

JOB ANALYSIS FOR FLEXIBLE GI ENDOSCOPE REPROCESSOR



Conducted on behalf of:

The Certification Board for Sterile Processing and Distribution, Inc. (CBSPD)

By

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Mission of CBSPD

To promote and encourage high standards of ethical and professional practice through a recognized, credible credentialing program that assures the competency of sterile processing and distribution personnel.

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CBSPD GI Flexible Endoscope Re-processor Job Analysis Report

Introduction

A job analysis was conducted for GIS Flexible Endoscope Re-processors by the Certification Board for Sterile Processing and Distribution (CBSPD). The study, including development of the survey instrument, was led by CBSPD staff in consultation with Tony Bonell (Statistician). CBSPD staff worked with a committee of GIS Flexible Endoscope re-processors to develop the survey instrument. This report describes the survey instrument and the results of the survey analyses. The analysis of the survey was conducted by Tony Bonell.

The Use of Job Analyses

Professional licensing and certification programs generally use a content validation strategy as the basis for documenting the appropriateness of their examinations. In this context content valid refers to the degree to which the items on the certification examination are representative of the knowledge, skills, and abilities that are necessary to perform the job at the designated level. Unlike criterion-related validity, which is based on statistical inference, content validity relies on the integrity of the developmental process for assurances that an examination is measuring what it is supposed to measure, that trustworthy inferences may be drawn from test result, and that the test will be fair to all applicants. Both professional standards and legal guidelines for testing stipulate that a job analysis is a crucial step in the demonstration of content validity.

The use of a job analysis is the first step in ensuring that important knowledge and skills required for entry level performance as a licensed GIS Flexible Endoscope Re-processors whose principal area of practice is GIS Flexible Endoscopy re-processing are included in the construction of a licensure test for that profession. A job analysis is a systematic procedure for identifying the performance domain of a job (ie., important job dimensions within those dimensions) and the knowledge domain that is necessary to perform the job at the level of interest, in this case, that of a licensed entry-level endoscope re-processor with a specialty in GIS Flexible Endoscope Re-processing. The *American Educational Research Association (AERA)*, the *American Psychological Association (APA)* and the *National Council on Measurement in Education (NCME)* have collaborated on the joint development of the *Standards for Educational and Psychological Testing* since (1966) completed and republished recently in 2014. The standard states that a job analysis is the basis for the questions asked in a licensure examination.

The Survey Instrument Methodology

A committee of licensed Flexible Endoscope Re-Processors with a specialty in GIS Flexible Endoscope Re-processing developed the survey. The survey consisted of four sections (I) Frequencies; (II) Knowledge areas; (III) Recommendations for test content; and (IV) Background information. The survey was designed to take less than one hour to complete. Appendix A contains a copy of the job analysis instrument.

Frequency Statements

The frequency, or frequency statements, placed in the survey were designed to determine how often GIS Flexible Re-processors, after at least one year of practice, do professionally in their day-to-day roles that is important for competent performance at the time of licensure. This portion of the survey consisted of 34 frequency statements organized by major dimension. The major job dimensions are:

- I. Rules, Regulations and Safety
- II. Life Science
- 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

Knowledge Areas

The knowledge areas incorporated in the survey were described as being representative of knowledge areas that Flexible Endoscope Pre-processors are expected to know in their day-to-day roles after at least one years of practice to protect the health, safety, and welfare of the public. These knowledge areas are the focus of the examination. The knowledge areas were organized into seven dimensions.

- I. Rules, Regulations and Safety
- III. Life Science
- 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 consisted of 34 such knowledge statements.

Ratings

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:

Frequency

How important is performance of the frequency for a newly licensed (after one year of practice) Flexible Endoscope Pre-processors 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 licensed (after at least one years of practice) Flexible Endoscope Pre-processors 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 |

These ratings are direct measures of the importance of each statement for competency performance and permit the direct analysis of respondent's agreement with the committee.

Recommendation for Test Content

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.

Participant Background Information

Eleven demographic questions were asked in the survey. Demographic questions are used to insure that the appropriate people are responding to the survey and to subdivide and compare responses of different groups of respondents to knowledge statements for fairness purposes.

Survey Administration

Participants with email addresses were contacted electronically to complete the survey. The e-mail invitations contained the Internet link to access the survey. The data from the survey was downloaded into MS Excel files and formatted for processing. The survey was administered using Survey Monkey a Web Survey administrator.

The purpose of the survey administration was to identify a list of knowledge areas that relatively large numbers of professionals judge to be important for newly licensed Flexible Endoscope pre-processors. This objective is accomplished through an analysis of mean importance ratings provided by the survey respondents overall and by appropriate subgroups of respondents (e.g., gender, race/ethnicity, sub discipline, experience, etc). Knowledge statements are judged to be important by the overall group of Flexible Endoscope pre-processors and by all relevant subgroups define the core. The core becomes the primary foundation for the development of test specifications. The derivation of test specifications from those statements verified as important by the surveyed professionals provides a substantial evidential basis for the content validity of a resulting licensure examination.

Mean Importance ratings

Two types of analyses were conducted to support the development of content valid test specifications: (1) means were computed on the importance ratings for each frequency and knowledge statement by the

overall respondent group of practicing professionals and by several relevant subgroups of respondents, and (2) frequencies of the background information were computed for the total respondent group.

A subgroup category was required to have at least 30 respondents to be included in the mean analysis (e.g., ≥ 30 females). This was a necessary condition to ensure that the mean value based upon sample of respondents is a reasonably accurate estimate of the corresponding population mean value. There were insufficient number numbers of individuals in several subgroups for these analyses. This resulted in combining certain subgroups.

Criterion for Interpretation of Mean Importance Ratings

Since the purpose of a job analysis is to ensure that only the most important knowledge statements are included in the development of test specifications, a criterion for inclusion needs to be established. A criterion that has been used in similar studies using a similar rating scale at CBPD is a mean importance rating that represents the midpoint between moderately important and important. For the importance rating scale used in the present job analysis, the value of this criterion is 2.50. It is believed that this criterion is consistent with the intent of content validity, which is to include only important knowledge and skills in the assessment measure. Therefore, statements that receive a mean importance rating of 2.50 or more may be considered eligible for inclusion in the development of test specifications knowledge statements between 2.40 and 2.49 are considered borderline and can be included in the test specifications only if solid written rationale supporting their inclusion can be provided. Typically many of these borderline statements and all of those statements with the mean ratings well below the cutoff of 2.50 (i.e., with ratings of 2.39 and lower) may not be considered for inclusion in the development of test specifications.

Analyses and Results

Response Rate

It was reported that 540 surveys were completed over the Internet at Survey Monkey. The selected group of respondents is composed of people who selected “Certified Flexible Endoscope Reprocessor (CFER)” for the question “What certifications and/or licenses do you presently hold” (N=466) or entered in the “Other” category in the Answer Option for Comment. It was this sample group that was used to determine passing, borderline, and failing statements. Further, this selected sample should be used by the test specifications committee in looking at sub disciplines in deciding on depth section content outlines.

Background Information

Table 1 contains the frequency and percentage of responses of the 11 demographic questions. (i.e., questions A through K). The percentage is calculated using the respondents who reported themselves as licensed Certified Flexible Endoscope Re-processor (CFER) or Certified Flexible Endoscope Reprocessor (CFER) or Surgical Technologist or Certified Sterile Processing and Distribution Technician (CSPDT) or Certified Surgical Instrument Processor/Specialist (CSIP/CSIS) or Certified Registered Central Service Technician (CRCST) or Certified Registered Central Service Technician (CRCST). The number of missing responses to these questions is small. This number is provided for each of the 11 questions.

Table 1

	1. Which title best describes your present job? (Select one)	Frequency	Percent
Licensed	Endoscopy Assistant/Attendant	10	1.85
Licensed	GI Nurse	21	3.89
Licensed	GI Technician (Flexible Endoscope Technician)	264	48.89
Licensed	Other	124	22.96
Licensed	Supervisor of GI endoscopy technicians	47	8.70
Not Licensed	Endoscopy Assistant/Attendant	3	0.56
Not Licensed	GI Nurse	12	2.22
Not Licensed	GI Technician (Flexible Endoscope Technician)	36	6.67
Not Licensed	Other	15	2.78
Not Licensed	Supervisor of GI endoscopy technicians	8	1.48

	2. What is your gender?	Frequency	Percent
Licensed	Female	332	61.48
Licensed	Male	134	24.81
Not Licensed	Female	52	9.63
Not Licensed	Male	22	4.07

	3. What is your age?	Frequency	Percent
Licensed	20-30 years of age	38	7.04
Licensed	31-40 years of age	108	20.00
Licensed	41-50 years of age	136	25.19
Licensed	51-60 years of age	154	28.52
Licensed	Less than 20 years of age	1	0.19
Licensed	More than 60 years of age	29	5.37
Not Licensed	20-30 years of age	8	1.48
Not Licensed	31-40 years of age	15	2.78
Not Licensed	41-50 years of age	19	3.52
Not Licensed	51-60 years of age	21	3.89
Not Licensed	More than 60 years of age	11	2.04

	4. How do you describe yourself? (Please select the option that best describes you)	Frequency	Percent
Licensed	American	3	0.56
Licensed	American Indian or Alaska Native	2	0.37
Licensed	Asian or Asian American	28	5.19
Licensed	Black or African American	112	20.74
Licensed	D	1	0.19
Licensed	Fillipino	1	0.19
Licensed	Hawaiian or Other Pacific Islander	2	0.37
Licensed	Hispanic or Latino	71	13.15
Licensed	Human race	1	0.19
Licensed	Portuguese	1	0.19
Licensed	White (non-Hispanic)	244	45.19
Not Licensed	Asian or Asian American	6	1.11
Not Licensed	Black or African American	11	2.04
Not Licensed	Filipino	1	0.19
Not Licensed	GUYANESE INDIAN DECENT	1	0.19
Not Licensed	Hispanic or Latino	13	2.41
Not Licensed	Mixed	1	0.19
Not Licensed	White (non-Hispanic)	40	7.41
Not Licensed	caucasian	1	0.19

	5. What is the highest level of formal education that you have completed? (Select one)	Frequency	Percent
Licensed	Associatens degree	101	18.70
Licensed	Bachelorns degree	67	12.41
Licensed	Flexible Endoscope Reprocessing Course	38	7.04
Licensed	High School Diploma/GED	78	14.44
Licensed	LPN diploma	9	1.67
Licensed	Master's degree	13	2.41
Licensed	Master's degreea	1	0.19
Licensed	One Year Technical diploma	40	7.41
Licensed	RN diploma	1	0.19
Licensed	Some college without a degree	118	21.85
Not Licensed	Associatens degree	13	2.41
Not Licensed	Bachelorns degree	23	4.26
Not Licensed	Flexible Endoscope Reprocessing Course	1	0.19
Not Licensed	High School Diploma/GED	11	2.04
Not Licensed	LPN diploma	1	0.19
Not Licensed	Master's degree	7	1.30
Not Licensed	One Year Technical diploma	2	0.37
Not Licensed	RN diploma	2	0.37
Not Licensed	Some college without a degree	14	2.59

	6. What is your current work setting? (Select one)	Frequency	Percent
Licensed	Ambulatory Surgery Center	119	22.04
Licensed	Flexible GI Scope Sales or Service Company	23	4.26
Licensed	Non-Teaching Hospital: 200 to 400 Beds	51	9.44
Licensed	Non-Teaching Hospital: 401 to 800 Beds	18	3.33
Licensed	Non-Teaching Hospital: Less than 200 Beds	61	11.30
Licensed	Non-Teaching Hospital: More than 800 Beds	5	0.93
Licensed	Teaching Hospital: 200 to 400 Beds	63	11.67
Licensed	Teaching Hospital: 401 to 800 Beds	60	11.11
Licensed	Teaching Hospital: Less than 200 Beds	31	5.74
Licensed	Teaching Hospital: More than 800 Beds	35	6.48
Not Licensed	Ambulatory Surgery Center	17	3.15
Not Licensed	Flexible GI Scope Sales or Service Company	6	1.11
Not Licensed	Non-Teaching Hospital: 200 to 400 Beds	10	1.85
Not Licensed	Non-Teaching Hospital: 401 to 800 Beds	6	1.11
Not Licensed	Non-Teaching Hospital: Less than 200 Beds	10	1.85
Not Licensed	Non-Teaching Hospital: More than 800 Beds	1	0.19
Not Licensed	Teaching Hospital: 200 to 400 Beds	6	1.11
Not Licensed	Teaching Hospital: 401 to 800 Beds	9	1.67
Not Licensed	Teaching Hospital: Less than 200 Beds	4	0.74
Not Licensed	Teaching Hospital: More than 800 Beds	5	0.93

	7. How many years of experience do you have working in a GI/Endo area? (Select one)	Frequency	Percent
Licensed	1-2 years	79	14.63
Licensed	3-5 years	112	20.74
Licensed	6-10 years	107	19.81
Licensed	More than 10 years	168	31.11
Not Licensed	1-2 years	17	3.15
Not Licensed	3-5 years	17	3.15
Not Licensed	6-10 years	13	2.41
Not Licensed	More than 10 years	27	5.00

	8. In which geographic location do you primarily work? (Select one)	Frequency	Percent
Licensed	All over the United States (traveler)	1	0.19
Licensed	Australia	1	0.19
Licensed	Canada	5	0.93
Licensed	Central us	1	0.19
Licensed	Middle East - UAE	1	0.19
Licensed	Middle East UAE	1	0.19
Licensed	Midwest US	74	13.70
Licensed	Northeast US	180	33.33
Licensed	Northwest US	47	8.70
Licensed	Saudi arabia	1	0.19
Licensed	Southeast US	94	17.41
Licensed	Southwest US	53	9.81
Licensed	Traveler around the United States	1	0.19
Licensed	UAE	1	0.19
Licensed	UNITED ARAB EMIRATES	1	0.19
Licensed	United Arab Emirates	1	0.19
Licensed	mideast	1	0.19
Licensed	philippines	1	0.19
Licensed	south central us	1	0.19
Not Licensed	ABU DHABI UAE	1	0.19
Not Licensed	Canada	1	0.19
Not Licensed	Cayman Islands	1	0.19
Not Licensed	India	1	0.19
Not Licensed	Japan	1	0.19
Not Licensed	Kingdom of Saudi Arabia	1	0.19
Not Licensed	Mexico	1	0.19
Not Licensed	Midwest US	14	2.59
Not Licensed	Northeast US	19	3.52
Not Licensed	Northwest US	6	1.11
Not Licensed	Southeast US	16	2.96
Not Licensed	Southwest US	10	1.85
Not Licensed	U.S Virgin Islands	1	0.19
Not Licensed	United Arab Emirates	1	0.19

	9. What certifications and/or licenses do you presently hold? (Select all that apply)	Frequency	Percent
Licensed	Certified Flexible Endoscope Reprocessor (CFER)	153	28.33
Licensed	Certified Flexible Endoscope Reprocessor (CFER) AGST	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) C.C.S., Certified Coding Specialist	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) CERTIFIED GASTROENTEROLOGY NURSE	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) CGGRN	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) CGRN	6	1.11
Licensed	Certified Flexible Endoscope Reprocessor (CFER) CGRN RN	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) CNA	2	0.37
Licensed	Certified Flexible Endoscope Reprocessor (CFER) CNOR , FNP-c	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) CNOR, CBSPDM	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) CSAO and RPN	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) CSPM	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) Cert. Surgical Tech. and Cert. Supervisor SPD	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) Certified Gastroenterology Registered Nurse	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) Certified Medical Assistant	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) Certified medical assistant	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) Certified pediatric nurse	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) DIPLOMA IN ENDOSCOPY TECHNICIAN	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) FPIC, CIC, CFER, RM, MS	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) IAHCSMM	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) Licensed Practical Nurse	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) Medical secretary/insurance biller	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) National Executive Housekeepers Association	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) Nursing assistant/ Medication nursing assistant	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) PBT(ASCP),SGNA	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) RN	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) RN (MSN)- CGRN - CCRN - RN-BC	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) RN; BLS; ACLS	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) SPDM	1	0.19
Licensed	Certified Flexible Endoscope Reprocessor (CFER) hemodialysis tech. in the state of ohio	1	0.19

