

# The College of Emergency Medicine

Patron: HRH The Princess Royal

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ACCS

Sepsis

## Pneumonia with sepsis

This scenario is designed to get the trainee to look beyond the obvious diagnosis of an episode of AF with rapid ventricular response. The trainee will need to recognise that the AF with fast ventricular response has been triggered by underlying sepsis. The ambulance sheet and ECG should be shown to all the candidates prior to starting the scenario. The patient will improve once the sepsis 6 have been initiated.

**Patients Name:** Jeremy Parsons

**Patients Age / DOB:** 72

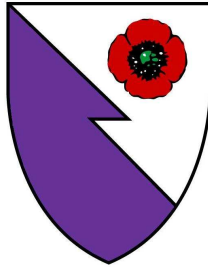
Major Problem	Medical Sepsis	NTS
Learning Goal	<b>To recognise severe sepsis as underlying diagnosis</b>  <b>To initiate sepsis six</b> <ul style="list-style-type: none"><li>• Give high flow O2</li><li>• Take blood cultures</li><li>• Give iv antibiotics</li><li>• Start iv fluid resuscitation</li><li>• Measure Hb and lactate</li><li>• Measure hourly urine output</li></ul>	<b>Decision making:</b> Option Generating Selecting and communication options Outcome review
Narrative Description	72 year old man. Retired bank worker. Presents to the ED following a collapse. He got up to go to the loo in the early hours of the morning	

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## ACCS

## Sepsis

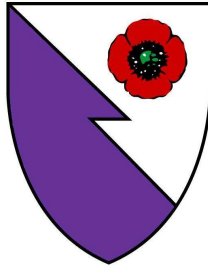
	<p>and his wife heard a loud bang and found him collapsed and confused on the floor. No external evidence of a head injury. She says he has not been quite right for a couple of days, with periods where he has been quite confused and he has seemed very tired and SOB on moving about. The ambulance sheet states ,”Collapse ? cause ? arrhythmia.’ The cas card has presenting complaint as ,”Collapse ? cause.” He has an MEWS score of 8 <i>(Please adapt score to fit the warning score used in your department with multiple mildly abnormal physiological parameters)</i></p> <p><b>PMH</b> AF BPH</p> <p><b>DH</b> Digoxin 125mcg Aspirin 75mg Finesteride 5mg</p> <p>No allergies</p>	
<b>Staffing</b>	<p><b>Faculty Control Room:</b> 1 x Sim man controls 1 x Pt voice / nurse informer</p> <p><b>Faculty Role Players:</b> 1 x Nurse +/- wife</p>	<p><b>Candidates</b> ED Doctor</p>
<b>Case Briefing</b>	<p><b>To All Candidates</b> Patient brought to ED by ambulance after wife found him collapsed on the floor in the early hours of the morning. The nurse has come to find you with the patients ECG. (The ambulance sheet and ECG should be shown to all the candidates prior to starting the scenario.)</p>	<p><b>To Role Players</b> Anaesthetic reg ED reg Wife (on phone)</p>

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## ACCS

## Sepsis

<b>Manikin preparation</b>	Male patient sat up at 30 degrees Attached to monitor Atrial fibrillation O2 via nasal cannula Crackles/reduced air entry L lung Cannulated
<b>Room set up</b>	A&E resus Experienced nurse available to help
<b>Simulator operation</b>	
<b>Props needed</b>	Defibrillator iv fluids iv antibiotics Ambulance sheet (see appendix) ECG (see appendix) ABG (see appendix) Urinary catheter (if able to catheterise manikin, 60mls of concentrated urine drained...strong tea makes good concentrated urine) Dalteparin or equivalent Bisoprolol or equivalent Appropriate drugs for DC cardioversion

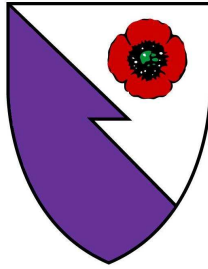
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ACCS

Sepsis

## Observations:

### Initial

<b>HR</b>	<b>110-120</b>
O2 sats	94% on nasal O2
BP	95/50
Temp	35.4
RR	22
GCS	E=3 V=4 M=6 13/15

Later if iv fluids, antibiotics, high flow O2 and other treatment for sepsis started

<b>HR</b>	<b>100</b>
O2 sats	96% on O2
BP	100/50
Temp	37.8
RR	18
GCS	E=4 V=5 M=6 15/15

Later if sepsis not recognised/ and or not treated

<b>HR</b>	<b>120-130</b>
O2 sats	92%
BP	90/40
Temp	37.8
RR	30
GCS	E=3 V=4 M=5 12/15

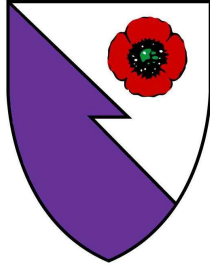
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## ACCS Nurse Role

## Sepsis

### Scenario

72 year old man who has been unwell for 2 days with intermittent confusion. He has been brought in to ED after his wife heard him collapse on the way to the loo in the middle of the night. He has no apparent injuries.

