IEHP UM Subcommittee Approved Authorization Guidelines

External Infusion Pumps for Continuous Local Delivery of Analgesia
Into Postoperative Sites

Policy:
The use of infusion pumps for local delivery of analgesia to intra-articular and intra-lesional postoperative sites is considered not medically necessary as a technique for postoperative pain control. Several double-blind, randomized, placebo trials have failed to demonstrated its effectiveness over placebo in reducing narcotic use and reducing pain. Viable options already exist for the control of post-operative pain including parenteral and oral narcotics.

Elastometric Infusion Pumps include: On-Q pain management system brand pumps, Pain Buster systems, Don Joy Pain pumps, and Stryker Pain pumps.

CMS Medicare Carrier LCDs: External Infusion Pumps States:

An external infusion pump is covered for the following indications (I-V): An infusion pump described by codes E0779, E0780, E0781, and E0791 is covered for indications I – III, V(A) – V(D), V(F), and V(G). Coverage of other pumps is addressed under indications IV, V (E), and V (H).

A. Administration of deferoxamine for the treatment of chronic iron overload.
B. Administration of chemotherapy for the treatment of primary hepatocellular carcinoma or colorectal cancer where this disease is unresectable or where the patient refuses surgical excision of the tumor. Anticancer chemotherapy drugs used in these conditions are not required to meet the criteria described by indication V, situation A.
C. Administration of morphine when used in the treatment of intractable pain caused by cancer.
D. Administration of continuous subcutaneous insulin for the treatment of diabetes mellitus (ICD-9 code range 250.00-250.93. After October 01, 2015 ICD-10 code range E10.65 – E11.9).
E. Administration of other drugs if either of the following sets of criteria (1) or (2) are met:
F. Criteria set 1:
   1. Parenteral administration of the drug in the home is reasonable and necessary.
   2. An infusion pump is necessary to safely administer the drug.
3. The drug is administered by a prolonged infusion of at least 8 hours because of proven improved clinical efficacy.

4. The therapeutic regimen is proven or generally accepted to have significant advantages over intermittent bolus administration regimens or infusions lasting less than 8 hours.

G. Criteria set 2:
1. Parenteral administration of the drug in the home is reasonable and necessary.
2. An infusion pump is necessary to safely administer the drug.
3. The drug is administered by intermittent infusion (each episode of infusion lasting less than 8 hours) which does not require the patient to return to the physician's office prior to the beginning of each infusion.
4. Systemic toxicity or adverse effects of the drug is unavoidable without infusing it at a strictly controlled rate as indicated in the Physician’s Desk Reference, or the U.S. Pharmacopeia Drug Information.

Medical Review Criteria Guidelines for Managing Care (Apollo):

*External infusion pumps*: a computerized device with a loaded syringe and infusion set for needle insertion for a continual basal rate and/or bolus delivery of drug, either subcutaneous or intravenously.

**Indications:**

- **Iron poisoning**: when used in the administration of deferoxamine for the treatment of acute iron poisoning and iron overload. External pumps only are a covered benefit.
- **Post-operative pain control** by local delivery of analgesia through a catheter to operative site for up to 5 days by a disposable elastomeric pump.
- **Thromboembolic disease**: administration of heparin for thromboembolic disease and/or pulmonary embolism. Only external pumps used in an institutional setting are covered.
- **Morphine for intractable cancer pain** - Morphine infusion via an external infusion pump is covered when used in the treatment of intractable pain caused by cancer (in either an inpatient or out-patient setting, including a hospice).
- **Chemotherapy for liver cancer** - When used in the treatment of primary hepatocellular carcinoma or colorectal cancer where the disease is unresectable or where the patient refuses surgical excision of the tumor.
- **Diabetes mellitus**: an external infusion pump for the subcutaneous infusion of insulin in the treatment of diabetes is covered by Medicare in the home setting when indications are met.

ECRI Institute Custom Hotline Response: Continuous Local Anesthetic Infusion Pumps for Postoperative Pain:

In ECRI review of the medical literature on this topic summarized several double blind, randomized trials. The findings are listed below:
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A. Banarjee et al. (2008) studied 60 patients undergoing arthroscopic rotator cuff repair and whom received postoperative Bupivicaine 2mL, 5mL, or saline 5mL via infusion pump. The 2mL group had a non-significant trend toward less pain and narcotic use. The 5mL Bupivicaine group had a non-significant trend toward more pain and higher narcotic use. Therefore the study neither refuted nor supports the use of infusion pumps.

B. Parker et al (2007) studied 63 patients undergoing anterior cruciate ligament reconstruction. Compared 72 hour infusion of bupivicaine or saline versus no infusion. Study found no significant difference between any of the groups for pain control, narcotic use or NSAID use. Thus the use on infusion cannot be supported for this indication.

C. Morgan et al. (2006), studied 60 patients undergoing iliac crest bone grafts and compared bupivicain infusion pump against placebo. Findings revealed no significant difference in perceived pain between groups, no difference in narcotic use and higher pain levels were reported in the treatment group.

D. The National Guideline Clearinghouse contained some guidelines on local anesthetic infusion pumps. The Work Loss Data Institute published a guideline on local infusion pumps for worker having knee and leg alignment surgery and recommended that it is investigational.

Anthem Clinical Guideline- Continuous Local Delivery of Analgesia to Operative Sites Using an Elastometric Infusion Pump (Revised 1/28/2008):
Continuous local delivery of analgesia to operative sites using an eloastometric infusion pump is considered not medically necessary as a technique of postoperative pain control. Oral or parenteral narcotics offer acceptable alternatives.


A. Aetna considered Infusion Pumps for intra-articular administration of narcotic analgesics and anesthetics as investigational and experimental as they have not been proven to improve post-operative pain control.

B. Aetna further determined that pumps for intra-lesional administration of narcotic analgesics and anesthetics to be investigational and experimental, as their effectiveness in well-designed clinical studies in the literatures had not been established.

C. Aetna sites several studies in support of its position: Alford et al. (2003) which found that there were reductions in pain and narcotic use in subjects receiving intra-articular anesthetic and in those receiving saline placebo via catheter infusion as compared to those receiving pain control without catheter infusion. This suggests placebo effects may be significant with intra-articular pumps. This study was also supported by Rosseland et al. (2004), which found significant effects with intra-articular infusion with saline.

D. The summarizing statement from Aetna’s review of the literature is that pain relief from intra-lesional and intra-articular anesthetics, if any, is modest and remains unclear whether they are clinically useful.
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Bibliography:


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