

# *Certifications that Reflect Change*

## CNS Clinical Practice



# PRESENTERS

Laura J McNamara, RN, MSN, CCNS, CCRN-K

JoAnne Konick-McMahan, RN, MSN, PCCN

Disclosures – we are Certification Practice Specialists  
for AACN Certification Corporation



# IT MATTERS

AACN Certification Corporation 2017

# Learning Objectives

- Discuss the development of CNS certification exams for APRN licensure
- Describe the contributions of volunteer subject matter experts in the exam development process
- Examine the 2016 wellness through acute care CNS job analysis survey results

# AACN

---

# CERTIFICATION CORPORATION

*Certification Organization for the American Association of Critical-Care Nurses*

## Mission

AACN Certification Corporation drives patient health and safety through comprehensive credentialing of acute and critical care nurses ensuring practice consistent with standards of excellence.

# AACN Certification Corporation's Consensus Model-based CNS exams

- Entry-level advanced practice certification for clinical nurse specialists educated at the graduate level to provide advanced nursing care across the continuum of healthcare services - wellness through acute care

ACCNS-AG

ACCNS-N

ACCNS-P

# The Chain of Evidence

Psychometric soundness



**ITMATTERS**

AACN Certification Corporation 2017



# Developing the Chain of Evidence

Practice Analysis  
Examination Specifications  
Item Writing  
Examination Development  
Standard Setting  
Scoring



# *Practice Analysis*





# Practice Analysis Process

- Identify competencies needed for a professional role
- Upholds standards of testing
- Developed by a committee of volunteer subject matter experts (SME)
- Survey distributed to national sample
- Results help to validate knowledge, skills and abilities to develop content weighting

# Practice Analysis

- Based on practice in the US
- PA gathers data from all different settings and levels of experience
  - clinical expertise
  - educational preparation
  - facility type
  - clinical settings
  - roles
- This data informs the new test plan that supports the new/updated certification exams

# Practice Analysis

- Working with a psychometrician
  - Finalize the structure of the survey
  - Send the survey to multiple representative bodies including current certificants
  - Review the statistical results with the PATF in collaboration with AACN

Example: PA catheters

Example: Prescriptive Authority for CNSs

# Test Plan



- Based on the data from the practice analysis survey results
- The PATF decides which practice elements are significant enough to be represented on the new test plan.
- ***AACN Certification Corporation Board of Directors approve all test plans.***

# *Item Writing*



# Item Writing Process

- Orientation through a workshop
- All items linked to exam specifications
- Consistent style and format



# Item Writing

- Live and virtual groups of volunteer SME
- Write items to fit within exam specifications
  - *Chain of evidence*
- Item needs assessment (gap analysis)
  - New categories from practice analysis
- Consistent style
- Cognitive level: application and analysis



# Item validity and reliability

- New item life cycle:
  - Exam development committee review and approval then into a pretest phase
    - 15 or 25 items each exam form
    - Review of comments and analysis

# *Exam Form Development*



# Exam Development Committee



- Practicing CNSs
- Broad representation from the community of certificant
  - Educational preparation
  - Years of experience
  - Type of facility and unit

# EDC Process

- Extensive review process for each item
- Each item is based on test plan specifications
- Unanimous agreement of volunteer SME



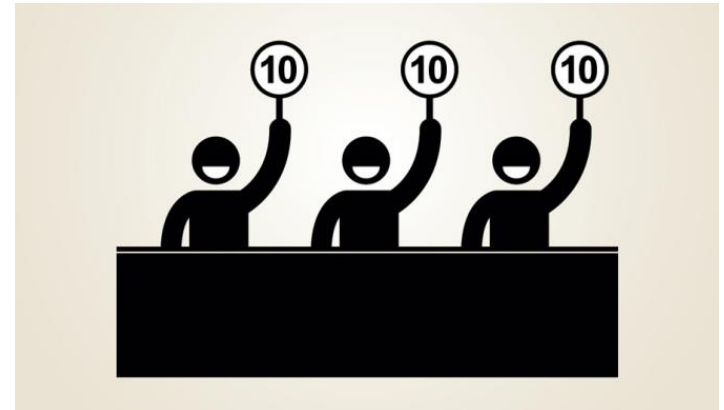
# Standard Setting

- Definition of minimally competent practitioner
- Use judgment of volunteer SME
- Consistency through equating



# Primary goals for certification exam development

- Legally defensible
- Psychometrically sound
- Consistent
- Equivalent
- Relevant



# Psychometrically Sound = Legally Defensible

- Item pretest data
- Data on each item in the test bank
  - What is the difficulty level of the item?
  - How does the item discriminate?
  - How does the item perform over time?
    - Has practice changed?
    - Do we have a test security issue?
- Item data is also used to ensure equivalency of exam forms
- The cut score (also known as the passing score) is the number of **scored questions** that must be answered correctly on an exam to achieve certification.
- [For more cut score info](#)



# Volunteer Subject Matter Experts

Contributions to the exam  
development process



**ITMATTERS**

AACN Certification Corporation 2017

# Certification Exam Volunteers

- Current credential in good standing\*\*
- Knowledge of advanced practice nursing
- Ability to apply current evidence and research to nursing practice
- Availability to meet commitments in the specified time frame
- Your peers and colleagues
- Practicing APRNS
- Academic/Clinical instructors

# PATF Contributions

- A group of your peers serving on the Practice Analysis Task Force (PATF)
  - Review and update previous survey for changes in
    - Practice
    - Guidelines
    - Technology
    - Research studies
    - Roles

