Model simulation

SYMPTOMS=(

1 =Fits,

2=Neck Stiffness/Meningism,

3= BP < 90/60,

4 = Severe Abdominal Pain or Back Pain,

5= Respiratory Rate > 25 or Difficulty Breathing

6 = Jaundice

7= cough

8= sore throat

9= blocked/ runny nose

)

Simulation Case 1:

Now consider a case in which a test subject (patient) has mild or no fever (that is, $t < 37.5^0C$ now or in the past 3 days). Going by the first path in equation (2), the decision model for the problem is simply:

Temperature = 38

SYMPTOMS=(

1 =Fits,

8= sore throat

9= blocked/ runny nose

)

Simulation result:

Welcome to the Patient Management Simulation

Please enter the patient's information:

Enter the patient's temperature (e.g., 37.0): 36

OUTPUT

No Emergency

Time elapsed: 6.92 seconds

Simulation Case 2:

Now consider a case in which a test subject (patient) has fever (that is, $t \geq 37.5^0C$ now or

in the past 3 day

Temperature = 38

SYMPTOMS=(

1 =Fits,

8= sore throat

9= blocked/ runny nose

)

Simulation result:

Welcome to the Patient Management Simulation

Please enter the patient's information:

Enter the patient's temperature (e.g., 37.0): 38

OUTPUT

Emergency: Immediate attention is required.

Symptom: fits

treatment: If someone is having a seizure, lay them on their side, remove any nearby objects that could cause harm

Time elapsed: 7.42 seconds

Simulation Case 3:

Now consider a case in which a test subject (patient) has fever (that is, $t \geq 37.5^0C$ now or in the past 3 day

Temperature = 38

SYMPTOMS=(

2=Neck Stiffness/Meningism,

7= cough

9= blocked/ runny nose

)

Simulation result:

Welcome to the Patient Management Simulation

Please enter the patient's information:

Enter the patient's temperature (e.g., 37.0): 38

OUTPUT

Emergency: Immediate attention is required.

Symptom: Neck Stiffness/Meningism

treatment Neck stiffness can be a sign of various conditions, including   meningitis, which is a medical emergency

 Time elapsed: 6.42 seconds

Simulation Case 4:

Now consider a case in which a test subject (patient) has fever (that is, $t \geq 37.5^0C$ now or

in the past 3 day

Temperature = 38

SYMPTOMS=(

8= cough

4 = Severe Abdominal Pain or Back Pain,

5=   Respiratory Rate > 25 or Difficulty Breathing

7= cough

8= sore throat

9= blocked/ runny nose

)

Simulation result:

Welcome to the Patient Management Simulation

Please enter the patient's information:

Enter the patient's temperature (e.g., 37.0): 38

OUTPUT

Emergency: Immediate attention is required.

Symptom: Severe Abdominal Pain or Back Pain

treatment: It's essential to determine the cause of the pain and seek medical evaluation for appropriate treatment.

Time elapse: 6.76 seconds

Simulation Case 5:

Now consider a case in which a test subject (patient) has fever (that is, $t \geq 37.5^{0}C$ now or

in the past 3 day

Temperature = 38

SYMPTOMS=(

7= cough

8= sore throat

9= blocked/ runny nose

)

Simulation result:

Welcome to the Patient Management Simulation

Please enter the patient's information:

Enter the patient's temperature (e.g., 37.0): 38

Is the malaria test positive? (yes/no): yes

did the malaria partasite test return Postive? (yes/no): yes

OUTPUT

No Emergency: attention is required.

recommendation: give immidiate 2nd line treatment.

managemeny: a. Give artesunate 2.4mg/kg IM/IV.

management: If pregnant with travel to Zika area and any of: rash, joint pain, or red eyes during/within 2 weeks of travel, refer for specialist investigation.

management. Refer the patient to the hospital urgently and inform the next higher cadre.

Time elapsed: 16.73 seconds

Simulation Case 6:

Now consider a case in which a test subject (patient) has fever (that is, $t \geq 37.5^0 C$ now or in the past 3 day

Temperature = 38

SYMPTOMS=(

7= cough

8= sore throat

9= blocked/ runny nose

)

Simulation result:

Welcome to the Patient Management Simulation

Please enter the patient's information:

Enter the patient's temperature (e.g., 37.0): 38

Is the malaria test positive? (yes/no): no

OUTPUT

No Eergency: give first line treatment.

treatment: if pregnant and in the second trimester or not pregnant give artemether/lumeefrantrine58

Time elapsed: 4.88 seconds

Simulation Case 5:

Now consider a case in which a test subject (patient) has fever (that is, $t \geq 37.5^0C$ now or in the past 3 day

Temperature = 38

SYMPTOMS=(

7= cough

8= sore throat

9= blocked/ runny nose

)

Simulation result:

Welcome to the Patient Management Simulation

Please enter the patient's information:

Enter the patient's temperature (e.g., 37.0): 38

Is the malaria test positive? (yes/no): yes

did the malaria partasite test return Postive? (yes/no): no

OUTPUT

No Emergency: this is not an urgent case.

recommendatiom: consider other causes of fever.

Time elapsed: 7.79 seconds