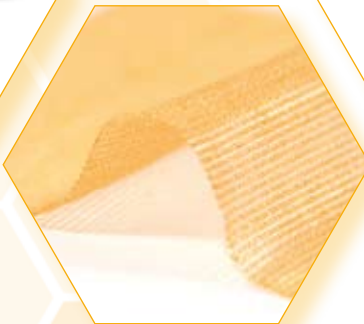


The natural choice for wound management...



Activon Tulle



Algivon



Activon Tube



Actilite

Advancis Medical is dedicated to improving wound healing and aims to provide clinicians with high quality dressings that meet the needs of modern wound management challenges. We support independent education in wound care and provide product training and support. Activon honey dressings have scientific and clinical evidence to support their use. Honey has been used for millennia's to heal wounds, but Activon is a modern wound management product based on a single controlled source of honey believed to be the best in the world for treating wounds and with reproducible results.

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Visit our Activon website: www.medicalhoney.com



The natural choice for wound management...



Why Activon honey?

Activon is sterile and produced for safety and efficacy in wound management. Activon medical grade Manuka honey has a high level of reliable antibacterial potency¹ not found in honeys from other floral sources.



The properties of Activon honey provide a combination of beneficial wound healing effects not found in other types of dressings. Activon has an osmotic effect that helps to de-slough and debride necrotic tissue¹ that can harbour bacteria and impede wound healing. There is a marked reduction in odour^{2,4} when Activon is applied to a malodorous wound. Activon will protect the wound bed and provide a moist wound healing environment known to be beneficial to wound healing and promote faster healing³.

Quality control

Activon honey is produced in accordance with strict guidelines by accredited honey suppliers who are part of the medical Manuka honey program in New Zealand. Bee hives are located in regions of New Zealand where the Manuka plant is heavily concentrated. These regions are far from urban developments and free from potential contamination by pollutants, which means Activon is a very pure honey product. Nectar is gathered from the Manuka plants by bees and converted to honey. The bee hives are hygienically controlled and monitored; honey is extracted in high standard facilities not normally associated with the honey industry. The honey is purified and refined without damaging any of its intrinsic health related properties. It is tested for its quality and antibacterial property before and after processing into Activon dressings.

Antibacterial honey

Activon honey is made from the nectar gathered from Manuka plants which are part of the *Leptospermum* species commonly known as the teatree family. Honey from this plant source has been found to have a unique antibacterial property not found in honey from other floral sources. The antibacterial property of honey from other floral sources is de-activated by an enzyme called catalase which is found naturally in wounds. Activon honey's main antibacterial property is derived from chemicals from the nectar of the plant which is unaffected by catalase and remains active at very low concentrations. This 'unique Manuka factor' is known as the UMF[®] and the potency of the honey is compared to the antibacterial potency of diluted Phenol. The potency of Activon is in the range UMF[®] 12-18 and typically UMF[®] 14 equivalent to a 14% phenol dilution.

Activon is a broad spectrum antibacterial product and effective against most wound invading bacteria e.g. *Staphylococcus aureus*, *Pseudomonas aeruginosa* etc. In a recent study using standard antibiotic test procedures it was demonstrated that the bacteriostatic action of Activon honey was unrelated to antibiotic sensitivity patterns exhibited by MRSA⁵.

Properties of Activon

- Broad spectrum antibacterial
- High osmotic pressure de-brides and de-sloughs wounds
- Effectively combats odour from wounds
- Provides moist wound healing
- Promotes healing
- Anti-inflammatory

Indications for Activon

- Leg ulcers
- Pressure sores
- Malodorous wounds
- Burns
- Surgical wounds

References

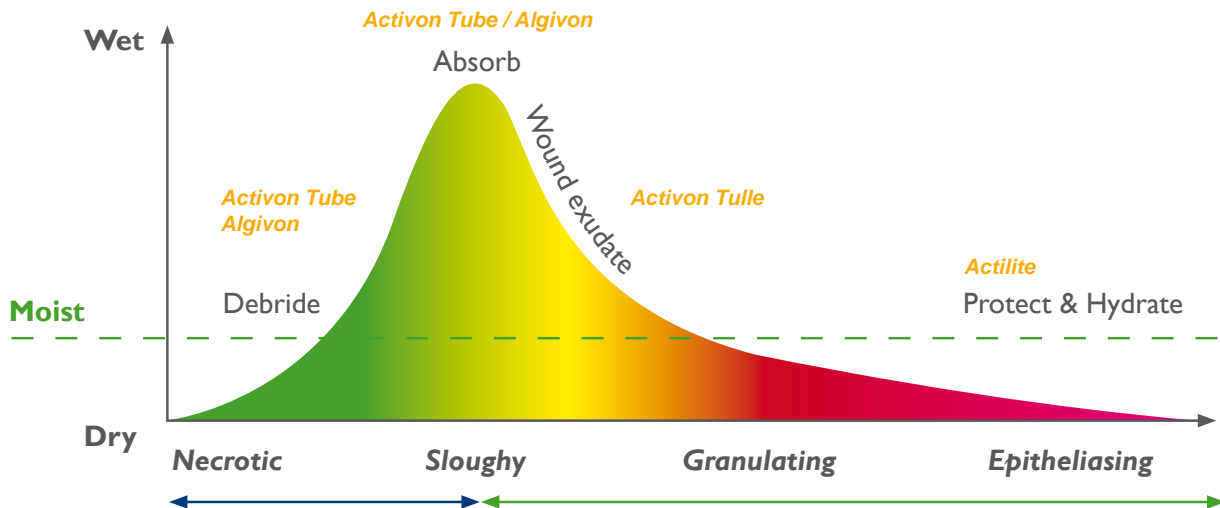
1. Molan P December 2001 Honey as a topical antibacterial agent for treatment of infected wounds. <http://www.worldwidewounds.com/1998/march/Odour-Absorbing-Dressings/odour-absorbing-dressings.html>
2. S Natarajan, D Williamson, J Grey, KG Harding and RA Cooper (2001) Healing of an MRSA-Colonized, hydroxyurea induced leg ulcer with Honey. *Journal of Dermatological Treatment* (2001) 12, 33-66
3. Dunford C et al (2000) The use of honey in wound management. *Nursing Standard*, 15, 11, 63-68 November 2000
4. Thomas P 1998 April 1998 Odour Absorbing Dressings: A comparative laboratory study. (On-line) Available: <http://www.worldwidewounds.com/1998/march/Odour-Absorbing-Dressings/odour-absorbing-dressings.html>
5. Allen KL, Molan PC, Reid GM. A survey of the antibacterial activity of some New Zealand honeys. *J Pharm Pharmacol* 1991; 43(12): 817-22.

Activon dressing selection guide

Activon dressings provide a number of alternatives which are selected on the basis of the wound classification, anatomical site or clinical preference. Below is a guide to selecting Activon dressings.

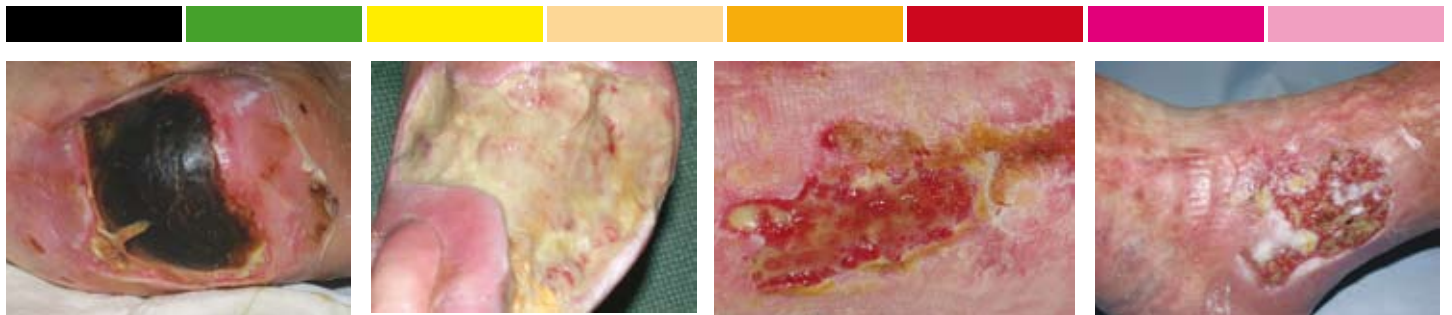
The wound healing progression model

The graph below shows the wound healing process and the stages where each of the Activon dressings are most suitable/effective.



