



# Clinical Trial Utilizing MANUKAMED® Medical Grade Manuka Honey: Series of Case Studies in Kuwait

## INTRODUCTION

Manuka honey (*Leptospermum scoparium*) derived from the nectar of the Manuka tree has been used for centuries by the indigenous Maori people of New Zealand to treat wounds and ulcers. In the US today three companies offer Medical Grade Manuka Honey dressings and ManukaMed has the highest potency medical grade honey in the world.

Manuka honey is known to have beneficial clinical effects such as autolytic debridement, anti-inflammatory activity, increased rate of healing, and scar reduction. A compound unique to the manuka honey is Methylglyoxal(MGO). MGO is a chemical marker for medical grade potency and is the driving mechanism responsible for decreasing bioactivity at the wound site.

**MANUKApli** is 100% Manuka Honey, i.e., active *Leptospermum scoparium* Honey in a tube applicator.

**MANUKAhd** and **MANUKAhd lite** are 100% Manuka Honey impregnated onto super absorbent fibre to provide an efficient honey delivery system and draw the exudate effectively from the wounds.

**MANUKAtex** are 100% Manuka Honey impregnated onto acetate gauze to deliver the honey with high breathability to enhance wound healing.



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### **TREATMENT PLAN DESCRIPTION:**

**Patients:** The patients are treated in the hospital as opd basis, specifically in diabetic foot department

### **Procedure:**

- The patients were treated with minor surgeries with strict sterile technique, which is always implemented to avoid further infection, and then the wounds were treated with MANUKAhd & MANUKApli).
- After signs of healing, we replaced MANUKAhd with MANUKAtex, the sterile manuka honey based gauze, and cover it with special dressing sets. Manuka honey has an antibacterial content that helps the wound to heal and prevent from further infection.
- Daily wound dressing is required to drain the pus and clean the wound.

There are many cases of diabetics related non-healing wounds in Kuwait because diabetes mellitus is one of the highest rates of diseases in the country.

The conservative treatment was performed on the patients because the goal is to save the limb from possible amputation and infection.

If the wound is severely infected, the doctor will prescribe oral antibiotics or in worst cases intravenous antibiotic therapy to avoid further infection so the patient needs to go to the hospital every day to complete the therapy



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## CASE 1

**Hospital Name:** Alia Hospital

**Doctor Name:** Mohamed Hassan

**PRESENTATION OF WOUND:** 56 years old male who was a diabetic patient with diabetic Foot ulcer (Eschar wound).

## WOUND MANAGEMENT

**PLAN:** MANUKAppli and MANUKAhd was daily applied to wound site then covered. This treatment has continued for 4 weeks and then the wound was treated daily with MANUKAppli and MANUKAtex for a further 2 weeks.



Figure 1. Before using MANUKAppli, MANUKAhd and MANUKAtex.



Figure 2. Second week after application of ManukaPli and MANUKAhd. Wounds were covered with slough, yellow eschar and necrotic tissue.



Figure 3. Week 3 after MANUKAppli and MANUKAhd was applied as directed. Wound base was filled with granulation tissues. Excellent progression of wound healing.



Figure 4. Week Six Completion of treatment with very favorable scar results.

## RESULTS

With 3 weeks of daily application of MANUKAppli, MANUKAhd, the wound was filled with granulation tissues. After additional two weeks of treatment, the scar is very faint and difficult to distinguish from normal surrounding skin.



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## Case 2

**Doctor Name:** Hala Sultan

### PRESENTATION OF WOUND

51 years old female who had an accident and developed leg ulcer.

### WOUND MANAGEMENT PLAN

MANUKApli and MANUKAhd was daily applied to wound site then covered. This treatment has continued for 8 days and then the wound was treated daily with MANUKApli and MANUKAtex for 6 days.



Figure 1. Before using MANUKApli, MANUKAhd and MANUKAtex.



Figure 2. 3 days after application of ManukaPli and MANUKAhd.



Figure 3. 8 Days after MANUKApli and MANUKAhd was applied as directed. Wound base was filled with granulation tissues. Excellent progression of wound healing.



Figure 4. 14 days Completion of treatment with favorable scar results.

## RESULTS

With 8 days of daily application of MANUKApli, MANUKAhd, the wound was filled with granulation tissues. After additional 6 days of treatment with MANUKApli and MANUKAtex, the wound was healed with favorable scar result.





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## Case 3

**Hospital Name:** Warah Hospital  
**Doctor Name:** Jassim Al Failkawy

### PRESENTATION OF WOUND

52 years old male who was a diabetic patient with diabetic Foot ulcer.

### WOUND MANAGEMENT PLAN

MANUKApli and MANUKAhd was daily applied to wound site then covered and then the wound was treated daily with MANUKApli and MANUKAtex.



