

**Office of Clinical Standards and Quality/Survey & Certification Group**

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**DATE:** June 15, 2012

**TO:** State Survey Agency Directors

**FROM:** Director  
Survey and Certification Group

**SUBJECT:** Safe Use of Single Dose/Single Use Medications to Prevent Healthcare-associated Infections

**Memorandum Summary**

- ***Under certain conditions, it is permissible to repack single-dose vials or single use vials (collectively referred to in this memorandum as “SDVs”) into smaller doses, each intended for a single patient:*** The United States Pharmacopeia (USP) has established standards for compounding which, to the extent such practices are also subject to regulation by the Food and Drug Administration (FDA), may also be recognized and enforced under §§501 and 502 of the Federal Food, Drug and Cosmetics Act (FDCA). These USP compounding standards include USP General Chapter 797, *Pharmaceutical Compounding - Sterile Preparations* (“USP <797>”). Under USP <797>, healthcare facilities may repackage SDVs into smaller doses, each intended for use with one patient. Among other things, these standards currently require that:
  - The facility doing the repackaging must use qualified, trained personnel to do so, under International Organization for Standardization (ISO) Class 5 air quality conditions within an ISO Class 7 buffer area. All entries into a SDV for purposes of repackaging under these conditions must be completed within 6 hours of the initial needle puncture.
  - All repackaged doses prepared under these conditions must be assigned and labeled with a beyond use date (BUD), based on an appropriate determination of contamination risk level in accordance with USP <797>, by the licensed healthcare professional supervising the repackaging process.
- ***Administering drugs from one SDV to multiple patients without adhering to USP <797> standards is not acceptable under CMS infection control regulations:*** Medications in SDVs typically lack antimicrobial preservatives. According to the Centers for Disease Control and Prevention (CDC), ongoing outbreaks provide evidence that medications from SDVs can become contaminated and serve as a source of infection when they are used inappropriately.
- ***Deficiency Citation Policy:*** Healthcare facilities that do not adhere to USP <797> standards but reuse SDVs for multiple patients must be cited for deficiencies under the applicable infection control standards for each type of provider/supplier. On the other hand, healthcare facilities that utilize appropriately stored medications, derived from repackaged SDVs and prepared in accordance with USP <797> must not be cited solely on the basis of this practice.

**Background:**

Many types of providers and suppliers that are subject to Medicare health and safety standards must comply with infection control requirements. Specifically, pertinent regulations include, but are not limited to:

42 CFR 416.51 for ambulatory surgical centers (ASCs), “The ASC must maintain an infection control program that seeks to minimize infections and communicable diseases....(b)...The ASC must maintain an ongoing program designed to prevent, control, and investigate infections and communicable diseases. In addition, the infection control and prevention program must include documentation that the ASC has considered, selected, and implemented nationally recognized infection control guidelines...”

42 CFR 418.60 for hospices, “The hospice must maintain and document an effective infection control program that protects patients, families, visitors, and hospice personnel by preventing and controlling infections and communicable diseases...(a)...The hospice must follow accepted standards of practice to prevent the transmission of infections and communicable diseases, including the use of standard precautions.”

42 CFR 482.42 for hospitals, “The hospital must provide a sanitary environment to avoid sources and transmission of infections and communicable diseases. There must be an active program for the prevention, control, and investigation of infections and communicable diseases.”

42 CFR 483.65 for skilled nursing facilities and nursing facilities, “The facility must establish and maintain an infection control program designed to provide a safe, sanitary and comfortable environment and to help prevent the development and transmission of disease and infection.”

42 CFR 484.12(c) for home health agencies (HHAs), “The HHA and its staff must comply with accepted professional standards and principles that apply to professionals furnishing services in an HHA.”

42 CFR 485.635(a)(3)(vi) for critical access hospitals (CAHs), CAH policies must include “A system for identifying, reporting, investigating and controlling infections and communicable diseases of patients and personnel.”

42 CFR 491.9(b)(3) for rural health clinics (RHCs) and Federally Qualified Health Centers, “The [patient care] policies include: (iii) Rules for the storage, handling, and administration of drugs and biologicals.”

42 CFR 494.30 for dialysis facilities, “The dialysis facility must provide and monitor a sanitary environment to minimize the transmission of infectious agents within and between the unit and any adjacent hospital or other public areas...(a)... The facility must demonstrate that it follows standard infection control precautions...(b)...The facility must ...(2) Ensure that clinical staff demonstrate compliance with current aseptic

techniques when dispensing and administering intravenous medications from vials and ampules...”

