

<p>Developed in collaboration with the Wound Care Champions, Wound Care Specialists, Enterostomal Nurses, and South West Regional Wound Care Program (SWRWCP) members from Long Term Care Homes, Hospitals, and South West CCAC contracted Community Nursing Agencies in the South West Local Health Integration Network.</p>		
<b>Title</b>	<p><b>Guideline: The Management of People with Pilonidal Sinus Wounds</b></p>	
<b>Background</b>	<ul style="list-style-type: none"> <li>• See “Guideline: The Assessment of People with Pilonidal Sinus Wounds</li> </ul>	
<b>Indications</b>	<p>This guideline is intended to be used by front line registered health care providers, to guide their management of individuals admitted or presenting with a pilonidal sinus wound.</p>	
<b>Guideline</b>	<p><b>NOTE: The management of a person with a pilonidal sinus wound follows “The SWRWCP’s Pilonidal Sinus Assessment and Management Algorithm”.</b></p> <ol style="list-style-type: none"> <li>1. Position the person in a prone jackknife position. One or two pillows may need to be placed under the person’s anterior pelvis when they are lying prone to achieve the desired effect. The person must then separate their buttocks using both hands</li> </ol> <p><b>Healable Wounds</b></p> <ol style="list-style-type: none"> <li>1. Upon completion of a thorough, holistic patient and wound assessment as per the SWRWCP’s “Guideline: The Assessment of People with Pilonidal Sinus Wounds” and upon determination that the wound in question is ‘healable’, cleanse the wound as per the “SWRWCP’s Dressing Selection and Cleansing Enabler – HEALABLE”. Ensure that you have irrigated to the base of any sinuses present using an angio-cath, wound irrigating tip, small Foley catheter, or pediatric NG tube</li> <li>2. As you have previously determined that the wound is healable: <ol style="list-style-type: none"> <li>a. Debride any loose, non-viable tissue in the wound using techniques within your scope of practice. See “Guideline and Procedures: Wound Debridement (except conservative sharp wound debridement)” and “Guideline and Procedure: Conservative Sharp Wound Debridement”</li> <li>b. Cleanse the wound again post debridement using the “SWRWCP’s Dressing Selection and Cleansing Enabler – HEALABLE”. Gently pat the wound dry with gauze as needed. <b>NOTE: you may consider gently packing a piece of gauze strip packing into sinus areas to remove any excess irrigant, and then removing that wet packing</b></li> <li>c. Cleanse the perineal skin extending 5cm around the wound with 0.5% chlorhexidine, leaving the solution in place for 1 minute. <b>NOTE: leave the solution in direct</b></li> </ol> </li> </ol>	

***contact with the periwound for a minimum of 5 minutes in wounds contaminated or infected with Pseudomonas.***

***NOTE: if the person is sensitive to chlorhexidine, consider using povidone 10% in its place***

- d. Choose an appropriate conventional moist wound dressing or combination of dressings as per the “Guideline: The Assessment and Management of Moisture in Acute and Chronic Wounds”, using the “SWRWCP’s Dressing Selection and Cleansing Enabler – HEALABLE”, unless otherwise directed by a physician or nurse practitioner. This may involve the use of topical antimicrobials if identified as a need (see “Guideline: The Assessment and Management of Bacterial Burden in Acute and Chronic Wounds”). Choose a dressing that will<sup>9-11</sup>:
  - i. Promote an ideal moist wound healing environment
  - ii. Prevent wound bed cooling and disruption
  - iii. Avoid wound contamination by fecal matter and/or hair
  - iv. Matches the contours of the natal cleft, sealed at all edges
  - v. Reduce interface friction and shear
  - vi. Prevent strike through of exudates that potentiates bacterial contamination, while wicking moisture away from the wound base
  - vii. Be cost effective, i.e. do **NOT** use conventional dressing products for daily dressing changes!
  - viii. Be comfortable to wear, cushioning the wound and not causing increased pain during wear time or on removal
- e. Choose an appropriate dressing change frequency based on:
  - i. Your wound assessment, including the person’s risk for infection
  - ii. Dressing products used and their ability to manage the drainage anticipated
  - iii. The person’s comfort and acceptability

