UrgoClean Ag

UrgoClean Ag in Real Life

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INTRODUCTION

In 2019, the International Diabetes Federation (IDF) reported that over 77 million individuals have diabetes in India, which will increase to over 100 million by 2030 (IDF, 2019). Of these people with diabetes, 25% will develop a diabetic foot ulcer (DFU), equating to 5 million by 2030. Overall, half of ulcers become infected during the healing process, necessitating hospitalisation, while 20% of these patients require amputation. DFUs contribute to approximately 80% of all non-traumatic amputations performed annually in India (Ghosh and Valia, 2017). It is indicated that social epidemiology regarding DFU in India differs from the West due to many factors including socio-economic and cultural factors. This can lead to significant delay in specialist referral, with patients still relying on treatment based on local ethnic methods and not based on scientific data. This results in patients presenting with highly infected ulcers (Rastogi and Bhansali, 2016).

Infections in wound management are closely associated with delayed healing, increased complications such as amputation, and, moreover, have a negative impact on patients' quality of life (Cutting, 2016; Armstrong et al, 2017). Furthermore, due to the complications that ensue, infections can increase the economic burden on healthcare facilities related to wound management and increase hospital stay (Nussbaum et al, 2018). The overall management plan for people with DFUs (and for that matter any chronic wound) should include six spheres: mechanical control or pressure offloading, medical/metabolic control of the diabetes and comorbidities, microbiological/infection management, vascular control ensuring adequate blood flow, wound control and education aimed at increasing patient awareness of foot care over their lifetime.

Management of wound infection needs to include understanding and involvement of the patient's response and the local wound healing environment, as well as a reduction of the microbial load as part of the standard of care. This will include wound cleansing, debridement, and appropriate use of topical antimicrobials (International Wound Infection Institute, 2016).

The use of technology lipido-colloid with silver (TLC-Ag) is supported by high-quality clinical evidence in the management of wounds at risk or presenting with clinical signs of local infection; TLC-Ag dressings show superior efficacy in reducing wound bioburden, while also promoting wound healing. Additionally, results demonstrate high tolerance and acceptability of TLC-Ag dressings because of their atraumatic properties (Lazareth et al, 2007; 2008; Schäfer et al, 2008; Lazareth et al, 2012; Allaert, 2014). TLC-Ag dressings with cohesive poly-absorbent fibres (UrgoClean Ag) have been developed to manage wounds with higher levels of exudate and trap sloughy residues and can be used throughout the stages of wound healing (Meaume et al, 2012; 2014; Dissemond al, 2020).

This document showcases the outcomes of UrgoClean Ag in a real-world environment, demonstrating enhancement in the management of DFU in India with improvement in wound conditions and, furthermore, enhancing the patients' quality of life and clinicians' satisfaction. Clinicians and organisations worldwide need to understand that appropriate wound management interventions based on high-level evidence should be used to formulate local guidelines and DFU care pathways.

Dr. Srinivas Seshabhattaru,
Consultant Podiatric Surgeon

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Dr. Prem Chand Gupta

Clinical Director, Vascular and Endovascular Surgery, Care Hospitals, Hyderabad, India

> UrgoClean Ag is a wound-friendly dressing.

We use UrgoClean Ag on diabetic foot ulcers (DFUs) following revascularisation and surgical debridement when signs of mild infection and slow healing are observed. In our practice, the use of UrgoClean Ag as part of a wound management plan for infected chronic wounds has led to improved healing, wound reduction and increased granulation tissue by keeping the wound clean from slough, bacterial residues and biofilm. Using the dressing also reduced the wound pain experienced by our patients.

The polyabsorbent fibres of the dressing can trap, drain, and retain wound residues. The dressing can be worn for up to 5–7 days, depending on the exudate volume and the clinical condition of the wound. In our patients, the amount of exudate reduced dramatically after one or two dressings changes. As UrgoClean Ag has a long wear time, it is a cost-effective option as it reduces the number of visits a patient must make to the hospital for dressing changes.

Dr. Prem Chand Gupta's top tips:

- UrgoClean Ag is not a magic therapy — it is important to continue to provide holistic wound treatment that includes thorough surgical debridement and offloading
- UrgoClean Ag is effective in cleaning the wound by physically binding onto debris (e.g. slough).

In my experience, the main benefits of UrgoClean Ag are the dressing's ability to reduce local infection and promote wound healing. When using UrgoClean Ag, I have observed management of local infection, faster granulation development, and a reduction in wound size.

Case study 1

A 71-year-old male with a history of diabetes mellitus and hypertension developed bluish discoloration of the second right toe that became infected along with other toes. The patient required amputation of the second, third and fourth toes. After amputation, the wound was sloughy **[Figure 1]** with moderate exudate levels. Wound pain levels were moderate (3 out of 10; 0=no pain, 10=extreme pain) and slight swelling was visible in the periwound area. After cleansing the wound with normal saline, UrgoClean Ag was applied. Dressing changes were carried out once every 4 days. After 4 days of treatment, slough had reduced, and the wound bed appeared healthy. The wound was also less painful. After 12 days, slough, ulcer size and pain (2 out of 10) continued to reduce, and exudate levels were mild **[Figure 2]**. Following 26 days of treatment with UrgoClean Ag, the wound had nearly completely healed with a small area of healthy granulation tissue visible **[Figure 3]**. There was minimal discharge and the patient had no pain.

Figure 1: Initial presentation

Figure 2: 12 days of treatment

Figure 3: Final review (26 days of treatment)

Case study 2

A 73-year-old male presented with a history of diabetes mellitus and hypertension who had previously developed gangrene on all toes of his left foot. The patient found walking painful and as a result all toes were amputated in November 2020. A dermal skin replacement procedure was used on the wounded area. On initial presentation after amputation, the wound was sloughy **[Figure 1]** with moderate levels of exudate present. The patient's pain was rated as moderate (2 out of 10; 0=no pain, 10=extreme pain). The wound was cleansed with normal saline and UrgoClean Ag was applied. Dressing changes were carried out once a week. After 7 days of treatment, slough, exudate levels and pain had reduced. After 14 days, the wound bed comprised new granulation tissue **[Figure 2]**, exudate levels remained low, and the wound was no longer painful. After 25 days, there was increased granulation tissue and the wound appeared healthy **[Figure 3]**. The size of the wound had also gradually decreased across the treatment period.

