

# Evaluation of ergonomic aspects in the daily routine of a new foam dressing with silicone adhesive layer\*

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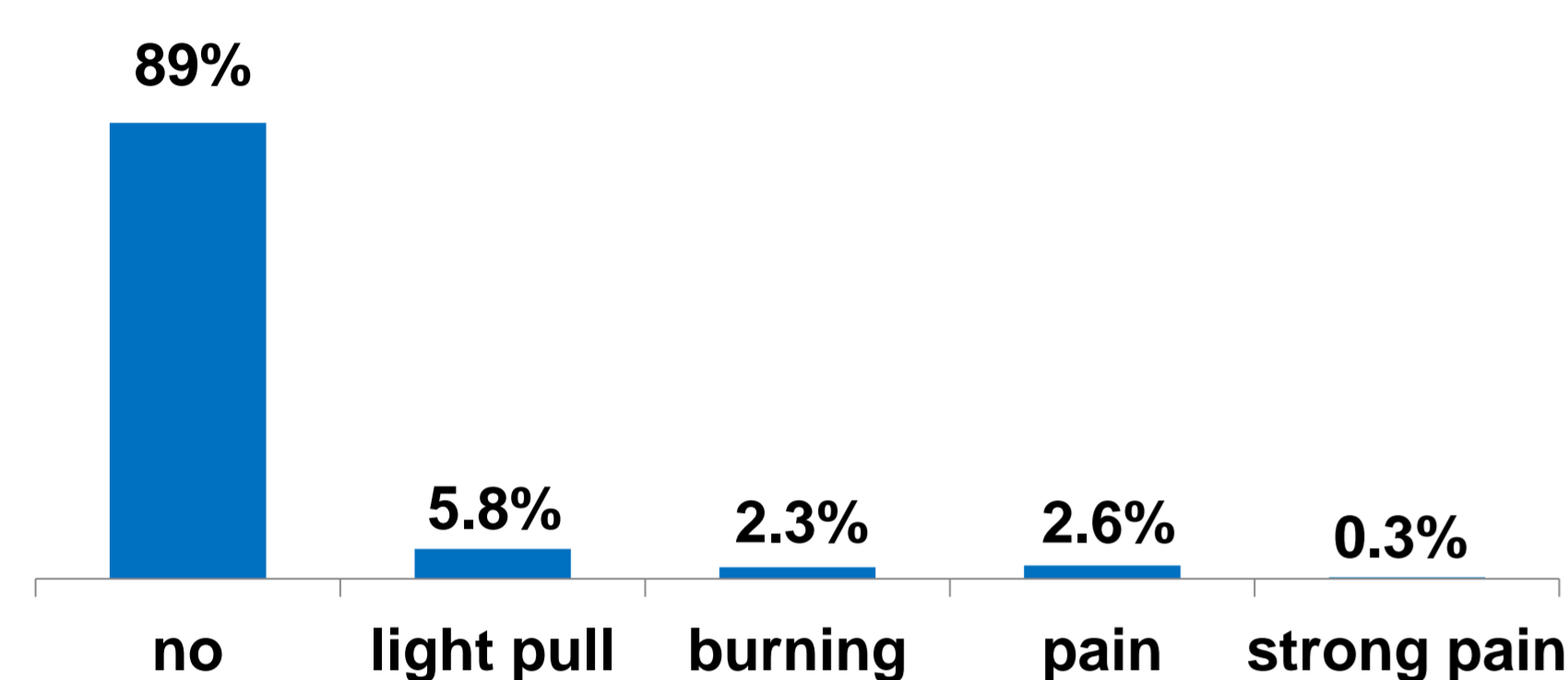
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## Introduction :

