

Three case studies, detailing the effective use
of Hydrocoll® in different wounds;
a hyperalgesic malleolar ulcer, a second degree burn and a leg ulcer.

Hydrocoll®
and its many uses.



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Welcome

to Issue 12 of WoundFORUM



Here at HARTMANN we are continually striving to reduce our impact on the environment, if you would prefer to receive Wound Forum via email, please do not hesitate to contact me with your email address details.

Welcome to the autumn edition of WoundForum the publication from the Wound Management division of PAUL HARTMANN (GB) Ltd.

The latest buzz in wound care may not be around hydrocolloid dressings, but they still play an important part in wound healing. In the 1960's hydrocolloid was used experimentally to treat skin excoriation caused by effluent from surgical stomas and gastro-intestinal fistulae⁽¹⁾. Having proved successful, the first hydrocolloid dressings were born and in the early 1970's, the first studies were produced describing successful use in the management of leg ulcers.

The main focus of this issue is to re-introduce you to Hydrocoll® the gelatin free hydrocolloid dressing from HARTMANN. We bring you three case studies highlighting effective use with very different wound aetiologies; "Sudden manifestation of hyperalgesic malleolar ulcers", "Extensive superficial second degree burn" and "Recurrence of multiple leg ulcers" reminding us that there is still a place for an old favourite.

The remaining pages within the issue are dedicated to HARTMANN news with the opportunity for us to introduce you to our new sales management team. Finally, turn to page 11 for your chance to win a clinician's pocket guide to Chronic Wound Repair.

WoundForum is distributed free of charge twice a year, if you would like to subscribe or if you have any suggestion for topics for future issues please do not hesitate to contact me.

Enjoy and see you in the spring...

Sally Nesta

sally.nesta@uk.hartmann.info

Congratulations to Julie Sturges, Tissue Viability Nurse at Buckinghamshire Healthcare NHS trust, she wins a silicon fob watch with 9 interchangeable cases after successfully completing the word search.

References

⁽¹⁾ Thomas S. Surgical Dressings in Wound Management. Medetec, 2010

Hydrocoll® and its many uses.



Hydrocoll® Gelatin-free hydrocolloid wound dressing.

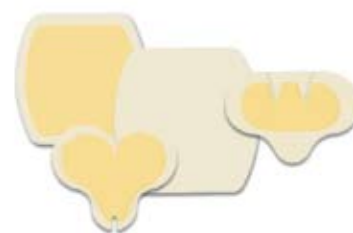
Hydrocoll® is made of absorbent and expansive hydrocolloids that are integrated in an auto adhesive elastomer. On the outside, this elastomer has a covering layer consisting of a semipermeable polyurethane film which forms a reliable barrier against bacteria and water. By absorbing wound exudate the hydrocolloids expand and undergo a transformation, turning into a gel that fills the wound in which it maintains the necessary degree of moisture.

Thanks to the adhesive capability of the elastomer, Hydrocoll® can be used on the wound like an auto-adhesive dressing, which makes it much easier to use. However, the adhesive effect is inactive where the dressing covers the wound and Hydrocoll® remains attached only to the intact skin surrounding the lesion – while it still thoroughly protects the wound area.

The Hydrocoll® dressing is efficient for wound care during all healing phases: to accelerate

cleansing as well as to encourage the formation of granulation tissue and epithelisation.

Hydrocoll® has lots of different uses from burns to ulcers; it provides the ideal moist wound environment for optimum healing.



Hydrocoll® is particularly adaptable due to its gelatin free formula meaning that it can be used for all patients regardless of culture or religion and Hydrocoll® also comes in a variety of shapes and sizes to fit every need.

The next few pages are dedicated to three case studies, detailing the effective use of Hydrocoll® in different wounds; hyperalgesic malleolar ulcer, a second degree burn and a leg ulcer.