Licensed	Certified Flexible Endoscope Reprocessor (CFER) medical assistant	1	0.19
Licensed	Certified Registered Central Service Technician (CRCST)	19	3.52
Licensed	Certified Registered Central Service Technician (CRCST) CIS	1	0.19
Licensed	Certified Registered Central Service Technician (CRCST) Certified Healthcare Leader (CHL)	1	0.19
Licensed	Certified Registered Central Service Technician (CRCST) Certified Healthcare Leader, Registered Veterinary Technician	1	0.19
Licensed	Certified Registered Central Service Technician (CRCST) SGNA	1	0.19
Licensed	Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER)	19	3.52
Licensed	Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER) C.O.M.MGR	1	0.19
Licensed	Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER) CHL	1	0.19
Licensed	Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER) CHL, CIS, CSSVP	1	0.19
Licensed	Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER) CIS, CHL	2	0.37
Licensed	Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER) Certified Instrument Specialist	1	0.19
Licensed	Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER) RN, CNOR, CHL	1	0.19
Licensed	Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER) ST, GTS	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT)	69	12.78
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) CST	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Cspm	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) LPN	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) RN, CGRN	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) cbspd	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Flexible Endoscope Reprocessor (CFER)	40	7.41
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Flexible Endoscope Reprocessor (CFER) Certified Medical Assistant	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Flexible Endoscope Reprocessor (CFER) National Certified Medical Assistant (NCMA) , National Certified Phlebotomy Technician (NCPT)	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Flexible Endoscope Reprocessor (CFER) Registered Nurse, CGRN	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Registered Central Service Technician (CRCST) CHL, CRMST, CSPDS	1	0.19

Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Registered Central Service Technician (CRCST) Certified Instrument Specialist	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Registered Central Service Technician (CRCST) manager	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER)	12	2.22
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER) CHL	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER) Chl	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Surgical Instrument Processor/Specialist (CSIP/CSIS)	5	0.93
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Surgical Instrument Processor/Specialist (CSIP/CSIS) CSPDS	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Surgical Instrument Processor/Specialist (CSIP/CSIS) Certified Flexible Endoscope Reprocessor (CFER)	11	2.04
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Surgical Instrument Processor/Specialist (CSIP/CSIS) Certified Flexible Endoscope Reprocessor (CFER) Associates Degree in Science for Surgical Services	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Surgical Instrument Processor/Specialist (CSIP/CSIS) Certified Flexible Endoscope Reprocessor (CFER) SUPERVISOR CERT.	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Surgical Instrument Processor/Specialist (CSIP/CSIS) Certified Registered Central Service Technician (CRCST)	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Surgical Instrument Processor/Specialist (CSIP/CSIS) Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER)	2	0.37
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Surgical Instrument Processor/Specialist (CSIP/CSIS) Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER) CNA, IAHCSMM CHL	1	0.19
Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Surgical Instrument Processor/Specialist (CSIP/CSIS) Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER) Leadership, management	1	0.19

Licensed	Certified Sterile Processing and Distribution Technician (CSPDT) Certified Surgical Instrument Processor/Specialist (CSIP/CSIS) Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER) OR surgical Technologist from 85-2015	1	0.19
Licensed	Certified Surgical Instrument Processor/Specialist (CSIP/CSIS)	1	0.19
Licensed	Certified Surgical Instrument Processor/Specialist (CSIP/CSIS) Certified Registered Central Service Technician (CRCST)	2	0.37
Licensed	Certified Surgical Instrument Processor/Specialist (CSIP/CSIS) Certified Registered Central Service Technician (CRCST) CHL	2	0.37
Licensed	Certified Surgical Instrument Processor/Specialist (CSIP/CSIS) Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER)	5	0.93
Licensed	OR Surgical Technologist	12	2.22
Licensed	OR Surgical Technologist casspt	1	0.19
Licensed	OR Surgical Technologist certived ambulatory surgery sterile processing tech	1	0.19
Licensed	OR Surgical Technologist Certified Flexible Endoscope Reprocessor (CFER)	14	2.59
Licensed	OR Surgical Technologist Certified Flexible Endoscope Reprocessor (CFER) Certified nursing aide	1	0.19
Licensed	OR Surgical Technologist Certified Flexible Endoscope Reprocessor (CFER) LPN	1	0.19
Licensed	OR Surgical Technologist Certified Flexible Endoscope Reprocessor (CFER) Radiation Safety Officer	1	0.19
Licensed	OR Surgical Technologist Certified Registered Central Service Technician (CRCST)	2	0.37
Licensed	OR Surgical Technologist Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER)	2	0.37
Licensed	OR Surgical Technologist Certified Registered Central Service Technician (CRCST) Certified Flexible Endoscope Reprocessor (CFER) Certified Healthcare Leadership (CHL)	1	0.19
Licensed	OR Surgical Technologist Certified Sterile Processing and Distribution Technician (CSPDT)	6	1.11
Licensed	OR Surgical Technologist Certified Sterile Processing and Distribution Technician (CSPDT) Certified Flexible Endoscope Reprocessor (CFER)	7	1.30
Licensed	OR Surgical Technologist Certified Sterile Processing and Distribution Technician (CSPDT) Certified Flexible Endoscope Reprocessor (CFER) CHL	1	0.19
Licensed	OR Surgical Technologist Certified Sterile Processing and Distribution Technician (CSPDT) Certified Flexible Endoscope Reprocessor (CFER) CRA, COA	1	0.19
Licensed	OR Surgical Technologist Certified Sterile Processing and Distribution Technician (CSPDT) Certified Flexible Endoscope Reprocessor (CFER) CSPDM	2	0.37
Licensed	OR Surgical Technologist Certified Sterile Processing and Distribution Technician (CSPDT) Certified Registered Central Service Technician (CRCST)	1	0.19

Licensed	OR Surgical TechnologistCertified Sterile Processing and Distribution Technician (CSPDT) Certified Registered Central Service Technician (CRCST) CIS, CHL, CCMA	1	0.19
Licensed	OR Surgical TechnologistCertified Sterile Processing and Distribution Technician (CSPDT)Certified Surgical Instrument Processor/Specialist (CSIP/CSIS)Certified Registered Central Service Technician (CRCST)Certified Flexible Endoscope Reprocessor (CFER)	3	0.56
Not Licensed	Anesthesia tech	1	0.19
Not Licensed	CAPA	1	0.19
Not Licensed	CBSPD	3	0.56
Not Licensed	CBSPD flexible endoscope	1	0.19
Not Licensed	CFER,CHL,CIS,CRCST	1	0.19
Not Licensed	CGRN	2	0.37
Not Licensed	CNOR	3	0.56
Not Licensed	CNOR, CRNFA, CPSN, PLNC	1	0.19
Not Licensed	CSPDM	1	0.19
Not Licensed	Certified Gastroenterology Nurse (CGRN)	1	0.19
Not Licensed	Certified Nurse's Assistant	1	0.19
Not Licensed	Certified Operating Room Nurse (CNOR)	1	0.19
Not Licensed	Certified Sterile Processing Management	1	0.19
Not Licensed	EMT	1	0.19
Not Licensed	Endo Tech	1	0.19
Not Licensed	Medical Assistant, Phlebotomy	1	0.19
Not Licensed	None	40	7.41
Not Licensed	None lpn with 20 years gi nursing	1	0.19
Not Licensed	Nursing license	1	0.19
Not Licensed	OR Certified Surgical Tecnologist (CST)	1	0.19
Not Licensed	Phlebotomy / EKG	1	0.19
Not Licensed	RN	3	0.56
Not Licensed	RN / Office Manager	1	0.19
Not Licensed	RN and CGRN	1	0.19
Not Licensed	Registered surgical Instrument Processing Tech	1	0.19
Not Licensed	certified nurse operation room	1	0.19
Not Licensed	was certified in GI Nursing	1	0.19
Not Licensed	working on certification	1	0.19

	10. In which level of urbanization do you primarily work? (Select one)	Frequency	Percent
Licensed	Rural	78	14.44
Licensed	Suburban	161	29.81
Licensed	Urban	227	42.04
Not Licensed	Rural	8	1.48
Not Licensed	Suburban	28	5.19
Not Licensed	Urban	38	7.04

	11. How many years of experience do you have reprocessing flexible GI scopes? (Select one)	Frequency	Percent
Licensed	1 to 2 years	69	12.78
Licensed	11 to 20 years	136	25.19
Licensed	3 to 5 years	106	19.63
Licensed	6 to 10 years	98	18.15
Licensed	Less than 1 year	13	2.41
Licensed	More than 20 years	44	8.15
Not Licensed	1 to 2 years	8	1.48
Not Licensed	11 to 20 years	17	3.15
Not Licensed	3 to 5 years	13	2.41
Not Licensed	6 to 10 years	12	2.22
Not Licensed	Less than 1 year	7	1.30
Not Licensed	More than 20 years	17	3.15

Frequency Statements

Appendix B provides respondents group means for the importance ratings for each of the 34 frequency statements first those reported that (1) they were licensed as GIS Flexible Endoscope Re-processors. The shaded values indicate tasks that did not meet the passing criterion of importance. Other comparative tables in Appendix B show the mean importance subgroup rating by (2) race/ethnicity (3) education (4) years of experience in GIS Flexible Endoscope Re-processing (5) job (6) age (7) years of experience. Again, the total group of respondents who were licensed as professional engineers is presented in Appendix B.

The total number of respondents who were used in the selection of the passing frequencies and knowledge areas was N=466. These people identified themselves as licensed.

The purpose of the frequencies is to form a linkage between those knowledge areas in the test specifications and the activities performed on the job as a professional. Those frequencies that meet or exceed the importance criterion will be used to justify knowledge placed on the examination in that each knowledge area on the test is important knowledge required to perform important tasks. This linkage forms an essential step in the evidentiary basis for test validity. It may be that different GIS Flexible Endoscope sub disciplines perform different tasks at different frequencies, yet use the same knowledge. Table 2 shows the number of statements out of the total number of frequencies within each major domain that were qualified by the total respondent sample who identified themselves as licensed engineers. Appendix C shows the lists of passing, borderline, and failing task lists according to this sample. 33 of the 34 frequency statements met the minimum mean importance rating of 2.50.

Table 2
Number of Important Frequencies Statements by Major Domain

Major Domain	Statements
I. Rules, Regulations and Safety	6 of 6
II. Life Science	7 of 7
III. Scopes and Accessories for Endoscopic Procedures	3 of 3
IV. Handling and Cleaning of Scopes and Accessories	6 of 7
V. Reprocessing of Scopes and Accessories	4 of 4
VI. Documentation	5 of 5
VII. Ethics	2 of 2

Knowledge Areas

Appendix C contain respondent group importance ratings averages for the 34 knowledge statements. These are presented first by those who reported that (1) they were licensed as a professional GIS Flexible Endoscope re-processors. The shaded values indicate knowledge's that did not meet the passing criterion of importance. Other comparative takes in Appendix D show the mean importance subgroup ratings by (2) those specialized in GIS Flexible Endoscope re-processing by (2) race/ethnicity (3) education (4) years of experience in GIS Flexible Endoscope Re-processing (5) job (6) age (7) years of experience. Again, the total group of respondents who are licensed as professional GIS Flexible Endoscope Re-processors is presented in Appendix D. All 34 content statements met the minimum mean importance rating of 2.50.

No information regarding the additional write-in statements is provided in this report. Prior to the test specification committee meeting, the CBSPD will make a list of these write-in statements available for review by the test specifications committee.

As noted, the tables in Appendix D highlights those knowledge area statement from 1 to 34 that met or exceeded the importance criterion of 2.5 according to the selected sample of respondents who identified themselves as licensed GIS Flexible Endoscope Re-processors. These were 34 knowledge statements out of 34 that were found to have passed the qualified criterion. Table 3 shows the number of knowledge statements out of the total number of knowledge areas with each major domain that were qualified by the respondent sample that identified themselves as licensed GIS Flexible Endoscope Re-processors.

Table 3
Number of Important Knowledge Statements by Major Domain

Major Domain		Statements
I.	Rules, Regulations and Safety	6 of 6
II.	Life Science	7 of 7
III.	Scopes and Accessories for Endoscopic Procedures	3 of 3
IV.	Handling and Cleaning of Scopes and Accessories	7 of 7
V.	Reprocessing of Scopes and Accessories	4 of 4
VI.	Documentation	5 of 5
VII.	Ethics	2 of 2

Recommendation for Test Content

The recommendation for test content averages for respondents whose total ratings summed to 100% are provided in Table 4. All N=466 examinees who identified themselves as GIS Flexible Endoscope Re-processors completed this section correctly and are included in the analysis.

Table 4

Percentage of Test Content Allocated to Each of the Major Domains

Number of Important Knowledge Statements by Major Domain

Major Domain		Percentage
I.	Rules, Regulations and Safety	14%
III.	Life Science	8%
III.	Scopes and Accessories for Endoscopic Procedures	13%
IV.	Handling and Cleaning of Scopes and Accessories	21%
V.	Reprocessing of Scopes and Accessories	22%
VI.	Documentation	12%
VII.	Ethics	10%
Total		100%

Discussion of Results

Typically mail job analysis survey return rates averages about one-third of those surveys sent out, minus those returned as undeliverable. Anything at or above that rate is considered satisfactory and should serve as evidence to support or refute the opinions of the committee as to what knowledge is important and qualifies for inclusion on the licensure examination.

Knowledge Areas

The Test Specifications Committee must use both professional judgment and these empirical results in establishing the specifications for the licensure examination. Most (N=466) licensed GIS Flexible Endoscope Re-processors who responded to the question felt that the statement covered the important knowledge requirements of the GIS Flexible Endoscope Re-processing (Mean = 3.40, SD = 0.34) well. Many of the tables provided in Appendix D indicate that most respondents saw the importance of the knowledge areas required by the job similarly regardless to which specific group they belonged. Those knowledge areas where the groups differed should be discussed by the Test Specifications Committee in developing the test specifications for fairness considerations in a no-choice examination.

APPENDIX A: The Job Analysis Instrument

The Certification Board for Sterile Processing and Distribution, Inc. (CBSPD) is updating its Job Analysis for the Flexible Endoscope Reprocessor certification exam.

The CBSPD updates all of its Job Analyses every five years as recommended by the National Commission for Certifying Agencies (NCCA).

The purpose of this Job Analysis is to verify the knowledge and skills required for competent performance in the reprocessing of flexible endoscopes. We hope to gain a large amount of insight into these domain items from your evaluation. The CBSPD, Inc. greatly appreciates your participation and assistance.

To ensure accuracy of the data being collected, this survey is intended only for those individuals who have at least one year of experience in processing of flexible GI endoscopes and/or bronchoscopes.

Please take a few minutes to fill out this survey regarding your responsibilities as a flexible GI endoscope reprocessor.

The Certification Board for Sterile Processing and Distribution, Inc. (CBSPD) welcomes your feedback and all responses to this survey will remain confidential. *The CBSPD is offering a FREE gift for all participants that complete the entire survey. See details at the end of this survey for more information.* Thank you.

CBSPD Board of Directors

1. Opening Important Statement from the CBSPD, Inc.

Please take a few minutes of your time to answer the entire survey. Only those that complete the whole survey will be eligible for the FREE CBSPD gift.

The survey is broken down into three parts.

Part one is where you fill out your demographic information.

Part two is where you will rate items of IMPORTANCE for your job as a Flexible GI Endoscope Reprocessor.

Part three is where you will rate items based on how FREQUENTLY you use them on the job as a Flexible GI Endoscope Reprocessor.

ONLY COMPLETE THE SURVEY ONCE PER PERSON.

We thank you again for your effort!

