

247 CMR BOARD OF REGISTRATION IN PHARMACY

247 CMR 18.00: NON-STERILE COMPOUNDING

Section

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18.01: Authority and Purpose

Board regulations at 247 CMR 18.00 are promulgated under the authority of M.G.L. c. 112, § 42A and M.G.L. c. 112, § 39H, and are designed to maintain pharmacists' professional competencies and to promote the highest standards of professional practice.

18.02: Non-Sterile Compounding Process

- (1) A pharmacy shall comply with USP <795> and other applicable USP standards except as otherwise provided herein.
- (2) A pharmacy may not dispense any non-sterile compounded preparation unless it receives a patient specific prescription.
- (3) A pharmacy shall maintain written policies and procedures specific to each level of non-sterile compounding performed.
- (4) A pharmacy shall maintain a written policy and procedure to effectuate a recall of non-sterile compounded preparations in accordance with M.G.L. c. 112, § 39D(e).
- (5) A pharmacy shall maintain a written continuity of care plan that describes how patient needs will be met in the event the pharmacy is unexpectedly unable to compound or dispense patient prescriptions.
- (6) A pharmacy shall evaluate the dose, safety, and intended use of the non-sterile compounded preparation for suitability. The evaluation shall include:
 - (a) the chemical and physical properties of the components;
 - (b) dosage form;

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- (c) therapeutic appropriateness and route of administration; and
 - (d) legal limitations, if any.
- (7) A pharmacy shall maintain a written policy and procedure to confirm all compounding ingredients used in a formulation have the expected identity, quality, and purity.
- (8) Compounding personnel may not compound more than one preparation at a time in a specific workspace.
- (9) Compounding personnel shall wear clean clothing, garb, and personal protective equipment appropriate to the type of compounding performed.
- (10) Compounding personnel shall maintain good hand hygiene.
- (11) A pharmacy and pharmacist that utilize pre-measured compounding kits shall adhere to all USP 795 standards and 247 CMR 18.00.

18.03: Non-Sterile Compounding Facility

- (1) A pharmacy licensed as a retail complex non-sterile pharmacy pursuant to M.G.L. c. 112, § 39H shall have a designated compounding room that is least 100 square feet.
- (2) A pharmacy licensed as a retail complex non-sterile pharmacy pursuant to M.G.L. c. 112, § 39H shall have a containment hood. A pharmacy shall vent the exhaust away from the containment hood and shall filter the exhaust.
- (3) A pharmacy that has a containment hood shall maintain the containment hood in accordance with manufacturer specifications and shall ensure the containment hood is certified at least one time per year.
- (4) A pharmacy that performs simple or moderate level non-sterile compounding shall have a designated compounding area that is at least 10 square feet and suitable for its intended purpose. A pharmacy shall locate the designated compounding area in an area that minimizes contact with water from a sink.
- (5) A pharmacy shall ensure non-sterile compounding rooms and areas allow for the orderly placement of equipment and materials to prevent confusion among ingredients, containers, labels, in-process materials, and finished preparations and shall be designed, arranged, and used to prevent cross-contamination.
- (6) Non-sterile compounding rooms and areas shall be well lit.

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- (7) A pharmacy shall utilize purified water for non-sterile compounding when a formulation requires the inclusion of water.
- (8) A pharmacy shall have a potable water supply in the non-sterile compounding area or room in order to wash hands and equipment. The sink shall have hot and cold water, soap or detergent, and single-use towels.
- (9) A pharmacy shall maintain a plumbing system that is free of defects that could contribute to contamination of any non-sterile compounded preparation.
- (10) A pharmacy licensed as a retail complex non-sterile pharmacy pursuant to M.G.L. c. 112, § 39H shall maintain a temperature of 65-77°F (18-25°C) and a humidity of not more than 65% in the compounding room.
- (11) A pharmacy shall store all non-sterile compounding ingredients, equipment, utensils, glassware, and containers off the floor, in a manner to prevent contamination, and in a manner to permit inspection and cleaning.
- (12) A pharmacy shall separate internal use compounding ingredients from external use compounding ingredients during storage. Storage areas shall be clearly labeled for internal use or external use ingredients.