Product	Size	Pack	Hartmann Code	NHS Code	PIP Code
Bevelled edge	5 x 5cm	10 pcs	900740	ELM065	285 9650
	7.5 x 7.5cm	10 pcs	900742	—	246 2885
	10 x 10cm	10 pcs	900744	ELM046	246 2893
	15 x 15cm	5 pcs	900748	—	246 2901
Basic	10 x 10cm	10 pcs	900761	—	246 2836
Concave	8 x 12cm	10 pcs	900756	ELM049	286 1730
Sacral	12 x 18cm	5 pcs	900755	ELM048	286 1714
Thin	7.5 x 7.5cm	10 pcs	900757	ELM041	246 2919
	10 x 10cm	10 pcs	900758	ELM042	246 2927
	15 x 15cm	5 pcs	900760	—	246 2935



Sudden manifestation of hyperalgesic malleolar ulcers

Marie-Estelle Roux

Service de Dermatologie, Hôpital Saint-Louis, Paris

Mrs. M., aged 68, is being followed up since 1991 in the haematology department for essential thrombocythaemia which is well controlled with oral chemotherapy, i.e. hydroxyurea (Hydrea®). She is also suffering from stable angina pectoris and treated with a combination of Persantin®, Sectral®, and Corvasal®. She had her thyroid gland removed for treatment of a multinodular goitre, followed by substitution therapy with Levothyrox®. She has no history of arterial or venous insufficiency of the legs.

In June 1998, bilateral, hyperalgesic ulcers of the malleoli appeared spontaneously, in the absence of any triggering traumatic factor.

In September 1998, Mrs. M. is referred to the department of dermatology. On clinical examination, Mrs. M. is found to be in good general health and afebrile. There is no sign of cardiac insufficiency. A moderately pitting oedema of the legs is noted: the impressions created with the examiner's fingertip are discretely retained. There is no obvious varicosis. The peripheral pulses are only very faintly perceived but are all present. The skin of the legs is thin, dry, desquamating and telangiectatic. Two ulcers are present:

- ulcer no 1 (Figures 1a-f) is a right lateral supramalleolar lesion, the largest axes of which measure 20 mm x 10 mm,
- ulcer no 2 (Figures 2a-f) is a left medial supramalleolar lesion, the largest axes of which measure 28 mm x 12 mm.

The two ulcers have the same clinical characteristics: both are ill-defined, with "crumbly" margins. Both are rather shallow. The wound bed is very fibrinous. However, a few islets of granulation tissue are present. The lesions are surrounded by an inflammatory erythema, the rather limited extent (1 to 2 cm) of which weighs against the presence of an erysipelas. The two lesions cause extreme acute pain despite the treatment with Topalgic® (Tramadol HCl; 6 tablets daily).

The laboratory tests show the following results: a normal blood cell count, including the number of platelets, with macrocythaemia (mean corpuscular volume = 150 µm³); no sign of inflammatory syndrome; the haemostasis is normal.

The serum test result for cryoglobulins is negative. The Doppler ultrasound examination of the arterial and venous system of the legs does not reveal any abnormality of the arterial system but shows an insufficiency of the right great saphenous vein. The other saphenous veins are all sufficiently competent. There are no sequelae of deep venous thrombosis.

The development of leg ulcers, in the absence of a context of arterial or venous insufficiency, in a patient treated for several years with hydroxyurea (Hydrea®) suggests the possibility of a toxicogenic skin reaction to hydroxyurea. In fact, this cutaneous complication is nowadays well known as numerous cases have already been reported (1). The pathophysiology of this type of ulcer is most probably linked to a microangiopathy which this drug can induce. The only efficient treatment is the discontinuation of the hydroxyurea, combined with measures of very gentle wound care that favour the healing process (2). The hydroxyurea is thus stopped in agreement with the haematologists and replaced with another oral chemotherapeutic agent (Vercyte® [Pipobroman]).

Very gentle wound care is required because the slightest touch provokes intense pain. The lesions are cleansed with saline solution.

