

# Reducing the need for oral antibiotics in head and neck cancer surgical wounds

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### Aim

To reduce the amount of oral antibiotics use in patients with complex head and neck cancer wounds and to prevent or treat infections by utilising Manuka Honey dressings.

### Method

Initially 3 patients were studied to test the hypothesis that Manuka Honey\* would be as effective as oral antibiotics in preventing and treating wound infections in line with antimicrobial stewardship programme in the clinic. Patients were often referred from other clinics using other types of dressings. A different treatment would benefit the patients and Manuka honey was chosen.

### Results / Conclusion

Without the need for oral antibiotics and choosing a topical antimicrobial these complex wounds healed effectively. All healed in 1-3 months with an average of 20 dressing changes. No oral antibiotics or further operations were needed. Antimicrobial stewardship in a small practice was effective, patients were pleased with the results and a reduction in the need for other medication. This small study has enabled the introduction of Manuka Honey as an alternative treatment and has gained interest from other clinics in Sweden to start utilizing Manuka Honey.

## Case Studies

### Case 1

72-year-old female, 15- month follow-up after therapy for carcinoma of the floor of the mouth, left side T4N1M0. She received surgery for her cancer and was reconstructed with a fibula graft and went through post operative radiation therapy. Her skin underwent necrosis that was treated with a radial forearm flap. The fibula graft also underwent necrosis, and she had a bleeding episode. A mandibular swing approach with a pectoral flap was performed. The patient presented to the author for treatment 5 days post final surgery with a necrotic graft (Fig 1).

The wound odor was mild with a lot of tissue necrosis. 100% Manuka Honey Viscose<sup>1</sup> and a Manuka Honey Viscose net<sup>3</sup> were applied with a secondary dressing of an absorbent foam dressing<sup>4</sup>

Fig 2 - 2 days after starting with the honey treatment Odour was gone. Some sharp debridement was performed on this occasion only.

Fig 3 - 7 days post first dressing. Dressing changes took place every two days for 2 weeks, were reduced to twice a week for one week and were then performed weekly.

Fig 4 - 5 weeks post presentation the wound had healed with a total of 11 dressing changes. There was a surgeon appointment to arrange for a new graft for the skin defect, but no more surgery was needed.

Fig 5 - shows 12 months post treatment. The patient was extremely satisfied with the result and quick healing of this complex wound and did not need for any further medication or surgery.

Fig 6 - I met the patient in January this year 2022. She did have one more surgery. Plastic surgery to reduce the big lump, to make the result perfect. She is really satisfied and enjoying life.



1. Activon Manuka Honey (Advancis Medical) 2. Activon Tube (Advancis Medical) 3. Activon Tulle (Advancis Medical) 4. Advazorb (Advancis Medical)

## Case 2

49-year-old, otherwise healthy male with a lentigo maligna melanoma was presented to the author following a split thickness skin graft (Fig 7).

The wound measured 7 x 7 cm.

On presentation there was a mild wound odour, and a large part of the skin graft was loose at the edges and sticky. There had been postoperative bleeding in the wound after the surgery despite adequately applied pressure. The goal was to heal without additional surgery.

100% Manuka Honey<sup>2</sup> and a Manuka Honey Viscose Net dressing<sup>3</sup> were applied at presentation.

Fig 8 shows the wound at 7 days after initial treatment after one dressing use.

Fig 9 and 10 show 2 month post presentation. There is a part of the hard periosteum that is dissolving. This easily breaks off and there is new fresh tissue underneath.

Manuka Honey Viscose net<sup>3</sup> and Activon tube<sup>2</sup> were applied with an absorbent foam as a secondary dressing. Zinc paste was applied to the wound edges and the new skin granulation tissue for protection from moisture. Dressings were changed every three to four days in the first 6 weeks and were changed to once per week thereafter.

Fig 11 - shows wound status after three months with 100% Manuka honey<sup>2</sup> and Manuka Honey Viscose net<sup>3</sup>.

Fig 12 - Four months after commencing treatment the patient was healed.

Fig 13 - shows 1 year post surgery. The only scar that shows, is from the skin graft that was ok from the beginning in Fig 1.



## Case 3

74-year-old male with pollen allergy, type 2 diabetes controlled with insulin and oral medication present with squamous cell carcinoma at the top of the skull. Receives surgery for carcinoma, and the wound is left to heal by secondary intention.

Fig 14 - First dressing change 5 days post-op. There was odour and some irritation on the surrounding skin. Zinc paste was applied to the wound edges and 100% Manuka Honey<sup>2</sup> to the exposed bone.

Fig 15 - Two days later the odour was gone, and the skin condition was improved.

Fig 16 - 17 days later with only 100% Manuka Honey<sup>2</sup> and an absorbent dressing, the bone was covered with granulation tissue.

Fig 17 - Epithelization is evident after 32 days.

Fig 18 - After a total of 26 dressings and 15 weeks the wound was healed.

Our patient was very pleased with the results. He liked the idea of using honey since he always suffered from a bad stomach when taking oral antibiotics. He was surprised that this big wound became almost invisible when healed.

