

# Development and Implementation of a Clinical Pathway in a Total Care Setting

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## Introduction:

The delivery of effective wound management in a total care setting, including prevention, hospitals, home care and emergency facilities, may fail due to a lack of standardized procedures and optimal communication.<sup>1,2</sup> A project was developed in the Azienda USL, south east Toscana, Italy, a region of about 300 x 150 km with a population of 850.000 (Fig 1). Daily, on average 1200 community patients receive wound management. The aim of the project was to build an integrated network of services, facilitating synergies between structures, improving patient quality of care.

## Methods:

A multidisciplinary team approach was used sharing good clinical wound management practices and organizational assistance to overcome compartmentalized individual services (Fig 2). A clinical pathway for wound management was developed and implemented to improve patient quality of care making optimal use of available resources. The individualized clinical pathway addressed the path a patient with a complex wound follows within the health care system, taking into account clinical governance, patient's wellbeing and quality control assurance as well as limited resources (Fig 3).

After implementation of the pathway success was measured looking at process indicators and outcome as well as patients satisfaction and improvement of care, such as the implementation of new technology or insights. The pathway included patient entry/on-site debridement/cleansing, wound re-evaluation, and individual wound bed preparation.

Currently in the community enzymatic and autolytic debridement is used for patients with wounds that contain sloughy tissue. To address the need for mechanical debridement a monofilament debrider\* was evaluated for its added value in terms of efficacy, safety, tolerability and ease of use, compared to current methods.<sup>3</sup> The 15 day study included 80 community patients with complex wounds of various etiologies containing sloughy tissue. After giving consent the patients were allocated at random to 3 different treatment groups. During follow up visits a questionnaire, using a 5-point Likert scale, was completed scoring wound condition, patient reported comfort/pain during debridement, time required for the procedure and product handling. Costs were calculated taking into account clinical efficacy, time to debridement, number of home visits, nursing costs, costs per product used.

