

# Wisconsin HAI Education Series

**June 26, 2025**



WISCONSIN DEPARTMENT  
*of* HEALTH SERVICES

# Dialysis Dynamics

## Ethical Decisions and Infection Control In Action

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# Disclaimer

- The Wisconsin HAI Prevention Program is non-regulatory.
- There is no affiliation with any facilities or products.
- All content is based on current guidance and best practices.

# Objectives

- Explain different dialysis modalities and locations.
- Discuss pros and cons of each modality.
- Discuss infection prevention and control risk considerations.
- Discuss the ethical principles that guide modality selection.

# Dialysis Modalities and Locations



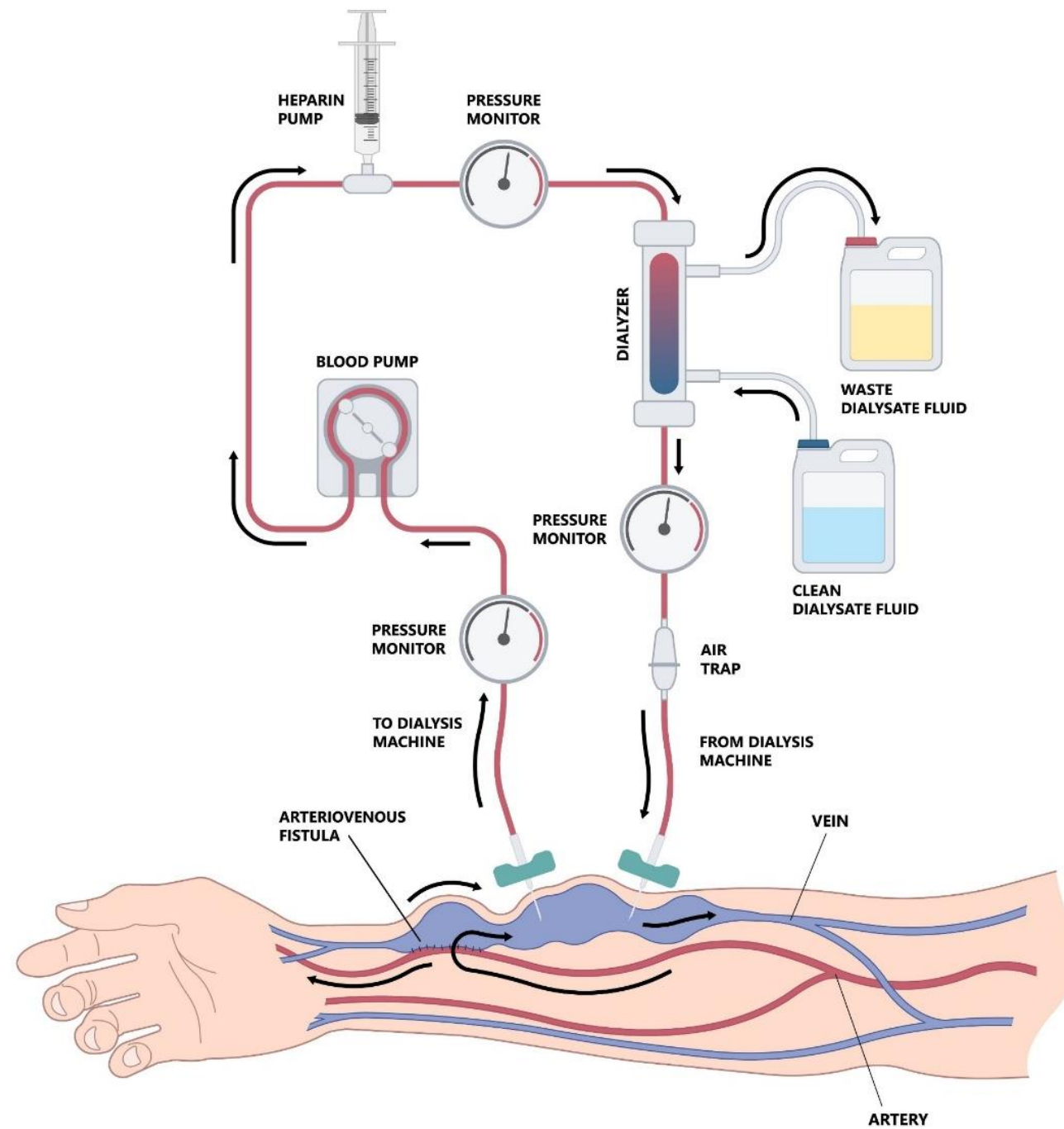
# What is Dialysis?