Figure 1: Initial presentation

Figure 2: 14 days of treatment

Figure 3: Final review (25 days of treatment)

Dr. Jessy Thomas

Consultant Diabetic Foot Specialist, Dr. L.H Hiranandani Hospital, Mumbai, India

> UrgoClean Ag is an effective dressing for desloughing wounds and helped to reduce the risk of periwound maceration.

Newer concepts, devices and dressings are changing our approach to wound care. Importantly, wound care experts need cost-effective, comfortable, and easy-to-use dressings, products, methods and devices. After reviewing the literature available for the UrgoClean Ag dressing, it was introduced into my practice for use in patients, mainly with diabetic foot ulcers (DFUs).

For patients with DFUs, adequate vascularity was ensured and wounds with spreading infection/osteomyelitis were treated with systemic antibiotics, as per tissue culture and sensitivity reports. Before application of UrgoClean Ag, wounds were thoroughly irrigated with a wound cleansing solution. For patients with previous history of intolerance or pain to silver dressings, UrgoClean Ag was not used. A wide variety of wounds have been treated using UrgoClean Ag including:

- Post-debridement infected wounds
- Chronic wounds (stalled for 2–4 weeks with biofilm)
- Infected venous leg ulcers (VLUs)
- Pressure ulcers/injuries
- Cavity wounds
- Infected skin eschars (cautery pad injury/thermal injury).

After using UrgoClean Ag in a few patients and reviewing the results, we were able to identify how, when, where and whom to select for UrgoClean Ag dressing application. In our practice, negative pressure wound therapy (NPWT) was selected for wounds with heavy exudate levels and UrgoClean Ag was selected for wounds with mild to moderate exudate levels. UrgoClean Ag was the preferred option for treating wounds with slough, bacterial bioburden and biofilm, and painful ulcers and eschars (thermal injury). The dressing was also suitable for use in areas close to exposed bone, joints (metatarsophalangeal/ankle), tibialis anterior region, and cavity wounds at the heel where sharp aggressive debridement is avoided.

Most DFUs are not painful because of the associated peripheral neuropathy; however, when UrgoClean Ag was used in painful ulcers like VLUs and infected eschars, pain relief was observed. In addition, periwound maceration appeared to be less common with usage of UrgoClean Ag compared to other dressings used. I would recommend UrgoClean Ag as part of a wound treatment plan to my colleagues and other wound care professionals. UrgoClean Ag is able to deslough the wound bed and reduce bioburden, which along with absorption of exudate (with regular dressing changes according to exudate) can improve the quality of granulation tissue. Removal of the dressing is also atraumatic to the granulation tissue. Other positive outcomes include:

- Debridement in the outpatient department was easier and atraumatic to the underlying granulation tissue after using UrgoClean Ag
- Easy to train the homecare team — removal of the dressing is in one piece (i.e. doesn't break or adhere to the wound), due to the resistance to traction of the polyabsorbent fibres
- After absorption of exudate, the TLC-Ag matrix forms a gel but doesn't shrink, thus risk of periwound maceration is reduced.

Dr. Jessy Thomas' top tips:

- UrgoClean Ag can be used for acute and chronic wounds, in cavity wounds as packs and can be cut to size and shape for irregular wounds
- UrgoClean Ag is the ideal choice for preparing the wound bed due to its desloughing and antimicrobial properties
- UrgoClean Ag is contraindicated in people with known sensitisation to silver
- UrgoClean Ag dressings should be changed every 1 to 2 days during the wound desloughing phase, then as often as required (up to 7 days) depending on the level of exudate and clinical condition of the wound.

Overall, UrgoClean Ag has a definite desloughing and anti-bacterial action, thereby reducing bioburden and improving the composition of the wound bed. This is reflected in the reduction of infection and wound size. Reduction in slough and debris was also observed after usage of UrgoClean Ag, along with a definite reduction in wound exudate and frequency of dressing change.

Case study 1

A 63-year-old male patient presented with a wound on his left great toe caused by a blister [Figure 1], which had been present for a week and measured 12cm (length) x 6cm (width). The patient had a history of diabetes mellitus, hypertension, two renal transplants and had previously been treated for left great toe wet gangrene with abscess and severe peripheral vascular disease (PVD). There was discolouration of the great toe, along with foul-smelling discharge; the patient had a severe loss of appetite. The wound bed was sloughy, with high and copious levels of green exudate. The surrounding skin was within normal limits. The patient rated wound pain as moderate. When treatment began, the patient was given culture-specific antibiotics and underwent left foot incision drainage and left great toe amputation. Although Doppler reports revealed severe PVD, vascularity was satisfactory (collateral circulation).

The wound was cleansed with a hypertonic buffered solution and UrgoClean Ag was applied, followed by a sterile gauze roll and crepe bandage. The foot was managed by posterior slab support. The dressing was changed 3 days later; there had been a decrease in slough and increase in granulation tissue [Figure 2], but exudate levels remained high and copious. After 5 days, slough had decreased further. The wound bed appeared healthy, and the patient was put on NPWT. After 11 days, the wound bed comprised healthy granulation tissue [Figure 3] and the wound was less painful.

Figure 1: Initial presentation

Figure 2: 3 days of treatment

Figure 3: Final review (11 days of treatment)

Case study 2

A 48-year-old male with a history of diabetes mellitus, hypertension and peripheral arterial disease (PAD) presented with an infected DFU on the right foot, with first and fifth toe dry gangrene. The second, third and fourth toes had been amputated 5 weeks previously along with extensive plantar and dorsal foot debridement. Antiplatelets, culture-specific antibiotics and hyperbaric oxygen therapy were prescribed. The patient later required surgery to remove the first and fifth toe and undergo extensive debridement.

The wound measured 10cm (length) x 5cm (width) and the wound bed comprised of slough [Figure 1], with high levels of exudate. The surrounding skin was within normal limits. The wound was cleansed with a hypertonic buffered solution and UrgoClean Ag was applied, followed by a sterile gauze roll and crepe bandage. The foot was managed by posterior slab support. The dressing was changed after 3 days; slough had decreased and the periwound area appeared to be within normal limits [Figure 2]. After 5 days of treatment, the wound bed comprised of healthy granulation tissue and slough had decreased further. After 14 days, the wound bed comprised of healthy granulation tissue [Figure 3].

