SYLLABUS FOR TECHNICIAN (CSR) A TO B- MFCP

The syllabus will be in accordance with the education qualification and experience and the list of topics is only indicative.

Overview of CSSD and its role in infection prevention in healthcare settings and the importance of proper sterilization and disinfection processes.

Microbiology and Infection Control: Basics of microbiology relevant to healthcare-associated infections. Principles of infection prevention and control. Common infections that spread through various hospital procedures and instruments.

Disinfection and Sterilisation: Definitions, Concepts and principles and recommended practices. Factors affecting the efficacy of Disinfection and Sterilization

Disinfection methods and processes - Appropriate level of disinfection of medical devices and instruments to ensure patient safety and prevent health care associated infections, the Spaulding Classification Scheme. Principles of Disinfection Cleaning of equipment and recommended practicesUse of detergents, Sonic washers /Mechanical cleaning apparatus, Cleaning of catheters and tubing, cleaning glass ware, cleaning syringes and needles, Cleaning of instruments and equipment, preparation and supplies for terminal sterilization

Sterilization Methods and Equipment: Appropriate level of disinfection of medical devices and instruments to ensure patient safety and prevent health care associated infections, Different Methods of Sterilization, High Temperature Sterilization – Dry Heat Moist heat sterilization, EO gas sterilization, H202 gas plasma vapour sterilization, Recommended Practices for Flash Sterilization.

Physical methods of sterilisation: Principle, constructs and application of like boiling, pasteurization fractional sterilisation- Tyndallisation, Moist heat sterilisation, moist heat under pressure- autoclave, Dry heat sterilisation – Incineration and hot air oven, Filtration – Diatomaceous earth filter, Seitz filter, Membrane filter and laminar air flows, Ionising radiations and non-ionizing radiation like UV rays

Chemical methods: Alcohol, aldehydes, phenols, halogen, metallic salts, Quaternary ammonium compounds and sterilising gases as antimicrobial agents. Selection of a chemical agent for practical applications and modes of action of these chemicals

Packing and assembly line:Precautions while handling instruments and line assembly and packing Packaging selection and materials used for wrapping and packing assembling pack contents. Types of packs prepared. Inclusion of trays and gallipots in packs. Method of wrapping and sterilization process date stamping.

Storage and supply: Differentiation between sterile and non-sterile supplies, Proper storage conditions for sterile instruments and supplies.Organization of storage areas for efficiency and infection control.

Evaluation of the effectiveness of the processes: Knowledge about the various types of indicators used to monitor and validate the effectiveness of sterilization processes and understand the different levels of information about the sterilization cycle and their principles. Evaluation of antimicrobial activity of chemical agents against specific microorganisms – Tube dilution, agar plate technique, Well method, disc plate method

Recall procdure: CSSD's role in identifying and managing recalled items.Protocols for documenting and managing recalled products.Communication with relevant departments during a recall event.

Operating principlesof all equipment routinely used in CSSD like autoclaves, sterilizers, and washer-disinfectors, etc. Validation tests for sterilisers.

Equipment safety: Importance of equipment safety in CSSD operations, Knowledge about the Inspection, maintenance, and calibration of CSSD equipment, Safe handling and operation of sterilization equipment.Emergency procedures for equipment malfunction or failure.

Instrumentation and Control Systems: Understanding instrumentation used in sterilization equipment, Basics of control systems relevant to maintaining optimal sterilization conditions, Basic Understanding of the calibration and maintenance of sterilization equipment, identification of common issues with the sterilisation equipment.

Latest advances in CSSD practices and technologies and advancements in disinfection and sterilisation methods and equipment

Materials and Compatibility:Understanding of the properties of materials used in medical instruments and equipment., Assessing compatibility of materials with different sterilization methods, Impact of sterilization on material properties and longevity.

Mechanical Principles in CSSD:Application of mechanical engineering principles to CSSD operations, Understanding fluid dynamics and heat transfer in sterilization processes and mechanical design considerations for sterilization equipment.

Quality Assurance and Regulatory Compliance: Quality assurance protocols/methods in CSSD operations, Compliance with regulatory standards and guidelines.

Documentation requirements for tracking instrument processing, sterilization cycles, and quality assurance measures and record-keeping in CSSD.

Inventory management in CSSD – techniques for inventory tracking and documentation

Safety and Hazardous Materials Handling: Universal biosafety procedures, Knowledge of how to identify and manage hazards associated with sterilization processes, Management of safety and accidents in CSSD, Safe handling and disposal of hazardous materials and chemical agents, Personal protective equipment (PPE) requirements and safety protocols.

Protocols, procedures, effective team work and interdepartmental collaborationin the success of the CSSD: Protocols and procedures in the CSSD department at SCTIMST

Service and personnel conduct rules of SCTIMST

ADMINISTRATIVE OFFICER GR.I(I/C)
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