In assessing compliance with these infection control regulatory requirements for the various provider/supplier types, CMS expects providers and suppliers to comply with nationally recognized standards for infection control practices. Such standards apply to areas such as environmental infection control (cleaning of patient/resident rooms, ORs, etc.), hand hygiene of healthcare personnel, personal protective equipment, medication injection practices, sterilization of critical equipment and high-level disinfection of semi-critical equipment, patient isolation precautions, etc.

Among these standard practices is the expectation that medications labeled as SDVs must not be used for multiple patients, due to the risk of spreading infectious diseases. Medications labeled as single-use or single dose by manufacturers typically lack antimicrobial preservatives, and once a SDV is entered, the contents can support the growth of microorganisms. The risk of infection transmission associated with using SDVs for multiple patients is well documented, with evidence accumulated from the investigation of multiple outbreaks. Our policy is to cite the reuse of SDVs for multiple patients as an infection control deficiency, since this practice of reuse is in conflict with nationally recognized standards (such as those issued by the Centers for Disease Control and Prevention (CDC)). The CDC recently reiterated its position, including a list of recent outbreaks, including some associated with reuse of SDVs and other unsafe injection practices. (See CDC Position on SDVs at <http://www.cdc.gov/injectionsafety/CDCposition-SingleUseVial.html> and CDC Outbreaks in Outpatient Settings at <http://www.cdc.gov/HAI/settings/outpatient/outbreaks-patient-notifications.html> )

CMS has received recent requests to relax its policies regarding the use of SDVs for multiple patients. Due to an increase in the number and severity of shortages of many critically needed drugs, healthcare facilities are seeking to make efficient use of the drug supply that is available. This effort has led to questions about our policy requiring deficiency citations when medications packaged in SDVs are reused for multiple patients. Requestors have suggested that this may aggravate existing drug shortages by requiring wastage of SDV medication that exceeds the needed dosage for a single patient.

CMS shares the concerns of providers and suppliers about patient access to critical medications that are in short supply and appreciates the efforts of healthcare facilities to meet the needs of their patients. However, CMS is equally concerned about health-care associated infections caused by unsafe medication preparation and injection practices, including using SDVs for multiple patients in the same manner as vials labeled as multi-dose. Such reuse of SDVs is not compliant with infection control requirements and must be cited as a deficiency. We are not changing our policy on this matter.

***However, in this memorandum we are clarifying our guidance regarding the various infection control regulatory requirements to indicate that when previously unopened SDVs are repackaged consistent with aseptic conditions under the requirements of USP <797>, and subsequently stored consistent with USP <797> and the manufacturer’s package insert, it is permissible for healthcare personnel to administer repackaged doses derived from SDVs to***

***multiple patients, provided that each repackaged dose is used for a single patient in accordance with applicable storage and handling requirements.***

**1. Permissible repackaging of SDVs under controlled conditions:**

The USP is a not-for-profit, non-governmental organization that since 1820 has established quality standards for, among other things, drug substances and drug products. Congress established a role for USP standards in the adulteration provision of the 1906 Food and Drug Act. That role was expanded in the modern FDCA beginning in 1938, with a role for USP compendial standards for naming and identity; strength, quality, and purity; and packaging and labeling, in both the adulteration and misbranding provisions of FDCA. (See, for example, §501(b) regarding compendial standards for strength, quality and purity, §502 502(g) for compendial standards for packaging and labeling). Under the FDCA, a drug with a name recognized in the USP must comply with compendial identity standards, or be deemed adulterated, or misbranded, or both. To avoid being deemed adulterated, such drugs must also comply with compendial standards for strength, quality, and purity, unless labeled to show all respects in which the drug differs.

Included among USP's standards are those related to the practice and quality standards for compounded sterile preparations, ***USP 797: General Chapter 797, Pharmaceutical Compounding - Sterile Preparations*** ("USP <797>"), the latest version of which was issued in 2008. According to USP <797>, facilities that use medications repackaged from SDVs must, among other things, ensure that:

- The medications are repackaged under specified conditions, using qualified, trained personnel under ISO Class 5 conditions utilizing a primary engineering control (PEC), located within an ISO Class 7 buffer area (the area where the PEC is physically located and which is used for preparing supplies used for drug repackaging under the hood).
- SDVs exposed to ISO Class 5 or cleaner air may be used up to 6 hours after initial needle puncture.
- All repackaged doses prepared in accordance with these standards must be assigned a beyond use date (BUD) based on determination by the licensed healthcare professional supervising the repackaging process of an appropriate contamination risk level for compounded sterile preparations (CSPs) and direct testing or extrapolation from reliable literature sources and other documentation (see *Stability Criteria and Beyond-Use Dating* under *Pharmaceutical Compounding—Nonsterile Preparations, USP <795>*).
- The BUD and storage conditions for safe use of the repackaged medication are to be identified on a label, in addition to the correct name, concentration and volume of the drug, and route of administration.

