

Clinical case report

Closed Surgical Wound

Avance® Solo is a portable, battery powered, single use, negative pressure wound therapy (NPWT) system. It shares fluid management between an absorptive multi-layered dressing (Avance Solo Border with Safetac® adhesive to minimise trauma to the wound site and surrounding skin on removal). It has a 50ml canister that is easily replaced by carers and patients. The system delivers -125mmHg continuous regulated negative pressure for up to 14 days and is intended for use on closed incisions and chronic wounds. It also features both audible and visual alarms to facilitate efficient and timely restoration of therapy.

Patient history

- A 40-year-old female presented with an infected surgical wound following a caesarean section performed nine days previous.
- The patient had a history of endometriosis.
- Twelve days prior to the caesarean section, the patient, who was not considered high-risk, had been infected with COVID-19, which may have affected her healing ability.

Wound history

- The horizontal lower segment incision of the abdomen was 15cm long with a width of 0.3cm.
- The wound bed was composed of 10% granulating and 90% epithelialising tissue.
- Several clinical signs indicated the presence of wound infection (erythema, malodour, increased pain, warmth and exudate level) were present; oral antibiotics were prescribed.
- Exudate levels were high; non-viscous and serosanguinous/blood in appearance.
- The peri-wound was healthy, but showed signs of erythema and induration of the tissue.
- For 5 days prior to presentation, the patient had used absorbent pads to treat the wound.
- At baseline, pain prior to dressing removal and during dressing removal were both rated respectively as a 2 measured on the VAS ranging from 0 (no pain) to 10 (maximum pain ever). After Avance® Solo NPWT commenced, a VAS score of 0 was recorded.

Avance® Solo



Treatment day 1

A 9-day-old infected surgical wound with high levels of serosanguinous/blood, non-viscous exudate. The peri-wound skin was healthy, but showed signs of erythema and induration.



Avance Solo was applied to the wound.

Treatment regime

- At the baseline assessment, the wound was cleansed with a hypochlorus acid wound irrigaton solution.
- An Avance® Solo Border absorbent dressing was placed over the incision site before being attached to the Avance Solo NPWT pump with canister.
- After 3 days, an unscheduled dressing change was required as the patient was anxious believing there had been an ingress of water into the system. On inspection, no water was present in the canister. The wound was re-dressed and remained in situ for a further 8 days.
- Dressing changes were performed according to the local clinical practice.

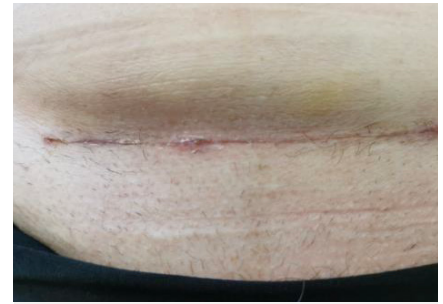
Follow-up assessments

- After 3 days of treatment, the width of the wound had reduced to 0.2cm, and after a further 8 days of treatment, the wound had healed, with 100% re-epithelialised tissue present in the incision site.
- All clinical signs of infection were resolved after 3 days of treatment.
- Wound exudation was reduced to low by day 3 of treatment with Avance Solo, and, at the final study evaluation, wound exudate was absent.
- Induration of the peri-wound tissue had improved by the end of the study.
- The patient was pain-free during the study.

Clinical outcome

- At the final evaluation, the wound had healed.
- The clinician considered the Avance Solo NPWT system to be easy to use. He commented "The pump is a good size and, having the canister and absorbent dressing together, is a great point of difference which increases the capacity for fluid management when required. The pump's motor is quiet, however the intermittent pumping for the feedback system can be disturbing especially at night.* The dressing remains in place well, and it has great absorbency and wicking abilities. Its narrow border ensures it is not too obtrusive beyond the wound size".
- The patient found Avance Solo to be comfortable and was pleased with the supportive nature of the dressing. She was very happy at the quick resolution of her wound issues.

*A night box to dampen noise is available with the product, but was not used in this case study.



Treatment day 3

The width of the incision wound had reduced from 3mm to 2mm. Wound exudation was low, and the induration of the peri-wound tissues had improved.



Final evaluation (treatment day 11)

The incision wound had healed. Induration of the surrounding tissue was further improved.

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