

Creative Commons Licence

This material was created by Antonio Manuel Brenes Castaño at the University of Cádiz (UCA) as part of the OpenCourseWare (OCW).

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Licence (CC BY-NC-SA 4.0).

You are free to share and adapt this material for non-commercial purposes, provided that appropriate credit is given, a link to the original resource and the licence is included, any modifications are indicated, and any adapted material is distributed under the same licence

Activity Two – Reading Comprehension

Unit 4 – Reading

Navigating the Hospital Environment: Departments and Equipment

Modern hospitals are complex, highly organized facilities designed to deliver comprehensive healthcare across a wide range of patient needs. To ensure patient safety and maintain operational efficiency, hospitals are divided into specialized clinical, diagnostic, and support departments. Each department relies on specific medical technologies and equipment to help nurses, physicians, and allied health professionals perform their daily duties effectively.

When patients experience sudden illnesses, severe trauma, or acute pain, they arrive at the Emergency Department (ED). Triage nurses in the ED quickly evaluate incoming patients to prioritize care based on clinical urgency rather than arrival time. Patients with life-threatening conditions, such as severe respiratory failure or cardiac arrest, are immediately transferred to high-acuity areas like the Intensive Care Unit (ICU) or the Operating Room (OR). The ICU provides continuous, invasive care for critically ill patients. Here, nurses operate advanced life-support machinery, including mechanical ventilators that assist or replace spontaneous breathing, and multiparameter patient monitors that display real-time vital signs such as heart rate, blood pressure, electrocardiogram (ECG) rhythms, and arterial oxygen saturation (SpO_2).

After surgery or initial stabilization in acute care, patients are typically transferred to inpatient medical-surgical wards for ongoing treatment and recovery. Nursing care on these general floors involves routine monitoring, wound management, and medication administration. To administer fluids, nutrients, and precise medication dosages safely,

nurses routinely use infusion pumps and syringe drivers. These electronic devices allow healthcare providers to control flow rates accurately, significantly reducing the risk of intravenous medication errors. If a patient's condition suddenly deteriorates on the ward, nurses immediately access the mobile crash cart. This emergency cart contains essential resuscitation equipment, including an automated external defibrillator (AED) used to deliver controlled electrical shocks to reset lethal heart rhythms.

Diagnostic and support departments work continuously behind the scenes to assist clinical units. The Radiology Department utilizes advanced imaging tools—such as digital X-rays, Computed Tomography (CT) scanners, and Magnetic Resonance Imaging (MRI)—to visualize internal bodily structures and identify fractures, tumors, or internal bleeding. Simultaneously, the Clinical Laboratory analyzes blood, tissue, and fluid samples sent from various hospital floors. To maintain fast turnarounds for critical diagnostic tests, nurses frequently utilize the pneumatic tube system—a network of pressurized tubes that rapidly shoots sample capsules across the facility directly to the lab or pharmacy. By integrating specialized departments with dedicated medical technology, healthcare teams deliver timely, life-saving care to every patient.

Multiple-Choice Questions

Select the correct answer (A, B, C, or D) for each question.

1. **What is the primary responsibility of a triage nurse in the Emergency Department?**
 - A) To perform surgical procedures on trauma patients.
 - B) To evaluate and prioritize patients based on medical urgency.
 - C) To analyze blood samples before sending them to the laboratory.
 - D) To administer long-term rehabilitation plans.
2. **Which department provides continuous care and life support for critically ill patients?**
 - A) Outpatient Clinic
 - B) Radiology Department
 - C) Intensive Care Unit (ICU)
 - D) Medical-Surgical Ward
3. **What clinical parameter is NOT directly mentioned as being displayed on a multiparameter patient monitor?**
 - A) Oxygen saturation (SpO_2)
 - B) Blood glucose levels

- C) Heart rate
- D) ECG rhythms

4. What is the primary function of a mechanical ventilator in the ICU?

- A) To deliver an electrical shock during cardiac arrest.
- B) To pump intravenous fluids at a set flow rate.
- C) To assist or replace a patient's spontaneous breathing.
- D) To take detailed images of chest organs.

5. Why are infusion pumps and syringe drivers essential in inpatient wards?

- A) They allow precise control of medication flow rates to prevent errors.
- B) They automatically trigger alarms during respiratory failure.
- C) They help move heavy patients safely between departments.
- D) They sterilize medical equipment between uses.

6. What crucial piece of emergency equipment is located on a mobile crash cart?

- A) Automated External Defibrillator (AED)
- B) CT Scanner
- C) Pneumatic tube capsule
- D) Syringe driver

7. Which department uses CT scanners and MRIs to help identify internal injuries?

- A) Clinical Laboratory
- B) Central Pharmacy
- C) Radiology Department
- D) Operating Room

8. How does the pneumatic tube system benefit hospital workflows?

- A) It transfers critically ill patients safely between wards.
- B) It delivers precise amounts of oxygen directly to patient bedsides.
- C) It rapidly transports samples and supplies across departments.

- D) It sterilizes surgical instruments using pressurized steam.

Answer Key

1. **B**
2. **C**
3. **B**
4. **C**
5. **A**
6. **A**
7. **C**
8. **C**