Test Content Outline
Effective Date: April 17, 2014

Adult-Gerontology Clinical Nurse Specialist
Board Certification Examination

There are 200 questions on this examination. Of these, 175 are scored questions and 25 are pretest questions that are not scored. Pretest questions are used to determine how well these questions will perform before they are used on the scored portion of the examination. The pretest questions cannot be distinguished from those that will be scored, so it is important for a candidate to answer all questions. A candidate's score, however, is based solely on the 175 scored questions. Performance on pretest questions does not affect a candidate's score.

This Test Content Outline identifies the areas that are included on the examination. The percentage and number of questions in each of the major categories of the scored portion of the examination are also shown.

<table>
<thead>
<tr>
<th>Category</th>
<th>Domains of Practice</th>
<th>No. of Questions</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Direct Care</td>
<td>96</td>
<td>54.86%</td>
</tr>
<tr>
<td>II</td>
<td>Professional Practice</td>
<td>36</td>
<td>20.57%</td>
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<tr>
<td>III</td>
<td>Systems Leadership/Quality/Outcomes</td>
<td>43</td>
<td>24.57%</td>
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<tr>
<td>Total</td>
<td></td>
<td>175</td>
<td>100.00%</td>
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</tbody>
</table>
I. Direct Care (54.86%)

A. Advanced Health Assessment

<table>
<thead>
<tr>
<th>Note: Each item written for knowledge 1 and 3 and for skills 5 to 8 addresses at least one of the following body systems.</th>
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</thead>
<tbody>
<tr>
<td>1. Head, eyes, ears, nose, and throat</td>
</tr>
<tr>
<td>2. Respiratory</td>
</tr>
<tr>
<td>3. Cardiovascular</td>
</tr>
<tr>
<td>4. Gastrointestinal</td>
</tr>
<tr>
<td>5. Genitourinary/reproductive/renal</td>
</tr>
<tr>
<td>6. Musculoskeletal</td>
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</tbody>
</table>

Knowledge of:

1. Manifestations of normal age-related changes (e.g., physical, functional, cognitive)
2. Theories of aging and developmental theories
3. Human responses to health states (e.g., nausea, anxiety, grief)
4. Abuse and neglect (e.g., presentation, screening)

Skills in:

5. Obtaining a patient history using advanced techniques
6. Performing an individualized comprehensive assessment
7. Conducting a problem-focused assessment
8. Selecting and using population-specific assessment tools

B. Diagnostic Reasoning

<table>
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</table>

Knowledge of:

1. Atypical presentation of illness
2. Pathophysiologic basis for assessment findings
3. Geriatric syndromes
Skills in:

4. Interpreting assessment, laboratory, and diagnostic findings
5. Establishing a differential diagnosis

C. Advanced Physiology/Pathophysiology

<table>
<thead>
<tr>
<th>Note: Each item written for knowledge 1 to 3 and for skills 5 and 6 addresses at least one of the following age groups.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adolescent</td>
</tr>
<tr>
<td>2. Adult</td>
</tr>
<tr>
<td>3. Young-Old</td>
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<tr>
<td>4. Middle-Old</td>
</tr>
<tr>
<td>5. Oldest-Old</td>
</tr>
</tbody>
</table>

Knowledge of:

1. Population-specific physiologic changes
2. Risk factors, etiology, incidence, prevalence, pathogenesis, progression, and clinical manifestations of altered health states
3. Pathophysiologic changes in selected disease states
4. Stress theories (e.g., inflammation, physiological response and adaptation, neurohormonal)

Skills in:

5. Analyzing the relationship between normal and abnormal physiological phenomena
6. Analyzing physiologic responses to illness, treatment modalities, and the impact of comorbidities

D. Plan and Coordination of Care

Knowledge of:

1. Population-specific nutrition
2. Environmental influences on care (e.g., economic, housing, community resources, employment)
3. Potential responses to the caregiver role
4. Palliative and/or end-of-life care
5. Family and role theories
6. Self-care principles and concepts
Note: Each item written for skill 7 addresses at least one of the following body systems.

1. Head, eyes, ears, nose, and throat
2. Respiratory
3. Cardiovascular
4. Gastrointestinal
5. Genitourinary/reproductive/renal
6. Musculoskeletal
7. Neurological (including psychiatric)
8. Endocrine
9. Hematopoietic
10. Immune
11. Integumentary

Skills in:

7. Developing an individualized plan of care
8. Facilitating patient, family, caregiver decision making (e.g., empowering, prioritization)
9. Advocating for patients, family, and caregivers in complex care situations
10. Identifying, coordinating, and facilitating the use of resources (e.g., community, family, financial, spiritual, residential)
11. Facilitating transitions of care and care coordination
12. Addressing caregiver needs and issues into the plan of care

E. Interventions and Outcome Evaluation

Note: Each item written for knowledge 1 and for skills 9 and 11 addresses at least one of the following drug agents.

