National Home Infusion Association

# Guidance for Addressing Shortages of Administration Sets for Ambulatory Infusion Pumps

Ambulatory infusion pump sets for use in the United States are in limited supply. This shortage can directly impact patient care, and NHIA is continually addressing the ongoing shortage by working with manufacturers and suppliers, other professional health care organizations, and clinicians. Through these efforts, the association is staying up to date on the status of these shortages, collaborating to resolve them, and providing resources for managing the limited supply.

NHIA has developed product shortage recommendations to help clinicians manage patients during this time when pump sets may not be readily available.

During an ambulatory infusion pump administration set shortage period, consider the following measures:

1. Assess/reassess each patient for the indication and requirement for an ambulatory infusion pump.
2. Reserve use of ambulatory infusion pumps for situations where flow accuracy is critical to the patient's response and safety.
3. Prioritize patients who are ambulatory and administer a continuous infusion:
    a. Inotrope
    b. PCA
4. Consider non-ambulatory pump options for administration of antibiotics, hydration, monoclonal antibodies, immune globulin, and others as appropriate.
    a. Utilize gravity administration and use of flow regulators for medications not at risk for free-flow complications.
    b. Convert all nurse administered therapies to gravity infusions as the nurse can ensure the accuracy of flow regulation as part of their nursing assessment.
    c. Prioritize elastomeric infusion and syringe methods of administration whenever possible.
    d. Consider pole mounted infusion pumps for those therapies that require high flow accuracy, especially if a nurse is not present during administration.
    e. Consider pole mounted infusion pumps for patients with small bore catheters such as midlines or multi-lumens as gravity infusion rates may be affected by catheter french size.
    f. As a last resort, consider extending the time between bag and/or set changes.
        i. Verify the medication stability allows for extending the time between administration set changes.
        ii. Consult the ambulatory pump manufacturer for specifications for frequency of replacing the pump sets.
        iii. The CDC guidance on prevention of catheter related infections and administration set replacement recommends patients not receiving lipid emulsion, replace administration sets that are continuously used no more frequently than 96-hour intervals, but at least every 7 days. (Reference: Centers for Disease Control at https://www.cdc.gov/infectioncontrol/guidelines/bsi/background/prevention-strategies.html#rec18 (accessed 12/28/2021)[1-8])
5. In the interest of fair allocation to all patients nationally, do not stockpile inventory.

6. Work collaboratively with patients and physicians to determine the ability to prescribe equally efficacious medications that avoid the use of an ambulatory infusion pump.

7. Patient-specific considerations when changing methods of administration.
    a. Consider patient individual learning needs and home situation to determine an appropriate education plan when changing method of administration
    b. Assess patient fall risk as pole mounted pumps may increase fall risk

The Pharmacist and Nurse are responsible for participating in the selection of an appropriate infusion device to be used in administering parenteral medications to home care patients. The simplest administration method should be chosen when possible.



**References**:

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