

## Traditional and Single-use Negative Pressure Wound Therapy (NPWT) systems were used to treat open pilonidal sinus surgical wounds, or closed surgical incision dehiscence, and showed reduced healing times

A large retrospective case cohort in a specialist wound unit



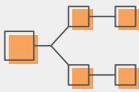
### Evidence

- Level 4 evidence
- Large case cohort of patients undergoing surgery for pilonidal sinus
- NPWT management of acute and sub-acute post-surgical wounds



### Patients

- 298 patients with pilonidal sinus operated from January 2007 to October 2015
  - Ancona, Italy
- 96 patients treated with NPWT
  - 61 patients underwent open technique and NPWT routinely used
  - 35 patients had wound dehiscence because of sepsis and NPWT started
  - Remainder had closed surgical incision and NPWT not used
  - 61 male - mean age 26.5 years; 35 female – mean age 21.5 years



### Procedure

- 1<sup>st</sup> step: Traditional NPWT (RENASYS<sup>®</sup> or VISTA)
- 14 days usage with 4 dressing changes
  - Commenced on day 4 post-surgery or upon encountering dehiscence
- 2<sup>nd</sup> step: Single use NPWT (PICO<sup>®</sup>)
- 7 days usage with 2 dressing changes
- 3<sup>rd</sup> step: Advanced dressings
- 21 days with 8 dressing changes



### All patients managed with NPWT healed within 40-45 days

- Shorter healing time than with advanced dressings alone
- Exudate management allowed patients return to work / social / educational activities
- Use of NPWT was cost saving
  - Euros 1,156 with NPWT compared to Euros 3,084 with advanced dressing alone

### S.M.A.\* COMMENTS:

Pilonidal Sinus is a benign disease normally in the sacrococcygeal region (affecting the sacrum and coccyx) presumed to be the result of an ingrowing hair and often affecting young healthy men.

Surgical intervention for this disease may require wound healing by secondary intention and so there are long healing times (greater than 2 months) with frequent contamination due to the wound location, high levels of exudate and frequent dressing changes and prolonged absence from work. The experience described by this study shows that use of NPWT for 3 weeks can bring healing time down to 6 weeks.

Although this is a large study population it does not provide any valid comparative data previously obtained by the centre, only using literature-based statistics. The authors suggest performing a randomised control trial to verify the encouraging findings.

A strength of this study is that it shows 35 cases of treatment of dehiscence of a closed surgical incision by NPWT, an area with currently limited evidence.

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Title:	Retrospective study on the use of NPWT in the treatment of pilonidal cysts ( <i>sinus pilonidalis</i> ) operated on using an open technique or complicated by dehiscence of the surgery site through sepsis
Aim of the study:	Evaluation of the impact of routine use of NPWT for management of open surgery or the treatment of dehisced closed incision wounds for pilonidal sinus surgery
Study Type:	Retrospective Case Cohort
Wound Type:	Acute Wounds
Speciality/Indication:	General Surgery – Pilonidal Sinus
Products:	RENASYS, PICO and ACTICOAT <sup>®</sup> Flex 3
Number of patients:	96 patients
Reference:	Acta Vulnologica (2016) Vol 14 (Issue 1): 24-39
Comments:	Peer reviewed journal