Client Confidential

Practice Analysis Report

American Society for Metabolic and Bariatric Surgery

Certified Bariatric Nurse

December 2022

Submitted to:

ASMBS
American Society for
Metabolic & Bariatric Surgery

Executive Summary

This report describes the methodology and procedures used to conduct a practice analysis and develop the exam specifications for the American Society for Metabolic and Bariatric Surgery (ASMBS) Certified Bariatric Nurse (CBN) certification examination.

The three major activities that comprise the practice analysis process described in this report are as follows:

1. **Practice Analysis Committee Meeting** – A gathering of subject matter experts (SMEs) to discuss and develop a description of the scope of practice
2. **Practice Analysis Survey** – A large-scale survey of practitioners not involved with the SME panel to validate the task and knowledge statements developed by the committee
3. **Development of Examination Specifications** – The development of an Examination Content Outline recommended by the committee based on the results of the survey and final approval and changes by the Certifying Board members

Several practitioners were assembled by ASMBS to serve as subject matter experts (SMEs). The individuals selected represent a wide variety of work-related characteristics such as years of experience, work setting, geographic location, and areas of specialty. This helps in developing a scope of practice that is reflective of the roles and responsibilities of the job role and is relatively free from bias. By analyzing the experiences and expertise of current practitioners, the results from the practice analysis become the basis of a validated assessment that reflects the competencies required for competent job performance.

The practice analysis process utilized in this study yields exam specifications that accurately reflect the scope of practice, allowing for the development of fair, accurate, and realistic assessments of candidates' readiness for certification. The resultant Examination Content Outline (Appendix E) indicates a 150-item examination with content distribution requirements at the competency area (content domain) level with subdomain topics not specified by the outline. The five competency areas are:

1. Clinical Management Pre-operative (Pre-facility)
2. Clinical Management: Perioperative (Facility Stay)
3. Clinical Management: Follow-up (Post-discharge and long-term)
4. Professional and Community Collaboration
5. Program Quality

Development of Exam Specifications

Prior to the examination specifications meeting, the task force met on August 9, 2022 to discuss the demographics and determine if the survey could be closed. The committee reviewed the demographic results and confirmed that the results matched expectations and impressions of the practitioner population, suggesting that the respondent sample is reflective of the target population.

The Practice Analysis Committee met on November 5, 2022 to review the results of the survey, finalize the tasks and knowledge that would comprise the next Examination Content Outline, and finalize the content weighting for the examination.

The committee then reviewed the draft content weighting, discussing any adjustments necessary to align the number of items per content area for adequate content coverage on the assessment. The draft content weighting was developed by calculating the criticality value (mean importance rating multiplied by the mean frequency rating) and then determining a percentage weight based on the relative weight of the criticality value for each content area. Weights for each content area and statement were redistributed based on SME committee feedback to better reflect actual practice.

See Table 4 for a summary of the content weighting determination proposed by the Job Analysis Committee. The final Examination content outline and knowledge topic list can be found in Appendix E.

Table 4.

Content Weighting Determination- Practice Analysis Committee

Task Domains		Criticality	# Items
1	Clinical Management Pre-operative (Pre-Facility)	3.5	21
2	Clinical Management: Perioperative (Facility Stay)	3.7	16
3	Clinical Management: Follow-up (Post-discharge and long-term)	3.4	14
4	Professional and Community Collaboration	3.5	13
5	Program Quality	3.6	12

Following the creation of the final examination content outline, the task force members were tasked with identifying linkages between the task and knowledge statements. This was done to provide evidence that the knowledge areas were indeed required to perform the tasks identified. This was also done to ensure that each task was covered by at least one relevant knowledge area and that each knowledge area had at least one relevant task identified.

Appendix E

Exam Content Outline

1	**Clinical Management Pre-operative (Pre-facility)**	**32**
1A	Assess a patient/support person's knowledge of	
1A1	disease of obesity and obesity-related conditions	
1A2	treatment options and alternatives	
1A3	risks and benefits of treatment options	
1B	Educate a patient/support persons about	
1B1	disease of obesity and obesity-related conditions	
1B2	treatment options and alternatives	
1B3	risks and benefits of treatment options	
1C	Identify risks and unique needs of the patient by reviewing medical, surgical, psychosocial, religious, cultural, family, and weight history	
1C1	reviewing medical, surgical, psychosocial, religious, cultural, family, and weight history	
1D	Identify unique age-related needs for	
1D1	Adolescence (13 to 18 years)	
1D2	Geriatric (70 years or over)	
1E	Identify unique gender-related needs (e.g., pregnancy, fertility, vitamin requirements, transgender considerations)	
1F	Assist patient/support persons in making an informed decision regarding bariatric treatment options	
1G	Discuss and establish goals and expected outcomes with the patient/support persons	
1H	Educate patient/support persons about	
1H1	steps in the bariatric surgical process (pre-operative preparation, perioperative, follow-up care)	
1H2	lifestyle changes after surgery (e.g., physical activity, nutrition and supplementation, psychosocial support)	
1H3	expected clinical outcomes	
1H4	short and long-term complications	
1H5	reporting of signs and symptoms of complications	
1H6	measures to prevent complications	
1I	Evaluate the effectiveness of education for patients/support persons	
1J	Utilize various modalities while in the perioperative phase (e.g., telehealth visits, telemedicine, patient portals, social media)	
2	**Clinical Management: Perioperative (Facility Stay)**	**38**
2A	Assess patient/support person's understanding of pre-operative education and provide reinforcement	
2B	Utilize size and weight-appropriate equipment	
2C	Implement patient care protocols (e.g., airway, positioning, medications, pain management, enhanced recovery)	
2D	Practice safe bariatric patient handling	
2E	Implement preventative measures for complications	
2F	Monitor for abnormal signs, symptoms, and diagnostic tests	

