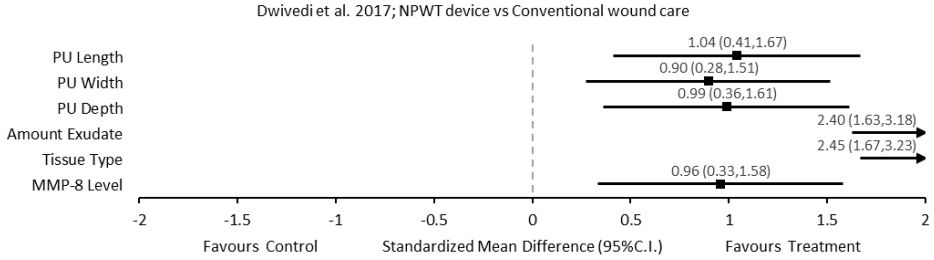
Author Year Country PEDro Score Research Design Sample Size	Methods	Outcome
Sundby et al. 2018 Norway RCT Crossover PEDro=6 $N_{initial}$=9 N_{final}=7	**Population:** Mean age=57.3yr; Gender: males=8, females=1; ASIA Class: A=8, C=1; Mean time with pressure injuries: 52wk; Pressure injury stage: III=6, IV=3. **Intervention:** Patients were randomized to receive either at-home intermittent negative pressure (INP) plus standard wound care (SWC) versus SWC alone. INP protocol was used 120min/day. A crossover design as used, with the first 8 wks using INP to avoid potential carryover, and then crossed over. **Outcomes:** Ulcer healing (Photographic Wound Assessment Tool (PWAT)), wound surface area (WSA)	1. There was greater improvement in the treatment group for WSA compared to control, but it was not statistically significant (p=0.72). 2. Improvements in PWAT were seen in all four INP+SWC patients, compared to 2/5 SWC alone, however it was not statistically significant (p=0.13).
Dwivedi et al. 2017 India RCT PEDro=6 N=44	**Population:** *NPWT Group (n=22)*: Mean age=53.5yr; Gender: males=17, females=5; Pressure injury stage: III=8, IV=14; *Control Group (n=22)*: Mean age=54.3yr; Gender: males=16, females=6; Pressure injury stage: III=9, IV=13. **Intervention:** Participants were randomized to receive either a novel negative pressure wound therapy (NPWT) device, or to conventional wound care with wet to moist gauze dressings. Measurements were taken at weeks 0, 3, 6 and 9. **Outcomes:** Matrix Metalloproteinase-8 (MMP-8) level, Wound healing parameters (PU length, PU width, PU depth, exudate amount, tissue type)	1. Length of PU reduced significantly in the NPWT group compared to controls in weeks 6 and 9 (p=0.04, p=0.001 respectively). 2. Width of PU reduced significantly in the NPWT group compared to controls in week 9 (p=0.006). 3. Depth of PU reduced significantly in the NPWT group compared to controls in week 9 (p=0.01). 4. The NPWT had significantly less exudate compared to controls in weeks 3,6, and 9 (p=0.001 for all time points). 5. Tissue parameters improved (less sloughing, improved formation of red granulation tissue) in the NPWT group when compared to controls at weeks 6 and 9 (p=0.001). 6. Between group comparison showed a significantly significant MMP-8 level decrease in the NPWT device group compared to controls at weeks 6 and 9 (p=0.006, p<0.0001 respectively).
	Effect Sizes: Forest plot of standardized mean differences (SMD±95%C.I.) as calculated from pre- and post-intervention data. 	
De Laat et al. 2011 Netherlands RCT PEDro=7 N=24	**Population:** Patients 18 yr who were admitted to the study hospital with difficult-to-heal surgical wounds, or paraplegic and tetraplegia patients with pressure injuries grade IV according to the European Pressure injury Advisory Panel grading system 19.	1. Topical negative pressure resulted in almost 2 times faster wound healing than treatment with sodium hypochlorite, and is safe to use in patients with difficult-to-heal wounds.

	Intervention: Topical negative pressure therapy or treatment with conventional dressing therapy with sodium hypochlorite **Outcome Measures:** 50% wound volume reduction, with a maximum follow-up time of 6 wk, measuring the difference between the weekly measured wound volume and the initial wound volume before treatment.	
Srivastava et al. 2016 India Prospective Controlled Trial N=48	**Population:** *Negative Pressure Wound Therapy (NPWT group)*: Mean age=53.5 yr; Gender: males=19, females=5; Level of injury: paraplegia; Pressure injury stage: III=9, IV=15. *Standard care (Control group)*: Mean age=54.34 yr; Gender: males=18, females=6; Level of injury: paraplegia; Pressure injury stage: III=10, IV=14. **Intervention:** *NPWT group* (n=24): Negative pressure wound therapy using sterilized foam and negative pressure in addition to standard care. *Control group* (n=24): Standard care, where the pressure injury (PU) was cleaned with normal saline and packed with sterilized gauze, changed once or twice daily depending on dressing soakage. **Outcomes:** Wound surface area; Depth of wound; Discharge; Conversion of slough into red granulating tissue.	1. At 3 wk, 6 wk, and 9 wk, NPWT group had a significantly smaller wound surface area (p=0.0001) and wound depth (p=0.0001) compared to control group. The wound surface area and wound depth decreases at each time point were significant in NPWT group (p=0.0001) but not in the control group. 2. In NPWT group, wound discharge became minimal at 3-6 wk and negligible at 9 wk, but in control group, wound discharge continued until 9 wk. 3. At 3 wk, wound bed slough converted to granulation tissue in 33.3% of NPWT participants and 0% of control participants. At 9 wk, conversion was at 100% for NPWT group and 41.7% for control group.
Coggrave et al. 2002 United Kingdom Pre-post N=7	**Population:** Mean age=44.4 yr; Gender: males=5, females=2; Level of injury: paraplegia=4, tetraplegia=3; Location of pressure injury: trochanter=3, sacrum=4; Stage of ulcer: IV=6. **Intervention:** Topical negative pressure (TNP) applied continuously (125 mmHg), dressing changed every 4-7 days. All patients seen and assessed by dietitian; nursed on a pressure redistribution surface; turned frequently; wound debrided as necessary pre-treatment. **Outcome Measures:** Picture and wound swabs (every dressing change); Pressure injury volume (beginning and end of treatment).	1. Within 1-2 days of treatment initiation, granulation tissue developed in all wounds. 2. Wound volume and grade decreased (33-96%) in all subjects, but rate and extent varied. Bacterial colonization was also reduced in each wound. 3. Limited dressing problems were described, although rashes and pain were reported in some. 4. Seal preservation in certain areas, overlapping foam on healthy skin and pressure application on bony protrusions, were reported as practical problems.
Dessy et al. 2015 Italy Case Series N=11	**Population:** Mean age=30 yr; Gender: males=10, females=1; Level of injury: paraplegia; Pressure injury stage: III or IV. **Intervention:** Vacuum-assisted closure (VAC), consisting of polyurethane foams and negative pressure. **Outcomes:** Presence of foram fragments.	1. 11 cases of foam fragment retention within the wound were described, resulting in progressive wound worsening that consisted of symptomatic bad smelling, discharge with positive germ culture, and progressive wound enlargement.