Figure 1: Initial presentation

Figure 2: 3 days of treatment

Figure 3: Final review (14 days of treatment)

Dr. Rajesh Kesavan

Consultant Podiatric Surgeon, Apollo Hospitals, Chennai, India

> UrgoClean Ag can be effective in removing superficial slough and encouraging the proliferation of granulation tissue.

UrgoClean Ag has been used for the local treatment of chronic wounds. UrgoClean Ag was selected for use as these wounds were infected, non-healing and there was presence of slough. Previous dressings had been ineffective. In both cases, the wound was cleansed and UrgoClean Ag was applied, along with a 2-layer compression bandage.

UrgoClean Ag has made a positive impact on the management of infected wounds in our practice. With this dressing we have observed complete and continuous cleaning action, reduced exudate levels and recurrence of biofilm, and subsequently the number of visits required have also fallen.

During treatment with UrgoClean Ag, the condition of the wound bed improved, appearing healthier and cleaner. The dressing was also effective in accelerating wound healing. The antimicrobial action of the dressing displayed a broad-spectrum coverage and a reduction of exudate levels helped to reduce the frequency of dressing changes. UrgoClean Ag is a cost-effective option compared to traditional dressings, such as paraffin gauze, ointment, and pads, as these require daily dressing changes. UrgoClean Ag should be changed every 1 to 2 days initially, and then as often as required (up to 7 days) depending on the exudate volume and the clinical condition of the wound.

Dr. Rajesh Kesavan's top tips:

- UrgoClean Ag prepares the wound bed for healing by a combined cleaning and antimicrobial action in the prevention and management of a localised wound infection
- If necessary, thoroughly debride the wound prior to application of UrgoClean Ag
- If necessary, cover UrgoClean Ag with a secondary dressing suitable for the location of the wound and level of exudate
- Encourage the patient to rest.

The main benefits of UrgoClean Ag are its desloughing and antibiofilm properties and broad-spectrum antimicrobial activity; visible cleaning action was observed after 1–2 dressing changes. Patients were satisfied with the treatment plan and observed positive results, and follow-up dressing changes could be carried out at home based on guidance provided.

Overall, in our experience UrgoClean Ag is an effective dressing option for wounds with slough. The dressing can manage and reduce levels of exudate and minimise the risk of periwound maceration, and thus helps in preventing secondary bacterial infection. Use of UrgoClean Ag has improved wound healing rates and led to a reduction in the wound surface area.

Case study 1

A male patient presented with a 2-year-old infected VLU that had been previously treated with an antimicrobial foam dressing with silver. The wound measured 14cm (length) x 7cm (width) x 1cm (depth) and the wound bed was covered in slough and appeared unhealthy **[Figure 1]**. Induration was present on the surrounding skin, with moderate exudate levels. The patient rated wound pain as severe (6 out of 10; 0=no pain, 10=extreme pain). The wound was cleansed according to local protocol and UrgoClean Ag was applied, along with a 2-layer compression bandage. Initial dressing changes were carried out every 3–4 days. After 9 days of treatment, the wound had reduced in size **[Figure 2]**, measuring 14cm (length) x 6.5cm (width) x 0.5cm (depth); slough had reduced, and the wound was less painful (1 out of 10). Frequency of dressing changes had reduced to every 7 days. After 25 days, the wound bed appeared healthy with granulating tissue **[Figure 3]** and exudate levels were low. The wound was no longer painful and ulcer size had reduced further, now measuring 14cm (length) x 5.5cm (width) x 0.5cm (depth).

Figure 1: Initial presentation

Figure 2: 9 days of treatment

Figure 3: Final review (25 days of treatment)

Case study 2

A 43-year-old female presented with a 10-year-old infected wound with an abscess **[Figure 1]** that had previously been treated with a silver alginate dressing. The wound measured 6cm (length) x 4cm (width) x 1cm (depth). The wound bed appeared unhealthy and comprised slough, with moderate serous exudate visible. Wound pain was rated moderate by the patient (5 out of 10; 0=no pain, 10=extreme pain); induration was presented on the surrounding skin. The wound was cleansed according to local protocol and UrgoClean Ag selected for use, along with a 2-layer compression bandage. Dressing changes were carried out every 7 days for the duration of this case study. After 7 days, ulcer size remained the same, but slough and pain had reduced (4 out of 10). **Figure 2** shows the wound after 14 days of treatment. After 27 days, ulcer size had reduced; the wound measured 5cm (length) x 2cm (width) x 0.5cm (depth) and pain had reduced further (1 out of 10). The wound bed appeared healthy with granulating tissue **[Figure 3]** and exudate levels were low. The wound was later closed with a split skin graft.

Figure 1: Initial presentation

Figure 2: 14 days of treatment

Figure 3: Final review (27 days of treatment)

Dr. Srinivas Seshabhattaru

Consultant Podiatric Surgeon, Apollo Hospitals, Hyderabad, India

> In our practice, we have noted a consistent reduction in slough, signs of wound infection and exudate since using UrgoClean Ag.

UrgoClean Ag has been used predominantly in people with diabetic foot ulcers (DFUs), located in areas such as the plantar aspect, toe, heel, and below the ankle. Presence of infection in the wound, as clinically observed by the increase in levels of exudate, slough and presence of biofilm, prompted me to use UrgoClean Ag. The dressing was mostly used following mechanical or sharp debridement and cleansing with normal saline.

Since using UrgoClean Ag, I have observed the dressing's complete and continuous cleaning action as the polyabsorbent fibres trap, drain and retain slough, biofilm, and debris. This has led to a reduction in the frequency of dressing changes; an improvement of the wound bed was also observed. UrgoClean Ag is a cost-effective option compared to traditional wound therapy, due to the dressing's fast action. The dressing has also reduced the overall need for systemic antibiotics.

UrgoClean Ag has unique characteristics that have been shown to be effective in wound 'cleaning' and reducing bioburden to progress the wound to healing.

Dr. Srinivas Seshabhattaru's top tip:

- Ideally, if a wound has local infection, every patient visit should include surgical debridement and cleansing using normal saline, followed by application of UrgoClean Ag.

