Summary of the Flexible Endoscope Reprocessor Job Analysis Survey Performed by the CBSPD – 2016

In October, 2016, the CBSPD performed a Job Analysis survey of the Flexible Endoscope Reprocessor's roles and responsibilities. The purpose of this CBSPD Job Analysis was to identify the knowledge that is important to competent flexible endoscope reprocessors. The report on the Job Analysis describes the

- 1) Rationale for conducting the job analysis;
- 2) Methods used to define job-related tasks and knowledge
- 3) Types of data analyses conducted, the results of the analyses; and,
- 4) Recommended test specifications that will be used to develop an examination for the Sterile Processing Management certification program.

This activity is required by the National Commission for Certifying Agencies to ensure the exam content remains relevant, current and reflects current information for the profession.

This job analysis study involved a multi-method approach that included subject-matter experts and a survey. First, a group of subject-matter experts identified the knowledge that is important to the work performed by flexible endoscope reprocessors. A survey was then developed and sent to flexible endoscope reprocessing professionals in the United States.

The use of the job analysis to define the content domain is a critical component in establishing the content validity of licensure and certification examinations. Content validity is the primary validation strategy used in these examinations. It refers to the extent to which the content covered by an examination overlaps with the important components (tasks, knowledge, skills, or abilities) of a job. Demonstration of content validity is accomplished through the judgments of subject-matter experts. The process is enhanced by the inclusion of large numbers of subject-matter experts who represent the diversity of the relevant areas of expertise.

The major focus of conducting a job analysis study is to establish the importance of the job tasks and knowledge. This, in turn, guides the development of test specifications and content valid certification examinations. What matters most is that the credentialing examination covers important job-related knowledge linked to important tasks performed by flexible endoscope reprocessors. Consistent with a content validity framework, the job analysis study was designed to obtain input from many subject-matter experts at critical points.

Methods Used - A Committee of certified flexible endoscope reprocessors developed the survey. The survey consisted of six sections (I) Rules and Regulations; (II) Life Sciences; (III) Scopes and Accessories for Endoscopic Procedures; (IV) Handling and Cleaning of Scopes and Accessories; (V) Reprocessing of Scopes and Accessories: (VI) Documentation; (VII) Ethics. . The survey was designed to take less than one hour to complete.

For the frequency statements, respondents were asked to evaluate each for importance. For the knowledge areas, respondents were requested to provide importance ratings as well. The rating scales used in the task section and knowledge area section of the survey were:

- ✓ How important is performance of the frequency for a newly certified (after one year of practice) flexible endoscope reprocessor to practice in a manner that protects the health, safety, and welfare of the public?
 - 0 Very low importance

- 1 Low importance
- 2 Average importance
- 3 High importance
- 4 Very High Importance

Knowledge Areas - How important is performance of this knowledge for a newly certified (after at least one years of practice) flexible endoscope reprocessor to practice in a manner that protects the health, safety, and welfare of the public?

- 0 Very low importance
- 1 Low importance
- 2 Average importance
- 3 High importance
- 4 Very High Importance

In Part III of the survey, the participants were asked to provide the percentage weight (emphasis) they would recommend as content for an examination. This was accomplished by distributing 100 questions across seven major knowledge areas. These questions distributions were converted into percentages, within ten-point intervals, representing the percent of items that the survey respondents believed should be devoted to each area. This rating can be used by the test specifications committee as a guide for emphasizing or de-emphasizing content in the examination.

Extensive demographic data was accumulated during the survey and reported in the report.

The survey was posted on the internet using a survey service. Certified flexible endoscope reprocessors already listed in the CBSPD database were emailed about participating in the survey as well as notifications posted on the CBSPD social media pages.

The survey was posed for 45 days then the results tabulated. The 2016 Test Specifications for the Flexible Endoscope exam were approved by the CBSPD Board of Directors in February 2017.

The Exam content (test specifications are listed in the Flexible Endoscope Reprocessor Certification Candidate Bulletin which is posted on the CBSPD webpage in the Flexible Endoscope Reprocessor Candidate Bulletin.

This report along with the test specifications are also posted on the CBSPD website: www.cbspd.net.

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Highlighted areas represent priority for item writing.

