

**7/20/2016**

The following information is being provided pursuant to the requirements of Executive Order 2011-01K and Senate Bill 2 of the 129th General Assembly, which require state agencies, including the State of Ohio Board of Pharmacy, to draft rules in collaboration with stakeholders, assess and justify an adverse impact on the business community (as defined by S.B. 2), and provide an opportunity for the affected public to provide input on the following rules.

**Amended**

- 4729-16-01: Definition section for drug compounding rule chapter. Updates the definition of compounding to include the preparation of sterile and non-sterile compounded drugs. Updates reference for the definition of hazardous drugs to new section of the United States Pharmacopeia (USP 800). Includes definition of sterile and non-sterile compounded drugs. Defines the phrase “licensed personnel approved by the responsible person” as specified in OAC 4729-16-04, 11 and 13.
- 4729-16-04: Specifies requirements for prescribers who compound drugs. Further defines the responsibility of the responsible person on the terminal distributor license. Includes new requirements for single-use and multi-use vials. Specifies the requirements for cleaning and disinfecting areas where drugs are compounded. Requires the adherence to aseptic technique when compounding drugs. References proposed immediate use drug compounding rule 4729-16-13. Permits a registered nurse who prepares a compounded drug to administer the drug.

**New**

- 4729-16-13: Specifies requirements for prescribers who compound drugs for immediate-use. Includes requirements for preparing drugs in a clean environment and adherence to aseptic technique to prevent contamination. The rule also includes time restrictions for the use of drugs opened outside of ISO 5 environment.

Comments on the proposed rules will be accepted until close of business on August 5, 2016.

Please send all comments to the following email address:

[Cameron.mcnamee@pharmacy.ohio.gov](mailto:Cameron.mcnamee@pharmacy.ohio.gov)

In addition, please copy your comments to:

[CSIPublicComments@governor.ohio.gov](mailto:CSIPublicComments@governor.ohio.gov)

77 SOUTH HIGH STREET | 30TH FLOOR | COLUMBUS, OHIO 43215-6117

[CSIOhio@governor.ohio.gov](mailto:CSIOhio@governor.ohio.gov)

# CSI - Ohio

The Common Sense Initiative

## Business Impact Analysis

Agency Name: State of Ohio Board of Pharmacy

Regulation/Package Title: Compounding

Rule Number(s): Amend: 4729-16-01; 16-04

New: 4729-16-13

Date: 07/20/2016

Rule Type:

New

5-Year Review

Amended

Rescinded

The Common Sense Initiative was established by Executive Order 2011-01K and placed within the Office of the Lieutenant Governor. Under the CSI Initiative, agencies should balance the critical objectives of all regulations with the costs of compliance by the regulated parties. Agencies should promote transparency, consistency, predictability, and flexibility in regulatory activities. Agencies should prioritize compliance over punishment, and to that end, should utilize plain language in the development of regulations.

### Regulatory Intent

1. Please briefly describe the draft regulation in plain language.

#### Amended

- 4729-16-01: Definition section for drug compounding rule chapter. Updates the definition of compounding to include the preparation of sterile and non-sterile compounded drugs. Updates reference for the definition of hazardous drugs to new section of the United States Pharmacopeia (USP 800). Includes definition of sterile and non-sterile compounded drugs. Defines the phrase “licensed personnel approved by the responsible person” as specified in OAC 4729-16-04, 11 and 13.

77 SOUTH HIGH STREET | 30TH FLOOR | COLUMBUS, OHIO 43215-6117

[CSIOhio@governor.ohio.gov](mailto:CSIOhio@governor.ohio.gov)

- 4729-16-04: Specifies requirements for prescribers who compound drugs. Further defines the responsibility of the responsible person on the terminal distributor license. Includes new requirements for single-use and multi-use vials. Specifies the requirements for cleaning and disinfecting areas where drugs are compounded. Requires the adherence to aseptic technique when compounding drugs. References proposed immediate use drug compounding rule 4729-16-13. Permits a registered nurse who prepares a compounded drug to administer the drug.

### **New**

- 4729-16-13: Specifies requirements for prescribers who compound drugs for immediate-use. Includes requirements for preparing drugs in a clean environment and adherence to aseptic technique to prevent contamination. The rule also includes time restrictions for the use of drugs opened outside of ISO 5 environment.

### **2. Please list the Ohio statute authorizing the Agency to adopt this regulation.**

The proposed rules are authorized by sections 4729.26 & 3719.28 of the Ohio Revised Code. The following sections of the Ohio Revised Code are also considered authorizing statutes for this rule package: 4729.01, 4729.51, 4729.53, 4729.54, 4729.541 and 4729.55.

### **3. Does the regulation implement a federal requirement? Is the proposed regulation being adopted or amended to enable the state to obtain or maintain approval to administer and enforce a federal law or to participate in a federal program?**

The rule does not implement a federal requirement.

### **4. If the regulation includes provisions not specifically required by the federal government, please explain the rationale for exceeding the federal requirement.**

This rule package exceeds federal requirements because the regulation of drug compounding (notably by prescribers) is not specifically done by any federal entity and is authorized in statute to be conducted by the State of Ohio Board of Pharmacy.

