

Explore/Explain: Hospital Triage

Copymaster 6.1 Patients' Vital Signs: Preliminary Information

Patient	Description	Vital signs			
		Heart Rate	Temperature	Blood Pressure*	Breathing Rate**
Esther	Eighty-five-year-old female complaining of dizziness. Has a history of heart problems and suffered a moderate stroke (blood vessel in brain ruptured) 6 years ago, resulting in mild left-side paralysis.	105 beats/min, weak	36°C (96.8°F)	160/65 mm Hg	22 resp/min, labored
Albert	Adult male, approximately 25 years old, with a possible head injury from a motorcycle accident. Victim not wearing helmet. He is conscious, but has no feeling in his arms, legs, or torso.	100–105 beats/min	37°C (98.6°F)	80/50 mm Hg	20–22 resp/min
Maria	Fifteen-year-old girl with symptoms of severe diarrhea and vomiting.	115 beats/min	40°C (104°F)	110/70 mm Hg	21 resp/min
Mark	Nineteen-year-old male with a gunshot wound to the chest. Victim is conscious, bleeding moderately, and having great difficulty breathing.	150 beats/min	37°C (98.6°F)	100/60 mm Hg	23 resp/min
Ed	Forty-one-year-old male, obviously overweight, called paramedics complaining of crushing chest pains. He is now unconscious.	110 beats/min, weak	37°C (98.6°F)	Variable	12 resp/min
Monique	Eighteen-year-old woman rescued from the canyon; stung by a bee. She is dizzy, nauseous, has cracked lips, is having difficulty breathing, and has a rash on her legs and stomach.	120 beats/min	41°C (105.8°F)	87/50 mm Hg	30 resp/min (labored-breathing)
Nelson	Fifty-one-year-old man rescued from the canyon. He was unconscious and having seizures when brought into the emergency room.	45 beats/min	43°C (109.4°F)	85/50 mm Hg	10 resp/min

*mm Hg = millimeters of mercury

**resp/min = respirations per minute

Copymaster 6.2 Triage Data Sheet

Physicians' names: _____

Patient	Vital Signs	Range of vital Signs (✓ or X)	Disrupted Systems	Treatment Priority (critical: +++; serious: ++; stable: +)	Initial Suggestions for Treatment and Explanation for Priority	Part B Modified Priority Number	Part B Explanations for Changes to Priority
Esther	Heart rate: Temperature: Blood pressure: Breathing rate:						
Albert	Heart rate: Temperature: Blood pressure: Breathing rate:						
Maria	Heart rate: Temperature: Blood pressure: Breathing rate:						
Mark	Heart rate: Temperature: Blood pressure: Breathing rate:						
Ed	Heart rate: Temperature: Blood pressure: Breathing rate:						
Monique	Heart rate: Temperature: Blood pressure: Breathing rate:						
Nelson	Heart rate: Temperature: Blood pressure: Breathing rate:						

Copymaster 6.3 *First Priority*

The emergency room (ER) staff works smoothly, a team where every person knows his or her role, everyone working together toward the goal of saving lives and minimizing the damage from injury, accident, or illness. Nurses, doctors, aides, and specialists (such as anesthesiologists, psychologists, and counselors) combine their skills to maximize their effectiveness while they work as quickly as possible.

In emergency medicine, you deal with challenges on a daily basis. There is always time pressure; often, you must deal with incomplete information, making life-or-death decisions based on information you have been able to collect in just a few minutes. There are many human issues related to the sudden and unpredictable nature of trauma: patients or their loved ones may be angry, grieving, depressed, or suffering from the effects of alcohol or other drugs. Through it all, you have to make your best judgments, knowing that your decisions may mean the difference between a patient living or dying.

There are two possible outcomes for the first choice made by the triage team:

- If your group placed Monique as the highest priority, then your team experiences result 1. Go to result 1 now, reading the description of what happened.
- If your team selected any patient besides Monique as the first priority, then you should read result 2. Read that result now.

Result 1: Monique Gets the Initial Attention of the Staff

The young woman is in terrible shape. Her heart rate is extremely high, but her breathing is shallow and her temperature is dangerously high. The staff starts an IV drip quickly to rehydrate her body and injects a dose of epinephrine to allow her to breathe more easily. She is covered with a cooling blanket, which helps bring her temperature down. Other staff members use equipment to monitor her breathing and frequently check the level of oxygen in her blood. Over the course of the next hour, her body temperature begins to come down, and as her other vital signs return to the normal range she falls into a deep, restorative sleep.