2G	Respond to early and late warning signs for complications	
2H	Implement discharge plan and review instructions for immediate post-operative period	
2H1	reporting signs and symptoms of complications	
2H2	nutrition and diet progression	
2H3	physical activity/limitations	
2H4	vitamin and mineral supplementation	
2H5	fluid/hydration management	
2H6	medication management	
2H7	pain management	
2H8	follow-up care	
3	**Clinical Management: Follow-up (Post-discharge and long-term)**	**38**
3A	Assess the patient for:	
3A1	short- and long-term complications	
3A2	short- and long-term weight change	
3A3	adherence to plan of care and lifestyle changes (e.g., medications, nutrition and vitamin supplementation, diet, physical activity, self-care, smoking cessation)	
3A4	psychosocial adjustments (e.g., substance abuse, alcohol use, body image)	
3A5	need for additional bariatric education	
3B	Evaluate and report improvement, remission, or resolution of obesity-related conditions	
3C	Assess for quality of life changes from pre-operative levels	
3D	Identify barriers to recommended lifestyle modifications	
3E	Offer tools or resources to help patients manage barriers to recommended lifestyle modifications	
3F	Address secondary effects of surgery (e.g., dumping, reactive hypoglycemia, redundant skin)	
3G	Provide additional education or referrals as needed	
3H	Reinforce long-term healthy behaviors	
3I	Encourage participation in support group(s) and other available psychosocial support	
3J	Utilize various modalities while in the follow-up phase (e.g., telehealth visits, telemedicine, patient portals, social media)	
4	**Professional and Community Collaboration**	**22**
4A	Assess the multidisciplinary's team knowledge related to the care of bariatric surgical patients	
4B	Implement formal and informal multidisciplinary team education related to the unique needs of metabolic and bariatric surgery patients	
4C	Evaluate the effectiveness of multidisciplinary team education	
4D	Collaborate with the multidisciplinary team to provide patient-centered education	
4E	Collaborate with the multidisciplinary team to ensure successful progression of patient through continuum of care	
4F	Evaluate patient care protocols within the multidisciplinary team	
4G	Coordinate pre- and post- operative referrals	

4H	Foster sensitivity within the multidisciplinary team towards patients with obesity	
4I	Promote understanding of surgical complications within the multidisciplinary team	
4J	Promote safe patient handling within the multidisciplinary team	
4K	Provide education to the community on the disease of obesity and associated treatments using various modalities (e.g., web sites, webinars, social media, newsletters, informational presentations)	
4L	Promote obesity awareness within the healthcare community through educational outreach (e.g., role modeling, precepting, teaching, mentoring)	
4M	Foster advocacy and access related to individuals and associated treatments	
5	**Program Quality**	**20**
5A	Advocate for patient safety involving furniture, patient transport/transfer systems, medical and surgical equipment	
5B	Integrate the use of bariatric ergonomic protocols to decrease the risk of patient and staff injury	
5C	Evaluate innovations in technology and advances in care through benchmark studies, literature reviews, evidence-based practice, or research	
5D	Facilitate incorporation of innovations in technology and advances in care into practice	
5E	Participate in the quality improvement process including: Planning, Data Collection, Analysis, Implementation, Documentation, and Evaluation	
5F	Participate in updating patient care practices (e.g., policies, protocols, clinical pathways)	
5G	Develop and/or update patient education programs, materials, and tools using multiple modalities	
5H	Promote compliance with current best practice guidelines and recommendations	
5I	Promote optimization of the patient experience including sensitivity	
5J	Identify specific competencies necessary for delivery of patient care (e.g., safe patient handling, early recognition of complications, sensitivity training)	
5K	Facilitate staff training to optimize the delivery of patient care (e.g., safe patient handling, early recognition of complications, sensitivity training)	
5L	Contribute to the profession through presentations, publications, research, or involvement of professional organizations	