### **5. What is the public purpose for this regulation (i.e., why does the Agency feel that there needs to be any regulation in this area at all)?**

Section 4729.26 of the Ohio Revised Code authorizes the state board of pharmacy to adopt rules governing the practice of pharmacy and distribution and use of dangerous drugs.

The rules proposed under this statutory authority are necessary to facilitate compliance with the provisions in Chapter 4729. of the Ohio Revised Code to promote the public's safety and uniformity of care throughout Ohio. Without these regulations, the State of Ohio Board of Pharmacy would not be able to set uniform requirements for the safe compounding of dangerous drugs by prescribers.

**6. How will the Agency measure the success of this regulation in terms of outputs and/or outcomes?**

The success of the regulations will be measured by having rules written in plain language, licensee compliance with the rules, and minimal questions from licensees and prescribers regarding the provisions of the rules.

**Development of the Regulation**

**7. Please list the stakeholders included by the Agency in the development or initial review of the draft regulation.**

The rules in this package were reviewed by a number of stakeholders comprised of the Board's Rules Review Committee. Members include individuals from hospital systems, specialty practice, academia and retail settings. The Board also received feedback from a number of prescriber groups (including dermatologists, podiatrists and plastic surgeons) regarding the need to use a drug opened outside of an ISO Class 5 environment (air quality) for longer than a 1-hour period.

Prior to filing with CSI, the rules were reviewed and approved by the Board of Pharmacy.

**8. What input was provided by the stakeholders, and how did that input affect the draft regulation being proposed by the Agency?**

The main input from many of the prescriber organizations is the need to utilize certain drugs opened outside of an ISO Class 5 environment for longer than the proposed 1-hour. To address this the Board did create 4729-16-13 and expand the use to up-to 6-hours if the prescriber utilizes a closed-system transfer device.

**9. What scientific data was used to develop the rule or the measurable outcomes of the rule? How does this data support the regulation being proposed?**

For 4729-16-01 and 16-04, the Board did utilize scientific expertise in that the rule references The United States Pharmacopeial Convention (USP) drug compounding standards and definitions from those standards.

For 4729-16-13, the Board utilized the following data from the USP Committee on Analytical Microbiology to develop the 6-hour cut-off for any immediate-use product prepared outside of a primary engineering device (i.e. hood) and clean room. As the chart shows, the rate of microbial growth in a potentially contaminated drug product increases exponentially with time.

Time (Hours)	Microbial Count (CFU per mL)
6	10
9	640
12	41,000
18	1.7 x 10 <sup>7</sup>
24	6.9 x 10 <sup>9</sup>

Cundell AM, USP Committee on Analytical Microbiology, Pharmacopeial Forum 2002; 28 (6) Stimuli to the Revision Process

Additionally, the Board utilized several studies to support the use of a closed system transfer device (CSTD) to permit the use of a single-use vial exposed to air outside of a primary engineering control for up to 6-hours:

*De Prijck K, D'Haese E, Vandenbroucke J, et al. Microbial challenge of four protective devices for the reconstitution of cytotoxic agents. Lett Appl Microbiol. 2008;47:543-548.*

McMichael DM, Jefferson DM, Carey ET, et al. Utility of the PhaSeal closed system drug transfer device. Am J Pharm Benefits. 2011;3:9-16.

Carey ET, Forrey RA, Haughs D, et al. Second look at utilization of a closed-system transfer device (PhaSeal). Am J Pharm Benefits. 2011;3:311-318.

Bouza E, Munoz P, Lopez-Rodriguez J, et al. A needleless closed system device (Clave) protects from intravascular catheter tip and hub colonization: a prospective randomized study. Journal of Hospital Infection. 2003; 54: 279–287.

Clave Multi-dose Vial Access Microbial Ingress Testing: ICU Medical Laboratory Test Report 01-170T.

**10. What alternative regulations (or specific provisions within the regulation) did the Agency consider, and why did it determine that these alternatives were not appropriate? If none, why didn't the Agency consider regulatory alternatives?**

As the regulations are essential to protecting the public's health and safety by ensuring the safe and effective implementation of the drug compounding chapter, the State of Ohio Board of Pharmacy did not consider any regulatory alternatives.

**11. Did the Agency specifically consider a performance-based regulation? Please explain. Performance-based *regulations define the required outcome, but don't dictate the process* the regulated stakeholders must use to achieve compliance.**

The Board did not consider a performance-based regulation for the rule package. It is the Board's responsibility to ensure that standard definitions for compounding and preparation of compounded drugs by prescribers are consistent throughout the state.

**12. What measures did the Agency take to ensure that this regulation does not duplicate an existing Ohio regulation?**

The Board of Pharmacy's Director of Policy and Communications reviewed the proposed rules to ensure that the regulations do not duplicate another State of Ohio Board of Pharmacy regulation.