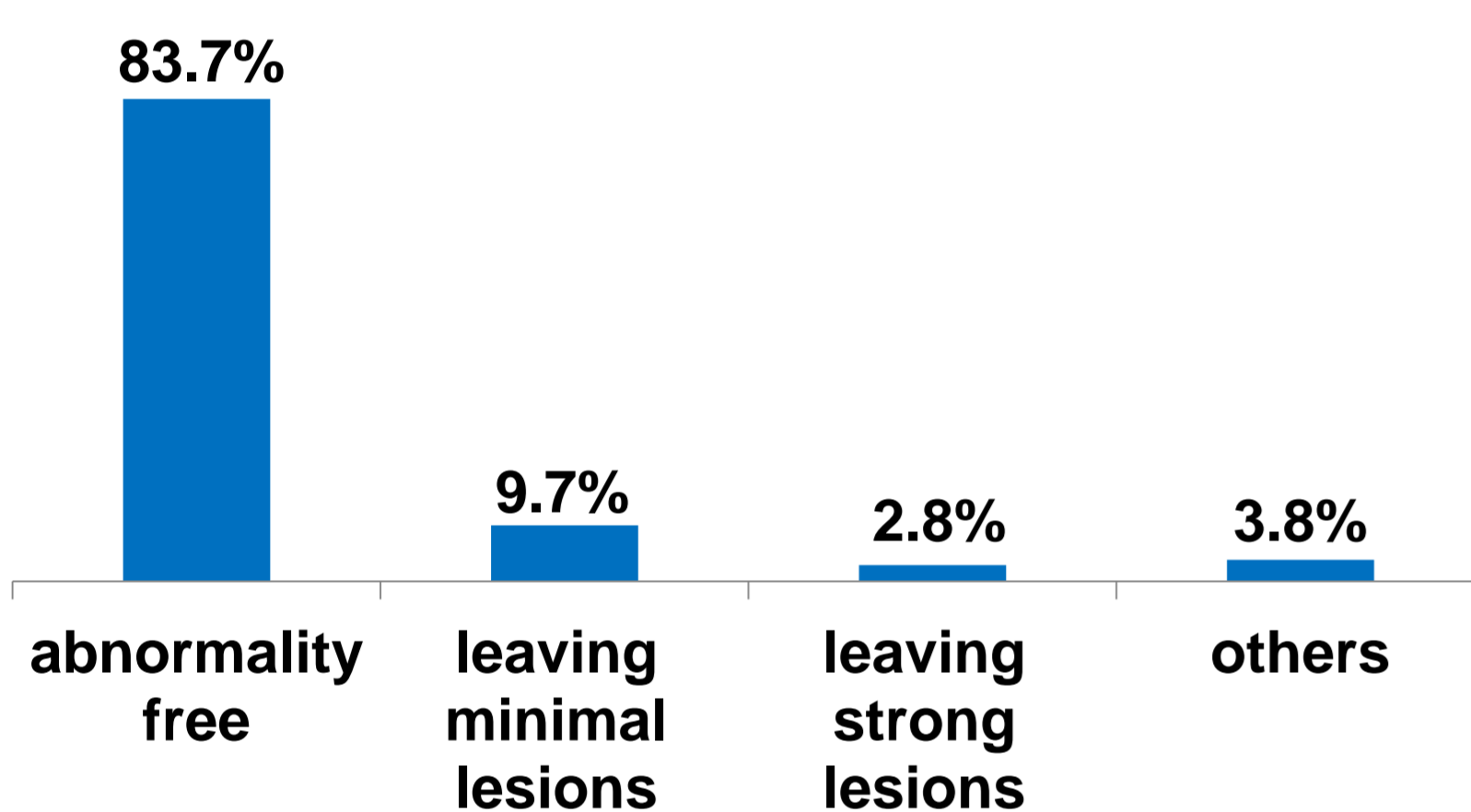
An innovative new foam dressing with silicone contact layer\* was developed to prove the ergonomic aspects in the daily routine.

## Materials & Methods:

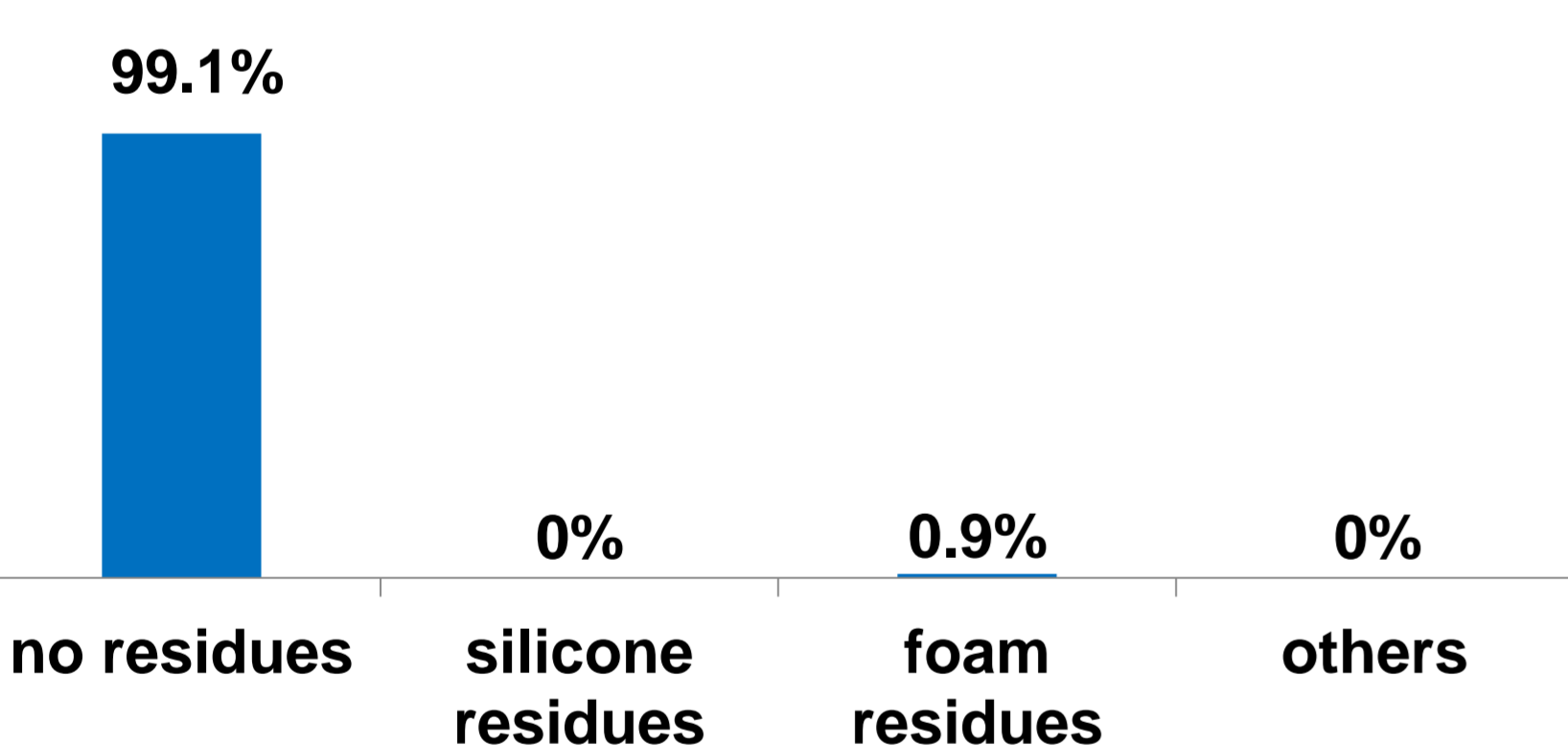
In a multicentre, international prospective post marketing surveillance study (PMS) on 64 patients with partial to full thickness and light to moderately exuding wounds, such as pressure ulcers, venous and arterial leg ulcers, diabetic foot ulcers or first and second degree burns (81.2% of the patients were diagnosed with chronic wounds), the silicone foam\* was used over 21 days, partly over 56 days (six visits).