Wound Type

Necrotic Necrotic/Sloughy Sloughy Sloughy/Granulating Granulating/Epithelialisation Epithelialisation



Necrotic, sloughy or wet wounds need a higher volume of honey to ensure efficacy. Activon Tulle and Algivon are recommended and the addition of Activon from the tube is according to clinical decision. Granulating wounds will benefit from a moist healing environment provided by Activon Tulle and Algivon but should not need additional Activon applied from the tube. Superficial and epithelialising wounds will benefit from the protective moist environment provided by Actilite.

Objective	Wound	Product
Bacteria management	Superficial	Activon Tulle, Algivon or Actilite
	Deep	Activon Tube or Algivon
Debridement	Superficial	Activon Tulle or Algivon
	Deep	Activon Tube or Algivon
De-slough	Superficial	Activon Tulle or Algivon
	Deep	Activon Tube or Algivon
Deodorise	Superficial	Activon Tulle or Algivon
	Deep	Activon Tube or Algivon
Improve chronic wounds	Superficial	Activon Tulle or Algivon
	Deep	Activon Tube or Algivon
Protect	Superficial	Activon Tulle, Algivon or Actilite
	Deep	Algivon

This is not a definitive guide and it is appreciated that clinicians may have reasons to select Activon products outside of the indicated parameters due to personal experience or clinical need.



Activon product range



Activon Tube

Activon honey is a medical grade Manuka honey which has a reliable level of antibacterial potency¹ not found in other honeys. In addition to its antibacterial properties, Activon honey benefits patients with wounds in a number of ways;

- It has an osmotic effect¹ that helps to debride and deslough² wounds
- It reduces wound odour^{2,4}
- It maintains a moist wound healing environment.

For references, please see page 3.



Activon Tulle

Activon Tulle is a BP specification knitted viscose primary dressing impregnated with an optimum volume of Activon medical grade Manuka honey for effective wound treatment. Activon is pure honey with no additives which could cause an adverse reaction. It is produced to the highest possible hygiene standards to ensure its suitability for the treatment of wounds.

Activon Tulle is designed to protect a wound, create a moist healing environment and form a barrier which effectively reduces or eliminates wound odour.

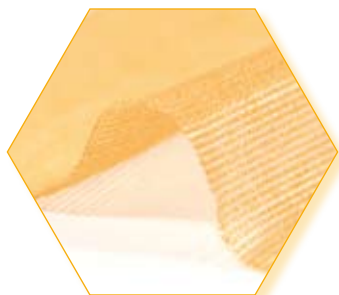
Through osmotic action attributable to the high sugar levels in the antibacterial Manuka honey, exudate will be drawn from the wound into the dressing, which promotes autolytic debridement. Activon Tulle will maintain a moist environment and will help improve the condition of the wound bed.



Algivon

An absorbent, sterile, non-adherent wound contact dressing comprising calcium alginate (High M) mechanically bonded fibres impregnated with Activon medical grade Manuka honey (minimum UMF[®] 12+). High M calcium alginate fibres are high in mannuronic acid and low in guluronic acid








and have high integrity when wet. When wet, the fibres swell and form a sodium calcium gel when in contact with wound exudate. The exudate, honey and alginate form a honey gel complex which has been demonstrated to prolong the retention of honey at a wound site¹.



Actilite

Actilite is made from knitted viscose for low adherence and coated with anti-bacterial Activon+. The dressing is designed to protect a wound, promote healing and allow the passage of exudate. Reduction in bacterial colonisation is achieved in a natural way through the antibacterial properties of the Manuka plant. Actilite has a level of Activon+ honey appropriate for wound protection, the antibacterial effect has been enhanced with the

addition of high grade antibacterial Manuka oil (Activon+). This patented Activon+ technology has been demonstrated in-vitro to be effective against a number of major wound infecting organisms including MRSA, VRE and *Providentia stuartii*. In the laboratory tests the inhibition of bacteria was demonstrated to be better than a povidone iodine dressing and several silver based dressings.

Name	Stock Code	NHS Code	PIP Code	Description	Size	No. per box
 Activon Tube	CR3830	ELZ069	319-3729	Activon honey tube	25g	12
 Activon Tulle	CR3761	EJE027	304-0631	Activon honey coated tulle	5 x 5cm	5
 Activon Tulle	CR3658	EJE028	304-0623	Activon honey coated tulle	10 x 10cm	5
 Actilite	CR3849	EJE042	335-4917	Antibacterial dressing with Manuka honey & oil	10 x 10cm	10
 Actilite	CR3852	EJE040	335-4925	Antibacterial dressing with Manuka honey & oil	10 x 20cm	10
 Algivon	CR3831	ELS153	319-3711	Activon honey impregnated alginate	5 x 5cm	5
 Algivon	CR3659	ELS154	319-3703	Activon honey impregnated alginate	10 x 10cm	5

Evidence for the use of Activon in wound management

Advancis Medical acknowledges the need for evidence based practice. Most clinicians are aware that there is a lack of high level of evidence for the use of most wound therapies applied today, this is due to the complexities of the wound healing process. A high mixture in patient aetiology and physiological contributory factors make obtaining a high level of quality evidence very difficult to achieve.

In addition qualitative aspects of patient experience are of major importance in wound care. This includes quality of life issues and cosmetic outcome of healed wounds as well as healing time. These factors are inappropriate for statistical analysis as they are subjective. What evidence does exist in wound care is often challenged and reputed on the basis that trials are either flawed in construction or irrelevant due the selection of patient inclusion and exclusion criteria.

However, in terms of volume of evidence there are more documents and case studies relating to honey than any other wound therapy. Honey has been used for centuries for healing and soothing wounds although often been of unspecified origin and floral source. It is known that honeys produced from the nectar of different plants will have varied therapeutic effects therefore the relevance of these studies to modern wound healing products is supportive but not conclusive. Peter Molan MBE, Professor of bio-chemistry and founder of the honey research unit at Waikato University NZ recently reported* that there are:-

- 17 randomized controlled trials with 1,965 participants on the use of honey
- 5 other clinical trials with 97 participants treated with honey
- 311 case studies on using honey in wound care
- 16 trials on a total of 533 wounds on experimental animals

Activon medical Manuka honey is a controlled and reproducible honey from a single floral source which is known to be amongst the best in the world for healing wounds. Advancis Medical has encouraged the documentation of research and clinical experience for Activon dressings that have so far proven to be beneficial to many patients. It is believed that by developing guidelines based on clinical experience for the use of this standardised medical honey product the therapeutic benefits will be fully appreciated and acknowledged.

In the following section we have included the work of many clinicians who have demonstrated their belief in the potential of Activon to improve both healing rates and the quality of life for patients suffering from wounds. Advancis Medical invites all clinicians to share their experiences with Activon products in order to further knowledge in the practical application and clinical benefits of Activon medical Manuka honey.



*An educational DVD is available from Advancis Medical of Professor Peter Molans' presentation: **"The wound healing process - and how honey helps it".**



Do honey dressings reduce the need for antibiotics?