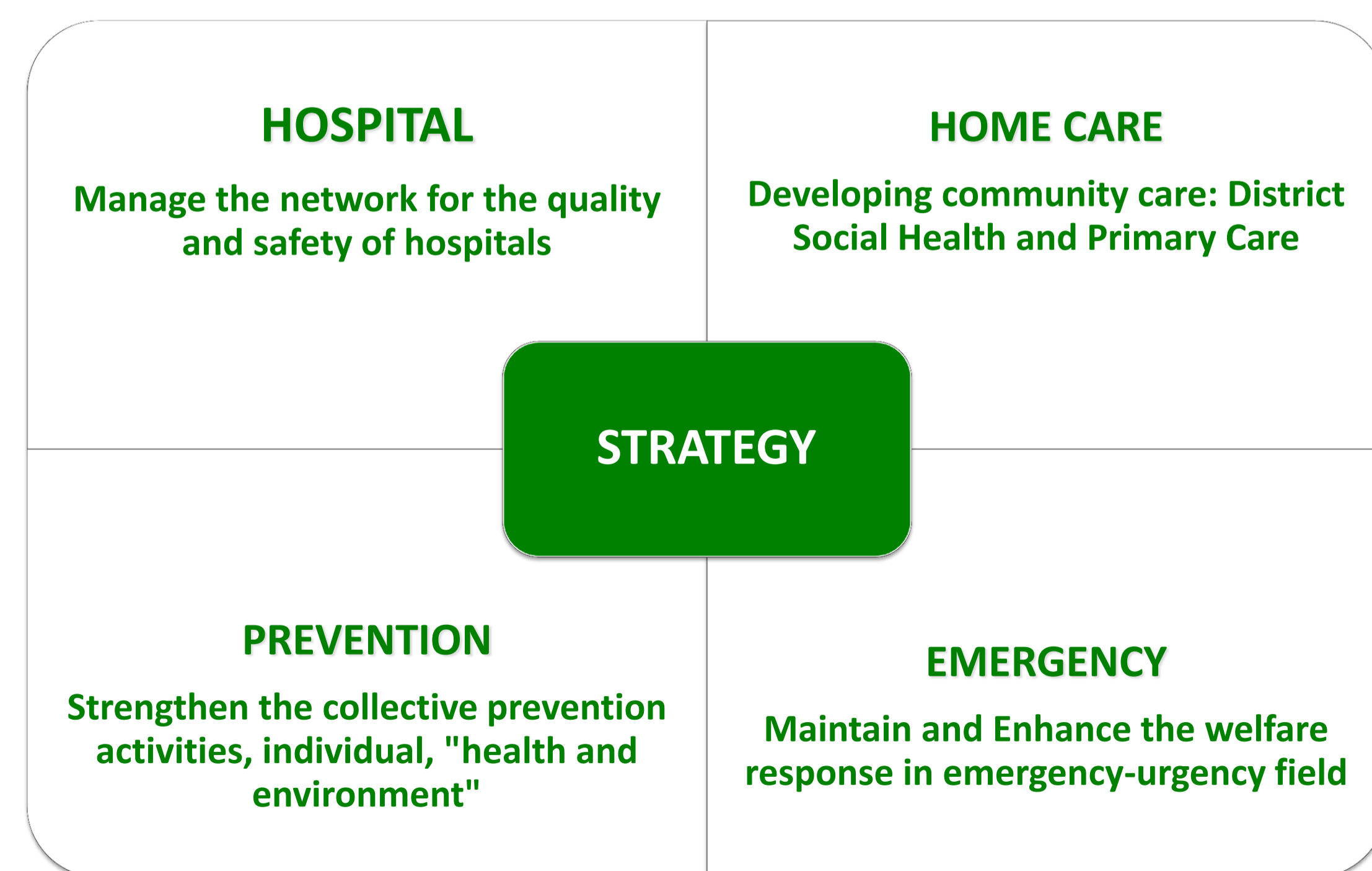


Fig 2: Multidisciplinary Team Sharing Good Clinical Wound Management Practices and Organizational Assistance

\*Debrisoft, Lohmann & Rauscher GmbH & Co KG  
Scientific grant of Lohmann & Rauscher GmbH & Co KG, Rengsdorf



