

CAPE Outcome: Pharmaceutical Care

I. Provide Pharmaceutical Care to achieve optimal patient outcomes

A. Engage in patient management activities

Compile patient-specific information

Assess whether the pathophysiology of a specific disease can increase the potential for medication-related problems.	5 ME
Assess patient history for drug allergies or intolerances.	5 ME
Identify the patient's primary complaint(s) and reason(s) for seeking medical care.	4 BE/ME
Assess patient history for drug allergies or intolerances.	4 BE/ME
Assess patient adherence to previously prescribed medication regimens.	4 BE/ME
Evaluate and interpret patient and drug-related data needed to identify actual or potential drug therapy problems.	3 BE
Assure there is not excessive medication use or unnecessary drug duplication.	3 BE
Identify appropriate information in profiles or medical records that can potentially affect drug dose and dosing schedule.	3 BE
Employ clinical and physical assessment skills to determine the adequacy of patient therapeutic self-management and to evaluate therapeutic effectiveness or potential drug-related problems in the patient.	3 BE
Review patient profiles or medication administration records to determine the adequacy of patient therapeutic self-management.	2 BE/AO
Identify potential indicators of drug misuse or abuse.	2 BE/AO

Develop , implement, monitor drug therapy

Relate the chemical and/or biochemical structure of drugs to their therapeutic action.	5 ME
Evaluate patient characteristics that may influence the choice of a drug delivery system.	4 BE/ME
Integrate patient and drug information with drug dosing methods to calculate appropriate dosage adjustments.	4 BE/ME
Develop a plan to influence patients to effectively manage their therapy and reinforce appropriate behaviors.	3 BE
Communicate orally and in writing an analysis of patient therapeutic self-management problems to the patient's physician and/or other relevant health care providers.	3 BE
Communicate evidence of efficacy or potential for drug-related problems to the patient and/or caregiver and prescriber.	3 BE
Explain dosage recommendations and associated rationale to other health care team members.	3 BE
Evaluate any available laboratory test results and/or pharmacokinetics data that can influence dosing regimen.	3 BE
Relate psychosocial aspects of illness and health to the management of therapy-related problems.	3 BE
Communicate alternative delivery system or dosage strategies to the prescriber to help resolve specific patient therapeutic self-management problems.	2 BE/AO
Communicate alternative therapeutic strategies to the prescriber to correct or prevent drug-related problems.	2 BE/AO
Recommend revisions of therapeutic plans based upon changes in patient status.	1 AO

Medical Devices

Research the literature related to medical goods and devices in order to select or recommend the most appropriate device for an individual patient.	4 BE/ME
Obtain patient information relevant to the selection of a particular device.	3 BE
Assess the ability of the patient or caregiver to use the necessary medical goods or devices.	3 BE
Determine which of the available medical devices or products in the market place meets the patient's or caregiver's needs.	3 BE
Demonstrate the proper use of the medical goods and devices to help ensure that the patient or caregiver can effectively implement the use of the medical goods and devices.	3 BE
Ensure that equipment specific requirements for maintenance, testing, etc. are effectively communicated to the patient or caregiver.	3 BE
Make referrals to other health care agencies or professionals where indicated.	2 BE/AO

Provide education/information to patients and caregivers to appropriately use medication

Use effective written, visual, verbal, and nonverbal communication skills when providing medication self-management counseling to patients and/or caregivers.	5 ME
Demonstrate/describe proper administration technique for a selected drug delivery systems (e.g. inhalation, otic, eye, nasal, buccal, rectal, vaginal).	5 ME
Explain any action that should be taken in the event of a missed dose.	5 ME
Encourage patients/caregivers to contact the pharmacist for further information or advice regarding therapy.	5 ME
Use appropriate methods of patient education to review indications, adverse effects, dosage, storage, and administration techniques.	4 BE/ME
Advise patients on how to avoid potential interactions with other therapies.	4 BE/ME
Explain signs and symptoms associated with the common and/or severe adverse reactions to a therapy.	4 BE/ME
Explain the significance and frequency of adverse drug reactions and interactions associated with a given therapy.	3 BE