2. Instructions

1. Which title best describes your present * job? (Select one)

GI Technician (Flexible Endoscope Technician)
Endoscopy Assistant/Attendant
Supervisor of GI endoscopy technicians
GI Nurse
Endoscopy Healthcare Product Representative
Other (please specify)

2. What * is your gender?

Male
Female

3. What is your age?

Less than 20 years of age
20-30 years of age
31-40 years of age
41-50 years of age
51-60 years of age
More than 60 years of age

4. How do you describe yourself? (Please check the option that best describes you)

White (non-Hispanic)
Black or African American
Hispanic or Latino
Asian or Asian American
American Indian or Alaska Native
Hawaiian or Other Pacific Islander
Other (please specify)

5. What is the highest level of formal education that you have completed? * (Select one)

High School Diploma/GED
One Year Technical diploma
LPN diploma
RN diploma
Some college without a degree
Associate's degree
Bachelor's degree
Master's degree
Doctorate degree
Flexible Endoscope Reprocessing Course

6. What is your current work setting? (Select one)

Ambulatory Surgery Center
Teaching Hospital: Less than 200 Beds
Teaching Hospital: 200 to 400 Beds
Teaching Hospital: 401 to 800 Beds
Teaching Hospital: More than 800 Beds
Non-Teaching Hospital: Less than 200 Beds
Non-Teaching Hospital: 200 to 400 Beds
Non-Teaching Hospital: 401 to 800 Beds
Non-Teaching Hospital: More than 800 Beds
Flexible GI Scope Sales or Service Company

7. How many years of experience do you have working in a GI/Endo area? (Select one)

Less than 1 year
1 to 2 years
3 to 5 years
6 to 10 years
11 to 20 years
More than 20 years

8. In which geographic location do you primarily * work? (Select one)

Northeast US
Southeast US
Northwest US
Midwest US
Southwest US
Canada
Other Foreign Country (please specify)

9. What certifications and/or licenses do you presently hold? (Select all that apply)

OR Surgical Technologist
Certified Sterile Processing and Distribution Technician (CSPDT)
Certified Surgical Instrument Processor/Specialist (CSIP/CSIS)
Certified Registered Central Service Technician (CRCST)
Certified Flexible Endoscope Reprocessor (CFER)
None
Other (please specify)

10. In which level of urbanization do you primarily work? (Select one)

Urban
Suburban
Rural

11. How many years of experience do you have reprocessing flexible GI scopes? (Select one)

1-2 years
3-5 years
6-10 years
More than 10 years

Please use the drop down menus below to rate all of the following according to their *importance* and *frequency of use* for your job as a Flexible Endoscope Reprocessor.

4. Importance of Knowledge and Frequency of Use on the Job**

Importance of this Knowledge for Your Job Frequency of Use of this Knowledge on the Job

Domain 1: Rules, Regulations and Safety

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

Importance of this Knowledge for Your Job Frequency of Use of this Knowledge on the Job

Domain 2: Life Sciences

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

Importance of this Knowledge for Your Job Frequency of Use of this Knowledge on the Job

Domain 3: Scopes and Accessories for Endoscopic Procedures

1. Anatomy of various GI and pulmonary flexible scopes
2. Scope function (use of scopes)
3. Accessories (i.e. snares, water bottles, mouth gags, reusable biopsy forceps, etc., single use items, function valves and biopsy port covers)

Importance of this Knowledge for Your Job Frequency of Use of this Knowledge on the Job

Domain 4: Handling and Cleaning of Scopes and Accessories

1. Pre-cleaning and transport of used scopes and accessories
2. Inspection for visible soils and damage of scopes and reusable accessories
3. Leak testing procedures; methods of testing, actions to take with a failed leak test
4. Cleaning methods, (i.e. manual, mechanical) water quality, cleaning implements (i.e. brushes) and equipment (automated flushing systems, AERs) for flexible scopes and accessories; steps in the cleaning process, delayed reprocessing
5. Cleaning verification methods and intervals
6. Selection and use of cleaning chemicals (i.e. pH, concentration, water quality, temperature, action of chemical), rinsing; water quality
7. Use of sterile sheaths

Importance of this Knowledge for Your Job Frequency of Use of this Knowledge on the Job

Domain 5: Reprocessing of Scopes and Accessories

1. Use of high level disinfectants and liquid chemical sterilants (i.e. chemicals, use of test strips for HLD), use (i.e. exposure time, temperature, rinsing, water quality, shelf life vs. use life of HLDs)
2. High level disinfection methods (i.e. manual, mechanical, AER)
3. Post disinfection procedures (i.e. alcohol flush, drying), labeling and dating
4. Storage of HLD or sterilized scopes and accessories

Importance of this Knowledge for Your Job Frequency of Use of this Knowledge on the Job

Domain 6: Documentation *Importance of this Knowledge for Your Job Frequency of Use of this Knowledge on the Job*

1. Required or recommended orientation, training and competency verification for all scopes, flushing devices, HLDs, etc.
2. Cleaning and high level disinfection protocols; traceability to the patient
3. Leak testing and chemical disinfection efficacy testing (MEC/MRC testing), quality assurance testing of HLD test strips
4. Incident reporting
5. Cleaning effectiveness testing (products and usage)

Domain 7: Ethics

1. Compliance with regulatory standards, best practices, procedures and/or guidelines that impact on patient, employee or environmental safety; reporting instances of non-compliance
2. Professional behavior (i.e. non-compliance with dress code; disruptive behavior; theft; willful damage to equipment/property)

The following question asks you to divide 100 points between a set of 7 domains to show the value

or importance you place on each option. Distribute the 100 points giving the more important domains a greater number of points. Your total MUST be 100 points.

****Ranking Task****

Rules, Regulations and Safety
Life Sciences
Scopes and Accessories for Endoscopic Procedures
Handling and Cleaning of Scopes and Accessories
Reprocessing of Scopes and Accessories
Documentation
Ethics

1. Domains:

PLEASE BE SURE TO CLICK THE "SUBMIT SURVEY" BUTTON AT THE BOTTOM BEFORE YOU GO!

THIS COMPLETES THE SURVEY – THANK YOU FOR YOUR PARTICIPATION.

Please fill out your name and home address below to receive your FREE CBSPD gift! (Only those that finish the survey to the end are eligible. All free gifts will be mailed out after the survey ends.) If you don't want the gift, just leave the spaces below blank.

Thank you!

7. END OF SURVEY!

1. First Name
2. Last Name
3. HOME Street Address (where you live now)
4. City
5. State
6. Zip Code
7. Foreign Country

**Appendix B: Licensed GIS Flexible Endoscope Overall Group Importance Rating Averages for all
Frequencies Statements**

Frequencies - Overall	N=466		
Domain 1: Rules, Regulations and Safety	Mean	STD	N
1. OSHA (i.e. PPE, Blood Borne Pathogens, transport of soiled scopes and accessories, biohazard waste removal, Hazard communication/Safety Data Sheets, Safety, Sexual Harassment/Workplace Violence, eyewash stations)	3.58	0.76	389
2. EPA, FDA (i.e. Medical Device Reporting; Compliance with Manufacturer's Instructions for Use), HIPAA regulations, standards	3.49	0.78	389
3. Standards: AAMI, ST-91, ST-79, ST-58, Guidelines; AORN, CDC (Spaulding Classification), ASGE, Multi-Society Guideline	3.41	0.89	389
4. Accreditation agencies (i.e. The Joint Commission, AAAHC)	3.31	0.93	389
5. Employee safety, (i.e. Latex allergy; ergonomics)	3.39	0.84	389
6. Environmental safety (i.e. fire safety, electrical safety, patient emergency equipment-location and operation, waste management)	3.31	0.90	389
Domain 2: Life Sciences	Mean	STD	N
1. Types of microorganisms that pertain to GI/Endo (bacteria, virus, fungus, prions)	3.28	0.93	388
2. Disease transmission (i.e. biofilm formation, bioburden)	3.50	0.76	389
3. Prevention of cross-contamination (i.e. 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)	3.70	0.68	389
4. Anatomy and Physiology as related to GI and Pulmonary body systems	2.76	1.12	389
5. Medical Terminology; signs and symbols	2.72	1.05	389
6. Medical procedures involving flexible scopes	3.18	0.97	389
7. Labeling, handling and transporting specimens	2.84	1.42	389
Domain 3: Scopes and Accessories for Endoscopic Procedures	Mean	STD	N
1. Anatomy of various GI and pulmonary flexible scopes	3.27	0.91	389
2. Scope function (use of scopes)	3.33	0.87	389
3. Accessories (i.e. snares, water bottles, mouth gags, reusable biopsy forceps, etc., single use items, function valves and biopsy port covers)	3.30	0.95	389
Domain 4: Handling and Cleaning of Scopes and Accessories	Mean	STD	N
1. Pre-cleaning and transport of used scopes and accessories	3.67	0.76	389
2. Inspection for visible soils and damage of scopes and reusable accessories	3.75	0.59	389
3. Leak testing procedures; methods of testing, actions to take with a failed leak test	3.78	0.57	389
4. Cleaning methods, (i.e. manual, mechanical) water quality, cleaning implements (i.e. brushes) and equipment (automated flushing systems, AERs) for flexible scopes and accessories; steps in the cleaning process, delayed reprocessing	3.79	0.53	389
5. Cleaning verification methods and intervals	3.60	0.73	389
6. Selection and use of cleaning chemicals (i.e. pH, concentration, water quality, temperature, action of chemical), rinsing; water quality	3.51	0.81	389
7. Use of sterile sheaths	2.35	1.50	389
Domain 5: Reprocessing of Scopes and Accessories	Mean	STD	N

1. Use of high level disinfectants and liquid chemical sterilants (i.e. chemicals, use of test strips for HLD), use (i.e. exposure time, temperature, rinsing, water quality, shelf life vs. use life of HLDs)	3.72	0.65	389
2. High level disinfection methods (i.e. manual, mechanical, AER)	3.70	0.65	389
3. Post disinfection procedures (i.e. alcohol flush, drying), labeling and dating	3.71	0.61	389
4. Storage of HLD or sterilized scopes and accessories	3.69	0.64	389
6. Domain 6: Documentation Importance of this Knowledge for Your Job Frequency of Use of this Knowledge on the Job	Mean	STD	N
1. Required or recommended orientation, training and competency verification for all scopes, flushing devices, HLDs, etc.	3.51	0.85	389
2. Cleaning and high level disinfection protocols; traceability to the patient	3.62	0.76	389
3. Leak testing and chemical disinfection efficacy testing (MEC/MRC testing), quality assurance testing of HLD test strips	3.67	0.73	389
4. Incident reporting	2.90	1.36	389
5. Cleaning effectiveness testing (products and usage)	3.40	0.94	389
Domain 7: Ethics	Mean	STD	N
1. Compliance with regulatory standards, best practices, procedures and/or guidelines that impact on patient, employee or environmental safety; reporting instances of non-compliance	3.56	0.81	389
2. Professional behavior (i.e. non-compliance with dress code; disruptive behavior; theft; willful damage to equipment/property)	3.37	1.00	389

Appendix C: Licensed GIS Flexible Endoscope Overall Group Importance Rating Averages for all Knowledge Statements

Knowledge - Overall	N=466		
Domain 1: Rules, Regulations and Safety	Mean	STD	N
1. OSHA (i.e. PPE, Blood Borne Pathogens, transport of soiled scopes and accessories, biohazard waste removal, Hazard communication/Safety Data Sheets, Safety, Sexual Harassment/Workplace Violence, eyewash stations)	3.79	0.51	448
2. EPA, FDA (i.e. Medical Device Reporting; Compliance with Manufacturer's Instructions for Use), HIPAA regulations, standards	3.66	0.62	448
3. Standards: AAMI, ST-91, ST-79, ST-58, Guidelines; AORN, CDC (Spaulding Classification), ASGE, Multi-Society Guideline	3.54	0.77	448
4. Accreditation agencies (i.e. The Joint Commission, AAAHC)	3.44	0.85	448
5. Employee safety, (i.e. Latex allergy; ergonomics)	3.54	0.75	448
6. Environmental safety (i.e. fire safety, electrical safety, patient emergency equipment-location and operation, waste management)	3.46	0.78	448
Domain 2: Life Sciences	Mean	STD	N
1. Types of microorganisms that pertain to GI/Endo (bacteria, virus, fungus, prions)	3.50	0.77	448
2. Disease transmission (i.e. biofilm formation, bioburden)	3.65	0.69	448
3. Prevention of cross-contamination (i.e. 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)	3.79	0.56	448
4. Anatomy and Physiology as related to GI and Pulmonary body systems	2.93	0.98	448
5. Medical Terminology; signs and symbols	2.88	0.99	448
6. Medical procedures involving flexible scopes	3.29	0.90	448
7. Labeling, handling and transporting specimens	3.03	1.34	448
Domain 3: Scopes and Accessories for Endoscopic Procedures	Mean	STD	N
1. Anatomy of various GI and pulmonary flexible scopes	3.42	0.81	448
2. Scope function (use of scopes)	3.51	0.72	448
3. Accessories (i.e. snares, water bottles, mouth gags, reusable biopsy forceps, etc., single use items, function valves and biopsy port covers)	3.41	0.87	448
Domain 4: Handling and Cleaning of Scopes and Accessories	Mean	STD	N
1. Pre-cleaning and transport of used scopes and accessories	3.77	0.59	448
2. Inspection for visible soils and damage of scopes and reusable accessories	3.79	0.55	448
3. Leak testing procedures; methods of testing, actions to take with a failed leak test	3.83	0.49	448
4. Cleaning methods, (i.e. manual, mechanical) water quality, cleaning implements (i.e. brushes) and equipment (automated flushing systems, AERs) for flexible scopes and accessories; steps in the cleaning process, delayed reprocessing	3.85	0.46	448
5. Cleaning verification methods and intervals	3.71	0.63	448
6. Selection and use of cleaning chemicals (i.e. pH, concentration, water quality, temperature, action of chemical), rinsing; water quality	3.62	0.72	448

7. Use of sterile sheaths	2.55	1.44	448
Domain 5: Reprocessing of Scopes and Accessories	Mean	STD	N
1. Use of high level disinfectants and liquid chemical sterilants (i.e. chemicals, use of test strips for HLD), use (i.e. exposure time, temperature, rinsing, water quality, shelf life vs. use life of HLDs)	3.80	0.54	448
2. High level disinfection methods (i.e. manual, mechanical, AER)	3.77	0.55	448
3. Post disinfection procedures (i.e. alcohol flush, drying), labeling and dating	3.77	0.53	448
4. Storage of HLD or sterilized scopes and accessories	3.72	0.59	448
6. Domain 6: Documentation Importance of this Knowledge for Your Job Frequency of Use of this Knowledge on the Job	Mean	STD	N
1. Required or recommended orientation, training and competency verification for all scopes, flushing devices, HLDs, etc.	3.67	0.71	448
2. Cleaning and high level disinfection protocols; traceability to the patient	3.71	0.66	448
3. Leak testing and chemical disinfection efficacy testing (MEC/MRC testing), quality assurance testing of HLD test strips	3.74	0.63	448
4. Incident reporting	3.43	0.95	448
5. Cleaning effectiveness testing (products and usage)	3.55	0.81	448
7. Domain 7: Ethics	Mean	STD	N
1. Compliance with regulatory standards, best practices, procedures and/or guidelines that impact on patient, employee or environmental safety; reporting instances of non-compliance	3.71	0.65	448
2. Professional behavior (i.e. non-compliance with dress code; disruptive behavior; theft; willful damage to equipment/property)	3.60	0.77	448

Appendix C: Licensed GIS Flexible Endoscope Group Importance Rating Averages for all Knowledge Statements

CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016
Domain 1: Rules, Regulations and Safety
Importance of this Knowledge for Your Job

Answer Options	Very Low	Low	Average	High	Very High	Response Count
1. OSHA (i.e. PPE, Blood Borne Pathogens, transport of soiled scopes and accessories, biohazard waste removal, Hazard communication/Safety Data Sheets, Safety, Sexual Harassment/Workplace Violence, eyewash stations)	1	0	16	62	375	454
2. EPA, FDA (i.e. Medical Device Reporting; Compliance with Manufacturer's Instructions for Use), HIPAA regulations, standards	1	1	28	90	334	454
3. Standards: AAMI, ST-91, ST-79, ST-58, Guidelines; AORN, CDC (Spaulding Classification), ASGE, Multi-Society Guideline	3	5	44	95	307	454
4. Accreditation agencies (i.e. The Joint Commission, AAAHC)	3	13	49	105	284	454
5. Employee safety, (i.e. Latex allergy; ergonomics)	2	5	42	101	304	454
6. Environmental safety (i.e. fire safety, electrical safety, patient emergency equipment- location and operation, waste management)	1	5	59	107	282	454

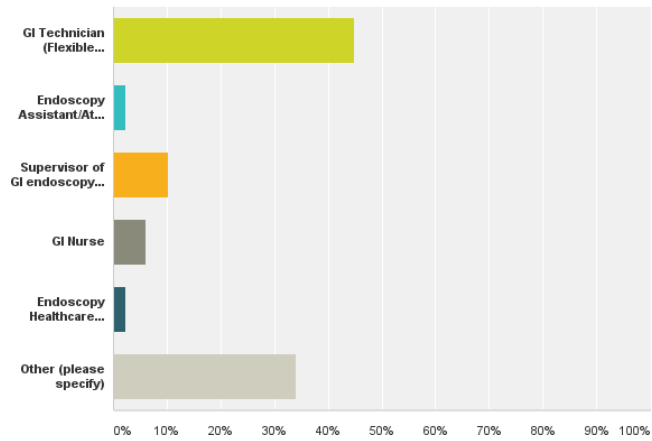
Frequency of Use of this Knowledge on the Job

Answer Options	Very Low	Low	Average	High	Very High	Response Count
1. OSHA (i.e. PPE, Blood Borne Pathogens, transport of soiled scopes and accessories, biohazard waste removal, Hazard communication/Safety Data Sheets, Safety, Sexual Harassment/Workplace Violence, eyewash stations)	4	4	38	85	323	454
2. EPA, FDA (i.e. Medical Device Reporting; Compliance with Manufacturer's Instructions for Use), HIPAA regulations, standards	1	6	58	101	288	454
3. Standards: AAMI, ST-91, ST-79, ST-58, Guidelines; AORN, CDC (Spaulding Classification), ASGE, Multi-Society Guideline	6	11	59	107	271	454
4. Accreditation agencies (i.e. The Joint Commission, AAAHC)	5	18	69	115	247	454
5. Employee safety, (i.e. Latex allergy; ergonomics)	3	7	60	112	272	454
6. Environmental safety (i.e. fire safety, electrical safety, patient emergency equipment- location and operation, waste management)	3	10	78	102	261	454

					Question Totals
<i>answered question</i>					454
<i>skipped question</i>					92

Q1 Which title best describes your present job? (Select one)

Answered: 546 Skipped: 0

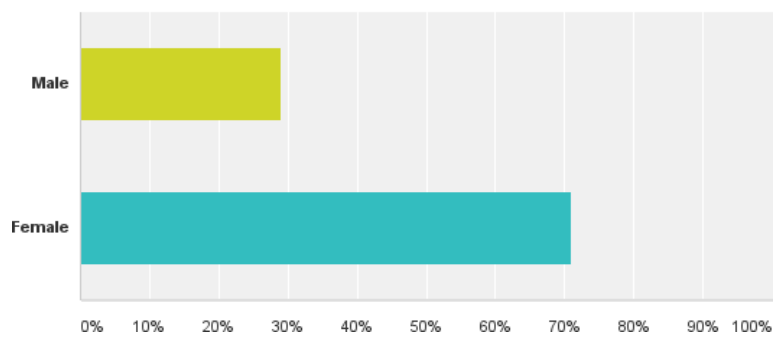


CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

What is your gender?		
Answer Options	Response Percent	Response Count
Male	28.9%	158
Female	71.1%	388
<i>answered question</i>		546
<i>skipped question</i>		0

Q2 What is your gender?