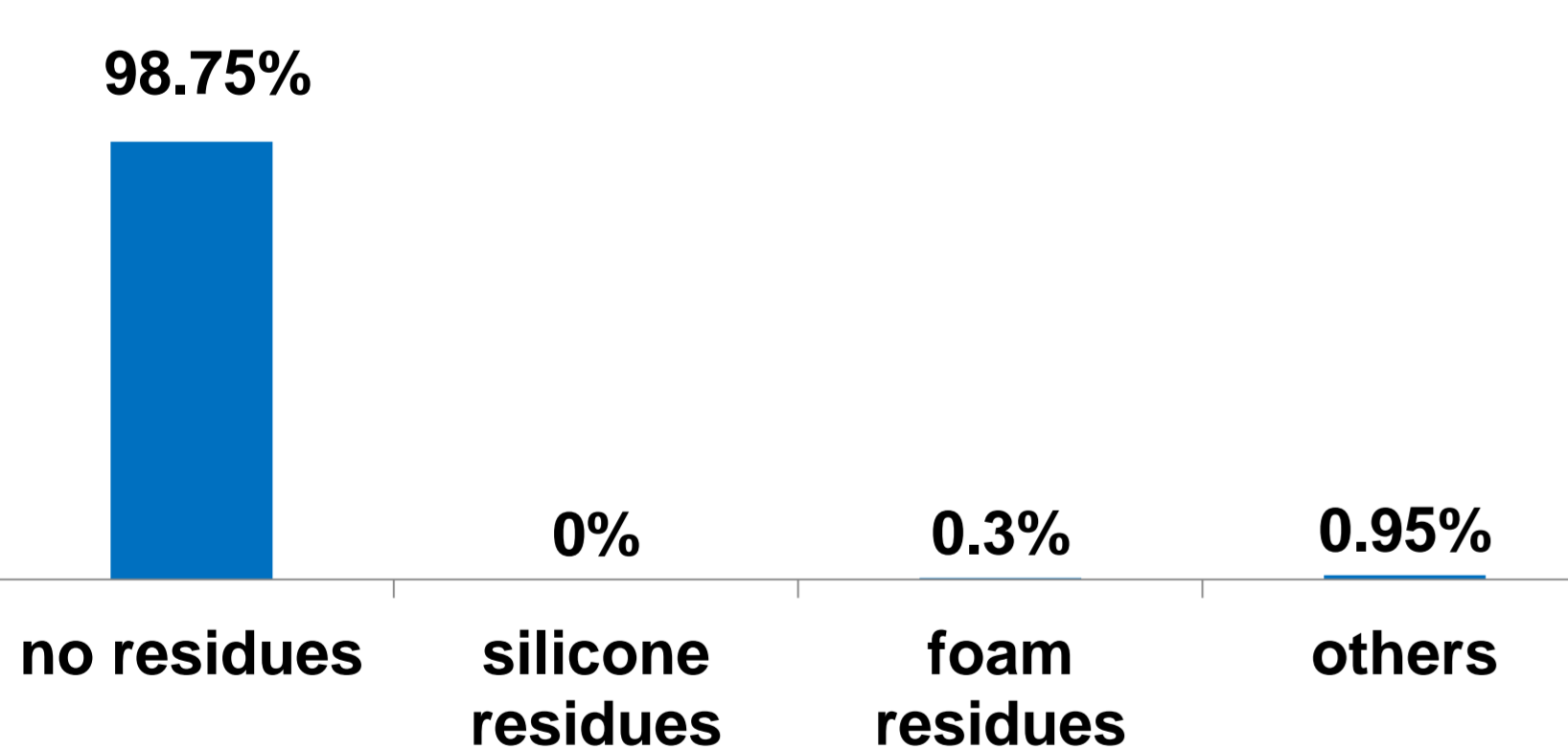
**Fig 4:** Question to the patient: Did you have any uncomfortable feeling during dressing removal? If yes, which kind of? 89% no uncomfortable feeling (n=57).