Assist patients seeking self-care

Assess a patient's self-identified problem (e.g., common cold, fever, pain, gastrointestinal problems) to determine if the problem is appropriate for self care or requires referral.	5 ME
Discuss options for treatment and recommend appropriate non-prescription product(s) if indicated.	5 ME
Teach a patient the proper and safe use of commonly used health products (e.g., condoms, thermometers, blood pressure monitoring devices, blood glucose meters, metered-dose devices, ear syringes, adherence devices).	5 ME
Counsel the patient about the proper use of self care products.	4 BE/ME
Instruct a patient about the proper use of a diagnostic agent or device, including directions for obtaining accurate results and how to interpret the results.	4 BE/ME

B. Engage in drug delivery and product management activities**Prepare and dispense medication(s) prescribed or recommended as part of the patient's care plan**

Evaluate the acceptability of prescription or medication order transmission and legitimacy of source.	5 ME
Verify that dose, frequency, formulation, and route of administration on prescription or medication orders are correct.	5 ME
Clarify, add, and/or correct prescription order information when necessary.	5 ME
Accurately enter patient information into the patient's pharmacy profile or medication record.	5 ME
Select a drug delivery system that will provide optimal therapeutic benefit to individual patients.	5 ME
Accurately prepare and dispense medications or supervise the preparation of medications.	5 ME
Correctly count, measure, and/or mix preformulated products.	5 ME
Correctly prepare the label for a finished prescription or drug order, assuring it conforms to all state and federal laws.	5 ME
Assure that the label conveys directions in a manner that is understandable to the patient and that appropriate auxiliary labels are attached.	5 ME
Select an appropriate container for the prescription that protects the integrity of the drug delivery system and that meets the patient's needs.	5 ME
Select an appropriate container for storage or use of medications with special requirements (e.g., child-resistant containers, compliance devices).	5 ME
Determine the validity of the patient-prescriber relationship.	4 BE/ME

B. Engage in drug delivery and product management activities--continued**Compounding**

Use correct gravimetric and volumetric measuring procedures to obtain the desired quantity of any formulation component.	5 ME
Identify potential physical and chemical incompatibilities among components of compounded (parenteral or non-parenteral) prescriptions.	5 ME
Follow USP compendial standards (<795> or <797>) for the extemporaneous compounding of a non-sterile or sterile patient-specific drug delivery system.	4 BE/ME
Determine the appropriate storage of manufactured or compounded medications before and after dispensing.	4 BE/ME
Evaluate the suitability of an extemporaneously compounded prescription as opposed to available manufactured products	3 BE
Recommend appropriate alternatives to avoid physical and chemical incompatibilities among components of compounded prescriptions.	3 BE

C. Engage in practice management activities**Documentation**

Adjudicate third-party insurance claims using established billing systems.	5 ME
Demonstrate proper procedures for taking/giving a prescription transfer.	5 ME
Record all patient information accurately, legibly, and succinctly.	5 ME
Observe legal and ethical guidelines for protecting the confidentiality of patient information.	5 ME
Record actions taken and recommendation made to achieve desired therapeutic outcomes.	4 BE/ME
Document the effectiveness and adverse effects attributed to drug therapy.	4 BE/ME
Record the patient care plan.	3 BE
Consolidate and organize information that is already in the patient's medical record to facilitate its review.	2 BE/AO

D. Communication and Professional Behavior

Communicate effectively

Actively listen to patients, peers, and other health care professionals.	5 ME
Use proper grammar, spelling, and pronunciation in communications.	5 ME
Explain medication information to patients in understandable terms.	5 ME
Routinely verify patient or recipient understanding of communicated information.	4 BE/ME
Adjust communication based on contextual or cultural factors, including health literacy, language barriers, and cognitive impairment.	3 BE
Develop verbal, non-verbal, written and graphic communication materials for patients, peers, and other health care professionals.	3 BE
Communicate with prescribers, patients, caregivers, and other health care providers to engender a team approach to patient care.	2 BE/AO

Interact with patients & the health care team.