Answered: 546 Skipped: 0

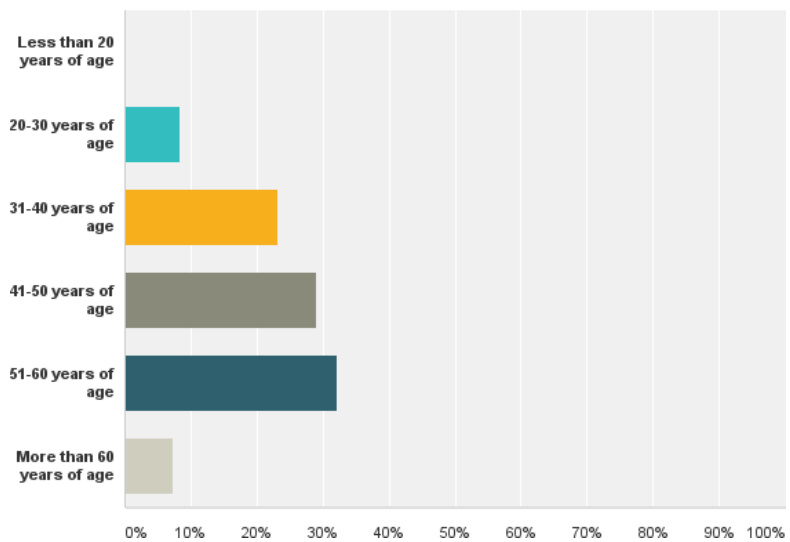


CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

What is your age?		
Answer Options	Response Percent	Response Count
Less than 20 years of age	0.2%	1
20-30 years of age	8.4%	46
31-40 years of age	23.1%	126
41-50 years of age	28.9%	158
51-60 years of age	32.1%	175
More than 60 years of age	7.3%	40
answered question		546
skipped question		0

Q3 What is your age?

Answered: 546 Skipped: 0



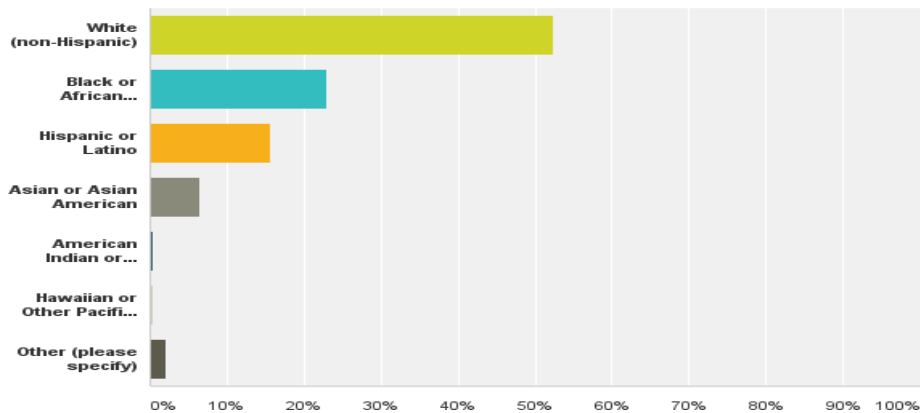
CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

How do you describe yourself? (Please check the option that best describes you)

Answer Options	Response Percent	Response Count
White (non-Hispanic)	52.4%	286
Black or African American	22.9%	125
Hispanic or Latino	15.6%	85
Asian or Asian American	6.4%	35
American Indian or Alaska Native	0.4%	2
Hawaiian or Other Pacific Islander	0.4%	2
Other (please specify)	2.0%	11
answered question		546
skipped question		0

Q4 How do you describe yourself? (Please check the option that best describes you)

Answered: 546 Skipped: 0



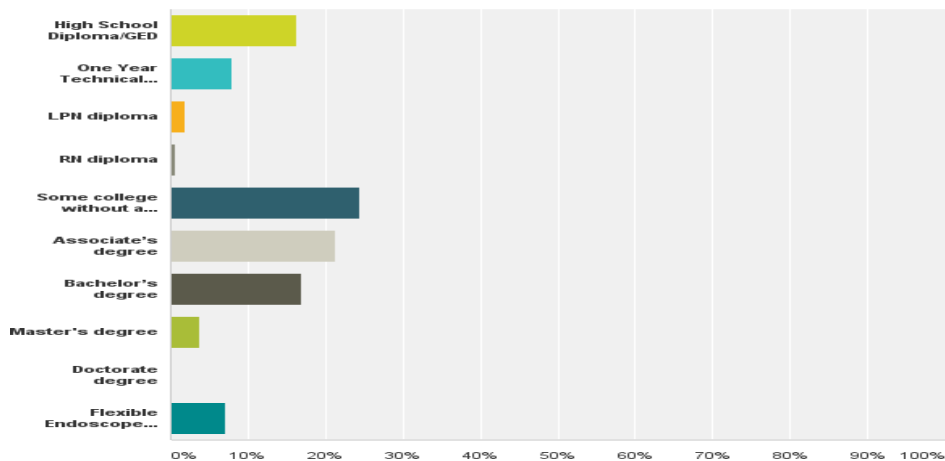
CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

How do you describe yourself? (Please check the option that best describes you)

Answer Options	Response Percent	Response Count
White (non-Hispanic)	52.4%	286
Black or African American	22.9%	125
Hispanic or Latino	15.6%	85
Asian or Asian American	6.4%	35
American Indian or Alaska Native	0.4%	2
Hawaiian or Other Pacific Islander	0.4%	2
Other (please specify)	2.0%	11
answered question		546
skipped question		0

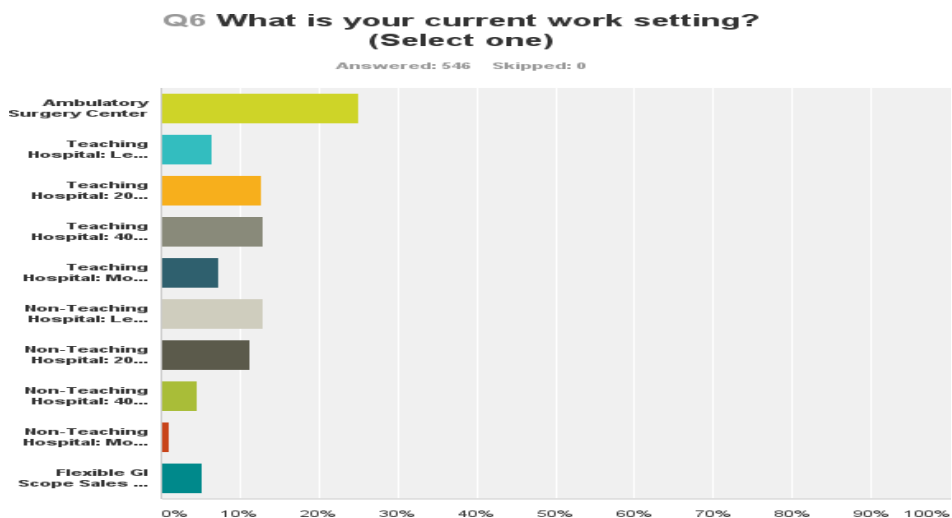
Q5 What is the highest level of formal education that you have completed? (Select one)

Answered: 546 Skipped: 0



CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

What is your current work setting? (Select one)		
Answer Options	Response Percent	Response Count
Ambulatory Surgery Center	25.1%	137
Teaching Hospital: Less than 200 Beds	6.4%	35
Teaching Hospital: 200 to 400 Beds	12.8%	70
Teaching Hospital: 401 to 800 Beds	13.0%	71
Teaching Hospital: More than 800 Beds	7.3%	40
Non-Teaching Hospital: Less than 200 Beds	13.0%	71
Non-Teaching Hospital: 200 to 400 Beds	11.4%	62
Non-Teaching Hospital: 401 to 800 Beds	4.6%	25
Non-Teaching Hospital: More than 800 Beds	1.1%	6
Flexible GI Scope Sales or Service Company	5.3%	29
answered question		546
skipped question		0

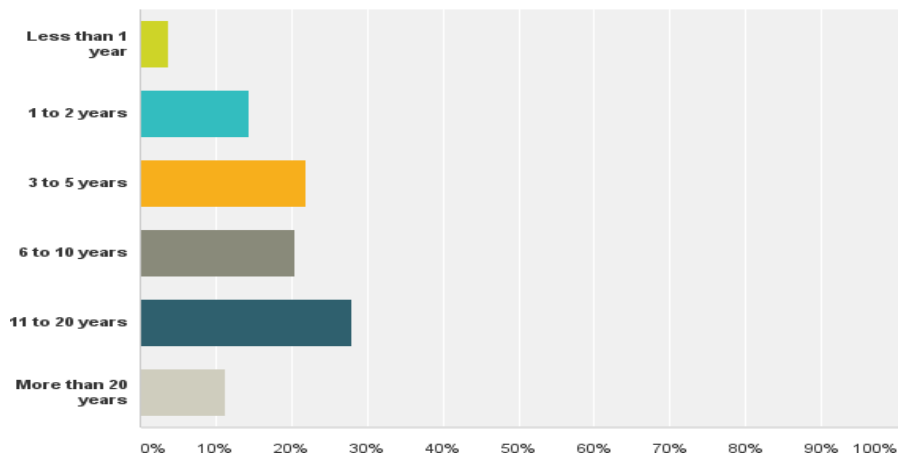


CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

How many years of experience do you have working in a GI/Endo area? (Select one)		
Answer Options	Response Percent	Response Count
Less than 1 year	3.8%	21
1 to 2 years	14.5%	79
3 to 5 years	22.0%	120
6 to 10 years	20.5%	112
11 to 20 years	28.0%	153
More than 20 years	11.2%	61
<i>answered question</i>		546
<i>skipped question</i>		0

Q7 How many years of experience do you have working in a GI/Endo area? (Select one)

Answered: 546 Skipped: 0

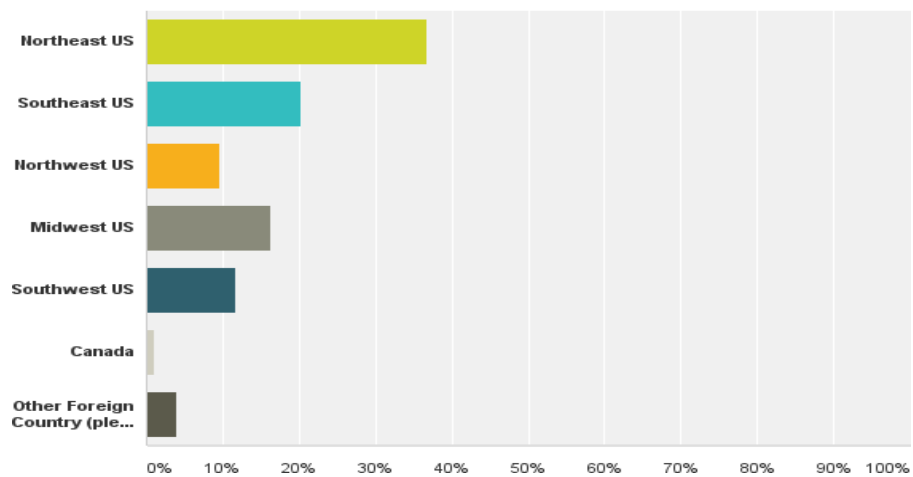


CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

In which geographic location do you primarily work? (Select one)		
Answer Options	Response Percent	Response Count
Northeast US	36.8%	201
Southeast US	20.3%	111
Northwest US	9.7%	53
Midwest US	16.3%	89
Southwest US	11.7%	64
Canada	1.1%	6
Other Foreign Country (please specify)	4.0%	22
answered question		546
skipped question		0

Q8 In which geographic location do you primarily work? (Select one)

Answered: 546 Skipped: 0



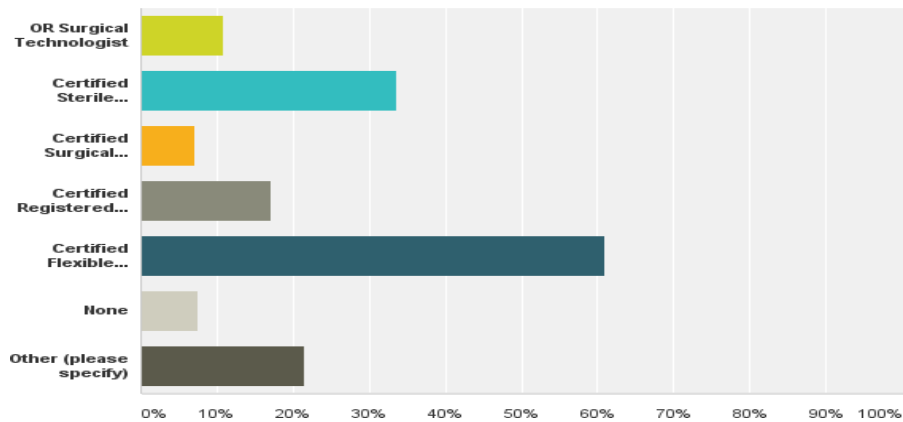
CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

What certifications and/or licenses do you presently hold? (Select all that apply)

Answer Options	Response Percent	Response Count
OR Surgical Technologist	10.8%	59
Certified Sterile Processing and Distribution Technician (CSPDT)	33.7%	184
Certified Surgical Instrument Processor/Specialist (CSIP/CSIS)	7.1%	39
Certified Registered Central Service Technician (CRCST)	17.2%	94
Certified Flexible Endoscope Reprocessor (CFER)	61.0%	333
None	7.5%	41
Other (please specify)	21.4%	117
answered question		546
skipped question		0

Q9 What certifications and/or licenses do you presently hold? (Select all that apply)