Treatment that cleans blood when kidneys are unable to remove waste and excess fluid.

# Hemodialysis

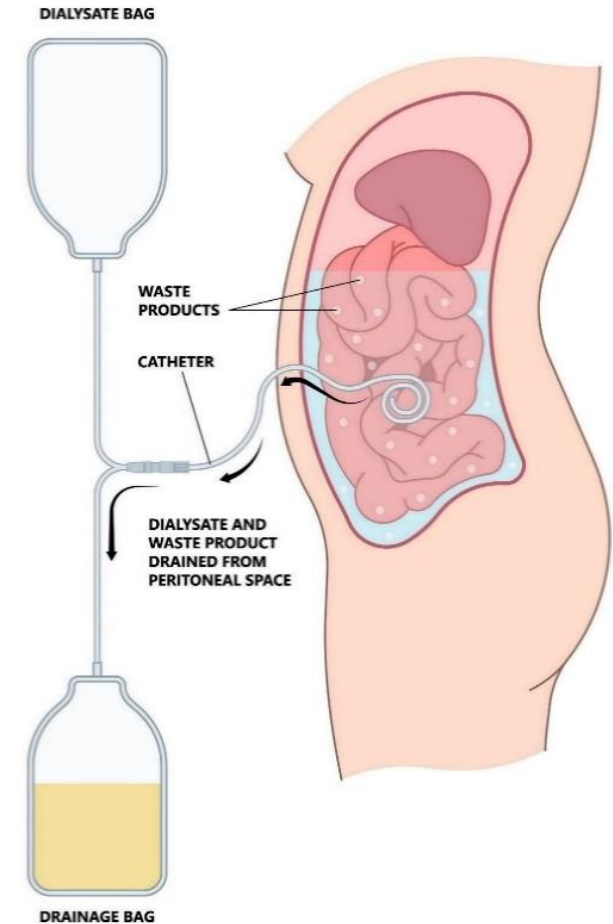
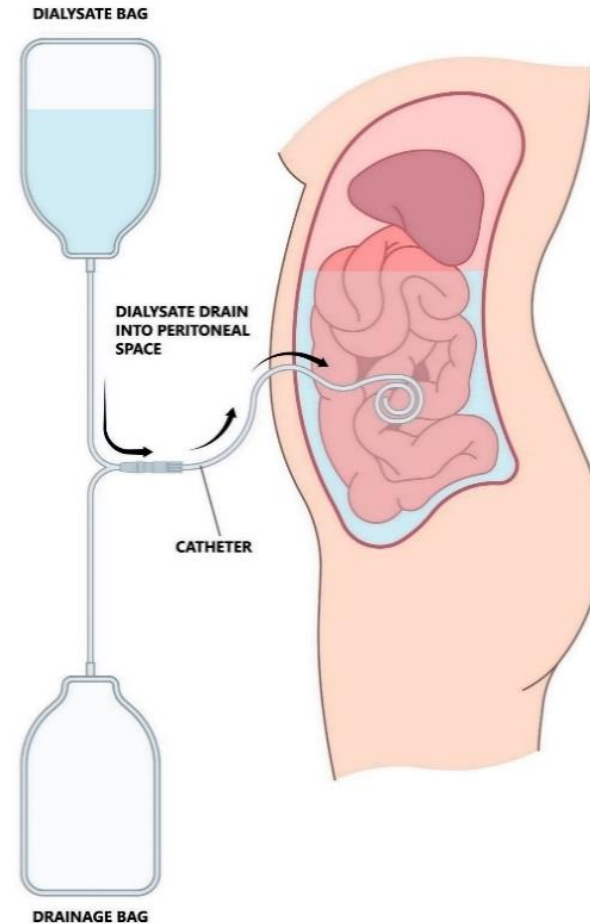
- Most common form of dialysis.
- Removes blood from the body by a machine through a dialysis access.
- Three main vascular access types:
  - Central venous catheter (CVC)
  - Arterial venous graft (AVG)
  - Arterial venous fistula (AVF)





# Peritoneal Dialysis

- Blood vessels in peritoneum filter blood through pre-made dextrose-based dialysis solution.
- Solution flows into peritoneum through peritoneal catheter.
- Requires daily treatments.