Articulate the pharmacist's role as a member of the health care team.	5 ME
Demonstrate sensitivity to and respect for each individual's needs, values, and beliefs, including cultural factors, religious beliefs, language barriers, and cognitive abilities.	5 ME
Demonstrate empathy and caring in interactions with others.	5 ME
Maintain patient confidentiality and respect patients' privacy.	5 ME
Establish professional rapport with patients and healthcare professionals.	3 BE
Demonstrate ability to resolve conflict in the pharmacy practice setting.	2 BE/AO

Behave in a professional and ethical manner.

Dress professionally and appropriately for the practice setting.	5 ME
Arrive punctually and remain until all responsibilities are completed.	5 ME
Distinguish professional interests from personal interests and respond appropriately.	5 ME
Accept responsibility for one's actions.	5 ME
Respond appropriately to feedback from preceptors, patients, peers, and other health care professionals.	5 ME
Demonstrate passion and enthusiasm for the profession.	5 ME
Manage time appropriately and efficiently.	5 ME
Be self-directed in undertaking responsibilities.	5 ME
Adhere to all state and federal laws and regulations as a pharmacy intern in the practice setting.	5 ME
Demonstrate awareness of personal competence and limitations and seek guidance or assistance from preceptors when appropriate.	4 BE/ME
Assess one's own knowledge and abilities independently.	4 BE/ME
Set personal knowledge and ability goals and take responsibility for attaining them.	4 BE/ME
Show initiative in interactions with patients, peers, and other health care professionals.	4 BE/ME
Be aware of and work appropriately within the culture of the assigned practice setting.	4 BE/ME
Demonstrates personal and professional growth.	4 BE/ME
Demonstrate awareness of site or institutional policies and procedures.	3 BE
Prioritize workload appropriately.	3 BE
Identify issues involving ethical dilemmas.	3 BE
Propose steps to resolve ethical dilemmas.	3 BE
Identify and analyze emerging issues, products, and services that may impact patient-specific and population-based pharmaceutical care.	2 BE/AO
Weigh and balance different options for responding to ethical dilemmas.	2 BE/AO

CAPE Outcome: Systems Management

II. Manage the Practice

A. Product-related

Determine which drugs require special storage conditions and insure that these drugs are properly stored.	5 ME
Communicate to the patient and/or other health care professionals the differences and similarities of generic and branded products.	5 ME
Evaluate the validity of experimental designs, analytical methods, and statistical analyses used in bioavailability studies.	4 BE/ME
Evaluate the validity of relevant bioequivalence studies.	4 BE/ME
Ascertain product availability and time required to obtain product from vendor.	3 BE
Identify alternative actions if product quality is compromised.	3 BE
Select the most cost-effective source of a given product.	3 BE
Evaluate pricing information, including relevant pricing structures for products under consideration.	3 BE
Evaluate characteristics of the product(s) under consideration that may impact cost and/or therapeutic outcome.	3 BE
Determine the availability of pharmaceutical alternatives.	3 BE
Determine the availability of generic counterparts to brand name products.	3 BE
Properly dispose of/return those drug products that have expired and/or exceeded their reasonable shelf life.	3 BE
Properly implement steps required for a manufacturer's product recall.	3 BE
Identify alternative actions if product quality is compromised.	3 BE
Use appropriate references for the evaluation of drug product quality.	3 BE
Apply management principles related to purchasing and inventory control.	2 BE/AO
Determine if a reasonable length of expiration time remains when products arrive from the vendor.	2 BE/AO
Determine if proper storage and shipment procedures have been followed by the vendor.	2 BE/AO
Ascertain dependability of the vendor.	2 BE/AO
Apply relevant regulations to product selection from among multi-source drug products.	2 BE/AO
Assess bioequivalence and therapeutic equivalence recommendations embodied in institutional, state and federal formularies, and documents.	2 BE/AO
Monitor compliance with policies and procedures for inventory management	2 BE/AO
Evaluate the quality record of drug products through the regular use of the FDA website and listservs.	2 BE/AO
Consider other factors that are indicative of a manufacturer's product quality and their ability to replicate the product and ensure an adequate supply.	2 BE/AO

