

ABPANC REPORT OF THE 2015-2016 ROLE DELINEATION STUDY: THE FOUNDATION FOR THE CPAN[®] AND CAPA[®] CERTIFICATION EXAMINATIONS

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INTRODUCTION

Perianesthesia nursing certification, sponsored by ABPANC, is designed to promote and enhance the quality of care delivered to patients receiving anesthesia, sedation or analgesia. ABPANC sponsors two certification programs for qualified Registered Nurses: the CPAN[®] program (Certified Post Anesthesia Nurse) and the CAPA[®] program (Certified Ambulatory Perianesthesia Nurse). At the time this study was conducted there were 11,915 perianesthesia nurses holding the CPAN and/or CAPA certification credentials.

The CPAN and CAPA certification programs have been accredited by the Accreditation Board for Specialty Nursing Certification, Inc. (ABSNC) since 2004. ABSNC has established standards for accrediting certification programs. Their standards are intended to assure the public that the credentials granted by certifying organizations are based on reliable and valid procedures. Standard 7 of the ABSNC standards requires that a RDS be conducted every five years to support the validity and reliability of certification examinations.

This report describes ABPANC's most recent Role Delineation Study (RDS) conducted in 2015 – 2016. Background information, as well as a description of the study methods and findings, and the resultant changes made to the CPAN and CAPA test blueprints as of the Fall 2017 exam administration window are included in this report.

Background

A major RDS undertaken in 1999-2000 led to the re-conceptualization of the model on which the CPAN and CAPA examination blueprints are based. In that study, the *needs* of perianesthesia patients were seen as the driving force for the competencies required of the CPAN and CAPA certified nurse.

This model has been maintained through three RDS update studies conducted in 2005-2006, 2010-2011, and most recently, 2015-2016. The domain structures for the CPAN and CAPA examinations are identical. This is supported by consistent findings from role delineation studies (including the most recent one described in this report) that the domains of patient need, are the same for both the CPAN and CAPA roles, although the focus of test questions in the domains differs. Data from these studies showed that the difference between the practice of CPAN and CAPA certified nurses is the *time spent* meeting patient needs in the different domains and different phases of anesthesia. Thus, the percentage of exam content for each domain and the nature of the test questions differs depending on whether the certificant takes the CPAN or CAPA certification examination. In other words, the examination certificant decides which examination is most relevant to their practice, based on what their patient needs are and the amount of time patients spend in the specific phases described in ASPAN's Perianesthesia Continuum of Care (ASPAN, 2017). The Phases are defined as (1) the Preanesthesia level of care: Preadmission and Day of Surgery/Procedure; and (2) Postanesthesia levels of care: Phase I, Phase II, and Extended Care. Regardless of the setting in which the candidate practices, if most of their time is spent caring for patients in Phase I, the CPAN examination is most relevant. If most of their time

is spent caring for patients in Preadmission and Day of Surgery/Procedure, Phase II, and/or Extended Care, the CAPA examination is most relevant.

Demonstrating Validity and Reliability of Examinations

Since their inception, the CPAN and CAPA certification examinations have been based on the results of a Role Delineation Study (RDS). Conducting an RDS, also called a job analysis or study of practice, is key to demonstrating the validity and reliability of nationally recognized specialty nursing certification examinations.

THE 2015-2016 ROLE DELINEATION STUDY

This study consisted of a multi-step mixed-methods process to update the description of certified perianesthesia nursing practice. ABPANC contracted with Professional Examination Service (ProExam) to conduct the study.

ProExam created a project timeline based on the goal of receiving approval by the Board of Directors of any changes made to the test blueprints and announcing these changes to the perianesthesia nursing population by the spring of 2017. The first certification examinations using the revised blueprints will be administered in the Fall of 2017.

Goals of Study

- Update the 2010-2011 RDS;
- Make changes/updates to the existing domain structure;
- Delineate needs of perianesthesia patients in relevant domains;
- Delineate the tasks and knowledge required to meet patient needs;
- Identify differences in practice between CPANs and CAPAs;
- Develop revised test specifications for the two certification examinations;
- Discuss whether the data supports the need for a separate pediatric-focused examination.

Method

At the outset of the study, an Advisory Team was appointed. Members of the Advisory Team were carefully selected to ensure the Team was representative of the population of CAPAs and CPANs as well as the demographics of the certificant population. In addition to a geographical representation, members of the Advisory Team had a range of years of experience, credentials, work settings, roles and experience with patients of varying ages. Appendix 1 contains additional information about the 10 members of the Advisory Team.

The Advisory Team met face-to-face for a 1 ½ day meeting during which the existing RDS was reviewed and updated. The meeting was facilitated by ProExam staff. A modified nominal-group technique was used to ensure participation by all Advisory Team members.

In reviewing the existing domain structure of the CPAN/CAPA role delineation the Advisory Team determined that the 3-domain structure was still a valid way to organize the content in the delineation. A wording change was made to Domain 2 – from *Behavioral and Cognitive Needs* to *Behavioral Health and Cognitive Needs*.

The Advisory Team also revised the conceptual statement that precedes the CPAN and CAPA test blueprints where published and reflects that the overarching role of the certified perianesthesia nurse is serving as an advocate for this vulnerable patient population. The new statement reads: *All content in the role delineation reflects advocating on behalf of patients across the lifespan to address their physiological, behavioral health/cognitive, and safety needs in a variety of settings throughout the Perianesthesia Continuum of Care.* The previous statement read: *All content in the role delineation reflects advocating on behalf of patients across the lifespan continuum to address their physiological, behavioral/cognitive, and safety needs in a variety of settings throughout the perianesthesia continuum.*

In addition to the changes in the wording of Domain 2 and the conceptual statement, the Advisory Team updated the tasks addressing patient needs within each of three domains. The associated nursing knowledge required to meet those needs based on current trends in perianesthesia nursing was also updated. A summary of the changes made to the role delineation is included in Appendix 2.

At the meeting, the Advisory Team reviewed the existing linkage outline that identifies the domains in which each knowledge area is used. Based on the updated list of perianesthesia nursing knowledge and the revised domain structure, the Advisory Team updated the linkages between knowledge areas and the three domains of patient needs included in the updated role delineation. The resulting linkage outline is included in Appendix 3.

The Advisory Team included members who worked in pediatric-focused work settings. ABPANC recognizes that this was an essential perspective to include on the Advisory Team to ensure that the CPAN and CAPA certification exams are applicable to perianesthesia nurses working with pediatric patients. Discussions with the Advisory Team reflected that a stand-alone pediatrics certification examination in the perianesthesia specialty is not necessary at this time. The advisory team suggested that a certain number of exam questions reflect care of the pediatric patient. The suggested percentage would be based on the data received in the validation survey.

Survey Development

The Advisory Team reviewed and approved a draft validation survey, which incorporated the revised domains, tasks, and knowledge. The demographic questionnaire and rating scales to be used to validate the elements of the RDS were also refined by the Advisory Team. These are discussed later in this report.

Piloting of Survey

A pilot test of the CPAN/CAPA role delineation survey was conducted in advance of the survey's administration to the larger survey sample. The purpose of the pilot test was to ensure that all content and technical aspects of the survey instrument were of the highest quality and that the survey was as clear and user-friendly as possible. A total of 25 subject-matter experts were nominated by Advisory Team members to represent a range of perianesthesia nursing areas of expertise, work settings, and locations. Pilot participants were asked to provide feedback regarding clarity of instructions, utility of rating scales, technical difficulties, and length of completion time, as well as make any additional suggestions or comments to improve the survey experience. A total of 13 participants responded. Of these respondents, 7 were CAPAs, 5 were CPANs, and 1 person was dually (certified both as a CPAN and a CAPA) certified. The response rate for SME pilot participants was 54% - an above average response rate for this type of activity. A summary report of the pilot test data collection procedures and results can be found in Appendix 4.

Survey Dissemination

To verify that the updated role delineation was an accurate reflection of the current work of perianesthesia nurses, a Web-based survey was developed to gather validation data from practicing CPANs and CAPAs. In the first section of the survey, participants made two ratings for each of the 38 task elements (tasks and subtasks): (1) how often they performed the task related to meeting patient needs during the past 12 months and (2) what level of harm could result if the perianesthesia nurse either omitted or incorrectly performed the task. In the second section of the survey, participants were asked to rate (1) what percentage of their work time they spend performing the specific tasks in each domain and (2) how much harm could result if the perianesthesia nurse either omitted or incorrectly performed the tasks in each domain. In the third section of the survey, participants made two ratings for each of the 42 perianesthesia nursing knowledge areas: (1) how often they used the knowledge during the past 12 months in their work as a perianesthesia nurse and (2) the cognitive level at which they used it. In the fourth and final section of the survey, respondents answered questions regarding their demographic and professional backgrounds.

Participants were also asked to estimate the percentage of the certification examination that should focus on each domain of patient need. Certified CPANs made this rating regarding the CPAN examination, and certified CAPAs were asked the same question with respect to the CAPA examination.

From the population of CPANs and CAPAs, 1500 CPANs and 1500 CAPAs were randomly selected from the ABPANC database to receive the survey. This was the first administration of an ABPANC RDS survey disseminated solely via e-mail. Invitations to participate were sent out in early November 2015 and two reminder e-mails were sent to non-respondents in late November and early December. In January 2016, due to a low response rate, ABPANC elected to invite a second group of CPANs and CAPAs to complete the survey. An additional 2,000 CAPAs and 2,000 CPANs were randomly selected from the database for this mailing.

The final return rate for the survey was 17% for CPANs (599 of 3431 eligible) and 16% for CAPAs (549 of 3438 eligible). The number eligible was calculated as the number invited minus the number of invitations that were either undeliverable or delivered to nurses who were no longer practicing. Although the return rate was lower than previous RDS studies, the final number of responses received was more than adequate for data analysis.

Findings

The Advisory Team met via conference call with ProExam in February 2016 to review the survey results and discuss implications for the CPAN and CAPA test specifications.

Characteristics of Respondents

The tabulated results of the demographic questionnaire are included in Appendix 5. The respondent group represented 48 states plus the District of Columbia. The states not represented were South Dakota and West Virginia.

Respondents spent an average of 87% of their work time in direct patient care of perianesthesia patients. Respondents were highly experienced, with an average of 28 years of nursing experience. CPANs and CAPAs responding to the survey reported about the same amount of experience in perianesthesia nursing (17 versus 18 years). CPANs reported having more

experience in the inpatient PACU setting than CAPAs, while CAPAs had more experience in the ambulatory setting than CPANs.

CAPAs and CPANs reported the same percentage of their patients falling in each age range, with the majority being adult patients (about 50%), about 35% geriatric patients, about 14% pediatric patients, and only 1% neonatal patients.

Most respondents (both CAPAs and CPANs) reported their work facility to be *Community Hospital Nonprofit* (50%), *University Affiliated Medical Center* (19%), *Community Hospital for Profit* (12%), *Ambulatory Surgical Center Hospital* (12%) or *Ambulatory Surgical Center Free Standing, Hospital Affiliated* (11%).

As might be expected, there was a difference between CPANs and CAPAs in the percentage of time spent in each phase of the Perianesthesia Continuum of Care. CPANs reported spending the majority of their time (60%) caring for patients in Postanesthesia Phase I. In contrast, CAPAs spent the majority of their time in Preanesthesia Phase – Day of Surgery/Procedure (40%) and in Postanesthesia Phase II (23%).