Surgical removal (with the sharp spoon) of the fibrin is impossible because of the intense pain caused by the procedure, even under local anaesthesia. A Hydrocoll® hydrocolloid dressing is therefore applied to each ulcer (Figures 1b, 2b). Wound care proceeds following a routine every 2 days for 2 weeks, during which the Hydrocoll® dressings are rapidly saturated, as expected in this initial phase of the treatment. The lesions subsequently become less exudative, and the Hydrocoll dressings are changed every 3 days, for the following 2 weeks, in order to encourage the progress of wound healing. Fibrin cleansing advances steadily on each ulcer; the extent of the wounds starts to moderately diminish; and the acute ulcer pain is markedly getting less:

- ulcer no 1: 18 mm x 8 mm (Figure 1c),
- ulcer no 2: 25 mm x 10 mm (Figure 2c). Several islets of granulation tissue appear. However, the granulation is slightly overshooting in some instances. In this situation, Hydrocoll dressings are applied for a period of 2 weeks in alternation with cortisone-impregnated dressings. Thereafter, only Hydrocoll dressings are used for another 2 weeks. Wound care procedures are carried out 3 times a week. The ulcer on the right leg has by now become much less fibrinous, and the formation of small islets of re-epithelialization can be noted (Figure 1d). The left leg ulcer has almost completely healed: only 2 small islets of granulation tissue persist (Figure 2d). Wound care continues with the extra-thin hydrocolloid dressings Hydrocoll® thin which are applied 3 times a week. Complete healing of both ulcers is achieved within 11 weeks (Figures 1e-f, 2e-f).

Comments

Regarding our therapeutic approach, we chose Hydrocoll® hydrocolloid dressings for several reasons – in this complex context of cutaneous ulcers, linked to a microangiopathy of iatrogenic origin: 1) first of all, almost 100% of the surface of the ulcers initially were fibrinous. Hence, we needed a truly reliable and efficient cleansing;

2) in addition, since the ulcers were extremely painful, a surgical debridement by means of the sharp spoon, or even by using just an ordinary compress, was absolutely impossible. Therefore, we had to choose a very gentle and painless way of cleansing;

3) moreover, it must be remembered that the lesions had initially been exudative: an absorbent system that was capable of regulating the exudation was indispensable.

Hydrocoll® dressings perfectly fit these criteria of cleansing, exudate absorption and regulation of wound rehydration. At the beginning of the treatment, the Hydrocoll® dressings rapidly became saturated (after 48 hours), but their firm adhesion to the skin made it generally possible to avoid the occurrence of "leaks". However, if such a leak did occur, it was easily controlled by an additional dressing made of absorbent compresses. Cleansing was perfectly achieved, and the subsequent granulation phase was very rapidly completed. Also, the final epithelialization phase was swiftly brought to its conclusion with Hydrocoll® thin.

The patient very much appreciated the painless nature of her wound care and the rather appealing appearance of the Hydrocoll® dressings, their colour, blending with the skin, and also their thinness which makes them almost invisible. Her nurse was seduced by the simplicity and the rapidity of wound care provision, because the Hydrocoll® dressings reduce to a minimum the number of actions that are required.

The manifold properties of Hydrocoll® make these dressings particularly suitable for the care of chronic wounds, both fibrinous and exudative.