All my patients have found the dressing very comfortable during wear time and no pain was experienced during dressing removal. They were also happy that fewer dressing changes were required and with UrgoClean Ag's ability to retain and remove wound residues. My patients have been very happy with treatment and feel it is an easy-to-use dressing. Most of my patients depend upon trained wound care nurses to carry out their dressing changes at home and are very confident that UrgoClean Ag has a fast and effective action.

Case study 1

A 60-year-old male with a history of type 2 diabetes mellitus and hypertension presented with a 2-week-old heel abscess with calcaneal osteomyelitis **[Figure 1]**. Surgical debridement was carried out and the patient was initially treated with negative pressure wound therapy (NPWT). Previous treatment included a hydrogel dressing with silver. At initial presentation, the wound measured 17cm (length) x 15cm (width) and comprised sloughy and friable tissue, with moderate levels of foul-smelling exudate, indicating localised infection. The wound was painful (7 out of 10; 0=no pain, 10=extreme pain), and the surrounding skin was inflamed. The wound was cleansed with normal saline and UrgoClean Ag was selected for use. The dressing was changed after 2 days; the desloughing action of the dressing was satisfactory and healthy granulation tissue was visible. The periwound area appeared to be within normal limits. After 16 days of treatment, increased granulation tissue was visible **[Figure 2]**, and exudate was low. After 28 days, there were no signs of exudate, the wound appeared healthy and ready for a split skin graft **[Figure 3]**.

Figure 1: Initial presentation

Figure 2: 16 days of treatment

Figure 3: Final review (28 days of treatment)

Case study 2

A 66-year-old male with a history of diabetes mellitus, hypertension, coronary artery disease and arterial fibrillation presented with a right first ray abscess with deep infection, measuring 10cm (length) x 10cm (width). The wound bed was sloughy and the periwound area was macerated **[Figure 1]**. Exudate levels were high, and wound pain was rated as moderate. The wound was cleansed with normal saline and UrgoClean Ag was selected for use. The dressing was changed after 2 days; slough had reduced and the periwound area appeared to be within normal limits. The wound had reduced in size, measuring 10cm (length) x 8cm (width). After 8 days, slough and ulcer size had reduced further, and healthy granulation was visible **[Figure 2]**. After 12 days of treatment with UrgoClean Ag, the wound bed comprised of healthy granulation tissue **[Figure 3]**. There were no signs of infection and exudate levels were low. The wound continued to reduce in size over the treatment period and measured 9cm (length) x 5cm (width).

Figure 1: Initial presentation

Figure 2: 8 days of treatment

Figure 3: Final review (12 days of treatment)

Dr. Belehalli Pavan

Assistant Professor of Orthopaedics; Head of Podiatry Department, Karnataka Institute of Endocrinology and Research, Bengaluru, India

> “UrgoClean Ag provides a good option for wounds with slough and a biofilm. Good desloughing properties were observed, levels of exudate were well managed and healing rates improved.

UrgoClean Ag has been used primarily on chronic diabetic foot ulcers (DFUs) situated below the malleoli in weight-bearing areas, or occasionally post-operative stumps that have become infected. These patients were referred to my practice as simple dressings had previously been used, but the wounds remained unhealed. Most of these patients were on antibiotics and had finished multiple antibiotic protocols prior to referral. Treatment commenced with local debridement and UrgoClean Ag as periwound maceration, biofilm presence and low-grade infection were identified. There were no active signs of infection such as purulent discharge or septicaemia, therefore antibiotics were not required in any cases.

UrgoClean Ag has been really helpful in my department as we work in a setup where most patients have come as referrals from other doctors who have already tried their protocols, but without success. One disadvantage of this is that most of these wounds have already become chronic. In such cases, UrgoClean Ag has been effective at managing infections and and closure time has significantly improved. In addition, patients' visits have reduced — we used to see patients on alternate days but since introducing UrgoClean Ag; this has reduced to once every 2–3 days. This has been beneficial for patients, particularly during the COVID-19 pandemic, and indirectly resulted in patients incurring fewer personal costs (e.g. travel expenses).

Dr. Belehalli Pavan's top tips:

- UrgoClean Ag helped to reduce the level of exudate by managing infection and biofilm, and removing slough
- Surgical debridement and local protocol should be used initially, before commencing treatment with UrgoClean Ag.

Many of the wounds treated in my practice have moved to a healing trajectory since the introduction of this dressing. We must, however, understand that this is not a magic dressing and must be used as part of a thorough wound management plan for exudative wounds at risk or with signs of local infection.

Most dressings were applied following surgical debridement. UrgoClean Ag's cleaning and antimicrobial action assists in the prevention and management of biofilm. The dressing provided good antimicrobial action, and after 7–10 days exudate levels reduced, and the amount of dressing changes patients required. UrgoClean Ag is a cost-effective option and has helped to reduce costs for patients from initial presentation to complete healing.

When we first introduced UrgoClean Ag, patients were travelling long distances to reach the clinic and therefore we were required to train them on how to change their dressing at home — they would then send images to us. Patients found the dressing easy to use and dressing removal was not painful. They also commented that when using previous dressings, they would notice an odour from their wound, but this was never the case with UrgoClean Ag as the dressing was effective at cleaning the wound bed and reducing signs of local infection. Patients were very happy and could see that the dressing was working well for them and their wound, and as a result they would request to be treated with UrgoClean Ag when visiting our practice.

Case study 1

A 43-year-old male presented with a 3-month-old infected wound over the right lateral malleolus [Figure 1], following excision of an infected lateral malleolus bursitis. Exudate levels were moderate, and the ulcer area measured 13.41cm^2. The patient's pain was rated moderate (2 out of 10; 0=no pain, 10=extreme pain), and the wound bed comprised of unhealthy granulation tissue and slough. Previous treatment included papain-based cream and a cotton absorbent dressing. The wound was cleansed with normal saline and UrgoClean Ag was selected for use. Dressing changes were carried out every 3–4 days. After 11 days of treatment, the wound bed had improved [Figure 2] and the amount of exudate reduced. After 21 days of treatment, the wound bed appeared to be clean and healthy with new granulation tissue identified [Figure 3], and the patient had no pain. The ulcer area had gradually reduced over the treatment period and at final review measured 5.54cm^2.

