

**School of Business****Master of Business Administration MBA Dual Specialization  
Semester End Examination - Jul 2024**

Duration : 180 Minutes  
Max Marks : 100

**Sem IV - MBHC6009 - Patient Care Services**General Instructions

Answer to the specific question asked

Draw neat, labelled diagrams wherever necessary

Approved data hand books are allowed subject to verification by the Invigilator

- 1) In the emergency department of NMC Hospital, Noida the Emergency Care Coordinator encounters an unexpected challenge - a shortage of housekeeping and General Duty Assistant (GDA) staff post holi festival. How does the shortage of housekeeping and GDA staff impact the overall functioning and efficiency of the emergency department? K3(6)
- 2) Essential equipment in the Minor O.T in the emergency department of a teaching hospital frequently malfunctions due to inadequate maintenance, disrupting surgical procedures and compromising patient safety. K4(8)
  - a) Analyze the current process for equipment maintenance to address issues. (4)
  - b) Explain the measures to be implemented for improved reliability. (4)
- 3) While expanding its Intensive Care Unit (ICU) facilities, MIOT Hospital in Chennai has enlisted the expertise of Astron Hospital & Healthcare Consultancy firm to assist in equipment planning. The hospital administrator, biomedical engineer, and hospital consultant collaborate closely to ensure the ICU is equipped with state-of-the-art technology and resources to provide optimal patient care. K4(8)

Questions :

  - a) Assuming the role of hospital consultant, how will you classify the different types of equipment and technologies needed for an ICU expansion project? (4)
  - b) What factors does the hospital consultant examine when assessing the feasibility and cost-effectiveness of various equipment choices? (4)
- 4) Examine the impact of government policies and healthcare reforms on the evolution of outpatient care in India. K4(4)
- 5) Cauvery Heart and Multispeciality Hospital, located in Mysore, Karnataka, has established itself as a leading healthcare provider in the region, offering a wide range of medical services across various specialties. However, to further enhance patient satisfaction K3(9)

and differentiate itself in the competitive healthcare market, the management of Cauvery Heart and Multispeciality Hospital has identified several types of value-added services to be included in their offerings. These services aim to cater to the diverse needs of patients and enhance their overall experience during their stay at the hospital.

Questions:

- a) What are the some examples of value-added services that the hospital plans to introduce?(3)
  - b)How can the hospital make use of technology and digital platforms to enhance the delivery of these value-added services? (3)
  - c) How can the hospital utilize feedback from patients and staff to continuously improve and refine these value-added services over time?(3)
- 6) During a busy shift in the emergency department, you notice discrepancies in the medical records of a patient who was recently admitted for acute respiratory distress. Being a Quality executive you have found that the Vital signs recorded by the nursing staff do not match the physician's notes, raising concerns about data accuracy and patient safety. K5(10)
- a) What are the potential consequences of discrepancies in medical records, particularly regarding vital signs, for the patient's treatment (5)
  - b) What are the potential risks to patient safety posed by discrepancies in vital signs documentation (5)
- 7) A patient presents to the emergency department with a complex medical history and multiple chronic conditions. The attending physician requires comprehensive medical records to make informed treatment decisions, but the patient's records are fragmented across different healthcare facilities and electronic health record systems. K5(10)
- a) What are the potential consequences of fragmented medical records for the patient's quality of care and treatment outcomes in the emergency department? (4)
  - b) How would you assess the impact of fragmented medical records on the efficiency and effectiveness of the emergency department's workflow?(3)
  - c) What impact does the lack of comprehensive medical records have on the patient's experience and satisfaction? (3)
- 8) Apex Hospital ,located in Malviya Nagar, is the super-speciality branch of the reputable chain of Apex hospitals located in different cities of Rajasthan. Apex Hospitals in Malviya Nagar, Jaipur, is a 200+bedded super-speciality hospital serving the community since 1994. The hospital in Malviya Nagar has state-of-the-art facilities to provide advanced medical care to its patients. It has a team of over 70+ dedicated doctors with diverse specialities, including nephrology, neurology, orthopaedics, general surgery, paediatrics, physicians, and plastic surgery. Recognizing the importance of efficient emergency response systems, the hospital has embarked on setting up a call centre for ambulance services. Apex Hospital identified the need for a centralized call centre to streamline K5(15)

ambulance dispatch and coordination. The hospital invested in establishing a state-of-the-art call centre equipped with advanced telecommunications technology and trained personnel to manage emergency calls effectively.