## 2. Distinguishing permissible “repackaging” from inappropriate “reuse:”

**In order to correctly assess compliance with CMS’s infection control requirements, it is essential to distinguish:**

- *Repackaging, which is defined in the context of assessing compliance with the above-referenced regulations as the appropriate repackaging of a previously unopened SDV in accordance with USP <797> into multiple smaller doses;*

*from*

- *Reuse, which is defined here as the inappropriate subdivision of the contents of a SDV for multiple patients that is not performed in accordance with USP <797>.*

## 3. Citation Instructions:

### *Cite Inappropriate Reuse of SDVs*

CMS is maintaining our existing policy that reuse of a SDV for multiple patients or residents is not acceptable. Healthcare facilities that administer drugs from one SDV to multiple patients without adhering to USP <797> **must** be cited for noncompliance with applicable standards under the Conditions of Participation (CoPs), Conditions for Coverage (CfCs) or Requirements. Citations must reflect the manner and degree (non-long term care) or scope and severity (long term care) of the deficiencies.

Surveyors are expected to recognize obvious evidence of inappropriate reuse of SDVs and issue citations accordingly. They must also ask for evidence from facilities that use repackaged SDVs regarding how they ensure that the SDVs have been repackaged in accordance with USP <797>. If surveyors observe or find other evidence that medications in their original SDVs are being used for multiple patients or residents by those who prepare or administer medications, this would indicate that the provider or supplier is not using SDVs repackaged in accordance with USP <797>. For example:

- Preparation on a patient/resident care unit of multiple doses for multiple patients from one SDV would be evidence that the medication in the SDV has not been repackaged appropriately. A patient/resident care unit does not provide for the type of highly controlled environment or qualified personnel called for under USP <797>.

A syringe with a single dose from an SDV prepared on a patient/resident care unit that will be administered more than one hour after preparation is evidence that the SDV has not been repackaged appropriately. A patient/resident care unit does not provide for the type of highly controlled environment or qualified personnel called for under USP <797>.

- If a nurse, physician or other healthcare professional authorized to administer drugs and biologicals uses a SDV in the same manner as a multi-dose vial, i.e., to administer injections to more than one resident or patient, that would be evidence that the medication in the SDV has not been repackaged appropriately. A resident's room or patient treatment setting does not provide for the type of highly controlled environment or qualified personnel called for under USP <797>.
- If an anesthetist uses one SDV to administer anesthesia, moderate sedation, or other medication to more than one patient, that would be evidence that the medication in the SDV has not been repackaged appropriately. An operating room or procedure room does not provide for the type of highly controlled environment or qualified personnel called for under USP <797>.

***No citations for appropriate repackaging & subsequent use***

Providers and suppliers that are using medications that have been appropriately repackaged from SDVs and subsequently stored in accordance with USP <797> standards must not be cited for this specific practice under the regulations noted above.

**4. Repackaging under Arrangement**

A healthcare facility may use medication doses that have been repackaged from SDVs by an off-site vendor under an arrangement with the healthcare facility, or by an off-site centralized sterile compounding facility under the control of the facility or its parent health system. In such cases, surveyors must ask for evidence that the healthcare facility has obtained documentation from the contracted vendor or centralized sterile compounding facility of its adherence to current USP <797> requirements. The Requirements, Conditions of Participation, and Conditions for Coverage for the various types of providers and suppliers typically require that services under arrangement be provided in a manner that allows the healthcare facility to comply with the applicable Medicare health and safety standards.

The ASHP Foundation offers a tool for assessing contractors who provide sterile products which healthcare facilities may find useful. See <http://www.ashpfoundation.org/MainMenuCategories/PracticeTools/SterileProductsTool.aspx> and click on "Start using Sterile Products Outsourcing Tool now." *This is provided for information only and does not constitute an endorsement, nor are healthcare facilities required to use this tool.*

Questions concerning this memorandum may be sent to the Survey & Certification email mailbox at [hospitalscg@cms.hhs.gov](mailto:hospitalscg@cms.hhs.gov).

**Effective Date:** Immediately. This policy should be communicated with all survey and certification staff, their managers and the State/Regional Office training coordinators within 30 days of this memorandum.

**Training:** The information contained in this letter should be shared with all survey and certification staff, their managers, and the State/RO training coordinators.

/s/

Thomas E. Hamilton

cc: Survey and Certification Regional Office Management