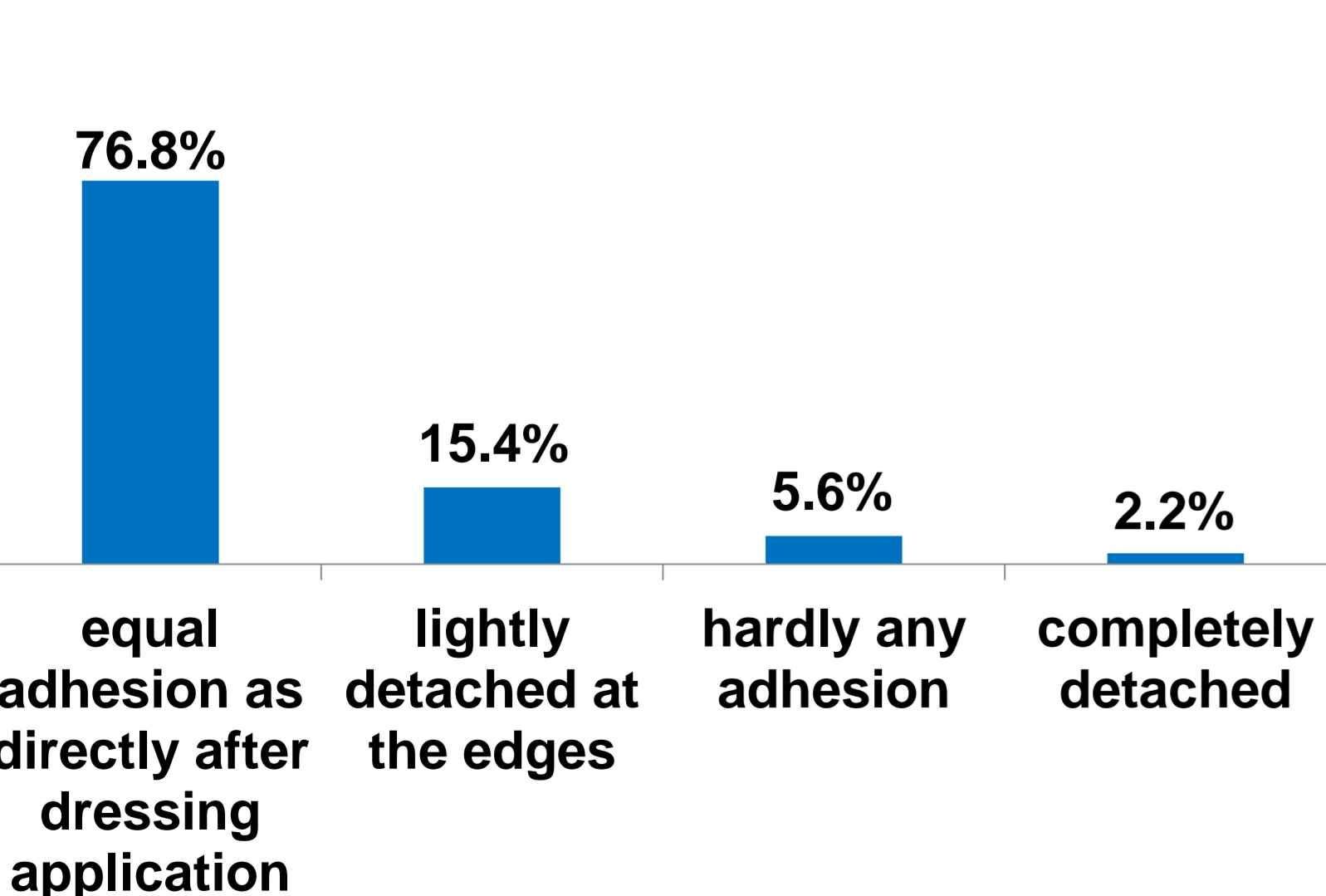
**Fig 5:** Question to the user: The foam dressing detached from the wound ground? 83.7% abnormality free (n=64).



