

# Case 8

## Question 1 (written by Joe Edwards)

A patient presents to their GP having noticed a red swollen area on their right leg, following a minor injury involving a thorn few days previously. The patient has no systemic symptoms and the open wound from the thorn is partially healed.

The patient is overweight and has type 2 diabetes. The patient's leg is shown in **FIGURE 3**.



**FIGURE 3**

The doctor suspects an infection of the skin, and on examination decides that the infection is probably cellulitis rather than erysipelas.

- a) Using **FIGURE 3** and the information provided, justify the doctor's opinion that the infection is likely cellulitis rather than erysipelas. [3]

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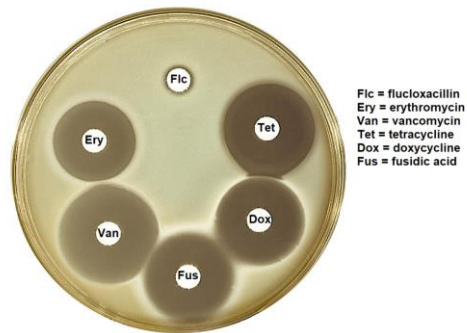
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## Medical Education Society: A100 Year 1 Practice SAP Questions

The doctor prescribes flucloxacillin for the patient's infection but decides to take a skin swab of the open wound to send for susceptibility testing, the results of which are shown below on **FIGURE 4**.



**FIGURE 4**

- b) State the type of antibiotic susceptibility testing shown on **FIGURE 4**.

[1]

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- c) List three factors, other than antibiotic susceptibility testing, which are important for the GP to consider when deciding which antibiotics to prescribe.

[3]

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## Medical Education Society: A100 Year 1 Practice SAP Questions

### Question 2 (written by Joe Edwards)

A patient with longstanding atopic dermatitis presents to a dermatology outpatients clinic concerned worsening lesions on the skin. **FIGURE 5** of the patient's inner elbow is shown below.



**FIGURE 5**

The patient reports being embarrassed by the lesion and feeling systemically unwell for the last 2 days, with a fever and worsening fatigue.

- a) Describe the biopsychological impact of living with skin disease.

[3]

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- b) State the complication this patient has presented with, and suggest the aetiological agent.

[2]

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## Medical Education Society: A100 Year 1 Practice SAP Questions

c) Describe how the presentation shown in **FIGURE 5** differs from the normal presentation of this skin disease.

[2]

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d) Suggest the next step the dermatologist should take to manage this complication.

[1]

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## Medical Education Society: A100 Year 1 Practice SAP Questions

### Question 3 (written by Rehaan Khokar)

During an investigation, 0.5cm of a 1 in 10,000 diluted liquid culture of *bacillus cereus* was transferred onto agar plates containing different concentrations of antibiotics. After two days, the number of bacterial colonies were counted.

Concentration of antibiotic / arbitrary units	Number of colonies of <i>bacillus cereus</i>		
	Flucloxacillin	Lymecycline	Piperacillin-Tazobactam
0	300	300	300
5	0	290	300
10	0	195	295
15	0	0	275
20	0	0	240

TABLE 1

- a) Calculate the number of *bacillus cereus* bacteria present in 1cm<sup>3</sup> of the undiluted liquid culture.

[2]

Answer = \_\_\_\_\_