Authors: DNS Pleasance Perry & D/N Sirley O'Hara Institution: South & East Belfast (HSS) Trust

Introduction

Honey has been used therapeutically for many hundreds of years however it has only recently been used within modern medicine. Recent wound care studies have shown honey to be effective on wounds such as burns, ulcers and surgical wounds. This poster illustrates the experience of a 56 year-old gentleman who presented initially with an oedematous ulcerated leg following a traumatic fall down stairs.

Patient medical history

- Gout, Arthritis
- Clinically obese 30 stone+
- Bilateral venous leg ulcers for 7 years
- Multiple wound infections
- MRSA isolated May 2001
- Doppler assessment repeated February 2005: ABPI 1.3 and 1.0

Previous topical leg ulcer treatment included long stretch and elasticated multi-layer bandaging, Flamazine, silver dressing, iodine based dressings. Oral antibiotics and IV antibiotics were prescribed for various infections primarily for MRSA and Pseudomonas.

Mr L lives alone with a good network of family and friends.

Medication:

- Bisoprolol Fumerate 10mgs
- Amlodipine Besilate 10mgs
- Naproxen 250mgs
- Allopurinol 100mgs
- Tramadol 50mgs x 2 middle of night
- Co-codamol 30/500 x 2 Nocte & Mane
- Amitriptyline x 2 nocte
- Lactulose

Clinical issues:

- Obesity
- Immobility
- Ongoing wound infection (e.g., MRSA & Pseudomonas)
- Lack of quality of life

Treatment objectives for leg ulcers

- Promote healing through angiogenesis, granulation & epithelialisation
- Decrease bacterial burden & the susceptibility to cross infection
- Maintain a moist wound healing environment
- Improve quality of life by reducing oedema, strike-through, odour & pain
- Educate patient and nursing staff of correct use of honey dressing & short stretch compression bandaging

May 2004: Initial assessment at the Trust Tissue Viability clinic. Swabs isolated MRSA and Pseudomonas – 14 day course Ciprofloxacin & Doxycycline (orally) followed by further Ciprofloxacin, Minocycline & Fusidic acid.

June 2004: IV Ceftazidime 7 day course.

August 2004: Ciprofloxacin, Minocycline & Fusidic acid 7 day course.

References:

Cornwall J.V., Dore C.J., Lewis J.D. (1986) Leg Ulcers: epidemiology and aetiology British Journal of Surgery 73 (9) 693-6.
Clinical Resource Efficiency Support Team Guidelines for the assessment and Management of Leg Ulcers Belfast CREST, 1998.
Williams C. (2002) Actico: a short-stretch bandage in venous leg ulcer management British Journal of Nursing 11 (6) 398-401.
Partsch H., Menzinger G., Mostbeck A. (1999) Inelastic leg compression is more effective to reduce deep venous refluxes than elastic bandages Dermatologic Surgery 25, 695-700.
Molan P.C. (2001) Honey as a topical antibacterial agent for treatment of infected wounds World Wide Wounds November
Molan P.C. (2002) Re-introducing honey in the management of wounds and ulcers: theory and practice Ostomy wound management 48 (11) 28-40

January 2005: Co-amoxiclav & Ciprofloxacin 10 day course.

September 2004: Mr L attended a consultant Vascular surgeon - no different treatment recommended or further tests ordered.

Honey Dressings (Activon Tulle) commenced single layer 30.11.2004 – 14.02.2005

Leg returned to using Acticoat.

(L) Leg c/o honey 07.12.2004 for 2/52 Recommended on Acticoat 20.12.2004. Used Acticoat until 13.01.2005. Recommended Activon Tulle on 13.01.2005 using 2 layers as greenish wound exudates present. Commenced on Amitriptyline 12.04.2007.

Mr L found triple layer of Activon Tulle too painful but is managing two layers.



7th December 2004



16th May 2005



19th August 2005

Since the use of honey began:

- No further antibiotics needed
- New wound healing
- Pain well controlled
- No odour
- Exudate decreasing
- Quality of life improved

Conclusion:

- This appears to show consistent healing
- Reduction in need for antibiotics
- Improved quality of life
- No strike-through
- Patient can participate in hobbies
- Less pain

Is honey the bees' knees?

Authors: Ailsa Sharp MSc BA RGN formerly Tissue Viability Nurse; Margaret Murray MSc FIMBS Senior Specialist Biomedical Scientist; Helen Dorrance MB ChB FRCS (Gen Surgery) Consultant Surgeon. All based at the Victoria Infirmary, Glasgow.

Introduction

This study was designed as a pilot to evaluate the efficacy of using honey in place of the current standard dressings for dehiscent wounds in patients who have had abdominal surgery.

Historically honey has been used as an antibacterial agent; recent studies have shown Manuka honey to have high levels of antibacterial activity against many common wound pathogens including methicillin resistant staphylococcus aureus (MRSA)¹. It is also known to have an osmotic effect, which as well as debriding the wound, inhibits bacterial growth, in turn reducing malodour². There is some evidence that honey stimulates the immune response in the wound, increasing activity of lymphocytes and stimulating macrophages to release cytokines, tumour necrosis factor and interleukin 1 and 63.

Aim

To compare the use of honey and silver in surgical wounds with reference to healing time, tissue type, level of exudate, patient comfort, change in tissue type over the four week study time period or to healing.

Method

Forty patients were to be recruited, all having surgical abdominal wounds that had dehiscent, identified by the surgical teams in the hospital. Patients who joined the study were allocated to either the control (silver) or the study group (honey) through a sealed envelope system. Data collected included type of surgery; patient demographic details; wound characteristics (erythema, exudate levels and tissue type); whether the patient was receiving antibiotic therapy; photographs; ease of application and removal of dressings and pain.

Data collection points were at the start, then weekly for four weeks or to healing, whichever was sooner. Bacteriology wound swabs were taken at each time point and these will be the subject of another report.

Results

Twenty patients were recruited when enrolment closed, 12 to the study group (honey) and 8 to the control (silver) group. Ten were male (50%), ten were female (50%), the ages ranged from 18 to 77 years, 12 patients were under 65 years old (60%), 8 patients were over 65 years old (40%) see Table 1 below.

Table 1: Age and sex of patients

		Sex of subject		Total
		Male	Female	
Age groups:	Under 65	5	7	12
	65 and over	5	3	8
Total		10	10	20

Fifteen patients (75%) completed the study (two lost to follow up and two patients died of unrelated problems). One patient was withdrawn at week 3 at the patient's request.

Three patients (15%) had surgery that did not enter the bowel, seventeen patients (85%) had surgery that did enter the bowel. Exudate levels were higher in this latter group of patients throughout the study (tables 2 and 3).

Table 2: Exudate levels by type of surgery start

		Exudate level			Total
		High	Moderate	Low	
Type of surgery:	Clean	0	2	1	3
	Dry	2	9	6	17
Total		2	11	7	20

Table 3: Exudate levels by type of surgery week 4

		Exudate level				Total
		High	Moderate	Low	None	
Type of surgery:	Clean	0	1	1	0	2
	Dry	1	3	4	4	12
Total		1	4	5	4	14

At the start of the study, exudate levels in the honey group, 17% of patients reported high levels of exudate, 33% moderate levels of exudate and 50% low levels of exudate. In the silver group none reported high levels of exudate, 88% had moderate levels of exudate and only one patient had low levels of exudate at the start - see table 4 below.

