

Infection Control Checklist

The Joint Commission, in its prevention and control of infection (IC) standards, requires organizations to take precautions to reduce the risk of acquiring and transmitting infections. Organizations must have effective, organization-wide IC programs. All departments and services must participate in the organization's IC efforts.




Note: Organizations surveyed under the *Comprehensive Accreditation Manual for Hospitals: The Official Handbook (CAMH)* must comply with the IC standards that are applicable to them. Organizations surveyed under other Joint Commission accreditation manual(s) should review the appropriate manual. (See Chapter 1.)

Checklist Organization

This chapter presents infection control precautions for health care personnel in a checklist format. They are consistent with The Joint Commission's IC standards,¹ current Centers for Disease Control and Prevention (CDC) hand-hygiene guidelines² (see NPSG 7 in Chapter 6), and the provisions of the United States Pharmacopeia (USP) Chapter <797>.³ (See Chapter 19.)

Note: Although this checklist does not address these precautions completely, it should help to reduce the risk of acquiring and transmitting infections. Health care organizations should check for new and updated standards on The Joint Commission's Web site, and for new and updated hand-hygiene guidelines on the CDC's Web site. (See Appendix.) Pharmacies should contact their board of pharmacy and other state agencies to determine how their state integrates USP <797> provisions into its regulations.

The notes are compliance expectations and suggestions that are based on the authors' personal experiences, reports from surveyed organizations, and surveyors' statements. Some notes reflect legal requirements, previous Joint Commission standards, or commonly accepted standards of practice. Others note variations in interpretation of the standards. Some notes are referenced to the standards.

Checklist Symbols—Special attention should be paid to EPs preceded by an icon. The checklist uses a  icon before an EP if documentation is required, and an  icon before an EP if noncompliance is likely to create an immediate risk to patient safety or to the quality of care provided. An  icon before an EP indicates that a Measure of Success (MOS) is required if the EP is scored non-compliant during a survey.

Checklist Usage Suggestions

To assess compliance, use the checklist and proceed systematically. Mark the item "Yes" if you are currently compliant and are sure you will continue to be compliant. Mark the item "No" if you are currently not compliant (even if you are sure you will be compliant later). If you are not sure of your answer, leave a blank response. A few items may be not applicable ("NA"). Answer honestly, use a pencil (so you can change your answers), and make notes on the pages (e.g., reasons for noncompliance and location of documents). Concentrate your efforts on resolving all "No" and blank responses.

Checklist	<u>Yes</u>	<u>No</u>	<u>NA</u>
Infection Risk Identification			
Accidents, incidents, unsafe practices, and unsanitary conditions that pose a risk of infection for patients, visitors, and staff are identified.	_____	_____	_____
Infection Risk Reporting			
Accidents, incidents, unsafe practices, and unsanitary conditions that pose a risk of infection for patients, visitors, and staff are reported.	_____	_____	_____
<i>Note:</i> Infection control–related incidents are usually reported to the Infection Control Committee or a designated individual. The organization’s infection control plan should contain specific information on how to submit these reports.			
Infection Control Surveillance			
Each department or service participates in infection control surveillance activities as required by the organization.	_____	_____	_____
Cleaning and Disinfecting			
The pharmacy and areas where medications are stored, compounded, dispensed, prepared, and administered are clean.	_____	_____	_____
Staff uses organization–approved cleaning procedures and cleaning and disinfecting agents.	_____	_____	_____
There are an adequate number of sinks and sufficient space and materials for cleaning equipment and washing hands.	_____	_____	_____
<i>Note:</i> Cleaning should be coordinated with housekeeping personnel, and cleaning agents and procedures approved by the Infection Control Committee must be used. Particular attention must be given to prepackaging, compounding, and sterile preparation areas as well as areas likely to harbor microorganisms that could contaminate medications or transmit disease to staff.			
Alcohol-based hand rub containers are appropriately located.	_____	_____	_____
Cleaning agents and supplies are available to staff.	_____	_____	_____
Cleaning and disinfecting agents are appropriately diluted.	_____	_____	_____
Cleaning and disinfecting agents are appropriately labeled.	_____	_____	_____
Equipment is kept clean and stored in a clean area.	_____	_____	_____
<i>Note:</i> Areas under sinks are not clean areas. Mortars, pestles, glassware, and other equipment that must be kept clean must be stored in a clean area.			