Answered: 546 Skipped: 0

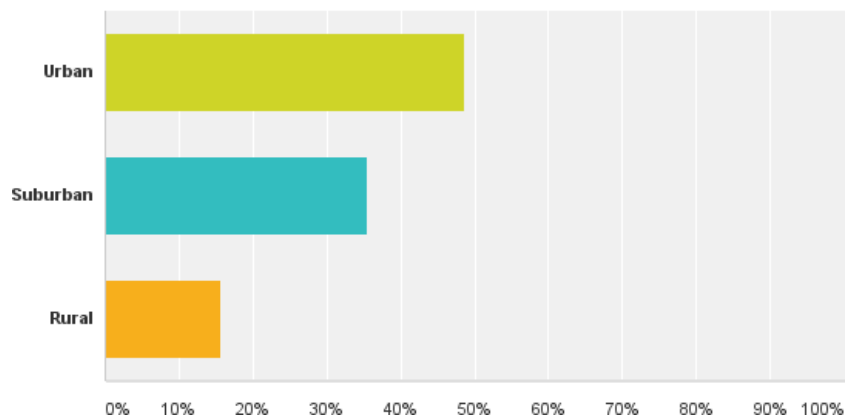


CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

In which level of urbanization do you primarily work? (Select one)		
Answer Options	Response Percent	Response Count
Urban	48.7%	266
Suburban	35.5%	194
Rural	15.8%	86
<i>answered question</i>		546
<i>skipped question</i>		0

Q10 In which level of urbanization do you primarily work? (Select one)

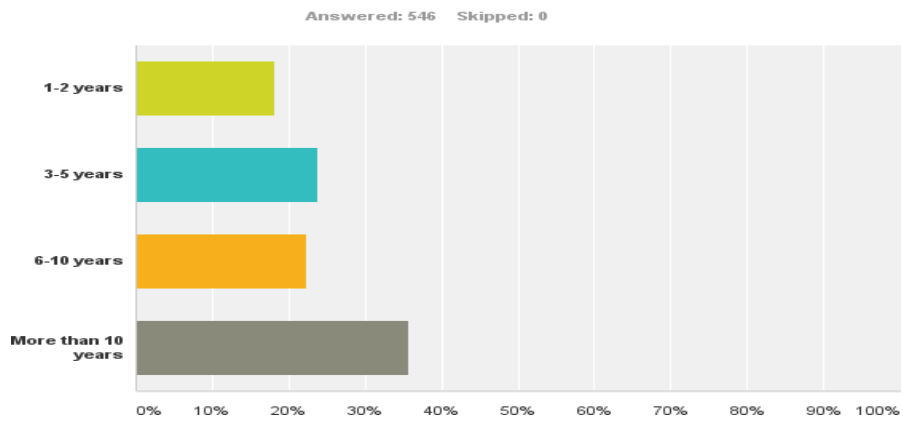
Answered: 546 Skipped: 0



CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

How many years of experience do you have reprocessing flexible GI scopes? (Select one)		
Answer Options	Response Percent	Response Count
1-2 years	18.1%	99
3-5 years	23.8%	130
6-10 years	22.3%	122
More than 10 years	35.7%	195
<i>answered question</i>		546
<i>skipped question</i>		0

Q11 How many years of experience do you have reprocessing flexible GI scopes? (Select one)



CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

Domain 1: Rules, Regulations and Safety

Importance of this Knowledge for Your Job

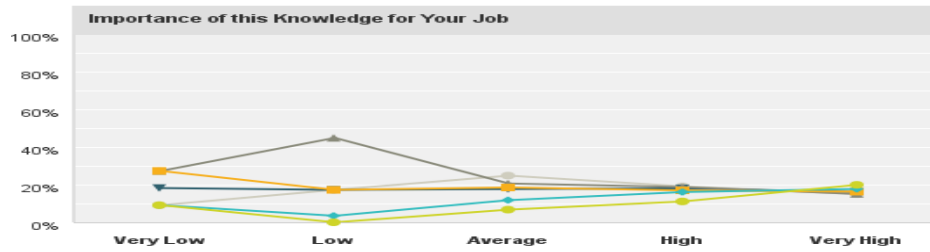
Answer Options	Very Low	Low	Average	High	Very High	Response Count
1. OSHA (i.e. PPE, Blood Borne Pathogens, transport of soiled scopes and accessories, biohazard waste removal, Hazard communication/Safety Data Sheets, Safety, Sexual Harassment/Workplace Violence, eyewash stations)	1	0	16	62	375	454
2. EPA, FDA (i.e. Medical Device Reporting; Compliance with Manufacturer's Instructions for Use), HIPAA regulations, standards	1	1	28	90	334	454
3. Standards: AAMI, ST-91, ST-79, ST-58, Guidelines; AORN, CDC (Spaulding Classification), ASGE, Multi-Society Guideline	3	5	44	95	307	454
4. Accreditation agencies (i.e. The Joint Commission, AAAHC)	3	13	49	105	284	454
5. Employee safety, (i.e. Latex allergy; ergonomics)	2	5	42	101	304	454
6. Environmental safety (i.e. fire safety, electrical safety, patient emergency equipment- location and operation, waste management)	1	5	59	107	282	454

Frequency of Use of this Knowledge on the Job

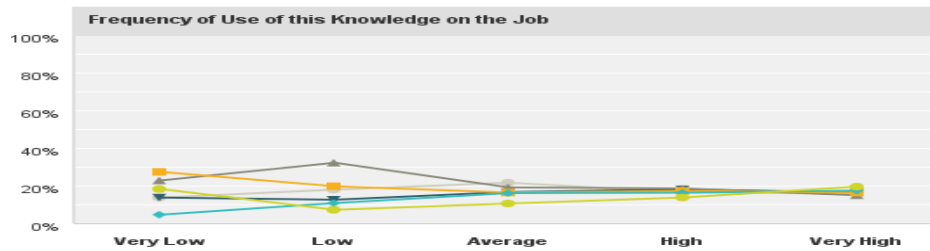
Answer Options	Very Low	Low	Average	High	Very High	Response Count
1. OSHA (i.e. PPE, Blood Borne Pathogens, transport of soiled scopes and accessories, biohazard waste removal, Hazard communication/Safety Data Sheets, Safety, Sexual Harassment/Workplace Violence, eyewash stations)	4	4	38	85	323	454
2. EPA, FDA (i.e. Medical Device Reporting; Compliance with Manufacturer's Instructions for Use), HIPAA regulations, standards	1	6	58	101	288	454
3. Standards: AAMI, ST-91, ST-79, ST-58, Guidelines; AORN, CDC (Spaulding Classification), ASGE, Multi-Society Guideline	6	11	59	107	271	454
4. Accreditation agencies (i.e. The Joint Commission, AAAHC)	5	18	69	115	247	454
5. Employee safety, (i.e. Latex allergy; ergonomics)	3	7	60	112	272	454
6. Environmental safety (i.e. fire safety, electrical safety, patient emergency equipment- location and operation, waste management)	3	10	78	102	261	454
Question Totals						
answered question						454
skipped question						92

Q12 Domain 1: Rules, Regulations and Safety

Answered: 454 Skipped: 92



- 1. OSHA (i.e. PPE, Blood Borne Pathogens, transport of soiled scopes and accessories, biohazardous waste)
- 2. EPA, FDA (i.e. Medical Device Reporting; Compliance with Manufacturer's Instructions for Use)
- 3. Standards: AAMI, ST-91, ST-79, ST-58, Guidelines; AORN, CDC (Spaulding Classification), etc.
- 4. Accreditation agencies (i.e. The Joint Commission, AAAHC)
- 5. Employee safety, (i.e. Latex allergy; ergonomics)
- 6. Environmental safety (i.e. fire safety, electrical safety, patient emergency equipment-etc.)

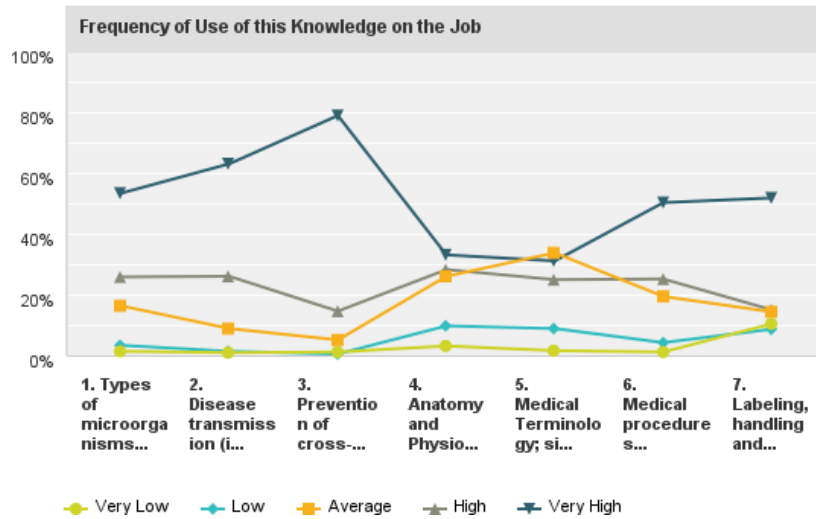
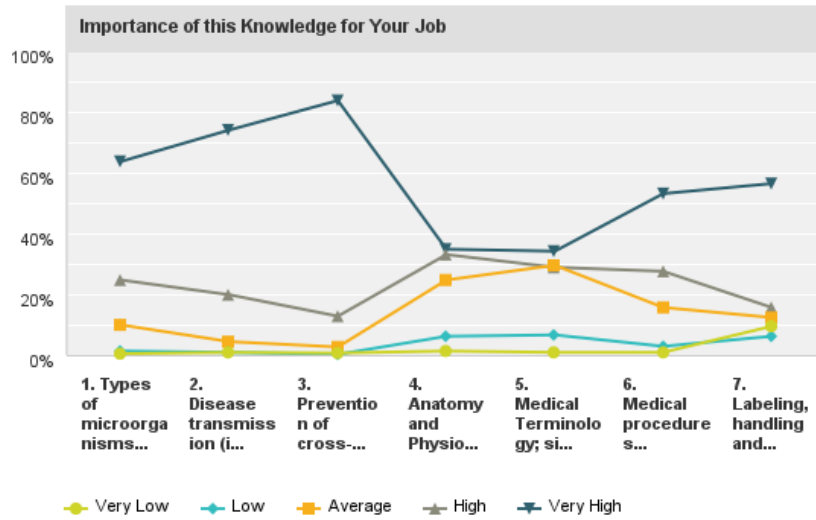


- 1. OSHA (i.e. PPE, Blood Borne Pathogens, transport of soiled scopes and accessories, biohazardous waste)
- 2. EPA, FDA (i.e. Medical Device Reporting; Compliance with Manufacturer's Instructions for Use)
- 3. Standards: AAMI, ST-91, ST-79, ST-58, Guidelines; AORN, CDC (Spaulding Classification), etc.
- 4. Accreditation agencies (i.e. The Joint Commission, AAAHC)
- 5. Employee safety, (i.e. Latex allergy; ergonomics)
- 6. Environmental safety (i.e. fire safety, electrical safety, patient emergency equipment-etc.)

Domain 2: Life Sciences						
Importance of this Knowledge for Your Job						
Question	Very Important	Important	Not Important	Not Answered	Skipped	Response Count
1. Types of microorganisms that pertain to GI/Endo	2	6	45	112	289	454
2. Disease transmission (i.e. biofilm formation,	4	4	20	90	336	454
3. Prevention of cross-contamination (i.e. 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)	3	1	12	58	380	454
4. Anatomy and Physiology as related to GI and	6	28	112	150	158	454
5. Medical Terminology; signs and symbols	4	30	134	131	155	454
6. Medical procedures involving flexible scopes	4	13	71	125	241	454
7. Labeling, handling and transporting specimens	43	28	56	71	256	454
Frequency of Use of this Knowledge on the Job						
Question	Very Often	Often	Not Often	Not Answered	Skipped	Response Count
1. Types of microorganisms that pertain to GI/Endo	6	15	74	117	242	454
2. Disease transmission (i.e. biofilm formation,	4	6	40	118	286	454
3. Prevention of cross-contamination (i.e. 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)	5	2	23	66	358	454
4. Anatomy and Physiology as related to GI and	14	44	118	128	150	454
5. Medical Terminology; signs and symbols	7	40	153	113	141	454
6. Medical procedures involving flexible scopes	5	19	88	114	228	454
7. Labeling, handling and transporting specimens	47	39	65	68	235	454
Question Totals						
answered question						454
skipped question						92

Q13 Domain 2: Life Sciences

Answered: 454 Skipped: 92

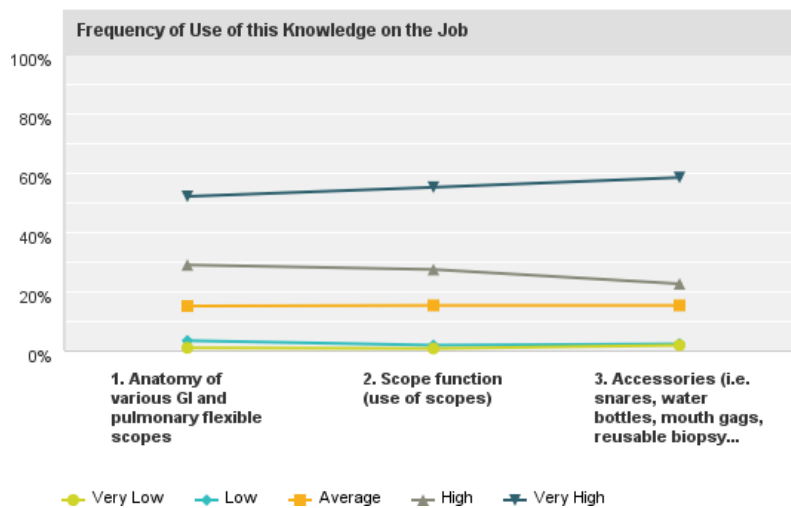
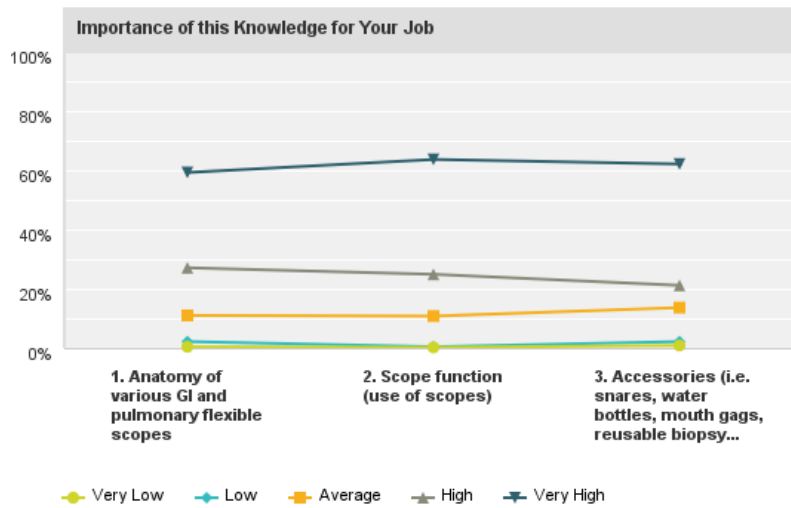


CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

Domain 3: Scopes and Accessories for Endoscopic Procedures						
Importance of this Knowledge for Your Job						
Answer Options	Very Low	Low	Average	High	Very High	Response Count
1. Anatomy of various GI and pulmonary flexible scopes	2	10	50	123	269	454
2. Scope function (use of scopes)	1	2	49	113	289	454
3. Accessories (i.e. snares, water bottles, mouth gags, reusable biopsy forceps, etc., single use items, function valves and biopsy port covers)	4	10	62	96	282	454
Frequency of Use of this Knowledge on the Job						
Answer Options	Very Low	Low	Average	High	Very High	Response Count
1. Anatomy of various GI and pulmonary flexible scopes	4	15	68	131	236	454
2. Scope function (use of scopes)	3	8	69	124	250	454
3. Accessories (i.e. snares, water bottles, mouth gags, reusable biopsy forceps, etc., single use items, function valves and biopsy port covers)	8	10	69	102	265	454
						Question Totals
						answered question 454
						skipped question 92