**13. Please describe the Agency's plan for implementation of the regulation, including any measures to ensure that the regulation is applied consistently and predictably for the regulated community.**

The rules will be posted on the Board of Pharmacy's web site, information concerning the rules will be included in materials e-mailed to licensees, and notices will be sent to associations, individuals and groups. Board of Pharmacy staff are also available via phone or email to answer questions regarding implementation of the rules. In addition, the Board's compliance agents are trained to educate licensees on current and/or new regulations during on-site inspections.

Board of Pharmacy staff receive regular updates on rules via a monthly internal newsletter, biannual staff meetings featuring a regulatory update, mandatory all-day law reviews for new employees, email updates from the Director of Policy and feedback from the Board's legal department for every citation submitted.

**Adverse Impact to Business**

**14. Provide a summary of the estimated cost of compliance with the rule. Specifically, please do the following:**

**a. Identify the scope of the impacted business community;**

The rule package impacts the following:

- Prescribers who are engaged in drug compounding.

**b. Identify the nature of the adverse impact (e.g., license fees, fines, employer time for compliance); and**

Violation of these rules may result in administrative licensure discipline for a terminal distributor of dangerous drugs. Discipline might include reprimand, suspension of a license, monetary fine and/or revocation of a license.

**c. Quantify the expected adverse impact from the regulation.**

- 4729-16-01: This is a definitional section and should have no adverse impact.
- 4729-16-04: Overall this rule will result in increased costs to prescribers that prepare compounded drugs that are not for immediate use. The major cost incurred is the purchase of an ISO 5 hood, which can cost up to \$6,000. Additional costs include equipment to maintain an aseptic environment such as gloves, masks, gowns, head and shoe covers. Additional costs also include staff time for training personnel in proper compounding techniques, cleaning and disinfecting compounding areas and ensuring compliance with the rule. While not a direct result of the rule, it does state that any prescriber compounding drugs must obtain a terminal distributor of dangerous drugs. The cost of a terminal distributor license ranges from \$112.50 – 150 per year based on the types of drugs stored at that facility. However, there is a planned reduction in this fee to \$60 for solo practitioners and smaller practices effective April 2017. The time it takes to complete an application is approximately 30 minutes.
- 4729-16-13: Prescribers who are engaged in immediate-use compounding only will not be required to purchase of an ISO 5 hood. However, prescribers who normally keep single-use vials (for potential use on other patients) for more than 6-hours will experience an increase as a result of having to discard the medication and use a new vial. In addition, prescribers who wish to use a single dose vial for up to 6-hours will have to do so utilizing a closed system transfer device. Such devices cost approximately \$2-3 per vial (cost estimates provided by a health system) based on the prescriber's purchasing contract. Prescribers will also be required to prepare drugs using aseptic technique which will require, at minimum, the use of gloves and proper hand hygiene. Additional costs also include staff time for training personnel in proper compounding techniques, cleaning and disinfecting compounding areas and ensuring compliance with the rule. While not a direct result of the rule, it does state that any prescriber compounding drugs must obtain a terminal distributor of dangerous drugs. The cost of a terminal distributor license ranges from \$112.50 – \$150 per year based on the types of drugs stored at that facility. However, there is a planned reduction in this fee to \$60 for solo practitioners and smaller practices effective in April 2017. The time it takes to complete an application is approximately 30 minutes.

**15. Why did the Agency determine that the regulatory intent justifies the adverse impact to the regulated business community?**

The Board determined that the regulatory intent justifies the impact on business because patients deserve uniform standards to ensure that their drugs are compounded safely. This is particularly applicable as it relates to infection control measures. The U.S. Centers for Disease Control and Prevention (CDC) continues to see outbreaks in healthcare settings where providers thought they were preparing and administering injections safely. In the last 5 years alone, CDC is aware of at least 26 outbreaks due to unsafe injection practices. These outbreaks resulted in more than 95,000 patients being referred for testing after potential exposure to infectious diseases. 73% (n=19) of these outbreaks involved use of single-dose/single-use medications.

All of the outbreaks associated with improper use of single-dose/single-use medications occurred in outpatient settings. These and other suboptimal practices are common, as reported by numerous studies about infection control compliance rates. In fact, in one study published in the Journal of the American Medical Association, CDC and Centers for Medicare and Medicaid Services colleagues reported that two-thirds of the outpatient facilities inspected had lapses in basic infection control practices (<http://blogs.cdc.gov/safehealthcare/?p=419>). Moreover, infection surveillance is lacking in most outpatient settings; thus it is likely that outbreaks are occurring at a higher frequency, but going undetected.

More broadly, these regulations seek to address best practices identified by national experts. For example, in 2014, Pew convened an advisory committee of state regulators and experts to examine state oversight of compounding and develop best practices. The advisory committee affirmed that quality standards must be the same wherever compounding occurs and expressed concern that compounding in doctors' offices is not always regulated or tracked well. States should have a mechanism to identify and oversee doctor's office compounding. [http://www.pewtrusts.org/~media/assets/2016/02/best\\_practices\\_for\\_state\\_oversight\\_of\\_drug\\_compounding.pdf](http://www.pewtrusts.org/~media/assets/2016/02/best_practices_for_state_oversight_of_drug_compounding.pdf)

Therefore, without such quality standards for prescribers, the Board would not be fulfilling its mission to protect the health and safety of Ohioans.

