Vacuum-assisted closure is designed to promote the formation of granulation tissue in the wound bed either as an adjunct to surgical therapy, or as an alternative to surgery in a debilitated patient. In this system, a special foam dressing with an attached evacuation tube is inserted into the wound and covered with an adhesive drape to create an airtight seal. Negative pressure is then applied and the wound effluent is collected in a canister.
Although the exact mechanism has not been elucidated, it is hypothesized that negative pressure contributes to wound healing by removing excess interstitial fluid, increasing the vascularity of the wound, and/or creating beneficial mechanical forces that draw the edges of the wound closer together. Vacuum-assisted closure has also been referred to as “negative wound pressure therapy.”

**POLICY**

Predetermination is strongly encouraged:

1. Vacuum Assisted Wound Closure (VAC) is considered medically necessary in the home setting to promote the closure of chronic wounds when initiated in the home setting, or in the hospital or skilled nursing facility prior to discharge, when one of the following chronic wound conditions is present:
   - Pressure ulcers – Stage III or Stage IV
   - Venous or arterial insufficiency ulcers
   - Dehisced wounds or wounds with exposed hardware or bone
   - Neuropathic ulcers
   - Complications of a surgically created (i.e., large incisional hernia with mesh) or traumatic wound or diabetic lower extremity ulcer where accelerated granulation therapy is necessary which cannot be achieved by other available topical wound treatment
   - Post sternotomy wound infection or mediastinitis
   - It is used as an adjunct therapy or as an alternative to surgery; and
   - There is support to change the device and provide home care for the wound; and
   - Patient selection criteria have been met (see Policy Guidelines, below) AND for VAC to be initiated in the home setting:
   - Progressive wound healing has failed following 30 days of conservative wound treatment. (Treatment less than 30 days can be reviewed by a consultant if medical records are provided).

2. Policy Guidelines:
   
   **Patient Selection Criteria**
   The criteria listed below, as items a. through f. must be met for all conditions:
   
   a. The wound has been débrided and is free of all the following:
      - Nonviable or necrotic tissue (eschar)
      - Macroscopic contamination
      - Non-enteric and unexplored fistulas
      - Malignant or metastatic cells
      - Active bleeding
      - Pressure on wound
   
   b. The wound does NOT contain exposed arteries or veins
   
   c. The patient is free from active osteomyelitis
d. The medical record documents that the patient is NOT nutritionally compromised, or if nutritionally compromised, the medical record documents appropriate interventions have been implemented.

e. The medical record documents that the patient is willing and able to comply with using continuous or intermittent VAC application 22 of 24 hours per day.

f. The additional criteria listed below must be met for specific wound types and treatment regimes:

1) Neuropathic ulcers:
   The patient has been on a comprehensive management program and evidence of adequate vascularization and appropriate treatment to relieve pressure on a foot ulcer has been rendered.

2) Venous or arterial insufficiency ulcers: the patient has had compressive bandages and/or garment and leg elevation consistently applied and/or utilized under physician supervision and ambulation has been encouraged.

g. V.A.C. approved may be allowed up to 4 weeks before re-review.

3. Continuation of Treatment:
   For coverage to continue beyond initial approval period, the medical records (progress notes) should indicate the following:

   a. Weekly assessment of the wound (s) dimensions and characteristics by a licensed health care professional

   b. Documentation of progressive wound healing without intervening complications at least monthly.

   c. Discontinue V.A.C. ™ if wound shows no progress for 2 weeks.

   d. Maximum duration of V.A.C. approval, without consultant review, is 4 months.

4. Negative pressure therapy post skin grafting will be reviewed by a plastic surgeon consultant to determine necessity based on the size and severity of the wound.

   All other applications for V.A.C.™ therapy are considered not medically necessary or experimental/investigational in the home setting.

CODING

The following codes for treatment and procedures applicable to this policy are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

CPT/HCPCS

97605  Negative pressure wound therapy (e.g., vacuum assisted drainage collection), including topical application(s), wound assessment, and instruction(s) for ongoing care, per session; total wound(s) surface area less than or equal to 50 square centimeters

97606  Negative pressure wound therapy (e.g., vacuum assisted drainage collection), including topical application(s), wound assessment, and instruction(s) for ongoing care, per session; total wound(s) surface area
greater than 50 square centimeters

A6550 Dressing set for negative pressure wound therapy electrical pump, stationary or portable, each
A7000 Canister, disposable, used with suction pump, each
A9272 Mechanical wound suction, disposable, includes dressing and all accessories and components, each
E2402 Negative pressure wound therapy electrical pump, stationary or portable

**DIAGNOSIS**

*These diagnoses are otherwise subject to medical policy as stated above*

An appropriate ICD-9 diagnosis code describing the wound that is being treated should be used when reporting vacuum-assisted wound closure.