	<u>Yes</u>	<u>No</u>	<u>NA</u>
Drug preparation, packaging, and dispensing devices (e.g., mortars, pestles, pill crushers, pill splitters, counting trays, graduated cylinders, unit-dose packaging devices, and balances) are cleaned after each use and disinfected if necessary.	_____	_____	_____
Devices used for crushing or splitting tablets are cleaned immediately after use according to manufacturers' recommendations and instructions.	_____	_____	_____
Medication carts, drawers, and bins containing individual patient's medications are kept clean.	_____	_____	_____
Automated dispensing cabinets and bins are cleaned according to the manufacturer's recommendations and instructions.	_____	_____	_____
<i>Note:</i> Many organizations develop a schedule for cleaning equipment and devices.			

Boxes

Cardboard boxes are stored off the floor.	_____	_____	_____
<i>Note:</i> This is not specifically required by the standards. However, some organizations and surveyors insist that they be stored off the floor.			
Shipping containers are not stored or opened (i.e., torn or cut) in any area reserved for prepackaging medications or compounding sterile preparations.	_____	_____	_____
<i>Note:</i> Handling and storing shipping containers (e.g., cardboard boxes) must be done with minimal air disturbances and dissemination of dust particles. Intravenous (IV) bags and bottles and related supplies must be removed from cartons and wiped with an approved disinfecting agent prior to placing them in the sterile preparation area.			

Waste

Staff disposes of waste in accordance with the organization's infection control policies and procedures.	_____	_____	_____
Waste does not create a nuisance or a breeding place for insects, rodents, and vermin or otherwise permit the transmission of disease.	_____	_____	_____
Waste disposal containers are close to the area of use.	_____	_____	_____
Noninfectious waste is not mixed with infectious waste.	_____	_____	_____
<i>Note:</i> Check the organization's policies on disposal of noninfectious waste and infectious waste.			

Infectious Waste

Staff disposes of infectious waste in accordance with the organization's infection control policies and procedures.	_____	_____	_____
Infectious waste does not create a nuisance or a breeding place for insects, rodents, and vermin or otherwise permit the transmission of disease.	_____	_____	_____

	<u>Yes</u>	<u>No</u>	<u>NA</u>
Infectious waste disposal containers are close to the area of use.	_____	_____	_____
Infectious waste is placed in specially marked containers (e.g., red bags) and disposed of separately from routine trash.	_____	_____	_____
<i>Note:</i> Check the organization's policies on disposal of trash and infectious waste.			
Items used in patient rooms are not returned to the pharmacy.	_____	_____	_____

Attire

Personnel wear appropriate attire in non-sterile areas.	_____	_____	_____
Attire worn in the sterile compounding area is clean and minimizes the potential for shedding and contamination, and meets the organization's policy and state regulations.	_____	_____	_____
<i>Note:</i> Many organizations require personnel who compound sterile preparations to wear hospital-laundered scrubs in the buffer area.			
<i>Note:</i> USP <797> has specific requirements for garb (e.g., attire). (See Chapter 19.)			
Personnel remove jewelry and cosmetics prior to compounding sterile preparations.	_____	_____	_____

Hygiene

Personnel are attentive to personal cleanliness and hygienic practices.	_____	_____	_____
Personnel with rashes, sunburn, weeping sores, conjunctivitis, or active respiratory infection do not prepare sterile preparations.	_____	_____	_____
Fingernail length complies with the organization's policies and procedures.	_____	_____	_____
The use of artificial fingernails complies with the organization's policies and procedures.	_____	_____	_____
<i>Note:</i> Artificial nails or extenders may not be worn by personnel who compound sterile preparations. Organizations often prohibit the wearing of artificial fingernails by individuals who have contact with patients.			

Immunizations

Pharmacy staff participate in the organization's annual influenza vaccination program. (See IC.02.04.01, EP 1.)	_____	_____	_____
<i>Note:</i> The organization must offer immunization against influenza to staff and licensed independent practitioners. (See IC.02.04.01.) The organization must provide access to influenza vaccination at an accessible site. (See IC.02.04.01, EP 3.)			