Figure 1: Initial presentation

Figure 2: 11 days of treatment

Figure 3: Final review (21 days of treatment)

Case study 2

A 46-year-old patient with a history of swelling over the lateral malleolus and sinus drainage presented with a large clean wound [Figure 1], following excision of a bursa at a different hospital because of infected lateral malleolus bursitis. Peroneal tendons were exposed, and the wound was very painful. The decision was made to begin treatment with UrgoClean Ag to manage exudate, provide a complete and continuous cleaning action and prepare the wound bed for healing. Dressing changes were carried out every 3–4 days. After 11 days of treatment, the wound bed had improved [Figure 2]. Exudate levels had reduced, and healthy granulation tissue was visible over the exposed tendon. After 35 days of treatment, the wound bed was clean and remained granulating [Figure 3]. The wound had also gradually reduced in size over the treatment period.

Figure 1: Initial presentation

Figure 2: 11 days of treatment

Figure 3: Final review (35 days of treatment)

Dr. Sanjay Sharma

Podiatric Surgeon and Founder of Foot Secure, Bengaluru, India

> Infection and biofilm were completely cleared using UrgoClean Ag. The dressing is better than any other standard of care treatment patients had been receiving.

I have used UrgoClean Ag on multiple wounds (six) in the inner sides of the digits of the right foot, which measured 2cm^2 at initial presentation. The dressing was also used on a post-amputation ulcer of the second and third toes, with a cavity of 5cm in the dorsal aspect of the right foot. UrgoClean Ag was selected for use as exudate and infection were present along with exposed bones/tendons, and these wounds had not responded to standard of care.

UrgoClean Ag was used with systemic antibiotics, based on tissue culture and sensitivity reports. Serial debridement was carried out on multiple occasions on all the wounds at varied frequency until slough and non-viable tissue was removed. Polyhexamethylene biguanide (PHMB) soaking was carried out prior to application of UrgoClean Ag, and for the cavity wounds the dressing was cut into a spiral and filled into the cavity. UrgoClean Ag was used instead of antimicrobial ointments and gauze/foam dressings.

UrgoClean Ag is available in a variety of dressing sizes and now used as part of the standard of care for certain wound types and stages, removing the ambiguity surrounding dressing choice. Positive outcomes have been identified in our clinic from using UrgoClean Ag such as:

- Reduced healing time in comparison to the dressings used previously
- Less maceration of the periwound area in comparison to foam dressings
- Increased patient acceptability.

Dr. Sanjay Sharma's top tips:

- Identification of the wound type and staging is a must before starting treatment
- Closely follow the dressing application instructions when applying the dressing.

During usage we identified a reduction in the signs of infection (discharge, erythema, local rise in temperature), wound bed improvement and reduction in wound size until complete wound closure. Healthy granulation tissue was observed early on with the use of UrgoClean Ag, and systemic antibiotics were not required long-term. The absorptive action of the dressing was also beneficial in helping to manage exudate levels, without the need for additional foam dressings. UrgoClean Ag is an antimicrobial with complete and continuous cleaning action, which makes it the dressing of choice in mild exudative, locally infected, sloughy wounds.

Case study 1

A male patient with a history of diabetes presented with an infected wound of the second and third toes with tunnelling and exposed bone post-amputation **[Figure 1]**. The wound measured 5.5cm^2 and the patient rated wound pain as mild (2 out of 10; 0=no pain, 10=extreme pain). The wound bed was unhealthy and exudate levels were moderate, with callus visible in the periwound area. The wound was cleansed with PHMB and UrgoClean Ag was applied. Initially, UrgoClean Ag was changed every other day; dressing frequency then reduced to weekly after two dressing changes. After 11 days of treatment, the wound bed appeared healthy and granulating **[Figure 2]**. Pain and exudate levels had also reduced. After 30 days of treatment, the wound was progressing to complete closure, with some maceration visible **[Figure 3]**. There was no exudate, and the patient had no pain.

Figure 1: Initial presentation

Figure 2: 11 days of treatment

Figure 3: Final review (30 days of treatment)

Case study 2

A male patient with a history of diabetes presented with multiple ulcers on all the digits of the right foot of 2 weeks' duration **[Figure 1]**. Exposed bones and tendons were noted, and wound pain (3 out of 10; 0=no pain, 10=extreme pain) and purulent exudate levels were mild. The wound was cleansed with PHMB and UrgoClean Ag was applied. Initially, UrgoClean Ag was changed after every third day; dressing frequency was reduced to weekly after three dressing changes. After 8 days of treatment, the wound bed comprised granulation tissue **[Figure 2]** and the type of exudate had improved. After 31 days of treatment, the wound had completely healed **[Figure 3]**.

Figure 1: Initial presentation

Figure 2: 8 days of treatment

Figure 3: Final review (31 days of treatment)

Dr. Rohini Prasad

General and Plastic Surgeon, Avinash Hospitals Pvt Ltd, Chennai, India

> UrgoClean Ag is a good option for wounds with slough and biofilm. We observed good desloughing properties and wounds were completely cleaned.

I have used UrgoClean Ag on multiple wounds of different size and location, such as the ankle, foot and toe. These wounds were non-healing and other methods had proved ineffective. Treatment commenced with UrgoClean Ag following VAC (vacuum-assisted closure) therapy and mechanical debridement. UrgoClean Ag has had a positive impact in our department; fewer visits are required and healing times have improved. I would recommend this dressing to other plastic surgeons for non-healing wounds.

UrgoClean Ag is a cost-effective option compared to traditional wound therapy, such as non-adherent paraffin gauze and ointment pads and dressings, as these require more frequent dressing changes. UrgoClean Ag is easy to apply and can be removed pain-free. Patients have been able to manage their own foot dressings at home, observed positive results, and now request to be treated with UrgoClean Ag when visiting our practice.

Dr. Rohini Prasad's top tips:

- The combined cleaning and antimicrobial action helps to support the use of UrgoClean Ag in both the prevention and management of localised wound infection and support the strategy for progression of a chronic wound to healing
- Encourage the patient to rest and offload their foot during treatment.