The survey included three questions focused on whether respondents are required to float. More CPANs (44%) float between traditional inpatient PACU and Ambulatory settings than CAPAs (30%). CPANs and CAPAs are almost equally as likely to float to any special procedure unit (21% and 24% respectively) and slightly higher percentage of CAPAs (37%) reported floating to preadmission testing when compared to CPANs (20%). Although the results were examined for the 2010 RDS as well as the ABPANC database demographic information, a direct comparison could not be made due to a change in the way the *float* questions were phrased in the 2015 RDS survey. In order to collect more accurate information the 2015 Advisory Team revised the questions to more directly focus on *floating* without including *cross training*. For example the question *Are you cross-trained and required to "float" between traditional Inpatient PACU and Ambulatory settings?* was re-worded to *Are you required to "float" between traditional Inpatient PACU and Ambulatory settings?*

When possible, comparisons were made between the survey respondents and the demographic and professional characteristics of the certified population of CPANs and CAPAs. In general, the two groups were similar, with only a few differences identified. One difference was that the respondent group for the survey was slightly more experienced than the population of certified CAPAs and CPANs. Additionally, data for CPANs from the ABPANC dataset showed this group spending almost all of their time (88%) in Postanesthesia Phase I. Although this was also the phase where survey respondent CPANs spent the largest amount of time (55%), they reported spending more time in the other phases when compared to the database. The Advisory Team, reviewing these findings, believed that the respondent group was in a position to provide accurate judgments regarding the practice of the nurses in the perianesthesia nursing specialty.

Validation of Tasks Related to Meeting Patient Needs

As stated previously, the survey respondents rated the tasks on two rating scales – frequency ($\alpha = .942$) and potential harm ($\alpha = .970$). Tabulated results of the mean task ratings are included in Appendix 6. In order to calculate mean frequency and potential harm ratings each scale option was assigned a numeric value as described below:

Frequency How frequently did you perform the task related to meeting patient needs

during the past 12 months?

1=Never; 2=Rarely (annually, semi-annually, quarterly); 3=Occasionally (monthly/almost monthly); 4=Frequently (weekly/almost weekly); 5=Very frequently (daily/almost daily)

Harm **What level of harm could result if the perianesthesia nurse either omitted or incorrectly performed the task?**

1=No Harm: it doesn't matter

2=Minimal Harm: missed opportunity for optimal care/intervention; inconvenience to patient; may decrease satisfaction but will not injure patient

3=Moderate Harm: may contribute to poor outcome or prolonged length of stay but not life threatening

4=Considerable Harm: may cause immediate complication/injury to patient; may result in death; unsafe level of care

Across all three domains, and for both CPANs and CAPAs, all tasks related to meeting perianesthesia patients' needs were validated as frequently addressed (mean ratings of 3.4 and higher) and causing harm if omitted or incorrectly performed by the perianesthesia nurse (mean ratings of 2.8 and higher). Although all tasks addressing patient needs were validated for both CPANs and CAPAs, some differences emerged in the ratings of the two groups (highlighted in Appendix 6). All of the differences of half a scale point or more ($\geq .5$ difference in mean rating) were found in Domain 30 (Tasks Addressing Safety Needs) for the 4 tasks/subtasks pertaining to discharge and at-home care. CAPAs reported performing these tasks at a higher frequency than CPANs although the tasks were performed by both groups. Upon review of the task statements for which these differences occur, the Advisory Team judged that these findings were consistent with their understanding of differences in the roles of CAPAs and CPANs in practice.

Regarding the completeness of the delineation, the Advisory Team reviewed the 100 write-in responses to the question of whether any tasks performed to meet the physiological, behavioral health/cognitive, and safety needs of perianesthesia patients were missing from the delineation. They judged that that all suggestions were already reflected in the delineation, out of scope, or not specific to the role of perianesthesia nurses.

Validation of Knowledge Related to Meeting Patient Needs

Survey respondents rated the knowledge statements on two rating scales – frequency ($\alpha = .936$) and level of usage ($\alpha = .917$). The details of the rating scales appear below and tabulated results of the knowledge ratings are included in Appendix 7.

Frequency **How frequently did you use this knowledge during the past 12 months in your work as a perianesthesia nurse?**

1=Never; 2=Rarely (annually, semi-annually, quarterly); 3=Occasionally (monthly/almost monthly); 4=Frequently (weekly/almost weekly); 5=Very frequently (daily/almost daily)

Level of Usage **What level best represents your use of this knowledge in your work as a**

perianesthesia nurse?

Do not use the knowledge

Recognize/Recall the knowledge

Apply/interpret/integrate the knowledge

Almost all of the knowledge areas (41 of 42) were used *frequently* or *very frequently*, on average, by survey respondents. One knowledge area, *MHAUS guidelines/protocol*, was used slightly less frequently than the others were (used occasionally). (Please note: due to the level of harm that could occur in a patient experiencing hyperthermia, the *MHAUS guidelines/protocol* were maintained in the list of knowledge areas despite their slightly lower frequency of use). There were no substantive differences (>.5) between CAPAs and CPANs in frequency of use for the knowledge areas.

Overall, the level of usage ratings indicated that the knowledge areas were used predominantly at an applied cognitive level as opposed to a recognition/recall level. In addition, review of the 32 write-in responses to the question of whether any knowledge was missing from the delineation indicated that all suggestions were already reflected in the delineation. Thus, the knowledge delineation was judged to be complete.

Development of Revised Test Specifications

Two methods for developing test specifications were used based on questions included in the validation survey. In the first method, weights representing percentages of the CPAN and CAPA examinations devoted to each domain were calculated using respondents' domain-level *Percentage of Work Time* and *Potential Harm* ratings. In the second method, CPAN and CAPA survey respondents' ratings of the direct question regarding the percentage of the relevant certification examination that should cover each domain of patient need were averaged. For both examinations, the weights derived from the two methods were very similar, differing by no more than 1 to 3% for each domain. Ultimately, the Advisory Team adopted the percentages derived from respondents' *Percentage of Work Time* and *Potential Harm* ratings as the basis for the examination specifications.

The test specifications recommended by the Advisory Team and approved by the ABPANC Board of Directors on February 23, 2016 are shown below in Table 1. The current test specifications are also provided for comparison – the changes made to the updated specifications are minimal. The ABPANC Board of Directors (see Appendix 8 for background information for the Board of Directors) adopted the updated percentage weights for each domain for use in constructing the CPAN and CAPA examinations to be administered beginning in the Fall, 2017.

In addition to the recommendations for the updated test specifications the Advisory Team also recommended that approximately 10% of exam questions be focused on the care of pediatric patients. This recommendation was based on the percentage of time, on average, survey respondents reported providing care to pediatric patients. The ABPANC Board of Directors approved this recommendation.

Relationship between Tasks Performed to Meet Patient Needs and Nursing Knowledge

The goal of the certification examinations is to assess the knowledge required by perianesthesia nurses to meet patient needs in the three domains of perianesthesia nursing practice through the performance of specific job tasks. The applicability of each knowledge area to performing tasks in each domain was explored and it was determined that 35 knowledge areas are drawn on to perform tasks addressing physiological needs, 19 to perform tasks addressing behavioral health and cognitive needs, and 37 to perform tasks addressing safety needs. Because a knowledge area can be drawn upon to address multiple patient needs across domains, any given knowledge area can have multiple linkages. The linkages provide the foundation for content-relevant test questions, as item writers create questions assessing knowledge as it is applied in domain-specific contexts.

The updated blueprint for the CPAN and CAPA examinations, including domain percentages and knowledge-domain linkages, is included in Appendix 9.

The minutes from the ABPANC Board meeting documenting approval of the revised test specifications are found in Appendix 10.

IMPLICATIONS OF STUDY FINDINGS ON THE CPAN AND CAPA EXAMINATION PROGRAMS

This study continued to support a model of perianesthesia nursing practice driven by patient needs. This study further validated, as have the previous two studies, differences in the practice of CPANs and CAPAs based on time spent in the three domains and time spent caring for patients in the different phases of anesthesia. This supports the maintenance of two different certification examinations in which the relative emphasis of test questions differs based on the context of care. Further, the findings reflected the belief of the Advisory Team that a stand-alone pediatrics certification examination in this specialty is not necessary at this time but that some exam questions should reflect care of the pediatric patient.

SUMMARY

Patients are in a highly vulnerable state when they are under the effects of anesthesia, sedation, or analgesia. Perianesthesia nurses must be proactive in ensuring patient safety and serving as a patient advocate. ABPANC believes that certification of registered nurses caring for perianesthesia patients is a fundamental way of ensuring the delivery of quality patient care. ABPANC believes that organizing certification programs around meeting patient needs is most valuable in demonstrating the credibility and relevance of the certification program. As technology changes, so do patient needs. As patient needs change, so does nursing practice. It is key that a certifying organization, like ABPANC, maintains a test blueprint that is based on current practice. To that end, ABPANC is committed to conducting a Study of Practice or Role Delineation Study every 5 years, or more often if indicated. This study provided the opportunity

for ABPANC to make very deliberate decisions about the framework on which the CPAN and CAPA examination programs are built.

Appendix 1
Advisory Team Members

**2015 RDS Advisory Team Members
CPAN Members**

Name/Credentials	Highest Degree in Nsg	Yrs Exp in Nsg.	Yrs Exp in PACU	# Yrs Certified	Position Held	Name of Employer, City, State	Region
Carolyn Anderson, ADN, RN, CPAN	ADN	10-14	5-9	1 (2014)	Clinical Coordinator (Service Operations Coordinator)	Baystate Medical Center Springfield, MA	4 (MA)
Ruby Mae Bishop, BSN, RN, CPAN	BSN	10-14	10-14	6 (2009)	Staff Nurse	UC Irvine Health Irvine, CA	1 (CA)
Alison Giordano, BSN, RN, CPAN	BSN	15-19	15-19	8 (2007)	Manager of Perioperative Services	OU Medical System- Edmond Oklahoma City, OK	2 (OK)
*Lynn Nolan, BSN, RN, CPAN, CAPA	BS	25	15-19	CPAN 4 (2011) CAPA 5 (2010)	Assistant Nurse Manager PST, Preop, PACU, Phase II	Advocate Lutheran General Park Ridge, IL	3 (IL)
Vicki Yfantis, MSN, RN, CRNP, CPAN	MSN	15-19 (17)	15-19 (16)	15 (2000)	NP; PerDiem Staff Nurse	Suburban Outpatient Surgery Center Bethesda, MD Shady Grove Medical Center Rockville, MD	5 (MD)

CAPA Members

Name/Credentials	Highest Degree in Nsg	Yrs Exp in Nsg.	Yrs Exp in AMB	# Yrs Certified	Position Held	Name of Employer, City, State	Region
Alison Colburn, RN, CAPA	Dip	20+	10-14	9 (06)	Staff Nurse/ Charge Nurse	Baystate Medical Center Springfield, MA	4 (MA)
Vonda Fitch, RN, CPAN, CAPA	Dip	20+ 34	20+30	CAPA 20 (1994) CPAN 26 (1988)	Staff Nurse/ Charge Nurse	Carlsbad Medical Center Carlsbad, NM	1 (NM)
Celeste Jones, MHA, MBA, BSN, RN, CAPA	BSN	20+	15-19	6 (2007)	Assistant Nurse Manager PACU, Phase I, and II	MD Anderson Cancer Center Houston, TX	2 (TX)
Cheryl Tveit, MSN, RN, CAPA	MSN	15-19 (15)	10-14 (12)	7 (2007)	Charge Nurse Perianesthesia Unit	Gillette Children's Specialty Healthcare St. Paul, MN	3 (MN)
Valerie Watkins, BSN, RN, CAPA	BSN	20+	20+	9 (2006)	Staff Nurse	University of Colorado Hospital Aurora, CO	1 (CO)

***Hold both the CPAN and CAPA Credentials**

**Lynn Nolan
Vonda Fitch**

Appendix 2
Changes Made to Role Delineation

**ROLE DELINEATION FOR THE AMERICAN BOARD OF PERIANESTHESIA
NURSING CERTIFICATION
CPAN® AND CAPA® EXAMINATIONS**

2011: *All content in the role delineation reflects advocating on behalf of patients across the lifespan continuum to address their physiological, behavioral/cognitive, and safety needs in a variety of settings throughout the perianesthesia experience.*

2016: All content in the role delineation reflects advocating on behalf of patients across the lifespan to address their physiological, behavioral health, cognitive, and safety needs in a variety of settings throughout the Perianesthesia Continuum of Care.