Yes **No** **NA**

Education about the following is provided to pharmacy staff:

- Influenza vaccination
- Non-vaccine control and prevention measures (i.e., the use of appropriate precautions)
- The diagnosis, transmission, and impact of influenza. (See IC.02.04.01, EP 2.)

_____	_____	_____
_____	_____	_____
_____	_____	_____

Note: The organization must annually evaluate vaccination rates and reasons for nonparticipation in the immunization program. The organization must implement enhancements to the program to increase participation. (See IC.02.04.01, EP 4 and EP 5.)

Employee Health Program

Staff participate in the organization’s employee health program as required (e.g., tuberculin skin testing).

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Note: Most organizations provide an employee health program. This program often includes pre-employment physical examinations, blood tests, chest x-rays, and tuberculin skin tests (and annual follow-ups as required) as a condition of employment to ensure that employees are free from communicable diseases.

Note: The employee health program may restrict the activities of employees and visitors. For example, persons with communicable diseases may be prohibited from contact with patients.

Note: All staff must participate in the organization’s employee health program and comply with the organization’s employee health policies and procedures. Furthermore, staff must be examined, treated, and immunized as required by the organization.

Hand Washing (Routine)

Hand washing is the single most important procedure for preventing health care-associated infections. The organization’s infection control policies and procedures must address hand washing and require staff to comply with hand-hygiene guidelines.^{2,4,5}

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Note: The Joint Commission requires organizations to comply with either current World Health Organization (WHO) hand-hygiene guidelines or CDC hand-hygiene guidelines. Most organizations follow the CDC guidelines. (See NPSG.07.01.01 in Chapter 6.)

Routine hand washing is performed at the beginning of the shift, after visiting the restroom, before and after eating, and when the hands are obviously soiled. (The areas under the fingernails must be kept clean.)

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	<u>Yes</u>	<u>No</u>	<u>NA</u>
Personnel who have contact with infected or potentially infected patients, body fluids, and contaminated or potentially contaminated objects wash their hands promptly after such contact.	_____	_____	_____
Staff uses a hand washing technique and cleaning agent that are approved by the organization.	_____	_____	_____
<i>Note:</i> The following routine hand washing technique is typical of most organization-approved techniques:			
• Use liquid soap and cool or lukewarm (not hot) water. (Cool or lukewarm water removes less oil from the skin and is less drying.)	_____	_____	_____
• Rub all surfaces of lathered hands together vigorously for at least 15 seconds.	_____	_____	_____
• Rinse hands thoroughly under a stream of water.	_____	_____	_____
• Dry the hands with a disposable (e.g., paper) towel or air dryer.	_____	_____	_____
• Use a towel to turn off the water.	_____	_____	_____
Staff use alcohol-based hand rubs as permitted by CDC hand-hygiene guidelines, organization policy, and manufacturers' recommendations. ²	_____	_____	_____

Hand Washing (Sterile Preparation Compounding)

Personnel wash their hands thoroughly prior to compounding sterile preparations.	_____	_____	_____
Personnel who leave the sterile preparations compounding area rewash their hands prior to resuming compounding.	_____	_____	_____
<i>Note:</i> Staff must use a hand washing technique and cleaning agent that meet USP <797> requirements and are approved by the organization. The following technique for washing hands prior to compounding sterile preparations is typical of most organization-approved techniques:			
• Remove debris from under fingernails using running warm water and a nail cleaner	_____	_____	_____
• Moisten hands with water and apply a lather of a cleaning agent approved by the organization. The lather must extend to the wrists and forearms (i.e., up to the elbow).	_____	_____	_____
• Wash hands under running water for at least 30 seconds.	_____	_____	_____
• Rinse hands thoroughly under running water. Hold hands so that the direction of water flow is from the fingertips to the wrists.	_____	_____	_____
• Dry the hands with a lint-free disposable towel or electric hand dryer.	_____	_____	_____
• Apply a waterless alcohol-based surgical hand scrub with persistent activity following the manufacturer's recommendations. Allow hands to dry.	_____	_____	_____
• After donning sterile powder-free gloves, apply a waterless alcohol-based surgical hand scrub with persistent activity to the gloves. Allow the gloves to dry.	_____	_____	_____

<u>Yes</u>	<u>No</u>	<u>NA</u>
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Standard Precautions

Staff observe standard precautions to reduce the risk of transmission of infection.⁴

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Note: Standard (formerly known as universal) precautions apply to all patients receiving care in hospitals, regardless of their diagnosis or presumed infection status. Standard precautions apply to 1) blood; 2) all body fluids, secretions, and excretions except sweat, regardless of whether or not they contain visible blood; 3) nonintact skin; and 4) mucous membranes. Standard precautions are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection in hospitals.