### Underlying diagnosis

Sepsis

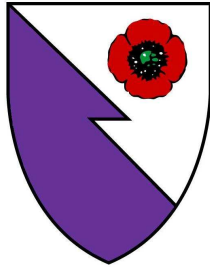
### Instructions

The doctor will come and see the patient after you have shown him/her the ECG and explained that you are worried about the patient as he seems very tachycardic and a bit hypotensive and knocked off. The ECG shows AF with a fast ventricular response.

You are generally helpful and will competently do anything the trainees ask you.

If the trainee suggests that they would like to attempt to cardiovert the patient you will express some concern that the patient looks quite poorly and shouldn't they talk to a senior first particularly as it's the middle of the night and there are quite a few patients in the department.





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## ACCS Patient Role

## Sepsis

### Scenario

72year old man presents to the department following a collapse at home. No injuries. Not been feeling right for a couple of days. Now drowsy but rousable. Confused, doesn't understand questions, disorientated.

### Underlying diagnosis

Pneumonia with sepsis

### Patient Instructions

You are able to give very little information. If the doctor tries to explain any treatments or get consent for anything, you don't understand what he is talking about. You tend to fall back to sleep when no-one is talking to you. If you are not treated for sepsis (given fluids, high flow O2 etc) you become increasingly difficult to wake up.

When you are given fluid, high flow O2 and antibiotics you will be less drowsy and more oriented.

You have no known allergies

PMHx: AF, BPH

DH: Aspirin, digoxin, finasteride

NKDA

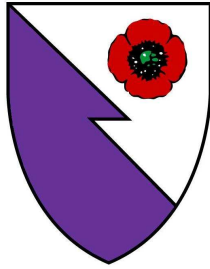
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## ACCS Wife on telephone

## Sepsis

Your husband is normally well. He does all the shopping and only last week he drove all the way to Manchester to see his grandchildren.

You have been worried about him for the last couple of days. He just hasn't been his normal self, getting confused, not knowing where he was and short of breath. You tried to get him to see the GP but he wouldn't go. When you found him collapsed you thought he might have had a stroke so called the ambulance straight away.

He hasn't coughed anything up or complained of any pain anywhere. He hasn't had any falls recently apart from tonight.

You always make sure he takes his tablets.

PMH

Irregular heart beat.

Water works trouble...he has to go 2 or 3 times at night

DH

Finesteride 5mg od

Aspirin 75mg od

Digoxin 125mcg od

No allergies

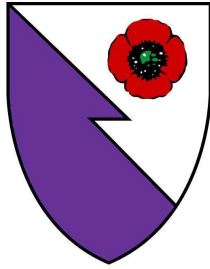
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## ACCS ED/Anaesthetic reg

## Sepsis

If you are called about managing the patients AF you will want to know why the candidate thinks the patient has gone into fast AF now when they are normally well controlled. You will want to know whether the candidate has looked for an underlying cause e.g. PE, bleeding, infection etc. You will be concerned about managing a hypotensive patient in AF and comment that he is more hypotensive and confused than you would expect for someone with a rate of 110-120. If you are asked to come and see the patient, you will, but you can't come straight away as you are in the middle of seeing an unwell baby.

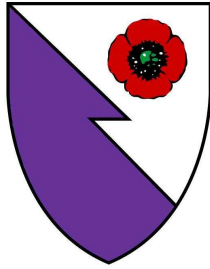
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**ACCS**

**Sepsis**

**Blood Results: Jonnie Walker**  
**Age 57 year old male**

## **ABG shortly after arrival**

pH	7.27
pO <sub>2</sub>	9.8
pCO <sub>2</sub>	5.9
HCO <sub>3</sub>	16
BE	-6
Hb	12.4
Lactate	4.8

## **ABG after treatment for sepsis**

pH	7.31
pO <sub>2</sub>	12.5
pCO <sub>2</sub>	4.2
HCO <sub>3</sub>	20
BE	-3
Hb	12.4
Lactate	3.2