### **Maintenance/Non-Healable Wounds**

1. Upon completion of a thorough, holistic person and wound assessment as per the SWRWCP’s “Guideline: The Assessment of People with Pilonidal Sinus Wounds”, and upon determination that the wound in question is ‘maintenance’ or ‘non-healable’, cleanse the wound as per the “SWRWCP’s Dressing Selection and Cleansing Enabler – MAINTENANCE/NON-HEALABLE”. Ensure that you have

- irrigated to the base of any sinuses present using an angio-cath, wound irrigating tip, small Foley catheter, or pediatric NG tube
2. If you have determined that the wound is maintenance/non-healable:
    - a. **DO NOT DEBRIDE**
    - b. Cleanse the perineal skin extending 5cm around the wound with 0.5% chlorhexidine, leaving the solution in place for 1 minute. **NOTE: leave the solution in direct contact with the periwound for a minimum of 5 minutes in wounds contaminated or infected with Pseudomonas. NOTE: if the person is sensitive to chlorhexidine, consider using povidone 10% in its place**
    - c. Choose an appropriate dry gauze based dressing or combination of dressings, as per the “Guideline: Assessment and Management of Moisture in Acute and Chronic Wounds”, using the “SWRWCP’s Dressing Selection and Cleansing Enabler – MAINTENANCE/NON-HEALABLE”, unless otherwise directed by a physician or nurse practitioner. This may involve the use of topical antimicrobials if identified as a need (see “Guideline: The Assessment and Management of Bacterial Burden in Acute and Chronic Wounds”). Choose a dressing that will<sup>9-11</sup>:
      - i. Promote a dry wound environment
      - ii. Minimize bacterial contamination and contamination by fecal matter and/or hair
      - iii. Matches the contours of the natal cleft, sealed at all edges
      - iv. Prevent strike through of exudates that potentiates bacterial contamination, while wicking moisture away from the wound base
      - v. Be cost effective, i.e. do **NOT** use conventional dressing products for daily dressing changes!
      - vi. Be comfortable to wear, cushioning the wound and not causing increased pain during wear time or on removal
    - d. Choose an appropriate dressing change frequency based on:
      - i. Your wound assessment - goal is to keep the wound clean, dry and free of infection
      - ii. Dressing products used and their ability to manage the drainage anticipated
      - iii. The person’s comfort and acceptability