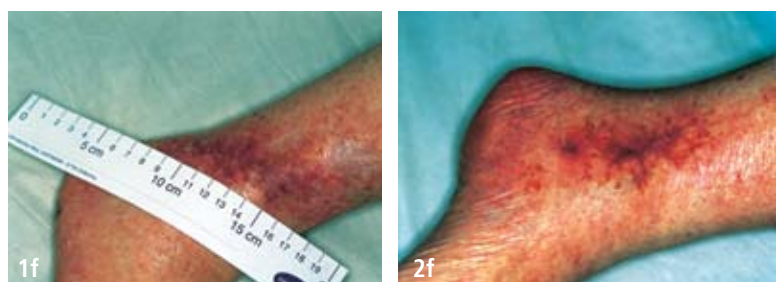
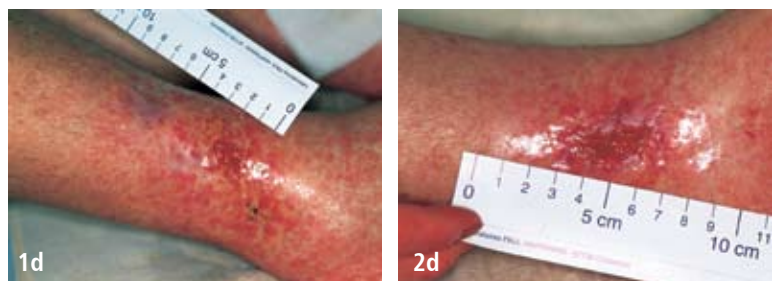
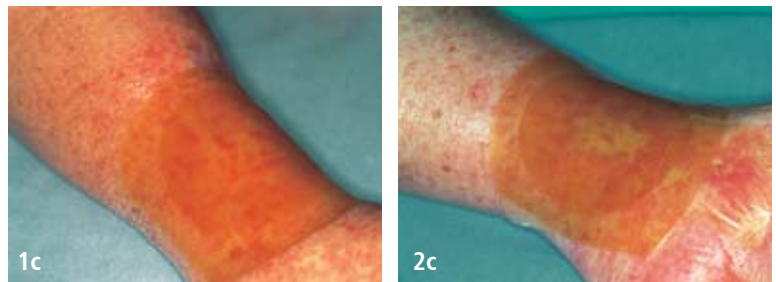
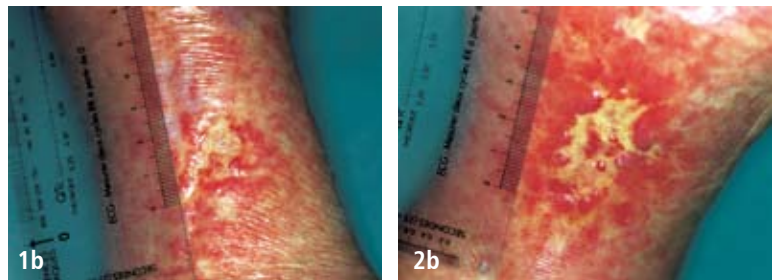
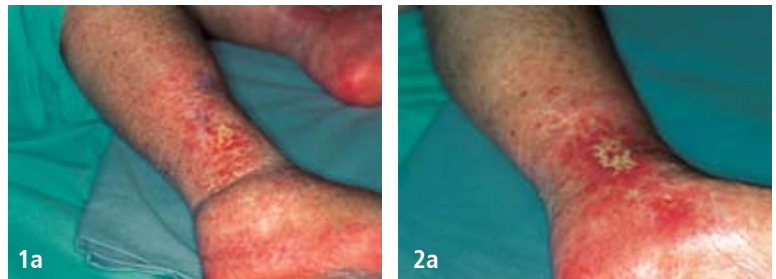
1a-f) ulcer, right leg

2a-f) ulcer, left leg

- a) initial lesion, highly fibrinous and inflamed
- b) lesion covered with a Hydrocoll dressing 10 cm x 10 cm
- c) ulcer during cleansing phase, development of a few granulation tissue islets
- d) epithelialization in progress, persistence of a few granulation tissue islets
- e) and f) healing completed

References

- (1) Weinlich et al.: J Am Acad Dermatol 1998; 39:372–4
- (2) Liebschutz et al.: Rev Med Interne 1998; 19:360–1



Recurrence of multiple leg ulcers

Marie-Estelle Roux

Service de Dermatologie, Hôpital Saint-Louis, Paris

Mrs. M., aged 72 years, is admitted to the dermatology department in December 1998 for treatment of recurrent multiple ulcers of the right leg which have developed over one month prior to her admission.

Her medical history includes insulin-dependent diabetes since 1975, high blood pressure controlled by triple therapy and cardiac arrhythmia with auricular fibrillation. She is also overweight.

Her current treatment includes: Semi-Daonil® (2.5 mg x 3/d), Hyperium® (Rilmenidine phosphate, 2 mg/d), Lopril® (50 mg x 2/d), Lasilix® (40 mg/d), Digoxin® (3/4 tabl. 5d/7), Discotrine® patch (TNT, 10 mg/d), and Previscan® (Fluindione, 3/4 tabl./d).

Her problem started in December 1997 with the spontaneous development of two small-sized ulcers (2 to 3 cm in diameter) on the anterolateral aspect of the right calf. The lesions were superficial and responsible for uninterrupted intense pain which required strong analgesia. The area surrounding the wound was necrotic and had the appearance of a geographic map. Because of the existing long-standing diabetes and severe high blood pressure at that time, the diagnosis was that of a necrotizing angiodermatitis. Healing was achieved within five months with the help of hydrocolloid dressings.

