

# A new concept in the management of complex foot wounds

Lead Author - Linda Rafter, Tissue Viability Nurse Consultant, Wound Care Solutions, Honorary Professor in Nursing, DeMontfort University, Leicester

## Introduction

The Eclipse foot is a unique super absorbent dressing which is anatomically designed to fit around the foot. Eclipse foot is designed to absorb and retain large amounts of fluid and exudate and reduce the associated odour. The dressing contains a rapid wicking layer and 12 super absorbent compartments which lock away fluid into the dressing, reducing maceration and preventing re-infection from fluid leaking back on to the skin as it spreads the load across the dressing. The backing layer is a water resistant barrier and also prevents strike through, this is combined with a high moisture vapour transfer rate that allows breathability and prolongs wear time. The pre shaped foot allows easy application, thereby reducing the nursing time for dressing change and resulting in significant financial cost.

## Method

Five patients were recruited from the inpatient and outpatient clinic in a general hospital. The ages ranged from 60 – 90 years. Patients were nominated by the ward staff and then the author visited them to ask them to volunteer to take part in the trial of the Eclipse Foot Dressing. She asked them for a contact number if they were going home to enable her to follow the patient up 14 days later. If they were still an inpatient the author visited the ward to perform the follow up of information. The opinions of 20 nursing staff were also collected on the Eclipse Foot dressing. Fourteen days' treatment was carried out where possible on each patient to enable a thorough evaluation of the comfort for the patient and if healing had taken place.

## Case Study 1

Mr W was a 79 year old male with history of long standing legs over the last two years. He was known to have hypertension, atrial fibrillation, diabetes, renal failure, spondylitis and peripheral vascular disease. On assessment he had bilateral lipodermosclerosis and pitting oedema, was unable to feel pulses and the oedema was solid up to his knees. He did have pulses at his knees and good capillary fill of his toes. On removal of the dressing the left inner ankle wound had decreased 12x10cms, the wound bed was covered in wet superficial ulcerations and was 50% yellow green and 50% pink tissue. His right foot was very wet around 3 toes, base was ulcerated through to the front of his toes and wound had increased 7x12 cms. The wound bed consisted of 50% yellow 100% pink tissue, appeared to have deteriorated since his last assessment and was considerably wetter with exudate. Mr W, the patient, informed his GP that he thought he had a veruca 1x1 cms and that he had treated it and it had made a hole in his foot which had been there ever since.

## Care Pathway

On the 29th September 2011 Mr W was advised to elevate his lower legs when possible. The care pathway for the right foot was changed to the new Eclipse foot dressing with AG Sorbsan ribbon x 2, Aquacel was applied and wool toe to knee bandage was used on the toes (see figure 1). On his left inner ankle Aquacel 15x15cm was applied and Eclipse dressing every 3 days with reduced compression 3 layer K soft, K lite and K Plus as agreed by the vascular consultant.



Fig 1



Fig 2

Mr W was reviewed on 10th October 2011. On removal of the dressing, the left inner ankle wound had decreased into three separate wounds partial thickness 2x2cms, 3x3cms and 5x2cms and the wound bed was far less wet and was 20% yellow green and 80% pink tissue (see figure 2). His right foot was far less wet around 3 toes and base was nearly healed. The front of his toes and wound had decreased 7x8 cms. The wound bed consisted of 100% pink tissue and the appearance had improved dramatically since his last assessment. Mr W had found the new foot dressing comfortable and was happy that it had promoted the healing of his right foot very effectively. He did state that the nurses were confused on how to apply the dressing but that he had had a different nurse at each dressing change.

## Case Study 2

Mr G, a 72 year old gentleman was admitted with an infected left foot on 2nd September 2011. He was known to have Rheumatoid Arthritis and Flety syndrome. He went to theatre on the 5th September 2011 for excision and drainage of his abscess on the right 1st metatarsal head on the planter aspect of his foot. On assessment he had a surgical wound 3x2cms full thickness wound on the planter aspect of his left foot, the wound bed was 100% pink tissue and there was tendon visible (see figure 3). He had bilateral lipodermosclerosis of his lower legs. Both feet were warm to touch. He was on antibiotics. His Waterlow score was 4, there was no recent serum albumin, Hb 12.9 and white cell count 4.0

## Care Pathway

The care pathway advice was that his foot was washed in a bowl and then Sorbsan ribbon and Eclipse foot dressing, secured with a bandage, was changed every 4 days.