Note: Occupational Safety and Health Administration (OSHA) rules and regulations (Title 29 CFR §1910.1030)⁶ require employers to implement plans to dispose of blood and contaminated waste, provide warnings on such waste, and keep records that account for the disposal of the waste. Employers must ensure that health care workers take special precautions to reduce the risk of contracting and transmitting AIDS, hepatitis, and other diseases from exposure to blood and other body fluids.

Note: Standard precautions must be included in the employer's Exposure Control Plan. Health care organizations must regularly educate employees about their Exposure Control Plan and standard precautions. Organizations must offer medical attention, evaluation, testing, and treatment in accordance with their Exposure Control Plan.

Isolation

Staff understand the organization's isolation policies and procedures.

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Only medications needed for the patient's immediate use are taken into an isolation room.

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Gowning, masking, and gloving are done as specified in the organization's isolation policies.

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All items taken into an isolation room are placed in a designated receptacle after use.

_____	_____	_____
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Hand-hygiene procedures are performed as specified in the organization's isolation policies after leaving the isolation room.

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Sterile Preparation Compounding Area

Areas for compounding sterile preparations minimize opportunities for particulate and microbial contamination of the preparations.

_____	_____	_____
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Note: Areas for compounding sterile preparations must meet the requirements of USP <797> and state regulations. (See Chapter 18.)

	<u>Yes</u>	<u>No</u>	<u>NA</u>
Primary Engineering Controls (PEC)			
Sterile preparations are compounded in a properly maintained laminar airflow workbench, biological safety cabinet, compounding aseptic isolator, or compounding aseptic containment isolator.	_____	_____	_____
<i>Note:</i> Staff must be aware that primary engineering controls (“hoods”) do not create a sterile area, but provide a clean area that is suitable for compounding sterile preparations that will not be used immediately.			
<i>Note:</i> Ideally, all sterile preparations are compounded in the pharmacy in a USP <797> compliant facility. However, USP <797> has provisions for the preparation of low-risk sterile compounds (e.g., IVs) that will be used immediately. If permitted by hospital policy, preparing medications with a short stability or for immediate use is acceptable if done in a clean, well-lighted, functionally separate area by competent personnel. There must be no intervening steps between the compounding and administration of the sterile preparations. (See Chapter 19.)			
Compounding of medium- and high-risk preparations, parenteral nutrition, antineoplastic and other hazardous agents, cardioplegia, and other preparations that require specialized knowledge or equipment usually found only in the pharmacy are compounded in the pharmacy by specially trained staff.	_____	_____	_____
Cleaning the Sterile Preparation Areas			
Floors in the ante and buffer areas are cleaned in accordance with USP <797> requirements.	_____	_____	_____
<i>Note:</i> USP <797> contains requirements for cleaning floors, walls, and ceilings in the ante and buffer areas. The housekeeping department must be familiar with these requirements.			
Cleaning and Disinfecting Primary Engineering Controls			
Primary engineering control surfaces are cleaned and disinfected frequently, including			
• at the beginning of each work shift,	_____	_____	_____
• before each batch preparation is started,	_____	_____	_____
• every 30 minutes during continuous compounding activity,	_____	_____	_____
• when spills occur, and	_____	_____	_____
• whenever surface contamination is known or suspected.	_____	_____	_____
USP Purified Water is used to remove water-soluble residues, and then the same surfaces are disinfected with a non-residue generating agent using a lint-free wipe.	_____	_____	_____

