

## INFECTION CONTROL

**Guidance:** Surveillance of practices, activities, infections & adverse events is required to monitor effectiveness of infection control practices to ensure appropriate infection control behaviors & techniques are carried out.

Patient Status	On Admission	Monthly	Semi-annual	Annual
All patients	HBsAg* Anti-HBc* (total) Anti-HBs* ALT			
HBV-susceptible, including non-responders to vaccine		HBsAg		
Anti-HBs positive (≥10 mIU/mL), anti-HBc negative				Anti-HBs
Anti-HBs and anti-HBc positive		No additional HBV testing needed		
Anti-HCV negative		ALT		

\* Results of HBV testing should be known before the patient begins dialysis.

† HBsAg=hepatitis B surface antigen; Anti-HBc=antibody to hepatitis B core antigen; Anti-HBs=antibody to hepatitis B surface antigen

- **V637**-Review **QAPI**: monitoring, analyzing trends, planning & acting.
- **V132**-Staff must have initial and ongoing **infection control education & training** to ensure appropriate infection control.
- **V142**-Oversight: monitor & implement **infection control policies and activities**; facility must review practices and update policies/procedures to ensure infection control practices are followed.
- **V113**-Wear disposable **gloves** when caring for the patient or touching the patient's equipment at the dialysis station; remove gloves & perform **hand hygiene** between each patient or station.
- **V115**-Wear **personal protective equipment** (PPE) as appropriate.
- **V116**-Items taken into the dialysis station: disposed of, dedicated for use on a single patient, or cleaned & disinfected before taken to a common clean area or used on another patient. **Nondisposable items** that cannot be cleaned & disinfected (e.g., adhesive tape, cloth-covered B/P cuffs) should be dedicated for use on a single patient. **Unused medications** (including multiple dose vials containing diluents) or supplies (e.g., syringes, alcohol swabs) taken to the patient's stations used only for that patient & not returned to a common clean area or used on other patients.
- **V117**-Designate **clean areas** for preparation, handling & storage of medications, unused supplies & equipment. **Separate clean areas from contaminated areas** where used supplies & equipment are handled. Do not handle & store medications or clean supplies in the same or an adjacent area where used equipment or blood samples are handled.
- **V117**-Prepare **multiple dose vials** (including vials containing diluents) in a clean (centralized) area away from dialysis stations & **deliver separately** to each patient. Do not carry multiple dose medication vials from station to station. Do not use common **medication carts** to deliver medications to patients. If using **trays** to deliver medications, clean trays between patients.

### Hepatitis B Vaccination

- **V126**-Offer to vaccinate all hepatitis B (HBV)-susceptible patients & staff against hepatitis B; advise HBV+ patient's care partner to ask own physician for HBV vaccination.
- **V127**-Test for anti-HBs 1-2 months after last dose.
- **V127**-If anti-HBs is <10 mIU/mL, consider patient susceptible, revaccinate with an additional three doses, & retest for anti-HBs.
- **V127**-If anti-HBs is ≥10 mIU/mL, consider patient immune, & retest annually.
- **V127**-Give booster dose of vaccine if anti-HBs declines to <10 mIU/mL & continue to retest annually.