Fig 1: Azienda USL, South East Toscana, Italy

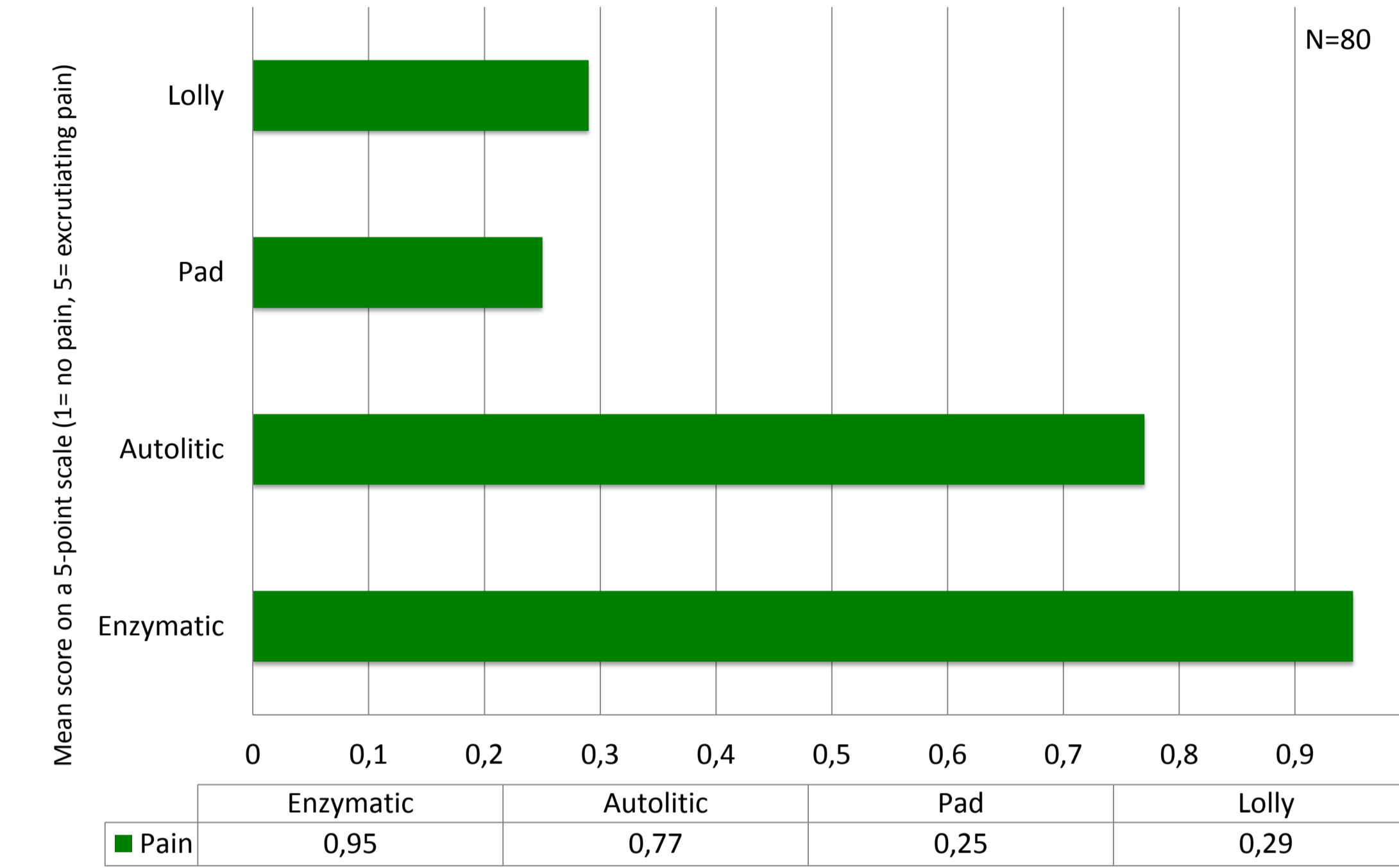


Fig 5: Patient-reported pain during debridement using various methods

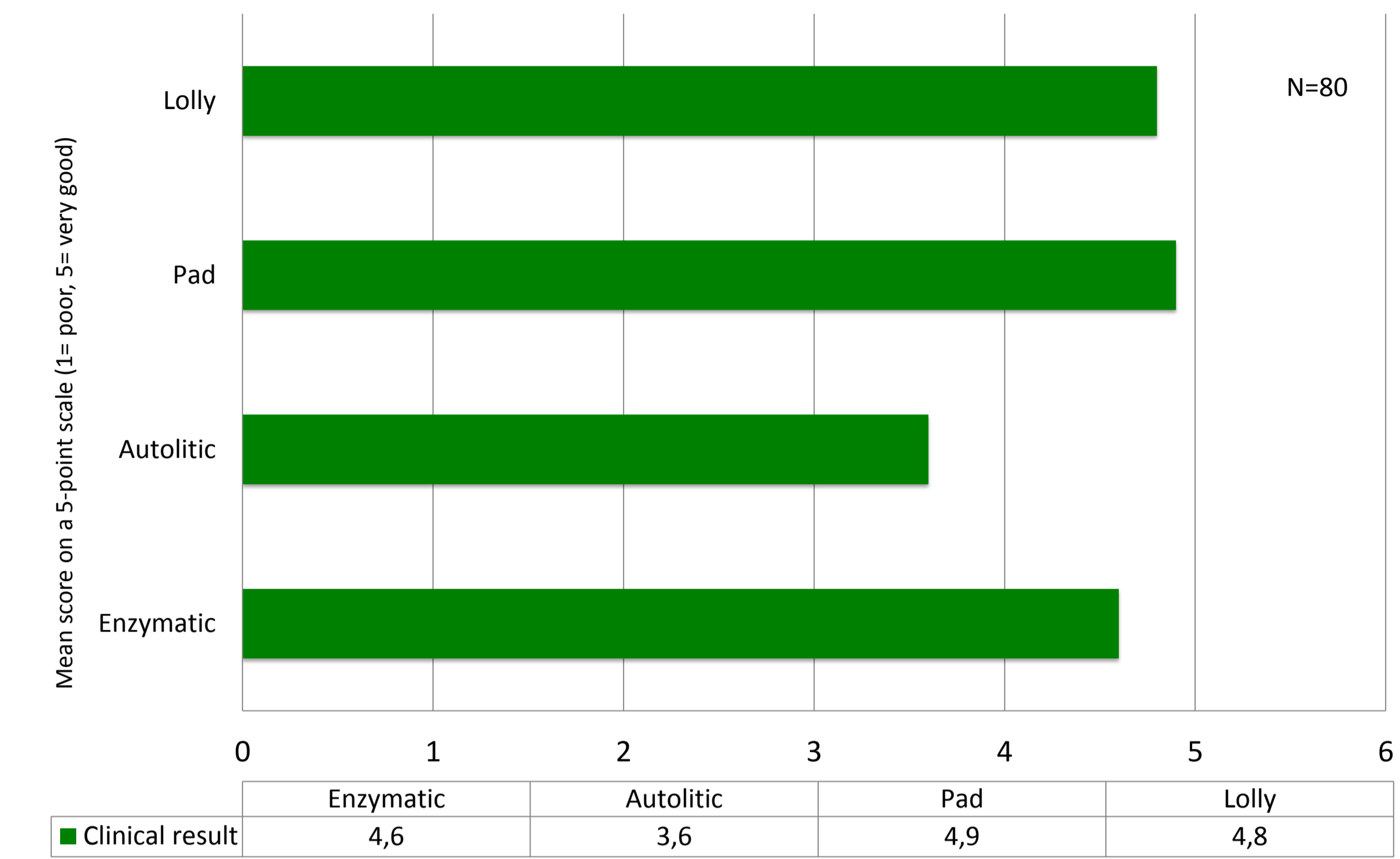


Fig 4: Efficacy of debridement using various methods

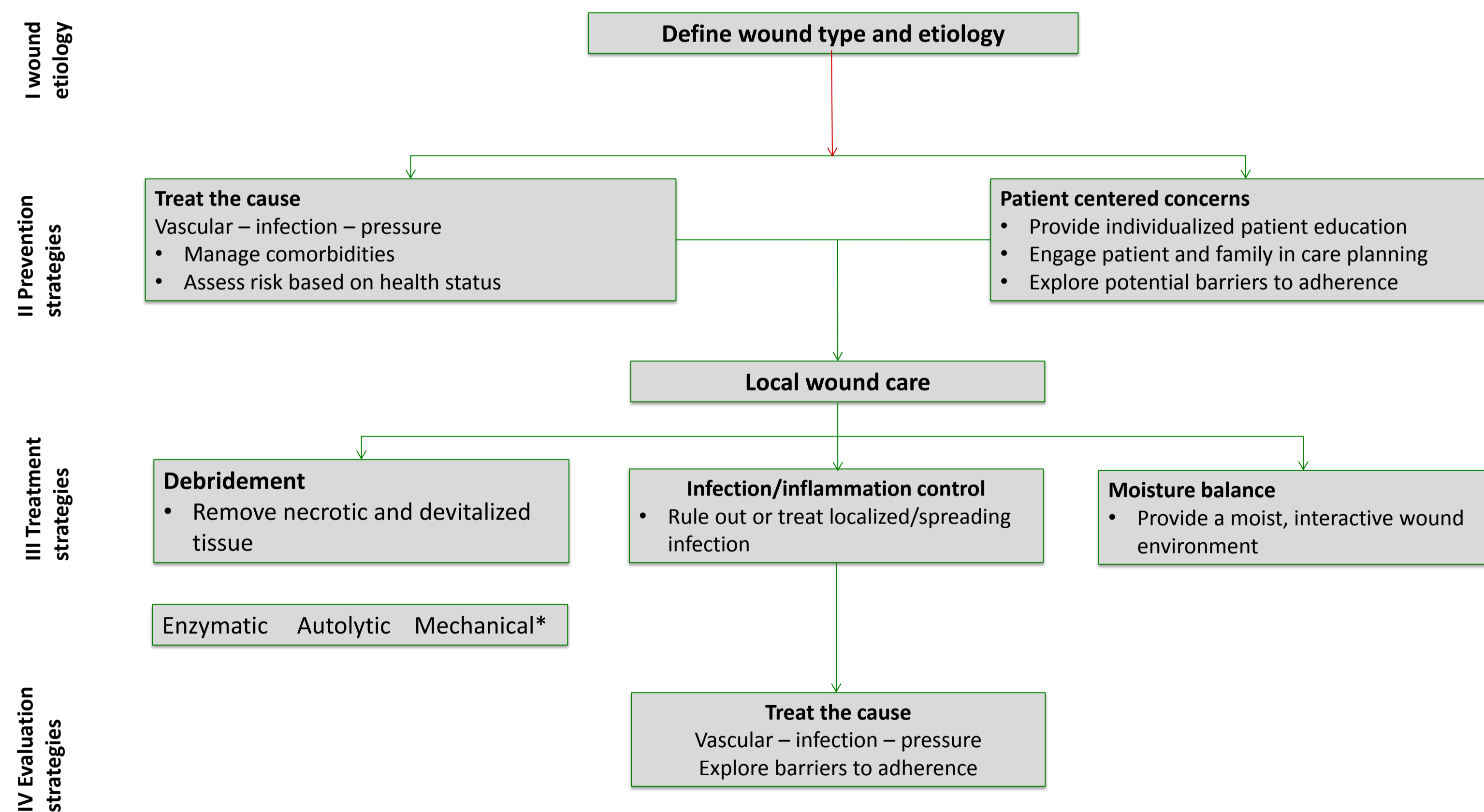


Fig 3: Clinical Pathway for Wound Management

## Results:

After implementation of the pathway communication between the various disciplines had improved as well as treatment outcomes. Fewer visits were required as more appropriate technologies were used and interventions were performed at an earlier stage, possibly preventing complications. Different departments within the network of services can keep tracing the patients' condition in the same pre-existing unit of the healthcare system. Regarding debridement, the 2 types of monofilament products were demonstrated to be effective