

+ Evidence in focus

Publication summary: Hyldig N, et al. *Ann Plast Surg* (2020)*

Smith+Nephew

More obese women with pre-pregnancy BMI $\geq 30\text{kg/m}^2$ were satisfied with caesarean section scar appearance using PICO[◇] Single Use Negative Pressure Wound Therapy System (sNPWT) than standard dressings

+ Plus points



Greater patient satisfaction

with overall scar appearance with PICO sNPWT versus standard dressings (up to 12 months post surgery)



Significantly fewer hatch marks

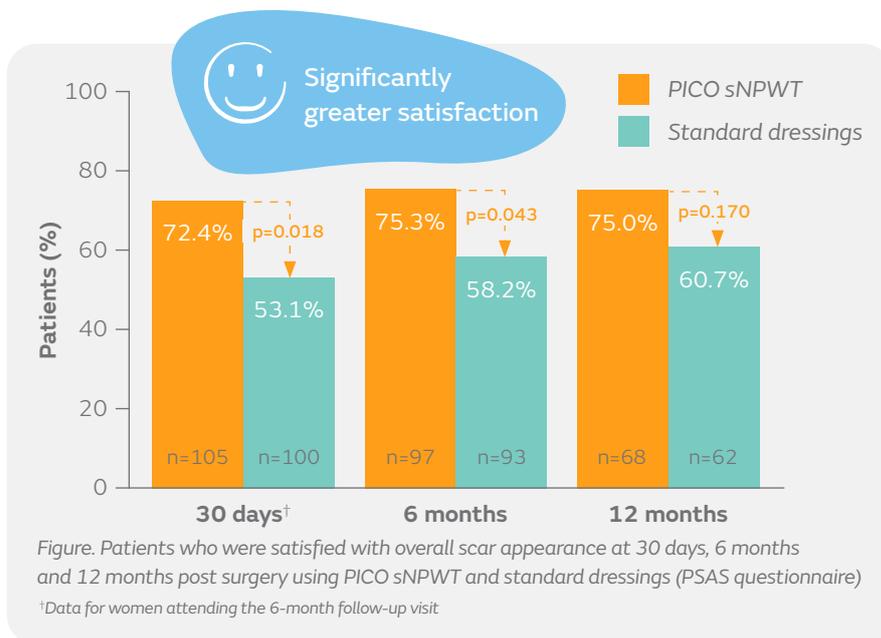
with PICO sNPWT versus standard dressings (at 6 and 12 months post surgery; $p < 0.05$)

Overview

- A substudy of cosmetic outcomes for women who enrolled in an open-label, pragmatic, randomized study conducted at five centers in Denmark
- Women undergoing elective or emergency cesarean section with a pre-pregnancy BMI $\geq 30\text{kg/m}^2$ (mean age, 32.5 years) received either PICO sNPWT or standard dressings
- Women completed questionnaires 30 days ($n=309$), 6 months ($n=206$) and 12 months ($n=136$) after surgery about scar quality (PSAS; Patient Scar Assessment Scale) and health-related quality of life (EQ-5D-5L)
- Specialists clinically assessed scars using the Manchester Scar Scale (MSS; postoperative quality) and the Stony Brook Scar Evaluation Scale (SBSES; long-term appearance)

Results

- Use of PICO sNPWT in the substudy reduced the incidence of SSIs compared with standard dressings (4.7 vs 9.9%; 52.5% relative reduction)
 - The incidence of minor wound dehiscence was similar in both groups
- Significantly more patients in the PICO sNPWT group were satisfied with overall scar appearance versus the standard dressings group at 30 days and 6 months post surgery (PSAS; Figure)
- Clinical assessment (SBSES) showed that significantly fewer women had hatch marks with PICO sNPWT versus standard dressings
 - At 6 months (20 vs 43%; $p=0.002$)
 - At 12 months (19 vs 36%; $p=0.037$)
- There were no significant differences in other scarring parameters (all assessment scales)



Conclusions

Obese women undergoing cesarean section were significantly more satisfied with the appearance of scars within 6 months of surgery using PICO sNPWT than using standard dressings and fewer patients had hatch marks at 6 and 12 months post surgery.

Citation

*Hyldig N, Möller S, Joergensen JS, Bille C. Clinical evaluation of scar quality following the use of prophylactic negative pressure wound therapy in obese women undergoing cesarean delivery: a trial-based scar evaluation. *Ann Plast Surg*. 2020 Jul 10. [Epub ahead of print]. Available at: [Annals of Plastic Surgery](https://doi.org/10.1007/s00265-020-03000-0)

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