2026 PTCB Certified Pharmacy Technician (CPhT) Knowledge Reference

How to Use This Document

PTCE Knowledge Areas	Required	Recommended
Statements appearing on the Pharmacy Technician Certification Exam® (PTCE®) Content Outline are highlighted in blue. Those that may require calculations-based knowledge are denoted with an asterisk (*). These blue statements are required of competent CPhTs and demonstrated primarily by passing the PTCE.	White knowledge statements are also required of competent CPhTs and demonstrated through education/training or a combination of work experience and other preparation activities.	Gray knowledge statements are recommended for competent CPhTs, but not required.
	For white and gray statements, only a basic/definitional understanding is expected.	

Medications

PTCE Knowledge Areas	Required	Recommended
1.1 Generic names, brand names, and classifications of medications 1.2 Therapeutic duplications 1.3 Common or life-threatening drug interactions and contraindications (e.g., drug-drug, drug-dietary supplement, drug-laboratory, drug-nutrient, drug-disease) 1.4* Strengths/doses, dosage forms, routes of administration, special handling and administration instructions, and duration of drug therapy 1.5 Common or severe medication side effects, adverse effects, and allergies 1.6 Indications of medications 1.7* Drug stability (e.g., oral suspensions, insulins, reconstitutables, injectables, vaccinations) 1.8 Proper storage of medications (e.g., temperature ranges, light sensitivity, restricted access)	*Intentionally blank*	• Physical and chemical incompatibilities related to nonsterile compounding and reconstitution

Federal Requirements

PTCE Knowledge Areas	Required	Recommended
2.1 Federal requirements for storage, handling, and disposal of non-hazardous, hazardous (e.g., P-list), and pharmacological substances and wastes 2.2* Federal requirements for controlled substance prescriptions (i.e., new, refill, transfer) and DEA controlled substance schedules 2.3 Federal requirements for receiving, storing, ordering, labeling, dispensing, returning, take-back programs for, loss or theft of, and destroying controlled substances. 2.4* Federal restricted drug programs and related medication-processing requirements (e.g., pseudoephedrine, Risk Evaluation and Mitigation Strategies [REMS]) 2.5 FDA requirements for medication recalls 2.6 FDA product serialization, tracking, tracing, handling, and quarantining requirements (i.e., Drug Supply Chain Security Act [DSCSA])	• OSHA requirements for addressing bloodborne pathogen exposure (e.g., accidental needle stick, post-exposure prophylaxis [PEP]) • ADA requirements to address patient physical limitations (e.g., easy-off caps, increased font size, script-talk machines, Braille) • FDA requirements for receiving, ordering, refilling, labeling, dispensing, returning, take-back programs, and loss or theft of, and destroying non-controlled substances • OSHA requirements for prevention and treatment of hazardous substance exposure (e.g., eyewash, spill kit) • DEA requirements for record keeping, documentation, and record retention (e.g., length of time that controlled substance records are maintained on file) • OSHA Hazard Communication Standard (e.g., Employee Right to Know) • Federal requirements for accessibility of medications (i.e., Rx, OTC, behind the counter) • Federal requirements for non-controlled substance prescription transfer • FDA requirements for consumer medication information and Medication Guides • Methods to electronically verify a prescriber's DEA and/or NPI number • OBRA-90 requirement for consultation • Reconciliation between state, federal, and local laws and regulations • HIPAA requirements for confidentiality	• FDA requirements for receiving, storing, ordering, labeling, dispensing, returning, and loss or theft of investigational drugs • OSHA and NIOSH requirements and recommendations for training

State Requirements and Practice Standards

PTCE Knowledge Areas	Required	Recommended
Intentionally blank	• State requirements for licensure, registration, and/or certification of pharmacy technicians • State requirements regarding the roles and responsibilities of pharmacists, pharmacy technicians, and other pharmacy employees • State requirements regarding facilities, equipment, and supplies (e.g., space requirements, prescription file storage, cleanliness, reference materials) • State requirements for accessibility of medications (i.e., Rx, OTC, behind the counter) • State requirements for storage, handling, and disposal of non-hazardous, hazardous, and pharmacological substances and wastes (e.g., Safety Data Sheet [SDS], sharps containers, receptacle types) • State schedule classifications for controlled substances • State requirements for receiving, storing, ordering, refilling, labeling, dispensing, returning, take-back programs, loss or theft of, and destroying controlled substances • State requirements for controlled substance prescription transfer • State requirements for record keeping, documentation, and record retention (e.g., length of time that controlled substances and records are maintained on file)	• Accrediting body (e.g., The Joint Commission, AAAHC, DNV) standards for training • Accrediting body (e.g., The Joint Commission, AAAHC, DNV) standards for record keeping of received, repackaged, batch-prepared, recalled, and returned products and supplies • Accrediting body (e.g., The Joint Commission, AAAHC, DNV) standards for competency assessment

