



Kansas City

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## External (Portable) Infusion Pumps

**Policy Number:** 1.01.08  
**Origination:** 10/1988

**Last Review:** 9/2014  
**Next Review:** 9/2015

### **Policy**

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Blue Cross and Blue Shield of Kansas City (Blue KC) will provide coverage for External Infusion Pumps when it is determined to be medically necessary because the criteria shown below are met.

### **When Policy Topic is covered**

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Use of the external (portable) infusion pump for the administration of the following drugs is considered **medically necessary** for selected patients.

- Morphine and other parenteral analgesics
- Insulin for treatment of insulin dependent diabetes in patients who cannot be controlled by intermittent subcutaneous dosing (see Considerations section for specific guidelines).
- Heparin for treatment of severe thromboembolic disease that cannot be managed with conventional intermittent injections or oral medication.
- Chemotherapy for cancer treatment
- Antibiotics

Use of the portable infusion pump in the treatment of rare diseases or conditions not specifically mentioned above will be considered for benefit on an individual consideration basis

### **When Policy Topic is not covered**

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The use of a disposable external insulin pump with no wireless communication capability (e.g, V-Go®) is considered **investigational** under all circumstances.

External (portable) infusion pumps are considered **not medically necessary** if the criteria above are not met.

### **Considerations**

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#### *Infusion pump for insulin*

In order to be covered, the patient must have:

- completed a comprehensive diabetes education program, **and**
- been on a program of multiple daily injections of insulin (i.e. at least 3 injections per day), with frequent self adjustments of insulin dose for:
  - at least 6 months prior to initiation of the insulin pump if patient is 16 years of age or older
  - at least 2 months prior to initiation of the insulin pump if the patient is below 16 years of age,**and**
- documented frequency of glucose self-testing an average of at least 4 times per day during the 2 months prior to initiation of the insulin pump, **and**
- meet one or more of the following criteria while on the multiple daily injection regimen:
  1. Glycosylated hemoglobin level (HbA1c) > 7.0 percent
  2. History of recurring hypoglycemia
  3. Wide fluctuations in blood glucose before mealtime (>140)
  4. Dawn phenomenon with fasting blood sugars frequently exceeding 200 mg/dl
  5. History of severe glycemic excursions

## **Description of Procedure or Service**

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An external infusion pump (EIP) is a portable device intended to provide continuous ambulatory drug infusion therapy over an extended time period. The EIP is also known as an external pump, ambulatory pump, or a mini-infuser. The EIP is usually the size of a portable cassette player and can be worn on a belt around the patient's waist or from a shoulder harness. It is a battery driven device.

Proposed drug delivery routes using the EIP include the intravenous, intra-arterial, sub-cutaneous, intraperitoneal, epidural, intrathecal, and intraventricular routes. A heparinized saline solution may be used during an interruption of drug therapy to maintain catheter patency. The EIP is battery powered, and drug reservoir refilling is non-invasive. A catheter from the pump is attached to the desired access route for drug delivery.

A newer type of mechanical disposable insulin pump (V-Go<sup>®</sup>) has been proposed as an alternative to standard pump therapy. The V-Go provides a continuous preset basal rate of insulin and allows for on-demand bolus dosing around mealtimes, thereby providing an alternative to taking multiple daily insulin injections.

## **Rationale**

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A search of the literature was completed through the MEDLINE database for the period of January 1992 through May 1995. The search strategy focused on references containing the following Medical Subject Headings:

- Infusion Pumps
- Portable or External or Ambulatory

Research was limited to English-language journals on humans.

## **Antibiotic Therapy**

Outpatient parenteral antibiotic therapy (OPAT) is now accepted as standard care in most communities. Antibiotic therapy may be given at home, in an office-based setting, or through a hospital-based infusion program.

OPAT offers several advantages to patients, health care providers, and insurers. First, the length of hospital stays can be markedly reduced. Some patients may return home and resume their daily routine days or weeks before finishing therapy. In other cases, OPAT can be started as soon as the diagnosis is made, and hospitalization can be completely avoided. Second, OPAT is almost always less expensive than inpatient therapy. Substantial savings have been found with OPAT when compared with in-hospital stays. Finally, patient outcomes appear to be very good. While few prospective trials have been done, retrospective analysis of OPAT programs has revealed a high rate of success for a diverse collection of infectious diseases. Success rates for OPAT patients compare favorably with those for hospital-based historical controls.

At this time, there are no prospective clinical trial data comparing mechanical disposable insulin pumps (V-Go<sup>®</sup>) to a standard battery operated pump devices. The safety and efficacy has not been sufficiently evaluated to demonstrate equivalent clinical outcomes.

## **References**

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2. Corwin P., Toop L., McGeoch G., et al. Randomised controlled trial of intravenous antibiotic treatment for cellulitis at home compared with hospital. *BMJ* 2005;330:129 (15 January), doi:10.1136/bmj.38309.447975.EB (published 16 December 2004)
3. Dalavasio, J., et al. Financial impact of a home intravenous antibiotic program on a Medicare managed care program. *Clinical Infectious Diseases* 2000;30:639-642.c
4. TEC Evaluations 1989: p. 59
5. [http://www.accessdata.fda.gov/cdrh\\_docs/pdf10/K103825.pdf](http://www.accessdata.fda.gov/cdrh_docs/pdf10/K103825.pdf)

6. [http://www.accessdata.fda.gov/cdrh\\_docs/pdf10/K100504.pdf](http://www.accessdata.fda.gov/cdrh_docs/pdf10/K100504.pdf)
7. Grunberger, G. et al. Initiating V-Go® in Patients Using Long Acting Insulin. Presented at the American Association of Clinical Endocrinologists Annual Meeting. May 15, 2014. Las Vegas, Nevada.

**Billing Coding/Physician Documentation Information**

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- E0781** External ambulatory infusion pump
- E0784** External ambulatory infusion pump, insulin
- A4306** Disposable drug delivery system, flow rate of 5 ml or less per hour
- A9274** External ambulatory insulin delivery system, disposable, each, includes all supplies and accessories

This policy does not apply to single use vacuum pressure pain pumps (i.e., Stryker Pain pump, ON-Q Post-Op Pain Relief System, Breg Pain pump) which are not classified as DME but rather as a supply. As such, the unlisted supply code, 99070, would be used for these devices.

**Additional Policy Key Words**

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N/A

**Policy Implementation/Update Information**

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- 10/1/88 New policy titled Portable Infusion Pumps. Added to DME section.
  - 9/1/00 No policy statement changes.
  - 9/1/01 Policy statement revised to require an endocrinologist's order and monitoring for insulin.
  - 9/1/02 No policy statement changes.
  - 9/1/03 No policy statement changes.
  - 9/1/04 No policy statement changes.
  - 9/1/05 Policy statement revised to remove local anesthetic / analgesic / anti-inflammatory solutions for infusion into a surgical site in the immediate post-operative period following joint surgery from the list of covered infusion pumps. These are typically single use devices and technically are not DME. Title of policy changed to External (Portable) Infusion Pump.
  - 9/1/06 No policy statement changes.
  - 9/1/07 No policy statement changes.
  - 9/1/08 No policy statement changes.
  - 9/1/09 No policy statement changes.
  - 9/1/10 No policy statement changes.
  - 9/1/11 No policy statement changes.
  - 9/1/12 No policy statement changes.
  - 9/1/13 No policy statement changes.
  - 9/1/14 Policy statement added regarding disposable external insulin pumps with no wireless communication capability; considered investigational.
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