**Regulatory Flexibility**

**16. Does the regulation provide any exemptions or alternative means of compliance for small businesses? Please explain.**

These rules do not provide any exemptions or alternative means of compliance for small businesses. The law does not differentiate on the size of the business and therefore the regulations are uniform across Ohio.



**17. How will the agency apply Ohio Revised Code section 119.14 (waiver of fines and penalties for paperwork violations and first-time offenders) into implementation of the regulation?**

The State of Ohio Board of Pharmacy does not fine licensees or impose penalties for first-time paperwork violations. However, any failure of a standard of care in the practice of pharmacy or the preparation/distribution of dangerous drugs is not considered a paperwork error but a quality assurance issue by the licensee that is necessary for the protection of the public.

**18. What resources are available to assist small businesses with compliance of the regulation?**

Board of Pharmacy staff are available by telephone and e-mail to answer questions. Board staff members also provide presentations to groups and associations who seek updates on current regulations. Additionally, field staff (i.e. compliance officers) are trained to educate licensees on compliance with all Board of Pharmacy rules and regulations.

## **4729-16-01 Definitions.**

(A) As used in this chapter of the Administrative Code:

(1) For the purposes of this chapter, "compounding" means the preparation sterile compounded drugs and non-sterile compounded drug or drug products. Such preparations may be hazardous or non-hazardous.

(2) "Cytotoxic" means a drug that has been shown to be carcinogenic or mutagenic to humans through active or passive exposure.

(3) "Drug" has the same meaning as division (E) of section [4729.01](#) of the Revised Code.

(4) "Drug shortage" means a drug on the United States food and drug administration's drug shortage list that is not commercially available regardless of the reason that the drug is not available, including the absence of a manufacturer for the drug or the lack of a readily available supply of the drug from a manufacturer or wholesaler.

(5) "Fluid therapy pharmacy" means a pharmacy where the primary purpose is to compound and dispense parenteral compounded sterile product prescriptions.

(6) "Hazardous drugs" has the same meaning as defined in the United States pharmacopeia chapter <797> (08/01/2014). <800> USP 39 - NF 34, or any official supplement thereto (6/30/2016).

(7) "In-state health care facility" means any of the following that are licensed as a terminal distributor of dangerous drugs in the state of Ohio:

(a) A hospital registered with the department of health under section [3701.07](#) of the Revised Code;

(b) Ambulatory surgical facility as defined in section [3702.30](#) of the Revised Code; or

(c) Emergency medical service (EMS) organization as defined in section [4765.01](#) of the Revised Code.

(8) "In-state pharmacy" means any pharmacy, as defined in section [4729.01](#) of the Revised Code, located inside of Ohio that ships, mails, or delivers, in any manner, drugs at retail in or out of Ohio. An in-state pharmacy does not include a nuclear pharmacy as defined in rule [4729-15-01](#) of the Administrative Code.

(9) "Licensed health professional authorized to prescribe drugs" or "prescriber" has the same meaning as defined in division (I) of section [4729.01](#) of the Revised Code.

(10) "Medical director" means the physician who is responsible for managing and directing the provision of medical services at an in-state health care facility.

(11) "Non-resident pharmacy" means any pharmacy, as defined in section [4729.01](#) of the Revised Code, located outside of Ohio that ships, mails, or delivers, in any manner, drugs at retail into Ohio. A non-resident pharmacy does not include a nuclear pharmacy as defined in rule [4729-15-01](#) of the Administrative Code.

(12) "Non-sterile compounded drug" means a preparation which is not required to be sterile that is created by combining, reconstituting, diluting, pooling, or otherwise altering a dangerous drug product or bulk drug substance.

(13) "Outsourcing facility" means a facility at one geographic location or address that is engaged in anticipatory compounding of sterile drugs and complies with the United States food and drug administration section 503B of the Federal Food, Drug, and Cosmetic Act (11/27/2013).

(14) "Parenteral" means a sterile preparation of drugs for injection through one or more layers of the skin.

(15) "Sterile" means a dosage form free of living microorganisms (aseptic).

(16) "Sterile compounded drug" means a preparation intended to be sterile that is created by combining, reconstituting, diluting, pooling, or otherwise altering a dangerous drug product or bulk drug substance.

(17) "Verified Pharmacy Program" means a program operated by the national association of boards of pharmacy that conducts inspections of pharmacies.

(18) "Licensed personnel approved by the responsible person" as used in paragraph (I) of rule 4729-16-04, paragraph (G) of rule 4729-16-11 and paragraph (I) of rule 4729-16-13 means individuals licensed or registered pursuant to Chapters 4723., 4729., 4730., and 4731. of the Revised Code.