Q14 Domain 3: Scopes and Accessories for Endoscopic Procedures

Answered: 454 Skipped: 92

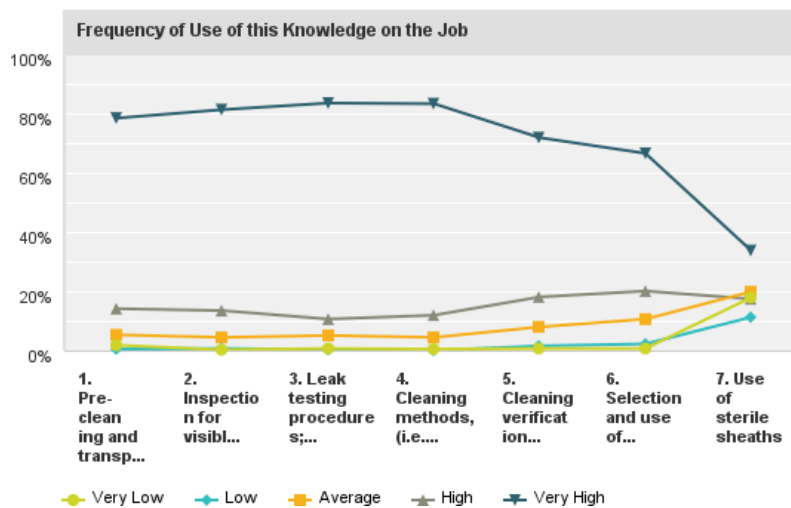
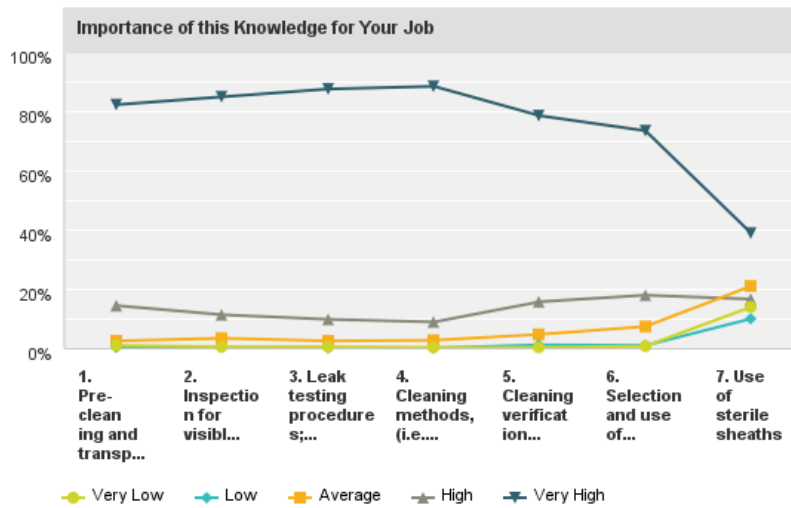


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Domain 4: Handling and Cleaning of Scopes and Accessories						
Importance of this Knowledge for Your Job						
Answer Options	Very Low	Low	Average	High	Very High	Response Count
1. Pre-cleaning and transport of used scopes and accessories	4	1	11	65	373	454
2. Inspection for visible soils and damage of scopes and reusable accessories	2	1	15	51	385	454
3. Leak testing procedures; methods of testing, actions to take with a failed leak test	2	0	11	44	397	454
4. Cleaning methods, (i.e. manual, mechanical) water quality, cleaning implements (i.e. brushes) and equipment (automated flushing systems, AERs) for flexible scopes and accessories; steps in the cleaning process, delayed reprocessing	1	0	12	40	401	454
5. Cleaning verification methods and intervals	1	5	21	71	356	454
6. Selection and use of cleaning chemicals (i.e. pH, concentration, water quality, temperature, action of chemical), rinsing; water quality	3	4	33	81	333	454
7. Use of sterile sheaths	63	45	95	75	176	454
Frequency of Use of this Knowledge on the Job						
Answer Options	Very Low	Low	Average	High	Very High	Response Count
1. Pre-cleaning and transport of used scopes and accessories	8	2	24	64	356	454
2. Inspection for visible soils and damage of scopes and reusable accessories	1	3	20	61	369	454
3. Leak testing procedures; methods of testing, actions to take with a failed leak test	3	1	23	48	379	454
4. Cleaning methods, (i.e. manual, mechanical) water quality, cleaning implements (i.e. brushes) and equipment (automated flushing systems, AERs) for flexible scopes and accessories; steps in the cleaning process, delayed reprocessing	2	0	20	54	378	454
5. Cleaning verification methods and intervals	3	7	36	82	326	454
6. Selection and use of cleaning chemicals (i.e. pH, concentration, water quality, temperature, action of chemical), rinsing; water quality	3	10	48	91	302	454
7. Use of sterile sheaths	81	51	90	79	153	454
						Question Totals
<i>answered question</i>						454
<i>skipped question</i>						92

Q15 Domain 4: Handling and Cleaning of Scopes and Accessories

Answered: 454 Skipped: 92

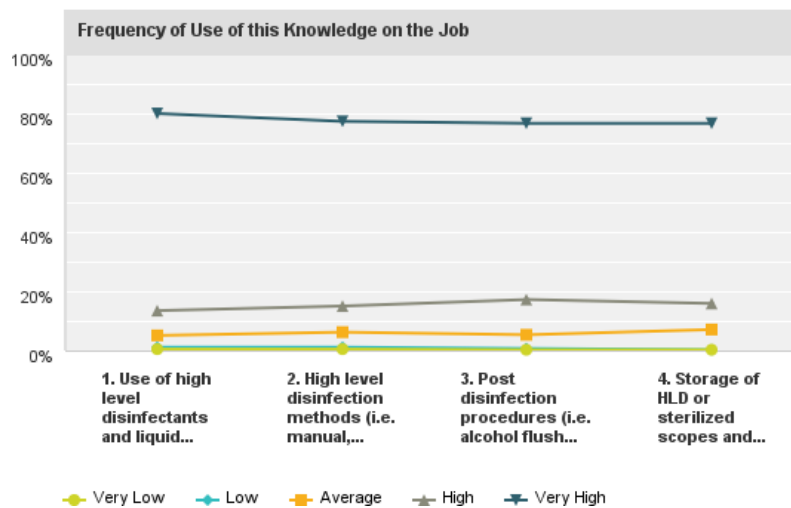
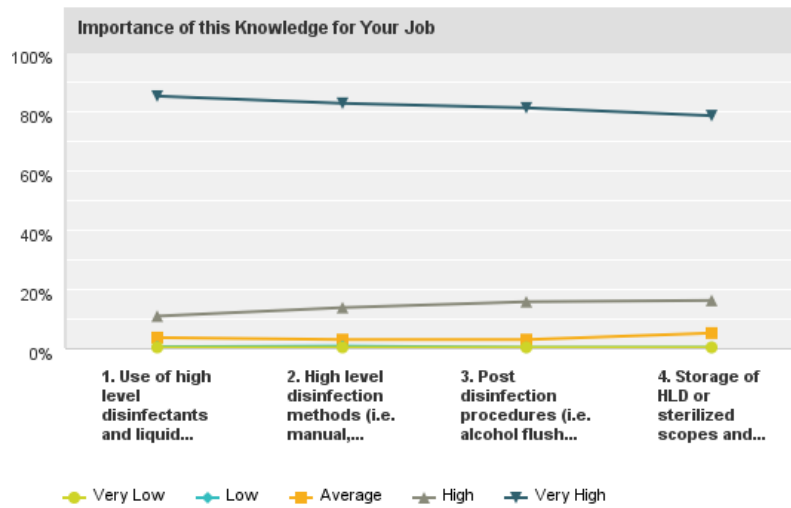


CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

Domain 5: Reprocessing of Scopes and Accessories						
Importance of this Knowledge for Your Job						
Answer Options	Very Low	Low	Average	High	Very High	Response Count
1. Use of high level disinfectants and liquid chemical sterilants (i.e. chemicals, use of test strips for HLD), use (i.e. exposure time, temperature, rinsing, water quality, shelf life vs. use life of HLDs)	1	2	16	49	386	454
2. High level disinfection methods (i.e. manual, mechanical, AER)	1	3	13	62	375	454
3. Post disinfection procedures (i.e. alcohol flush, drying), labeling and dating	1	1	13	71	368	454
4. Storage of HLD or sterilized scopes and accessories	1	1	23	73	356	454
Frequency of Use of this Knowledge on the Job						
Answer Options	Very Low	Low	Average	High	Very High	Response Count
1. Use of high level disinfectants and liquid chemical sterilants (i.e. chemicals, use of test strips for HLD), use (i.e. exposure time, temperature, rinsing, water quality, shelf life vs. use life of HLDs)	2	5	23	61	363	454
2. High level disinfection methods (i.e. manual, mechanical, AER)	2	5	28	68	351	454
3. Post disinfection procedures (i.e. alcohol flush, drying), labeling and dating	1	3	24	78	348	454
4. Storage of HLD or sterilized scopes and accessories	1	1	32	72	348	454
						Question Totals
<i>answered question</i>						454
<i>skipped question</i>						92

Q16 Domain 5: Reprocessing of Scopes and Accessories

Answered: 454 Skipped: 92

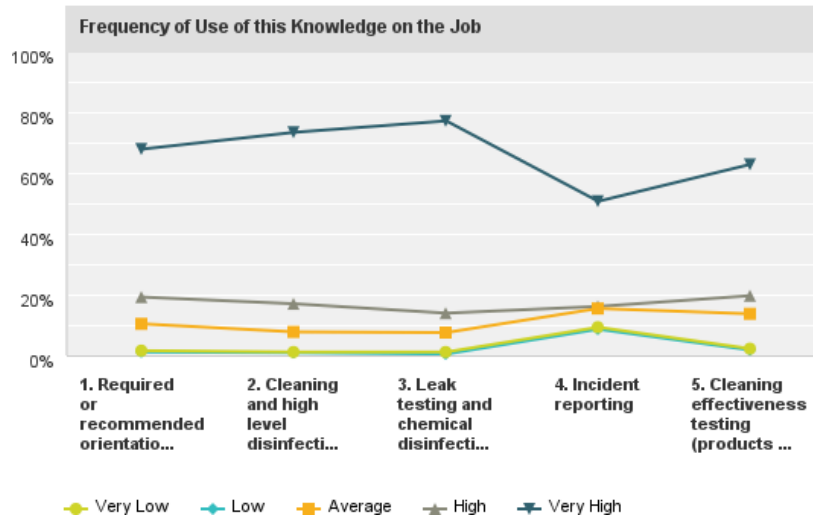
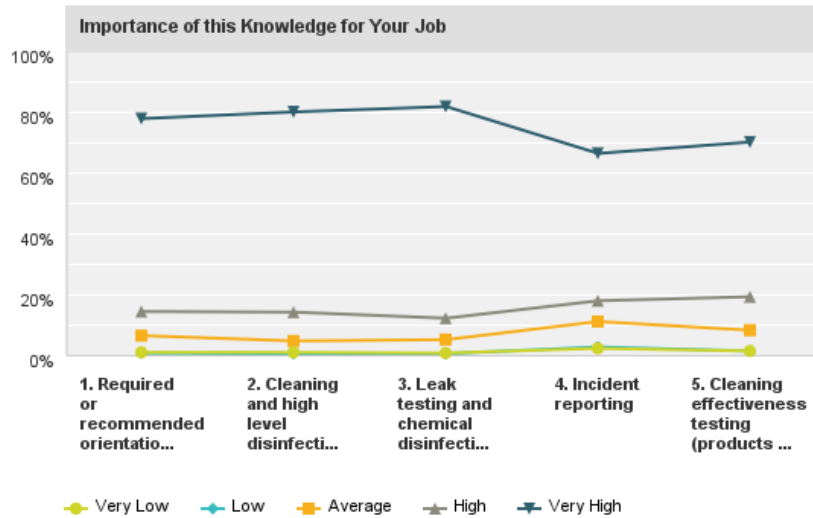


CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

Domain 6: Documentation						
Importance of this Knowledge for Your Job						
Answer Options	Very Low	Low	Average	High	Very High	Response Count
1. Required or recommended orientation, training and competency verification for all scopes, flushing devices, HLDs, etc.	4	3	29	65	353	454
2. Cleaning and high level disinfection protocols; traceability to the patient	4	2	21	64	363	454
3. Leak testing and chemical disinfection efficacy testing (MEC/MRC testing), quality assurance testing of HLD test strips	3	2	23	55	371	454
4. Incident reporting	10	12	50	81	301	454
5. Cleaning effectiveness testing (products and usage)	6	6	37	87	318	454
Frequency of Use of this Knowledge on the Job						
Answer Options	Very Low	Low	Average	High	Very High	Response Count
1. Required or recommended orientation, training and competency verification for all scopes, flushing devices, HLDs, etc.	7	5	47	87	308	454
2. Cleaning and high level disinfection protocols;	5	4	35	77	333	454
3. Leak testing and chemical disinfection efficacy testing (MEC/MRC testing), quality assurance testing of HLD test strips	5	2	34	63	350	454
4. Incident reporting	42	39	70	73	230	454
5. Cleaning effectiveness testing (products and	10	8	62	89	285	454
						Question Totals
						Question Totals
answered question						454
skipped question						92

Q17 Domain 6: Documentation

Answered: 454 Skipped: 92



CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

Domain 7: Ethics

Importance of this Knowledge for Your Job

Answer Options	Very Low	Low	Average	High	Very High	Response Count
1. Compliance with regulatory standards, best practices, procedures and/or guidelines that impact on patient, employee or environmental safety; reporting instances of non-compliance	2	2	30	58	362	454
2. Professional behavior (i.e. non-compliance with dress code; disruptive behavior; theft; willful damage to equipment/property)	4	4	43	65	338	454

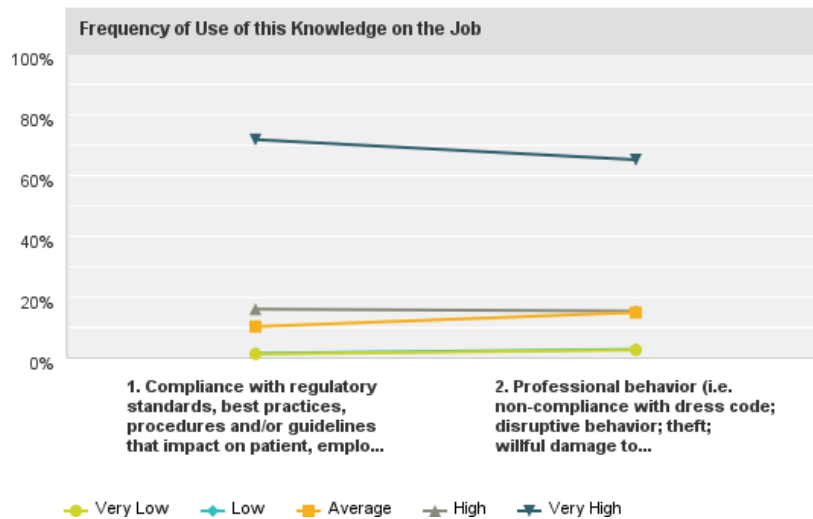
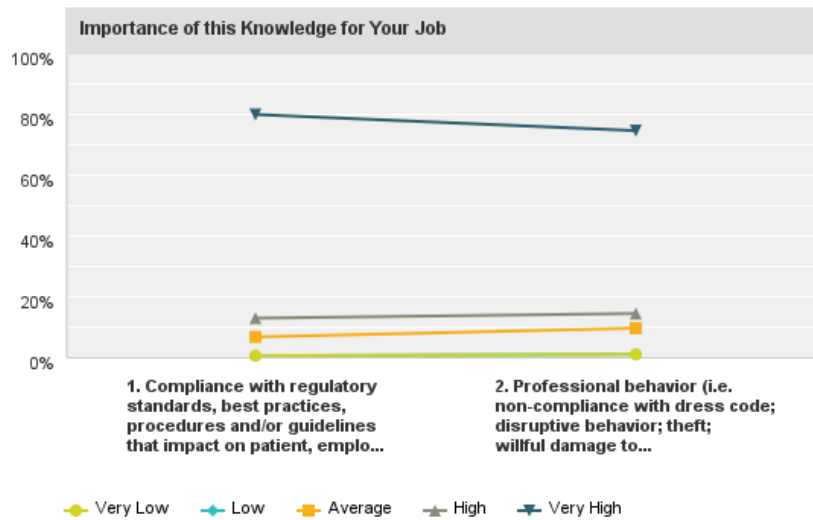
Frequency of Use of this Knowledge on the Job

Answer Options	Very Low	Low	Average	High	Very High	Response Count
1. Compliance with regulatory standards, best practices, procedures and/or guidelines that impact on patient, employee or environmental safety; reporting instances of non-compliance	5	6	46	72	325	454
2. Professional behavior (i.e. non-compliance with dress code; disruptive behavior; theft; willful damage to equipment/property)	11	12	67	69	295	454

