

SYLLABUS: Vaccinator in NDMC

Introduction to healthcare and hospitals

- a. Healthcare delivery system in India at primary, secondary and tertiary care
- b. Community participation in healthcare delivery system
- c. Issues in Health Care Delivery System in India
- d. Health scenario of India- past, present and future
- e. Basic medical terminology

Introduction to the Sanitary Health Inspector program

- a. Duties and responsibilities of a Sanitary Inspector
- b. Importance of Sanitation, Health & Hygiene.
- c. Sanitary scope in Municipal Corporation, trade fairs, public health sanitation, water bodies, slums, vulnerable pockets, restaurants, hotels etc.
- d. Do's and Don'ts
- e. Requirements to become a Certified Sanitary Health Inspector

Anthropometric measurements and its importance

- a. Points for consideration before measuring weight, height and other parameters
 - i. Check the equipment before taking it to the patient
 - 1. process of checking each equipment
 - 2. reporting error to the concerned official
 - ii. Process of taking permission from the patient
 - iii. Recording measurements
 - iv. Any other measure – dos and don'ts
- b. Weight
 - i. Process of measuring weight
 - ii. Importance of weight measurement - weight for age and weight for height
 - iii. Do's and don'ts while measuring weight
- c. Length (for under 2 years of age)
- d. Height – steps for measuring height using- height measuring scale and inch tape
- e. Circumference measurements –
 - i. process of measuring circumference – arm and waist
 - ii. Do's and don'ts while measuring circumference
- f. Format for reporting the measurements

Basics of emergency care and life support skills

- a. Vital signs
- b. Basic emergency care – first aid and triage
- c. Identifying signs and taking measures for
 - i. Choking and Heimlich Maneuver
 - ii. Bleeding including nosebleeds
 - iii. Minor burns
 - iv. Hypothermia
 - v. Asthma attack
 - vi. Bites and stings
 - vii. Fainting
 - viii. Sprain
- d. Ventilations including use of bag-valve-masks (BVMs)
- e. One- and Two-rescuer CPR

- f. Using an AED (Automated external defibrillator).
- g. Managing an emergency including moving a patient – log transfer

Professionalism and Values

- a. Code of conduct, professional accountability and responsibility, misconduct
- b. Ethics in healthcare – Privacy, confidentiality, consent, medico legal aspects c.
- c. Understanding scope of work and avoiding scope creep
- d. Handling objections
- e. Gather information from observation, experience and reasoning
- f. Identification of rapidly changing situations and adapt accordingly
- g. Planning and organization of work

Communication

- a. Writing skills
 - i. Basic reading and writing skills, sentence formation, grammar and composition, how to enhance vocabulary
 - ii. Business communication like letters, e-mails
- b. Special characteristics of health communication
- c. Barriers of communication & how to overcome them
 - How to be a good communicator
 - i. Addressing the patient
 - ii. Body language, posture and gestures
- d. Listening and Speaking skills
 - i. How to be a good listener
 - ii. Structure brief and logical messages
 - iii. Speak clearly and slowly in a gentle tone
 - iv. Use the correct combination of verbal and non-verbal communication
 - v. Use language familiar to the listener
 - vi. Give facts and avoid opinions unless asked for
 - vii. Communicating with patient with impaired hearing/ vision/ speech/ memory
- e. Recognizing changes in the patient- behavior/ abnormal signs and reporting to the Medical Officer
- f. Dealing with anger or depression of the patient

Interpersonal skills and working with others

- a. Goal setting, team building, team work, time management,
- b. Thinking and reasoning, problem solving
- c. Need for customer service and service excellence in medical care
- d. Communication with various stakeholders
 - i. Handling effective communication with patients & family
 - ii. Handling effective communication with peers/colleagues using medical terminology in communication
 - iii. Telephone and email etiquettes
- e. Manage work to meet requirements
 - i. Time management
 - ii. Work management and prioritization

Computers and information technology

- a. Use of computers, its input and output devices
- b. Use of basic software such as MS Office, operating systems (Windows) and internet

- c. Use of data –
 - i. Entry, saving and retrieving
 - ii. Scanning and copying medical records/documents
 - iii. Efficient file naming and uploading
 - iv. Printing, as needed
- d. Application of Computers in clinical settings

Disaster preparedness and management

- a. Fundamentals of emergency management
- b. Preparedness and risk reduction
- c. Incident command and institutional mechanisms
- d. Resource management

Demography, Epidemiology and Public health acts.