Table 4: Exudate level at start

		Exudate level baseline			Total
		High	Moderate	Low	
Primary dressing applied:	Honey	2	4	6	12
	Silver	0	7	1	8
Total		2	11	7	20

Table 5: Exudate level week 4

		Exudate level at week 4				Total
		High	Moderate	Low	None	
Primary dressing applied:	Honey	0	2	1	4	7
	Silver	1	2	4	0	7
Total		1	4	5	4	14



By the end of the study no patients receiving honey were experiencing high levels of exudate and four patients (57%) reported no exudate. In the silver group one patient (14%) was experiencing high levels of exudate, two patients moderate levels of exudate (28%) and four patients (58%) still had low levels of exudate (Table 5).

During the study all wounds improved, of the fourteen patients who completed the study period the tissue either improved (thirteen patients, 93%) or remained the same (1 patient, 7%). Of the four patients who healed completely in the study period, all were using honey.

Five patients (25%) were receiving antibiotic therapy at the start of the study, all completed by week 1; none had to have antibiotics commenced during the study period as a result of wound infection, though one patient was prescribed antibiotics by his general practitioner for a chest infection.

Pain scores were noted using a visual analogue scale of 0 – 10 with 0 being no pain and 10 being high levels of pain. Both groups experienced some pain, which was not unexpected, though by week 4, six patients (84%) in the honey group had no pain and four patients (57%) reporting no pain in the silver group (table 6).

Table 6: Highest pain scores at dressing change

	Start	Week 1	Week 2	Week 3	Week 4
Honey	8	7	10	4	2
Silver	7	7	4	4	3

Surrounding skin was not an issue during the study, with the exception of one patient who had reacted to all adhesive dressing tried prior to the study; this settled quickly using an absorbent pad and tape as a secondary dressing. All dressings were reported as easy to use and remove by nursing staff.

Discussion

Patients were very receptive to the idea of using honey in wound management and happy at the prospect of using a natural product. Numbers were small in this study; however, interesting trends were noted and should be followed up in a future larger study. The patients recruited to the study were typical of the age and type of surgery found in the hospital's surgical wards.

Honey is reported to increase the level of exudate as it has an osmotic influence on the wound. The management of exudate is an issue with some wounds and indeed during this study managing exudate was, at times, a problem. Current standard foams were not able to absorb the levels of exudate produced in the study patients without being changed several times a day. An alternative secondary dressing was sought and a super absorbent pad was used with success and was considerably cheaper per unit cost (Eclipse, Advancis Medical, Nottingham, UK). Despite the high levels of exudate during the study, by week 4, the honey group had more patients with no exudate than the silver group.

Now that other Manuka honey dressing types are available on drug tariff in the UK, nurses will have more choice for the optimum method

of applying Manuka honey to the wound and managing the exudate rather than relying on the tulle dressing as in this study. No patient developed a wound infection during the study. The number of patients was small, but this is still encouraging as infection is of great concern in the NHS. A further presentation is planned using the results of the wound swabs taken in the study, looking at the flora contained in the wounds and the changes over time within the two groups of dressings.

Pain is often cited as a reason for caution when using honey. All patients were advised that there have been reports of discomfort when using honey in wound care. No patient withdrew from the study as a result of pain at the dressing change. Indeed the pain scores may have more to do with the dressing technique as one patient reported high pain scores 'depending on who was changing the dressing rather than the dressing itself'. In the author's experience pain can be a concern, however, explaining the potential to the patient and how it settles within a short period of time is often enough to allay fears.

While managing exudate was not an issue once the alternative secondary dressing was found, maceration and excoriation can be a problem with highly exuding wounds. This was not encountered in this study, in the one patient who had a history of skin reactions (to the dressing, adhesive or exudate or combination of the above) all reactions settled very quickly, despite exudate discharging on to the skin.

Limitations

Recruitment of subjects was undertaken by one researcher and consequently when the researcher was on sick leave, two patients were lost to follow up and potential subjects were not recruited.

More subjects would have been recruited, however, the researcher left the post and so recruitment stopped.

The camera for recording wound photographs was stolen during an office break-in at the hospital and so some photographs were not obtained.

Acknowledgements

Staff in the Victoria Infirmary in Glasgow were invaluable in identifying patients and continuing the nursing care of these patients, particularly with wound management following the protocol in the study.

Some patients were discharged to the community and district nursing staff were also very helpful in following the study protocol for wound management.

The cost of bacteriology swabs was absorbed by the Microbiology Laboratory.

Honey dressings were supplied free of charge by Advancis Medical (Nottingham, UK) but the company had no other input into the study.

References

1. Cooper, RA, Molan, PC, Harding, KG. (1999) Antibacterial Activity of Honey Against Strains of *Staphylococcus aureus* from Infected Wounds. *J R Soc Med.* 92:6 283-285.
2. Douglas, V. (2001) Living with a Chronic Leg Ulcer: an insight into patients' experiences and feelings. *Journal of Wound Care* 10 355-360.
3. Molan, PC. (1999) The Role of Honey in the Management of Wounds. *Journal of Wound Care* 8 (8) 415-8.

Pure manuka honey with the brand name Activon - an alternative to systemic antibiotic therapy in the prevention of recurrent infections in cancer wounds?

Experience from the use of Activon in the treatment of malignant ulcerations, 27 patients. The wound outpatients' department, Radiumhemmet, Karolinska Hospital. Ingrid Roström-Björn, oncology nurse specialising in malignant tumour wounds.

In Grandma's days...There was a conference in 2005 at which a number of exhibitors displayed wound-related therapeutic products and wound-dressing materials. A question was directed at me from one of the exhibition stands: Do you know about the bactericidal effect of Manuka honey?

A memory from my childhood came to mind: I had come off my bicycle and grazed my knee the day before I saw Grandma. The wound was sore, it had become infected and it was producing pus.

When Grandma saw my knee she said **"Come on, let's clean up that wound and put some honey on - that will make it better..."**

She cleaned out the wound with water and put on a linen bandage with honey - straight from the jar. The next morning the wound was clean and presumably healed quickly, because I do not remember having any more trouble with it. There was just a scar left... for a long time. Grandma was a clever woman - she lived in the country and knew a lot about "household remedies". She certainly would not have been able to explain why honey had a bactericidal effect - all she knew was that it "always helped"... But every now and then during my twenty years as a nurse specializing in wounds I have found myself wondering why? Was there any explanation other than the sugar?

Then, at the conference, I came into contact with Activon, pure manuka honey from New Zealand. With documentation from "The Honey Book", "HONEY A modern wound management product", and especially chapter 2 "The antimicrobial activity of honey", which provides interesting information on the composition of honey and helps to answer my question "why". The event itself could not have happened at a better time.

At the time we had a patient with a large ulcerating primary breast cancer, which proved resistant to treatment with chemotherapy or systemic antibiotics. She was a keen advocate of alternative medicine and had complete confidence in her naturopath! The bacterial infection in the degrading tumour tissue produced a strong odour and added to our frustration at not being able to give any treatment. Local antibacterial therapy was the only option for which we could obtain approval, and initial treatment against anaerobic bacteria was initiated using local antibiotic therapy, with good results. The patient then agreed to try out treatment using Manuka honey, Activon, with a view to minimizing the subsequent bacterial attacks that we knew would develop. During a period of a little over two months, no infection developed.

Background

For cancer patients with malignant tumour wounds, infection is a major and recurrent problem that impacts significantly on the patient's quality of life and, in the worst cases, has a negative effect on the antitumour therapy.

Critical colonization/infection results in increased wound secretion, an increased tendency to haemorrhage and worsened odour. The effects of the cancerous disease and the antitumour therapy on the patient's

immunological defence involve an increased risk of sepsis. Wound infections should always be treated initially with systemic antibiotics in order to treat the acute phase.

Repeated infection treatments using systemic antibiotics are usually required in order to keep the degrading tumour tissue free from infection.

However, systemic treatment affects the intestinal flora amongst other things, resulting in diarrhoea. For patients with malnutrition, this means an additional negative effect on their general status.