# Why is Dialysis Needed?

Dialysis is needed for those with:

- Acute renal failure.
- End stage renal failure.



# Treatment Modalities



Hemodialysis in clinic



Hemodialysis in skilled nursing facility (SNF)



Hemodialysis at home



Peritoneal dialysis



Transplant

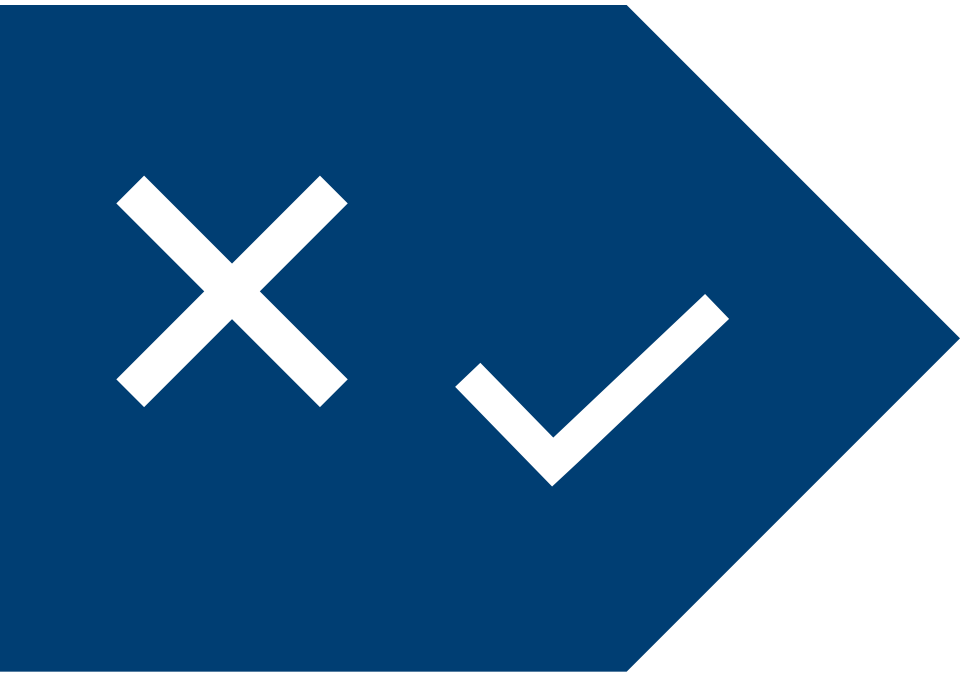


No dialysis

# Dialysis Dynamics



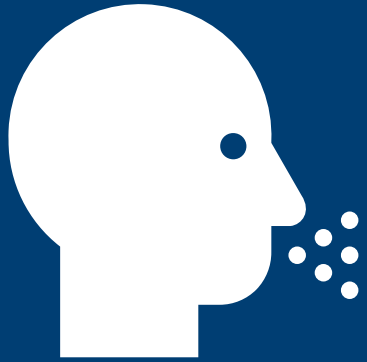
# Pros and Cons



Why is this important?

- Understanding the available options
- Making an educated decision

# Infection Prevention and Control



- Weakened immune system
- Frequent access of bloodstream
- Environmental factors

# *Staphylococcus aureus*

- *Staph aureus* is the most common infectious agent seen in dialysis patients.
- Dialysis patients are at a higher risk of methicillin-resistant *Staph aureus* (MRSA) infections.



# Ethical Considerations



- Data disparities
- Financial constraints
- Chronic disease
- Lack of access to home treatments



# Modalities



# Hemodialysis in Clinic

- Performed in an outpatient setting
- Medical staff always available
- Usually occurs three times weekly for approximately four hours

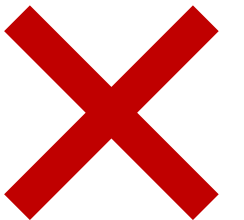
# Pros of Hemodialysis in Clinic

- Trained staff available
- Maintained supplies and equipment
- Convenient
- Social engagement with others
- Separation of home life and medical life
- Three treatments per week
- No care partner needed



# Cons of Hemodialysis in Clinic

- Vascular access is needed
- Dietary restrictions
- Fixed schedule and travel
- Post dialysis fatigue
- Complications
- Infection risk



