

**BOARD OF PHARMACY SPECIALTIES  
 PHARMACOTHERAPY SPECIALIST CERTIFICATION  
 CONTENT OUTLINE/CLASSIFICATION SYSTEM  
 FINALIZED SEPTEMBER 2015/**FOR USE ON FALL 2016 EXAMINATION AND FORWARD****

**UNDERSTANDING THE CONTENT OUTLINE/CLASSIFICATION SYSTEM**

The following domains, tasks, and knowledge statements were identified by the BPS Specialty Council on Pharmacotherapy and validated through a role delineation study, most recently updated in 2015. The proportion of examination items allotted to each domain was determined through analysis and discussion of the results of the role delineation study by the Specialty Council.

Each of the major areas/domains of Pharmacotherapy practice noted below will be tested. Questions will not be grouped by domain. Items testing each domain are distributed throughout the total examination. Please note that this examination will SAMPLE a candidate’s knowledge rather than trying to test all of his/her knowledge. Questions in Domain 1 that deal with age-specific problems are reflected across all organ systems and patient-care problems. There is a mixture of chronic and acute care pharmacotherapy problems, with several questions that are not specific to a patient acuity level.

Here is a brief primer to understand the structure of the content outline/classification system.

**Domains:** A domain is a major responsibility or duty. You can think of a domain as a major heading in an outline format. You will see the domains displayed as black bars on the outline. Three domains are included in the content outline and are noted below.

1. Patient-Specific Pharmacotherapy (55 percent of examination)
2. Drug Information and Evidence-Based Medicine (25 percent of examination)
3. System-Based Standards and Population-Based Pharmacotherapy (20 percent of examination)

**Tasks:** A task statement defines an activity that elaborates on the domain or subdomain. The set of task statements in a domain offer a comprehensive and detailed description of the domain. You will see the tasks are light gray bars on the outline.

**Knowledge Statement:** For each task, it is valuable to understand what knowledge and skills are essential to competent performance. The set of knowledge statements clarifies the expectations for newly certified pharmacists. You will find the knowledge statements under each task statement.

DESCRIPTION
<b>Domain I: Patient-Centered Pharmacotherapy</b>
<i>Task 1: Develop patient-centered pharmacotherapy plans by assessing evidence and patient-specific information in order to optimize treatment.</i>
Knowledge of:
1. Anatomy, physiology, and pathophysiology
2. Disease processes, including drug-induced diseases
3. Pharmacology and toxicology
4. Pharmacokinetics, pharmacodynamics, and pharmacogenomics
5. Evidence-based standards of care and clinical pathways
6. Collection of patient history

7. Allergies and adverse drug reactions
8. Patient-specific factors (e.g., culture, religion, satisfaction, quality of life, psychosocial support, socioeconomic status)
<b>DESCRIPTION</b>
9. Motivational interviewing and shared decision making
10. Physical assessment
11. Interpretation of laboratory tests, diagnostics, and procedures
12. Drug interactions (e.g., drug-drug, drug-food, drug-disease, drug-lab, drug-device)
13. Self-care (e.g., over-the-counter medications, dietary supplements, complementary and alternative medicine)
14. Nonpharmacologic treatments
15. Preventive care (e.g., screening, immunizations)
16. Cost-effective decision making
17. Patient-specific goals of care and prioritization of needs
<i>Task 2: Disseminate pharmacotherapy plans to patients, caregivers, and interprofessional team members using appropriate forms of communication and patient education strategies in order to optimize outcomes.</i>
Knowledge of:
1. Principles of team-based care
2. Communication strategies and barriers
3. Educational methods (e.g., teach-back method, counseling, use of audio/visual aids)
4. Health literacy
5. Role of culture and religion
6. HIPAA
7. Documentation
<i>Task 3: Implement pharmacotherapy plans in order to optimize outcomes.</i>
Knowledge of:
1. Order writing, review, and verification consistent with applicable laws and regulations (e.g., medications, laboratory tests, diagnostics, procedures)
2. Administration and compatibility of medications
3. Documentation
4. Triage and referral
5. Medication acquisition (e.g., prior authorization, shortages, formulary restrictions)
<i>Task 4 Monitor pharmacotherapy plans by collecting and analyzing patient-specific data in order to assess patient response.</i>
Knowledge of:
1. Response to therapy and implications for therapeutic goals
2. Interpretation of laboratory tests, diagnostics, and procedures
3. Changes in patient clinical status (e.g., hemodynamics, organ function, nutrition, life expectancy, activity level)
4. Disease progression or resolution
5. Drug interactions (e.g., drug-drug, drug-food, drug-disease, drug-lab, drug-device)
6. Adverse drug reactions
7. Barriers to care (e.g., nonadherence, psychosocial, socioeconomic status)

