Practice Standard: Providing a Back-up Electronic Mechanical Pump

Introduction

The practice standards of NHIA represent a consensus of professional judgment, expert opinion, and documented evidence. They provide guidance and direction to NHIA members and other audiences who affect the home infusion industry, and the patients served. Their use may help to comply with federal and state laws and regulations, meet accreditation requirements, and improve patient care. They are written to establish reasonable goals, to be progressive and challenging, yet attainable as best practices in applicable home or alternate site settings. They should not be viewed as NHIA requirements. The use of NHIA's practice standards by members and other practitioners should be assessed and adapted based on independent judgment.

Purpose

The purpose of providing a back-up electronic mechanical pump is to ensure patient safety and minimize adverse events, avoid unplanned hospitalizations and emergency room visits, and prevent disruptions in treatment. The Pharmacist and Nurse are responsible for evaluating the patient, therapy, and operational factors that contribute to the need for a back-up electronic mechanical pump when delivering parenteral medications to patients infusing medications at home. NHIA has developed this practice standard to help clinicians assess situations and determine when a back-up electronic mechanical pump is recommended.

Practice Standard Development Procedure

An area of practice was identified where information and direction are necessary to promote general standards and quality. The topic of providing a back-up electronic mechanical pump has generated a need among practitioners for authoritative advice. There was sufficient experience upon which to base a practice standard and it was relevant to the practice of a significant portion of NHIA's members. The NHIA Quality and Standards Committee, comprised of home infusion professionals, performed a comprehensive review of available evidence. Committee members who are clinical and research experts collaborated on the topic, reviewing industry trends and other data sources such as membership, community, best practices, industry research, review of published literature, or other practice guidelines. A draft practice standard was developed and reviewed by the committee members, and revisions to the draft were incorporated based on consensus. A formal draft of the practice standard was presented for public comment. At the close of the comment period, the committee reviewed the commentary and proposed revisions. The committee made recommendations prior to being finalized and approved.

Target Audience

The target audience includes clinicians, regulatory agencies, reimbursement professionals, and industry stakeholders.

Practice Standard for Providing a Back-up Electronic Mechanical Pump

Situations where providing a back-up electronic mechanical pump is strongly recommended when infusing medications in the home:

- Pump failure would likely cause therapy-related clinical deterioration due to interruption of a continuous medication.
    - *Example situation:* A patient receiving Blincyto or inotrope therapy.
- Pump failure would likely cause hemodynamic or respiratory instability.
    - *Example situation:* Respiratory distress when a medication supporting pulmonary function is interrupted (e.g., treprostinil).
    - *Example situation:* Exacerbation of heart failure symptoms, hypotension, tachycardia, or arrhythmias when inotropes are interrupted (e.g., milrinone, dobutamine).

DRAFT

- Pump failure would likely cause withdrawal symptoms or rebound of a condition controlled by steady infusion.
    - *Example situation:* A therapy that requires continuous delivery to avoid withdrawal, or an acute symptom flare for a condition controlled by steady infusion.

Situations when a clinician should consider providing a back-up electronic mechanical pump when infusing medications in the home:

- Environmental factors could delay timely replacement of a failed pump.
    - *Example situation:* Rural locations may impact timely patient accessibility to a replacement pump.

Comments/Contact: NHIA welcomes feedback and suggestions for content to incorporate into future revisions and editions. Contact: standards@nhia.org.

DISCLAIMER: The National Home Infusion Association (NHIA) produces educational resources to aid good clinical practice that reflects the input of its members and experienced clinicians in the field. The information offered in NHIA resources is intended as a guide for information purposes only and does not replace or remove clinical judgment or the professional care and duty necessary for each specific situation. While great effort has been made to assure all information is complete and accurate as of the time this resource was issued, given the continuously evolving health care environment and the particular circumstances of individual cases, no assurance can be given that the information is entirely complete or accurate in every conceivable respect (and, as such, NHIA and its board members, committee/work group members, officers and employees disclaim all liability for the accuracy or completeness of this resource, and disclaim all warranties, express or implied to its incorrect use).

References

National Home Infusion Association (2023). *Practice Standard: Electronic Mechanical Pump Selection for Home Administration of Infusion Medications.* https://nhia.org/wp-content/uploads/2023/12/Pump-Selection-Standard-Final.pdf

DRAFT