# Infection Prevention Considerations

- Access site infections
- Blood stream infections
- Environmental infection control
- Personal protective equipment (PPE) use
- Hepatitis B and C
- Water management



# Ethical Considerations

- Informed consent
- Lifestyle considerations
- Patient-life and work-life balance needs



# Hemodialysis in SNF

- Performed in a skilled nursing setting
- Performed by facility or contracted staff

# Pros of Hemodialysis in SNF

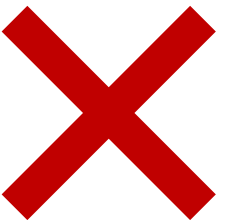
- Performed on site
- Reduced travel
- Improved access to facilities
- Lowered disruption to patient schedules
- Discharged from hospital earlier





# Cons of Hemodialysis SNF

- Staffing shortages in SNFs
- Space and equipment limitations due to facility size
- Increased risk of complications due to age, fragility, and comorbidities
- Communication breakdowns



# Infection Prevention Considerations

- Cross contamination into facilities
- Staff training and competency
- Water management



# Ethical Considerations

- Quality of the care able to be provided
- Financial considerations
- Shared responsibilities
- Family dynamics



# Hemodialysis at Home

- Performed at the patient's home
- Performed on their own or with care partner
- No medical staff present

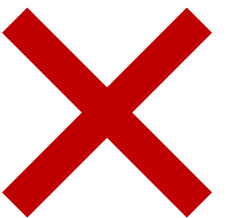
# Pros of Home Hemodialysis

- Control over schedule
- More personal time
- Less exposure to infections
- Improved quality of life
- Less dietary restrictions
- Improved survival rate



# Cons of Home Hemodialysis

- Training required
- Care partner may be needed
- No staff present
- Storage of equipment and supplies
- Infection risk
- Psychosocial issues
- Time commitment



# Infection Prevention Considerations

- Hand hygiene
- Cleaning of equipment and dialysis area
- Access care
- Water management



# Ethical Considerations

- Comprehension and skill level
- Home environment
- Caregiver responsibilities
- Patient-life and work-life balance needs



# Peritoneal Dialysis

- Performed at home
- May be performed continuously during the day or overnight
- No medical staff present

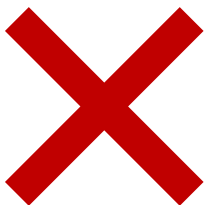
# Pros of Peritoneal Dialysis

- Two types of peritoneal dialysis available
- Flexible schedule
- Health benefits
- Fewer dietary restrictions
- Preserves kidney function
- No needles



# Cons of Peritoneal Dialysis

- No staff present
- Lab draws required
- Risk of peritonitis
- Risk of hernia
- Weight gain possible
- No days off
- No swimming



# Infection Prevention Considerations

- Peritonitis infection
- Exit site care
- Home environment
- Contamination risk during set up, connection, or disconnection

# Ethical Considerations

- Comprehension and skill level
- Home environment
- Caregiver responsibilities
- Patient-life and work-life balance needs



# Transplant

- Live donor or cadaver
- Types of live donor transplant:
  - Paired donation
  - Shared donor program

# Transplant Pros



- No dialysis
- Improved quality of life
- Improved life expectancy

# Transplant Cons



- Rejection or complications
- Medications
- Long-term issues



# Infection Prevention Considerations

- HAI risk
- Weakened immune system
- Vaccines recommendations



# Ethical Considerations

- Fair opportunities to access
- Living versus deceased donors
- Informed consent
- Insurance
- Religions and cultural considerations

# Donor Requirements



- Age limits
- Medical conditions
- Consent
- Time commitment
- Financial commitment

# Recipient Requirements



- End stage renal disease on dialysis or stage 4 or 5 chronic kidney disease
- Health status
- Life expectancy of at least five years
- Consistent caregiver
- Insurance

# No treatment

- No transplant
- No dialysis

# Pros of No Treatment



- Quality of life
- Reduce complications
- Dietary liberty

# Cons of No Treatment



- Complications
- Reduced life expectancy
- Unexpected death

# Ethical Considerations

- Personal autonomy
- Religious or cultural
- Mental health
- Know the “why”
- Palliative care





# Case Studies



# Which modality might be a good choice for this patient?

- Elderly widowed man
- Lives alone
- Hasn't been taking good care of himself (not taking meds, skipping meals)



# Which modality might be a good choice for this patient?

- Working, single mom
- School-aged children
- Limited income



# Resources

- [HAI: Infection Prevention in Dialysis Settings](#)
- [Dialysis Safety](#)
- [Bacteremia in Hemodialysis Patients](#)
- [Medical Management of the Dialysis Patient: Infectious Complications](#)
- [Preventing Infections, Midwest Kidney Network](#)
- [National Kidney Foundation Annual Report–2019](#)
- [Hemodialysis](#)

Want more  
information  
on infection  
prevention  
in dialysis  
settings?