In November 1998, multiple ulcers, from a few millimetres to 4 cm in width, reappeared on all aspects of the right calf. The larger lesions affected the anterolateral aspect of the calf (Figure 1).



Fig. 1: (day 1) multiple ulcers, not very deep, well defined.

The ulcers were hyperalgesic and led to insomnia. They were non-necrotic, superficial, with rounded edges and a very fibrinous bed, with a few islets of granulation tissue (Figure 2).



Fig. 2: (day 1) fibrinous ulcers

In addition to the patient's excess weight, an increased volume of the legs, particularly on the right, was noticed during the clinical assessment. There was a hard inflammatory oedema of the right calf, and no signs of varicosis. The peripheral pulses were not palpable.

Doppler ultrasound examination of the legs showed a diffuse atheromatous overload without a haemodynamically significant arterial stenosis, and a moderate insufficiency of the right and left great saphenous veins, and of the right small saphenous vein. There were no sequelae of deep or superficial venous thrombosis.

Wound care started in hospital with cleansing of the leg with soap, and a prolonged showering with lukewarm water. Each ulcer was then cleansed with saline solution. A surgical debridement with the sharp spoon, or even by more gentle means (compresses), was impossible because of the pain. Several large Hydrocoll® hydrocolloid dressings (20 x 20 cm) were applied to cover the area affected by the ulcers. A bandage with a moderate compressing force was applied to the leg, using elastic and cohesive Lastopress bandages. Dressings were changed every 48 hours.

Towards the twentieth day, the wound bed was much less fibrinous, and the growth of granulation tissue progressed. The pain had become less intense. After a month, cleansing of the lesions was completed, development of granulation tissue was satisfactory, and epithelialization was progressing (Figure 3).



Fig. 3: (day 30) ulcers during granulation and epithelialization phases.

Hydrocoll® dressings were replaced by extra-thin hydrocolloid dressings, Hydrocoll® thin, which were changed twice per week. Two and a half months later, complete healing was achieved (Figure 4).

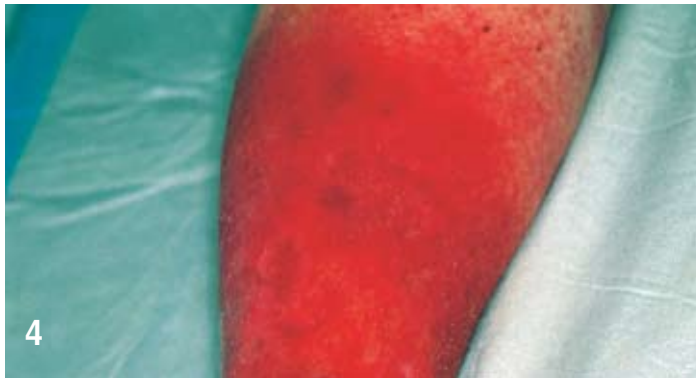


Fig. 4: (day 80) healed ulcer

Comments

The causes of this patient's ulcers are multifactorial. There is a long-standing diabetes at the origin of a microangiopathy, severe high blood pressure re-sponsible for the arteriosclerosis, and a moderate venous insufficiency. Cardiac insufficiency is also present, manifesting itself through chronic oedema of the legs. Necrotizing angiodermatitis was not present in November 1998 because the lesions were not genuinely necrotic. These lesions are therefore best classified as mixed – arterial and venous – ulcers.

At the beginning of the treatment, the ulcers were very fibrinous and moderately exudative. Hydrocoll® dressings with their extra-thin border were chosen for their cleansing power and absorptive strength. Hydrocoll® thin dressings were subsequently used for the final epithelization phase, their perfect adherence and thinness providing both comfort and inconspicuousness. The patient tolerated well the Hydrocoll® dressings, especially in the area of the particularly thin and fragile perilesional skin. The nurses appreciated the straightforwardness and rapidity of care.