TASKS ADDRESSING PERIANESTHESIA PATIENT NEEDS Comparison of 2011 and 2016 content (with changes highlighted)	
2011 CONTENT	2016 CONTENT
10 TASKS ADDRESSING PHYSIOLOGICAL NEEDS	10 TASKS ADDRESSING PHYSIOLOGICAL NEEDS
Assess, diagnose, plan, intervene, and evaluate in order to promote:	Assess, diagnose, plan, intervene, and evaluate in order to promote:
10.01 stability of respiratory system	10.01 stability of the respiratory system
10.02 stability of cardiovascular/ peripheral vascular systems	10.02 stability of the cardiovascular and peripheral vascular systems
10.03 stability of neurological system	10.03 stability of the neurological system
10.04 stability of musculoskeletal system	10.04 stability of the musculoskeletal system
10.05 stability of gastrointestinal system	10.05 stability of the gastrointestinal system
10.06 stability of renal system	10.06 stability of the renal system
10.07 stability of integumentary system	10.07 stability of the integumentary system
10.08 stability of endocrine system	10.08 stability of the endocrine system
10.09 stability of genitourological and reproductive system	10.09 stability of the genito-urological and reproductive system
	10.10 stability of the hematologic and immune systems NEW
	10.11 stability of the ophthalmological system/otorhinolaryngology NEW
10.10 stability of fluids and electrolytes Now 10.12	10.12 stability of fluid and electrolyte levels
10.11 maintenance of normothermia Now 10.13	10.13 maintenance of normothermia
10.12 an appropriate medication regimen (including, but not limited to, minimal interruption of normal medication)	10.14 an appropriate medication regimen (including, but not limited to, minimal interruption of normal medication)

	regimen, preemptive interventions)		regimen and preemptive interventions)
10.13	physiological comfort (including, but not limited to, relief from pain, shivering, nausea and vomiting; temperature control and appropriate positioning)	10.15	physiological comfort (including, but not limited to, relief from pain, shivering, nausea and vomiting; and appropriate positioning)
10.14	a therapeutic environment (including, but not limited to, minimal interruption of normal regimen, preemptive interventions)	10.16	a therapeutic environment (including, but not limited to, minimal interruption of normal regimen and preemptive interventions)
20	TASKS ADDRESSING BEHAVIORAL AND COGNITIVE NEEDS	20	TASKS ADDRESSING BEHAVIORAL HEALTH AND COGNITIVE NEEDS
20.01	Recognize and respect patient/family/significant other diversity (for example, cultural, religious, physical, age-related, cognitive, and language differences)	20.01	Recognize and respect patient/family/significant other diversity (including, but not limited to, age, sex, race, religion, national origin, ethnicity, disability, marital status, sexual orientation, and gender identity)
20.02	Provide and maintain an environment that promotes patient privacy and confidentiality	20.02	Provide and maintain patient privacy and confidentiality
20.03	Provide psychosocial assistance for patient/family/significant other (for example, coping mechanisms, spiritual and emotional support)	20.03	Provide psychosocial support to patient/family/significant other (including, but not limited to, coping mechanisms, spiritual and emotional support, and facilitating visitation)
20.04	Assess patient/family/significant others ability to learn, learning style (for example, kinetic, auditory, visual), readiness to learn, and barriers to learning	20.04	Assess patient's/family's/significant others' ability to learn, learning style (including, but not limited to, kinetic, auditory, and visual), readiness to learn, and barriers to learning
20.05	Provide patient/family/significant other education and evaluate understanding related to:	20.05	Provide patient/family/significant other education and evaluate understanding related to the perianesthesia/procedural experience
01	admission procedures		
02	advance directives, Patient Bill of Rights and informed consent		

03	preparations for procedures/surgery Now covered in 30.05.01	20.05.01 to 12 were removed – all content can still be tested under 20.05 and this level of detail under the patient/family/significant other education task was deemed to be unnecessary. Additionally, there was redundancy in this list and many of these were deemed to be more appropriately covered as knowledge statements or in the new task developed in the safety domain.
04	anesthesia expectations	
05	post-anesthesia recovery settings	
06	identifying, describing, and communicating pain perception/experience	
07	postoperative pain control measures, including pharmacological and non-pharmacological interventions Now covered in 30.05.02	
08	discharge care (including, but not limited to, ambulation, diet, wound care, physical therapy, effects on sexuality, pain management, catheter care, equipment and medical devices, routine course, and/or potential complications) Now covered in 30.05.05 and 30.05.08 to 10	
09	medications (for example, when to discontinue or resume; interactions with prescriptions, over the counter medications, herbal supplements, alcohol, and/or illegal drugs) Now covered in 30.05.03	
10	impact of existing medical conditions (for example, diabetes, COPD, hypertension) on current surgery/procedure Now covered in 30.05.04	
11	measures to assist healing process (for example, appropriate adjunctive therapies, consults, and/or referrals) Now covered in 30.05.07	
12	measures to prevent	

complications			
30	TASKS ADDRESSING SAFETY NEEDS	30	TASKS ADDRESSING SAFETY NEEDS
30.01	Deliver, document, and communicate care based on accepted national standards of perianesthesia nursing practice and applicable laws, guidelines, and regulations	30.01	Deliver, document, and communicate care based on accepted national standards of perianesthesia nursing practice and applicable laws, guidelines, and regulations
30.02	Protect patient from harm and take preventive measures related to:	30.02	Protect the patient from harm and take preventive measures related to:
01	the use of protective safety devices and equipment (including, but not limited to, padded side rails, safety straps, restraints) Made more sense as its own statement (now 30.03)	01	immobility and/or positioning
02	immobility and/or positioning Now 30.02.01	02	adverse environmental influences (including, but not limited to, latex and/or equipment failure)
03	adverse environmental influences (including, but not limited to, latex and/or equipment failure) Now 30.02.02	03	exposure to infectious diseases
04	exposure to infections and diseases Now 30.02.03	30.03	Protect the patient from harm through the use of protective safety devices and equipment
30.03	Facilitate patient access to:		
01	appropriate resources and referrals (including, but not limited to, medical equipment, pharmaceutical care, pastoral care, nutritional education, physical/occupational therapy, case management/social services) Made more sense as its own statement (now 30.04)	30.04	Facilitate patient access to appropriate resources and referrals (including, but not limited to, medical equipment, pharmaceutical care, spiritual services, nutritional education , physical/occupational therapy, case management/social services, and language services)
02	an environment that accommodates physical, mental, and emotional		

abilities/limitations		
03	an environment that provides for assistance (including, but not limited to, call light, personnel within hearing or at bedside, visitation)	
30.04	Develop and implement effective multidisciplinary discharge plan that addresses:	30.05 Develop and implement effective multidisciplinary perianesthesia plan of care that addresses:
01	the presence of competent, responsible adult caregiver Now covered in 30.05.08	01 verbal and written instructions (including, but not limited to, preparations for procedures/surgery, potential complications, activity, diet, wound care, and post-discharge care)
02	safe transport to home or discharge care site Now 30.05.10	02 pain management
03	verbal and written discharge instructions Now covered in 30.05.01	03 medication reconciliation (including but not limited to, when to discontinue or resume; and interactions with prescriptions, over the counter medications, herbal supplements, alcohol, illicit drugs)
04	the ability to understand and comply with discharge instructions	04 existing medical conditions (including, but not limited to, diabetes, COPD, hypertension, and OSA) on the current surgery/procedure
05	the awareness of postoperative/post-procedural physical limitations	05 optimization of the healing process (including, but not limited to, nutrition, hydration, smoking cessation, and alternative therapies)
06	the availability of resources for care in the home Now covered in 30.05.08	06 prevention of infection
07	the preparation of safe home environment (including, but not limited to, physical barriers	07 measures to prevent complications

<p>and/or abuse assessment) Now 30.05.09</p>	
	<p>08 the availability of resources for care in the home, including the presence of a responsible adult caregiver</p>
	<p>09 a safe home environment</p>
	<p>10 safe transport to the home or discharge care site</p>
<p>30.05 Perform post discharge assessment (including, but not limited to, follow-up visit and/or telephone call)</p>	<p>30.06 Perform post-discharge assessment (follow-up contact)</p>

Perianesthesia Nursing Knowledge

K1. Nursing process	K1. Nursing process
K2. Evidence-based practice	K2. Evidence-based practice
K3. Anatomy and physiology of body systems	K3. Anatomy and physiology of body systems
K4. Growth and development	K4. Growth and development across the lifespan
K5. Pathophysiology	K5. Pathophysiology
K6. Normal and abnormal diagnostic values	K6. Normal and abnormal diagnostic values
K7. Acceptable deviations from normal physiologic states	K7. Acceptable deviations from normal physiologic states
K8. Comorbidities/potential complications	K8. Comorbidities/potential complications
K9. Airway management	K9. Airway management
K10. Vital signs/hemodynamic monitoring	K10. Vital signs/hemodynamic monitoring
K11. Fluid and electrolyte management	K11. Fluid and electrolyte management
K12. Thermoregulation	K12. Thermoregulation
K13. Pain assessment and management (psychological, physiological, medical)	K13. Acute and chronic pain assessment and management
K14. Post-operative nausea and vomiting (PONV) and post-discharge nausea and vomiting (PDNV) assessment and management	K14. Post-operative nausea and vomiting (PONV) and post-discharge nausea and vomiting (PDNV) assessment and management
K15. Physical assessment techniques	K15. Physical assessment
K16. Positioning	K16. Positioning
K17. Pharmacodynamics/pharmacokinetics	K17. Pharmacodynamics/pharmacokinetics
K18. Pharmacological interventions	K18. Pharmacological interventions
K19. Anesthesia techniques (general, regional, moderate sedation, Monitored Anesthesia Care (MAC), Total Intravenous Anesthesia	K19. Anesthesia techniques (general, regional, moderate sedation, monitored anesthesia care (MAC), total intravenous anesthesia

(TIVA))	(TIVA))
K20. Anesthetic and reversal agents	K20. Anesthetic and reversal agents
K21. Phases of anesthesia experience	K21. Stages of anesthesia
	K22. Perianesthesia Continuum of Care (preadmission, day of surgery/procedure, Phase I, Phase 2, extended observation) NEW
K22. Surgical and procedural interventions	K23. Surgical and procedural interventions
	K24. American Society Anesthesiologists (ASA) physical status classification system NEW
K23. Normal and abnormal physical response to surgery/procedure/anesthesia	K25. Normal and abnormal physical response to surgery/procedure/anesthesia
K24. Environmental influences affecting patient care	K26. Environmental factors affecting patient care (including, but not limited to, noise, temperature, air flow, latex, and equipment failure)
K25. Alternative and adjunctive treatment modalities	K27. Alternative and adjunctive treatment modalities
K26. Discharge planning and criteria	K28. Discharge planning and criteria
K27. Diversity (including but not limited to cultural, religious, lifestyle)	K29. Diversity (including but not limited to age, sex, race, religion, national origin, disability, marital status, sexual orientation, and gender identity)
K28. Impact of psychosocial issues (including but not limited to coping styles, life situations, religious/spiritual issues) on compliance, comfort, discharge and healing	K30. Psychosocial factors (including but not limited to coping styles, life situations, religious/spiritual, and culture)
K29. Teaching and learning theories	K31. Teaching and learning theories
K30. Communication principles and techniques	K32. Communication principles and techniques
K31. Psychosocial and cognitive assessment	K33. Behavioral health considerations (including, but not limited to, addiction, autism spectrum disorders, depression, anxiety, bipolar disorder, and PTSD) NEW WORDING