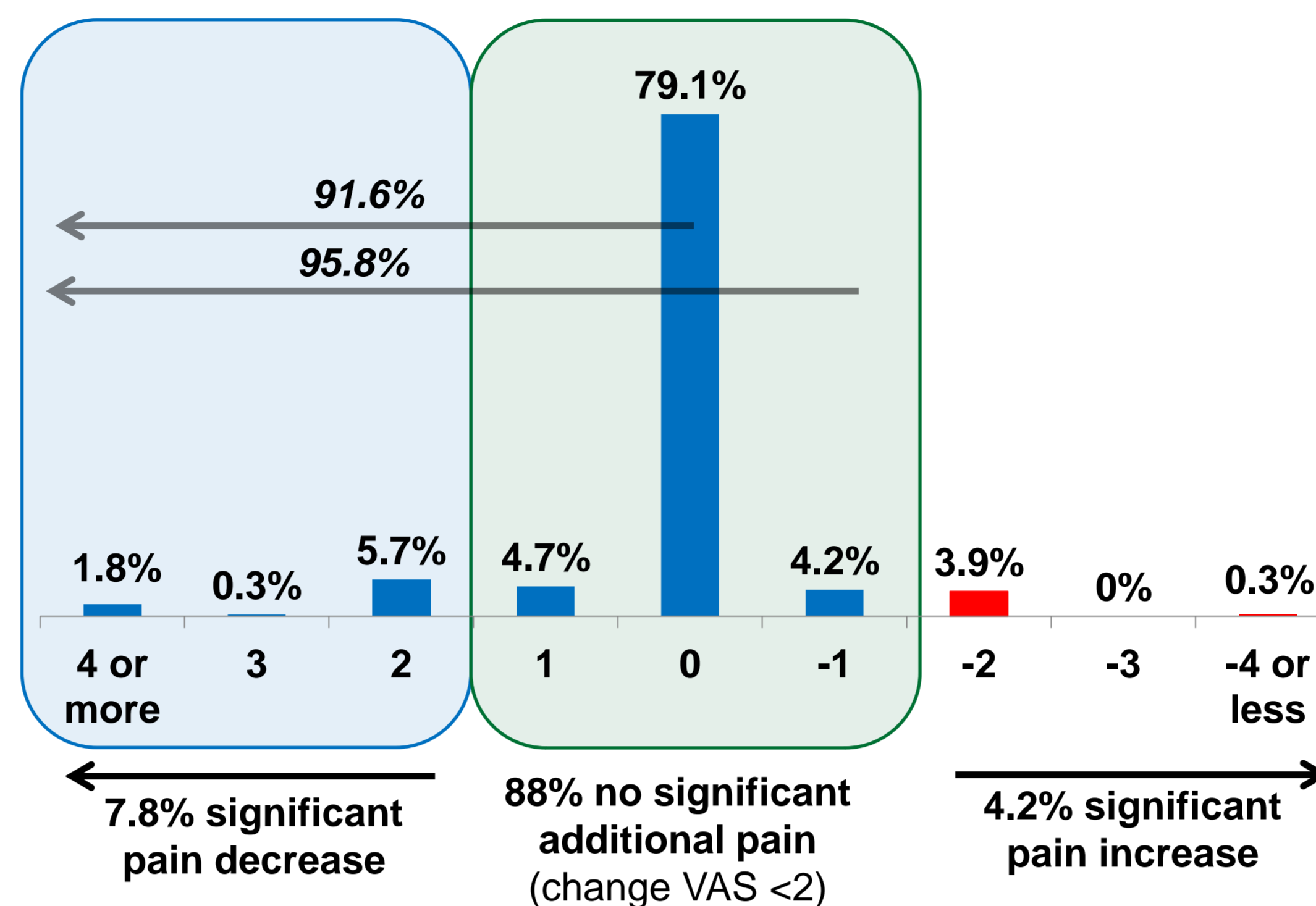
**Fig 6:** Question to the user: The dressing left on the wound ground? 99.1% no residues (n=64).



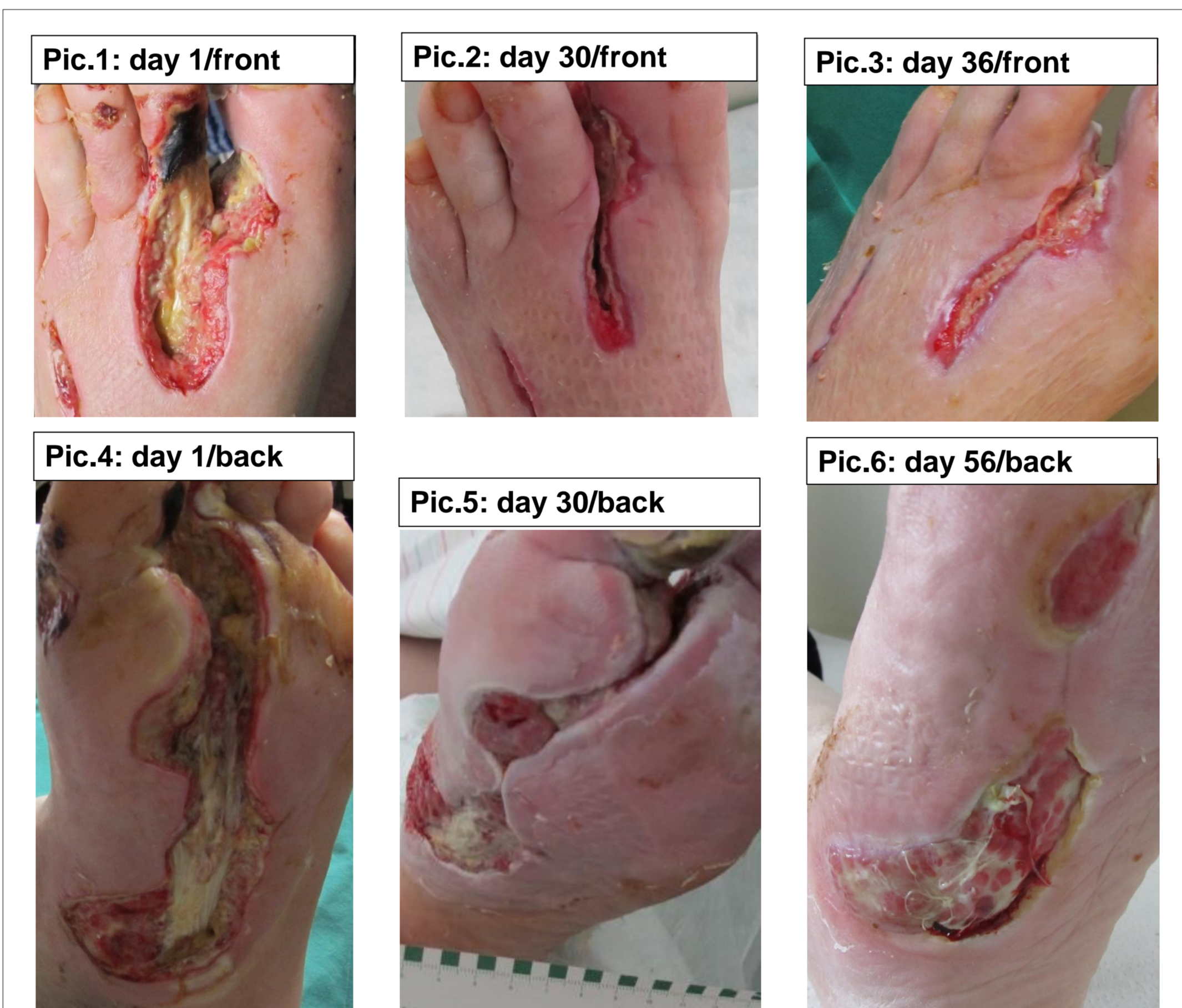
**Fig 7:** Question to the user: The dressing left on the wound edge? 98.75% no residues (n=64).



