

# BOARD OF PHARMACY SPECIALTIES

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## Content Outline for the ONCOLOGY PHARMACY SPECIALTY CERTIFICATION EXAMINATION December 2006

The following domains, tasks and knowledge statements were delineated by the BPS Specialty Council on Oncology Pharmacy and validated through a role delineation study, and most recently updated in 2006. 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 Oncology Pharmacy 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 her/his knowledge.

**Domain 1: Clinical Skills and Therapeutic Management: Optimize drug therapy for patients with cancer through the design, recommendation, implementation, monitoring, and modification of individualized pharmacotherapeutic plans in collaboration with the healthcare team. (60% of the examination)**

### Tasks:

- 1 Collect and assess comprehensive patient information necessary to design a pharmacotherapeutic plan.
- 2 Establish therapeutic goals in collaboration with the patient/caregivers and the healthcare team.
- 3 Design, communicate/document, implement, and modify a pharmacotherapeutic plan for patient-specific problem(s) through the integration of pathophysiological, pharmacogenomic, pharmacokinetic, pharmacodynamic, age-related, socioeconomic, ethical/legal, and cultural considerations.
- 4 Design, communicate/document, implement, and modify a monitoring plan to assess patient-specific outcomes to the therapeutic plan, including outcomes related to concomitant disease states (e.g., symptom evaluation, adverse-effect evaluation, physical and laboratory assessment, frequency and duration of follow-up).
- 5 Assess outcomes relative to therapeutic goals (e.g., effectiveness, drug-related issues, adherence).
- 6 Predict, prevent, identify, and resolve treatment- or disease-related problems.

- 7 Provide education and counseling to patients/caregivers regarding the pharmacotherapeutic plan, concurrent drug therapies, and outcomes.

**Knowledge Statements:**

- 01 Pathology
- 02 Anatomy and physiology
- 03 Molecular biology
- 04 Etiology and pathophysiology of cancer and cancer treatment related complications
- 05 Cancer pharmacotherapies, including chemotherapies, biologic therapies, hormonal therapies, labeled and off-label uses
- 06 Non-pharmacological treatments (for example, radiation therapy, surgery, observation, radiopharmaceuticals)
- 07 Hematopoietic stem cell transplants
- 08 Alternative/complementary therapies (for example, herbals, vitamins, acupuncture), and non-prescription medications
- 09 Drug interactions
- 10 Use of clinical trials as a treatment option
- 11 Cancers, including staging, diagnosis, prognosis, and treatment outcomes by stage
- 12 Expected response rates based on patient-specific factors
- 13 Complications of cancer or cancer treatment, including both early and late effects
- 14 Toxicity assessment and grading
- 15 Factors that may influence treatment and outcomes, including age, organ function, biology of the disease, genetics, co-morbidities
- 16 Pharmacology/Pharmacokinetics, pharmacodynamics, and pharmacogenetics of anticancer and supportive care agents.
- 17 Drug-delivery technology
- 18 Drug administration and routes of delivery
- 19 Diagnostic and monitoring tests
- 20 Social and cultural factors impacting treatment and outcomes
- 21 Pain/Palliative care and end-of-life care
- 22 Issues related to supportive care, including growth factors, chemoprotectants, anti-emetics, anti-infectives, etc.

**Domain 2: Generation, Interpretation, and Dissemination of Information: Contribute to the care of patients with cancer through research, the application of research results, and education. (20% of the examination)**

**Tasks:**

- 1 Evaluate the literature with regard to study design, methodology, and significance of findings
- 2 Integrate new information with existing information to establish recommendations for clinical use.
- 3 Develop, modify, and evaluate patient and public educational materials for approved

- and investigational therapies
- 4 Provide education and consultation to the healthcare team.
  - 5 Participate in the drug development process and clinical research activities (for example, research protocol development, data collection and analysis, recruitment and monitoring of patients, investigational drug management, ensure adherence to the research protocol).
  - 6 Contribute new knowledge to the profession (e.g., case reports, adverse drug event reports, medication safety, review articles, abstracts)

**Knowledge Statements:**

- 01 Literature and information retrieval systems
- 02 Study design and methodology, including strengths and limitations
- 03 Common study endpoints (e.g., response, adverse events, economics, quality of life, pharmacokinetics, pharmacodynamics, pharmacogenomics)
- 04 Generalizability (application) of research results
- 05 Statistical methods
- 06 Educational and counseling methods
- 07 Information resources for education and counseling
- 08 Regulatory and ethical issues related to research (including confidentiality, informed consent, and patient rights)
- 09 Drug development process

**Domain 3: Guidelines, Policies, and Standards: Ensure the safe, effective, and appropriate use of medications in patients with cancer through the implementation of guidelines and the development and modification of pharmacy policies and systems. (15% of the examination)**

**Tasks:**

- 1 Design, implement, evaluate, and modify pharmacy services appropriate to the needs of patients across the continuum of care.
- 2 Establish and modify systems to ensure the safe use of medications.
- 3 Ensure that oncology-related pharmacy services comply with established regulations and standards.
- 4 Ensure that care is consistent with appropriate clinical practice guidelines.
- 5 Incorporate patient rights and ethical standards into pharmacy policies and procedures (e.g., confidentiality/HIPAA, age-appropriate informed consent, right of refusal)
- 6 Develop appropriate drug use policies in collaboration with other providers and/or agencies.

**Knowledge Statements:**

- 01 Clinical practice guidelines (for example, ASCO, ASHP, NCCN)
- 02 Methods for developing and evaluating clinical practice guidelines
- 03 Professional practice standards (e.g., ASHP, USP, ASCO)

- 04 National accreditation and regulatory standards (e.g., JCAHO, CMS, HIPAA, NIOSH, USP 797, OSHA, OBRA, DEA, ASHP Oncology Pharmacy Practice Residency Standards) and their impact on the care of patients
- 05 Reimbursement policies of federal and private agencies
- 06 Quality improvement strategies to avoid medication misadventures (e.g., processing of chemotherapy orders, protocol reviews)
- 07 Methods for handling cytotoxic drugs and related materials (administration, compounding, and disposal)
- 08 Investigational drug management

**Domain 4: Public Health and Advocacy: Raise awareness among the public and healthcare providers regarding cancer-related issues. (5% of the examination)**

**Tasks:**

- 1 Provide information to the public regarding cancer-related issues, including cancer risk factors, prevention, screening, and treatment.
- 2 Serve as a public advocate regarding treatment-related issues that pertain to the prevention, treatment, and palliation of cancer.
- 3 Refer the public to appropriate sources of information, cancer-support organizations, and agencies.

**Knowledge Statements:**

- 01 Resources available through groups, organizations, agencies, and pharmaceutical industry (e.g.: American Cancer Society, National Cancer Institute, Leukemia and Lymphoma Society, National Coalition of Cancer Survivors)
- 02 Cancer risk factors
- 03 Cancer prevention strategies
- 04 Cancer screening guidelines
- 05 Cancer treatment strategies
- 06 Clinical trial options