18.04: Non-Sterile Compounding Equipment

- (1) Non-sterile compounding equipment, utensils, and glassware shall be clean, properly maintained, and appropriate for compounding non-sterile preparations. Compounding personnel shall clean non-sterile compounding equipment, utensils, and glassware before and after each use and shall use purified water during a final rinse. Compounding personnel shall inspect equipment, utensils, and glassware for suitability prior to use.
- (2) A pharmacy shall use equipment for non-sterile compounding that is commercial or pharmaceutical grade.
- (3) Non-sterile compounding equipment shall be of suitable composition so that the surfaces that contact ingredients are not reactive, additive, or adsorptive.
- (4) A pharmacy shall maintain a written policy and procedure regarding non-sterile compounding equipment that requires:
 - (a) routine inspection and calibration of non-sterile compounding equipment; and
 - (b) inspection by compounding personnel immediately prior to each use.

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18:05: Non-Sterile compounding Ingredient Selection, Handling, and Storage

- (1) A pharmacy shall store all non-sterile compounding ingredients in accordance with manufacturer specifications, or according to USP monograph requirements if manufacturer specifications are not available.
- (2) In the event a pharmacy cannot obtain non-sterile compounding ingredients from an FDA-registered facility, a pharmacist shall verify the purity and safety of ingredients by reasonable means, including review of the Certificate of Analysis.
- (3) A pharmacy shall maintain a certificate of analysis for each active pharmaceutical ingredient (“API”). The certificates of analysis shall be readily retrievable.
- (4) In the event a manufacturer or supplier of a stock container of a non-sterile compounding ingredient does not assign an expiration date to the ingredient, a pharmacy shall assign an expiration date to the stock container based on the nature of the ingredient, the packaging, and the storage considerations. The assigned expiration date shall not exceed three years from the date the pharmacy received the stock container or one year from the date the container was opened, whichever period is shorter. A pharmacy shall label the stock container with the date the pharmacy received the stock container, the date the pharmacy opened the stock container, and the assigned expiration date.
- (5) A pharmacy shall maintain written documentation demonstrating that any compounding ingredient derived from ruminant animals complies with federal laws and regulations governing the processing, use, and importation requirements for these materials.
- (6) A pharmacy shall ensure each non-sterile compounding ingredient is clearly labeled with the product name, original supplier, lot number, strength or concentration, expiration date, and transfer date if the ingredient was transferred out of its original container.

18.06: Packaging and Preparation Containers

- (1) A pharmacy shall utilize containers made of suitable and clean material that does not alter the quality, strength, or purity of the non-sterile compounded preparation.
- (2) A pharmacy shall verify any packing, shipping, and transportation processes do not adversely affect the integrity and stability of non-sterile compounded preparations. A pharmacy shall maintain written policies and procedures regarding packing, shipping, and transportation processes.
- (3) In addition to standard prescription labeling requirements, a pharmacy shall include the following information on the label or container for each non-sterile compounded preparation:
 - (a) the Beyond Use Date (“BUD”);

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- (b) storage and handling information; and
- (c) the statement, "This is a non-sterile compounded drug preparation."

18.07: Stability and Beyond Use Dating ("BUD")

- (1) A pharmacy may not assign a BUD to a non-liquid formulation that exceeds the earliest expiration date of any ingredient or six months, whichever is earlier.
- (2) A pharmacy may not assign a BUD to a water-containing oral formulation that exceeds 14 days when stored at 36-46°F (2-8°C).
- (3) A pharmacy may not assign a BUD to a water-containing topical/dermal, mucosal liquid, or semisolid formulation that exceeds 30 days.
- (4) A pharmacy may assign an extended BUD to a specific non-sterile compounded preparation that exceeds the BUDs described in 247 CMR 18.07(1)-(3) if the pharmacy maintains scientific evidence from relevant and reliable sources or validation studies by direct testing that demonstrate the specific preparation remains stable until the extended BUD expires.
- (5) A pharmacy shall package all non-sterile compounded preparations in tight, light-resistant containers.

18.08: Non-Sterile Compounding Documentation

- (1) A pharmacy shall follow a master formulation record each time it prepares a non-sterile compounded preparation that includes:
 - (a) official or assigned name, strength, and dosage form of the preparation;
 - (b) calculations to determine and verify quantities of compounding ingredients and doses of active pharmaceutical ingredients;
 - (c) list of all ingredients and their quantities;
 - (d) compatibility and stability information, including references when applicable;
 - (e) equipment necessary to prepare the preparation;
 - (f) instructions for mixing, including:
 - (i) order of mixing;
 - (ii) mixing temperatures or other environmental controls, when applicable;
 - (iii) duration of mixing; and
 - (iv) other necessary information.
 - (g) labeling information, including:
 - (i) generic name and quantity or concentration of each active ingredient;
 - (ii) BUD;