Result 2: Another Patient (besides Monique) Gets the Initial Attention of the Staff

You get to work on your patient, doing everything you can to help, while other staff members monitor the patients who are still awaiting treatment. Shortly after you begin, however, a nurse reports that Monique's condition has quickly become critical. She is having great trouble breathing, and her heart rate suddenly falls rapidly. By the time you get to her, she has gone into cardiac arrest. The team administers CPR, oxygen, and a shot of steroids, but the treatment is too late. Despite the frantic and heroic efforts of the ER team, the young woman dies in the emergency room.

This is a tough night in the emergency room. Despite the diligent efforts of this highly trained medical staff, and the most modern medicine available, you and your colleagues must face the fact that some of these patients are unlikely to survive because of the extent of their injuries.

Patient Updates

By now, the fates of three patients have already been determined:

- Nelson: No matter who your team chose to attend to first, by now Nelson has died. By the time he arrived in the emergency room, his heart rate and blood pressure had fallen too low to be restored, his temperature was so high that brain cells were dying, and his level of dehydration was too advanced to allow treatment to be effective. One by one, his organ systems shut down as tissues were deprived of oxygen and nutrients for too long.
- Albert: The MRI and other tests confirm what you feared for this motorcycle accident victim. Sadly, Albert has suffered a life-changing catastrophe. His spinal cord has been damaged so badly that he has virtually no chance to regain the use of his arms and legs. There is little more that you can do for him in the ER. He has been catheterized, since he no longer has control of his own urination. His prospects for survival are good, but he will require continual rehabilitation work and extraordinary modifications to his living arrangements as he adjusts to using a motorized wheelchair for mobility.
- Monique: Depending on your initial triage choice, Monique is now resting and recovering, or she, too, has died (depending on when she received treatment).

Copymaster 6.4 *Additional Information*

Look at your triage priority numbers. Cross out the entries for Monique, Nelson, and Albert. Determine which of the remaining patients you have decided should receive priority treatment. Depending on your additional choices, consult the following results to determine the final outcomes of this frantic night in the ER. If your highest-priority patient (after Monique, Albert, and Nelson) is now

- Ed, then read result 1;
- Mark, read result 2; or
- Maria or Esther, read result 3.

Result 1: Ed

Ed is suffering from a very large myocardial infarction, commonly known as a heart attack. Turning your attention to him, you work to save his life. The team inserts an IV with saline solution to keep him hydrated and make it easy to administer other medications. It inserts an endotracheal tube into his airway to keep him breathing. The team administers several procedures to collect more data: a chest X-ray and an electrocardiograph (EKG or ECG). These diagnostics show that he needs catheterization around his heart, a surgery that is scheduled immediately. The operation provides the most information for appropriate physical therapy and greatest recovery.

As soon as the team wheels Ed off to surgery, your skilled staff goes to work on Mark, who is bleeding badly from the effects of the bullet that tore through his chest and punctured one of his lungs. First, the team starts an IV for hydration and then takes a chest X-ray to evaluate the extent of the damage inside his chest. As a result of this information, the team conducts emergency surgery and is able to get the bleeding under control and re-inflate his lung. This process allows Mark a maximum chance of a full recovery.

Result 2: Mark

Mark is bleeding badly, the effects of the bullet that tore through his chest and punctured one of his lungs. First, the team starts an IV for hydration and then takes a chest X-ray to evaluate the extent of the damage inside his chest. As a result of this information, the team conducts emergency surgery and is able to get the bleeding under control and re-inflate his lung. This process allows Mark a maximum chance of a full recovery.

Unfortunately, while you are working on Mark, Ed's heart fails completely, and he dies while awaiting treatment.

Result 3: Maria or Esther

The team makes the patient as comfortable as possible, and her vital signs slowly return to normal; she has a good chance of recovery, and in fact was not in as much danger as the other, more critical patients.

Unfortunately, by making either of these patients higher priority than Ed or Mark, valuable time is lost for stabilizing either man. Consequently, both Ed and Mark fail rapidly. By the time the team provides treatment to these patients, it is too late, and each dies.