and safe and delivered faster debridement compared to the enzymatic and autolytic products (Fig 4). Patient-reported pain during debridement was low for all methods used (Fig 5). Cost was significantly lower in the monofilament group (Euro 58,67 and Euro 72,47 versus enzymatic Euro 213,35 and autolytic debridement Euro 98,67) due to a reduction in debridement time, number of visits and nursing time.

## Discussion:

In addition to improving the quality of wound care, the establishment of a multidisciplinary team approach, sharing good clinical wound management practices and organizational assistance will not only improve patients' pain and activities of daily life, but also achieve improved overall health, an approach believed to have positive effects on reducing costs and relieving the burden on the healthcare system.<sup>1,2</sup> A clinical pathway for wound management can be a valuable tool to improve patient quality of care making optimal use of available resources.<sup>1,2</sup> Debridement is an important part of wound management. In clinical studies mechanical wound cleansing and debridement using a monofilament polyester fiber product was effective, pain and trauma free.<sup>3</sup> The monofilament products implemented as part of the debridement portfolio were shown to deliver better and faster debridement than the previously used products and were well tolerated by the patients.

## Conclusion:

The organisational change allowed for staff to approach patients in person, administer adequate wound assessment, and to perform on-time debridement. Both the number of visits and nursing time was reduced leading to a significant reduction in total cost of debridement.

## References

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