**Fig 8:** Question to the user: Adhesion of the foam dressing with silicone before removal? 92.2% (n=64) equal adhesion as directly after dressing application (76.8%) to lightly detached at the edges (15.4%).

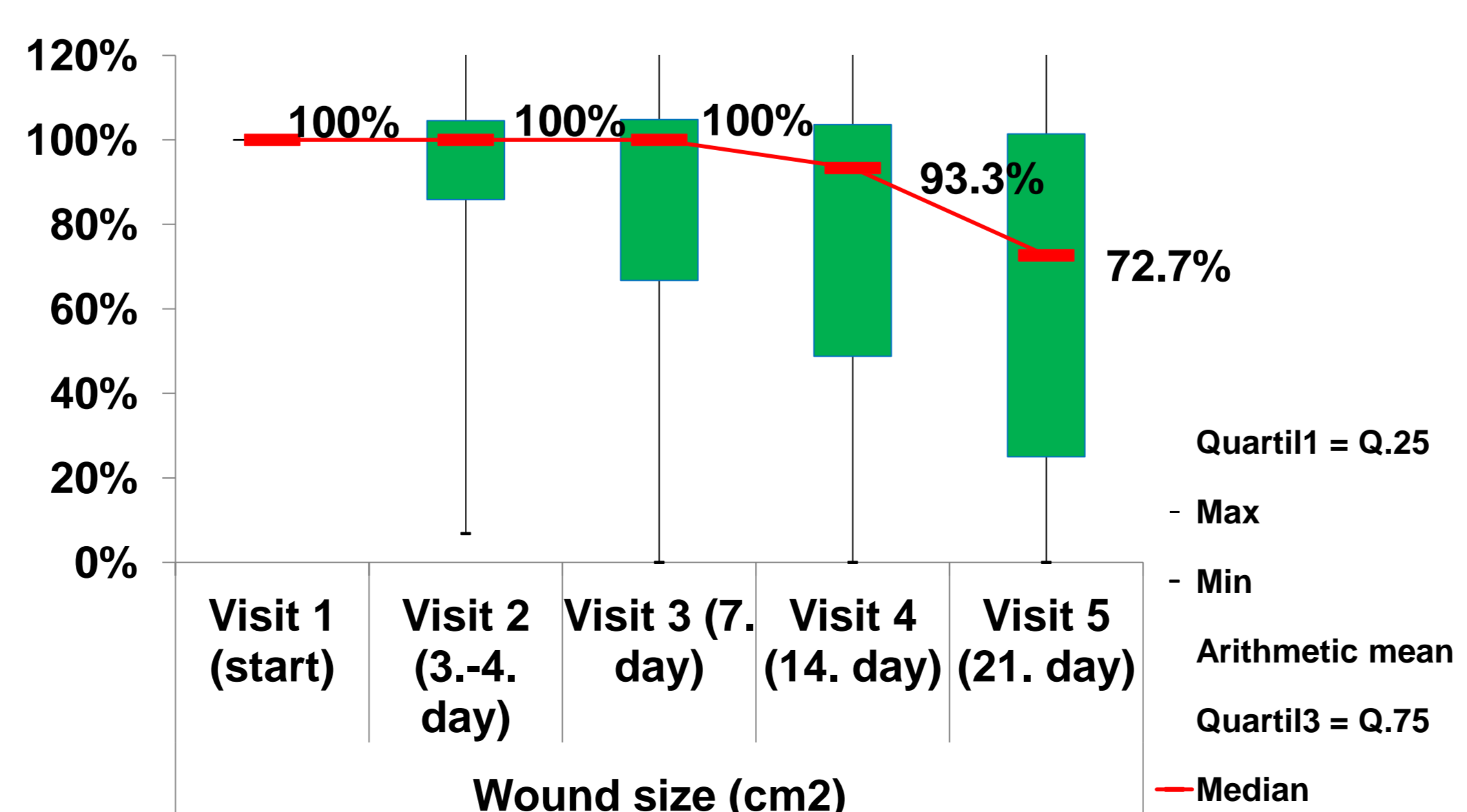


**Fig 1:** Question to the patient: Pain before dressing change (pain score VAS, 0-10)? Pain during dressing removal (pain score VAS, 0-10)? 88% no significant additional pain (VAS change < 2), 7.8% significant pain decrease, 95.8% no significant additional pain, 91.6% no additional pain during dressing removal. (VAS during dressing removal minus VAS before dressing change = VAS difference with respect to the % rate).



