagulation studies, list your 3 most important initial investigations, including justification. (3 marks)**

Investigation	Justification

5. State the details of your 2 most important initial treatment steps. (2 marks)

1) _____

2) _____

The patient stabilises after your initial management.

One of your laboratory tests is provided in the **PROPS BOOKLET**.

6. Interpret the results. (1 mark)

7. List 4 other potential complications of this patient's presentation. (4 marks)

1) _____

2) _____

3) _____

4) _____

Q25 (cont)

The patient stabilises after your initial management.

One of your laboratory tests is provided **BELOW**.

Coagulation profile

INR	3.2		(0.9 – 1.7)
aPTT	83	s	(24 – 39)
Fibrinogen	1.7	g/L	(1.7 – 4.5)
D-dimer	35	mg/L	(<0.5)
Platelet count	59	*10 ⁹ /L	(150 – 400)

Question 26

A 16 year old female has presented to the ED with her boyfriend. She has complained of lower abdominal pain for several days.

Her past medical history includes intravenous amphetamine abuse.

Your assessment is consistent with pelvic inflammatory disease.

- 1. List 4 investigations you might perform. Include the justification for each. (4 marks)**

Investigation	Justification

You have decided that the patient requires admission for further management of severe pelvic inflammatory disease.

Her vital signs are:

GCS	15	
Pulse	105	/min
BP	115/75	mmHg
Temp	39	degrees

- 2. List the components of your antibiotic regime. (3 marks)**

The patient has become agitated after an argument with her mother who has recently arrived to the ED. She demands to leave with her boyfriend.

- 3. List 3 elements of competence that you will need to assess in order to determine if you will allow the patient to leave. (3 marks)**

Question 27

A 25 year old man has presented with 2 days of fever, dysuria and right sided back pain. He has no other medical problems.

On arrival, his vital signs are:

Temperature	39.0	degrees
Pulse	125	/min
BP	90/60	mmHg

Your provisional diagnosis is right sided pyelonephritis.

- 1. State 3 steps in your initial management of this man. Include doses and end-points where appropriate. (3 marks)**

1) _____

2) _____

3) _____

- 2. List 3 likely bacterial pathogens that could cause this man's illness. (3 marks)**

3. List and justify 4 investigations you would perform. (4 marks)

Investigation	Justification

Question 28

A 25 year old woman has presented with a fever 10 days following a renal transplant.

Her other medical history includes systemic lupus erythematosus.

- 1. List 6 likely causes of her fever. For each, state the investigative finding that would support its presence. (12 marks)**

Cause

Investigative finding

Cause

Investigative finding

Cause

Investigative finding

Cause

Investigative finding

Cause

Investigative finding

Cause

Investigative finding

Question 29 (6 marks)

An 18 year old university student attends the ED for review of a red, tender scalp swelling. His general practitioner has commenced a course of oral flucloxacillin yesterday however there has been minimal improvement.



Describe the findings on this photograph (3 marks)

What is the likely diagnosis? (1 mark)

Describe the management of this condition (2 marks)

Question 30

A 40yo female presents complaining of a one week history of malaise, myalgia, arthralgia and a non-productive cough.

Over the last 4 days she has developed a rash initially commencing on her face and upper body.



1. List **4** important features of the rash that you need to assess for (2 marks).

- i. _____
- ii. _____
- iii. _____
- iv. _____

2. Give a differential diagnosis listing your most likely differential diagnosis first (3 marks).

3. List **5** important potential complications that need to be identified and managed. (5 marks)

- i. _____
- ii. _____
- iii. _____
- iv. _____
- v. _____

Question 31

A 2 year old girl has been brought to the ED with a rash over her torso.

A clinical image is provided **BELOW**.



Question 31

A 2 year old girl has been brought to the ED with a rash over her torso. A clinical image is provided

1. List 4 features of this rash. (4 marks)

- 1) _____
- 2) _____
- 3) _____
- 4) _____

2. What is the most likely diagnosis? (1 mark)

3. List 2 common infectious causes for this condition. (2 marks)

- 1) _____
- 2) _____

4. List 4 non-infectious causes for this condition. (4 marks)

- 1) _____
- 2) _____
- 3) _____
- 4) _____

5. State your management of this condition. (1 mark)

Question 32

A 35 year old woman has presented to the ED with a rash over her trunk and arms.