# PATF responsibilities:

- developing a definition of the wellness through acute care clinical nurse specialist
- developing a sampling plan for the survey
- identifying patient care problems, skills and procedures, and synergy competencies for the survey instrument
- determining rating scales
- determining the relevant demographic variables of interest
- integrating the definitions, patient care problems, skills and procedures, synergy competencies, rating scale, and demographics into a survey instrument

# IWC Contributions

- Develop relevant and evidenced based test questions (items) which fit within the test specifications
- Usually 25 items per writer
- Based on the Board Certified (approved) test plan

# EDC Contributions

- Extensive process of assessment, validation, and evaluation
  - Review and approve newly submitted items
  - Review and validate all items in the test pool
  - Ensure items are in alignment to current test specifications
  - Assess results of item performance for consistency and fairness
  - Maintain consistency throughout process by equating
- Unanimous agreement

# EDC responsibilities

- Unanimous approval of the SME group regarding such factors as
  - Relevance of the item to practice
  - Conformance to the detailed content outline and specifications
  - Clarity of the stem and options
  - Accuracy of keyed response
  - Absence of bias
- Selection of exam items that match the specifications
- Approval of exam forms





# What about exam confidentiality?

- All volunteers involved in the exam development process sign a confidentiality agreement
  - FAQ: What about teaching review courses?
    - PATF can teach any review course
    - IWC & EDC can't teach review courses for the exam they worked on



# 2016 Practice Analysis Results

CNS Wellness through Acute Care  
Adult-Gerontology, Pediatric,  
Neonatal



# IT MATTERS

AACN Certification Corporation 2017

# Purpose of the CNS Practice Analysis

1. to determine and comprehensively describe the job of the Clinical Nurse Specialist
2. to evaluate these descriptions through the ratings of job experts to define areas that should be assessed on a certification examination

- *CNS Practice Analysis, 2016 page 41*

# Who was the typical CNS respondent?

## 2016 CNS survey

- 49-year-old, white female,
- Midwest, master's prepared
- Community hospital in an urban setting with more than 500 beds.
- Works full-time as a Unit-based CNS seeing 11 or more patients/day

## 2011 CNS survey

- 49 year white female
- Midwest, master's prepared
- Urban setting in a hospital with 500 or more beds
- Unit based CNS who sees 10 or more patients/day

# What was the definition of the CNS who was certification exam eligible?

## 2016

- The Clinical Nurse Specialist (CNS) is a nurse who has completed an accredited graduate-level CNS educational program within a defined population (adult-gerontology, pediatric, or neonatal).
- The CNS provides a scope of service anywhere within the wellness through acute care continuum for at least one population.

## 2011

- An entry level acute or critical care nurse is eligible for CNS certification through completion of graduate advanced practice education program offered by an accredited college or university that offers a Master's degree or higher in nursing with a concentration as an acute and/or critical care nurse specialist.

# How do the survey results become a test plan?

## Survey results and decision rules

- 3 areas of survey/test plan
  - Patient care problems
  - Skills and procedures
  - Competencies
- Majority performing
- Significance
- Geographic areas
- Role and more

## 2016 Multisystem example

- 2016= 9%
- 2011=7%
- Based on survey results and SME input

# What else does the survey show about CNS practice?

- What were the Practice Analysis Survey Response Rates?
- How has the CNS role evolved?
- How much time do CNS spend in the various roles?
- How many CNSs use prescriptive authority?
- How many CNSs are prepared at a doctorate level?



# How do the survey results become a test plan?

- How are the content areas on the CNS test plan included or excluded?
- How are the content areas on the CNS test plan allocated?
- What is the reliability of the survey results?
- How will the new CNS test plans change?

# Upcoming Volunteer Opportunities

- **2017**

- *June CCRN EDC – Virtual*
- *December PCCN IWC – Live*

- **2018**

- *CCRN PATF - Live*
- *APRN IWC - Virtual??*



# The Volunteer Experience

- [Fill out volunteer profile](#)
- Watch for emails with opportunities
  - All exams have a PATC, IWC and an EDC
- Apply for the committee
- Attend a 2 day meeting in sunny California
- Also opportunities to volunteer virtually

# Resources

- NCSBN Consensus Model Toolkit <https://www.ncsbn.org/739.htm>
- Recognized Certification Organizations
  - <http://www.aacn.org/certification/advanced-practice>
  - <https://www.aacn.org/certification/get-certified/accns-neo>
  - <https://www.aacn.org/certification/certification/aacns-p>
  - <http://www.aacn.org/certification/get-certified/accns-ag>

# References

- AACN Certification Corporation (2016). *A Job Analysis of the Clinical Nurse Specialist*. Aliso Viejo, California: AACN Certification Corporation.
- AACN Certification Corporation (2011). *A Job Analysis of the Clinical Nurse Specialist*. Aliso Viejo, California: AACN Certification Corporation.
- Institute for Credentialing Excellence (2015) *Certification: The ICE Handbook* 2nd Edition
- National Council of State Boards of Nursing (2016). *The Consensus Model for APRN Regulation, Licensure, Accreditation, Certification, Education* <https://www.ncsbn.org/736.htm>
  - Accessed December 30, 2016.

# Thank you!

- [Laura.mcnamara@aacn.org](mailto:Laura.mcnamara@aacn.org)
- [Joanne.konick-mcmahan@aacn.org](mailto:Joanne.konick-mcmahan@aacn.org)
- [APRNCert@aacn.org](mailto:APRNCert@aacn.org)

AACN

---

CERTIFICATION  
CORPORATION