**Fig 2: Case presentation:** Patient (age 55) with diabetic gangrene, pain (VAS) 4-6; treatment: 56 days with the foam dressing with silicone\* (additional: debridement\*\* and antimicrobial wound dressing\*\*\*); picture (pic.) 1 and 4 (day 1, front and back): Deep, fibrin coated wound, DII necrotic; picture 2 and 5 (day 30 front and back): after amputation toe DII; picture 3 and 6 (day 36 front/day 56 back): Significant reduction of the wound size/depth and improvement of the wound surrounding skin. Stimulation of the granulation. No additional skin lesions by the dressing. Picture 7: Application of the foam dressing with silicone\*. Pictures by D. Schomburg, DRK Krankenhaus Sömmerda, Germany.

## Decrease of wound size 17.3% in 21 days



**Fig 3:** Question to the user: Wound size and depth? (cm²/cm²)? 17.3% wound size reduction in 21 days (n=52).

## Results :

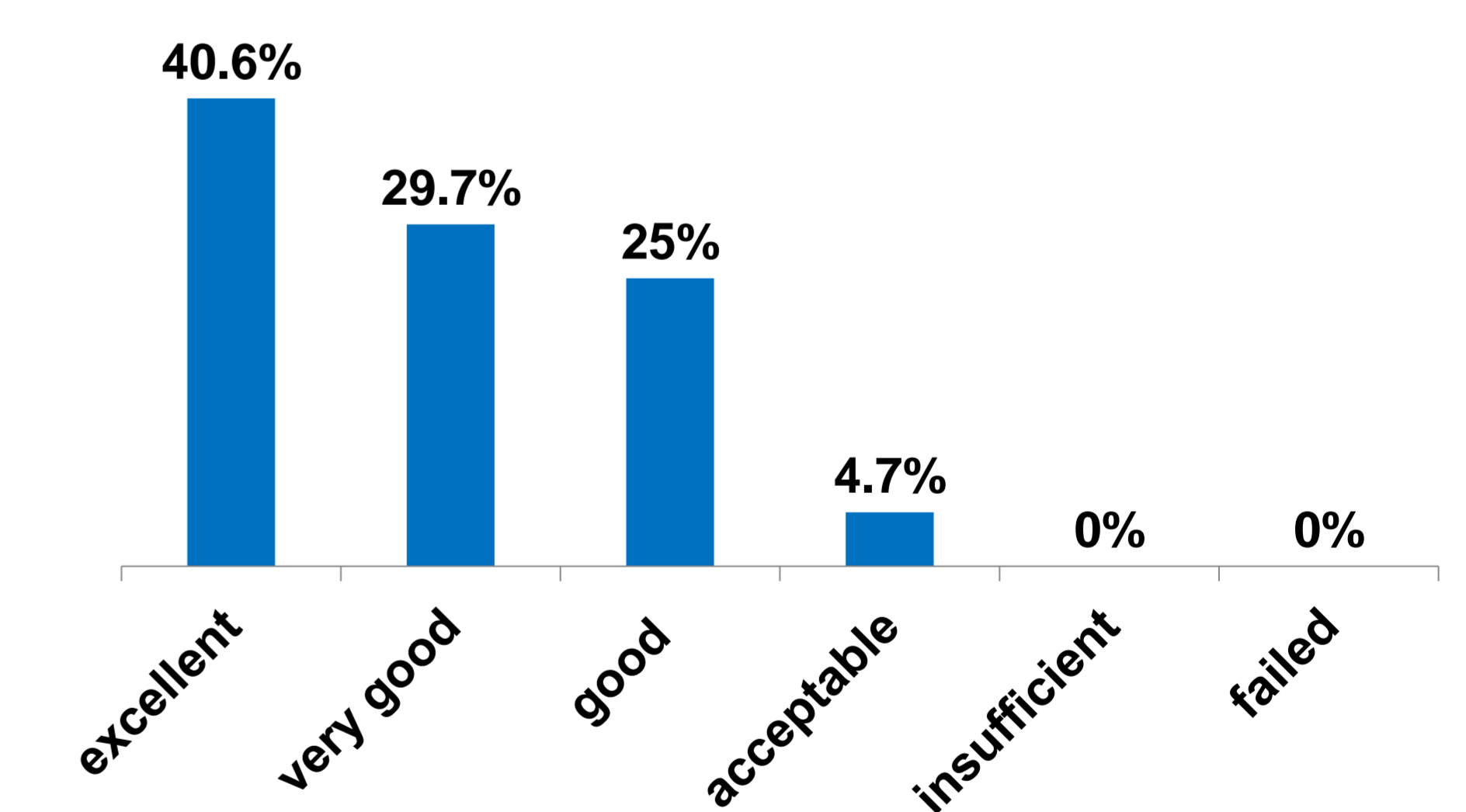
The foam dressing\* showed very good results with respect to the pain during dressing removal. 88% of the patients had no significant additional pain (VAS change < 2) during dressing removal, 7.8% significant pain decrease [Fig.1]. The wound size (cm<sup>2</sup>) decreased in 21 days by 17.3% [Fig.3]. The tolerability by the patients was very good, 89% of the patients declared that they had no uncomfortable feelings during dressing\* change [Fig.4].