**Management Guidelines for ALL Pilonidal Sinus Wounds, Regardless of Healability**

1. Treat the cause:

	<ul style="list-style-type: none"> <li>a. Modify any identified intrinsic, extrinsic, and iatrogenic factors affecting wound healing to promote the healing existing pilonidal sinus wounds (or stabilization if healing is not the goal), and to prevent complications</li> <li>b. Remind the person to limit excessive walking, prolonged periods of sitting and participation in sports until the wound has closed, as these contribute to shearing, friction and pressure at the natal cleft area, which can impair wound healing<sup>9</sup>. “Increased perspiration caused by the activity can also contribute to external contamination” of the pilonidal sinus wound<sup>9,12</sup></li> </ul> <p>2. Person centered concerns:</p> <ul style="list-style-type: none"> <li>a. Manage pain using the SWRWCP’s “WHO Pain Ladder with Pain Management Guidelines”. Consider: <ul style="list-style-type: none"> <li>i. Coordinated pre-dressing change analgesia</li> <li>ii. Regular dosing of pain medications</li> <li>iii. Use of appropriate medications to manage neuropathic pain</li> <li>iv. Use of topical analgesics (i.e. morphine) or anesthetic (i.e. EMLA or lidocaine) if pain during dressing changes</li> </ul> </li> <li>b. Consider non-pharmacological methods of pain management, i.e. appropriate dressing choice, distraction, guided imagery, pressure redistribution, music, time-outs during dressing changes, less frequent dressing changes, etc.</li> <li>c. Ensure the plan of care is created with input of the person with the wound and/or their caregiver, including their concerns, motivations, abilities and preferences for treatment</li> </ul> <p>3. Debridement:</p> <ul style="list-style-type: none"> <li>a. Determine if debridement is appropriate for the person and the wound</li> <li>b. If appropriate, select an appropriate method of debridement considering the: <ul style="list-style-type: none"> <li>i. Goals of treatment, i.e. healability</li> <li>ii. Person’s overall health condition</li> <li>iii. Type, quantity and location of necrotic tissue</li> <li>iv. Wound depth and amount of drainage</li> <li>v. Availability of resources</li> </ul> </li> <li>c. Consider referrals to a Wound Care Specialist (WCS) or Enterostomal Therapy (ET) Nurse for conservative sharp debridement of non-viable tissue using sterile instruments</li> <li>d. Consider requesting a referral to a surgeon for surgical sharp debridement, if indicated</li> </ul>
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	<ul style="list-style-type: none"> <li>e. Ensure adequate pain management with wound debridement</li> <li>f. If undermining is discovered under tissue that bridges superficially (appears as thin, bluish colored new epithelial tissue 1-2mm in depth) with a sinus tract extending underneath this area, spread the buttocks apart with the hands, providing enough force to split the superficial bridge spontaneously. If this is not possible to do, arrange for a physician to open the undermining distally to proximally using a scalpel and local anesthetic. Use silver nitrate sticks and calcium alginate dressing if bleeding occurs</li> <li>g. Red friable granulation tissue or pocketing of granulation tissue should be cauterized with silver nitrate to deter its growth and to remove surface bacteria. This <b>MUST</b> be done as often as hypergranulation is visualized</li> </ul> <p>4. Infection control:</p> <ul style="list-style-type: none"> <li>a. Teach that new onset or worsening pain is a sign of infection and requires immediate medical attention</li> <li>b. Treat bacterial burden as per the “Guideline: The Assessment and Management of Bacterial Burden in Acute and Chronic Wounds”, using the “Bacterial Burden in Chronic Wounds” tool. <b>NOTE: Topical antimicrobials can be used to reduce bacterial burden in the presence of superficial wound infection, but never take the place of systemic antibiotics when those are needed for deeper infections</b></li> <li>c. If you are not sure of the nature of an infection, choose a non-occlusive dressing as the secondary dressing. Dressing frequency for infected pilonidal sinus wounds should be increased until the symptoms of the infection are progressively improving</li> <li>d. Implement strategies to prevent infection, i.e.: <ul style="list-style-type: none"> <li>i. Proper hand washing</li> <li>ii. Adequate/appropriate hair removal in the natal cleft. <b>NOTE: the natal cleft should be shaved at least weekly in a 5cm wide strip extending at least 2.5cm from all edges of the wound, from the anal verge to the presacrum, using a razor designed specifically for the bikini area with a swivel razor head<sup>9</sup></b></li> </ul> </li> </ul> <p>5. Consider referrals to (see “Criteria for Interdisciplinary Referrals”):</p> <ul style="list-style-type: none"> <li>a. Registered Dietician (diet, nutrition, supplementation, weight control). <b>NOTE: to be most efficient, the following blood work could be ordered and the results obtained before making a dietician referral: serum</b></li> </ul>
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	<p>use after each bowel movement)</p> <ul style="list-style-type: none"> <li>h. Planning shower times after bowel movements if possible, to ensure the person completes a hygiene routine at a minimum of once per day</li> <li>i. Avoiding head hair from being trapped in the wound by positioning in the shower: bend slightly forward and to one side when in the shower</li> <li>j. Using a handheld sprayer to gently flush out the inside of the wound and to direct soap, shampoo, and loose hair away from the wound during showering</li> <li>k. Avoiding prolonged periods of sitting and/or excessive walking</li> <li>l. Avoiding physical sport activities while the wound is open</li> <li>m. Avoiding picking up heavy objects and driving for at least the first week after any surgery to the area</li> <li>n. Wearing loose pants and keeping belts above the area where their wound is</li> <li>o. Recognizing the signs and symptoms of infection/complications and when and how to seek <b>IMMEDIATE</b> help</li> <li>p. The importance of preventing constipation</li> <li>q. Chronic diseases and how they affect the healing process and the importance of adhering to the treatment plan</li> <li>r. The wound dressing technique if they or their caregiver are going to be changing dressings</li> </ul> <p>7. Provide the person with the SWRWCPs “My Pilonidal Sinus” pamphlet and the “The Importance of Nutrition in Wound Healing” pamphlet, and review the pamphlet contents with them</p> <p>8. Re-evaluate (see “Guideline: Wound Re-Assessment and Consideration of the Use of Adjunctive/Advanced Therapy”):</p> <ul style="list-style-type: none"> <li>a. Regularly and consistently measure the wound, weekly at a minimum, using the same method</li> <li>b. Conduct a comprehensive reassessment to determine wound progress and the effectiveness of the treatment plan, i.e. using the “NPUAP PUSH Tool 3.0”, weekly at a minimum (see “Procedure: NPUAP PUSH Tool 3.0”). Identification of variances indicates the need for reassessment</li> <li>c. Calculate the % reduction in wound surface area to ensure that the wound has closed 20-30% after three to four weeks of treatment (predictor of timely healing). If the wound is not closing at an expected rate, reassess for additional correctable factors, infection, and pressure</li> <li>d. If the wound is not healing at an expected rate despite the implementation of best practice interventions, you may need to consider:</li> </ul>
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	<ul style="list-style-type: none"> <li>i. A referral to a WCS or ET nurse for assessment</li> <li>ii. Diagnostic testing to rule out the presence of underlying infection</li> <li>iii. Adjunctive therapies, i.e. electrical stimulation therapy or negative pressure wound therapy</li> <li>iv. Barriers to concordance</li> </ul> <p>e. Reassess pain at <b>EVERY</b> dressing change and more frequently as reported by the person, using the same pain tool/scale each time. Report pain management issues to the person’s primary care physician or primary care nurse practitioner, using the SWRWCP’s “Comprehensive Assessment of Chronic Pain in Wounds” tool (see “Procedure: Comprehensive Assessment of Chronic Pain in Wounds tool”)</p> <p>f. Reassess the person’s quality of life using the “Cardiff Wound Impact (Quality of Life) Questionnaire” if the person reports alterations in their quality of life or if their caregiver verbalizes that they suspect as much [see “Procedure: Cardiff Wound Impact (Quality of Life) Questionnaire”]</p> <p>9. Notify the primary care physician or primary care nurse practitioner immediately if the following occur:</p> <ul style="list-style-type: none"> <li>a. Acute onset of pain or increasing pain</li> <li>b. Signs of localized and/or systemic infection develop</li> </ul> <p>10. Documentation:</p> <ul style="list-style-type: none"> <li>a. Document initial and ongoing assessments as per your organizations guidelines</li> <li>b. Document care plans, implementation strategies, and outcome measurements as per your organizations guidelines</li> </ul> <p>11. Discharge Planning:</p> <ul style="list-style-type: none"> <li>a. Discharge planning (if it is anticipated) should be initiated during the initial encounter with the person. Timely discharge should be supported along with optimal person independence</li> <li>b. If the care of the person is being transferred across sectors, ensure that the receiving site/facility/service is provided with a care plan that outlines the current care and wound management strategies, and a copy of the Initial Wound Assessment Form</li> </ul>
<b>Outcomes</b>	<p>1. Intended:</p> <ul style="list-style-type: none"> <li>a. The wound closes and drainage ceases, if the wound is deemed ‘healable’, i.e. the surface area of the wound reduces 20-30% in 3-4 weeks of treatment. OACCAC Pilonidal Sinus Outcome-Based Pathway (OBP) outcomes intervals (September 2013 release):</li> </ul>