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- (iii) storage conditions; and
 - (iv) prescription, lot, or control number, whichever is applicable.
 - (h) container to be used for dispensing;
 - (i) packaging and storage requirements;
 - (j) description of final preparation;
 - (k) quality control procedures and expected results; and
 - (l) appropriate safety precautions..
- (2) Compounding personnel shall complete a compounding record each time he/she prepares a non-sterile compounded medication that includes:
- (a) official or assigned name, strength, and dosage of the preparation;
 - (b) reference to the master formulation record;
 - (c) names and quantities of all ingredients;
 - (d) all manually computed calculations;
 - (e) sources, lot numbers, and expiration dates of all ingredients;
 - (f) total quantity compounded;
 - (g) name of the person who prepared the preparation, name of the person who performed the quality control procedures, and name of the pharmacist who verified the preparation;
 - (h) identity of any automated compounding device;
 - (i) date of preparation;
 - (j) lot number, as applicable;
 - (k) prescription number;
 - (l) BUD;
 - (m) duplicate patient prescription label;
 - (n) description of final preparation;
 - (o) results of quality control procedures; and
 - (p) documentation of any quality control issues and any adverse reactions or preparation problems reported by the patient or caregiver.
- (3) The compounding record shall serve as the accountability documentation pursuant to M.G.L. c. 112, §§ 39D & 39F.
- (4) A pharmacy shall maintain a Safety Data Sheet (“SDS”) for each drug substance and bulk chemical. The SDSs shall be readily retrievable.
- (5) A pharmacist shall verify the compounding record followed the master formulation record to ensure that errors did not occur in the compounding process and that the preparation is suitable for use.

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18.09: Quality Control

- (1) A pharmacist shall verify the accuracy of each procedure in the non-sterile compounding process, including all pharmaceutical calculations.
- (2) A pharmacist shall inspect the finished preparation and shall verify the finished preparation appears as expected. A pharmacist shall investigate any discrepancy and take appropriate corrective action before the prescription is dispensed to a patient.
- (3) A pharmacy shall maintain written policies and procedures to ensure that the pharmacist investigates, documents, and corrects any reported problem with a non-sterile compounded preparation.
- (4) A pharmacist shall investigate and document any suspected or reported problem with a non-sterile compounded preparation and shall take corrective action.
- (5) A pharmacy shall maintain written policies and procedures that describe the manner in which any test or examination is conducted on the non-sterile compounded preparation to ensure uniformity and integrity.
- (6) A pharmacy shall maintain written policies and procedures for change control, including planning, implementation, and validation of new or changed facilities, equipment, or processes.
- (7) Dosage forms of non-sterile compounded preparations as defined in USP <1111> must meet acceptance criteria for microbiological quality.

18.10: Patient Counseling

- (1) A pharmacy shall maintain written policies and procedures pertaining to patient counseling on non-sterile compounded preparations. The policies and procedures shall include a procedure for instructing the patient or the patient's agent to report any adverse event related to the preparation to the compounding pharmacy and to observe and report any changes in the physical characteristics of the non-sterile compounded preparation to the compounding pharmacy.
- (2) A pharmacist or pharmacy intern shall counsel each patient or patient's agent that receives a non-sterile compounded preparation. In addition to the counseling described in M.G.L. c. 94C, § 21A, counseling on a non-sterile compounded preparation may include the use, storage, handling, and disposal of the medication.
- (3) A pharmacist or pharmacy intern shall instruct the patient or the patient's agent to report any adverse event related to the preparation to the compounding pharmacy and to observe and report any changes in the physical characteristics of the non-sterile compounded preparation to the compounding pharmacy.

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18.11: Training

- (1) A pharmacy shall ensure all personnel that engage in or oversee non-sterile compounding or that engage in or oversee the evaluation, packaging, and dispensing of non-sterile compounded preparations are properly trained for the type of compounding conducted.
- (2) A pharmacy shall evaluate and document the competency of all personnel who engage in or oversee non-sterile compounding at least one time per year.
- (3) A pharmacy shall maintain documentation of all training activities and competency assessments. The documentation shall be readily retrievable and retained for at least two years.

18.12: Compounding for Veterinary Patients

- (1) Non-sterile compounded preparations for veterinary patients shall comply with USP <795> and 247 CMR 18.00.
- (2) A pharmacist shall be trained and shall demonstrate competency in veterinary compounding.
- (3) A pharmacist shall be familiar with and shall comply with all state and federal laws and regulations regarding drug use in animals.