- a. Demography & Vital Statistics
- b. Demography – its concept
- c. Vital events of life & its impact on demography
- d. Significance and recording of vital statistics
- e. Census & its impact on health policy
- f. Demography and Health Survey
 - i. Sections and components of survey
 - ii. How to design a survey
 - iii. Registration of birth, death and mortality
 - iv. Immunization process

Epidemiology

- a. Principles of Epidemiology
- b. Natural History of disease
- c. Epidemiology of communicable & non-communicable diseases, disease transmission, host defense immunizing agents, cold chain, immunization, disease monitoring and surveillance

Public Health Acts-

- a. Various public health acts and their importance in Sanitary Health Inspector's role; such as -
 - i. Indian Epidemic Diseases Act
 - ii. Purification of Air and Water Pollution Acts
 - iii. Prevention of Food adulteration Act
 - iv. Birth and Death Registration Act
 - v. N.T.P ACT
 - vi. Suppression of immoral Traffic Act (SITA)
 - vii. Municipal and local body Acts related to housing, sanitation etc.
 - viii. Factory Act and Employer's State Insurance Act

Basics of health statistics:

- a. Statistics and their applications and relation to public health
- b. Interpretation of data.
- c. Mortality and Morbidity statistics
- d. Data tabulation and charts

Health education and communication

- a. Health Education opportunities and approaches for Health Inspector in his workplace.

- b. Content and Principles of Health Education
- c. Planning Health Education activities
- d. Education in relation to environmental sanitation programme
- e. Use of audio visual aids and media
- f. Health Education material on environmental sanitation
- g. Utilizing Community Resources for Health Education
- h. Education through Primary Health Centre
- i. Health Education through personal contact, group meetings and indirect approaches
- j. Perception of various diseases and ailments such as HIV AIDS, Leprosy etc. and ways to reduce/deal with the stigma

Bio medical waste management and environment safety

- a. Definition of Biomedical Waste
- b. Sources of Biomedical waste
- c. Waste minimization
- d. BMW – Segregation, collection, transportation, treatment and disposal (including color coding)
- e. Liquid BMW, Radioactive waste, Metals / Chemicals / Drug waste
- f. BMW Management & methods of disinfection
- g. Modern technology for handling BMW
- h. Use of Personal protective equipment (PPE)
- i. Monitoring & controlling of cross infection (Protective devices)
- j. Identifying the risk of Bio-medical waste

Solid Waste Disposal

- a. Source of generation, storage and collection
- b. Sanitary method of disposal of solid waste
- c. Classification of solid waste in the community
- d. Polluting effect of different types of solid waste, system of collection of solid waste from the houses and street, sanitary transportation of solid waste, sanitary process of disposal of solid waste such as composting, sanitary land filling, incineration

Liquid waste/Sewage disposal

- a. Hygienic method of disposal of liquid waste.
- b. Health hazard related to accumulation of liquid waste or in sanitary drainage system.
- c. Construction and maintenance of sanitary sewerage system
- d. Use of different types of traps, pollution of water sources from sewerage and its disinfection

Night Soil Disposal

- a. Sewage is liquid waste containing human excreta.
 - i. Fly nuisance
 - ii. Soil pollution
 - iii. Water pollution
 - iv. Food contamination
 - v. Faecal - borne disease due to unsanitary disposal. Different types of latrines in use principal of construction of sanitary latrines and their use, especially berg hole, dug well, RCA and septic tank latrine.
 - vi. Sewage system or water carriage system.

- b. What is sewage?
 - i. Why sewage purification is required?
 - ii. Sewer appurtenances, house drain
 - iii. Street sewers or municipal sewers
 - iv. Sewage forming land treatment
 - v. Sewage disposal by Biogas plant or gobar gas plant
 - vi. Methods of disinfection of sewage
 - vii. Sanitary practices of sewage farming

Other treatment and disposal methods of biomedical waste

- a. Incineration
- b. Autoclaving
- c. Shredding
- d. Disposal option

Burial, Cremation Ground and Mass Casualty Disposal

- a. Disposal of dead- Human
- b. Burning or cremation
- c. Requirement for a burning ground
- d. Disposal of dead bodies and maintenance of their records