#### **4729-16-04 Drugs compounded by a prescriber.**

(A) A facility where a prescriber is compounding drugs shall be licensed as a terminal distributor of dangerous drugs pursuant to section 4729.541 of the Revised Code. The responsible person on the license shall be an Ohio licensed prescriber as defined in section [4729.01](#) of the Revised Code and is responsible for all of the following:

- (1) Developing and implementing appropriate procedures;
- (2) Overseeing facility compliance with this rule;
- (3) Compliance with section 503A of the Federal Food, Drug, and Cosmetic Act (05/09/2015) and all other applicable federal and state laws and rules;
- (4) Ensuring competency of compounding personnel; and
- (5) Ensuring environmental control of the compounding areas.
- (6) Ensuring compounded drug products maintain their quality and sterility until administered or personally furnished.

(B) As used in this rule, a low-risk sterile compounded drug means all of the following:

- (1) Does not involve any hazardous drugs as defined in rule [4729-16-01](#) of the Administrative Code.
- (2) The drug is compounded with aseptic manipulations entirely within ISO class 5 or better air quality using only sterile ingredients, products, components, and devices.
- (3) The compounding involves only transfer, measuring, and mixing manipulations using not more than three commercially manufactured packages of sterile products and not more than two entries into any one sterile container or package (e.g., bag, vial) of sterile product or administration container/device to prepare the compounded sterile product.
- (4) Manipulations are limited to aseptically opening ampules, penetrating disinfected stoppers on vials with sterile needles and syringes, and transferring sterile liquids in sterile syringes to sterile administration devices, package containers of other sterile products, and containers for storage and dispensing.
- (5) Administration of the drug shall commence within twelve hours of preparation or as recommended in the manufacturers' package insert, whichever is less.

(C) A prescriber who prepares low-risk sterile compounded drugs as defined in paragraph (B) of this rule shall meet all of the following requirements:

(1) A policy and procedure manual shall be prepared, maintained, and reviewed regularly by the responsible person regarding the compounding, safe handling, personally furnishing, and administration of compounded drugs.

The policy and procedure manual shall include a quality assurance program for the purpose of monitoring personnel qualifications, training and performance, product integrity, equipment, facilities, and guidelines regarding patient education. The policy and procedure manual shall be current and available for inspection and copying by a state board of pharmacy designated agent. The policy and procedure manual shall be current and available for inspection and copying by a state board of pharmacy designated agent.

(2) Physical requirements

(a) The facility shall have a designated area with access limited to authorized personnel for preparing low risk sterile compounded drugs. This area shall be isolated from other areas; including areas used to prepare hazardous compounded products, and must be designed to avoid unnecessary traffic and airflow disturbances from activity within the controlled area. It shall be used only for the preparations of low risk sterile compounded drugs and provide for the proper storage of drugs and supplies under appropriate conditions of temperature, light, moisture, sanitation, ventilation, and security. Cleaning and disinfecting of areas within the designated area including the primary engineering control device, counters, easily cleanable work surfaces and floors shall occur each business day. If compounding is done less frequently than each business day (e.g., once a week or once a month), cleaning shall occur before each compounding session begins. Cleaning and disinfection agents must be selected and used with careful consideration of compatibilities, effectiveness, and inappropriate or toxic residues.

(b) The facility shall have:

(i) Appropriate primary engineering control devices capable of maintaining an ISO class 5 environment in the work place where critical objects are exposed and critical activities are performed. These devices shall be capable of maintaining an ISO class 5 environment during normal activity. Examples of such devices include laminar airflow workbenches (LAFWs), biological safety cabinets (BSCs), compounding aseptic isolators (CAIs), and compounding aseptic containment isolators (CACIs).

(ii) Infusion devices and equipment, if appropriate.

(iii) Appropriate temperature controlled transport containers.

(c) The facility shall maintain supplies adequate to maintain an environment suitable for the aseptic preparation of sterile products.

(d) The facility shall have sufficient current reference materials related to sterile products to meet the needs of the facility staff.

(e) Low-risk sterile compounded drugs shall be prepared within an ISO class 5 environment and in accordance with all provisions of this rule except in an emergency situation when the product is required to treat the immediate needs of a patient whose health would otherwise be jeopardized.

(3) Patient training

(a) Whenever possible, a prescriber shall be involved in discussing with each patient receiving a low-risk sterile compounded product, or the caregiver of such individual, the following matters:

(i) Dosage form, dosage, route of administration, and duration of drug therapy;

(ii) Special directions and precautions for preparation and administration;

(iii) Stability or incompatibilities of the medication.

(4) Quality assurance

(a) There shall be a documented, ongoing quality assurance control program that monitors personnel performance, equipment, finished compounded drug products, and facilities. At a minimum, there shall be written quality assurance programs developed that address:

(i) Adequate training and continuing competency monitoring, including an initial skills assessment and examination as well as annual assessments, of compounding personnel in all of the following areas:

(a) Personal cleansing including proficiency of proper hand hygiene;

(b) Proper attire;

(c) Aseptic technique;

(d) Proper clean room conduct; and

(e) Clean room disinfecting procedures.

(ii) Continued verification of compounding accuracy including physical inspection of end products.