Fig 3



Fig 4

## Case Study 3

Mr K was an 80 year old gentleman who had a right infected diabetic foot ulcer. He was known to have diabetes controlled by insulin, and a heart valve replacement some 30 years ago. His 2nd & 3rd toe on his right foot had been amputated in May 2011. He was having a large amount of pain (9 on the Mccaffrey scale) and his pain killers were effective most of the time. On 12th September 2011 his wound was 3x2.5cms, and was full thickness and the wound bed consisted of 100% pink tissue. There was evidence of bone in the amputation site of the second toe space. The surrounding tissue was less cellulitic. The forefoot aspect. The planter surface was still very cellulitic. The wound on the outer big toe had decreased 2x2cms, appeared to be partial thickness and wound bed consisted of 50% pink and 50% yellow tissue (see figure 5). The author was able to feel posterior and anterior tibia pulses. His blood sugars were now more settled at 9.1 He had purchased a profiling bed frame and was able to elevate his legs at night.

## Care Pathway

His care pathway was changed to Aquacel 15x15cms for the amputation sites and the outer ulcer and then Eclipse foot dressing secured with a bandage.

On review on 26th September Mr K was having increased pain from his big toe (score Mccaffrey 9) and pain killers were not being effective as it kept him awake at night despite being on Morphine. On assessment the wound was 3x2.5cms ie full thickness, the wound bed consisted of 100% pink tissue and there was still evidence of bone in the amputation site of the second toe (see figure 6). The consultant reviewed the wound and agreed, following an xray to confirm this diagnosis, that the bone was infected and was connected to increase in pain. He scheduled Mr K to have removal of his big toe in the next two weeks.

Mr K found the dressing uncomfortable and leaked a lot as the nurses were unsure how to apply the foot dressing. The increased pain may have been purely due to the infection in his bone and not due to this dressing.



Fig 5



Fig 6

## Case Study 4

Mr B a 76 year old male is known to have heart failure and arterial disease and diabetes. Mr B still had pitting oedema to both lower legs and the author could feel pulses in both feet which were warm. However, he had dry mummification of the left second toe and medial side of the third toe. The fourth toe was very wet at the toe base. Auto amputation appeared to be starting as the toes were very loose (see figure 7) His left heel ulcer was 5x5cms 50% and the wound bed consisted of soft yellow tissue and 50% pink tissue. He did have increased pain in his left heel on the Mccaffrey 8.

## Care Pathway

The care pathway advised was that the right heel and Mummified toes had only sorbsan ribbon at the base of the toes and Eclipse foot dressing every 4 - 5 days.



Fig 7



Fig 8

On review on the 3rd October 2011 Mr B still had pitting oedema to both lower legs and the author could feel pulses in both feet which were warm. However, he had dry mummification of the left second toe and medial side of the third toe. The fourth toe was very wet at the toe base. Auto amputation appeared to be starting as the toes were very loose (see figure 8) His left heel ulcer was 5x5cms 50% and the wound bed consisted of soft yellow tissue and 50% pink tissue. He did have increased pain in his left heel on the Mccaffrey 8.

Mr B commented that he liked Eclipse Foot dressing as it fitted well and enabled him to wear smaller size foot wear that was not so bulky. He also found the dressing very comfortable and that it contained odour quite well.

## Results

The results of five patient case studies will be reported in full in this poster and the patient outcomes. The patients experience on how they have found Eclipse Foot dressings was it comfortable and how it conformed to the patients foot.

## Discussion

The new Eclipse Foot dressing appears to provide the optimum environment for healing. It appears that the Eclipse Foot dressing helps to prevent infection and the fluid from is wicked away into the dressing. Nurses ordinarily used an Eclipse 20x30cm dressing which is not tailored to fit the patients foot for these complex wounds. The Eclipse Foot dressing provides an increased performance to manage the exudate appears and maintains the patient dignity.

## Conclusion

The new Eclipse Foot dressing is an ergonomically designed suitable alternative choice for patients that suffer from toes that are about to auto amputate, gangrene, extremely wet feet and diabetic foot. Currently there are no dressings that address the issues like Eclipse Foot dressing by providing the optimum environment for patients that do not necessarily require their wounds to heal but need their foot to be kept dry. The Eclipse Foot dressing also delivers patient dignity as it gives them reassurance that Eclipse Foot dressing will encase their foot and wick the exudate into the dressing and prevent the embarrassing smell if the exudate leaks through the dressing on to their clothing.

## Reference

Mc Caffrey M, Beebe A (1989) Pain A Clinical Manual for Nursing Practice St Louis, MO: CV Mosby Co