Case study 1

A 67-year-old patient with diabetes presented with a 10-day-old, infected wound, measuring 13.5cm (length) x 7.5cm (width) [Figure 1]. Previous treatment included povidone-iodine and cotton absorbent dressings. The wound bed appeared unhealthy and was covered in slough; heavy exudate was present. Wound pain was rated severe (6 out of 10; 0=no pain, 10=extreme pain), and the surrounding skin was macerated. The wound was cleansed with normal saline and UrgoClean Ag was applied, along with a 2-layer compression bandage. On average, dressing changes were carried out every 3–4 days. After 8 days of treatment, ulcer size, slough, pain (3 out of 10) and exudate levels had reduced. The wound now measured 11.5cm (length) x 5.5cm (width) and the wound bed appeared healthy [Figure2]. After 25 days, ulcer size had reduced further, now measuring: 10cm (length) x 4cm (width). The wound bed comprised of granulating tissue [Figure 3], exudate levels were low, and the patient had no pain.

Figure 1: Initial presentation

Figure 2: 8 days of treatment

Figure 3: Final review (25 days of treatment)

Case study 2

A 2-year-old child with a post-operative case of craniopharyngioma had been on a ventilator for 2 weeks and developed a pressure ulcer in the occipital area. On presentation, the 2-month-old non-healing wound measured 5cm (length) x 3cm (width) [Figure 1]. The wound bed appeared unhealthy and was covered in slough. Wound pain (4 out of 10; 0=no pain, 10=extreme pain) and exudate levels were moderate, and the surrounding skin was macerated. The wound was cleansed with normal saline and UrgoClean Ag was selected for use. On average, dressing changes were carried out every 3–4 days. After 19 days of treatment, ulcer size had reduced, and the wound measured 3cm (length) x 2cm (width). The wound bed appeared healthy with granulating tissue. The wound was less painful (3 out of 10), and exudate levels were low. Figure 2 shows the wound after 24 days of treatment. After 27 days of treatment, ulcer size had reduced further, now measuring 1cm (length) x 1cm (width) [Figure 3]. There was increasing granulation tissue on the wound bed; the wound was closed with the help of secondary suturing.

Figure 1: Initial presentation

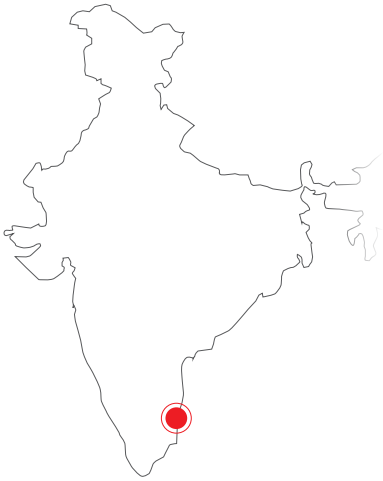
Figure 2: 24 days of treatment

Figure 3: Final review (27 days of treatment)

Dr. Selva SeethaRaman

Senior Consultant Plastic Surgeon, Gleneagles Global Hospital, Chennai, India

> UrgoClean Ag is ideal for infected wounds. A dressing that combines the cleaning and desloughing action of polyabsorbent fibres with antimicrobial ionic silver.



UrgoClean Ag is mainly used to treat diabetic foot ulcers (DFUs), but has also been used in one case where a patient presented with Fournier gangrene. All patients treated had diabetes with other complications; one person was even recovering from COVID-19, and so analgesics were not suitable for use. UrgoClean Ag was selected following surgical debridement, as minimal slough was present in the wound. I have now been using the dressing in practice for 4–5 months.

UrgoClean Ag is used with systemic antibiotics where there are signs of systemic wound infection (i.e. spreading cellulitis); however, when infection is localised and minimal slough observed, antibiotics are stopped and treatment continues with UrgoClean Ag.

UrgoClean Ag has a very good antimicrobial and desloughing action, which has made a positive impact in the management of chronic wounds. Previously, we used many ointments with antimicrobial properties to remove slough, but this has now been made possible with a single dressing and is more convenient for the patient. Moreover, for certain patients, most of which are high-risk, it has even been possible to avoid surgical debridement.

I have spoken to many of my colleagues about UrgoClean Ag and would recommend this dressing as it provides a good cleansing action and contains a silver matrix, for which there is no antibiotic resistance. UrgoClean Ag is a cost-effective option for the management of chronic wounds, but it is important for the dressing to be used on the correct wound type.

Dr. Selva SeethaRaman's top tip:

- If there is a high amount of slough present, surgical debridement should be carried out before dressing application.

Initially, I noticed an increase in exudate levels when using UrgoClean Ag due to the desloughing properties of this dressing, but this would begin to decrease after 2 days. Wound bed improvement and reduction in signs of infection would follow simultaneously, and then finally wound area reduction.

UrgoClean Ag has a good complete and continuous cleaning action, helping to manage exudate effectively and maintain a clean wound bed. Patients required dressing changes twice a day in the first few days of using UrgoClean Ag because of high exudate levels; this reduced to alternate day dressings as exudate levels reduced.

For some patients, they experienced a slight stinging sensation when the dressing was first applied, but this resolved quickly. The dressing was easy to apply, and no pain or discomfort was experienced on removal. Patients have stated that they are happy with the dressing performance of UrgoClean Ag and are confident with changing the dressing at home themselves.

Case study 1

A 50-year-old male with a history of diabetes mellitus and Stage 5 kidney disease presented with a 14-day-old infected wound measuring 8cm (length) x 8cm (width) [Figure 1], requiring incision and drainage. The wound bed was 100% sloughy tissue and appeared unhealthy with heavy copious exudate present. Wound pain was rated as severe (6 out of 10; 0=no pain, 10=extreme pain); the surrounding skin was unhealthy. The wound was cleansed with saline and UrgoClean Ag was applied, along with a cotton absorbent dressing. Initially, dressing changes were carried out daily for the first week. Following this, dressing changes were carried out on alternate days, and then every 3–4 days. After 8 days of treatment, ulcer size, pain and exudate levels had reduced. Figure 2 shows the wound after 10 days of treatment. After 17 days of treatment, the wound bed appeared healthy, exudate levels were moderate and ulcer size had reduced further, now measuring: 7cm (length) x 6cm (width). After 28 days, the wound measured 6cm (length) x 6cm (width) and the wound bed remained healthy with granulating tissue visible [Figure 3]. The wound was also less painful (2 out of 10), and exudate levels were low.

