

BONENT Certified Hemodialysis Technician CHT

BONENT Certified-Hemodialysis-Technician-CHT

Version Demo

Total Demo Questions: 9

Total Premium Questions: 93

Buy Premium PDF

<https://passqueen.com>

support@passqueen.com

PASSQUEEN.COM

support@passqueen.com

Topic Break Down

Topic	No. of Questions
Topic 1, Patient Care	39
Topic 2, Machine Knowledge	17
Topic 3, Water Treatment	14
Topic 4, Infection Control	22
Topic 5, Mix Questions	1
Total	93

QUESTION NO: 1

Which of the following is LEAST important in the orientation of a new employee?

- A. Developing a friendship with the orientee
- B. Supervising and evaluating the orientee's clinical performance
- C. Adapting your teaching style to the orientee's learning style
- D. Reviewing unit policies and procedures with the orientee

ANSWER: A

Explanation:

Developing a friendship with the orientee is the least important element of a formal new-employee orientation. A supportive, respectful working relationship can certainly help a new dialysis team member feel welcomed and comfortable asking questions, but friendship is not an orientation requirement and must not replace professional supervision, objective feedback, or competency validation. The orienting staff member's primary responsibility is to establish that the new employee can perform assigned duties safely, consistently, and according to the facility's policies, procedures, infection-control practices, and patient-safety expectations. In the dialysis setting, this professional focus is particularly important because patient care involves complex equipment, vascular access, water and dialysate safety, emergency response, and infection-prevention processes. CMS requires dialysis facilities to provide staff with ongoing education and training, including training appropriate to each person's responsibilities, and to ensure staff are competent to perform their duties. A structured orientation therefore centers on role expectations, supervised clinical practice, feedback, documentation, and verification of competence. Professional rapport may develop naturally, but it is secondary to maintaining appropriate boundaries and ensuring the orientee receives consistent, accountable instruction that supports safe patient care. See the CMS dialysis facility personnel requirements at [42 CFR §494.140](#) and CMS's [ESRD Surveyor Guidance](#).

QUESTION NO: 2

Which of the following are symptoms of dialysis disequilibrium syndrome?

- A. Cramps and diarrhea
- B. Headache and vomiting
- C. Hypertension and fever
- D. Hypotension and hypovolemia

ANSWER: B

Explanation:

Headache and vomiting are characteristic manifestations of dialysis disequilibrium syndrome (DDS), an acute neurologic complication that most often occurs during or shortly after initial hemodialysis treatments, particularly when severe uremia is corrected rapidly. The leading explanation is that urea is removed from the blood faster than it can leave the brain. This transient osmotic gradient draws water into brain tissue, causing cerebral edema and increased intracranial pressure. Early symptoms commonly include headache, nausea, vomiting, restlessness, and confusion. As severity increases, patients may develop blurred vision, muscle twitching, disorientation, seizures, or coma. Recognizing headache accompanied by nausea or vomiting during dialysis is important because it supports prompt assessment and notification of the licensed clinician. Prevention focuses on reducing the rate and extent of urea removal in patients at risk, using shorter or less efficient initial treatments and closely monitoring neurologic status. These symptoms are described in the clinical review of DDS from [StatPearls/NCBI Bookshelf](#) and are consistent with the discussion of dialysis complications in the [Merck Manual Professional Edition](#).

QUESTION NO: 3

During morning report, the dialysis technician learns that one of the dialysis patients has been hospitalized due to exsanguination. The technician understands the seriousness of this situation because exsanguination is defined as

- A. a dangerously high potassium related to a blood transfusion.
- B. hemoglobin does not have enough oxygen resulting in anemia.
- C. a dangerously low potassium resulting from hemolysis.
- D. a blood loss greater than 300 mL.