	<u>Yes</u>	<u>No</u>	<u>NA</u>
<i>Note:</i> Most organizations use sterile 70% isopropyl alcohol as the disinfectant. Other agents may be used if approved by the organization.			
All items (including syringes, vials, and other extraneous items) are removed from the hood before cleaning it.	_____	_____	_____
<i>Note:</i> Infection-control policies and procedures should include a schedule and technique (including cleaning agent) for cleaning primary engineering controls (laminar air flow workbenches, biological safety cabinets, compounding aseptic isolators, and compounding aseptic containment isolators). Clean the work surface, side panels, and other accessible surfaces, starting at the top and rear and working downward and toward the front, unless the manufacturer recommends a different procedure. Be careful to avoid getting the cleaning agent on the high-efficiency particulate arrestor (HEPA) filter. Document the cleaning. Surveyors frequently look at documentation of cleaning (e.g., a monthly hood cleaning log). (See Example 9-1.)			
Primary Engineering Control Maintenance			
Routine maintenance, such as cleaning or replacing prefilters, is performed regularly and according to manufacturers' specifications (e.g., monthly or quarterly).	_____	_____	_____
<i>Note:</i> These activities must be documented.			
HEPA filters are replaced or repaired when recommended by a qualified certifier.	_____	_____	_____
Environmental Monitoring of Sterile Preparation Area			
Environmental monitoring of both non-viable (e.g., particles) and viable (e.g., microbial or fungal contamination) [au: word missing?] is performed as required (e.g., by USP <797> and/or state regulations). (See Chapter 19.)	_____	_____	_____
Results of environmental monitoring are reported to the organization.	_____	_____	_____
<i>Note:</i> Most organizations report this to the Infection Control Committee.			
Certification of Sterile Preparation Areas			
Primary engineering controls are checked and certified when they are first placed in service, at least every 6 months, when maintenance is completed, or they are moved to a new location.	_____	_____	_____
<i>Note:</i> Certification of primary engineering controls is usually documented by placing a sticker on the device and keeping inspection records on file. Surveyors frequently check these stickers.			
Checks of operational efficiency of all primary engineering controls, ante areas, and buffer areas are performed at least once every 6 months by a qualified certifier.	_____	_____	_____

	<u>Yes</u>	<u>No</u>	<u>NA</u>
Primary Engineering Control Techniques			

Proper techniques and precautions are observed when using primary engineering controls.

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Note: When using laminar airflow workbenches, the following precautions are suggested:

- Ensure that the laminar airflow workbench (LAFW) runs continuously or for the period required by policy (e.g., 30 minutes) prior to compounding sterile preparations. The manufacturers’ recommendations must be followed.
- Assemble and organize all necessary materials in or near the LAFW before beginning work, and keep unnecessary items (e.g., labels, worksheets, notepads, and pencils) out of the PEC.
- Work at least 15 centimeters (6 inches) within the hood.
- Keep a clear path between the HEPA filter and sterile objects (i.e., avoid blocking airflow with vials and equipment).
- Do not allow objects (especially sharp or pointed objects) or liquids to contact the HEPA filter.
- Avoid unnecessary talking.

	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

Aseptic Technique

Proper aseptic technique is used in compounding sterile preparations.

	_____	_____	_____
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Note: Touch is the primary source of contamination.

Note: Individuals with open lesions or communicable diseases must not prepare sterile preparations.

Note: The following aspects of aseptic technique are emphasized:

- Compounding in the pharmacy must comply with USP <797>.
- Perform hand-hygiene procedures before handling drugs and as needed during the procedure.
- Don proper garb.
- Work with moderate speed to minimize errors.
- Inspect containers for cracks, holes, leaks, and evidence of contamination before and after preparation.
- Do not touch sterile areas of containers or allow nonsterile objects to come in contact with sterile areas.

	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

Note: The exteriors of all containers should be wiped with sterile 70% isopropyl alcohol prior to placement in the ante area or buffer area.

	<u>Yes</u>	<u>No</u>	<u>NA</u>
• Clean diaphragms, injection ports, ampul necks, and vial tops with sterile 70% isopropyl alcohol and allow to dry.	_____	_____	_____
• Cover ampul necks with a sterile pad and break ampuls by snapping toward the side of the primary engineering control. Use a filter straw to withdraw contents of the ampule.	_____	_____	_____
• Ensure that seals on syringe and needle packages are intact. Do not use items if the sterility is questionable.	_____	_____	_____
• Ensure that touch contamination does not occur when attaching needles to syringes and when mixing drugs and diluents.	_____	_____	_____
• Dispose of used syringes, needles, and other waste in accordance with the organization's policies and procedures.	_____	_____	_____

Beyond-Use Dates for Compounded Sterile Preparations

All compounded sterile preparations are labeled with beyond-use dates.