Figure 1: Initial presentation

Figure 2: 10 days of treatment

Figure 3: Final review (28 days of treatment)

Case study 2

A 64-year-old male presented with Fournier's gangrene and a 3-day-old infected wound measuring 20cm (length) x 10cm (width) [Figure 1]; the patient complained of scrotal swelling, discolouration, and foul-smelling discharge. The wound bed comprised of slough and exudate levels were moderate. The patient rated pain as severe (6 out of 10; 0=no pain, 10=extreme pain); the surrounding skin was unhealthy. The wound was cleansed with saline and UrgoClean Ag was applied. Initially, dressing changes were carried out daily for the first week. Following this, dressing change frequency reduced to alternate days. After 12 days of treatment, ulcer size and slough had reduced; the wound measured 19cm (length) x 19cm (width) [Figure 2]. The wound was also considerably less painful (1 out of 10). After 16 days, slough had reduced further, along with ulcer size. The wound measured 17cm (length) x 8cm (width). After 19 days, the wound bed appeared healthy with granulating tissue [Figure 3]. Exudate levels were low, and the patient had no pain. The wound was closed with a flap cover.

Figure 1: Initial presentation

Figure 2: 12 days of treatment

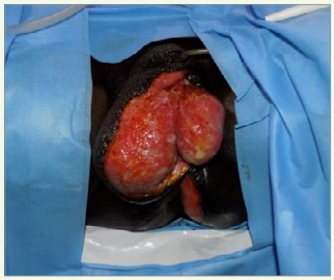


Figure 3: Final review (19 days of treatment)

Dr. Venkateshwaran Narasiman

Plastic and Reconstructive Surgeon, Jupiter Hospital, Thane, India

> UrgoClean Ag is a simple and effective tool for slough and biofilm management. It is a useful dressing when operative surgical debridement may be delayed or difficult, and it is user-friendly.

UrgoClean Ag has been used on diabetic foot ulcers (DFUs) and some venous leg ulcers (VLUs). Most of these were lower extremity wounds, for example, one on the dorsum of the foot measuring 5cm (length) x 5cm (width), another an ischaemic ulcer following forefoot amputation — the wound had broken down and resulted in the formation of an ulcer. I selected UrgoClean Ag for use as the wounds were sloughy with visible debris and needed cleaning, other than with the usual method of mechanical debridement. The periwound area was also macerated and all were exuding wounds, requiring frequent dressing changes.

These wounds were initially necrotic skin patches with underlying infection. The patches were removed via mechanical debridement, prior to application of UrgoClean Ag. Patients were given antibiotics at initial presentation when local inflammatory signs were high and wounds had become contaminated with organisms (e.g. *Pseudomonas aeruginosa*), as indicated by the culture sensitivity report. However, after one dressing change, periwound inflammation reduced and antibiotics were stopped. With each subsequent dressing change, only minimal local debridement was necessary.

Chronic wounds often require frequent dressing changes, which can be time-consuming; however, we have found since using UrgoClean Ag, dressing changes have reduced to every 3 days. This has resulted in savings to clinicians' and patients' time, while also reducing healthcare costs. Most of these patients would not have been able to go to theatre for radical debridement procedures because of their general condition, for example, a recovered COVID-19 patient. In these instances, UrgoClean Ag has helped to debride the wound in a painless and gentle manner, without increasing the financial burden to patients.

I would recommend UrgoClean Ag as it is a very useful product, combining the action of biofilm management with infection control, and has desloughing properties. This dressing can be used as part of every clinician's repertoire for managing chronic and acute exuding wounds at risk or with signs of local infection.

In terms of cleaning action, the need for mechanical debridement reduced after every subsequent dressing change. The wound bed also appeared cleaner and healthier, and granulation tissue started to develop. In these cases, patients were able to go on and have a skin graft. Prior to using the dressing, one or two patients were on oral systemic antibiotics, but we were able to stop these quickly once treatment commenced with UrgoClean Ag. A main benefit is the cleaning action due to the polyabsorbent fibres — repeated application and removal of this dressing led to regular reduction in exudate levels and we were able to increase wear time and prolong dressing changes from every 3 days to every 4 days. This also helped in reducing treatment costs for the patient.

Traditionally, for these types of wounds, we have used silver gels or even ionic silver solutions, but generally we were unable to use paraffin tulle gauze along with the product. As a consequence, these would become wet-to-dry dressings and cause the patient to experience pain during dressing changes. These products can also be expensive if used long-term and, coupled with the fact some patients may require surgical debridement, this can lead to rising treatment costs.

Dr. Venkateshwaran Narasiman's top tips:

- UrgoClean Ag is very easy to integrate into practice when managing chronic wounds and infection
- UrgoClean Ag can be used to reduce the level of exudate by cleaning the wound of slough and microorganisms.

UrgoClean Ag can remove biofilm and slough with each dressing change and in a painless manner. Patients have given favourable feedback in terms of pain-free dressing changes, particularly one patient who had a developed a post-thrombotic ulcer on her foot — every dressing change was a 'living nightmare' but use of UrgoClean Ag helped to manage pain.

Since using UrgoClean Ag, we have been able to hand over the dressing regimen to patients, relatives or carers, so that dressing changes can be carried out at home. Application and removal of the dressing is simple and easy, and patients/relatives have been more than happy, and even enthusiastic, to share pictures

and measurements with us as the wound progresses. Use of UrgoClean Ag has helped patients to feel empowered, as they have some participation and control over what is happening with their wound. It also gives patients a sense of reassurance if a clinician is trusting them to change their dressing at home.

Case study 1

A 67-year-old female with a history of diabetes mellitus presented with a 1-month-old necrotic wound on the dorsum of her foot, post-COVID-19. The wound measured 4.7cm (length) x 5cm (width) and was covered with thick slough **[Figure 1]**. The surrounding skin was swollen and macerated due to high levels of exudate. The patient rated pain as moderate. The wound was cleansed with sterile water and UrgoClean Ag was applied. Three days later, the dressing was changed; slough and periwound maceration had reduced **[Figure 2]**. After 9 days, the wound bed appeared healthy and exudate levels were low. After 13 days of treatment, ulcer size had reduced and measured 4.5cm (length) x 5cm (width); the wound bed appeared healthy with granulating tissue visible **[Figure 3]**.