It would spare the patient considerable discomfort if a local therapy could be used to keep the surface of the malignant tumour free from critical colonization/infection.

This is the challenge, since wounds often require long-term treatment at the patient's home, with the support of several care providers.



*Exophytic breast cancer growth
- 3 weeks after full-dose radiotherapy.*

Activon treatment once a day: Wound culture shows normal skin flora!

For patients who, for various reasons, cannot or do not want to accept systemic antibiotic therapy, local therapy aimed at combating wound infections has been the only option to be accepted by the patient.

Aim

To establish whether local treatment using pure manuka honey with the brand name Activon reduces the risk of critical colonization/infection and thereby the need for systemic antibiotic therapy.

Activon is supplied in a tube, and it has a somewhat viscous consistency which becomes less viscous on contact with body heat, making it easy to cover the wounds despite the irregular growth and structure of the ulcerating tumours. Its consistency means that it goes a long way.



Method

Wound treatment using Activon was initiated at the wound outpatients' department in consultation with the attending oncologist and was continued in the patient's home, in collaboration with the nurse as part of home nursing, or the district nurse as part of primary care.

Patients returned to the wound outpatient's department at Radiumhemmet once a week or every other week for follow-up and photodocumentation.

Wound cultures were taken on a random basis.

Some examples of malignant tumour wounds treated using Activon:



Fig. 1

Breast cancer. Undergoing chemotherapy, prior to radiotherapy.

Local treatment using Activon. Wound culture taken from the edge of the yellow necrosis showed normal skin flora.



Fig. 2

The same patient three weeks after full-dose radiotherapy.

Local treatment using Activon: wound culture taken from the edge of the yellow necrosis showed Staph. aureus, beta haemolytic group G streptococci and Proteus mirabilis but no symptoms of infection! Good wound healing.



Fig. 3

Squamous cell carcinoma. Skin graft two weeks after radiotherapy.

Penicillin treatment started three days previously. Activon started after cleaning of the wound area. Wound treatment twice a day for 4 days, thereafter once a day.

Symptom-free after 4 days. Entirely healed after 15 days. Skin graft intact.



Fig. 4

Soft tissue sarcoma of the heel. Antitumoral therapy by means of chemotherapy followed by radiotherapy. Local treatment using Activon: free from infection in 2 months 17 days. This was followed by progression of the disease, resulting in surgery.

Patient material

- Age distribution: 38-76. Mean age: 58
- 27 patients were treated using Activon, for various periods.
- 24 patients were followed up at the wound outpatient's department, where the treatment could be assessed.
- All had ulcerations with a wound surface area of > 8 cm, 13 superficial, 11 deep.
- All patients were undergoing antitumoral therapy.

Distribution of tumour groups:

Breast cancer	11
Head-neck cancer	2
Gynaecological cancer	3
Squamous cell carcinoma	3
Basal cell carcinoma	2
Rectal cancer	1
Malignant melanoma	2

Results

5 of the patients who were treated using Activon developed wound infections due to progression of their cancer and were therefore treated using systemic antibiotics.

19 of the patients did not show (for at least 3 weeks and in most cases 18 weeks) any signs of critical colonization or infection during the periods in which Activon treatment was provided.

Wound cultures sometimes showed bacterial growth, though without any signs of infection.

The longest treatment period using Activon is 4 months and 16 days, and this is also the best documented, since the patient refused systemic antibiotic therapy.

During the treatment period there were no symptoms of infection in the form of fever or odour.

Summary

Local treatment of malignant tumour wounds using Activon pure manuka honey produced surprisingly good results. During the treatment period it effectively reduced the risk of critical colonization/ infection and thereby the need for systemic antibiotics. It was possible to reduce wound treatment events for most patients to every second or third day.

NB: In view of their right to anonymity I have chosen to omit the initials and birth years of the patients treated with manuka honey, since this article does not claim to be a scientific study.

Literature

The Honey Book, "HONEY, A modern wound management product".

Richard White PhD, Department of Tissue Viability, Aberdeen Royal Infirmary, Scotland

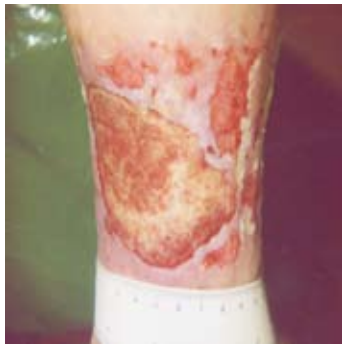
Rose Cooper BSc, PGCE is Principal Lecturer in Microbiology, University of Wales Institute Cardiff, UK

Peter Molan BSc, PhD is Professor of Biological Sciences and Director of the Honey Research Unit, University of Waikato, New Zealand.

Activon honey in the treatment of leg ulcers

The use of Activon Tulle on mixed aetiology lower leg ulceration

Jackie Stephen-Haynes - Wounds UK Publishing. Honey: A modern wound management product.

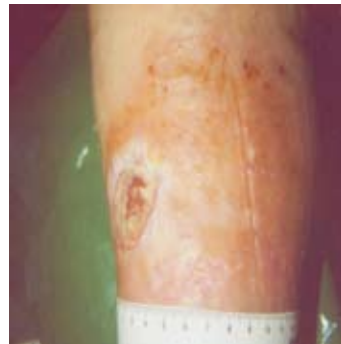


Mrs H is aged 88 years with mixed aetiology lower leg ulceration for many years and has a history of Osteo-arthritis, psychotic episodes and is obese.

Mrs H is registered blind and has been wheelchair bound for thirty years. There have been many episodes of non-concordance that have challenged both medical and nursing staff. The long standing ulcers on both of Mrs H's lower legs showed signs of deterioration despite the use of a modified compression regime and various appropriate topical dressings. Activon Tulle was applied to the ulcers on both lower legs and extended to cover all of the surrounding macerated skin. The Activon Tulle dressing



was easy to apply and remove but the initial application did cause a degree of discomfort and stinging. (Subsequent application however yielded minimal discomfort according to Mrs H). Daily dressing changes took place initially, and then as the condition of both the ulcer beds and surrounding skin improved this was reduced to alternate days and eventually twice a week. Rapid improvement in the peri-wound skin was quite dramatic over the first four weeks with the initial affected areas of over 10cm square healing completely and improvement in the wound beds of each ulcer apparent. Overall the use of Activon Tulle on Mrs H's ulcers and badly macerated surrounding skin was a great success during the first



four weeks of application. All broken, macerated skin adjacent to both ulcers, healed and the ulcer beds appeared much healthier.

The use of Activon honey on a non-compliant patient with chronic venous leg ulcers

Ann Smith RGN District Nursing Sister - Stocksbridge, Sheffield



Mrs H is aged 64 years and presented to District Nurses with bilateral leg ulcers and following Doppler examination this was found to be venous in origin. Mrs H was having both legs re-dressed 3 times a week with many dressings but was

non-compliant and complained of severe pain and discomfort. The patient was returning to clinic every day (twice some days) complaining of pain, offensive odour and excessive exudate.



There were many failed attempts at treating this lady with various antimicrobials and dressings, and advice given on a healthy diet and exercise with which the patient did not comply. Mrs H's GP and nursing staff spoke to her about the possibility of surgical

intervention maybe amputation of both legs, this was a shock to the patient. Fortunately we were introduced to the Activon range by the Advancis representative. The clinical staff elected to use the Activon



range as a last attempt to resolve this patient's condition. We applied the products to the patient and after two applications the odour had decreased, the exudates were slightly less and there was no pain on removal.



The patient saw an improvement and therefore began to comply with the treatment regime. As a result of this Mrs H began gentle exercise and changed her diet, which improved her condition holistically. We have continued this treatment 3 times a week for almost 6 months and have now almost healed the ulcers. The patient has now been measured for support hosiery.