A clinical photograph has been provided below.



Question 32

A 35 year old woman has presented to the ED with a rash over her trunk and arms. A clinical photograph has been provided

- 1. List 3 descriptive features of the rash. (3 marks)**

Your registrar has suggested that the diagnosis might be erythema multiforme.

- 2. List 3 possible causes of erythema multiforme. (3 marks)**

3. List 3 differential diagnoses. For each, state an important feature of your overall assessment (history, examination, investigation) that would support the diagnosis.
(6 marks)

Differential diagnosis	Assessment feature

Question 33 (10 MARKS)

A 15-year-old boy has been transferred to your Emergency Department from a rural hospital. He had been given IV benzylpenicillin for a throat infection 48 hours previously.

--

1. Describe the appearance of the rash and give a likely differential diagnosis. (3 marks)

2. Assuming that the underlying cause is a severe drug reaction, outline how you would grade the severity. (2 marks)

3. Outline your management of the patient. (3 marks)

Question 33



4. What acute complications can develop from this disorder? (2 marks)

Question 34 (12 marks)

An 18 year old man presents with a 2-week history of general malaise, myalgia and fever. He reports that he was given a course of antibiotics by his GP two weeks ago for a cough, but has continued to feel unwell despite completing the course. He presents today worried about a painful rash involving his skin and mouth that has rapidly developed over the past 24 hours.

- a) List the three (3) MOST IMPORTANT differential diagnoses for this rash. **(see image in props booklet)** (3 marks)

1.

2.

3.

- b) What are the four (4) of the most common causes of this disease? (4 marks)

1.

2.

3.

4.



c) Name two (2) risk factors for this disease (2 marks)

1.

2.

d) List three (3) important treatments for this patient, irrespective of the cause of the rash (3 marks)

1.

2.

3.

Question 35 (16 marks)

A 42 year old man has developed a febrile illness one week after returning from a business trip to Papua New Guinea.

- i. What questions specific to this case should form part of the history that you will obtain? (6 marks)

- ii. Describe how the diagnosis of malaria can be established (3 marks)

- iii. Plasmodium falciparum has several characteristics that are markedly different to the other Plasmodia species. Briefly describe 3 differences (3 marks)

- iv. List 4 complications that occur in severe P falciparum infection (4 marks)

Question 36

12 Marks

In early January, a 23 year old man presents with a fever after returning from a group tour in far north Queensland. He is usually well, and fully vaccinated on the Australian immunisation schedule. His vital signs are

GCS	15
Pulse	108 bpm
BP	110/65 mmHg
RR	22/min
SpO2	97% in room air
Temp	38.2 °C

1. List four (4) features of history that will assist you to determine the source of fever (4 Marks)
2. List 3 specific examination findings you will seek, and 2 potential infections that may be indicated by each. (6)

The following laboratory results are obtained.

Reference range

Hb	124	130 - 180 g/L
WCC	15.7	4.5 - 11.0 x 10 ⁹ /L
Neuts	9.8	1.8 – 7.7 x 10 ⁹ /L
Platelets	32	150 – 400 x 10 ⁹ /L
Albumin	31	33 – 47 g/L
AST	431	10 – 45 U/L
ALT	32	65 – 45 U/L
ALP	124	30 – 110 U/L
GGT	196	10 – 70 U/L
Total Bili	32	< 20 µmol/L
Urea	7.9	3.0 – 8.0 mmol/L
Creatinine	85	60 – 110 µmol/L
Glucose	5.4	3.0 – 5.5 mmol/L

3. What is the MOST LIKELY infectious diagnosis based on these laboratory results? (1 Mark)
4. Identify one other possible infectious diagnosis. (1 Mark)

Question 37

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 describes a recent flu-like illness one week ago that included a sore throat for which she was prescribed some medications from the GP.

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 in this photograph. (2 marks)

2. Provide a broad differential diagnosis for her presentation by completing the table below:

(15 marks)

Disease Category	Provide 2 Examples

3. The patient's FBC shows the following:

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

What is the most likely diagnosis in this patient?

(2 marks)

4. What are the main indications to consider urgent treatment for this condition?
(2 marks)