### Management of HBV+ Patients

- Follow infection control practices for hemodialysis units for all patients.
- **V128-V130**-Dialyze HBV+ patients in an isolation room/area using dedicated machines, equipment, instruments, supplies, & medications.
- **V131**-Staff members caring for HBV+ patients should not care for HBV-susceptible patients at the same time (e.g., including during the period when dialysis is terminated on one patient & initiated on another).
- **V118-Intravenous medication vials** labeled for single use=single use; not punctured more than once. Do not pool residual medication from ≥2 vials into a single vial.
- **V119-Common supply cart** used to store clean supplies must remain in a designated area to avoid contamination & not be moved between patient stations to deliver supplies. Medications vials, syringes, alcohol swabs or supplies not carried in staff pockets.
- **V120**-Change & do not reuse external venous & arterial pressure **transducer filters/protectors** used for each patient treatment between treatments. If the external transducer protector becomes wet, change immediately & inspect for breakthrough. If internal transducer contaminated, take machine out of service & disinfect. (Does not apply to bloodlines without external transducer protectors.)
- **V122**-Clean & disinfect the **dialysis station** (e.g., chairs, beds, tables, machines), contaminated surfaces, medical devices & equipment between patients.
  - Pay special attention to cleaning control panels on the dialysis machines & other surfaces frequently touched & potentially contaminated with patients' blood.
  - Discard all fluid & clean & disinfect all surfaces & containers associated with the prime waste, including prime containers attached to the dialysis machines.
- **V147**-For **catheter & catheter-site care**, refer to the catheter checklists.
- **V585**-Home patient training on PPE & waste disposal

## Requirements for Isolation Room/Area

Who Must Comply	How To Comply	Definitions
<b>All Facilities (V130)</b>		
Any facility treating a HBV+ patient	Must dedicate machine(s), equipment, instruments, supplies & medications	<b>“Dedicate”</b> means to use only for HBV+ patient(s), all days/shifts.
If HBV+ patient is no longer treated in-center or in home training	Must terminally clean & disinfect machine and room/area to use for any other patient(s)	<b>“Terminally clean &amp; disinfect”</b> includes all external surfaces and machine internal pathways if applicable.
Certified for home training and support and currently has or admits a home patient or home training patient who is HBV+	Training options: <ul style="list-style-type: none"> <li>• Train in isolation room/area</li> <li>• Dedicate training room for HBV+ patient</li> <li>• Train at HBV+ patient's home</li> </ul> Must terminally clean & disinfect the room/area & equipment when training is completed Must follow standard infection control protocol for clinic visits & supply disposal	An <b>“isolation room”</b> is a separate room with door that is closed at dialysis initiation/ termination, with walls that touch floor but may not reach ceiling; walls and door must allow visual monitoring of the patient at all times when a staff member is not in the room; see definition for <b>“terminally clean &amp; disinfect.”</b>
<b>Existing Facility (V128)</b>		<b>“Existing”</b> is defined as a facility that as of 10/14/08 was certified or had a building permit or completed plan reviews (whichever applies in the specific location).
<b>A. Has an HBV+ patient in-center</b>		
Has an isolation room	Must maintain isolation room	See definitions of <b>“isolation room”</b> and <b>“terminally clean &amp; disinfect.”</b>
Has an isolation area	Must maintain isolation area & meet space requirements	<b>“Space requirements”</b> is defined as separated from other stations by a space equivalent to the width of a hemodialysis station.
Physically expand or relocate after 10/14/08?	Must add an isolation room	<b>“Physically expand”</b> is defined as physically expanding the treatment area.
<b>B. Admits an in-center HBV+ patient or has an in-center patient convert to HBV+</b>	Must “make provision” for HBV+ patients	Definitions for <b>“make provision”</b> include having an isolation room or area or having a transfer agreement with a facility with isolation capacity in the same geographic area. If no local facility is available to accept such transfers, the original facility must establish an isolation room/area for use with the HBV+ patient
<b>C. Has no HBV+ patients</b>		
Has an isolation room	Must maintain isolation room	See definition of <b>“isolation room.”</b>
Has an isolation area	Must maintain isolation area & meet space requirements	See definition of isolation area <b>“space requirements.”</b>
Has no isolation room/area	Must make provision	See definition of <b>“make provision.”</b>
<b>D. Physically expands or relocates</b>	Must add an isolation room or obtain a waiver from CMS	See definition of <b>“physically expand.”</b>
<b>New Facility (V129)</b>	Must have an isolation room on or after 2/9/09 or obtain a waiver from CMS	<b>“New”</b> is defined as a facility that as of 10/14/08 was not certified and did not have a building permit or completed plan reviews (whichever applies in the specific location).