Mrs H is now fully compliant with treatment, has lost 2 stones in weight and has a much healthier life style.



The use of Actilite and four layer bandages in the management of venous leg ulceration

Leanne Cook, Vascular Nurse Specialist - Pinderfields General Hospital

Mrs T is a 41 year old lady who was referred to the vascular clinic by her district nurse services due to non healing ulceration. She presented with an ulcer to her right medial which had been present for 10 weeks.



In community she was being dressed with non adherent dressing and four layer bandage, with little signs of improvement. Mrs T gave a history of previous ulceration over the same area 2 years ago, which successfully healed within 12 weeks with four layer compression bandaging. Other past medical history to note included DVT for which she continued to take Warfarin. She complained of constant moderate pain from the peri-ulcer area. On

examination all peripheral pulses were palpable and her ABPI = 1.1 with triphasic tones. The ulcer bed measured 5cm x 6cm with superficial slough at the base; there was also evidence of maceration. Her limb was slightly oedematous with no evidence of cellulitis. The aetiology of the ulcer was confirmed as venous. Actilite (Advancis Medical) was applied



to the ulcer bed to provide a moist environment with the added benefit of providing antimicrobial protection, four layer compression was continued. Mrs T was given lifestyle advice, she was also commenced on regular paracetamol with codeine phosphate for breakthrough and a venous duplex scan was requested.

Six Weeks

Six weeks later Mrs T returned to clinic the ulcer bed had substantially reduced in size to 2cm x 1.5cm with a healthy granulating wound bed, the maceration

had reduced and also had her pain, now only needed the paracetamol occasionally. Her venous duplex showed deep venous insufficiency but no superficial insufficiency.

Conclusion

Actilite dressing in combination with four layer bandage promotes healing and provides significant improvement in patients live with venous ulceration.

Activon honey in the treatment of the diabetic foot

An effective treatment for diabetic patients

Catherine Gooday, Principal Podiatrist – Diabetes, Elsie Bertram Diabetes Centre, Norfolk & Norwich University Hospital

This type 2 diabetic gentleman presented in the Accident and Emergency department in May 2006. He was reviewed in A&E by a member of the podiatry team. On examination he had extensive blistering to the L/Hallux and cellulitis extending to mid-foot.

Podiatric assessment revealed peripheral neuropathy with absent monofilament perception and vibration thresholds of greater than 25 volts. Foot pulses were palpable and ABPI within normal ranges. At this time the toe was sharp debrided and dressed with a non-adherent foam dressing.

Despite the serious nature of the presenting complaint it was decided that it would initially be treated with oral antibiotics and in line with local guidelines he was prescribed Erythromycin 500mgs qds, Metronidazole 400mgs tds and Ciproxin 500mgs bd. However the patient was made aware of the seriousness of his condition and advised that should there be any deterioration he would then be admitted for intra venous antibiotics.

He was reviewed in the diabetic foot clinic four days later and the infection had responded well to treatment. However there was extensive ulceration, with hyper granulation tissue to the lateral aspect of the L/hallux. The wound was probing approximately 5mm deep and was complicated by fibrous slough.

The wound was sharp debrided and Activon applied with a non-adherent secondary dressing. The patient was issued with the tube of Activon and given instructions on its application. The foot was redressed every 3 days by the patient, and reviewed in clinic every ten days.

Initial results with the Activon in combination with good podiatric care have shown a significant improvement in the wound. The wound is now clean and granulating and much smaller in size. The patient remained on oral antibiotics for 4 weeks, and since then has not suffered any repeated infections.



Activon honey in the treatment of pressure sores

The use of the Algivon dressing on a grade 4 pressure ulcer

Georgina Preston, Tissue Viability Nurse - Northamptonshire



Mr B is a 63 year old gentleman who was discharged from the secondary care setting with a grade 4 pressure ulcer to his left buttock. He had been in hospital for less than two weeks with a chest infection

and the ulcer had developed rapidly during this time.

Mr B was at high risk from developing pressure ulcers as he had previously developed grade four ulceration. He was tetraplegic, unable to change his position independently and suffered from chronic back pain making the only comfortable position lying on his back.

On examination, the wound bed was covered in devitalised tissue, the wound was malodorous and exudate levels were high. The surrounding skin was macerated and deterioration of the wound was a possibility. As a multi-disciplinary team we were concerned about the lack of repositioning of Mr B due to his chronic back pain, his heavy smoking and poor dietary intake.

An alternative alternating air replacement mattress was put in place, pain relief was addressed, dietary supplements commenced and in

agreement with Mr B, smoking was limited to one hour per day when seated in his wheelchair.

Algivon honey and foam dressings were used to aid debridement of the wound and to reduce malodour. The wound was redressed every 24 - 48 hours depending on the exudate levels.



Significant improvement was noted over the first few weeks. The Algivon dressing reduced the malodour and promoted fast autolytic debridement of the wound bed to prepare for wound healing. Within four weeks the wound bed was 100% free from devitalised tissue

enabling the commencement of topical negative pressure. Three months on, the wound is almost healed and the patient, relatives and nursing team are pleased with the progress made. Mr B is feeling much better with improved appetite and general well being.

Algivon dressings have been used successfully on many of our patients to aid autolytic debridement of infected, malodorous wounds with devitalised tissue. Due to its clinical and cost effectiveness the PCT has included the Activon & Algivon range on the Dressings Formulary.

The use of Activon Tulle on a grade 4 pressure ulcer

Jill Hardman, Community Matron - Heart of Hounslow Centre for Health

Mr S is a 67 year old man with severe Parkinsons disease, diagnosed in 1992 and dementia in 2006.

At the time of admission to the nursing home the patient had developed a grade four pressure ulcer on the left hip, he is currently immobile and requires all aspects of nursing care, he was referred to community matron via the tissue viability service. This patient had frequent hospital admissions for urinary tract infections and dehydration. Community matron picked up case and began case management.



GP visits the home regularly and reassess Mr S as when appropriate. When there are early signs of urinary tract infections antibiotics are started promptly and fluids via peg increased to stop dehydration and possible sepsis therefore admission avoidance.



02/03/07: Necrotic and sloughy tissue present. Surrounding skin very red showing signs of cellulitis.

Dressing regime changed to Activon Tulle 10cm x 10cm dressing. 3M™ Cavilon™ No Sting Barrier Film to wound edges. Secondary dressing, Allevyn Plus adhesive. Wound highly exuding. Mr S appeared to be in pain at dressing changes regular paracetamol prescribed and administered via peg prior to dressing changes.



05/03/2007: Cellulitis resolving. Mr Smith afebrile.



14/03/07: Slough now debriding, continue daily dressings.



20/03/07: Sloughy tissue now debrided. Daily dressings.



05/04/07: Small amount of slough remaining. Some slough sharp debrided. Daily dressings with honey and Allevyn adhesive.



Wound bed now 100% granulation tissue. No maceration to surrounding skin. No pain experienced at dressing changes.

Activon Tulle dressing continued. Allevyn adhesive normal now used and dressing size reduced to 12.5cm x 12.5cm. Dressing changes now every 2-3 days depending on exudate. No signs of skin maceration.

Patient's condition now stable and pressure ulcer healing well.



Activon honey in the treatment of a fungating tumour

Caroline Farrant, Wound Care Specialist Nurse, South Wiltshire Primary Care Trust (SWPCT)

There have been few studies in the UK which have accurately identified the number of patients treated with this type of wound, but according to Thomas (1992) patients with these wounds prove to have significant problems not least the issue of morbidity or burden on NHS resources.

The management of this type of wound is usually considered to be palliative (Grocott 1997) with goals of care aimed at providing a realistic quality of life and symptom control. For clinicians finding dressing that have the capabilities of dealing with the complexities of these wounds (Grocott 1995) is an ongoing issue.