(iii) Continued verification of automated compounding devices.

(iv) End product testing including, but not limited to, the appropriate sampling of products if microbial contamination is suspected.

(b) Instructors shall have the appropriate knowledge and experience necessary to conduct the training.

(c) All clean rooms and other primary engineering devices shall have environmental monitoring performed at least every six months to certify operational efficiency. There shall be a plan in place for immediate corrective action if operational efficiency is not certified. Records certifying operational efficiency shall be maintained for at least three years.

(5) Personal protective equipment (PPE) Aseptic and Clean Technique

(a) The following PPE is required for low-risk compounding of sterile drug products:

(i) Sterile powder-free gloves;

(ii) Gowns, face masks, head, hair, and shoe covers.

(a) During drug compounding proper aseptic technique in accordance with United States Pharmacopeia Chapter <797>, USP 39-NF 34, or any official supplement thereto (6/30/2016) shall be utilized, including all of the following:

(i) Before beginning compounding activities, personnel shall perform a thorough hand-hygiene procedure.

(ii) Compounding personnel shall use appropriate personal protective equipment (PPE) in accordance with United States Pharmacopeia Chapter <797>, USP 39-NF 34, or any official supplement thereto (6/30/2016)

(iii) All drug products used in compounding activities shall be handled using processes in accordance with United States Pharmacopeia Chapter <797>, USP 39-NF 34, or any official supplement thereto (6/30/2016)

(iv) Compounding personnel shall disinfect their gloves at appropriate periodic intervals using 70% isopropyl alcohol (IPA) when preparing multiple low-risk compounded drug products.

(b) Unless immediately and completely administered by the person who prepared it or immediate and complete administration is witnessed by the preparer, the compounded drug product shall bear a label listing patient identification information, the names and amounts of all ingredients, the name or initials of the person who prepared the compounded drug product, and the exact beyond use date and time.

(c) If not immediately administered, the finished compounded drug product shall be stored in a manner to minimize the potential for contact with nonsterile surfaces, introduction of particulate matter or biological fluids, mix-ups with other compounded drug products, and direct contact of outside surfaces.

(d) A new sterile needle shall be used to administer the compounded drug product to the patient unless doing so introduces a higher risk of contamination of the drug product.

(6) Single and multi-use vials.

(a) Unless conducting immediate use sterile compounding pursuant to rule 4729-16-13, opened or needle-punctured single-dose containers, such as bags, bottles, syringes, and vials of sterile products and compounded drug products shall be used within one hour if opened in worse than ISO Class 5 air quality, and any remaining contents shall be discarded.

(b) Multiple-dose containers (e.g. vials) are formulated for removal of portions on multiple occasions because they usually contain antimicrobial preservatives. The beyond use date after initially entering or opening (e.g. needle punctured) multiple-dose containers is twenty-eight days unless otherwise specified by the manufacturer. Multiple-dose containers shall be discarded whenever sterility is questionable or is compromised (e.g. coring).

(D) For non-sterile compounded drugs, the prescriber shall comply with the United States Pharmacopeia Chapter <795>, USP 39-NF 34, or any official supplement thereto (6/30/2016).

(E) For low-risk with greater than twelve-hour beyond use date, allergen extracts, medium and high-risk sterile compounded drugs as defined in United States Pharmacopeia Chapter <797>, the prescriber shall comply with United States Pharmacopeia Chapter <797>, USP 39 - NF 34, or any official supplement thereto (6/30/2016). Immediate-use sterile compounded drugs shall be prepared in accordance with rule 4729-16-13 of the administrative code.

(F) For hazardous compounded drugs, the prescriber shall comply with rule 4729-16-11 of the Administrative Code.

(G) A prescriber may designate an appropriately trained agent to assist the prescriber in the compounding of drugs.

(H) For all compounded drugs prepared pursuant to this rule, the prescriber shall:

(1) Inspect and approve the compounding process.

(2) Perform the final check of the finished product.

(I) Paragraph (H) of this rule does not apply if either:

77 SOUTH HIGH STREET | 30TH FLOOR | COLUMBUS, OHIO 43215-6117

[CSIOhio@governor.ohio.gov](mailto:CSIOhio@governor.ohio.gov)



(1) a compounded drug product is being administered to a patient in the facility by a licensed health professional in accordance with their applicable scope of practice pursuant to a prescriber's order and, prior to administration, at least two licensed personnel approved by the responsible person to prepare or administer compounded drugs complies with the requirements in paragraph (J) of this rule do all of the following:

(2) a compounded drug product is being prepared and administered to a patient in the facility by a registered nurse in accordance with their applicable scope of practice pursuant to a prescriber's order and, prior to administration, the same registered nurse complies with paragraph (J) of this rule.