Beyond-use dates for compounded sterile preparations do not exceed the periods specified in USP <797>. (See Chapter 19.)

_____	_____	_____
_____	_____	_____

Sterile Preparations Inspections

Compounded sterile preparations are quarantined and inspected by a pharmacist prior to release from the pharmacy.

Note: The inspection must include checking for defective containers, cloudiness, turbidity, leaks, precipitates, particulate matter, evidence of contamination, and evidence of incompatibility. Labels must be checked for completeness and accuracy. When possible, the individual who performs the inspection should not be the individual who compounded the preparation. Defective and doubtful preparations must be destroyed.

Note: The individual who checks the final preparation must verify that the preparation has passed a final examination and is suitable for administration (i.e., compounded accurately and free from incompatibilities and particulate matter). An individual's written signature or initials on the label is a common means of indicating that the preparation has been checked.

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Sterile Preparations Storage

Compounded sterile preparations are properly stored.

Note: Compounded sterile preparations should be administered as soon after preparation as possible. Storage time limits and storage conditions must maximize stability, minimize microbial growth, and be consistent with the requirements of USP <797>. (See Chapter 19.)

_____	_____	_____
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	<u>Yes</u>	<u>No</u>	<u>NA</u>
<i>Note:</i> Protection from light may be necessary if the preparation is light-sensitive. Check manufacturer and other literature carefully for stability data and storage guidelines.			
Automated Compounding Devices			
Automated compounding devices are cleaned regularly and checked to verify accurate delivery.	_____	_____	_____
<i>Note:</i> Personnel must be knowledgeable about the safe and proper operation of these devices. USP <797> provides information relating to the use of these devices. In addition, personnel should consult the manufacturer's information for specific instructions. (See Chapter 19.)			
Syringes			
A sterile syringe is used for each medication withdrawn.	_____	_____	_____
Syringes are used on one patient only and then disposed of properly.	_____	_____	_____
<i>Note:</i> Organizations must be especially attentive to syringes used in anesthetizing areas and other areas where special procedures are performed.			
Needles			
A sterile needle is used for each medication withdrawn.	_____	_____	_____
Containers for disposal of used needles and other sharp objects are available, used properly, and not overfilled.	_____	_____	_____
Single-Use Containers			
Single-use containers are not reused.	_____	_____	_____
<i>Note:</i> Single-use containers should be used whenever feasible. The organization's infection control policies should prohibit the reuse of single-use containers.			
Single-use containers are discarded immediately after use in accordance with the organization's policies.	_____	_____	_____
Multiple-Dose Containers			
Multiple-dose containers that will be reused after the first puncture are labeled with an appropriate beyond-use date.	_____	_____	_____

<u>Yes</u>	<u>No</u>	<u>NA</u>
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Note: All multiple-dose containers intended for reuse must be labeled with a beyond-use date whether they are labeled with the date of the first entry or not.

Multiple-dose containers are not used beyond the time specified by the organization's policies.

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Note: Some organizations require dating containers when first entered and discarding them after a short time period (e.g., end of the shift or 24 hours). Other organizations specify a longer time period. The time period must not exceed 28 days unless a longer time period is specifically referenced in the package insert for the product.⁷ Whatever the policy, the period must not conflict with the manufacturer's recommendations nor extend beyond the manufacturer's expiration date.

Note: A pharmacy bulk package (PBP) is a container of a sterile preparation for parenteral use that contains many single doses. The contents are intended for use in a pharmacy admixture program and are restricted to the preparation of admixtures for infusion or, through a sterile transfer device, for the filling of empty sterile syringes.⁸

PBPs of electrolytes and other products are used in the pharmacy for no more than 4 hours after the initial entry into the container unless the manufacturers' product information provides for another time period. Any unused portions are discarded.

_____	_____	_____
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Note: This requirement is stated in the package insert of many bulk containers of electrolytes, other products intended for dilution in intravenous infusions (i.e., not for direct infusion), and PBPs of IV contrast media.