## **ABG later without treatment for sepsis**

pH	7.20
pO <sub>2</sub>	9.7
pCO <sub>2</sub>	5.2
HCO <sub>3</sub>	12
BE	-9
Hb	12.4
Lactate	7.8

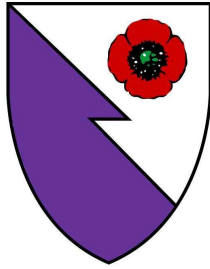
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## ACCS AMBULANCE SHEET

Sepsis

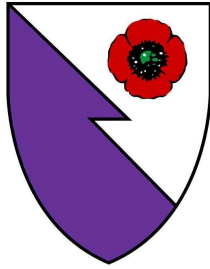
<b>Address:</b> 5 Coin Lane. Newbury	<b>Name</b> Jeremy Parsons	<b>Age</b> 72	<b>Phone</b> 01345 459635	<b>Onset Time</b> 0230
<b>BP:</b> 95/55	<b>Pulse</b> 116	<b>Temp</b> 35.7	<b>Sats on air</b> 91%	<b>RR</b> 25
<b>BM:</b> 9.1				
<b>NOK:</b> Brenda Parsons (Wife)	<b>History:</b> <i>Unwell for 2 days with confusion and SOB</i> <i>Collapsed tonight. No LOC. No injuries</i> <i>Rapid irregular pulse. Borderline hypotensive</i> <b>PMH:</b> <i>AF</i> <i>BPH</i> <i>DH;</i> <i>Finetseride, digoxin, aspirin</i>			
	<i>Collapse ? cause ? arrhythmia</i>			
	<b>Allergies</b> <i>Nil known</i>		<b>Medication given</b>	
<b>Arrival time in ED</b> 0330		<b>Signature</b> <i>A. Nurse</i>		

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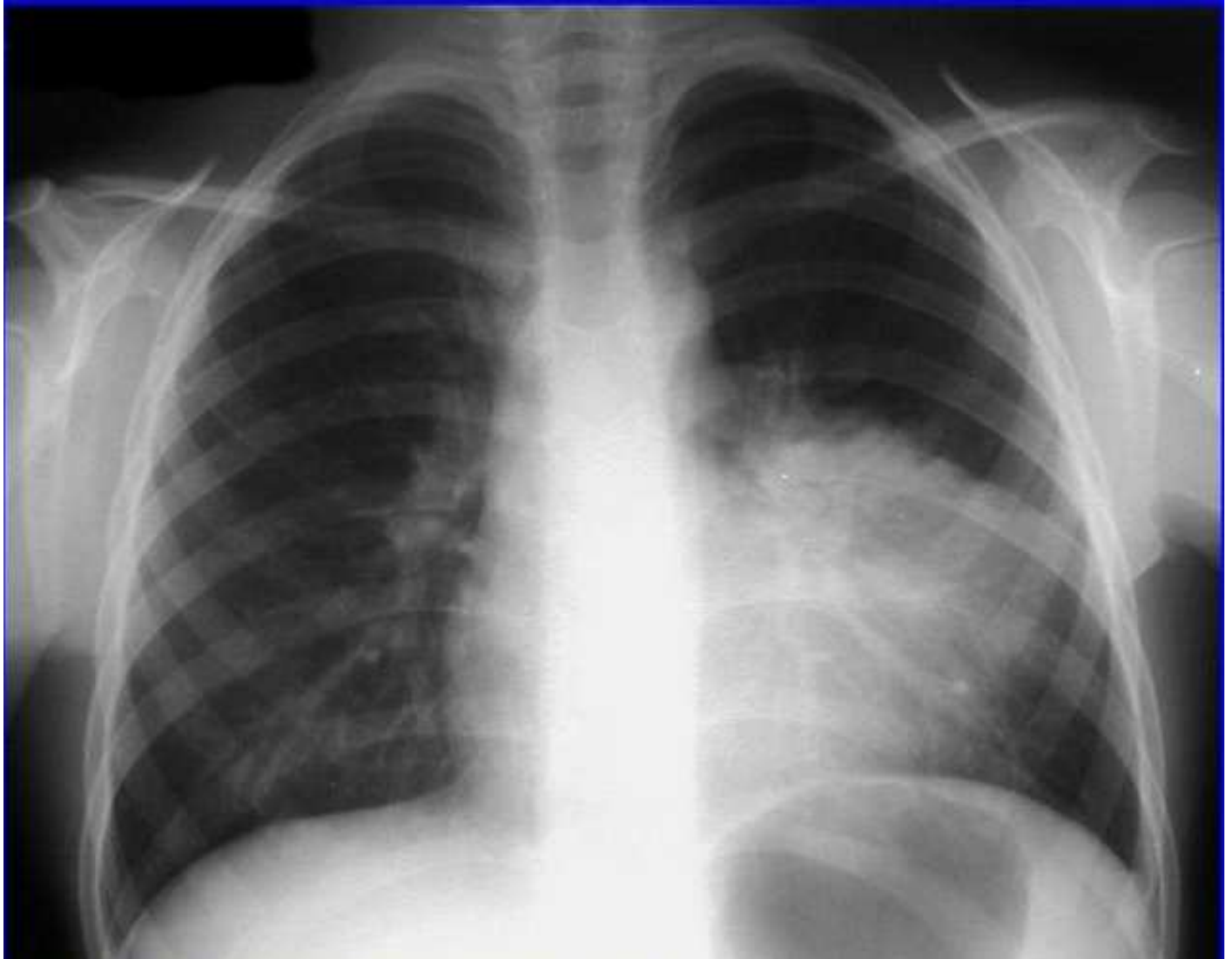
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ACCS