K32. Abnormal psychological/psychiatric states	
K33. Special needs patient issues (for example, language barrier, sensory limitations)	
K34. Multidisciplinary collaboration and referral	K34. Multidisciplinary collaboration and referral
K35. Conflict resolution/mediation techniques	
K36. ACLS, PALS, NRP	K35. ACLS and PALS
K37. MHAUS guidelines/protocol	K36. MHAUS guidelines/protocol
K38. ASPAN standards	K37. ASPAN Standards
K39. Regulatory, legal, and ethical guidelines (for example, Patient Bill of Rights, advance directives, informed consent, HIPAA)	K38. Regulatory, legal, and ethical guidelines (for example, Patient Bill of Rights, advance directives, informed consent, HIPAA, and the Americans with Disabilities Act)
K40. Measures to maintain privacy and confidentiality	K39. Measures to maintain privacy and confidentiality
K41. Injury prevention	K40. Injury prevention
K42. Infection control	K41. Infection prevention and control
K43. Quality and risk management principles and guidelines	K42. Quality and risk management principles and guidelines

Appendix 3
Knowledge-Domain Linkage Outline

	Physio(1)	Behavioral health and cognitive (2)	Safety (3)
K1. Nursing process	y	y	y
K2. Evidence-based practice	y	y	y
K3. Anatomy and physiology of body systems	y		y
K4. Growth and development across the lifespan	y	y	y
K5. Pathophysiology	y		y
K6. Normal and abnormal diagnostic values	y		y
K7. Acceptable deviations from normal physiologic states	y		y
K8. Comorbidities/potential complications	y	y	y
K9. Airway management	y		y
K10. Vital signs/hemodynamic monitoring	y		y
K11. Fluid and electrolyte management	y		y
K12. Thermoregulation	y		y
K13. Acute and chronic pain assessment and management	y	y	y
K14. Post-operative nausea and vomiting (PONV) and post-discharge nausea and vomiting (PDNV) assessment and management	y		y
K15. Physical assessment	y		y
K16. Positioning	y		y
K17. Pharmacodynamics/pharmacokinetics	y		y
K18. Pharmacological interventions	y	y	y
K19. Anesthesia techniques (general, regional, moderate sedation, Monitored Anesthesia Care (MAC), Total Intravenous Anesthesia (TIVA))	y		y
K20. Anesthetic and reversal agents	y		y
K21. Stages of anesthesia	y		
K22. Perianesthesia Continuum of Care (preadmission, day of surgery/procedure, Phase I, Phase 2, extended observation)	y	y	y
K23. Surgical and procedural interventions	y	y	y
K24. American Society Anesthesiologists (ASA) physical status classification system	y		y
K25. Normal and abnormal physical response to surgery/procedure/anesthesia	y	y	y
K26. Environmental factors affecting patient care (including, but not limited to, noise, temperature, air flow, latex, equipment failure)	y		y
K27. Alternative and adjunctive treatment modalities	y	y	y
K28. Discharge planning and criteria			y

K29. Diversity (including but not limited to age, sex, race, religion, national origin, disability, marital status, sexual orientation, gender identity)		y	y
K30. Psychosocial factors (including but not limited to coping styles, life situations, religious/spiritual, culture)		y	y
K31. Teaching and learning theories		y	
K32. Communication principles and techniques		y	y
K33. Behavioral health considerations (including, but not limited to, addiction, autism spectrum disorders, depression, anxiety, bipolar disorder, PTSD)	y	y	y
K34. Multidisciplinary collaboration and referral	y	y	y
K35. ACLS and PALS	y		
K36. MHAUS guidelines/protocol	y		
K37. ASPAN Standards	y	y	y
K38. Regulatory, legal, and ethical guidelines (for example, Patient Bill of Rights, advance directives, informed consent, HIPAA, Americans with Disabilities Act)	y	y	y
K39. Measures to maintain privacy and confidentiality		y	
K40. Injury prevention	y		y
K41. Infection prevention and control	y		y
K42. Quality and risk management principles and guidelines			y

Appendix 4
Survey Pilot Test Report

Summary of Pilot Test Data Collection Procedures and Results

**Prepared by Professional Examination
Service Department of Research and
Development
475 Riverside Drive
New York, NY 10115**



**Professional
Examination Service**
Credentialing Insight

November 2015

A pilot test of the CAPA[®] /CPAN[®] role delineation survey was conducted in advance of the survey's administration to the larger survey sample. The purpose of the pilot test was to ensure that all content and technical aspects of the survey instrument are of the highest quality and that the survey was as clear and user-friendly as possible.

A total of 24 subject-matter experts were nominated by Advisory Team members to represent a range of perianesthesia nursing areas of expertise, work settings, and locations. Pilot testers were asked to provide feedback regarding clarity of instructions, utility of rating scales, technical difficulties, and length of time to complete, as well as make any additional suggestions or comments to improve the survey experience. An incentive of 3 contact hours toward recertification was offered to encourage participation. For a copy of the invitation sent to pilot testers, see Appendix A.

Participants were given two weeks complete the survey pilot test. A reminder e-mail was sent to reviewers one week prior to the deadline of October 25, 2015. A total of 13 participants responded. Of these respondents, 7 were CAPAs, 5 were CPANs, and 1 person was dual-certified. For additional information on the professional background of respondents, see Appendix B.

The response rate was 54% — an above average response rate for this type of activity.

Pilot Questions

Were the directions for taking the survey clear?

	Count
Yes	12
No	1

Explanation

	Count
I had to keep going back to the directions to understand what I was being asked	1

Were the rating scales clear and usable?

	Count
Yes	21
No	1

Explanation

	Count
Not always applicable. Answers based on Preop RN care almost exclusively	1

Did you experience any technical difficulties?

	Count
Yes	0
No	13

Minutes to complete survey

Mean	28
Standard Deviation	(9.2)
Minimum	15
Maximum	40
Median	25
Mode	20

Suggestions or comments to improve the survey experience

Survey was fine. Sometimes it is difficult to put a percentage on time spent on specific patient care activities.

Would like to have discussed this as a group perhaps, to get a clearer idea of goal/ actual practice. How to make choices appropriately for my line of care.

Section 1 – Task instruction page - the 2nd line needs to be addressed. I don't think it is worded correctly.

Change has been implemented

Place the definitions on the page instead of in a link at the top.

ProExam: recommend keeping as is – otherwise screen becomes very cluttered

It was thorough and easy to follow. No issues.

I had to keep reminding myself that I needed to respond based on the unit that I work, not the over perioperative department

If appropriate, it would be interesting to know what you are trying to prove or disprove with your data

**Appendix A Pilot
Test Invitation**

Thank you for agreeing to pilot test the role delineation survey of perianesthesia nurses. The American Board of Perianesthesia Nursing Certification, Inc. (ABPANC) is conducting this survey to update the test content outlines for the CPAN and CAPA certification exams.

The purpose of the pilot test is to ensure that the survey is as clear and user-friendly as possible. In addition to completing the survey, we will ask you to provide comments and suggestions about the survey experience. You will be asked to respond to specific questions at the end of the survey.

Consider the following questions as you take the survey.

1. Are the instructions for completing the survey clear?
2. Were you able to rate all of the statements using the rating scales provided?
3. Did you experience any technical difficulties?
4. Make suggestions or comments to improve the survey experience.
5. How long did it take you to complete the survey?

To access the survey, use the following URL:

<<URL>>

If you are unable to complete the entire survey in one sitting, you may exit and return later using the above URL. To show our appreciation for your participation in this critical review, you will receive three (3) contact hours towards your recertification.

We ask you to complete the pilot test of the survey no later than October 25, 2015.

If you experience any difficulties while pilot testing the survey, please contact Professional Examination Service at ABPANC1@proexam.org.

Thank you in advance for taking the time to perform this critical review.

Jacqueline Carpenito
Research Director
Professional Examination Service
475 Riverside Drive
New York, NY 10115

Appendix B
Background of Pilot Test Participants

Which ABPANC credential do you currently hold? (Select all that apply.)

	N	%
CPAN	6	46.2%
CAPA	8	61.5%

What percentage of your work time in the past 12 months did you spend providing direct care to perianesthesia patients?

Mean	Minimum	Maximum	Standard Deviation
69%	0%	100%	(34.5)

In the following question, we ask that you allocate your direct patient care time to (A) each phase of the Perianesthesia Continuum of Care and (B) operations or procedures outside of the perianesthesia setting.

	Mean	Standard Deviation
What percentage of your direct patient care time was spent caring for patients: A. In each phase of the Perianesthesia Continuum of Care (Estimate the percentage of work time for each phase. Do not include time spent in procedures or assisting outside of the perianesthesia setting):		
Preanesthesia Phase – Preadmission	26%	(39.0)
Preanesthesia Phase – Day of Surgery/Procedure	32%	(34.3)
Postanesthesia Phase I	20%	(27.8)
Postanesthesia Phase II	14%	(18.0)
Direct Patient Care Work Time-Extended Observation (formerly known as Phase III):	2%	(3.4)
B. During operations or procedures outside of the perianesthesia setting	6%	(14.1)

What percentage of your patients falls into each of the following age ranges?

	Mean	Standard Deviation
Neonatal (up to 1 month gestation)	0%	(1.4)
Pediatric (up to 18 years)	18%	(30.0)
Adult (19 – 64 years)	48%	(19.4)
Geriatric (65+)	34%	(19.9)

How many years of nursing experience do you have overall?

Mean	Minimum	Maximum	Standard Deviation
29	10	43	(8.5)

How many years of perianesthesia nursing experience do you have?

Mean	Minimum	Maximum	Standard Deviation
13	7	26	(6.1)

How many years of experience do you have in an Inpatient PACU setting?

Mean	Minimum	Maximum	Standard Deviation
7	0	26	(8.7)

How many years of experience do you have in Ambulatory settings?

Mean	Minimum	Maximum	Standard Deviation
8	0	22	(6.0)

In what type of facility do you currently work?

	Count	Column N %
Community Hospital Nonprofit	5	38%
Community Hospital For Profit	0	0%
University Affiliated Medical Center	7	54%
Military Hospital	0	0%
Federal Hospital	0	0%
State Hospital	0	0%
Ambulatory Surgical Center Hospital	1	8%
Ambulatory Surgical Center Free Standing, Hospital Affiliated	1	8%
Ambulatory Surgical Center Free Standing, Private Affiliation	0	0%
Private Office	0	0%
Children's Hospital	2	15%
Other	0	0%

What is your present position?

	Count	Column N %
Staff Nurse	7	53.8%
Charge Nurse/Assistant	3	23.1%
Nurse Manager	1	7.7%
Nurse Manager	1	7.7%
Nurse Researcher	0	0.0%
Nurse Anesthetist	0	0.0%
Nurse	0	0.0%
Practitioner/Clinical	0	0.0%
Nurse Specialist	0	0.0%
Staff	0	0.0%
Development/Academic	1	7.7%
Instructor	1	7.7%
Other (Please specify)	1	7.7%

What is your current *nursing* employment status?

	N	%
Full time Part time	11	84.6%
Contingent/Per Diem	2	15.4%
Not employed	0	0.0%
	0	0.0%

What is the number of OR suites in the primary area(s) in which you work?

	N	%
Less than 5	0	0.0%
5-10	6	46.2%
11-15	1	7.7%
16-20	2	15.4%
More than 20	4	30.8%

Are you required to "float" between traditional Inpatient PACU and Ambulatory settings?

	N	%
Yes	6	46.2%
No	7	53.8%

Are you required to "float" to any special procedure units?

	N	%
Yes	2	16.7%
No	10	83.3%

Are you required to "float" to preadmission testing?