(J) The following are required prior to the administration of a compounded drug product in accordance with paragraphs (I)(1) and (I)(2) of this rule:

- (1) Verify patient identification using at least two identifiers (e.g., medical record number, DOB).
- (2) Confirm with the patient his/her planned treatment, drug route, and symptom management.
- (3) Verify the accuracy of:
  - (a) Drug name;
  - (b) Drug strength and dosage form dose;
  - (c) Drug volume;
  - (d) Rate of administration;
  - (e) Route of administration;
  - (f) Expiration dates/times;
  - (g) Appearance and physical integrity of the drugs.
- (4) Sign using positive identification pursuant to paragraph (N) of rule [4729-5-01](#) of the Administrative Code to indicate verification was completed;
- (5) A licensed prescriber is on site and immediately available.
- (J) For all compounded drug products, the prescriber shall be responsible for:
  - (1) All compounding records pursuant to rule [4729-16-06](#) of the Administrative Code, including positive identification requirements pursuant to paragraph (N) of rule [4729-5-01](#) of the Administrative Code;

77 SOUTH HIGH STREET | 30TH FLOOR | COLUMBUS, OHIO 43215-6117

[CSIOhio@governor.ohio.gov](mailto:CSIOhio@governor.ohio.gov)

- (2) The proper maintenance, cleanliness, and use of all equipment used in compounding.; and
- (3) Ensuring aseptic technique for the preparation of all compounded drug products.

(K) A compounded drug that is personally furnished by a prescriber must be labeled according to rule [4729-5-17](#) of the Administrative Code and must include the appropriate beyond use date, in accordance with United States Pharmacopeia Chapter <797> or <795> and complete list of ingredients. The statement "Compounded Drug Product" or other similar statement shall also be displayed prominently on the label.

(L) A prescriber shall not compound drugs in anticipation of prescriptions based on routine prescribing patterns. A prescriber shall not compound drugs for anticipated needs or engage in compounding practices where multiple non-patient specific doses are produced in a single activity.

(M) The prescriber shall comply with the drug database reporting requirements for Chapter 4729-37 of the Administrative Code.

(N) This rule does not apply to a prescriber who is a veterinarian licensed under Chapter 4741. of the Revised Code. If preparing or handling compounded hazardous drugs, a prescriber who is a veterinarian shall comply with rule 4729-16-11 of the Administrative Code.

**4729-16-13 Immediate Use Non-Hazardous Sterile Drugs Compounded by a Prescriber (NEW).**

(A) A facility where a prescriber is compounding dangerous drugs, which includes reconstitution, for immediate use shall be licensed as a terminal distributor of dangerous drugs pursuant to section 4729.541 of the Revised Code. The responsible person on the license shall be an Ohio licensed prescriber as defined in section 4729.01 of the Revised Code and is responsible for all of the following:

(1) Developing and implementing appropriate procedures;

(2) Overseeing facility compliance with this rule;

(3) Compliance with section 503A of the Federal Food, Drug, and Cosmetic Act (05/09/2015) and all other applicable federal and state laws and rules;

(4) Ensuring competency of compounding personnel; and

(5) Ensuring that compounded drug products maintain their quality and sterility until administered.

(B) Immediate-use sterile compounded drug products are exempt from the requirements in rule 4729-16-04 only when all of the following criteria are met:

(1) The compounding process involves simple transfer via sterile needles and sterile syringes of not more than three commercially manufactured packages of sterile nonhazardous products from the manufacturers' original containers and not more than two entries into any one container or package (e.g., bag, vial) of sterile infusion solution or administration container/device.

(2) During sterile drug compounding proper aseptic technique in accordance with United States Pharmacopeia Chapter <797>, USP 39-NF 34, or any official supplement thereto (6/30/2016) shall be utilized, including all of the following:

(a) Before beginning compounding activities, personnel shall perform a thorough hand-hygiene procedure.

(b) Compounding personnel shall use appropriate personal protective equipment (PPE) in accordance with United States Pharmacopeia Chapter <797>, USP 39-NF 34, or any official supplement thereto (6/30/2016)

(c) All drug products used in compounding activities shall be handled using processes in accordance with United States Pharmacopeia Chapter <797>, USP 39-NF 34, or any official supplement thereto (6/30/2016)

(d) Compounding personnel shall disinfect their gloves at appropriate periodic intervals using 70% isopropyl alcohol (IPA) when preparing multiple immediate-use compounded drug products.

(3) If not immediately administered, the finished compounded drug product shall be stored in a manner to minimize the potential for contact with nonsterile surfaces, introduction of particulate matter or biological fluids, mix-ups with other compounded drug products, and direct contact of outside surfaces.

(4) Administration should commence not later than one hour following the start of the preparation of the compounded drug product. For critically ill or immunocompromised patients, administration shall commence not later than one hour following the state of the preparation of the compounded drug product.

(5) Unless immediately and completely administered by the person who prepared it or immediate and complete administration is witnessed by the preparer, the compounded drug product shall bear a label listing patient identification information, the names and amounts of all ingredients, the name or initials of the person who prepared the compounded drug product, and the exact beyond use date and time.

(6) If administration has not begun within six hours following the start of preparing the compounded drug product, the drug shall be promptly, properly, and safely discarded. For critically ill or immunocompromised patients, if administration has not begun within one hour following the start of preparing the compounded drug product, the drug shall be promptly, properly, and safely discarded.