ANSWER: D

Explanation:

a blood loss greater than 300 mL. is correct in the dialysis-treatment context. Exsanguination means a major, potentially life-threatening loss of blood. During hemodialysis, this can occur rapidly if a venous needle becomes dislodged, a bloodline disconnects, or access bleeding is not controlled. The extracorporeal circuit and the patient's vascular access make prompt recognition essential: a substantial blood loss may quickly cause hypovolemia, hypotension, shock, loss of consciousness, and potentially death. Dialysis staff must therefore closely monitor needle and bloodline security, ensure that venous-pressure and blood-leak alarms are functional and responded to immediately, and follow facility emergency procedures whenever bleeding is suspected. The 300 mL threshold reflects the clinically significant volume used in dialysis safety teaching to identify an exsanguination event, rather than routine laboratory blood loss or a minor access-site bleed. More broadly, severe hemorrhage compromises circulating volume and tissue perfusion, which is why immediate intervention and escalation of care are required. CDC dialysis safety resources emphasize the importance of safe vascular-access and bloodline practices, while clinical hemorrhage references describe the physiologic danger of acute blood loss. See the [CDC Dialysis Safety guidance](#) and [NCBI Bookshelf overview of hemorrhagic shock](#).

QUESTION NO: 4 - (SIMULATION)

Which of the following are the Association for the Advancement of Medical Instrumentation (AAMI) recommended maximum levels for chemicals and organisms usually found in water used for dialysis patients?

- (A) Calcium = 2.0 mEq/L
Fluoride = 0.2 mg/L
Chloramines = 0.1 mg/L
Aluminum = 0.01 ug/L
- (B) Acetate = 35 mEq/L
Bicarbonate = 650 g/L
Dextrose = 2.0 g/L
Calcium = 2.5 mEq/L
- (C) Calcium = 0.5 mEq/L
Fluoride = 2.0 mg/L
Chloride = 10 ppm
Bacteria = 200 CFU/mL
- (D) Bacteria = 2,000 CFU/mL
Calcium = 3.25 mEq/L
Sodium = 140 mEq/L
Potassium = 2.0 mEq/L

ANSWER: See the explanation for the answer

Explanation:

Correct answer: (A)

Calcium: **2.0 mEq/L**

Fluoride: **0.2 mg/L**

Chloramines/total chlorine: **0.1 mg/L**

Aluminum: **0.01 mg/L (10 µg/L)**

These are AAMI maximum allowable contaminant levels for dialysis water. The other selections contain dialysate constituents or unacceptable chemical and/or bacterial limits. In particular, bacterial contamination should not be allowed to reach 2,000 CFU/mL; the AAMI maximum is 200 CFU/mL.

QUESTION NO: 5

If the dialysis machine has been disinfected with Renalin, it is important to test for residual Renalin after rinsing to minimize the risk of

- A. potential for a pyrogen reaction.
- B. alternation of the chemical composition of the dialysis fluid.
- C. patient exposure to Renalin.
- D. alteration of components in the machine.

ANSWER: C

Explanation:

patient exposure to Renalin. is correct because Renalin is a chemical disinfectant, and its active ingredients must be completely removed from the internal fluid pathway before the machine is connected for a treatment. Following the required rinse cycle, the technician performs the manufacturer-specified residual-disinfectant test to verify that no detectable disinfectant remains. This is a critical pre-treatment safety check: if chemical disinfectant were carried into the dialysate pathway, it could reach the dialyzer and expose the patient through the dialysis treatment system. Proper testing documents that rinsing has been adequate and helps prevent a chemical exposure event. Dialysis infection-control guidance emphasizes that dialysis equipment must be properly disinfected and rinsed according to manufacturer instructions before use, because the safe operation of the machine depends on controlling contamination as well as preventing residual chemical hazards. The CDC's dialysis guidance is available at [CDC: Dialysis Safety](#). General CDC guidance on safe cleaning and disinfection processes is also available at [CDC: Environmental Infection Control](#). Therefore, residual Renalin testing is specifically intended to ensure the patient is not exposed to the disinfectant after the machine has been rinsed.

QUESTION NO: 6

Water that is safe for drinking is NOT necessarily safe for dialysis because

- A. a patient's urine output is decreased.
- B. fluid removal is a problem in renal patients.
- C. a patient is exposed to a large amount of water during the dialysis treatment.
- D. small amounts of products are removed during the filtration process.