	N	%
Yes	2	16.7%
No	10	83.3%

Which of the following is the highest academic degree you hold in nursing?

	N	%
Diploma Associate	0	0.0%
Degree Baccalaureate	4	30.8%
Degree Masters	6	46.2%
Degree	3	23.1%
Doctoral Degree	0	0.0%

In what state or territory do you work?

	N	%
Colorado	2	15.4%
Kansas	1	7.7%
Maryland	3	23.1%
Massachusetts	1	7.7%
Minnesota	2	15.4%
Oklahoma	2	15.4%
Texas	2	15.4%

Appendix 5
Demographic Background of Survey Respondents

ABPANC Certification Held

	N	%
CPAN	504	44%
CAPA	510	44%
Dual Certified	134	12%
Total	1148	100%

**Percentage of Work Time Spent Providing
Direct Care to Perianesthesia Patients**

CPAN		CAPA		Dual		Total	
Mean	SD	Mean	SD	Mean	SD	Mean	SD
87%	22.7	86%	22.7	86%	22.4	87%	22.6

Direct Patient Care (Percentage of time categories)

	CPAN		CAPA		Dual		Total	
	N	%	N	%	N	%	N	%
0%	3	1%	4	1%	0	0%	7	1%
1-19%	12	2%	11	2%	2	1%	25	2%
20-39%	17	3%	14	3%	4	3%	35	3%
40-59%	21	4%	33	6%	13	10%	67	6%
60-79%	38	8%	36	7%	14	10%	88	8%
80-100%	413	82%	412	81%	101	75%	926	81%

Percentage of Time Spent in Anesthesia Phases

	CPAN			CAPA			Dual		
	Mean	SD	Med	Mean	SD	Med	Mean	SD	Med
What percentage of your direct patient care time was spent caring for patients:									
A. In each phase of the Perianesthesia Continuum of Care (Estimate the percentage of work time for each phase. Do not include time spent in procedures or assisting outside of the perianesthesia setting)									
Preanesthesia Phase – Preadmission	11%	25.7	0%	16%	26.6	5%	12%	21.3	5%
Preanesthesia Phase – Day of Surgery/Procedure	12%	16.5	5%	39%	29.2	35%	22%	20.8	20%
Postanesthesia Phase I	59%	32.7	70%	18%	22.5	10%	40%	26.9	40%
Postanesthesia Phase II	14%	15.9	10%	23%	19.4	20%	22%	14.8	21%
Extended Observation (formerly known as Phase III)	2%	4.9	0%	3%	7.5	0%	2%	5.4	0%
B. During operations or procedures outside of the perianesthesia setting	1%	5.7	0%	2%	7.8	0%	1%	4.9	0%

Percentage of Patients in Each Age Range

	CPAN			CAPA			Dual			Total		
	Mean	SD	Med	Mean	SD	Med	Mean	SD	Med	Mean	SD	Med
Neonatal (up to 1 month gestation)	1%	2.9	0%	1%	2.0	0%	1%	3.3	0%	1%	2.6	0%
Pediatric (up to 18 years)	14%	15.4	10%	14%	14.5	10%	17%	18.0	10%	14%	15.4	10%
Adult (19 – 64 years)	50%	15.7	50%	50%	15.5	50%	50%	16.9	50%	50%	15.8	50%
Geriatric (65+)	35%	15.0	36%	36%	15.3	36%	32%	15.3	32%	35%	15.2	35%

Years of Nursing Experience

CPAN		CAPA		Dual		Total	
Mean	SD	Mean	SD	Mean	SD	Mean	SD
28	10.7	30	9.8	31	9.4	29	10.2

Years of Nursing Experience (Years of experience categories)

	CPAN		CAPA		Dual		Total		ABPANC Database		
	N	%	N	%	N	%	N	%	CPAN	CAPA	Dual
None	0	0%	0	0%	0	0%	0	0%	2%	1%	1%
1-4 years	4	1%	3	1%	0	0%	7	1%	3%	2%	1%
5-9 years	27	5%	19	4%	3	2%	49	4%	5%	3%	4%
10-14 years	41	8%	22	4%	5	4%	68	6%	9%	7%	5%
15-19 years	51	10%	40	8%	13	10%	104	9%	13%	11%	12%
20 or more years	380	76%	425	83%	113	84%	918	80%	68%	76%	77%

Years of Perianesthesia Nursing Experience

CPAN		CAPA		Dual		Total	
Mean	SD	Mean	SD	Mean	SD	Mean	SD
17	9.4	18	8.6	21	8.9	18	9.1

Years of Perianesthesia Nursing Experience (Years of experience categories)

	CPAN		CAPA		Dual		Total	
	N	%	N	%	N	%	N	%
None	0	0%	0	0%	0	0%	0	0%
1-4 years	31	6%	21	4%	1	1%	53	5%
5-9 years	86	17%	64	13%	10	8%	160	14%
10-14 years	103	21%	95	19%	19	14%	217	19%
15-19 years	95	19%	118	23%	36	27%	249	22%
20 or more years	187	37%	211	41%	66	50%	464	41%

Years of Experience in Inpatient PACU setting

CPAN		CAPA		Dual		Total	
Mean	SD	Mean	SD	Mean	SD	Mean	SD
16	9.2	7	8.0	18	10.3	12	10.1

Years of Experience in Inpatient PACU setting (Years of experience categories)

	CPAN		CAPA		Dual		Total		ABPANC Database		
	N	%	N	%	N	%	N	%	CPAN	CAPA	Dual
None	9	2%	182	36%	1	1%	192	17%	0%	31%	1%
1-4 years	36	7%	79	16%	5	4%	120	11%	13%	16%	10%
5-9 years	93	19%	83	17%	25	19%	201	18%	22%	16%	18%
10-14 years	101	20%	75	15%	26	19%	202	18%	21%	14%	18%
15-19 years	98	20%	34	7%	28	21%	160	14%	16%	10%	18%
20 or more years	164	33%	50	10%	49	37%	263	23%	28%	13%	33%

Years of Experience in Ambulatory Setting

CPAN		CAPA		Dual		Total	
Mean	SD	Mean	SD	Mean	SD	Mean	SD
7	8.3	14	8.3	13	9.1	11	9.1

Years of Experience in Ambulatory Setting (Years of experience categories)

	CPAN		CAPA		Dual		Total		ABPANC Database		
	N	%	N	%	N	%	N	%	CPAN	CAPA	Dual
None	170	34%	23	5%	12	9%	205	18%	23%	1%	2%
1-4 years	100	20%	43	9%	16	12%	159	14%	24%	11%	12%
5-9 years	78	16%	89	18%	24	18%	191	17%	19%	22%	24%
10-14 years	55	11%	104	21%	27	20%	186	16%	14%	25%	20%
15-19 years	39	8%	104	21%	26	19%	169	15%	9%	19%	20%
20 or more years	51	10%	140	28%	29	22%	220	19%	11%	22%	22%

Type of Facility¹

	CPAN		CAPA		Dual		Total	
	N	%	N	%	N	%	N	%
Community Hospital Nonprofit	282	56%	215	42%	70	52%	567	50%
Community Hospital For Profit	65	13%	54	11%	14	10%	133	12%
University Affiliated Medical Center	111	22%	81	16%	25	19%	217	19%
Military Hospital	3	1%	3	1%	1	1%	7	1%
Federal Hospital	12	2%	2	0%	4	3%	18	2%
State Hospital	4	1%	3	1%	0	0%	7	1%
Ambulatory Surgical Center Hospital	33	7%	94	19%	15	11%	142	12%
Ambulatory Surgical Center Free Standing, Hospital Affiliated	25	5%	86	17%	17	13%	128	11%
Ambulatory Surgical Center Free Standing, Private Affiliation	16	3%	25	5%	7	5%	48	4%
Private Office	1	0%	4	1%	0	0%	5	0%
Children's Hospital	19	4%	11	2%	4	3%	34	3%
Other	10	2%	19	4%	6	4%	35	3%

Present Position

	CPAN		CAPA		Dual		Total		ABPANC Database		
	N	%	N	%	N	%	N	%	CPAN	CAPA	Dual
Staff Nurse	347	70%	336	66%	83	62%	766	68%	80%	78%	72%
Charge Nurse/Assistant Nurse Manager	78	16%	90	18%	20	15%	188	17%	10%	12%	11%
Nurse Manager	32	7%	33	7%	11	8%	76	7%	6%	7%	11%
Nurse Researcher	0	0%	0	0%	0	0%	0	0%	0%	0%	0%
Nurse Anesthetist	0	0%	0	0%	0	0%	0	0%	0%	0%	0%
Nurse Practitioner/Clinical Nurse Specialist	4	1%	4	1%	1	1%	9	1%	1%	0%	1%
Staff Development/Academic Instructor	10	2%	8	2%	7	5%	25	2%	1%	1%	2%
Other (Please specify)	23	4.7%	35	7%	11	8%	69	6%	0%	0%	0%

¹ Multiple responses allowed. Totals may not equal 100%

Current Nursing Employment Status

	CPAN		CAPA		Dual		Total		ABPANC Database		
	N	%	N	%	N	%	N	%	CPAN	CAPA	Dual
Full time	371	75%	364	72%	107	80%	842	74%	78%	74%	78%
Part time	95	19%	114	23%	18	13%	227	20%	3%	3%	5%
Contingent/Per Diem	27	5%	23	5%	8	6%	58	5%	18%	23%	16%
Not employed	4	1%	4	1%	1	1%	9	1%	1%	1%	1%

Number of OR Suites in Primary Area(s) of Work

	CPAN		CAPA		Dual		Total	
	N	%	N	%	N	%	N	%
Less than 5	39	8%	101	20%	18	13%	158	14%
5-10	155	31%	181	36%	49	37%	385	34%
11-15	110	22%	87	17%	29	22%	226	20%
16-20	80	16%	59	12%	15	11%	154	14%
More than 20	113	23%	77	15%	23	17%	213	19%

Float between Traditional Inpatient PACU and Ambulatory Settings

	CPAN		CAPA		Dual		Total	
	N	%	N	%	N	%	N	%
Yes	222	44%	149	30%	89	67%	460	41%
No	277	56%	351	70%	44	33%	672	59%

Float to Any Special Procedure Units

	CPAN		CAPA		Dual		Total	
	N	%	N	%	N	%	N	%
Yes	100	20%	117	23%	33	25%	250	22%
No	389	80%	385	77%	101	75%	875	78%

Float to Preadmission Testing

	CPAN		CAPA		Dual		Total	
	N	%	N	%	N	%	N	%
Yes	81	16%	191	38%	45	34%	317	28%
No	416	84%	313	62%	89	66%	818	72%

Highest Academic Degree in Nursing

	CPAN		CAPA		Dual		Total	
	N	%	N	%	N	%	N	%
Diploma	52	10%	56	11%	12	9%	120	11%
Associate Degree	78	16%	101	20%	19	14%	198	17%
Baccalaureate Degree	298	60%	304	60%	80	60%	682	60%
Masters Degree	66	13%	45	9%	22	17%	133	12%
Doctoral Degree	4	1%	1	0%	0	0%	5	0%

