

Knowledge Assessment Specifications April 2006

The following Knowledge Assessment Specifications were developed by the Knowledge Assessment Committee, validated by practicing pharmacists with various practice backgrounds, and expertise, and approved by the Board of Examiners as the basis for composing the Knowledge Assessment questions and preparing exam forms.

The Knowledge Assessment is designed to focus mainly on the following three critical Roles in the Framework of Professional Practice (FPP):

Role 1: Provide pharmaceutical care, followed in importance by

Role 2: Produce and distribute drug preparations and products and

Role 3: Function E: Minimize practice errors and omissions, unsafe practices and professional misconduct.

The Knowledge Assessment Specifications include the Knowledge Assessment content 'domains' and additional details regarding the Therapeutics/Pharmaceutical Care domain. These are the most common and/or most critical content areas that pharmacists would know about and/or use in their practice, in fulfilling the relevant FPP Roles and Functions. The percent weightings show the relative emphasis of each component on the exam. Some domains do not have percent weighting but may be integrated into some questions as secondary objectives. The following key is used:

- No asterisk – May be included on the assessment
- One asterisk (*) – Less frequent and/or critical problems. A few questions will be included on the assessment
- Two asterisks (**) – Frequent and critical problems. These will be included and often emphasized on the assessment

KNOWLEDGE DOMAINS

<p>A. Foundation Sciences 90-94%</p> <p>** Pharmacology</p> <p>** Therapeutics/Pharmaceutical Care (refer to detailed document attached)</p> <ul style="list-style-type: none"> • Drug related problems <ul style="list-style-type: none"> - Disease states and relevant drug therapies • Non-drug problems <ul style="list-style-type: none"> - Lifestyle (e.g. smoking, diet, exercise) - Environment (e.g. second hand smoke, allergens, toxins) • Special Needs (e.g. pregnancy, lactation, ostomy) • Impact of age and gender <p>* Pharmaceutics</p> <ul style="list-style-type: none"> • Calculation and measurement <ul style="list-style-type: none"> - Dose/equivalency - Dose/body weight - Dilutions - IV concentration, administration rate • Compounds • Diagnostic values 	<p>B. Systems 1-3%</p> <p>Client centered care Materials management including:</p> <ul style="list-style-type: none"> • Production, distribution, and disposal of drug preparations and products • Disposal of confidential material <p>Information management Total quality management</p> <p>C. Health and Safety 1-3%</p> <p>Health care and wellness</p> <p>* Risk management (errors, omissions, unsafe practices and professional misconduct)</p> <p>D. Communication 1-3%</p> <p>Relevant, current, accurate information Communication barriers and strategies to overcome them Impact of patients' socio-economics, culture, language, gender and social experiences</p> <p>E. Professional Practice and Accountability 3-7%</p> <p>Practice standards and the scope of practice, reflected in the Framework of Professional Practice</p> <p>** Ethical principles and the Code of Ethics including confidentiality, harm reduction, autonomy Legal requirements and Council Policies</p>
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Note: Knowledge Domains B, C, and D may be inherent in questions relating to Domain A

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1. THERAPEUTICS/PHARMACEUTICAL CARE

<p>1. Infectious Diseases 14-18%</p> <p>** UTI</p> <p>** Respiratory Infections</p> <ul style="list-style-type: none"> • Pneumonia • Sinusitis • Bronchitis • Pleuritis • Cough/colds • Tuberculosis <p>** Otitis Media</p> <p>* Ophthalmic infections</p> <p>Meningitis</p> <p>Bone Infections</p> <p>* Parasitic Infections</p> <ul style="list-style-type: none"> • Amebiasis • Lice • Scabies • Worms • Lyme Disease • Giardia • Malaria <p>* Fungal Infections</p> <ul style="list-style-type: none"> • Oral Candidiasis (thrush) • Systemic • Tinea (scalp, foot, skin, versicolor) • Onychomycosis (nail bed) <p>* Skin Infections</p> <ul style="list-style-type: none"> • Impetigo • Cellulitis • Abscesses • Skin Ulcers <p>* Viral Infections</p> <ul style="list-style-type: none"> • Chickenpox • Influenza • HIV/AIDS • Hepatitis • Herpes <p>** Vaginal Infections</p> <ul style="list-style-type: none"> • Candidiasis • Trichomonas • Bacterial • Genital Herpes • Pelvic Inflammatory Disease <p>* STD's</p> <ul style="list-style-type: none"> • Chlamydia • Neisseria Gonorrhoeae • Syphilis 	<p>2. Cardiovascular Disease 15-19%</p> <p>** Hypertension</p> <p>** Angina</p> <p>** Heart Failure</p> <p>* Arrhythmias</p> <p>* Stroke</p> <p>* Thrombotic Disease</p> <p>** Myocardial Infarction</p> <p>** Dyslipidemia</p> <p>* Endocarditis</p>
	<p>3. CNS Disease/Condition 10-14%</p> <p>** Depression</p> <ul style="list-style-type: none"> • Bipolar Disease • Mania <p>* Obsessive Compulsive Disorder</p> <p>** Anxiety</p> <p>* Panic Disorder</p> <p>** Insomnia</p> <p>* Seizure Disorder</p> <p>* Parkinson's Disease</p> <p>* Dementia/Alzheimer's Disease</p> <p>** Pain</p> <ul style="list-style-type: none"> • Migraine Headaches • Other Headaches • Acute Pain • Chronic Pain • Cancer Pain <p>* Attention Deficit Disorder with Hyperactivity</p> <p>* Schizophrenia</p> <p>Psychosis</p> <p>* Trigeminal Neuralgia</p>
	<p>4. Gastrointestinal Disease 7-11%</p> <p>** Ulcers</p> <p>** Gastroesophageal Reflux Disease</p> <p>* Inflammatory Bowel Disease</p> <ul style="list-style-type: none"> • Crohn's Disease • Ulcerative Colitis <p>* Irritable Bowel Syndrome</p> <p>Ostomy</p> <p>Diverticulitis</p>