B. Management

Comply with federal, state, and local laws and related regulations that affect the practice of pharmacy.	5 ME
Participates in social and professional interaction and teamwork.	5 ME
Promotes a team approach to health care.	5 ME
Recognize professional practice situations that may give rise to liability under civil law.	3 BE
Demonstrates trust, leadership, delegation, and interdependence.	3 BE
Apply principles of personnel management to train, develop, supervise, and motivate support staff.	2 BE/AO
Apply principles of personnel management to recruit, hire, retain, and evaluated support staff.	2 BE/AO
Use policies and procedures that improve the efficiency and effectiveness of a given drug distribution system.	2 BE/AO
Develop appropriate position descriptions for a given drug distribution system.	1 AO

C. Practice Improvement

Predict future patient care needs and professional service opportunities in various practice settings.	1 AO
Formulate and evaluate strategies to meet future patient care needs within a specific practice setting.	1 AO
Evaluate the achievements of a practice in relation to the established mission, fiscal resources, and customer needs.	1 AO
Continually review the operational functioning of the pharmacy and recommend strategic changes to improve the quality of care provided.	1 AO
Identify deficiencies in facilities design and equipment at an existing practice site.	1 AO
Develop/specify information system needs and implement an information management system that meets legal, business, archival, and patient care needs.	1 AO

III. Manage/Improve Medication Use Systems

A. Medication use system improvement & management

Identify appropriate drug use guidelines developed by governmental regulatory or health agencies.	4 BE/ME
Evaluate information obtained from adverse drug reaction and medication error reporting systems (e.g. MedWatch) to identify preventable causes.	3 BE
Identify and report medication errors and adverse drug reactions to appropriate individuals and organizations.	3 BE
Articulate the pharmacist's role in medication use oversight (e.g., formulary management, practice guidelines.)	2 BE/AO
Participate in established medication safety and quality improvement activities (e.g., adverse drug reaction reporting, medication reconciliation, health systems improvement)	2 BE/AO
Develop drug use evaluation criteria and/or indicators based on analysis of the literature.	2 BE/AO
Collect institutional data for a drug utilization review.	2 BE/AO
Manage the incidence of medication errors and adverse drug reactions.	2 BE/AO
Recommend actions to minimize the occurrence of adverse drug reactions and medication errors.	2 BE/AO
Apply criteria to collected drug utilization review data.	1 AO
Implement corrective actions to improve drug use.	1 AO
Monitor prescriber and pharmacist compliance with formulary standards.	1 AO
Communicate with managers and caregivers regarding formulary decisions.	1 AO
Implement corrective action if variances from the formulary standards occur.	1 AO

B. Quality Improvement in Practice/Health Systems

Apply elements of continuous quality improvement to pharmaceutical care.	2 BE/AO
Apply principles of pharmacoeconomics in making pharmaceutical care decisions.	2 BE/AO
Apply principles of humanistic outcomes in determining impact of pharmaceutical care services on patient's quality of life.	2 BE/AO
Use appropriate structure, process, and outcome measures to evaluate the quality of pharmaceutical care.	1 AO
Document patient services in practice, analyze them against comprehensive pharmaceutical care processes, develop, and implement practice improvements.	1 AO
Use appropriate critical pathways, clinical practice guidelines, and disease management protocols in the delivery of pharmaceutical care.	1 AO

C. Value-added activities

Identify appropriate drugs for DUE review.	1 AO
Compile and evaluate drug use data across patients and prescribers within the system.	1 AO
Develop therapeutic interchange guidelines.	1 AO
Document quality assurance activities according to the specifications of relevant accrediting and regulatory bodies.	1 AO
Use report cards in assessing the quality of health care.	1 AO