State or Territory

	CPAN		CAPA		Dual		Total	
	N	%	N	%	N	%	N	%
Alabama	5	1%	1	0%	1	1%	7	1%
Alaska	1	0%	0	0%	0	0%	1	0%
Arizona	7	1%	13	3%	4	3%	24	2%
Arkansas	1	0%	0	0%	1	1%	2	0%
California	37	7%	18	4%	7	5%	62	5%
Colorado	17	3%	13	3%	7	5%	37	3%
Connecticut	4	1%	11	2%	5	4%	20	2%
Delaware	1	0%	6	1%	0	0%	7	1%
District of Columbia	1	0%	2	0%	1	1%	4	0%
Florida	22	4%	18	4%	5	4%	45	4%
Georgia	8	2%	15	3%	4	3%	27	2%
Hawaii	3	1%	3	1%	2	1%	8	1%
Idaho	3	1%	4	1%	1	1%	8	1%
Illinois	32	6%	25	5%	4	3%	61	5%
Indiana	10	2%	14	3%	4	3%	28	2%
Iowa	2	0%	8	2%	0	0%	10	1%
Kansas	1	0%	4	1%	1	1%	6	1%
Kentucky	7	1%	6	1%	0	0%	13	1%
Louisiana	3	1%	9	2%	0	0%	12	1%
Maine	3	1%	4	1%	1	1%	8	1%
Maryland	18	4%	7	1%	1	1%	26	2%

	CPAN		CAPA		Dual		Total	
	N	%	N	%	N	%	N	%
Massachusetts	23	5%	13	3%	8	6%	44	4%
Michigan	11	2%	11	2%	3	2%	25	2%
Minnesota	11	2%	10	2%	6	4%	27	2%
Mississippi	2	0%	3	1%	0	0%	5	0%
Missouri	12	2%	9	2%	2	1%	23	2%
Montana	2	0%	5	1%	0	0%	7	1%
Nebraska	3	1%	3	1%	1	1%	7	1%
Nevada	5	1%	4	1%	1	1%	10	1%
New Hampshire	0	0%	9	2%	3	2%	12	1%
New Jersey	20	4%	22	4%	6	4%	48	4%
New Mexico	3	1%	6	1%	2	1%	11	1%
New York	43	9%	36	7%	7	5%	86	8%
North Carolina	22	4%	24	5%	3	2%	49	4%
North Dakota	1	0%	2	0%	0	0%	3	0%
Ohio	18	4%	23	5%	6	4%	47	4%
Oklahoma	6	1%	3	1%	0	0%	9	1%
Oregon	16	3%	10	2%	3	2%	29	3%
Pennsylvania	28	6%	18	4%	5	4%	51	4%
Puerto Rico	0	0%	0	0%	0	0%	0	0%
Rhode Island	0	0%	4	1%	0	0%	4	0%
South Carolina	11	2%	9	2%	1	1%	21	2%
South Dakota	0	0%	0	0%	0	0%	0	0%
Tennessee	8	2%	4	1%	1	1%	13	1%
Texas	22	4%	31	6%	17	13%	70	6%
Utah	0	0%	1	0%	0	0%	1	0%
Vermont	0	0%	2	0%	0	0%	2	0%
Virginia	16	3%	20	4%	6	4%	42	4%
Washington	13	3%	16	3%	2	1%	31	3%
West Virginia	0	0%	0	0%	0	0%	0	0%
Wisconsin	11	2%	21	4%	1	1%	33	3%
Wyoming	1	0%	6	1%	1	1%	8	1%

Appendix 6 Task Ratings

Task Ratings

Frequency How frequently did you perform the task related to meeting patient needs during the past 12 months?

1= *Never*; 2= *Rarely (annually, semi-annually, quarterly)*; 3= *Occasionally (monthly/almost monthly)* 4= *Frequently (weekly/almost weekly)*; 5= *Very frequently (daily/almost daily)*

Frequency Ratings for Tasks Addressing Patient Needs

	CPAN		CAPA	
	M	SD	M	SD
Tasks Addressing Physiological Needs				
Assess, diagnose, plan, intervene, and evaluate in order to promote:				
10.17 stability of the respiratory system	4.9	.4	4.8	.6
10.18 stability of the cardiovascular and peripheral vascular systems	4.8	.6	4.7	.7
10.19 stability of the neurological system	4.5	.8	4.4	.9
10.20 stability of the musculoskeletal system	4.5	.7	4.5	.8
10.21 stability of the gastrointestinal system	4.3	.9	4.3	.9
10.22 stability of the renal system	4.3	.8	4.2	1.0
10.23 stability of the integumentary system	4.4	.9	4.3	.9
10.24 stability of the endocrine system	4.1	1.0	4.0	1.1
10.25 stability of the genito-urological and reproductive systems	4.0	1.0	3.8	1.1
10.26 stability of the hematologic and immune systems	3.9	1.0	3.9	1.1
10.27 stability of the ophthalmological system/otorhinolaryngology	3.6	1.1	3.6	1.1
10.28 stability of fluid and electrolyte levels	4.6	.7	4.4	.8
10.29 maintenance of normothermia	4.8	.5	4.6	.8
10.30 an appropriate medication regimen (including, but not limited to, minimal interruption of normal medication regimen and preemptive interventions)	4.5	.8	4.5	.8
10.31 physiological comfort (including, but not limited to, relief from pain, shivering, nausea and vomiting; and appropriate positioning)	4.9	.4	4.8	.7
10.32 a therapeutic environment (including, but not limited to, minimal interruption of normal regimen and preemptive interventions)	4.4	.8	4.4	.8
Tasks Addressing Behavioral Health and Cognitive Needs				
20.06 Recognize and respect patient/family/significant other diversity (including, but not limited to, age, sex, race, religion, national origin, ethnicity, disability, marital status, sexual orientation, and gender identity)	4.6	.6	4.7	.6
20.07 Provide and maintain patient privacy and confidentiality	4.9	.4	4.9	.4
20.08 Provide psychosocial support to patient/family/significant other (including, but not limited to, coping mechanisms, spiritual and emotional support, and facilitating visitation)	4.6	.7	4.7	.6

	CPAN		CAPA	
	M	SD	M	SD
20.09 Assess patient's/family's/significant others' ability to learn, learning style (including, but not limited to, kinetic, auditory, and visual), readiness to learn, and barriers to learning	4.4	.8	4.7	.6
20.10 Provide patient/family/significant other education and evaluate understanding related to the perianesthesia /procedural experience	4.5	.8	4.8	.5
Tasks Addressing Safety Needs				
30.01 Deliver, document, and communicate care based on accepted national standards of perianesthesia nursing practice and applicable laws, guidelines, and regulations	4.8	.4	4.8	.5
30.02 Protect the patient from harm and take preventive measures related to:				
01 immobility and/or positioning	4.7	.6	4.6	.7
02 adverse environmental influences (including, but not limited to, latex and/or equipment failure)	4.5	.8	4.6	.7
03 exposure to infectious diseases	4.5	.8	4.4	.9
30.03 Protect the patient from harm through the use of protective safety devices and equipment	4.6	.7	4.6	.8
30.04 Facilitate patient access to appropriate resources and referrals (including, but not limited to, medical equipment, pharmaceutical care, spiritual services, nutritional education, physical/occupational therapy, case management/social services, and language services)	3.9	1.0	4.1	1.0
30.05 Develop and implement effective multidisciplinary perianesthesia plan of care that addresses:				
01 verbal and written instructions (including, but not limited to, preparations for procedures/surgery, potential complications, activity, diet, wound care, and post-discharge care)	4.4	1.0	4.8	.6
02 pain management	4.9	.4	4.8	.5
03 medication reconciliation (including but not limited to, when to discontinue or resume; and interactions with prescriptions, over the counter medications, herbal supplements, alcohol, illicit drugs)	4.3	1.1	4.7	.7
04 existing medical conditions (including, but not limited to, diabetes, COPD, hypertension, and OSA) on the current surgery/procedure	4.7	.6	4.8	.6
05 optimization of the healing process (including, but not limited to, nutrition, hydration, smoking cessation, and alternative therapies)	4.1	1.0	4.4	.9
06 prevention of infection	4.7	.6	4.8	.5
07 measures to prevent complications	4.7	.6	4.8	.6
08 the availability of resources for care in the home, including the presence of a responsible adult caregiver	3.9	1.2	4.4	.9

	CPAN		CAPA	
	M	SD	M	SD
09 a safe home environment	3.5	1.3	4.1	1.1
10 safe transport to the home or discharge care site	3.9	1.3	4.6	.9
30.06 Perform post-discharge assessment (follow-up contact)	3.4	1.6	4.1	1.4

What level of harm could result if the perianesthesia nurse either omitted or incorrectly performed the task?

1=No Harm: *it doesn't matter*

2=Minimal Harm: *missed opportunity for optimal care/intervention; inconvenience to patient; may decrease satisfaction but will not injure patient*

3=Moderate Harm: *may contribute to poor outcome or prolonged length of stay but not life threatening*

4=Considerable Harm: *may cause immediate complication/injury to patient; may result in death; unsafe level of care*

Harm Ratings for Tasks Addressing Patient

	CPAN		CAPA	
	M	SD	M	SD
Tasks Addressing Physiological Needs				
Assess, diagnose, plan, intervene, and evaluate in order to promote:				
10.01 stability of the respiratory system	3.9	.4	3.8	.5
10.02 stability of the cardiovascular and peripheral vascular systems	3.9	.4	3.8	.5
10.03 stability of the neurological system	3.8	.6	3.6	.6
10.04 stability of the musculoskeletal system	3.4	.7	3.3	.7
10.05 stability of the gastrointestinal system	3.2	.7	3.1	.7
10.06 stability of the renal system	3.5	.7	3.4	.7
10.07 stability of the integumentary system	3.2	.7	3.1	.8
10.08 stability of the endocrine system	3.3	.8	3.3	.8
Assess, diagnose, plan, intervene, and evaluate in order to promote:				
10.09 stability of the genito-urological and reproductive systems	3.1	.8	3.0	.8
10.10 stability of the hematologic and immune systems	3.3	.7	3.3	.7
10.11 stability of the ophthalmological system/otorhinolaryngology	2.9	.8	2.8	.8
10.12 stability of fluid and electrolyte levels	3.7	.6	3.6	.6
10.13 maintenance of normothermia	3.5	.7	3.4	.7
10.14 an appropriate medication regimen (including, but not limited to, minimal interruption of normal medication regimen and preemptive interventions)	3.4	.7	3.4	.7
10.15 physiological comfort (including, but not limited to, relief from pain, shivering, nausea and vomiting; and appropriate positioning)	3.4	.7	3.3	.7

	CPAN		CAPA	
	M	SD	M	SD
10.16 a therapeutic environment (including, but not limited to, minimal interruption of normal regimen and preemptive interventions)	2.8	.8	2.8	.9
Tasks Addressing Behavioral Health and Cognitive Needs				
20.01 Recognize and respect patient/family/significant other diversity (including, but not limited to, age, sex, race, religion, national origin, ethnicity, disability, marital status, sexual orientation, and gender identity)	2.8	.8	2.8	.9
20.02 Provide and maintain patient privacy and confidentiality	3.1	.9	3.1	.9
20.03 Provide psychosocial support to patient/family/significant other (including, but not limited to, coping mechanisms, spiritual and emotional support, and facilitating visitation)	2.9	.8	3.0	.8
20.04 Assess patient's/family's/significant others' ability to learn, learning style (including, but not limited to, kinetic, auditory, and visual), readiness to learn, and barriers to learning	3.2	.8	3.2	.8
20.05 Provide patient/family/significant other education and evaluate understanding related to the perianesthesia /procedural experience	3.1	.8	3.2	.8
Tasks Addressing Safety Needs				
30.01 Deliver, document, and communicate care based on accepted national standards of perianesthesia nursing practice and applicable laws, guidelines, and regulations	3.5	.7	3.4	.7
30.02 Protect the patient from harm and take preventive measures related to:				
01 immobility and/or positioning	3.5	.6	3.5	.7
02 adverse environmental influences (including, but not limited to, latex and/or equipment failure)	3.6	.6	3.6	.6
03 exposure to infectious diseases	3.6	.6	3.6	.7
30.03 Protect the patient from harm through the use of protective safety devices and equipment	3.6	.6	3.6	.7
30.04 Facilitate patient access to appropriate resources and referrals (including, but not limited to, medical equipment, pharmaceutical care, spiritual services, nutritional education, physical/occupational therapy, case management/social services, and language services)	3.0	.8	3.0	.8
30.05 Develop and implement effective multidisciplinary perianesthesia plan of care that addresses:				
01 verbal and written instructions (including, but not limited to, preparations for procedures/surgery, potential complications, activity, diet, wound care, and post-discharge care)	3.5	.7	3.5	.7
02 pain management	3.5	.6	3.4	.7

	CPAN		CAPA	
	M	SD	M	SD
03 medication reconciliation (including but not limited to, when to discontinue or resume; and interactions with prescriptions, over the counter medications, herbal supplements, alcohol, illicit drugs)	3.6	.7	3.6	.6
04 existing medical conditions (including, but not limited to, diabetes, COPD, hypertension, and OSA) on the current surgery/procedure	3.6	.6	3.6	.6
05 optimization of the healing process (including, but not limited to, nutrition, hydration, smoking cessation, and alternative therapies)	3.1	.8	3.1	.8
06 prevention of infection	3.7	.6	3.6	.6
07 measures to prevent complications	3.7	.6	3.6	.6
08 the availability of resources for care in the home, including the presence of a responsible adult caregiver	3.4	.7	3.4	.7
09 a safe home environment	3.3	.8	3.3	.7
10 safe transport to the home or discharge care site	3.4	.8	3.5	.7
30.06 Perform post-discharge assessment (follow-up contact)	2.9	.9	2.9	.9

Appendix 7
Knowledge Ratings

Knowledge Ratings

Frequency How frequently did you use this knowledge during the past 12 months in your work as a perianesthesia nurse?