Extensive superficial 2nd degree burn

Marie-Estelle Roux

Service de Dermatologie, Hôpital Saint-Louis, Paris

Mr. D., aged 40 years, is a mason. His medical history is uneventful, except for an episode of acute alcoholic hepatitis. In September 1998, whilst manipulating flammable products at his work place, he burned his left forearm. At first he did not go to see his general practitioner but

administered himself local wound care of a rather insufficient quality. After six days, he felt sick and was in permanent pain; this persuaded him to consult his general practitioner who prescribed oral antibiotherapy with Orbenin®. Two days later, he was admitted to hospital because he had developed an erysipelas of the left upper limb. The patient was pale, with a temperature of 38.8°C. The clinical examination revealed an almost circumferential burn, extending from the elbow to the proximal third of the palm (Figure 1).



Fig 1: (day 1) Exposition of the deep dermis. Abundant fibrin deposits are visible between the islets of granulation tissue.

The wound bed was exudative and very fibrinous with, however, a few islets of granulation tissue. The patient tolerated relatively well the great pain. The limb was affected by a hard, warm, erythematous oedema. This was limited by an inflammatory border and ascended up to the lateral aspect of the shoulder. There was no palpable local or regional adenopathy. The rest of the clinical examination did not reveal anything particular with the exception of a hepatomegaly, characterised by a palpable firm, sharp edge.

The laboratory tests revealed a normal blood cell count with 9600 white blood cells per mm³, an MCV of 118µm³, an elevated CRP of 155mg/l and a normal haemostasis. The level of hepatic enzymes was normal with the GGT at 2.97 mg/l. The haemocultures remained sterile.

On his admission the patient was put on a drip in order to provide an adequate parenteral rehydration. Intravenous antibiotherapy was started with amoxicillin and clavulanic acid (3g daily), active against gram-positive bacilli and gram-positive cocci, and changed to an oral formulation after the patient had become afebrile. He also received a booster injection of tetanus vaccine.

During the first 48 hours, local wound care consisted in an abundant and prolonged showering of the limb with lukewarm water, very gentle cleansing using sterile compression soaked with saline solution, and sterile Vaseline® dressings. Over the following day the wound was covered with large Hydrocoll® hydrocolloid dressings (15 x 15cm). Wound exudation was profuse, and the hydrocolloid dressings were rapidly saturated, thus requiring replacement every two days.

The Hydrocoll® dressings were well tolerated, giving rise only to a discreet pruritus in the area of healthy skin. On the ninth day, the patient went home, where a nurse continued to provide wound care. The wound was not very painful, even during the application of wound care procedures. Wound exudation had become rather moderate allowing the reduction of the frequency of Hydrocoll® dressing changes to once every three days. On the twelfth day, fibrin cleansing was almost completed.

The epithelialization had begun and the re-epithelialization was visible covering an area up to about 1.5 to 2cm off the wound edges (Figure 2).



Fig. 2: (day 12) The fibrin has almost completely disappeared. Re-epithelialization starts from the wound edges.

Wound care was continued with Hydrocoll® thin dressings which were changed every three days. Towards the thirtieth day, some of the granulation tissue islets had become hypertrophic, raising above the level of the surrounding skin. In order to prevent abnormal healing the wound was dressed in alternation with cortisol gauze dressings. The epithelialization progressed rapidly from the periphery to the centre of the lesion (Figure 3).



Fig. 3: (day 30) The wound surface has shrunk and is progressively replaced by a new epidermis.

Towards the sixtieth day, the Hydrocoll® thin dressings were changed every 5 days (Figure 4).



Fig. 4: (day 60) Phase of epithelialization almost completed.

The wound was fully epithelialized after 3 months. The scar was supple, free from pain, and with a relatively low degree of dyschromia.

Comments

This was a superficial second degree burn since it did not involve the deeper part of the dermis. One can conclude that the deeper dermis was unharmed as some granulation tissue islets were visible at the time of the beginning of the patient's medical treatment.

We refrained from applying occlusive dressings to the wounds as long as the severe dermo-hyperdermic infection was not well controlled. Afterwards, we chose to use Hydrocoll® hydrocolloid dressings in order to ensure an efficient, but not painful, removal of the fibrin, which was very abundant between the granulation tissue islets. The dressings' adhesive properties guaranteed an efficient barrier against soiling from external sources which we felt could otherwise occur in this rather less than tidy patient. The nurses appreciated the simplicity of this type of wound care procedure and its non-traumatic character.