Food & Nutrition

- a. Science of food
 - i. Introduction to Nutrition
 - ii. Health & Disease
 - iii. Classification and of food-stuff
 - iv. Nutrient and their sources (food example)
- b. Nutrient: Carbohydrates, Proteins, Vitamins, & Minerals, function, Source and diet requirement of each.
- c. Family Assessment:- Clinical examination of all members, height and weight for all, head circumference and skin fold for children, blood test for Hb% for all, diet survey, weighing raw food, weighing cooked food.
- d. Nutrition Education:
 - i. Malnutrition
 - ii. Low birth Weight (LBW)
 - iii. Causes of LBW
 - iv. Prevention of LBW
 - v. Protein energy
 - vi. Prevention of malnutrition
 - vii. Special care to be given to malnutrition
 - viii. Children.
 - ix. Therapeutic Diet- Instruction for balanced diet, weight reduced diet, low fat diet, bland diet, cirrhosis of liver, renal stone
- e. Inspection of food handling establishments
- f. Inspection of mid- day meal programme

Air

- a. Concepts and importance of adequate ventilation
- b. Types of ventilation
 - i. Natural ventilation
 - ii. Mechanical ventilation
- c. Indicators of air pollution
- d. Process air purification and disinfection

- e. Green house effect, types of ventilation, thermal comfort, air temperature humidity, radiation, evaporation and their measurements

Soil Sanitation

- a. Classification of soil.
- b. Classification from the view point of importance in Public Health.
- c. Reason for the excessive moisture in the soil.
- d. Reclamation of land.
- e. Soil, bacteria and parasites.
- f. Soil and Health.
- g. Study on insecticides, pesticides and disinfections.
- h. Sterilization & disinfection of different Articles.
- i. Various spraying equipment

Control of Biological Environment

- a. Study on insecticides, pesticides and disinfections.
- b. Sterilization & disinfections of different articles
- c. Various spraying equipments
- d. Uses of rodenticides & larvaecidals
- e. Vector control

Housing, infrastructure and water supply

- a. General principle of healthy housing
- b. Home Sanitation
- c. Food hygiene at home
- d. Specification for healthy housing
- e. Construction of latrines and recommended financial assistance as per the Government norms
- f. Maintenance of public and community water supply and ensure proper disinfection
- g. Water sampling for regular bacteriological and chemical analysis
- h. Inspection of public and private well and/ or other water sources
- i. Inspection of sanitation in hospital and health facilities

Sanitation Measures in Fairs, Festivals and Natural calamities

- a. Sanitation Management at fairs and festival. Sanitary problems associated with human gatherings and temporary settlements.
- b. Alternate emergency sanitary provisions to prevent sanitation crisis for food, housing, water supply, lighting, disposal of community waste and prevention of outbreak of epidemics.

Occupational Health:

- a. Industrial hygiene- workers health protection
- b. Occupational risk factors and safety measures
- c. Control of dust and other hazardous substance
- d. Safety measure for occupational risk factor
- e. Legislative provisions
- f. Benefits to employees
- g. Incorporation of Municipal Rules and Regulation in Sanitation

Infection prevention and control

- a. Evidence-based infection control principles and practices [such as sterilization, disinfection, effective hand hygiene and use of Personal protective equipment (PPE)]
- b. Prevention & control of common healthcare associated infections
- c. Components of an effective infection control program
- d. Guidelines (NABH and JCI) for Hospital Infection Control

Personal Hygiene

- a. Factors influencing health & hygiene
- b. Health habits & practice, customs affecting personal hygiene
- c. Maintenance of normal circulation, respiration, digestion, etc.
- d. Skin care cleanliness
- e. Oral hygiene and dental care
- f. Care of hands, washing, importance of exercises and food values
- g. Care of the body-habits clothing
- h. Menstrual hygiene
- i. Care of special sensory organs
- j. Factors influencing human behavior
- k. Change of behavioral pattern in different age groups
- l. Interpersonal relations and defense mechanism

Communicable Diseases

- a. Introduction
- b. Transmission of disease
 - i. By air
 - ii. By contact
 - iii. By insects and other diseases
- c. General measures for prevention & control of communicable diseases
- d. Role of Health Worker

Non-Communicable Diseases

- a. Introduction
- b. Incidence and prevalence
- c. Diagnosis & prevention

Disinfection & Sterilization

- a. Effective disinfection by liquid Chemical agents like Halogen, Potassium permanganate solution etc.
- b. Solid chemical agent
- c. Bleaching – Bleaching powder, Lime etc.

Universal/ Standard Precautions

- a. Hand hygiene
- b. Use of personal protective equipment (e.g., gloves, gowns, masks)
- c. Safe injection practices
- d. Safe handling of potentially contaminated equipment or surfaces in the patient environment
- e. Respiratory hygiene/cough etiquette

Contact precautions