# **Credentialing Guidelines and Requirements**

A Candidate Guidebook

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#### APPENDIX E: CSPT EXAM CONTENT OUTLINE

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#### **CSPT Exam Content Outline**

**Knowledge Domains and Areas** 

% of CSPT® Exam Content

#### 1.0 Medications and Components

17%

- 1.1 Generic names, brand names, indications, side effects, and therapeutic classifications of medications used in sterile compounding
- 1.2 Types of high-alert/narrow therapeutic index (NTI) medications used in sterile compounding (e.g., insulin, heparin, concentrated electrolytes, chemotherapy)
- 1.3 Dosage (e.g., strength, dosage forms) and administration (e.g., routes, instructions) of compounded sterile preparations (CSPs)
- 1.4 Drug-specific factors affecting stability of compounded sterile preparations (CSPs; e.g., containers, light, concentration, closure, temperature, agitation)
- 1.5 Type, purpose, and use of technical and clinical references for sterile compounding (e.g., package inserts, Safety Data Sheets [SDSs])
- 1.6 Factors (e.g., temperature, microbial limits of sterility, storage time, complexity of preparation, location of preparation) that influence the assignment of beyond-use dates (BUD) for compounded sterile preparations (CSPs)
- 1.7 Physical and chemical compatibility criteria for components (e.g., medications, ingredients, base solutions, filters, tubing, closures)

#### 2.0 Facilities and Equipment

22%

- 2.1 Types and uses of primary engineering controls (PECs; e.g., laminar airflow workbenches [LAFW] and systems [LAFS], biological safety cabinets [BSC], compounding aseptic isolators [CAI], compounding aseptic containment isolators [CACI])
- 2.2 Types of secondary engineering controls (SECs; e.g., anteroom, buffer area, segregated compounding areas [SCAs], containment segregated compounding areas [C-SCAs])
- 2.3 Features of secondary engineering controls (SECs; e.g., air pressure differentials, HEPA filtration, ISO classification, air changes per hour [ACPH])
- 2.4 Temperature, pressure, and humidity parameters and/or tolerances for facilities and controlled environments
- 2.5 Procedures and requirements for conducting different types of environmental monitoring
- 2.6 Action levels and parameters for assessing environmental monitoring results (e.g., surface sampling, viable air sampling, non-viable air sampling)
- 2.7 Common factors contributing to out of specification environmental monitoring results
- 2.8 Operational standards (e.g., food and drink restrictions, facility access) for maintaining the safety and sterility of sterile compounding environments

### 3.0 Sterile Compounding Procedures

53%

#### Guidebook

- 3.1 Types, purpose, and procedures for conducting required personnel training and competency assessments (e.g., gloved fingertip sampling, media fill) and the minimum frequency with which they must occur
- 3.2 Equations and calculations used to prepare compounded sterile preparations (CSPs; e.g., infusion times, percent solutions, dilutions, alligations, dispensing quantities, days supply, ratios and proportions, quantities, doses, concentrations, conversions)
- 3.3 Personal health and hygiene requirements for sterile compounding (e.g., no active respiratory infections, rashes, weeping sores, visible jewelry, long or artificial nails, cosmetics)
- 3.4 Hand hygiene procedures
- 3.5 Types of garb and personal protective equipment (PPE)
- 3.6 Procedures for donning, doffing, and disposal of garb and personal protective equipment (PPE) for non-hazardous and/or hazardous drugs
- 3.7 Properties and usage indications for deactivating, decontaminating, cleaning, and disinfecting agents
- 3.8 Procedures and requirements for cleaning and disinfecting compounding equipment, primary engineering controls (PECs), and secondary engineering controls (SECs) for non-hazardous compounded sterile preparations (CSPs)
- 3.9 Procedures and requirements for deactivating, decontaminating, cleaning, and disinfecting compounding equipment, primary engineering controls (PECs), and secondary engineering controls (SECs) for hazardous compounded sterile preparations (CSPs)
- 3.10 Principles of aseptic manipulation and procedures for operating within horizontal and vertical air flow equipment (e.g., first air, zone of turbulence)
- 3.11 Types of and requirements for cleaning and disinfecting critical sites of components (e.g., vials, ampules, ports)
- 3.12 Safety procedures for handling sharps
- 3.13 Documentation and record-keeping requirements for sterile compounding (e.g., master formulation record, compounding record)
- 3.14 Procedures to accurately weigh and measure components; principles of volumetric and gravimetric accuracy
- 3.15 Procedures for compounding parenteral nutrition (PN)
- 3.16 Procedures for preparing specialized compounded sterile preparations (CSPs; e.g., epidurals, intrathecals, cassettes, ophthalmics, irrigations)
- 3.17 Procedures for compounding hazardous drugs (e.g., negative pressure technique, using closed system drug-transfer devices [CSTDs])
- 3.18 Procedures for compounding sterile preparations from non-sterile components (e.g., presterilization, terminal sterilization, filtration, aseptic preparation)
- 3.19 Potential signs of defective compounded sterile preparations (CSPs; e.g., discoloration, particulates, leaks, turbidity)
- 3.20 Conditions under which sterility, potency, and endotoxin testing are required
- 3.21 Procedures for interpreting results of sterility, potency, and endotoxin testing

### 4.0 Handling, Packaging, Storage, and Disposal

8%

- 4.1 Handling, labeling, packaging, storage, and disposal requirements for non-hazardous medications, components, sharps, and finished compounded sterile preparations (CSPs)
- 4.2 Handling, labeling, packaging, storage, and disposal requirements for hazardous medications, components, sharps, and finished compounded sterile preparations (CSPs)
- 4.3 Types of and requirements for supplies used in packaging and repackaging (e.g., bags, syringes, glass, PVC, latexfree, DEHP-free)