Domain 1 - Rules and Regulations and Safety - 14% of exam - 14 questions - Knowledge of:

- 1.K.1. OSHA (e.g. PPE, Blood Borne Pathogens (including Standard Precautions), transport of soiled scopes and accessories, biohazard waste removal, Hazard communication, Safety Data Sheets, Safety, Sexual Harassment/Workplace Violence, eyewash stations
- 1.K.2. EPA, FDA (e.g. Medical Device Reporting; Compliance with Manufacturer's Instructions for Use), HIPAA regulations, standards
- 1.K.3. Standards: AAMI, ST-91, ST-79, ST-58, Guidelines; AORN, CDC (Spaulding Classification), ASGE, Multi-Society Guideline, SGNA
- 1.K.4. Accreditation agencies (e.g. The Joint Commission, AAAHC)
- 1.K.5. Employee safety, (e.g. Latex allergy; ergonomics
- 1.K.6. Environmental safety (fire safety, electrical safety, patient emergency equipment- location and operation, waste management)

Domain 2 – Life Sciences – 8% of exam – 8 questions - Knowledge of:

- 2.K.1. Types of microorganisms that pertain to GI/Endo (bacteria, virus, fungus, prions)
- 2.K.2. Disease transmission (i.e. biofilm formation, bioburden)
- 2.K.3. Prevention of cross contamination (design of endoscopy reprocessing area; work flow, traffic control, separation of clean/dirty; monitoring temp and humidity levels, hand hygiene, transport of high level disinfected scopes)
- 2.K.4. Anatomy and Physiology as related to GI and Pulmonary body systems
- 2.K.5. Medical Terminology; signs and symbols
- 2.K.6. Medical procedures involving flexible scopes

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2.K.7. Labeling, handling and transporting specimens

<u>Domain 3 – Scopes and Accessories for Endoscopic Procedures – 13% of exam – 13 Questions.</u> - Knowledge of:

- 3.K.1. Anatomy of various GI and pulmonary flexible scopes
- 3.K.2. Scope function (use of scopes) Includes knowledge of various types of scopes

3.K.3. Accessories (snares, water bottles, mouth gags, reusable biopsy forceps, etc., single use items, function valves and biopsy port covers) Domain 4 - Handling and Cleaning of Scopes and Accessories - 21% of exam - 21 questions. -**Knowledge of:** 4.K.1. Pre-cleaning and transport of used scopes and accessories including water bottles, mouth gags, reusable biopsy forceps, etc. 4.K.2. Inspection for visible soils and damage of scopes and reusable accessories. Includes what to inspect and how to inspect. 4.K.3. Leak testing procedures; methods of testing, actions to take with a failed leak test 4.K.4. Cleaning methods, (e.g. manual, mechanical) water quality, cleaning implements (e.g. brushes) and equipment (automated flushing systems, automated endoscope reprocessors) for flexible scopes and accessories; steps in the cleaning process, delayed reprocessing 4.K.5. Cleaning verification methods 4.K.6. Selection and use of cleaning chemicals (e.g. pH, concentration, water quality, temperature, action of chemical), rinsing; water quality 4.K.7. Use of sterile sheaths CBSPD – FLEXIBLE ENDOSCOPE (GI) EXAM TEST SPECIFICATIONS 2016 Domain 5 - Reprocessing of Scopes and Accessories -22% of exam - 22 questions. -**Knowledge of:** 5.K.1. Use of high level disinfectants and liquid chemical sterilants (e.g. chemicals, use of test strips for HLD, use (e.g. exposure time), temperature, rinsing, water quality, shelf life vs use life of HLDs). Includes minimum effective concentration (MEC) and minimum recommended concentration testing (MRC), shelf life vs use life of chemicals, quality control testing of test strips, topping off solutions. 5.K.2. High level disinfection methods (e.g. manual, mechanical, AER)

5.K.3. Post disinfection procedures (e.g. alcohol flush, drying), labeling and dating

5.K.4. Storage of HLD or sterilized scopes and accessories

Domain 6 – Documentation – 12% of exam – 12 questions. - Knowledge of:

6.K.1. Required or recommended Orientation, training and competency verification for all scopes, flushing devices, HLDs, etc.

6.K.2. Cleaning and high level disinfection protocols; traceability to the patient

6.K.3. Leak testing and chemical disinfection efficacy testing (MEC/MRC testing), quality assurance testing of HLD test strips

6.K.4. Incident reporting

6.K.5. – Cleaning effectiveness testing (products and usage)

Domain 7 – Ethics – 10% of exam – 10 questions. - Knowledge of:

7.K.1. Compliance with regulatory standards, best practices, procedures and/or guidelines that impact on patient, employee or environmental

safety; reporting instances of non-compliance Includes definition of regulation, standard, etc.

7.K.2. Professional behavior (e.g. non-compliance with dress code; disruptive behavior; theft; willful

damage to equipment/property)