1= Never; 2= Rarely (annually, semi-annually, quarterly); 3= Occasionally (monthly/almost monthly) 4=Frequently (weekly/almost weekly); 5=Very frequently (daily/almost daily)

Frequency Ratings for Perianesthesia Nursing Knowledge

	CPAN		CAPA	
	M	SD	M	SD
K43. Nursing process	4.4	.8	4.5	.8
K44. Evidence-based practice	4.4	.7	4.4	.8
K45. Anatomy and physiology of body systems	4.8	.5	4.7	.6
K46. Growth and development across the lifespan	4.1	.9	4.1	.9
K47. Pathophysiology	4.5	.7	4.4	.8
K48. Normal and abnormal diagnostic values	4.6	.6	4.5	.7
K49. Acceptable deviations from normal physiologic states	4.6	.6	4.5	.7
K50. Comorbidities/potential complications	4.6	.6	4.6	.6
K51. Airway management	4.9	.4	4.6	.8
K52. Vital signs/hemodynamic monitoring	4.9	.3	4.8	.5
K53. Fluid and electrolyte management	4.8	.5	4.6	.7
K54. Thermoregulation	4.8	.4	4.7	.7
K55. Acute and chronic pain assessment and management	4.9	.3	4.8	.5
K56. Post-operative nausea and vomiting (PONV) and post-discharge nausea and vomiting (PDNV) assessment and management	4.8	.4	4.7	.8
K57. Physical assessment	4.9	.4	4.8	.5
K58. Positioning	4.6	.6	4.5	.8
K59. Pharmacodynamics/pharmacokinetics	4.6	.7	4.5	.8
K60. Pharmacological interventions	4.8	.5	4.6	.7
K61. Anesthesia techniques (general, regional, moderate sedation, monitored anesthesia care (MAC), total intravenous anesthesia (TIVA))	4.8	.5	4.7	.7
K62. Anesthetic and reversal agents	4.6	.7	4.2	1.1
K63. Stages of anesthesia	4.4	.8	4.0	1.2
K64. Perianesthesia Continuum of Care (preadmission, day of surgery/procedure, Phase I, Phase 2, extended observation)	4.6	.7	4.7	.6
K65. Surgical and procedural interventions	4.7	.7	4.6	.8
K66. American Society Anesthesiologists (ASA) physical status classification system	4.3	.9	4.1	1.1

	CPAN		CAPA	
	M	SD	M	SD
K67. Normal and abnormal physical response to surgery/procedure/anesthesia	4.8	.4	4.7	.7
K68. Environmental factors affecting patient care (including, but not limited to, noise, temperature, air flow, latex, and equipment failure)	4.6	.6	4.6	.7
K69. Alternative and adjunctive treatment modalities	4.2	.9	4.0	1.0
K70. Discharge planning and criteria	4.3	1.0	4.6	.8
K71. Diversity (including but not limited to age, sex, race, religion, national origin, disability, marital status, sexual orientation, and gender identity)	4.3	.8	4.4	.8
K72. Psychosocial factors (including but not limited to coping styles, life situations, religious/spiritual, and culture)	4.2	.8	4.3	.8
K73. Teaching and learning theories	4.0	1.0	4.1	1.0
K74. Communication principles and techniques	4.4	.8	4.5	.8
K75. Behavioral health considerations (including, but not limited to, addiction, autism spectrum disorders, depression, anxiety, bipolar disorder, and PTSD)	4.1	.9	4.1	.9
K76. Multidisciplinary collaboration and referral	4.1	.9	4.0	1.0
K77. ACLS and PALS	4.1	1.0	3.8	1.3
K78. MHAUS guidelines/protocol	3.0	1.5	2.8	1.5
K79. ASPAN Standards	4.6	.7	4.5	.8
K80. Regulatory, legal, and ethical guidelines (for example, Patient Bill of Rights, advance directives, informed consent, HIPAA, and the Americans with Disabilities Act)	4.3	.9	4.5	.8
K81. Measures to maintain privacy and confidentiality	4.8	.4	4.8	.4
K82. Injury prevention	4.8	.5	4.8	.5
K83. Infection prevention and control	4.8	.4	4.8	.5
K84. Quality and risk management principles and guidelines	4.4	.8	4.5	.7

Level of Usage What level best represents your use of this knowledge in your work as a perianesthesia nurse?

**Do not use the knowledge
Recognize/Recall the knowledge
Apply/interpret/integrate the knowledge**

**Level of Usage Ratings for
Perianesthesia Nursing Knowledge**

	CPAN			CAPA		
	Do not use %	Recognize/ Recall %	Apply/ Interpret/Integrate %	Do not use %	Recognize/ Recall %	Apply/ Interpret/Integrate %
K1. Nursing process	2.9%	20.7%	76.4%	1.1%	22.0%	76.9%
K2. Evidence-based practice	1.1%	21.1%	77.8%	1.1%	23.6%	75.3%
K3. Anatomy and physiology of body systems	0.3%	16.5%	83.1%	0.2%	21.8%	78.0%
K4. Growth and development across the lifespan	1.6%	43.7%	54.7%	1.7%	45.9%	52.4%
K5. Pathophysiology	0.2%	24.5%	75.3%	0.3%	28.9%	70.8%
K6. Normal and abnormal diagnostic values	0.5%	16.2%	83.3%	0.0%	19.2%	80.8%
K7. Acceptable deviations from normal physiologic states	0.5%	20.1%	79.5%	0.3%	22.3%	77.4%
K8. Comorbidities/potential complications	0.6%	16.6%	82.8%	0.3%	18.5%	81.2%
K9. Airway management	0.2%	3.0%	96.8%	1.1%	7.6%	91.3%
K10. Vital signs/hemodynamic monitoring	0.2%	3.1%	96.8%	0.6%	4.1%	95.3%
K11. Fluid and electrolyte management	0.5%	9.2%	90.4%	0.8%	14.1%	85.1%
K12. Thermoregulation	0.3%	6.6%	93.1%	1.0%	10.5%	88.5%
K13. Acute and chronic pain assessment and management	0.2%	3.1%	96.8%	0.3%	5.4%	94.3%

	CPAN			CAPA		
	Do not use %	Recognize/ Recall %	Apply/ Interpret/Integrate %	Do not use %	Recognize/ Recall %	Apply/ Interpret/Integrate %
K14. Post-operative nausea and vomiting (PONV) and post-discharge nausea and vomiting (PDNV) assessment and management	0.2%	3.9%	96.0%	1.6%	7.2%	91.2%
K15. Physical assessment	0.0%	4.2%	95.8%	0.6%	7.1%	92.2%
K16. Positioning	0.3%	13.7%	86.0%	1.4%	18.6%	80.0%
K17. Pharmacodynamics/pharmacokinetics	0.5%	25.9%	73.6%	1.3%	31.2%	67.6%
K18. Pharmacological interventions	0.0%	10.3%	89.7%	1.1%	16.9%	82.0%
K19. Anesthesia techniques (general, regional, moderate sedation, monitored anesthesia care (MAC), total intravenous anesthesia (TIVA))	0.5%	21.0%	78.5%	1.3%	24.6%	74.2%
K20. Anesthetic and reversal agents	1.0%	26.0%	73.1%	4.6%	35.9%	59.5%
K21. Stages of anesthesia	2.1%	36.4%	61.5%	7.6%	39.8%	52.6%
K22. Perianesthesia Continuum of Care (preadmission, day of surgery/procedure, Phase I, Phase 2, extended observation)	0.5%	19.7%	79.8%	0.8%	13.0%	86.2%
K23. Surgical and procedural interventions	1.1%	19.0%	79.9%	2.1%	20.1%	77.8%
K24. American Society Anesthesiologists (ASA) physical status classification system	2.7%	42.1%	55.1%	6.7%	41.2%	52.1%
K25. Normal and abnormal physical response to surgery/procedure/anesthesia	0.0%	8.6%	91.4%	0.9%	12.3%	86.7%

	CPAN			CAPA		
	Do not use %	Recognize/ Recall %	Apply/ Interpret/Integrate %	Do not use %	Recognize/ Recall %	Apply/ Interpret/Integrate %
K26. Environmental factors affecting patient care (including, but not limited to, noise, temperature, air flow, latex, and equipment failure)	0.0%	18.1%	81.9%	1.0%	18.4%	80.7%
K27. Alternative and adjunctive treatment modalities	1.8%	33.7%	64.6%	4.1%	38.8%	57.1%
K28. Discharge planning and criteria	2.9%	18.4%	78.7%	1.8%	12.8%	85.4%
K29. Diversity (including but not limited to age, sex, race, religion, national origin, disability, marital status, sexual orientation, and gender identity)	0.2%	31.1%	68.7%	0.5%	26.4%	73.1%
K30. Psychosocial factors (including but not limited to coping styles, life situations, religious/spiritual, and culture)	0.3%	35.6%	64.1%	0.8%	32.6%	66.6%
K31. Teaching and learning theories	4.3%	41.5%	54.2%	3.8%	35.5%	60.7%
K32. Communication principles and techniques	0.5%	29.0%	70.5%	1.9%	26.0%	72.1%
K33. Behavioral health considerations (including, but not limited to, addiction, autism spectrum disorders, depression, anxiety, bipolar disorder, and PTSD)	1.8%	39.4%	58.9%	1.8%	40.8%	57.4%
K34. Multidisciplinary collaboration and referral	2.4%	33.9%	63.7%	3.8%	34.2%	62.0%
K35. ACLS and PALS	0.6%	22.5%	76.9%	4.9%	33.1%	62.0%

	CPAN			CAPA		
	Do not use %	Recognize/ Recall %	Apply/ Interpret/Integrate %	Do not use %	Recognize/ Recall %	Apply/ Interpret/Integrate %
K36. MHAUS guidelines/protocol	15.9%	46.3%	37.9%	22.8%	46.9%	30.2%
K37. ASPAN Standards	0.3%	18.0%	81.7%	1.6%	24.4%	74.0%
K38. Regulatory, legal, and ethical guidelines (for example, Patient Bill of Rights, advance directives, informed consent, HIPAA, and the Americans with Disabilities Act)	0.6%	34.8%	64.6%	0.6%	26.6%	72.8%
K39. Measures to maintain privacy and confidentiality	0.0%	10.3%	89.7%	0.2%	10.7%	89.1%
K40. Injury prevention	0.2%	11.6%	88.3%	0.2%	10.6%	89.2%
K41. Infection prevention and control	0.0%	9.2%	90.8%	0.2%	11.3%	88.5%
K42. Quality and risk management principles and guidelines	1.1%	32.3%	66.6%	1.1%	31.9%	67.0%