1. Anti-infective
2. Antineoplastic
3. Cardiovascular
4. Endocrine
5. Eye, ear, and skin
6. Gastrointestinal
7. Genitourologic/reproductive
8. Immunologic
9. Musculoskeletal/analgesic
10. Neurologic
11. Psychiatric
12. Respiratory

Knowledge of:

1. Pharmacotherapeutics of broad categories of drugs (including pharmacokinetics and pharmacodynamics, pharmacogenetics)
2. Polypharmacy
3. Patient factors that influence the ability to engage in health-promoting and prescribed regimens (e.g., health literacy, cultural and spiritual values, health state and functional status, self-efficacy, behavioral theories, motivational theories, teaching and learning principles, health promotion theory)
4. Substance use and addiction
5. Complementary and alternative therapy modalities
6. Physiologic basis for non-pharmacologic interventions (e.g., prosthetics, durable medical equipment, massage, skin care, exercise, weight reduction)
7. Age and population-specific clinical practice guidelines, standards, algorithms, policies, procedures, and protocols for disease management
8. Age and population-specific clinical practice guidelines, standards, algorithms, policies, procedures, and protocols for health promotion

Skills in:

9. Analyzing the relationship between pharmacologic agents and physiologic/pathologic responses
10. Counseling the patient, family, and caregiver in self-management of pharmacologic and non-pharmacologic treatment
11. Selecting and managing pharmacologic agents for the treatment of patient health problems and symptoms
12. Selecting and managing non-pharmacologic modalities for the treatment of patient health problems and symptoms
13. Evaluating patient and family response to interventions
14. Providing individualized patient and family education (considering age; cognitive, functional, and sensory limitations; health literacy)
15. Applying advanced nursing interventions to promote health and minimize iatrogenesis

II. Professional Practice (20.57%)
A. Inter- and Intraprofessional Communication, Collaboration, and Consultation

Knowledge of:

1. Principles of groups and teams (e.g., group dynamics, team building, roles, leaders and followers, workplace diversity)
2. Communication technologies/methodologies (e.g., tablets, social media, intranet and internet applications, webinar, electronic medical records, informatics)
3. Advanced communication concepts and principles (e.g., conflict utilization, interviewing)
4. Consultation principles and concepts (e.g., roles, purpose, internal and external consultation, stages of consultation, dissemination of findings)

Skills in:

5. Establishing, improving and sustaining collaborative relationships
6. Facilitating interprofessional relationships to promote safe, culturally competent care (e.g., care conferences, referrals, task forces)
7. Serving as a content expert (e.g., professional practice, health policy, information systems)
8. Presenting, professional writing, and publishing (e.g., poster development, oral presentations, writing skills)
B. Staff coaching and education

Knowledge of:

1. Adult teaching and learning theories
2. Similarity and differences among coaching, mentoring, and role modeling

Skills in:

3. Functioning as a role model in the delivery of expert and compassionate nursing practice
4. Mentoring staff and students to acquire new knowledge and skills and develop their careers
5. Designing, planning, conducting, and evaluating educational initiatives
6. Providing feedback and evaluating others

C. Professional Accountability/Ethics

Knowledge of:

1. Scope and standards of practice
2. Professional practice issues (e.g., prescriptive authority, licensure, collaborative practice, certification, credentialing, privileging, legal issues)
3. Ethical principles (e.g., confidentiality, codes of ethics, competency vs. capacity, consent/assent)

Skills in:

4. Recognizing ethical implications in practice issues (e.g., confidentiality issues related to social media, conflict of interest scenarios)
5. Using ethical frameworks for complex health care situations (e.g., allocation of resources, patient and family values and preferences, autonomy, futility, end-of-life issues)
6. Engaging resources to resolve issues related to moral distress and ethical conflict (e.g., patient advocate, care conferences, chaplains)
7. Communicating and advocating for the role and contribution of clinical nurse specialists and nursing professionals (e.g., evidence of cost-savings, impact on quality and safety, representing the clinical nurse specialist role in public arenas, disseminating clinical nurse specialist outcomes)
8. Advocating for policies that promote the health of individuals, groups, and communities
9. Contributing to the formation of public policy
10. Fostering professional accountability within self and others (e.g., continued competence, empowerment, professional organizations, self-evaluation)
III. Systems Leadership/Quality/Outcomes (24.57%)

A. Systems Leadership

Knowledge of:

1. Basic business and economic concepts and principles (e.g., budgeting, cost/benefit analysis, marketing, cost-saving strategies, efficacy, project management)
2. Health care financing (e.g., reimbursement, coding, billing)
3. Federal, local, state regulations and organizational and accreditation standards
4. Organizational theories, concepts, and principles (e.g., change, innovation, systems)
5. Leadership theories, concepts, and principles

Skills in:

6. Managing resources, including human, financial, and information
7. Analyzing the impact of social, political, regulatory, and economic forces on the delivery of care
8. Developing evidence-based clinical policies, procedures, and protocols (e.g., treatment plans, order sets)
9. Leading, implementing, supporting, and evaluating change initiatives
10. Fostering a culture of practice inquiry and innovation
11. Evaluating the impact of the introduction or withdrawal of products, services, or technologies
12. Supporting a healthy work environment (e.g., stress reduction, civility)

B. Quality/Outcomes

Knowledge of:

1. Models and principles of quality improvement (e.g., Just Culture, failure modes and effects analysis [FMEA], root cause analysis, gap analysis, continuous quality improvement [CQI])
2. Available resources for process improvement (e.g., Institute of Healthcare Improvement [IHI] bundles, National Patient Safety Goals)
3. Program development and evaluation (e.g., benchmarking, national databases)
4. Nursing-sensitive indicators/patient outcomes (e.g., falls, National Database of Nursing Quality Indicators [NDNQI], pressure ulcers, venous thrombotic events [VTE])
Skills in:

5. Evaluating individual and aggregate quality data to improve patient and system outcomes
6. Developing, implementing, and evaluating programs and protocols to achieve individual and system outcomes

C. Research/Evidence-based Practice

Knowledge of:

1. Evidence-based practice (e.g., principles, models, levels of evidence, practice questions)
2. Research methodology (e.g., data collection, study design, internal and external validity)
3. Statistical principles (e.g., power analysis, level of significance, Type I and II errors, reliability, validity, sensitivity, and specificity)
4. Human subjects protection

Skills in:

5. Translating evidence into practice
6. Analyzing and interpreting data (e.g., quality data, audit data)
7. Identifying appropriate database(s) and search strategies given specified problems
8. Identifying barriers and facilitators to implementing practice changes