This study is aimed at evaluating the use of Activon Tulle (Advancis Medical); a gauze tulle with Manuka honey, as a primary dressing with an absorbent secondary pad (Eclipse - Advancis Medical). Whilst the nursing assessment was based on Roper's (1985) Activities of Living, this study will concentrate on the wound care aspect and the management of odour and exudate.



Jason is a 39 year old gentleman who was originally diagnosed with non-Hodgkin's lymphoma in 1994 following numerous operations for a non-healing abscess on his buttock which when biopsied finally confirmed the diagnosis.

In the following years he had

courses of radiotherapy and trips to London for various alternate treatments which also included the policies of the Bristol Cancer Centre (dietary and relaxation). He had declined any offer of chemotherapy.

Jason's disease had progressed to lymphoedema of his left arm, a large fungating tumour on his left shoulder and multiple dry cutaneous lesions on his left lateral chest wall, left arm and around his left shoulder when he was referred to the district nurse team. He had declined referral to the local hospice and palliative care team and following admission for IV antibiotics for an episode of AIE (Acute Inflammatory Episode) of his lymphoedema declared he would not have any further antibiotics.

On examination he was found to have an excess of dry scales over his anterior chest wall, areas of erythema, multiple small lesions, grade II lymphoedema and a grade II lesion with a large area of devitalized tissue, copious exudates and odour. He was pale and cachexic but denied being anaemic, the slightest exertion caused shortness of breath and he appeared weak and tired. The tumour and lymphoedema had caused obvious distortion and subluxation of his left shoulder causing physical problems with movement and dressing. Initially his treatments consisted of a hydrofibre, a carbon pad, a silver impregnated charcoal dressing, surgipads (20x40cm) six a day, and tubifast (a haemostat was available if

bleeding should occur) but it was obvious that these dressings did not have the capacity to contain or manage the wound exudates or odour. On consultation Jason denied pain completely, but he was never able to tolerate any compression even crepe for his lymphoedema. He stated that the odour and exudates were to him the most distressing problems.



He then requested that honey be tried. Collier (1997) suggests that it is important to ensure that individuals needs and wishes are addressed to promote autonomy and quality of life. Activon Tulle (supplied by Advancis Medical) was therefore applied with an absorbent pad as a secondary dressing (Eclipse supplied by Advancis Medical).

Jason's dressings continued to be changed daily. The dry crusts were treated with Dermol 600 and Dermol 500. Jason although asked verbally denied any drawing or stinging sensation when the Activon Tulle was applied. Despite the location of the tumour the dressing was easy to apply and easy to remove. Although observations have recorded that honey poses problems when

liquefied (Lawrence 1999). Both Jason and the district nurse team scored the odour on assessment as strong despite the use of carbon. After one week the odour score was down to moderate and within the second the odour score went from slight to no odour. For Jason it enabled him to feel part of his family again and not feel ashamed. During the second week the wound had self debrided and exudates management continued to improve using Eclipse. From six surgipads (20x40cm) per day the padding was reduced to one - the Eclipse. This was held in place using a made to measure retention vest (available from SDH) which Jason could manage despite his physical problems. No maceration was noted and it was felt without the Eclipse dressing changes would have increased to two/three times a day.

His final thought can only begin to sum up what it must be truly like to live with this disease. 'Can we begin to imagine what it must feel like for a patient to see part of his or her own body rotting and to have to live with the offensive smell from it, see the reaction of visitors (including doctors and nurses) and know that it signifies a lingering death'. Doyle (1980)

Sincere thanks to 'Jason' and his family, and the district nurse teams of Downton/Whiteparish surgeries, South Wiltshire PCT and Locking Hill Surgery in Stroud. Costwold and Vale PCT Dressings supplied by Advancis Medical

Collier M, 1997. The Assessment of Patients with Malignant Fungating Wounds: An Holistic Approach (part 2) Nursing Times 93:46 Supp 1-4

Grocott P, 1995. The Palliative Management of Fungating Malignant Wound: Preparatory Work in: Richardson A and Wilson-Barnett JW Nursing Research in Cancer Care. London: Scutari Press

Lawrence JC, 1999. Honey and Wound Bacteria: Journal of Wound Care. April Vol 8 no 4

Grocott P, 1997. Evaluation of a Tool used to Assess the Management of Fungating Wounds. Journal of Wound Care: Oct Vol 6 no 9

Roper N, 1985. The Elements of Nursing. Edingburgh, Churchill Livingstone

Thomas S, 1992. Current Practises in the Management of Fungating Lesions and Radiation Damaged Skin, Bridgend: Surgical Materials Testing Laboratory

Activon honey in the treatment & prevention of MRSA

An effective treatment for chronic wound infections

J Honeysett RGN, BG Visavadia, M Heliotis, M H Danford
Maxillofacial Unit Royal Surrey County Hospital Guildford Surrey UK

Background

The emergence of drug resistant bacteria particularly MRSA has posed a great problem with the management of chronic wound infections.

Many studies (1-3) have demonstrated that honey has antibacterial activity in vitro, and a small number of clinical case studies have shown that application of honey to severely infected cutaneous wounds is capable of clearing infection from the wound and improving tissue healing. The osmotic effects and pH of honey also aid in its antibacterial actions. It is also known that honeys derived from particular floral sources in Australia and New Zealand (*Leptospermum* spp) have enhanced antibacterial activity, and these honeys have been approved for marketing as therapeutic dressings.

Methods

We have been using Manuka honey tulle dressings over the last six months in our wound care clinic and on the wards. We present some of the successes we have had in treating recalcitrant surgical wounds, within the maxillofacial unit, which have proved resistant to antibiotic therapy. The honey impregnated dressing is applied directly on to the surface of the wound and is then covered in a second absorbent layer to contain the honey. Dressings are changed every two to three days.

Case 1

5 month old donor site wound MRSA positive and no signs of healing.



Before Manuka honey dressing



Two weeks after dressing

Case 2



Ulcerated area of neck wound present for four weeks



Progress after one week of Manuka honey dressing area now healed

Case 3



Radial forearm graft site



MRSA positive radial forearm flap donor site five weeks following Manuka honey dressing



Discussion

The management of chronic wounds in the maxillofacial clinic is often a frustrating and difficult task, especially those infected with MRSA and those that fail to respond to normal management. We have now over six months experience with honey dressings and these are now among our first line of treatment for early wound infections. No adverse reactions have been noted even in diabetic patients.

Antibiotic resistance and immunocompromised patients can make for a poor end result. Manuka honey tulle as a wound dressing is useful in maintaining a moist wound environment and acts as an autolytic debriding agent where there has been wound breakdown and where necrotic tissue requires removal.

References

- (1) Lusby PE, Coombes A, Wilkinson JM. Honey: a potent agent for wound healing? *J Wound Ostomy Continence Nurs.* 2002 Nov;29(6):295-300.
- (2) Natarajan S, Williamson D, Grey J, Harding KG, Cooper RA. Healing of an MRSA-colonized, hydroxyurea-induced leg ulcer with honey. *J Dermatolog Treat.* 2001 Mar;12(1):33-6.
- (3) Cooper RA, Molan PC, Krishnamoorthy L, Harding KG. Manuka honey used to heal a recalcitrant surgical wound. *Eur J Clin Microbiol Infect Dis.* 2001 Oct;20(10):758-9.



Activon honey in the treatment of an infected dehiscenced abdominal wound

An effective treatment for infection prevention and treatment

Jivka Dimitrova - Tissue Viability Specialist Nurse, The University Hospitals of Leicester NHS Trust

A 71 year old lady referred to the tissue viability team for assessment and advice on management of infected and dehiscenced abdominal laparotomy wound. She had a history of rheumatoid arthritis (which was treated with steroids), right total knee replacement, hypothyroidism and anaemia.