The patient was rapidly relieved from his pain. He anticipated the dressing changes without fear. The mobility of his fingers, wrist and elbow was not restricted. He was also satisfied with the healing view from the aesthetic point of view. The frequency of the dressing changes was adjusted according to the extent of wound exudation.

The total duration of treatment of this patient's wound – 3 months – may seem long but it is justified by the fact that the burn was extensive and complicated by severe infection at the time of admission to the hospital.

The Hydrocoll® hydrocolloid dressings are of considerable value in the treatment of 1st and 2nd degree burns because of their ease of use, the protection they provide, as well as their cleansing and absorptive properties. They are replaced by Hydrocoll® thin as soon as the cleansing process is completed in order to encourage the epithelialization phase.

Meet...

the new management team!



Tim Mercer

Regional Sales Manager - South

Hi, my name is Tim Mercer and I am the new Regional Sales Manager- South for Paul Hartmann Ltd.

My job role is to manage a team of territory sales managers in the South of England as well as take a lead with contract negotiations with key accounts alongside the Contracts Manger.

I am extremely excited to have joined HARTMANN at this time. The company has a portfolio of over 20 wound care brands currently available in the UK and is one of the few companies that cover all phases of wound healing. Globally, Hartmann employs over 8,900 employees and is recognised worldwide.

I look forward to raising the profile of the company in the UK and to continue to be your partner in healthcare.



Richard Kent

Regional Sales Manager - North

My name is Richard Kent and I come to Hartmann as the Regional Sales Manager for the North of England and Scotland.

I have almost 10 years experience in the pharmaceutical Industry, and am excited with the prospect of moving into the wound care arena as I believe it is highly dynamic and exciting.

Hartmann is a great company geared towards delivering quality products to customers with high levels of support. My team of territory sales managers are looking to work in partnership with healthcare professionals both in the acute and community settings, to deliver the most effective wound management product solutions for the customer.

During my time with Hartmann I aim to motivate and inspire my team to success and increase the usage of our dressings across the North and Scotland. We can achieve this due to the extensive HARTMANN range, highly motivated territory sales managers, and the support of our experienced head office staff.

WOUNDS UK 2011 HARROGATE



Hartmann are pleased to be attending Wounds UK 2011 in Harrogate. This year, the conference takes place from the Harrogate International Conference Centre.

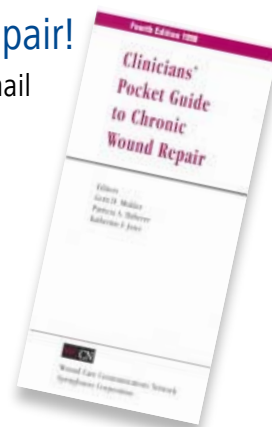
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1 After what time period is a wound typically characterised as being chronic?

- A If the tissue build-up in a secondary healing wound takes more than eight weeks
 B If the cleaning phase takes more than three weeks
 C If the process of covering the wound surface following a skin transplant takes more than two months
 D If the cleaning phase transmits immediately into the epithelisation phase

2 An ulcer covering the entire lower leg is called?

- A Boot ulcer
 B Sock ulcer
 C Gaiter ulcer
 D Stocking ulcer

3 Which are the most frequent causes of secondary lymphoedemas in western industrialised countries?

- A Infections caused by anaerobic and aerobic pathogens
 B Excessive exposure to UV-A and UV-B in sunlight
 C Increased capillary pressure with subsequent haemosiderin deposition
 D Excoriations in case of dry skin
 E Malnutrition and innutrition
 F Operations and/or radiation due to malignant tumours

4 What does the term 'capacity measurement' of a wound mean?

- A Determining the volume of a wound by filling a sterile fluid and a syringe
 B The amount of the wound exudate discharging from the wound within 24 hours
 C Using solvents as a cause of skin damage
 D Marking the affected area of the body with an aqueous iron (iii) chloride solution
 E The amount of physiological saline solution or Ringer's solution needed to rinse the wound

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Paul Hartmann Ltd.
Heywood Distribution Park
Pilsworth Road
Heywood
Lancs
OL10 2ZZ