	<ul style="list-style-type: none"> <li>i. Interval 2 (28 days) – 20-30% reduction in surface area</li> <li>ii. Interval 3 (60 days) – wound closed</li> <li>b. The wound is maintained and infection free if the wound is deemed ‘maintenance or non-healing’</li> <li>c. The person indicates that pain is resolved or manageable (less than 3/10) with appropriate use of analgesia/adjunctive/alternative methods</li> <li>d. The person understands their role in preventing further tissue damage and incorporates recommended activities and interventions to treat risk factors</li> <li>e. The person can identify signs and symptoms of infection, and can describe how, when and whom to call when problems occur</li> <li>f. The person becomes independent in self-management of their wound</li> </ul> <p>2. Unintended:</p> <ul style="list-style-type: none"> <li>a. The wound does not close in a timely fashion, if the wound is deemed ‘healable’</li> <li>b. The wound becomes infected</li> <li>c. The person expresses concerns about poorly managed pain</li> <li>d. The person does not understand and/or act on their role in preventing further tissue damage and do not incorporate recommended activities and interventions to treat risk factors</li> <li>e. The person does not understand the signs and symptoms of infection/complications, and when, how and whom to seek help from</li> <li>f. The person does not become independent in self-management of their wound</li> </ul>
<p><b>References</b></p>	<ol style="list-style-type: none"> <li>1. Pilonidal Support Alliance. What is it? Accessed April 11, 2012 from: <a href="http://www.pilonidal.org/education/whatisit.php">http://www.pilonidal.org/education/whatisit.php</a>.</li> <li>2. Banerjee D. The etiology and management of pilonidal sinus. <i>Journal of Wound Care</i>. 1999;8:309-10.</li> <li>3. Brearley R. Pilonidal sinus a new theory of origin. <i>Br J Surg</i>. 1955;43(177):62-8.</li> <li>4. Sondena K, Pollard ML. Histology of chronic pilonidal sinus. <i>APMIS</i>. 1995;103:267-72.</li> <li>5. Lord P. Anorectal problems: etiology of pilonidal sinus. <i>Dis Colon Rectum</i>. 1975;18:661-4.</li> <li>6. Bascom JU. Pilonidal disease: long-term results of follicle removal. <i>Dis Colon and Rectum</i>. 1983;26:800-7.</li> <li>7. Spivak H, Brooks V, Nussbaum, et al. Treatment of chronic pilonidal disease. <i>Dis Colon Rectum</i>. 1996;39:1136-9.</li> <li>8. Miller D, Harding K. Pilonidal sinus disease. <i>World Wide Wounds [online]</i>. 2003. Accessed April 11, 2012:</li> </ol>