The call centre operates 24/7 and is staffed with trained operators who receive emergency calls, assess the situation, and dispatch the appropriate ambulance based on the severity and location of the emergency. The call centre also coordinates with hospital staff, ambulance drivers, and emergency medical technicians to ensure timely response and patient transport.

Questions :

a) How does the establishment of a centralized call centre for ambulance services contribute to improving emergency response systems at Apex Hospital ? (5)

b) How does the implementation of advanced telecommunications technology in the call centre enhance emergency response capabilities ?(5)

c) What are the potential challenges or barriers that may arise during the establishment and operation of the call centre for ambulance services, and how can these be addressed effectively? (5)

- 9) Mr. Pravin Raj Radha, aged 36 met with an unfortunate bike accident in the US that lead to severe brain injuries along with facial and eye injuries. This traumatic incident left him in a coma state for weeks. Initially, he was treated in one of the top hospitals in the US and underwent intensive care for 3-4 weeks. However, the doctors didn't see much improvement despite the administered treatment. The doctors in the US had estimated less than a 1% chance of survival due to the severity of the accident. Pravin's family finally decided to move him to India for better treatment. They carefully flew him in a chartered flight along with the ICU team and the equipment. The whole travel arrangement cost them a fortune but Pravin's family was not ready to give up. After consultation with some of the top hospitals in India, they were referred to consult with Dr. Maheshwarappa B M, Head and Senior Consultant for Neuro Rehabilitation at Sakra World Hospital, one of the top hospitals in Bangalore. He was admitted to Sakra World Hospital for complex traumatic brain injury and acute management. Upon examining Pravin, Dr. Maheshwarappa noted down the severity of his case with loss of cognitive and behavioral skills, and immobility. When they brought in Pravin, he was in a comatose state with weakness in his limbs and faced difficulty in normal movement. After a thorough assessment, Pravin was put under rigorous and comprehensive neurorehabilitation using advanced technologies. Sakra Neurorehabilitation specialists and professionals included Psychiatrists, Neuro-Physiotherapists, Occupational Therapists, Clinical Nutritionists, specialized Rehabilitation nurses, Clinical Orthotists, and Neuropsychologists. The use of advanced rehabilitation technology included Hyperbaric Oxygen Therapy(HBOT), Robotic Assisted Gait and Arm Training, wearable sensor-based therapies, virtual reality clinical modules, augmented reality gamification, Pneumatic Neuro-gym, and digital

K6(18)

Balance and coordination platforms. Within five months, Pravin's recovery was progressing really well which was nothing short of a miracle. A 3-4 month intensive neuro rehabilitation program helped Pravin come out of a coma and begin a steady recovery process. In addition to muscle strength exercises, Pravin also received multi-sensory stimulation (auditory cues, tapping, music therapy) to regulate his low arousal levels. Over time and with self-determination, he has been able to walk independently with good balance. For his cognitive and perceptual skill improvement, occupational therapies / involved the identification of objects, participation in sports activities in groups, vocational activities like writing, using the keyboard, using a mobile handset, dressing independently, bladder and bowel management, and bathing. His family members were totally engaged in a patient-centric approach and immensely contributed to his recovery.

Questions:

a) Design a comprehensive neurorehabilitation program tailored specifically for patients like Mr. Pravin who have experienced severe traumatic brain injuries.(6)

b) How can the incorporation of cutting-edge rehabilitation technologies, interdisciplinary teamwork, and patient-focused care strategies enhance the effectiveness of your proposed plan? (6)

c) Propose innovative strategies for integrating family members into the rehabilitation process, similar to the patient-centric approach adopted for Mr. Pravin. (6)

How can family involvement be maximized to support patient recovery and improve overall outcomes?

10)

In the bustling Emergency Department of the Government General Hospital in Nizamabad, the staffs encounters a challenging situation involving a 30-year-old pregnant patient in need of urgent medical attention. The patient arrives in distress, experiencing complications related to her pregnancy and requiring immediate evaluation and treatment.

K6(12)

Despite the urgency of the situation and the patient's critical condition, the Emergency Department is facing a shortage of essential equipment, including wheelchairs and stretchers, necessary for safely transporting patients to different areas of the hospital for assessment and treatment. This lack of available equipment poses a significant obstacle to providing timely and appropriate medical care to the pregnant patient, potentially jeopardizing her health and the well-being of her unborn infant.

Questions:

a) Discuss on the potential implications of the equipment shortage on patient outcomes and staff morale in the Emergency Department.(6)

b)As a Hospital Administrator, Develop long-term strategies to prevent future shortages of essential equipment.(6)