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| <p>** Diarrhea</p> <p>** Nausea/Vomiting</p> <p>* Pseudomembranous Colitis</p> <p>Obstructive Bowel Disease</p> <p>* Constipation</p> <p>5. Respiratory Disease 9-13%</p> <p>** Chronic Obstructive Pulmonary Disease</p> <p>** Asthma</p> <p>6. Skin Conditions 3-7%</p> <p>* Psoriasis</p> <p>* Dermatitis</p> <p>Rosacea</p> <p>* Acne</p> <p>* Shingles</p> <p>* First Aid</p> <ul style="list-style-type: none"> • Cuts, abrasions • Burns • Bruises, sprains <p>* Warts</p> <p>* Corns, Callouses</p> <p>7. Endocrine/Hormone Imbalance 14-18%</p> <p>** Diabetes</p> <ul style="list-style-type: none"> • Type 1 • Type 2 • Hypoglycemia <p>** Thyroid Disease</p> <ul style="list-style-type: none"> • Hypothyroidism • Hyperthyroidism <p>** Osteoporosis</p> <p>** Hormone Replacement Therapy</p> <p>** Contraception</p> <p>* Infertility</p> <p>8. Rheumatoid/Arthritic/Autoimmune 5-9%</p> <p>** Arthritis</p> <ul style="list-style-type: none"> • Rheumatoid arthritis • Osteoarthritis <p>Primary Immune Deficiency Diseases</p> | <p>System Lupus Erythematosus (SLE)</p> <p>Scleroderma</p> <p>Nephritis</p> <p>* Gout</p> <p>9. Nutritional/Metabolic/Fluid Imbalance 1-5%</p> <p>Nutritional deficiencies, demands, supplements (vitamins, minerals, etc.)</p> <p>Enzyme deficiencies</p> <p>Obesity</p> <p>10. Other 2-6%</p> <p>** Allergic Reactions</p> <ul style="list-style-type: none"> • Allergic rhinitis • Hayfever • Stevens Johnson syndrome • Anaphylaxis <p>Blood Disorders</p> <ul style="list-style-type: none"> • Iron deficiency anemia <p>* Eye Conditions</p> <ul style="list-style-type: none"> • Glaucoma • Cataract • Allergic reactions/irritations • Contact Lens Issues <p>* Drug Abuse/Misuse, Addiction</p> <ul style="list-style-type: none"> • Smoking cessation • Methadone • Alcohol <p>Triage/Emergent Situations</p> <ul style="list-style-type: none"> • Poisoning/toxin exposure • Traumatic injury, shock <p>* Diagnostic testing, pregnancy, glucose, etc.</p> <p>* Herbal products, supplements</p> <p>* Sexual Dysfunction</p> <p>* Renal Failure</p> <p>* Liver Disease</p> <p>* Benign Prostatic Hypertrophy (BPH)</p> |
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The Knowledge Assessment will also sample from the following categories.

PATIENT POPULATIONS

- Infant (<1 year)
- Pediatric (Gender) (<13 years)
- Adult (Gender) (13-64 years)
- Geriatric (Gender) (>64 years)
- Special Needs (see column on the right)

Special Needs

- Pregnancy
- Lactation
- Transplant / Dialysis
- Ostomy
- Tube Feeding / Respirator
- Physical Disabilities

DRUG-RELATED PROBLEMS - What occurs when a patient...

- Is taking/receiving a drug for no medically valid reason?
(i.e. patient does not need drug therapy)
- Needs pharmacotherapy but is not receiving it?
(i.e. is in need of drug therapy or needs additional drug therapy)
- Is taking/receiving the wrong drug?
(i.e. inappropriate for disease or other patient factors such as allergy, concomitant disease states which contraindicate the use of the drug)
- Is taking/receiving too little of the right drug?
- Is taking/receiving too much of the right drug?
- Is taking/receiving the drug inappropriately?
(i.e. noncompliance, wrong administration schedule/technique)
- Is experiencing an adverse drug reaction?
- Is experiencing a drug interaction?
(i.e. drug-drug, drug-diet interaction)
- Non-Drug Problems / Health Issues
 - Lifestyle (e.g., smoking, diet, exercise)
 - Environment (e.g., second hand smoke, allergens, toxins)
 - Injury / Trauma
 - Stress
 - Family History