CAPE Outcome: Public Health

IV. Public Health, Health Promotion, Disease Prevention

Promote to patients the importance of managing their diseases and therapies to optimize outcomes.	5 ME
Participate in activities that promote health and wellness and the use of preventive care measures.	5 ME
Describe the role of immunizations in disease prevention.	5 ME
Administer subcutaneous, intramuscular, or intradermal injections, including immunizations.	5 ME
Screen for common medical conditions and make appropriate referrals	5 ME
Conduct smoking-cessation interventions when appropriate.	5 ME
Raise public awareness about the role of a pharmacist as a public health educator.	5 ME
Identify at-risk populations requiring immunizations.	4 BE/ME
Assess the needs of a target population relative to disease prevention/detection.	3 BE
Select and implement an appropriate strategy to prevent (e.g., immunizations) or detect (e.g., blood cholesterol screening) disease in a target population.	3 BE
Apply basic principles of nutrition to the management of patient health.	3 BE
Articulate the concept of advocacy - what it means both professionally and personally.	3 BE
Relate the major components of the American health care system and their relationship to pharmaceutical care delivery.	3 BE
Evaluate program impact on the target population.	2 BE/AO
Explain how to assure availability of effective, quality health, and disease prevention services.	2 BE/AO
Assess the health needs of a specific patient population by analyzing epidemiologic data and identifying risk factors that would adversely affect patient health.	2 BE/AO
Develop appropriate criteria and outcome indicators and conduct medication reviews in specific populations.	1 AO

Demonstrate how evidence-based disease management programs are incorporated into outcome indicators, drug treatment protocols, risk reduction strategies, and education programs for providers and patients.

1 AO

Value-added activities

Identify and evaluate common emergencies including those requiring CPR.

4 BE/ME

Describe legal and ethical implications of intervention in emergency situations.

4 BE/ME

Assist individuals in obtaining emergency transportation to a medical facility.

3 BE

Describe legal and ethical implications of intervention in poisoning/drug overdose situations.

3 BE

Determine urgency of the situation and necessity to summon emergency medical service personnel.

3 BE

Apply appropriate emergency care in relationship to available personnel, equipment, and facilities.

3 BE

Apply effective communication techniques when responding to requests for information on poisoning and drug overdose.

3 BE

Consult appropriate resources for identification of the symptoms, signs, and management of a specific poisoning or drug overdose.

3 BE

Provide recommendations for management and/or refer patients for further medical evaluation.

2 BE/AO

V. Provide Drug Information and Education

Recognize the type of content that is available in general (tertiary), secondary, and primary information sources.

5 ME

Collect accurate and comprehensive drug information from appropriate sources to make informed, evidence-based decisions.

4 BE/ME

Collect accurate and comprehensive information to be used in monitoring therapeutic outcomes.

4 BE/ME

Use abstracting and indexing services to access necessary information.

4 BE/ME

Use computerized programs for monitoring and identifying adverse reactions, drug interactions, etc.

4 BE/ME

Consult personal and organizational sources of information.

4 BE/ME

Evaluate information obtained from available sources.

4 BE/ME

Use appropriate written and verbal communication techniques to respond to information requests.

4 ME

Document responses to information requests.

4 ME

Identify the educational needs and background of the intended audience.

4 BE/ME

Choose appropriate media to communicate effectively.

4 BE/ME

Choose health education strategies that are appropriate to the type of health care education program.

4 BE/ME

Demonstrate effective oral and written communication tailored to the individual needs of the audience and type of setting.

4 BE/ME

Determine the nature and specific aspects of the request by obtaining appropriate background information and establishing the urgency of the response.

3 BE

Apply knowledge of the content of general (tertiary), secondary, and primary information sources.

3 BE

Provide accurate information applicable to the question/case.

3 BE

Use health education strategies effectively.

3 BE

Compile and update literature for ready reference in the provision of patient care.

3 BE

Evaluate the impact of an educational program on the behaviors/performance of program participants.

2 BE/AO