Question Totals	
<i>answered question</i>	454
<i>skipped question</i>	92

Q18 Domain 7: Ethics

Answered: 454 Skipped: 92

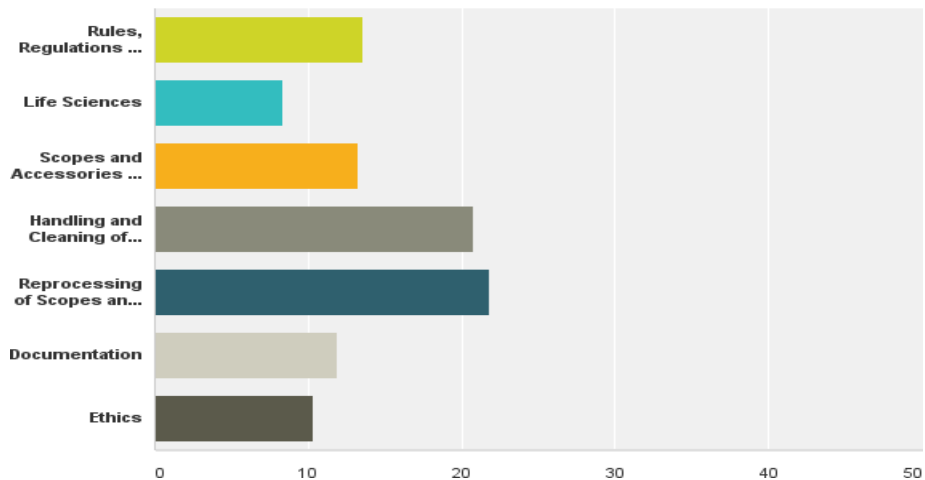


CBSPD Job Analysis Survey - Certified Flexible GI Endoscope Reprocessor - 2016

Domains:			
Answer Options	Response Average	Response Total	Response Count
Rules, Regulations and Safety	13.53	5,871	434
Life Sciences	8.35	3,622	434
Scopes and Accessories for Endoscopic Procedures	13.28	5,765	434
Handling and Cleaning of Scopes and Accessories	20.73	8,996	434
Reprocessing of Scopes and Accessories	21.82	9,472	434
Documentation	11.95	5,185	434
Ethics	10.34	4,489	434
<i>answered question</i>			434
<i>skipped question</i>			112

Q19 Domains:

Answered: 434 Skipped: 112



AGE	N	fd1q1	fd1q2	fd1q3	fd1q4	fd1q5	fd1q6	fd2q1	fd2q2	fd2q3	fd2q4	fd2q5	fd2q6	fd2q7	fd3q1	fd3q2	fd3q3	fd4q1	fd4q2	fd4q3	fd4q4	fd4q5	fd4q6
20-30 years of age	38	3.8	3.6	3.4	3.5	3.5	3.4	3.6	3.7	3.8	3.1	3.1	3.2	3.0	3.5	3.5	3.4	3.7	3.7	3.8	3.8	3.7	3.5
31-40 years of age	108	3.8	3.6	3.5	3.3	3.4	3.3	3.4	3.7	3.7	2.8	2.7	3.3	2.7	3.4	3.4	3.4	3.7	3.8	3.8	3.8	3.7	3.6
41-50 years of age	136	3.8	3.7	3.6	3.4	3.6	3.5	3.6	3.8	3.8	3.0	3.0	3.4	3.0	3.5	3.6	3.4	3.7	3.8	3.8	3.9	3.8	3.7
51-60 years of age	154	3.8	3.7	3.6	3.6	3.6	3.5	3.6	3.6	3.9	2.9	2.8	3.2	3.1	3.4	3.6	3.4	3.8	3.8	3.9	3.9	3.7	3.6
Less than 20 years of age	1																						
More than 60 years of age	29	3.7	3.7	3.8	3.5	3.4	3.4	3.3	3.5	3.5	2.8	2.9	3.3	3.0	3.4	3.6	3.4	3.8	3.6	3.9	3.9	3.7	3.7
EDUCATION	N	fd1q1	fd1q2	fd1q3	fd1q4	fd1q5	fd1q6	fd2q1	fd2q2	fd2q3	fd2q4	fd2q5	fd2q6	fd2q7	fd3q1	fd3q2	fd3q3	fd4q1	fd4q2	fd4q3	fd4q4	fd4q5	fd4q6
Associate's degree	101	3.7	3.6	3.6	3.3	3.4	3.4	3.5	3.6	3.7	2.9	2.9	3.3	3.0	3.4	3.5	3.4	3.8	3.8	3.8	3.8	3.6	3.6
Bachelor's degree	67	3.8	3.6	3.7	3.5	3.5	3.4	3.6	3.7	3.8	2.9	3.0	3.3	3.2	3.6	3.6	3.5	3.7	3.7	3.8	3.8	3.7	3.5
Flexible Endoscope Reprocessing Course	38	3.9	3.7	3.6	3.6	3.5	3.5	3.6	3.7	3.7	2.8	2.5	3.2	2.6	3.5	3.5	3.5	3.9	3.9	3.9	3.8	3.7	3.6
High School Diploma/GED	78	3.8	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.8	2.9	2.9	3.3	3.1	3.4	3.7	3.5	3.8	3.8	3.9	3.9	3.9	3.8
LPN diploma	9	4.0	3.8	3.6	3.6	3.8	3.9	3.6	3.3	4.0	3.2	3.0	3.9	3.7	3.6	3.7	3.7	4.0	4.0	4.0	4.0	4.0	4.0
Master's degree	13	3.9	3.6	3.9	3.0	3.2	3.0	3.2	3.4	3.9	2.7	2.4	3.2	2.4	3.1	3.1	3.1	3.8	3.7	3.8	4.0	3.6	3.3
Master's degreea	1	4.0	4.0	4.0	2.0	4.0	4.0	2.0	1.0	4.0	4.0	2.0	2.0	4.0	2.0	2.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0
One Year Technical diploma	40	3.9	3.8	3.5	3.5	3.6	3.5	3.5	3.7	3.9	2.9	2.9	3.2	3.2	3.4	3.4	3.3	3.7	3.7	3.8	3.8	3.8	3.6
RN diploma	1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Some college without a degree	118	3.8	3.7	3.6	3.5	3.5	3.4	3.5	3.7	3.8	3.0	2.8	3.3	2.8	3.4	3.5	3.3	3.8	3.9	3.9	3.9	3.7	3.7
GENDER	N	fd1q1	fd1q2	fd1q3	fd1q4	fd1q5	fd1q6	fd2q1	fd2q2	fd2q3	fd2q4	fd2q5	fd2q6	fd2q7	fd3q1	fd3q2	fd3q3	fd4q1	fd4q2	fd4q3	fd4q4	fd4q5	fd4q6
Female	332	3.8	3.7	3.6	3.5	3.6	3.5	3.5	3.7	3.8	3.0	2.9	3.3	3.1	3.4	3.6	3.5	3.8	3.8	3.9	3.9	3.8	3.7
Male	134	3.7	3.6	3.5	3.3	3.4	3.2	3.4	3.6	3.7	2.8	2.8	3.1	2.6	3.4	3.4	3.2	3.7	3.7	3.8	3.8	3.6	3.

Traveler around the United States	1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
UAE	1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
UNITED ARAB EMIRATES	1																						
United Arab Emirates	1	4.0	3.0	4.0	3.0	3.0	4.0	4.0	3.0	3.0	1.0	1.0	2.0	0.0	3.0	2.0	2.0	4.0	4.0	4.0	4.0	3.0	3.0
mid east	1	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	2.0	1.0	0.0	0.0	0.0	4.0	1.0	3.0	4.0	4.0	4.0	4.0	4.0
philippines	1																						
south central us	1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
JOB	N	fd1q1	fd1q2	fd1q3	fd1q4	fd1q5	fd1q6	fd2q1	fd2q2	fd2q3	fd2q4	fd2q5	fd2q6	fd2q7	fd3q1	fd3q2	fd3q3	fd4q1	fd4q2	fd4q3	fd4q4	fd4q5	fd4q6
Endoscopy Assistant/Attendant	10	3.8	3.9	3.6	3.6	3.8	3.6	3.6	3.7	3.8	3.0	3.1	3.6	3.8	3.4	3.8	3.6	3.9	3.8	3.8	3.8	3.7	3.6
GI Nurse	21	3.8	3.7	3.8	3.7	3.7	3.6	3.5	3.7	3.8	3.1	3.1	3.6	3.6	3.6	3.6	3.7	3.9	3.9	3.9	4.0	3.8	3.7
GI Technician (Flexible Endoscope Technician)	264	3.8	3.7	3.5	3.5	3.5	3.5	3.5	3.6	3.8	2.9	2.9	3.3	3.1	3.4	3.6	3.5	3.8	3.8	3.8	3.8	3.8	3.7
Other	124	3.8	3.7	3.6	3.4	3.5	3.4	3.5	3.7	3.9	2.9	2.8	3.1	2.8	3.5	3.4	3.3	3.7	3.8	3.8	3.9	3.6	3.6
Supervisor of GI endoscopy technicians	47	3.8	3.6	3.9	3.5	3.6	3.4	3.6	3.8	3.9	2.9	2.8	3.4	2.6	3.6	3.6	3.3	3.7	3.9	3.9	3.9	3.8	3.6
RACE	N	fd1q1	fd1q2	fd1q3	fd1q4	fd1q5	fd1q6	fd2q1	fd2q2	fd2q3	fd2q4	fd2q5	fd2q6	fd2q7	fd3q1	fd3q2	fd3q3	fd4q1	fd4q2	fd4q3	fd4q4	fd4q5	fd4q6
American	3	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
American Indian or Alaska Native	2	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Asian or Asian American	28	3.7	3.5	3.5	3.3	3.4	3.4	3.8	3.7	3.7	3.1	3.1	3.2	2.6	3.5	3.5	3.2	3.8	3.7	3.8	3.7	3.7	3.4
Black or African American	112	3.8	3.8	3.6	3.6	3.6	3.6	3.6	3.6	3.8	3.0	2.8	3.4	3.2	3.5	3.6	3.5	3.8	3.7	3.9	3.9	3.8	3.7
D	1																						
Fillipino	1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	4.0	3.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0	4.0
Hawaiian or Other Pacific Islander	2	3.5	3.5	3.5	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0	4.0	3.5	3.5	4.0	3.5	4.0	3.5	3.5
Hispanic or Latino	71	3.9	3.8	3.5	3.7	3.6	3.7	3.6	3.8	3.9	3.3	3.3	3.5	3.3	3.6	3.6	3.5	3.9	3.8	3.9	3.9	3.7	3.7
Human race	1	4.0	3.0	3.0	2.0	3.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0	4.0	2.0
Portuguese	1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.0	1.0	1.0	1.0	4.0	2.0	4.0	2.0	4.0	4.0	4.0	4.0	4.0
White (non-Hispanic)	244	3.8	3.6	3.6	3.4	3.5	3.3	3.4	3.7	3.8	2.8	2.7	3.2	2.8	3.3	3.5	3.4	3.7	3.8	3.8	3.9	3.7	3.6
URBAN	N	fd1q1	fd1q2	fd1q3	fd1q4	fd1q5	fd1q6	fd2q1	fd2q2	fd2q3	fd2q4	fd2q5	fd2q6	fd2q7	fd3q1	fd3q2	fd3q3	fd4q1	fd4q2	fd4q3	fd4q4	fd4q5	fd4q6
Rural	78	3.8	3.7	3.8	3.4	3.6	3.4	3.5	3.7	3.8	3.1	3.0	3.3	3.1	3.6	3.6	3.4	3.8	3.9	3.9	3.9	3.8	3.8
Suburban	161	3.8	3.6	3.5	3.5	3.5	3.4	3.5	3.7	3.8	2.8	2.7	3.3	2.9	3.3	3.5	3.4	3.8	3.8	3.9	3.9	3.8	3.6
Urban	227	3.8	3.7	3.6	3.5	3.6	3.5	3.5	3.7	3.8	3.0	2.9	3.2	3.0	3.5	3.5	3.4	3.7	3.8	3.8	3.8	3.7	3.6
WORKSETTING	N	fd1q1	fd1q2	fd1q3	fd1q4	fd1q5	fd1q6	fd2q1	fd2q2	fd2q3	fd2q4	fd2q5	fd2q6	fd2q7	fd3q1	fd3q2	fd3q3	fd4q1	fd4q2	fd4q3	fd4q4	fd4q5	fd4q6

Ambulatory Surgery Center	119	3.8	3.7	3.5	3.4	3.6	3.6	3.5	3.7	3.7	2.9	2.9	3.4	3.2	3.4	3.6	3.5	3.8	3.8	3.8	3.8	3.8	3.7
Flexible GI Scope Sales or Service Company	23	3.4	3.5	3.1	2.6	2.7	2.6	2.9	3.3	3.6	2.6	2.3	3.1	1.8	3.5	3.4	3.3	3.5	3.6	3.7	3.7	3.2	3.2
Non-Teaching Hospital: 200 to 400 Beds	51	3.8	3.7	3.5	3.7	3.6	3.5	3.6	3.6	3.8	3.0	2.8	3.4	3.1	3.4	3.6	3.4	3.8	3.8	3.8	3.8	3.8	3.6
Non-Teaching Hospital: 401 to 800 Beds	18	3.6	3.7	3.8	3.7	3.6	3.3	3.5	3.8	3.7	2.9	2.9	3.6	3.0	3.4	3.9	3.5	3.7	4.0	3.9	3.9	3.8	3.6
Non-Teaching Hospital: Less than 200 Beds	61	3.9	3.7	3.7	3.6	3.6	3.5	3.6	3.8	3.9	3.0	2.9	3.2	2.8	3.4	3.5	3.4	3.8	3.8	3.9	4.0	3.8	3.7
Non-Teaching Hospital: More than 800 Beds	5	3.8	3.4	3.4	3.6	3.6	3.4	3.2	3.4	4.0	2.0	2.0	2.2	2.8	3.2	2.6	2.2	3.6	3.6	3.8	3.6	3.4	3.0
Teaching Hospital: 200 to 400 Beds	63	3.8	3.6	3.6	3.6	3.6	3.5	3.4	3.7	3.8	3.0	2.8	3.3	3.2	3.4	3.6	3.5	3.8	3.8	3.8	3.9	3.7	3.6
Teaching Hospital: 401 to 800 Beds	60	3.8	3.6	3.6	3.4	3.6	3.3	3.5	3.7	3.8	3.0	3.1	3.2	3.0	3.5	3.5	3.4	3.7	3.8	3.9	3.9	3.7	3.6
Teaching Hospital: Less than 200 Beds	31	3.7	3.6	3.6	3.4	3.5	3.3	3.3	3.7	3.7	2.7	2.6	2.8	2.5	3.3	3.3	3.0	3.5	3.7	3.8	3.7	3.6	3.5
Teaching Hospital: More than 800 Beds	35	3.9	3.8	3.8	3.8	3.6	3.6	3.8	3.8	3.8	3.3	3.0	3.4	3.1	3.7	3.6	3.5	3.9	3.9	3.9	3.9	3.9	3.8
YEAREXP	N	fd1q1	fd1q2	fd1q3	fd1q4	fd1q5	fd1q6	fd2q1	fd2q2	fd2q3	fd2q4	fd2q5	fd2q6	fd2q7	fd3q1	fd3q2	fd3q3	fd4q1	fd4q2	fd4q3	fd4q4	fd4q5	fd4q6
1-2 years	79	3.6	3.5	3.5	3.2	3.3	3.2	3.3	3.5	3.6	2.8	2.6	3.0	2.3	3.3	3.3	3.2	3.5	3.6	3.6	3.6	3.5	3.4
3-5 years	112	3.8	3.7	3.5	3.5	3.5	3.5	3.6	3.7	3.8	2.8	2.8	3.2	3.1	3.4	3.5	3.4	3.8	3.8	3.9	3.9	3.8	3.6
6-10 years	107	3.9	3.7	3.6	3.5	3.5	3.4	3.5	3.7	3.9	3.0	3.0	3.3	3.1	3.4	3.5	3.3	3.9	3.9	3.9	3.9	3.8	3.8
More than 10 years	168	3.9	3.8	3.7	3.6	3.7	3.6	3.5	3.7	3.8	3.0	2.9	3.5	3.1	3.5	3.6	3.6	3.8	3.8	3.9	3.9	3.8	3.7
YEARSINGIS	N	fd1q1	fd1q2	fd1q3	fd1q4	fd1q5	fd1q6	fd2q1	fd2q2	fd2q3	fd2q4	fd2q5	fd2q6	fd2q7	fd3q1	fd3q2	fd3q3	fd4q1	fd4q2	fd4q3	fd4q4	fd4q5	fd4q6
1 to 2 years	69	3.6	3.5	3.5	3.2	3.4	3.2	3.4	3.5	3.6	2.8	2.7	3.0	2.5	3.4	3.4	3.2	3.6	3.6	3.7	3.6	3.5	3.5
11 to 20 years	136	3.8	3.7	3.5	3.5	3.6	3.5	3.6	3.8	3.9	3.1	2.9	3.4	3.1	3.4	3.7	3.5	3.8	3.9	3.9	3.9	3.8	3.7
3 to 5 years	106	3.8	3.7	3.5	3.5	3.6	3.5	3.5	3.8	3.8	2.8	2.7	3.2	3.0	3.4	3.5	3.5	3.7	3.9	3.9	3.9	3.8	3.7
6 to 10 years	98	3.8	3.6	3.6	3.5	3.5	3.4	3.5	3.7	3.8	3.0	3.0	3.3	3.1	3.4	3.5	3.3	3.8	3.8	3.8	3.9	3.8	3.7
Less than 1 year	13	3.5	3.5	3.3	3.4	3.4	3.0	3.1	3.3	3.5	2.6	2.6	2.8	2.8	3.1	3.1	3.0	3.5	3.5	3.5	3.5	3.1	3.1
More than 20 years	44	3.9	3.8	3.9	3.6	3.7	3.6	3.5	3.5	3.7	3.0	3.1	3.5	3.4	3.6	3.6	3.6	3.9	3.6	3.8	3.9	3.7	3.6

fd4q7	fd5q1	fd5q2	fd5q3	fd5q4	fd6q1	fd6q2	fd6q3	fd6q4	fd6q5	fd7q1	fd7q2
2.8	3.8	3.7	3.8	3.7	3.7	3.6	3.7	3.4	3.5	3.6	3.4
2.5	3.7	3.7	3.7	3.6	3.6	3.6	3.6	3.3	3.5	3.6	3.4
2.6	3.9	3.9	3.8	3.8	3.6	3.8	3.8	3.4	3.6	3.7	3.7
2.6	3.8	3.9	3.8	3.7	3.8	3.8	3.8	3.5	3.6	3.8	3.7

