



The CER Exam Content Outline was created through the 2016 job task analysis and outlines the specific areas of knowledge necessary to perform the duties of an Endoscope Reprocessor. The Content Outline also details the percentage weight for each of the seven sections which comprise the CER Exam. The higher the percentage weight, the more heavily the questions in that area will affect your overall test score.

## ENDOSCOPE REPROCESSING STEPS

[PERCENTAGE WEIGHT: 40%]

- a **Point-of-use pre-cleaning process**
- b **Transportation of soiled endoscopes** (e.g., biohazard labeled closed container)
- c **Initial visual inspection**
- d **Leak testing** (e.g., manual, automated, computerized)
- e **Failed leak test/damaged endoscope protocol** (e.g., communication, modified steps for reprocessing damaged scopes)
- f **Manual cleaning** (e.g., exterior wiping, enzymatic soak, brushing with appropriate brush)
- g **Rinsing**
- h **Extended soak indications and requirements** (e.g., delayed reprocessing)
- i **Quality testing for cleaned endoscopes** (e.g., visual inspection, verification of cleaning process)
- j **Manual high-level disinfection**
- k **Automated Endoscope Reprocessors (AER)**
- l **Drying processes** (e.g., alcohol flush, air purge, air pressure)
- m **Factors influencing the high-level disinfection process** (e.g., expired disinfectant, expired strips, diluted disinfectant, temperature)
- n **Preparation for sterilization** (e.g., venting caps)
- o **Sterilization packaging methods**
- p **Sterilization methods** (e.g., high and low temperature, liquid chemical sterilization)
- q **Loading and unloading sterilizers**
- r **Sterilization quality assurance** (e.g., biological indicators, chemical indicators, mechanical indicators)
- s **Factors influencing the sterilization process** (e.g., time, process, temperature)
- t **Documentation requirements for high-level disinfection and sterilization**
- u **Recall process**

## ENDOSCOPE HANDLING, TRANSPORT & STORAGE

[PERCENTAGE WEIGHT: 14%]

- a **Proper handling techniques**
- b **Storage requirements** (e.g., cleaning, airflow, space)
- c **Accessories** (e.g., reusable/ disposable, valves, caps)
- d **Types of storage systems** (e.g., vertical, horizontal)
- e **Hang time** (e.g., risk assessment, expiration dating)
- f **Transportation of reprocessed endoscopes** (e.g., from reprocessing to cabinet, cabinet to point of use, distinct visual cue indicating ready for use)

## MICROBIOLOGY & INFECTION CONTROL

[PERCENTAGE WEIGHT: 10%]

- a **Pathogenic and non-pathogenic microorganisms**
- b **Formation and prevention of biofilms**
- c **Environmental cleaning and surface disinfection**
- d **Chain of infection**
- e **Spaulding classification system**
- f **Hygiene** (e.g., hand hygiene, attire, Personal Protective Equipment (PPE))

## HUMAN FACTORS THAT IMPACT ENDOSCOPE SYSTEMS

[PERCENTAGE WEIGHT: 12%]

- a **The human impact on endoscope reprocessing systems** (e.g., ethics and accountability, fatigue)
- b **Common reprocessing errors and omissions** (e.g., missed steps, prioritization)
- c **Staff requirements** (e.g., minimum staffing, workload)
- d **Communication** (e.g., Manufacturer's Instructions for Use (IFUs)/ recalls, process changes, chain of command, recognizing and reporting unusual events)
- e **Audits** (e.g., frequency, direct observation, documentation)
- f **Education, training, and competencies**
- g **Safety** (e.g., chemicals, biohazards, safe work environment, ergonomics)

## ENDOSCOPE PURPOSE, DESIGN & STRUCTURE

[PERCENTAGE WEIGHT: 10%]

- a **Benefits of endoscopic procedures** (e.g., diagnostic, therapeutic, minimally invasive)
- b **Endoscope categories** (e.g., flexible, semi-rigid, rigid)
- c **Endoscope anatomy and components** (e.g., biopsy and auxiliary channels, fiber-optics, ultrasonic)
- d **Reprocessing challenges related to design** (e.g., complexity, elevator channel)
- e **Endoscope types** (e.g., gastroscopes, cystoscopes, arthroscopes, disposable/single use) **and related procedures**
- f **Endoscope accessories** (e.g., valves, biopsy forceps, dilators, flush tubing, venting caps)
- g **Components of a video tower**

## ENDOSCOPE TRACKING, REPAIR & SYSTEM MAINTENANCE

[PERCENTAGE WEIGHT: 7%]

- a **Required reprocessing documentation for endoscopes** (e.g., patient to endoscope)
- b **Other reprocessing documentation** (e.g., high-level disinfection logs, Minimum Effective Concentration (MEC)/ Minimum Required Concentration (MRC), filter changes, preventative maintenance)
- c **Routine equipment checks** (e.g., drain filters, leak tester, flush pumps)
- d **Requirements for shipping damaged endoscopes**
- e **Tracking repairs and loaner endoscopes**
- f **Common repair issues and damage prevention strategies**

## WORK AREA DESIGN

[PERCENTAGE WEIGHT: 7%]

- a **Work flow design** (e.g., soiled to clean)
- b **Environmental requirements** (e.g., airflow, temperature, water filtration)
- c **Cross-contamination** (e.g., traffic control, spatial separation)
- d **Personal Protective Equipment (PPE) location**
- e **Decontamination/ reprocessing area requirements** (e.g., sink size, number of sinks)
- f **High-level disinfection/sterilization area requirements**
- g **Storage area requirements**