<b>DESCRIPTION</b>
<i>Task 5: Coordinate pharmacotherapy plans with patients, caregivers, and interprofessional team members through ongoing collaboration and assessment of patient-specific information in order to ensure safe and effective transitions of care.</i>
Knowledge of:
1. Medication reconciliation
2. Patient-specific factors (e.g., culture, religion, satisfaction, quality of life, psychosocial support, socioeconomic status, nonadherence)
3. Communication strategies (e.g., patient education, documentation, health information technology)
4. Levels of care (e.g., intensive care, emergency department, skilled nursing, long-term care, nursing home, hospice, palliative care)
5. Discharge planning
<b>Domain II: Drug Information and Evidence-Based Medicine</b>
<i>Task 1: Retrieve information that addresses pharmacotherapy-related inquiries in order to optimize patient care.</i>
Knowledge of:
1. Question framing methods
2. Drug information resources and databases
3. Search strategies for drug information resources and databases
<i>Task 2: Evaluate pharmacotherapy-related literature, databases, and health information in order to translate findings into practice.</i>
Knowledge of:
1. Study design, methodology, and biases (e.g., funding sources, publication bias, population bias)
2. Biostatistical methods and interpretation
3. Internal and external validity
4. Efficacy vs. effectiveness
5. Clinical vs. statistical significance
6. Primary, secondary, and tertiary sources
7. Consumer health information (e.g., direct-to-consumer advertising, social media)
<i>Task 3: Conduct pharmacotherapy-related research using appropriate scientific principles in order to ensure optimal patient care.</i>
Knowledge of:
1. Research question generation
2. Protocol design, methodology, and biostatistical methods
3. Regulatory requirements for conduct of research (e.g., HIPAA, IRB)
4. Data collection, management, and analysis
<i>Task 4: Disseminate pharmacotherapy-related information and/or research in order to educate healthcare professionals and trainees.</i>
Knowledge of:
1. Types of presentations (e.g., inservice, poster/platform presentation, electronic media)

2. Medical writing (e.g., pamphlet, patient education, continuing education)
3. Scientific writing (e.g., reviews, case reports)

<b>DESCRIPTION</b>
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4. Educational, mentoring, and assessment techniques
5. Scopes of practice of healthcare practitioners

<b>Domain III: System-Based Standards and Population-Based Pharmacotherapy</b>
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<i>Task 1: Implement effective medication use systems in order to improve system-based and population-based pharmacotherapy.</i>
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Knowledge of:
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1. Formulary management
2. Laws and regulations (e.g., Affordable Care Act)
3. Scope of practice (e.g., collaborative drug therapy management, medication therapy management, privileging, credentialing, maintenance of competence)
4. Accrediting organizations and their requirements (e.g., Joint Commission, Centers for Medicare and Medicaid Services, American Society of Health-System Pharmacists, Accreditation Council for Pharmacy Education, National Committee for Quality Assurance, Center for Pharmacy Practice Accreditation)
5. Models of care (e.g., accountable care organizations, patient-centered medical homes, federally qualified health centers)
6. Medication discount programs (e.g., Patient assistance programs, coupons, 340B Drug Pricing Program)
7. Reimbursement strategies for services provided

<i>Task 2: Incorporate health information technology within patient care processes in order to ensure effective medication use.</i>
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Knowledge of:
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1. Laws and regulations (e.g., Meaningful Use, HIPAA)
2. Electronic health records
3. Health information exchanges
4. Decision support
5. Population health registries
6. Drug delivery and distribution technology (e.g., smart pumps, bar coding, automation)

<i>Task 3: Employ safety systems in accordance with established standards in order to promote a safe medication use process.</i>
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Knowledge of:
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1. Medication use and monitoring systems (e.g., Risk Evaluation and Mitigation Strategies, Vaccine Adverse Event Reporting System, patient safety networks, MedWatch, Institute for Safe Medication Practices alerts, Occupational Safety and Health Administration)
2. Regulatory and accrediting agency requirements for reporting adverse medication events
3. Components of a reporting process for adverse events related to medications and/or devices
4. Medication error reduction strategies

<b>DESCRIPTION</b>
<i>Task 4: Implement public health initiatives that target recognized benchmarks in order to improve population health.</i>
Knowledge of:
1. Quality standards and metrics (e.g., Healthcare Effectiveness Data and Information Set, five-star quality rating systems, Hospital Consumer Assessment of Healthcare Providers and Systems, Joint Commission, Centers for Disease Control and Prevention, Centers for Medicare and Medicaid Services, United States Preventive Services Task Force, Agency for Healthcare Research and Quality, World Health Organization)
2. Emergency preparedness
3. Principles of team-based care
<i>Task 5: Implement quality improvement programs in order to optimize system-based and/or population-based care.</i>
Knowledge of:
1. Needs assessment
2. Principles of medication-use evaluation
3. Continuous quality improvement processes (e.g., root cause analysis, Lean Six Sigma)
4. Health-system best practices (e.g., antimicrobial stewardship)
<i>Task 6: Educate the public on the safe and effective use of medications in order to promote optimal pharmacotherapy.</i>
Knowledge of:
1. Needs assessment
2. Population-specific factors (e.g., culture, religion, satisfaction, quality of life, psychosocial support, socioeconomic considerations)
3. Educational methods (e.g., use of audio/visual aids, public service announcements, newsletters)
4. Health literacy
5. Communication barriers
<i>Task 7: Educate healthcare professionals in accordance with regulations, standards, and best practices in order to ensure the safe and effective use of medications in systems and/or populations.</i>
Knowledge of:
1. Scopes of practice of healthcare practitioners
2. Needs assessment
3. Educational methods (e.g., use of audio/visual aids, public service announcements, newsletters)