**REVISIONS**

<table>
<thead>
<tr>
<th>August 3, 2006 with effective date of December 1, 2006</th>
<th>In “Policy” 1., 5th bullet, deleted “(i.e., diabetic ulcers with no presence of infection)” and added “or diabetic lower extremity ulcer” at Medical Directors request.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>In “Policy” 2., added new ‘g’ For patients awaiting hospital discharge, a 5-day ‘evaluation period’ may be allowed if sufficient records cannot timely be provided to determine medical necessity. The purpose of this ‘evaluation period’ is to avoid prolonging the hospital stay while awaiting wound vac decision; and new ‘h’ V.A.C. approved may be allowed up to 4 weeks before re-review at Medical Directors request.</td>
</tr>
<tr>
<td></td>
<td>In “Policy” 3., d., added new statement “Maximum duration of V.A.C. approval is 4 months. Refer to consultant beyond 4 months.” at Medical Directors request.</td>
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<tr>
<td></td>
<td>In “Policy” section added “Negative pressure therapy post skin grafting is considered experimental/investigational” at Medical Directors request.</td>
</tr>
<tr>
<td></td>
<td>In “Policy” section deleted statement “NOTE: The VAC System may be used in certain cases prior to the 30 days of conservative therapy (i.e., large incisional hernia repair with mesh and diabetic ulcers with no presence of infection) and will be reviewed.” at Medical Directors request.</td>
</tr>
<tr>
<td></td>
<td>In “Reference” Government Agency; Medical Society; and Other Authoritative Publications section added “Managing Care Managing Claims (MCMC), July 7, 2006, PRA Case Number - 10706101 at Medical Directors request.</td>
</tr>
<tr>
<td>February 7, 2007 with effective</td>
<td>In “Policy” section deleted #4, “Negative pressure therapy post skin grafting is considered experimental/investigational.” at Medical Directors request.</td>
</tr>
</tbody>
</table>
In “Policy” section added new #4 “Negative pressure therapy post skin grafting will be reviewed by a plastic surgeon consultant to determine necessity based on the size and severity of the wound.” at Medical Directors request.

In “Reference” Government Agency; Medical Society; and Other Authoritative Publications section added “BCBSKS Medical Consultant, MCMC, (Reviewer ID R-W090, MCOP ID 1072-0274), October 23, 2006 at Medical Directors request.

In “Reference” Government Agency; Medical Society; and Other Authoritative Publications section added BCBSKS Medical Consultant, Practicing Board Certified General Surgeon (249), January 4, 2007 at Medical Directors request.

In “Reference” Government Agency; Medical Society; and Other Authoritative Publications section added BCBSKS Medical Consultant, Practicing Board Certified Pediatric Surgeon (236), February 5, 2007 at Medical Directors request.

In "Policy", deleted the sentence under policy guideline section #2, letter g. "For patients awaiting hospital discharge, a 5-day 'evaluation period' may be allowed if sufficient records cannot timely be provided to determine medical necessity. The purpose of this 'evaluation period' is to avoid prolonging the hospital stay while awaiting wound vac decision".

In the Coding section:
- Added HCPCS code: A9272 (effective 1/1/2012).

In the Reference section:
- Removed “Government Agency; Medical Society; and Other Authoritative Publication” and inserted “Other References.”

REFERENCES
9. Hersh RE, Jack JM, Hahman MI et al. the vacuum-assisted closure device as a bridge to sternal wound closure.

Other References
1. Blue Cross and Blue Shield of Kansas Surgery Liaison Committee meeting, August 17, 2005 (see Blue Cross and Blue Shield of Kansas Newsletter, Blue Shield Report. MAC-03-05).
2. Blue Cross and Blue Shield of Kansas Medical Advisory Committee meeting, November 3, 2005 (see Blue Cross and Blue Shield of Kansas Newsletter, Blue Shield Report. MAC-03-05).
3. BCBSKS Medical Consultant, MCMC, July 7, 2006, PRA Case Number - 10706101.
4. BCBSKS Medical Consultant, MCMC, October 23, 2006 (Reviewer ID R-W090, MCOP ID 1072-0274).