(7) Immediate-use compounded drug products are for administration only and shall not be personally furnished by a prescriber.

(8) A new sterile needle shall be used to administer the compounded drug product to the patient.

(C) A prescriber shall not compound drugs for anticipated needs or engage in compounding practices where multiple non-patient specific doses are produced in a single activity.

(D) Preparations that are medium-risk level and high-risk level compounded drug products as defined in United States Pharmacopeia Chapter <797>, USP 39 - NF 34, or any official supplement thereto (5/1/2016) shall not be prepared as immediate use.

(E) Sterile compounded drug products for immediate use shall be prepared in a designated clean medication area that is not adjacent to areas where potentially contaminated items are placed. Cleaning and disinfecting of areas within the designated area including the primary engineering control device, counters, easily cleanable work surfaces and floors shall occur each business day. If compounding is done less frequently than each business day (e.g., once a week or once a

**77 SOUTH HIGH STREET | 30TH FLOOR | COLUMBUS, OHIO 43215-6117**

**[CSIOhio@governor.ohio.gov](mailto:CSIOhio@governor.ohio.gov)**

month), cleaning shall occur before each compounding session begins. Cleaning and disinfection agents must be selected and used with careful consideration of compatibilities, effectiveness, and inappropriate or toxic residues.

(F) Opened or needle-punctured single-dose containers, such as bags, bottles, syringes, and vials of sterile products and compounded drug products should be used within one hour if opened or compounded in worse than ISO Class 5 air quality, and any remaining contents must be discarded. Single-dose vials exposed to worse than ISO Class 5 air may be used up to 6 hours after initial needle puncture if fitted with an appropriate closed system transfer device (CSTD). For critically ill or immunocompromised patients, single-dose vials exposed to worse than ISO Class 5 air shall only be used up to one hour after initial needle puncture.

(G) Multiple-dose containers (e.g., vials) are formulated for removal of portions on multiple occasions because they usually contain antimicrobial preservatives. The beyond use date after initially entering or opening (e.g., needle-punctured) multiple-dose containers is 28 days unless otherwise specified by the manufacturer. Multiple-dose containers shall be discarded whenever sterility is questionable or compromised (e.g. coring).

(H) The maximum six-hour administration requirement in paragraph (B) of this rule does not apply to compounded drug devices designated as such and approved by the United States food and drug administration. These devices shall be prepared and administered in accordance with the directions contained in approved labeling provided by the product's manufacturer and other manufacturer directions consistent with that labeling.

(I) A prescriber may designate an appropriately trained agent to assist the prescriber in the preparation of the sterile drug products.

(J) The prescriber shall:

(1) Inspect and approve the compounding process.

(2) Perform the final check of the finished product.

(K) Paragraph (J) of this rule does not apply if either:

(1) a compounded drug product is being administered to a patient in the facility by a licensed health professional in accordance with their applicable scope of practice pursuant to a prescriber's order and, prior to administration, at least two licensed personnel approved by the responsible person to prepare or administer compounded drugs complies with the requirements in paragraph (L) of this rule.

(2) a compounded drug product is being prepared and administered to a patient in the facility by a registered nurse in accordance with their applicable scope of practice pursuant to a prescriber's

order and, prior to administration, the same registered nurse complies with paragraph (L) of this rule.

(L) The following are required prior to administration of a drug product in accordance with paragraphs (K)(1) and (K)(2) of this rule:

(1) Verify patient identification using at least two identifiers (e.g., medical record number, DOB).

(2) Confirm with the patient his/her planned treatment, drug route, and symptom management.

(3) Verify the accuracy of:

(a) Drug name;

(b) Drug strength and dosage form dose;

(c) Drug volume;

(d) Rate of administration;

(e) Route of administration;

(f) Expiration dates/times;

(g) Appearance and physical integrity of the drugs.

(h) Sign using positive identification pursuant to paragraph (N) of rule [4729-5-01](#) of the Administrative Code to indicate verification was completed;

(4) A licensed prescriber is on site and immediately available.

(M) For all compounded drug products prepared in accordance with this rule, the responsible person shall be responsible for:

(1) All records required pursuant to rule 4729-16-06 of the Administrative Code, including positive identification requirements pursuant to paragraph (N) of rule [4729-5-01](#) of the Administrative Code; and

(2) The proper maintenance, cleanliness, and use of all equipment used in compounding.; and

(3) Ensuring aseptic technique for the preparation of all compounded drug products.

(N) For hazardous compounded drugs, the prescriber shall comply with rule 4729-16-11 of the Administrative Code.

(O) This rule does not apply to a prescriber who is a veterinarian licensed under Chapter 4741. of the Revised Code. If preparing or handling compounded hazardous drugs, a prescriber who is a veterinarian shall comply with rule 4729-16-11 of the Administrative Code.

(P) Immediate-use compounded drug products shall be prepared in accordance with this rule except in an emergency situation when the product is required to treat the immediate needs of a patient whose health would otherwise be jeopardized.