Figure 1. Before using MANUKApli, MANUKAhd and MANUKAtex.



Figure 2. 3 months after application of MANUKApli and MANUKAhd and MANUKApli and MANUKAtex.

### RESULTS

After daily application of MANUKApli and MANUKAhd and then daily treatment with MANUKApli and MANUKAtex, the wound was healed with favorable scar result.



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## Case 4

**Hospital Name:** Warah Hospital  
**Doctor Name:** Jassim Al Failkawy

### PRESENTATION OF WOUND

54 years old male who was a diabetic patient with diabetic Foot ulcer.

### WOUND MANAGEMENT PLAN

MANUKApli and MANUKAhd was applied daily to wound site then covered and then the wound was daily treated with MANUKApli and MANUKAtex.



Figure 1. Before using MANUKApli, MANUKAhd and MANUKAtex.



Figure 2. After application of MANUKApli and MANUKAhd and MANUKApli and MANUKAtex.

## RESULTS

After daily application of MANUKApli and MANUKAhd and then daily treatment with MANUKApli and MANUKAtex, the wound was healed with favorable scar result.



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## Case 5

**Hospital Name:** Warah Hospital  
**Doctor Name:** Jassim Al Failkawy

### PRESENTATION OF WOUND

52 years old male who was a diabetic patient with diabetic Foot ulcer (eschar wound).

### WOUND MANAGEMENT PLAN

MANUKApli and MANUKAhd was daily applied to wound site then covered and then the wound was daily treated with MANUKApli and MANUKAtex.



Figure 1. Before using MANUKApli, MANUKAhd and MANUKAtex.



Figure 2. 2 weeks After application of MANUKApli and MANUKAhd.



Figure 3. 4 weeks After application of MANUKApli and MANUKAhd and then treatment of MANUKApli and MANUKAtex.

## RESULTS

After 4 weeks daily application of MANUKApli and MANUKAhd and then daily treatment with MANUKApli and MANUKAtex, the wound was healed satisfactorily.



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## Case 6

**Hospital Name:** Warah Hospital  
**Doctor Name:** Jassim Al Failkawy

### PRESENTATION OF WOUND

52 years old male who was a diabetic patient with diabetic Foot ulcer (eschar wound).

### WOUND MANAGEMENT PLAN

MANUKApli and MANUKAhd was daily applied to wound site then covered and then the wound was treated daily with MANUKApli and MANUKAtex.



Figure 1. Before using MANUKApli, MANUKAhd and MANUKAtex.



Figure 2. 2 weeks after application of MANUKApli and MANUKAhd then MANUKApli and MANUKAtex.

## RESULTS

After 2 weeks daily application of MANUKApli and MANUKAhd and then treatment with MANUKApli and MANUKAtex, the wound was healed with favorable scar result.





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## Case 7

**Hospital Name:** Warah Hospital  
**Doctor Name:** Jassim Al Failkawy

### PRESENTATION OF WOUND

49 years old male who was a diabetic patient had an accident. The wound was hard to heal.

### WOUND MANAGEMENT PLAN

MANUKApli and MANUKAhd was daily applied to wound site then covered and then the wound was daily treated with MANUKApli and MANUKAtex.



Figure 1. Before using MANUKApli, MANUKAhd and MANUKAtex.



Figure 2. 14 weeks after application of MANUKApli and MANUKAhd then MANUKApli and MANUKAtex.

## RESULTS

After 14 weeks daily application of MANUKApli and MANUKAhd and then treatment with MANUKApli and MANUKAtex, the wound was healed with favorable scar result.



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## Case 8

**Hospital Name:** Warah Hospital  
**Doctor Name:** Jassim Al Failkawy

### PRESENTATION OF WOUND

46 years old male who was a diabetic patient had a leg ulcer.

### WOUND MANAGEMENT PLAN

MANUKApli and MANUKAhd was daily applied to wound site then covered and then the wound was daily treated with MANUKApli and MANUKAtex.



**Figure 1. Before using MANUKApli, MANUKAhd and MANUKAtex.**



**Figure 2. 14 days after application of MANUKApli and MANUKAhd then MANUKApli and MANUKAtex.**

## RESULTS

After 14 days daily application of MANUKApli and MANUKAhd and then treatment with MANUKApli and MANUKAtex, the wound was healed with favorable scar result.

## SUMMARY

ManukaMed Manuka Honey based dressings are a relevant therapeutic and cost-effective alternative to conventional wound therapy. Additional clinical outcome studies are needed and are currently in process.

## REFERENCE:

Molan, P. C. (1999). Why honey is effective as a medicine. 1. Its use in modern medicine. *New Zealand BeeKeeper*, 80(2), 80-92.