Patient Safety and Quality Assurance

PTCE Knowledge Areas	Required	Recommended
3.1 High-alert/risk medications and look-alike/sound-alike [LASA] medications 3.2 Error prevention strategies (e.g., prescription or medication order to correct patient, Tall Man lettering, separating inventory, leading and trailing zeros, bar code usage, limit use of error-prone abbreviations) 3.3* Issues that require pharmacist intervention (e.g., drug utilization review [DUR], adverse drug event [ADE], OTC recommendation, therapeutic substitution, misuse, adherence, post-immunization delivery care, allergies, drug interactions) 3.4 Event reporting procedures (e.g., medication errors, adverse effects, product integrity, MedWatch, VAERS, near miss, root-cause analysis [RCA], continuous quality improvement [CQI]) 3.5* Types of prescription errors (e.g., incorrect dose, quantity, patient, drug, route of administration) 3.6 Infection prevention procedures and cleaning standards (e.g., handwashing, personal protective equipment [PPE], cleaning counting trays, countertops, and equipment)	• Standards of professionalism when interacting with diverse patient populations, colleagues, and professionals • Impact of patient-specific factors on drug and non-drug therapy (e.g., cultural beliefs, disabilities, language barriers, socioeconomic status) • Products used in packaging and repackaging (e.g., type of bags, syringes, glass, PVC, child-resistant caps and light-protective unit-dose packaging) • Information sources used to obtain data in a quality-improvement process (e.g., the patient's chart, patient's medication profile, computerized information systems, medication administration record, immunization registry, medication therapy management [MTM] platforms) • Quality assurance practices for medication and inventory control systems (e.g., bar code, data entry) • Requirements and strategies for identifying errors in practice (e.g., quality improvement teams, opportunity/suggestion cards) • Medication reconciliation process (e.g., purpose, steps)	• Equipment calibration techniques and documentation requirements (e.g., balance, IV pumps) • Measures of productivity, efficiency, and employee/customer satisfaction • Automatic and/or hard stop orders (e.g., IV to PO, ketorolac)

Order Entry and Processing

PTCE Knowledge Areas	Required	Recommended
4.1* Formulas, calculations, ratios, proportions, conversions, Sig codes (e.g., b.i.d., t.i.d., Roman numerals), abbreviations, medical terminology, and symbols for days supply, quantity, dose, concentration, dilutions 4.2* Equipment and supplies required for drug administration (e.g., diabetic supplies, inhaler spacers, oral syringes, injectable syringes, filters, dilution solutions, immunization supplies, nebulizers) 4.3* Lot numbers, expiration dates, and National Drug Code (NDC) numbers 4.4 Procedures for identifying and returning dispensable, non-dispensable, and expired medications and supplies (e.g., credit return, return to stock, reverse distribution)	• Systems for documenting the dispensing of medications, immunizations, and supplies • Techniques for detecting forged, altered, or invalid prescriptions (e.g., watermarks, signatures, handwriting, quantity) • Procedure to stage prescriptions for final verification • Information to be obtained from a patient, patient's representative, and/or health care provider (e.g., medical or medication history, demographic information, allergies, opt-in services information, third-party billing information) • Factors that determine prioritization of prescription/medication order processing (e.g., stat, routine, waiting) • Procedures for selecting and obtaining information from key pharmacy references, regulations, policies, and guidelines (e.g., SDS, NIOSH, USP)	• Procedures to compound nonsterile products (e.g., ointments, mixtures, liquids, emulsions, suppositories, enemas) • Formulas and calculations for nonsterile compounding (e.g., dispensing quantities, days' supply, ratio and proportions, metric conversions, alligations) • Procedures and environmental controls to prepare nonsterile hazardous medications (e.g., negative pressure rooms) • Documentation and record-keeping requirements for compounded products (e.g., lot number, expiration date, batch preparation, compounding record) • Medication mailing requirements (e.g., controlled and non-controlled, cold chain packing requirements, chain of custody) • Procedures for assigning beyond-use dates for nonsterile compounds • Delivery systems (e.g., pneumatic tube, robotics, runners) for distributing medications • Procedures to clean, disinfect, deactivate, and decontaminate compounding areas • Types of enteral products and supplies (e.g., supplemental nutritional formulas) • Procedures to calibrate nonsterile compounding equipment • Distribution procedures for non-patient-specific medications (e.g., RTUs, unit dose, emergency kits, floor stock)