The users evaluated the detachment of the dressing\* from the wound ground in 83.7% of the evaluations as atraumatic (free of any lesions) [Fig.5]. The dressing\* left in 99.1% no residues on the wound ground [Fig.6] and in 98.75% no residues on the wound edge [Fig.7]. Adhesion of the foam dressing with silicone\* before removal was rated with 92.2% as equal as directly after application (76.8%) to lightly detached at the edges (15.4%). [Fig.8].

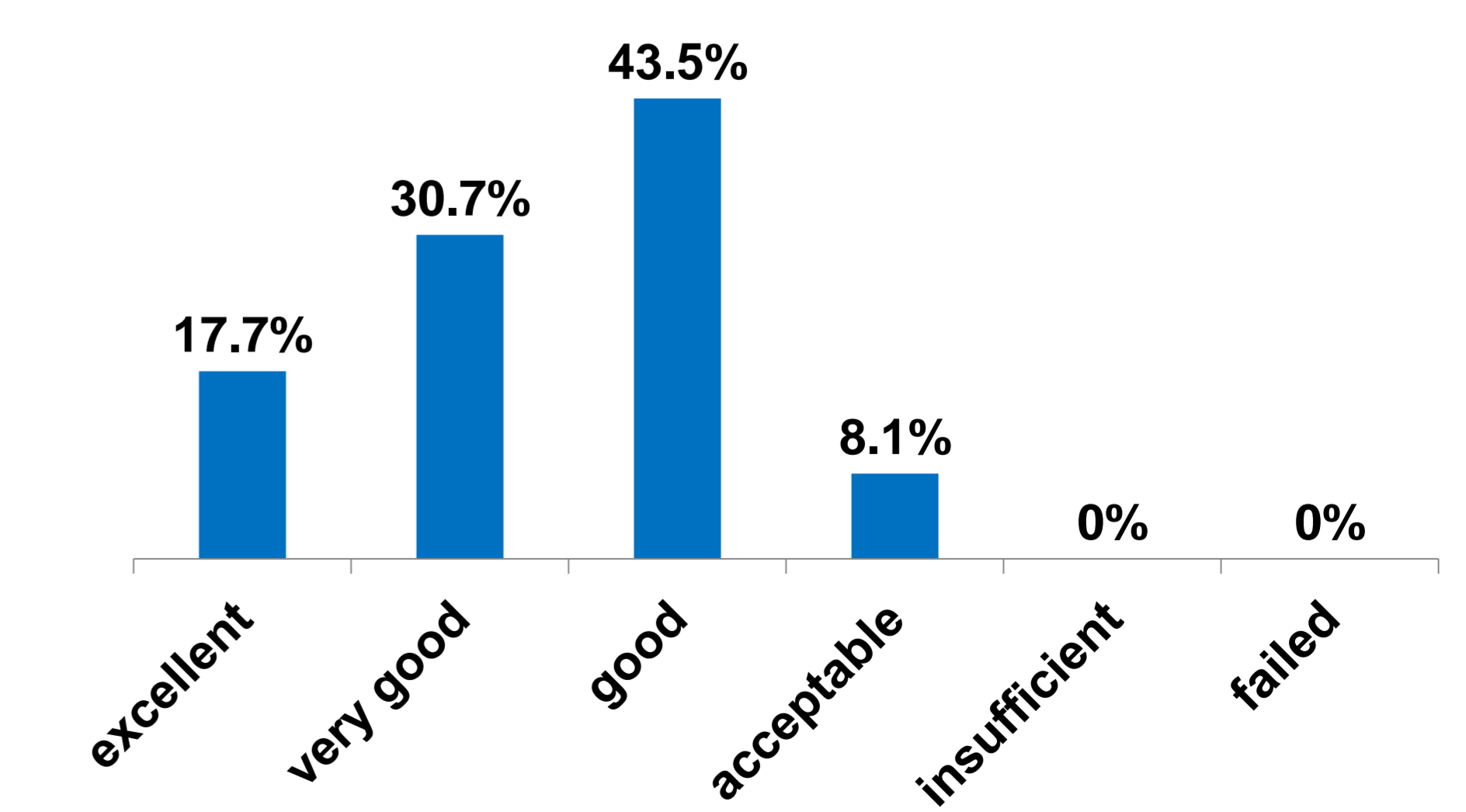
At the wound edges scaling, redness, skin irritations, hyperkeratosis, inflammations and edema decreased. On the wound surrounding skin scaling, hyperkeratosis, edema decreased. In 85.3% no silicone, foam residues or marks left on the wound surrounding skin [data not shown]. Simplicity of application (95.3%) and wearing behaviour (91.9%) were rated with 'excellent' to 'good' [Fig.9 and 10]. The foam dressing was easy and fast to apply even by a single person.

## Conclusions :

The foam dressing with silicone\* leads to minimized pain on removal, prevents adhesion to the wound and is safe and secure in fixation. Simplicity of application and wearing behaviour are very good.



**Fig 9:** Question to the user: Simplicity of application or the new foam dressing with silicone? 95.3% excellent to good (n= 64).



**Fig 10:** Question to the patient: How do you evaluate the wearing behaviour during the dressing change? 91.9% excellent to good (n=62).