	<p><a href="http://www.worldwidewounds.com/2003/december/Miller?Pilonidal-sinus.htm">www.worldwidewounds.com/2003/december/Miller?Pilonidal-sinus.htm</a>.</p> <p>9. Harris CL, Laforet K, Sibbald RG, et al. Twelve common mistakes in pilonidal sinus care. <i>Advances in Skin &amp; Wound Care</i>. 2012;25(7):324-332.</p> <p>10. Harris CL, Holloway S. Development of an evidence-based protocol for care of pilonidal sinus wounds healing by secondary intent using a modified reactive Delphi procedure. Part two: methodology, analysis and results. <i>Int. Wound J.</i> 2012;9:173-188.</p> <p>11. Ovington L. Hanging wet-to-dry dressings out to dry. <i>Adv Skin Wound Care</i>. 2002;15:79-84.</p> <p>12. Bradley L. The lived experience of young adults with chronic pilonidal sinus disease: a phenomenological approach. Poster presentation at the World Union of Wound Healing Societies Conference, Paris, France. July 8-13, 2004.</p>
<p><b>Related Tools</b>  <b>(NOTE: these tools and their instructions can be found on the SWRWCP's website: (swrwoundcareprogram.ca))</b></p>	<ul style="list-style-type: none"> <li>• The SWRWCP's Pilonidal Sinus Wound Assessment and Management Algorithm</li> <li>• Guideline: The Initial Assessment of People with Pilonidal Sinus Wounds</li> <li>• SWRWCP's Dressing Selection and Cleansing Enabler – HEALABLE</li> <li>• Guideline and Procedures: Wound Debridement (excluding conservative sharp debridement)</li> <li>• Guideline and Procedure: Conservative Sharp Wound Debridement</li> <li>• Guideline: The Assessment and Management of Moisture in Acute and Chronic Wounds</li> <li>• Guideline: The Assessment and Management of Bacterial Burden in Acute and Chronic Wounds</li> <li>• SWRWCP's Dressing Selection and Cleansing Enabler – MAINTENANCE/NON-HEALABLE</li> <li>• Criteria for Interdisciplinary Referrals</li> <li>• WHO Pain Ladder with Pain Management Guidelines</li> <li>• Bacterial Burden in Chronic Wounds Tool</li> <li>• Procedure: Bacterial Burden in Chronic Wounds Tool</li> <li>• My Pilonidal Sinus pamphlet</li> <li>• The Importance of Nutrition and Wound Healing pamphlet</li> <li>• Guideline: Wound Re-Assessment and Consideration of the Use of Adjunctive/Advanced Therapy</li> <li>• NPUAP PUSH Tool 3.0</li> <li>• Procedure: NPUAP PUSH Tool 3.0</li> <li>• Comprehensive Assessment of Chronic Pain in Wounds tool</li> <li>• Procedure: Comprehensive Assessment of Chronic Pain in Wounds tool</li> <li>• Cardiff Wound Impact (Quality of Life) Questionnaire</li> <li>• Procedure: Cardiff Wound Impact (Quality of Life) Questionnaire</li> <li>• Initial Wound Assessment Form</li> </ul>