Sepsis



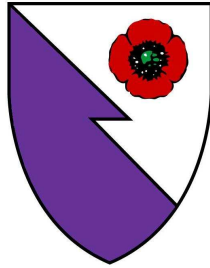
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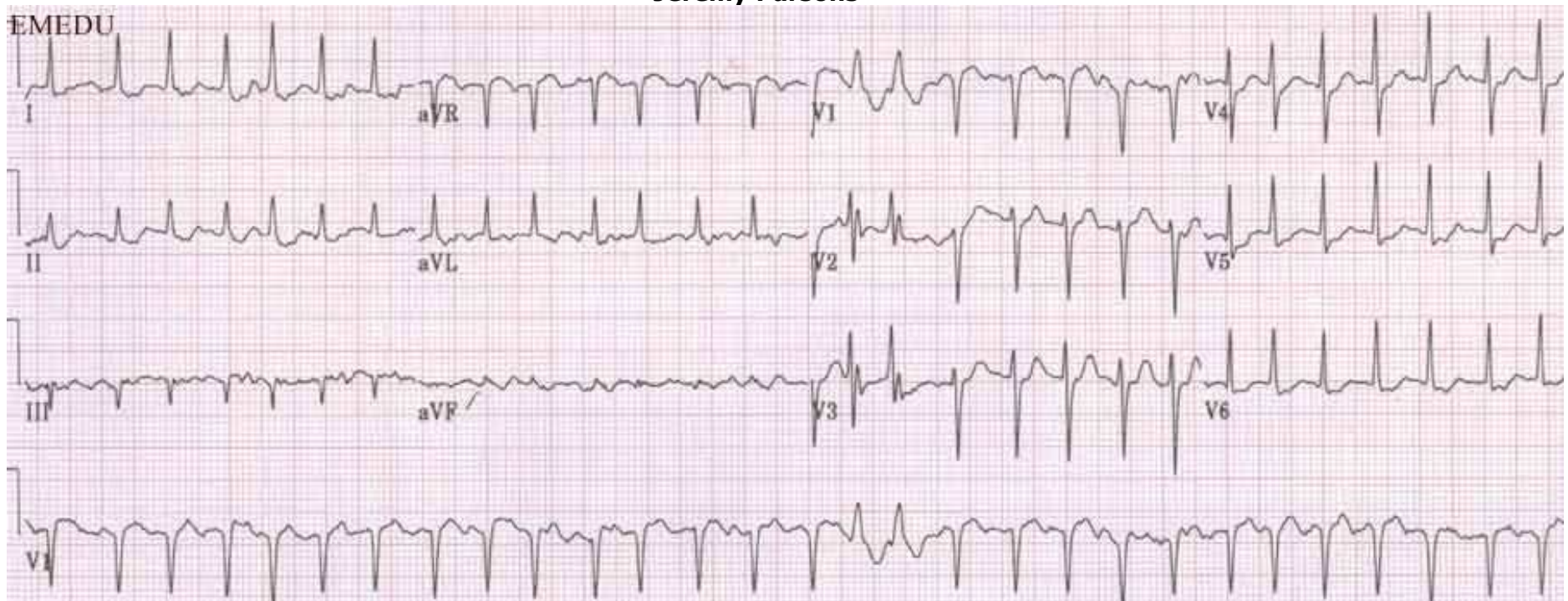
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Sepsis

Jeremy Parsons



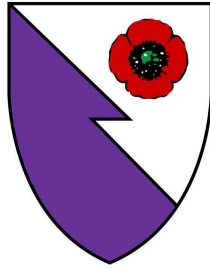
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