Knowledge Statements

Severe obesity

1. Epidemiology (trends, incidents, prevalence)
2. Sensitivity issues or weight bias issues (e.g., people first language)
3. Etiology (e.g., biology, medications, environment, genetics, lifestyle)
4. Obesity related medical conditions
    a. endocrine (e.g., Type 2 diabetes, metabolic syndrome, PCOS)
    b. cardiovascular (e.g., hypertension, dyslipidemia, stroke, CVD, CHF)
    c. musculoskeletal (e.g., degenerative joint disease, back pain)
    d. gastrointenstinal (e.g., GERD, fatty liver disease)
    e. pulmonary (e.g., obstructive sleep apnea, asthma, Pickwickian syndrome)
    f. urinary/gynecological (e.g., incontinence, infertility)
    g. neurological (e.g., pseudotumor cerebri)
    h. cancer (e.g., breast, uterus, cervix)
5. Normal anatomy and physiology of the gastrointestinal system
6. Physiology and mechanisms of weight loss and weight gain

Considerations for metabolic and bariatric surgery patients

1. Criteria for metabolic and bariatric surgery candidacy
2. Contraindications for surgery candidacy
3. Socioeconomic issues
4. Age-related considerations (e.g., adolescent, geriatric)
5. Ethnicity, gender, religious, and cultural considerations
6. Patients with high-risk conditions (e.g., severe medical condition, multiple major abdominal surgeries, prior metabolic and bariatric surgeries)
7. Abnormal eating behaviors and disorders
8. Psychological or cognitive disorders (e.g., depression, anxiety, addiction, schizophrenia, OCD, bipolar disorder, brain injury)
9. Substance use (e.g., nicotine, alcohol, marijuana, opioids)
10. Pharmacological history (e.g., non-steroidals, psychiatric medication, immunosuppresants)

Metabolic and bariatric surgery procedures

1. Evolution of metabolic and bariatric surgical procedures including historical procedures
2. Types of primary metabolic and bariatric procedures
    a. Adjustable gastric band
    b. Sleeve gastrectomy
    c. Roux-en-Y gastric bypass
    d. Biliopancreatic diversion-duodenal switch
    e. Single anastomosis duodeno-ileostomy with sleeve (SADI/SADI-S)
    f. Endoscopic therapy (e.g., balloon, stent, aspiration)
    g. Other emerging procedures, technologies, or treatments
3. Types of non-primary metabolic and bariatric procedures
    a. Revision
    b. Conversion
    c. Reversal
4. Procedure-specific considerations
    a. Anatomical and physiological changes
    b. Risks and benefits
    c. Pre-operative process
    d. Post-operative process
    e. Weight change expectations

f. Obesity-related disease improvement, remission, and/or resolution
g. Secondary effects (e.g., dumping syndrome, hypoglycemia, redundant skin)

5. Surgical/Procedural Approaches
   a. Open
   b. Laparoscopic
   c. Endoscopic
   d. Robotic-assist
6. Intraoperative process (e.g., draping, positioning, anesthesia, procedure-specific considerations)

Surgical complications

1. Types of complications (e.g., bleed, leak, VTE, bowel obstruction, internal hernia, stenosis, band complications, gastro-gastric fistula, rhabdomyolysis)
2. Prevention of complications (e.g., VTE, Pneumonia, pressure injuries/rhabdomyolysis)
3. Intraoperative complications (e.g., loss of airway, intraoperative leak, liver laceration, nerve damage)
4. Clinical presentation of post-operative complications (e.g., early, late, long-term)
5. Treatment of complications
6. Emergency interventions (e.g., rapid response activation, failure to rescue, notification of the surgeon)
7. Unique considerations (e.g., diagnostic testing, risk of nasogastric tube insertion)

Patient management across the continuum of care

1. Skin, nail, and hair integrity/care
2. Adequate dentition
3. Fluid and electrolyte management
4. Pain management
5. Laboratory and diagnostic testing and results
6. Medical weight management modalities
   a. Pre-operative
   b. Post-operative
7. Bariatric safe patient handling
8. Specialized equipment needs
9. Implications of metabolic and bariatric surgery on
   a. fertility and pregnancy
   b. alcohol metabolism and effects
   c. medication management
   d. psychosocial adjustments
10. Discharge planning process
11. Long term follow-up

Nutritional considerations

1. Procedure-specific nutrition and supplementation guidelines
2. Types of nutritional deficiencies (e.g., thiamine, Vitamin B12, Vitamin D, fat soluble vitamins, iron, calcium, protein)
3. Prevention of nutritional deficiencies
4. Identification of nutritional deficiencies
5. Treatment of nutritional deficiencies
6. Adaptive and maladaptive eating behaviors and recommendations
7. Dietary progression following surgery

Lifestyle changes

1. Physical activity/exercise
2. Behavior-modification counseling
3. Risks of substance use (e.g., nicotine, alcohol, marijuana, opioids)
4. Modalities to improve patient adherence
5. Role of support groups for patients/support persons

Professional Practice

1. Fundamental research principles and quality improvement
2. Risk management
3. Professional organization and government agency guidelines and recommendations
4. Informational resources related to the disease of obesity, metabolic and bariatric surgery
5. Professional associations (e.g., ASMBS, TOS, OAC, SAGES, OMA, ACS)
6. Metabolic and bariatric surgical program accreditation

PSI Services

psionline.com

@PSIServicesLLC

PSI Services LLC