Scan QR code or visit:  
[www.dhs.wi.gov/hai/dialysis.htm](http://www.dhs.wi.gov/hai/dialysis.htm)

# Questions?

Thank you!



# Infection Preventionist

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**Website:** [www.dhs.wisconsin.gov/hai/contacts.htm](http://www.dhs.wisconsin.gov/hai/contacts.htm)



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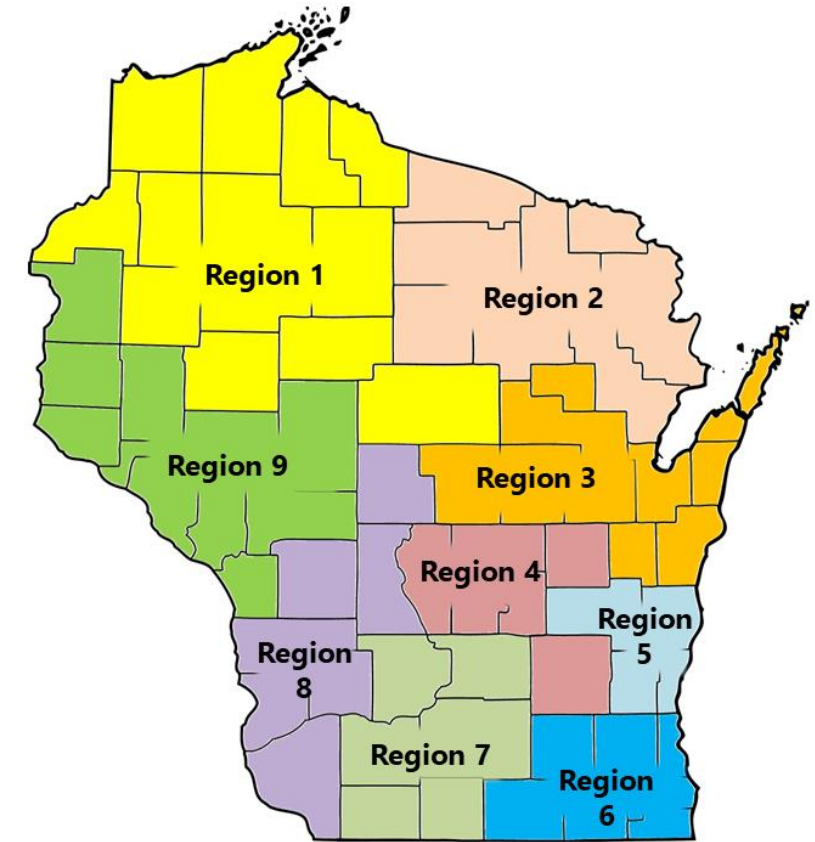
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# HAI Infection Prevention Education webpage



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## HAI Infection Prevention Education

IPs play an essential role in facility infection prevention policy development, surveillance, and risk assessment. IPs also serve as a resource to other staff and programs within their facilities. The resources on this page are intended to connect health care facility infection preventionists (IP) with education materials to support their role in preventing, detecting, and responding to healthcare-associated infections (HAI).

### Webinars

### HAI Education Series

The HAI Education Series provides educational presentations on topics including infection prevention, HAIs, antibiotic stewardship, disease surveillance, and outbreak response for health care staff in all setting types, local and Tribal health departments, and other health care partners. Each session features a new, timely topic presented by the Department of Health Services (DHS) program staff, HAI infection preventionists, partner organizations, or other external subject matter experts.

The HAI Education Series is a monthly webinar series, typically held the fourth Thursday of each month. Register for the [HAI Education Series](#) .

HAI Education Series recordings



# Upcoming HAI Education Session

**No HAI Education Series Session in July**

**Date: August 28, 2025**

**Topic: Medication and Injection Safety**



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