Inventory Management

PTCE Knowledge Areas	Required	Recommended
Intentionally blank	• Procedures to address improperly stored inventory (e.g., temperature and/or humidity excusrions) • Formulary or approved/preferred product list • Suitable alternatives to ordering (e.g., transferring or borrowing medications from another pharmacy) • Medication quality control system requirements (e.g., automated dispensing systems, bar coding, clinic and nursing floor stock, crash carts, emergency kits) • Procedures for ordering medications and supplies • Inventory control practices and record keeping (e.g., par and reorder levels, turnover rates, drug usage patterns, and perpetual inventory) • Procedures to perform physical inventories (e.g., annual, controlled substance)	• Automated equipment inventory management (e.g., configuring drawers, setting par level) • Inventory preparation for final check (e.g., unit dose packaging, filling cassettes, IV fluids, automated dispensing systems)

Administrative and Management

PTCE Knowledge Areas	Required	Recommended
Intentionally blank	• Administrative duties and procedures for pharmacies (e.g., managing files and records, transcription, and other procedures and terminology) • Purpose and proper use of pharmacy reports (e.g., inventory reports, diversion reports, discrepancy reports, override reports, usage reports, input accuracy reports, business summary reports) • Process for handling and destroying confidential/classified information • Role of pharmacy technicians, pharmacists, and other occupations in healthcare	• Preventative maintenance scheduling for automated equipment • Basic data analysis (e.g., interpreting trends in seasonal demands, productivity, margins, staffing needs, drug discrepancies, shortages)

Health and Wellness

PTCE Knowledge Areas	Required	Recommended
Intentionally blank	• Devices used for monitoring and/or screening (e.g., automatic blood pressure monitors, glucose monitors, test strips/lancets, point-of-care tests) • Strategies for assessing patient's adherence to prescriptions/medication orders (e.g., patterns of early/late refills, medication therapy management [MTM]) • Basic knowledge of anatomy, physiology, and pharmacology relevant to pharmacy technicians • Signs and symptoms of a health emergency	• Patient factors that influence drug effects (e.g., age, height, genetics, weight, gender, diet) • Standard laboratory tests and their uses (e.g., cholesterol, blood glucose, A1C, INR) • Durable and non-durable equipment, devices, and supplies (e.g., ostomy supplies, orthopedic devices, pumps) • Procedures and techniques for documenting disease prevention and health promotion initiatives (e.g., immunizations, health screenings, genome testing, and wellness checks) • Risk factors for disease (e.g., alcohol and illicit drug use, smoking, obesity, sedentary lifestyle) • Common immunization schedules and resources • Procedures to obtain vaccine information statements (VIS) • Procedures to collect, organize, and record demographic and clinical information for the Pharmacists' Patient Care Process • Accepted procedures for administering immunizations • Purpose and procedures for point-of-care testing

Billing and Reimbursement

PTCE Knowledge Areas	Required	Recommended
Intentionally blank	*Intentionally blank*	• Characteristics of reimbursement policies and plans (e.g., HMOs, PPO, CMS, Affordable Care Act, private plans, Medicare and Medicaid plans, TriCare, MISSION Act) • Level of service billing (e.g., immunization services, point-of-care testing, durable medical equipment, medication therapy management [MTM], clinical services, medical vs. prescription coverage, Medicare Part B) • Strategies to minimize patient out-of-pocket costs (e.g., formulary tiers) • Strategies to resolve third party rejected claims • Factors influencing reimbursement rates, policies, and plans (e.g., dispensing fee, MAC, AWP, and DAW codes) • Third-party reimbursement (e.g., PBM, medication assistance programs, coupons, 340B program compliance) • Procedures to obtain prior authorization • Procedures to coordinate benefits (e.g., dual coverage and copay reduction plans) • Classes of medications that are relevant to the Centers for Medicare & Medicaid Services (CMS) five-star quality rating system