Upon initial assessment the patient presented with two areas of dehiscence. Proximal area approximately 5cm x 2cm x 0.5cm, covered with thick patches of devitalised, necrotic tissue which had an offensive odour. Distal area approximately 12cm x 7cm x 7cm, again 100% of the base of the wound covered with thick, soft, necrotic tissue. The distal end of the wound was treated with topical negative pressure therapy, whilst the proximal end, with low exudate levels, was

treated with Actilite to provide antibacterial properties, encourage debridement and reduce inflammation.

The Actilite dressing was secured with a film dressing and changed every three days. 1 week later the proximal wound was approximately 90%

clean and granulating, no evidence of infection (no systemic antibiotics were administered throughout the treatment), reduced local pain and no malodour. On next planned review, the proximal wound continued to show signs of improvement and was almost 100% clean and granulating.



Activon honey in the treatment of burns

The use of Activon honey on a burn to the upper left arm

Jackie Stephen-Haynes - Wounds UK Publishing. Honey: A modern wound management product.

Mrs A is aged 88 years and mobile. She sustained a burn on her left upper arm following a fall onto an electric fire.



The area measured 20cm x 15cm and had been allowed to dry out. Initial treatment with hydrogel aimed to soften and promote autolysis in order to remove the eschar. Wound swab showed MRSA infection, which was treated systemically with Amoxicillin and Flucloxacillin. Mrs A found treatment

distressing and following twelve days of hydrogel treatment little progress had been made. The eschar remained dry causing the wound to

be tight and painful. Mrs A agreed to try honey to promote the autolysis. Softening of the eschar was seen within a week and the wound was less painful. Within three weeks the wound was visibly debriding. Within ten weeks, total debridement had taken place and there were visible signs of large areas of epithelialisation. Mrs A found this dressing comfortable to wear and never experienced any pain following application.



Frequently Asked Questions...

This section is aimed at providing the answers to the most common questions we receive about our Activon honey dressing range, if you can't find the answer you are looking for, please do not hesitate to contact us on 01623 751500, alternatively email us at info@advancis.co.uk.

Honey and diabetic patients

Can the honey dressings be used on diabetic patients?

While there is no known case of honey influencing blood glucose levels adversely, it is recommended that the blood sugar levels of patients with diabetes are monitored when using honey.

Application

Can the Activon Tulle be unfolded to apply?

Activon Tulle can be unfolded and applied, however this will reduce the level of honey at the wound bed. The triple layer of the gauze delivers the optimum amount of honey to the wound bed therefore unfolding the dressing would affect efficacy.

Can Activon honey be used under compression bandaging?

The Activon range can be used under compression bandaging. The amount of exudate would influence your choice of Algivon, Activon Tulle or Actilite with an appropriate absorbent secondary dressing such as Eclipse.

As compression bandaging is ideally designed to be left in place for a full week Algivon may be appropriate due to the fact that, in the presence of exudate, the alginate fibres swell, forming a sodium-calcium gel on their surface which combines with the honey. The resulting honey-gel complex prolongs the retention of honey at the wound site, increasing effectiveness. The secondary dressing must be appropriate to the exudate level and will influence wear time.

Does the honey sting on application?

There have been reports of honey causing a stinging pain when applied to the wound. This appears to be due to the acidity of honey, as pain is not experienced when neutralised honey is used. The pain experienced does not seem to be indicative of damage being done to the wound, as wounds have healed rapidly in cases where patients have endured the pain to benefit from the stimulation of healing that they see, and in cases where analgesia has been used. There is evidence that honey stimulates nociceptors (Al-Swayeh and Ali, 1998), nerve endings that create a pain sensation in response to heat, acidity and some organic chemicals. It may be that it is not a direct effect of the acidity of honey, as neutralising honey could affect the ionisation of some of its components and make them unable to fit in the nociceptors. It is possible that in some patients these nerve endings are sensitised and are more responsive to the acidity and/or the component organic chemicals of honey.*

What are the contra indications for Activon honey?

Known allergy to bee-venom. Although no known instance of increased levels of blood sugar in patients with diabetes. It is advisable to closely monitor the levels. Increased pain may be experienced due to acidification.

How do you know whether to use Algivon or Activon Tulle?

This would be dependant on the grade of wound and the level of exudate. In a heavily exuding or necrotic wound your choice would be Algivon however if the wound is producing moderate exudate then Activon Tulle would be the dressing of choice. A guide to Activon dressing selection can be found on page 4.

How long can the honey dressings be left on the wound for?

The dressings can be left in place for up to seven days, again this would depend on the exudate levels produced by the wound and the appearance of the dressing. As long as the dressing has maintained its original colour (the honey is present) it can remain in situ.

Can Activon Tulle or Algivon be folded and put into a cavity?

Both dressings could be put into a cavity wound, again dependant on exudate levels. If there is a possibility of sinus within the wound base then Activon Tube should be used to ensure that the honey reaches the entire wound bed.

Can Activon Tube be used as well as the honey dressings together e.g. Activon Tulle and Algivon.

Activon Tube can be used alone for difficult to dress wounds or with Activon Tulle or Algivon to top up the dressing if the honey is no longer present. Please also see reference to cavity wounds above.

Is Activon Tube single use only?

Activon Tube is designed for single patient use. The product is delivered sterile in a sealed tube but can no longer be classed as sterile once the tube has been opened therefore we recommend single use only to avoid any risk of cross contamination.

Reactions

What happens to the exudate when Algivon is being used?

Algivon contains calcium alginate which forms a gel when in contact with exudate however an appropriate secondary absorbent dressing will be required such as Eclipse or Eclipse Adherent.

Sometimes the surrounding tissue is wet after a honey dressing has been used. Is this likely to cause damage?

Provided that honey remains in contact with the wound and does not dilute and completely wash away before dressings are changed, then it is non-stick. It is also antimicrobial with no known resistance, aids debridement of necrotic tissue and slough, controls fluid through osmotic potential, and, in combination with alginate or simple backing dressings, prevents the maceration often seen with hydrogels and hydrocolloids.



* Wounds UK Publishing. Honey: A modern wound management product.

Make Activon honey your first choice dressing

Please use the table below based on clinical assessment.

Clinical activity/need	Current common use product	Honey alternative
Debridement: hard/leathery black or dark brown softening yellow brown eschar sloughy/wet	Hydrogel Hydrogel sheet Hydrocolloid; hydrofibre; alginate	Liquid/gel honey* Honey tulle* Honey alginate
Draining/cleaning sinuses	Capillary action absorbents	Liquid honey/honey soaked ribbon gauze or honey tulle strips
Cavity management	Alginates; hydrofibres; foams/hydropolymers	Honey alginate - using soft gauze to back fill larger cavities behind the primary honey dressing - small cavity/depressions managed with liquid/gel honey and occlusive film dressing
Critically colonised wounds	Silver and iodine products	Honey Alginate/Tulle/Actilite
Infected wounds	Silver and iodine products with systemic antibiotics	Honey alginate/tulle or Actilite with systemic antibiotics
Overgranulation	Topical steroid or steroid/ antibiotic formulations; silver nitrate; silver and iodine dressings; local pressure; foams/ hydropolymers	Honey tulle/Alginate (does not require localisation to wound - it can overlap surrounding skin without causing maceration)
Indolence (no granulation; no edge advancement)	Protease inhibitors; silver or iodine products; sharp debridement	Honey tulle/Alginate
Odour control	Metronidazole gel; silver products; charcoal products	Honey tulle or liquid honey - honey alginate might be useful in fungating breast wounds if the alginate maintains its haemostatic properties

Wounds UK Publishing. Honey: A modern wound management product.

For further information or samples, please contact us:

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