2.1	3.9	3.8	3.8	3.8	3.8	3.7	3.9	3.4	3.5	3.8	3.6
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fd4q7	fd5q1	fd5q2	fd5q3	fd5q4	fd6q1	fd6q2	fd6q3	fd6q4	fd6q5	fd7q1	fd7q2
2.4	3.8	3.7	3.8	3.7	3.6	3.7	3.7	3.1	3.5	3.8	3.6
2.5	3.7	3.7	3.7	3.6	3.7	3.7	3.8	3.5	3.4	3.7	3.5
2.1	3.8	3.7	3.7	3.7	3.6	3.8	3.7	3.3	3.6	3.7	3.6
2.9	3.9	3.9	3.9	3.8	3.8	3.8	3.9	3.6	3.7	3.8	3.7
2.0	4.0	4.0	3.9	4.0	4.0	4.0	3.9	3.8	4.0	4.0	3.8
1.8	3.8	3.7	3.7	3.2	3.7	3.8	3.6	3.1	2.9	3.8	3.4
2.0	2.0	2.0	2.0	2.0	4.0	2.0	2.0	2.0	2.0	4.0	4.0
2.6	3.8	3.8	3.7	3.8	3.6	3.6	3.7	3.4	3.6	3.7	3.8
2.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
2.7	3.9	3.8	3.8	3.8	3.7	3.7	3.8	3.5	3.6	3.6	3.6

fd4q7	fd5q1	fd5q2	fd5q3	fd5q4	fd6q1	fd6q2	fd6q3	fd6q4	fd6q5	fd7q1	fd7q2
2.5	3.8	3.8	3.8	3.8	3.7	3.8	3.8	3.5	3.6	3.7	3.7
2.6	3.8	3.7	3.7	3.6	3.6	3.6	3.7	3.3	3.4	3.6	3.4

fd4q7	fd5q1	fd5q2	fd5q3	fd5q4	fd6q1	fd6q2	fd6q3	fd6q4	fd6q5	fd7q1	fd7q2
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
0.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0
1.7	4.0	3.7	3.7	4.0	4.0	4.0	4.0	2.7	3.7	3.7	4.0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
3.0	4.0	4.0	3.0	3.0	3.0	4.0	4.0	3.0	3.0	4.0	4.0

2.5	3.9	3.8	3.9	3.7	3.7	3.7	3.7	3.3	3.5	3.7	3.5
2.5	3.8	3.8	3.8	3.7	3.7	3.8	3.8	3.4	3.6	3.6	3.6
2.3	3.8	3.8	3.7	3.7	3.6	3.7	3.7	3.3	3.6	3.6	3.5

2.8	3.9	3.8	3.8	3.8	3.8	3.7	3.8	3.6	3.6	3.8	3.7
2.4	3.7	3.8	3.7	3.7	3.6	3.5	3.7	3.5	3.6	3.8	3.6
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

2.0	4.0	3.0	3.0	3.0	4.0	3.0	4.0	3.0	2.0	4.0	4.0
1.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
fd4q7	fd5q1	fd5q2	fd5q3	fd5q4	fd6q1	fd6q2	fd6q3	fd6q4	fd6q5	fd7q1	fd7q2
3.0	3.8	3.7	3.8	3.8	3.6	3.7	3.8	3.4	3.6	3.7	3.7
2.2	3.9	3.8	3.9	3.9	3.8	3.8	4.0	3.4	3.3	3.9	3.6
2.6	3.8	3.8	3.8	3.7	3.7	3.8	3.7	3.4	3.6	3.7	3.6
2.6	3.8	3.8	3.7	3.7	3.6	3.6	3.7	3.5	3.5	3.7	3.6
2.2	4.0	3.9	3.9	3.9	3.9	3.9	3.8	3.6	3.6	3.8	3.6
fd4q7	fd5q1	fd5q2	fd5q3	fd5q4	fd6q1	fd6q2	fd6q3	fd6q4	fd6q5	fd7q1	fd7q2
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
2.9	3.8	3.7	3.7	3.5	3.7	3.7	3.7	3.3	3.5	3.7	3.6
2.9	3.8	3.9	3.8	3.7	3.7	3.8	3.8	3.4	3.7	3.8	3.7
4.0	4.0	4.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.5	3.5
2.8	3.8	3.9	3.8	3.8	3.7	3.7	3.8	3.6	3.7	3.6	3.6
0.0	3.0	2.0	2.0	3.0	4.0	4.0	2.0	2.0	3.0	2.0	2.0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
2.3	3.8	3.8	3.8	3.7	3.7	3.7	3.7	3.4	3.5	3.7	3.6
fd4q7	fd5q1	fd5q2	fd5q3	fd5q4	fd6q1	fd6q2	fd6q3	fd6q4	fd6q5	fd7q1	fd7q2
2.6	3.8	3.8	3.9	3.8	3.7	3.8	3.8	3.5	3.7	3.8	3.7
2.3	3.8	3.8	3.8	3.7	3.7	3.8	3.7	3.4	3.5	3.7	3.6
2.8	3.8	3.8	3.8	3.7	3.7	3.7	3.8	3.4	3.6	3.7	3.5
fd4q7	fd5q1	fd5q2	fd5q3	fd5q4	fd6q1	fd6q2	fd6q3	fd6q4	fd6q5	fd7q1	fd7q2
2.6	3.9	3.8	3.8	3.8	3.7	3.7	3.8	3.4	3.6	3.7	3.6
1.8	3.4	3.5	3.5	3.4	3.2	2.9	3.2	3.2	2.7	3.4	3.6
2.3	3.8	3.8	3.8	3.7	3.7	3.8	3.8	3.4	3.4	3.8	3.6

2.9	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.5	3.8	3.8	3.5
2.4	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.6	3.6	3.8	3.7
2.2	3.6	3.6	3.6	3.4	3.4	3.8	3.4	3.4	3.2	3.2	3.4
2.7	3.9	3.8	3.8	3.8	3.8	3.8	3.9	3.4	3.7	3.8	3.7
2.7	3.8	3.8	3.8	3.8	3.7	3.7	3.8	3.4	3.6	3.7	3.6
2.3	3.7	3.6	3.7	3.5	3.5	3.7	3.6	3.3	3.5	3.6	3.4
3.3	4.0	3.9	3.8	3.7	3.7	3.8	3.9	3.4	3.7	3.8	3.6

fd4q7	fd5q1	fd5q2	fd5q3	fd5q4	fd6q1	fd6q2	fd6q3	fd6q4	fd6q5	fd7q1	fd7q2
2.6	3.6	3.5	3.6	3.5	3.5	3.5	3.5	3.1	3.4	3.5	3.4
2.5	3.8	3.8	3.8	3.7	3.7	3.8	3.8	3.5	3.6	3.7	3.5
2.8	3.8	3.8	3.8	3.8	3.7	3.7	3.7	3.4	3.7	3.7	3.7
2.4	3.9	3.9	3.9	3.8	3.8	3.8	3.8	3.5	3.5	3.8	3.7

fd4q7	fd5q1	fd5q2	fd5q3	fd5q4	fd6q1	fd6q2	fd6q3	fd6q4	fd6q5	fd7q1	fd7q2
2.6	3.6	3.6	3.6	3.5	3.6	3.6	3.6	3.2	3.5	3.6	3.5
2.4	3.9	3.9	3.9	3.8	3.7	3.7	3.8	3.5	3.6	3.8	3.6
2.6	3.9	3.9	3.8	3.7	3.6	3.8	3.8	3.4	3.6	3.8	3.6
2.8	3.8	3.8	3.8	3.8	3.7	3.8	3.7	3.5	3.7	3.7	3.6
2.6	3.4	3.4	3.4	3.4	3.5	3.5	3.4	3.1	3.3	3.3	3.3
2.3	3.9	3.8	3.8	3.8	3.9	3.8	3.8	3.5	3.4	3.8	3.8

AGE	N	DOM1	DOM2	DOM3	DOM4	DOM5	DOM6	DOM7
20-30 years of age	38	13.5	10.0	13.1	21.0	22.1	12.3	9.5
31-40 years of age	108	12.2	8.9	13.8	21.0	22.3	12.3	11.1
41-50 years of age	136	13.6	8.6	14.0	20.3	22.1	12.2	10.6
51-60 years of age	154	14.5	8.4	13.6	20.6	21.6	12.3	10.7
Less than 20 years of age	1							
More than 60 years of age	29	12.7	8.3	11.7	20.8	23.8	13.3	11.2

EDUCATION

Associate's degree	101	13.4	8.3	13.5	20.5	22.0	12.8	10.7
Bachelor's degree	67	12.8	8.5	13.1	20.6	22.5	12.1	12.3
Flexible Endoscope Reprocessing Course	38	14.1	9.1	14.7	19.3	19.8	12.6	11.7
High School Diploma/GED	78	14.3	9.6	13.5	20.4	21.1	12.9	10.9
LPN diploma	9	13.3	8.9	15.0	16.7	25.0	11.7	10.0
Master's degree	13	17.8	6.1	10.0	25.0	21.7	10.6	12.2
Master's degreea	1	20.0	5.0	5.0	20.0	20.0	20.0	10.0
One Year Technical diploma	40	14.5	9.8	13.9	21.8	20.8	12.3	9.2
RN diploma	1	10.0	10.0	15.0	25.0	25.0	10.0	10.0
Some college without a degree	118	12.6	8.4	13.9	20.9	23.6	11.9	9.7

GENDER

Female	332	13.2	8.5	13.6	20.9	22.4	12.4	10.5
Male	134	14.2	9.2	13.5	20.0	21.3	12.4	11.0

GEOLOCATION

All over the United States (traveler)	1	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Australia	1	10.0	5.0	10.0	30.0	30.0	10.0	5.0
Canada	5	11.7	6.7	13.3	18.3	26.7	16.7	8.3
Central us	1							
Middle East - UAE	1	20.0	10.0	15.0	20.0	20.0	10.0	5.0
Middle East UAE	1							
Midwest US	74	12.3	7.8	12.8	22.2	25.6	11.9	9.2
Northeast US	180	13.6	8.9	14.5	20.7	21.0	12.2	10.5
Northwest US	47	12.6	9.3	13.4	20.0	21.5	11.6	13.1
Saudi arabia	1							
Southeast US	94	13.6	9.1	13.4	19.7	22.0	12.8	10.7
Southwest US	53	15.5	8.1	12.4	21.0	21.2	12.7	11.8
Traveler around the United States	1	15.0	15.0	15.0	15.0	15.0	15.0	15.0

UAE	1	15.0	10.0	15.0	15.0	15.0	15.0	15.0
UNITED ARAB EMIRATES	1							
United Arab Emirates	1	15.0	10.0	10.0	20.0	25.0	10.0	10.0
mideast	1	10.0	5.0	15.0	25.0	25.0	25.0	5.0
philippines	1							
south central us	1	20.0	10.0	10.0	20.0	20.0	10.0	10.0

JOB

Endoscopy Assistant/Attendant	10	15.0	10.0	15.0	17.5	18.1	14.4	10.6
GI Nurse	21	13.3	8.3	12.5	21.5	24.8	12.0	9.3
GI Technician (Flexible Endoscope Technician)	264	13.2	8.8	14.6	21.3	22.1	11.5	10.1
Other	124	14.4	8.9	12.1	20.0	21.4	13.3	11.8
Supervisor of GI endoscopy technicians	47	12.9	7.9	12.4	19.4	23.4	14.0	11.5

RACE

American	3	15.0	10.0	15.0	25.0	25.0	15.0	10.0
American Indian or Alaska Native	2	10.0	10.0	10.0	20.0	20.0	20.0	10.0
Asian or Asian American	28	13.3	8.1	15.2	20.5	23.3	12.1	8.8
Black or African American	112	14.2	9.0	14.0	20.0	20.8	13.1	10.7
D	1							
Filipino	1	20.0	10.0	10.0	15.0	15.0	15.0	15.0
Hawaiian or Other Pacific Islander	2	15.0	10.0	20.0	20.0	20.0	10.0	7.5
Hispanic or Latino	71	13.3	8.8	13.5	20.1	21.6	12.2	11.3
Human race	1	15.0	15.0	15.0	15.0	15.0	5.0	20.0
Portuguese	1	15.0	10.0	15.0	15.0	15.0	15.0	15.0
White (non-Hispanic)	244	13.3	8.6	13.3	21.1	22.7	12.1	10.6

URBAN

Rural	78	12.8	9.2	13.6	21.0	21.7	13.3	10.2
Suburban	161	13.5	8.5	13.1	20.7	22.8	12.0	11.0
Urban	227	13.7	8.7	14.0	20.5	21.7	12.3	10.6

WORKSETTING

Ambulatory Surgery Center	119	13.4	8.9	13.5	20.3	22.4	12.0	10.8
Flexible GI Scope Sales or Service Company	23	12.4	7.6	11.6	24.2	22.9	11.3	13.9
Non-Teaching Hospital: 200 to 400 Beds	51	12.6	9.5	14.3	20.9	22.6	11.6	10.2
Non-Teaching Hospital: 401 to 800 Beds	18	13.5	8.8	14.2	20.0	22.7	12.3	9.6
Non-Teaching Hospital: Less than 200 Beds	61	13.0	8.2	13.8	21.1	21.7	12.6	10.8

Non-Teaching Hospital: More than 800 Beds	5	13.0	7.0	9.0	26.0	24.0	13.0	9.0
Teaching Hospital: 200 to 400 Beds	63	14.3	7.9	13.5	21.1	22.7	12.7	9.2
Teaching Hospital: 401 to 800 Beds	60	14.7	9.3	13.9	20.1	21.1	12.2	10.5
Teaching Hospital: Less than 200 Beds	31	13.3	8.5	13.1	18.8	21.5	13.7	12.1
Teaching Hospital: More than 800 Beds	35	14.1	9.6	14.8	19.6	20.9	13.3	10.9

YEARSEXP

1-2 years	79	15.1	9.2	13.6	20.0	19.7	12.5	11.6
3-5 years	112	13.5	8.7	13.2	20.6	22.4	12.2	10.9
6-10 years	107	12.1	8.3	14.2	20.9	23.5	12.3	9.8
More than 10 years	168	13.8	8.8	13.4	20.8	22.0	12.4	10.7

YEARSINGIS

1 to 2 years	69	14.8	8.9	13.5	20.5	20.1	12.6	11.2
11 to 20 years	136	13.4	8.9	13.6	21.8	22.0	11.9	10.2
3 to 5 years	106	13.6	8.9	13.3	20.1	22.1	12.4	11.2
6 to 10 years	98	12.2	8.3	14.3	20.7	23.6	12.3	9.9
Less than 1 year	13	18.6	10.0	13.6	20.0	14.3	12.9	13.6
More than 20 years	44	13.8	8.1	12.8	19.2	23.2	13.2	11.2
		14.0	9.0	13.3	20.4	21.6	12.8	10.8