ANSWER: C

Explanation:

"a patient is exposed to a large amount of water during the dialysis treatment." is correct because hemodialysis uses a very large volume of water to prepare dialysate. Although that water does not normally enter the bloodstream directly, it is separated from the patient's blood by only the semipermeable dialyzer membrane. During treatment, solutes and contaminants in dialysate water may cross that membrane by diffusion or may enter the circulation if there is a membrane defect, depending on their properties and the clinical circumstances. Therefore, contaminants that may be acceptable at municipal drinking-water concentrations can be hazardous when exposure is repeated over many treatments and involves the large volumes used for dialysis. Examples of substances of concern include chlorine/chloramine, metals, fluoride, endotoxin, and microorganisms. Dialysis facilities must consequently use a purpose-designed water-treatment and distribution system, perform required monitoring, and meet dialysis-specific chemical and microbiological quality standards

rather than relying on potable-water standards alone. The Centers for Medicare & Medicaid Services require dialysis facilities to maintain water and dialysate quality consistent with accepted standards of practice; see [42 CFR § 494.40](#). CDC dialysis infection-control guidance also addresses water quality and treatment requirements: [CDC Dialysis Safety guidance](#).

QUESTION NO: 7

A patient with a functioning AV fistula reports that the hand below the access has become cold, pale, and painful. Which of the following is the MOST likely explanation?

- A. Steal syndrome
- B. Dialysis disequilibrium syndrome
- C. Venous needle infiltration
- D. Pyrogenic reaction

ANSWER: A

Explanation:

Steal syndrome is correct because blood flow through the AV fistula can, in some patients, reduce arterial perfusion to the distal hand. Findings can include a cool or pale hand, pain, numbness, weakness, or diminished distal circulation. These symptoms require prompt reporting to the licensed nurse and further evaluation because impaired distal perfusion can threaten hand function. Infiltration causes localized swelling and pain at a needle site, whereas venous stenosis more commonly produces swelling and prolonged bleeding.

QUESTION NO: 8

A reason dialysis patients are likely to develop infections is because they

- A. receive frequent invasive procedures.
- B. receive immunosuppressive therapies.
- C. are acutely sensitive to allergies.
- D. are on restricted diets.

ANSWER: A

Explanation:

receive frequent invasive procedures. Dialysis treatment requires repeated access to the bloodstream, usually through an arteriovenous fistula, graft, or central venous catheter. At each treatment, the access site must be assessed, prepared with antiseptic technique, and cannulated or connected to the extracorporeal circuit. These recurring procedures create opportunities for microorganisms to enter through the vascular access site or contaminate the bloodstream if infection-prevention practices are not followed precisely. In addition, many hemodialysis patients have frequent contact with healthcare environments and devices, which increases exposure to pathogens. Vascular-access infection can progress to serious bloodstream infection or sepsis, so careful hand hygiene, aseptic access preparation, correct catheter care, surveillance for redness, drainage, pain, or fever, and prompt reporting of concerning findings are essential responsibilities for dialysis personnel. The CDC identifies vascular access as a major source of bloodstream infection in dialysis patients and emphasizes core infection-prevention practices during every dialysis treatment. See the [CDC Dialysis Safety clinical resources](#) and the [CDC Standard Precautions guidance](#).

QUESTION NO: 9

What is the purpose of the ultraviolet light in MOST water treatment systems?

- A. To kill fungi such as yeast
- B. To kill gram-positive bacteria
- C. To kill methicillin-resistant *Staphylococcus aureus* (MRSA)
- D. To kill gram-negative bacteria

ANSWER: D

Explanation:

To kill gram-negative bacteria is the best answer because ultraviolet (UV) units in hemodialysis water-treatment and distribution systems are used for microbial control, particularly to reduce bacterial contamination in treated water. UV radiation at germicidal wavelengths damages microbial nucleic acids, preventing organisms from replicating; in practice, this is often described as killing or inactivating bacteria. Gram-negative waterborne bacteria are especially important in dialysis because they can proliferate in water systems and biofilm, and their cell-wall components can contribute to endotoxin contamination. Therefore, controlling this bacterial burden supports production of dialysis water that meets microbiological quality expectations. UV treatment is a physical disinfection step and works only when the unit is properly maintained, including appropriate lamp output, exposure time, and water quality that permits adequate UV transmission. It is used as part of an overall water-management program rather than as a substitute for routine monitoring, cleaning, and disinfection of the dialysis water system. CDC guidance emphasizes the importance of controlling microbial and endotoxin contamination in dialysis water and fluid systems. UV disinfection principles and its microbial inactivation mechanism are summarized by the [U.S. Environmental Protection Agency](#); dialysis-specific infection-prevention guidance is available from the [Centers for Disease Control and Prevention](#).