Appendix 8
ABPANC Board of Directors

Name/Credentials	Highest Degree Held in Nursing	# Yrs Exp in Nsg.	# Yrs Exp in PACU	# Yrs Certified	Position Held	Name of Employer, City, State
LINDA D. LAKDAWALA, DNP, RN, CPAN	DNP	39	25	14	Advanced Clinical Education Specialist	UPMC Shadyside Hospital Pittsburgh, PA
ANNETTE BRANCATI, RN, CPAN	Diploma	34	19	9	Previously Staff Nurse in PACU	Was not employed at the time of RDS
MARIA C. (“Zoni”) GAZY, MSN, RN, CAPA, NE-BC RN	MSN	38	7	8	Department Director	Emory University Hospital Atlanta, GA
CELESTINE (“Celeste”) P. JONES, BSN, RN, MHA, MBA, CAPA	BSN	29	19	8	Assistant Nurse Manager	MD Anderson Cancer Center Houston, TX
CIDALIA J. VITAL, MS, RN, CNL, CPAN	MS	13	9.5	7.5	Perianesthesia CNS and Educator	Bay State Medical Center Springfield, MA
LAURA B. WILLIAMS, MSN, RN, CPAN	MSN	26	26	8	CNS	Caromont Health, Gaston Memorial Hospital Gastonia, NC
VASSO G. (“Vicki”) YFANTIS, MSN, RN, CRNP, CPAN	MSN	19	18	16	NP; Per Diem Staff Nurse	Shady Grove Adventist Hospital Rockville, MD

Appendix 9
Final Updated Test Blueprint

ROLE DELINEATION AND RUBRIC CLASSIFICATION FOR THE AMERICAN BOARD OF PERIANESTHESIA NURSING CERTIFICATION CPAN® AND CAPA® EXAMINATIONS

All content in the role delineation reflects advocating on behalf of patients across the lifespan to address their physiological, behavioral health, cognitive, and safety needs in a variety of settings throughout the Perianesthesia Continuum of Care.

TASKS ADDRESSING PERIANESTHESIA PATIENT NEEDS

10 TASKS ADDRESSING PHYSIOLOGICAL NEEDS (57% CPAN; 50% CAPA)

Knowledge K1–K27, K33–K38, K40, K41

Assess, diagnose, plan, intervene, and evaluate in order to promote:

10.01 stability of the respiratory system

10.02 stability of the cardiovascular and peripheral vascular systems

10.03 stability of the neurological system

10.04 stability of the musculoskeletal system

10.05 stability of the gastrointestinal system

10.06 stability of the renal system

10.07 stability of the integumentary system

10.08 stability of the endocrine system

10.09 stability of the genito-urological and reproductive systems

10.10 stability of the hematologic and immune systems

10.11 stability of the ophthalmological system/otorhinolaryngology

10.12 stability of fluid and electrolyte levels

10.13 maintenance of normothermia

10.14 an appropriate medication regimen (including, but not limited to, minimal interruption of normal medication regimen and preemptive interventions)

10.15 physiological comfort (including, but not limited to, relief from pain, shivering, nausea and vomiting; and appropriate positioning)

10.16 a therapeutic environment (including, but not limited to, minimal interruption of normal regimen and preemptive interventions)

20 TASKS ADDRESSING BEHAVIORAL HEALTH AND COGNITIVE NEEDS (18% CPAN; 21% CAPA)

Knowledge K1–K2, K4, K8, K13, K18, K22, K23, K25, K27, K29–K34, K37–K39

20.01 Recognize and respect patient/family/significant other diversity (including, but not limited to, age, sex, race, religion, national origin, ethnicity, disability, marital status, sexual orientation, and gender identity)

20.02 Provide and maintain patient privacy and confidentiality

20.03 Provide psychosocial support to patient/family/significant other (including, but not limited to, coping mechanisms, spiritual and emotional support, and facilitating visitation)

20.04 Assess patient's/family's/significant others' ability to learn, learning style (including, but not limited to, kinetic, auditory, and visual), readiness to learn, and barriers to learning

20.05 Provide patient/family/significant other education and evaluate understanding related to the perianesthesia /procedural experience

30 TASKS ADDRESSING SAFETY NEEDS (25% CPAN; 29% CAPA)

Knowledge K1–K20, K22–K30, K32–K34, K37, K38, K40–K42

30.01 Deliver, document, and communicate care based on accepted national standards of perianesthesia nursing practice and applicable laws, guidelines, and regulations

30.02 Protect the patient from harm and take preventive measures related to:

01 immobility and/or positioning

02 adverse environmental influences (including, but not limited to, latex and/or equipment failure)

03 exposure to infectious diseases

30.03 Protect the patient from harm through the use of protective safety devices and equipment

30.04 Facilitate patient access to appropriate resources and referrals (including, but not limited to, medical equipment, pharmaceutical care, spiritual services, nutritional education, physical/occupational therapy, case management/social services, and language services)

30.05 Develop and implement effective multidisciplinary perianesthesia plan of care that addresses:

01 verbal and written instructions (including, but not limited to, preparations for procedures/surgery, potential complications, activity, diet, wound care, and post-discharge care)

02 pain management

03 medication reconciliation (including but not limited to, when to discontinue or resume; and interactions with prescriptions, over the counter medications, herbal supplements, alcohol, illicit drugs)

04 existing medical conditions (including, but not limited to, diabetes, COPD, hypertension, and OSA) on the current surgery/procedure

05 optimization of the healing process (including, but not limited to, nutrition, hydration, smoking cessation, and alternative therapies)

06 prevention of infection

07 measures to prevent complications

08 the availability of resources for care in the home, including the presence of a responsible adult caregiver

09 a safe home environment

10 safe transport to the home or discharge care site

30.06 Perform post-discharge assessment (follow-up contact)

Perianesthesia nursing knowledge

- K1. Nursing process
- K2. Evidence-based practice
- K3. Anatomy and physiology of body systems
- K4. Growth and development across the lifespan
- K5. Pathophysiology
- K6. Normal and abnormal diagnostic values
- K7. Acceptable deviations from normal physiologic states
- K8. Comorbidities/potential complications
- K9. Airway management
- K10. Vital signs/hemodynamic monitoring
- K11. Fluid and electrolyte management
- K12. Thermoregulation
- K13. Acute and chronic pain assessment and management
- K14. Post-operative nausea and vomiting (PONV) and post-discharge nausea and vomiting (PDNV) assessment and management
- K15. Physical assessment
- K16. Positioning
- K17. Pharmacodynamics/pharmacokinetics
- K18. Pharmacological interventions
- K19. Anesthesia techniques (general, regional, moderate sedation, monitored anesthesia care (MAC), total intravenous anesthesia (TIVA))
- K20. Anesthetic and reversal agents
- K21. Stages of anesthesia
- K22. Perianesthesia Continuum of Care (preadmission, day of surgery/procedure, Phase I, Phase 2, extended observation)
- K23. Surgical and procedural interventions
- K24. American Society Anesthesiologists (ASA) physical status classification system
- K25. Normal and abnormal physical response to surgery/procedure/anesthesia
- K26. Environmental factors affecting patient care (including, but not limited to, noise, temperature, air flow, latex, and equipment failure)
- K27. Alternative and adjunctive treatment modalities
- K28. Discharge planning and criteria
- K29. Diversity (including but not limited to age, sex, race, religion, national origin, disability, marital status, sexual orientation, and gender identity)
- K30. Psychosocial factors (including but not limited to coping styles, life situations, religious/spiritual, and culture)
- K31. Teaching and learning theories
- K32. Communication principles and techniques

- K33. Behavioral health considerations (including, but not limited to, addiction, autism spectrum disorders, depression, anxiety, bipolar disorder, and PTSD)
- K34. Multidisciplinary collaboration and referral
- K35. ACLS and PALS
- K36. MHAUS guidelines/protocol
- K37. ASPAN Standards
- K38. Regulatory, legal, and ethical guidelines (for example, Patient Bill of Rights, advance directives, informed consent, HIPAA, and the Americans with Disabilities Act)
- K39. Measures to maintain privacy and confidentiality
- K40. Injury prevention
- K41. Infection prevention and control
- K42. Quality and risk management principles and guidelines

Appendix 10

Minutes of Board Meeting Showing Approval of Revised Test Blueprints

American Board of Perianesthesia Nursing Certification Inc.
Meeting of the Board of Directors
Conference Call
February 23, 20116

Minutes

1. **Call to Order:** ABPANC President, Linda Lakdawala, called the meeting of the ABPANC Board of Directors to order at 7:00 pm Eastern Time.

2. **Roll Call:**

Present:	Linda Lakdawala	President
	Zoni Gazy	Director
	Celeste Jones	Director
	Stuart Smith	Public Member
	Cidalia Vital	Director
	Laura Williams	Director
	Vicki Yfantis	Director
	Armi Holcomb	President – Ex-Officio Member
	Bonnie Niebuhr	ABPANC CEO – Ex-Officio Member
	Jane Kogan	ABPANC Program Director
	Patricia Muenzen	ProExam Director of Research Programs - Guest
	Marlene Dunham	ProExam Program Director for ABPANC Testing - Guest
Excused:	Annette Brancati	Secretary/Treasurer

3. **Presentation of ABPANC 2015-2016 Role Delineation Study Results and RDS Advisory Team Recommendations**

Pat Muenzen, MA, ProExam Director of Research Programs, presented the findings of the 2015-2016 RDS and the recommendations of the RDS Advisory Team to update the CPAN/CAPA test specifications, tasks, and knowledge statements. The report detailing the findings of the RDS was previously disseminated to the participants on the call and is attached here. Following the presentation, questions were entertained.

A question was raised about the need for Pediatric focused CPAN and CAPA examinations. It was explained that the data identified the need to reflect pediatric content in 10% of questions on each exam. While some pediatric nurses working in Children’s Hospitals seek CPAN and CAPA certification now, many fear the knowledge they are required to have about adult patients. Before the

possibility of creating stand-alone Pediatric examinations and depending on ABPANC’s strategic plan, a feasibility study would need to be done first. Creating such exams is a costly venture and if approved, would take at least 3-4 years to launch.

4. Approval of Updated Test Specifications, Tasks, and Knowledge Statements

Motion

Motion made by Zoni Gazy, and seconded by Vicki Yfantis to approve the changes to the ABPANC Test Specifications, Tasks, and Knowledge statements as recommended by the RDS Advisory Team. Motion Carried.

Beginning with the Fall 2017 CPAN and CAPA examinations, the Test Specifications will be:

Percentage of Each Examination By Domain

Domain	CPAN	CAPA
Domain 1: Physiological Needs	57%	50%
Domain 2: Behavioral Health/Cognitive Needs	18%	21%
Domain 3: Safety Needs	25%	29%

Motion

Motion made by Stuart Smith, and seconded by Cidalia Vital that the changes made to the test specifications will apply to the CPAN and CAPA examinations administered beginning with the Fall 2017 examination administration window. Motion carried.

Motion

Motion made by Laura Williams and seconded by Celeste Jones that a maximum of 10% of operational questions on each CPAN and CAPA examination be focused on the care of the pediatric patient, based on availability of questions. Motion carried.

5. Adjournment

Motion made by Zoni Gazy and seconded by Laura Williams to adjourn the meeting at 7:56 pm, eastern time. Motion carried.