Figure 1: Initial presentation

Figure 2: 3 days of treatment

Figure 3: Final review (13 days of treatment)

Case study 2

A 62-year-old male with a history of diabetes mellitus who had undergone forefoot amputation for ischaemic gangrene of the toes presented with a 4-month-old necrotic stump. The wound measured 5cm (length) x 4.5cm (width) and comprised adherent slough with minimal exudate **[Figure 1]**. The patient rated wound pain as mild; the surrounding skin was healthy. After cleansing the wound with sterile water, the wound was dressed with UrgoClean Ag. Dressing changes were carried out every 3 days. After 8 days of treatment, the wound bed appeared sloughy **[Figure 2]**. The surrounding skin remained healthy, with less exudate present. After 15 days of treatment, slough levels and ulcer size had reduced; the wound measured 4.5cm (length) x 3.8cm (width). After 19 days of treatment, the wound bed appeared healthy, slough had completely cleared **[Figure 3]**, and the wound measured 4.5cm (length) x 3.5cm (width).

Figure 1: Initial presentation

Figure 2: 8 days of treatment

Figure 3: Final review (19 days of treatment)

Dr. Amit Jain

Consultant and Head, Amit Jain's Diabetic Foot and Wound Research Unit, Amit Jain's Institute of Diabetic Foot and Wound Care, Brindhavvan Areion Hospital, Bengaluru, India

> UrgoClean Ag can be used to remove slough and help in autolytic debridement, thus facilitating wound healing. It has a promising role in the management of infected wounds.

We have used UrgoClean Ag on eight patients in the first half of 2021. Six patients had a diabetic foot ulcer (DFU), one had a leg ulcer and one had a postoperative wound following an infected sebaceous cyst across the back. We have used the dressing on wounds ranging in size from 2cm to 20cm (where two UrgoClean Ag dressings were used).

We selected UrgoClean Ag as the wounds had either presence of biofilm or slough that needed to be removed. The cleaning action also allowed us to avoid sharp debridement, which we knew would be particularly painful in patients with a leg ulcer. UrgoClean Ag was applied to one non-healing toe ulcer without sharp debridement; the other wounds were dressed following surgery.

We noticed positive results in the first few cases where UrgoClean Ag was introduced. It was easy to apply, removal was pain-free and the gel could be easily cleansed with saline during dressing changes. UrgoClean Ag appeared to be effective at cleaning the wound and removing slough.

Dr. Amit Jain's top tip:

- Consider using UrgoClean Ag in your wound care practice to help remove all barriers to healing (e.g. microorganisms, biofilms, slough, exudate).

UrgoClean Ag was able to loosen slough after 3–4 dressing changes, which is one of the benefits of this dressing as it helps to maintain a clean wound bed. We also noticed a reduction in the clinical indicators of biofilm.

The patients who were treated with UrgoClean Ag found the dressing comfortable to wear and observed improvements in the condition of their wound. They were also satisfied with the cost of the dressing. All patients treated with UrgoClean Ag continued with the therapy until complete wound closure, which is a great outcome for us as practitioners.

Case study 1

A 61-year-old male presented with a 6-week-old ulcer over the great toe of his right foot that had occurred from a bike injury **[Figure 1]**. The patient was a non-smoker, with a 12-year history of diabetes mellitus; he was taking prescription medication, but the wound was failing to heal. On presentation, the wound measured 3cm (length) x 2cm (width) and the wound bed comprised pale granulation tissue and slough. The surrounding skin was healthy, with moderate levels of exudate present. The patient had neuropathy and pulses over his foot were well felt.

The wound was cleansed using normal saline and treatment commenced with UrgoClean Ag. The dressing was changed on alternate days for the first week and every 4 days thereafter. After 4 days of treatment, slough had reduced, healthy red granulation was visible, and exudate levels were mild. The surrounding skin remained healthy, and the wound had gradually reduced in size. After 25 days of treatment, the wound bed appeared healthy and clean **[Figure 2]** and there was no exudate. Following 36 days of treatment, the wound had closed **[Figure 3]**, and the wound bed was 100% epithelialising.

Figure 1: Initial presentation

Figure 2: 25 days of treatment

Figure 3: Final review (36 days of treatment)

Case study 2

A 63-year-old male with a history of diabetes mellitus and hypertension who had undergone a right fifth toe amputation for an infected ulcer. Post-amputation, the patient underwent peripheral angiogram and angioplasty of tibial arteries in view of underlying peripheral arterial disease (PAD) and critical limb ischaemia. During wound care management, the patient presented back to our centre with a wound over his right forefoot. On presentation, the wound measured 2.2cm (length) x 1.6cm (width) [Figure 1]. Biofilm was clearly present in the wound bed, with slough occupying most of the ulcer area. The patient had neuropathy and his dorsalis pedis pulse was felt over the foot after angioplasty. The surrounding skin was normal, with mild exudate levels.

The wound was cleansed with normal saline before application of UrgoClean Ag. Dressing changes were carried out on alternate days for the first week and every 4 days thereafter. After 2 days of treatment, there was a significant reduction in slough and biofilm; exudate levels remained mild. After 10 days of treatment, there was healthy red granulation [Figure 2] and no presence of biofilm. There was minimal slough and no signs of exudate. After 15 days, the wound had decreased in size by 50%, with healthy granulation and no discharge. After 25 days, the wound was 100% epithelialising and had completely healed [Figure 3].

Figure 1: Initial presentation

Figure 2: 10 days of treatment

Figure 3: Final review (25 days of treatment)

Dr. Sachin Arsule

Podiatrist, Nashik Diabetic Foot Foundation, Nashik, India

> UrgoClean Ag helped to improve wound healing and patient compliance.

We have used UrgoClean Ag for patients with diabetic foot ulcers (DFUs). The dressing is commonly selected for wounds measuring 5cm (length) x 5cm (width), as larger wounds usually require sharp debridement or surgical intervention at initial presentation. Once this has been carried out, we dress the wound with UrgoClean Ag.

Most DFUs we treat are not the primary wound and have already been debrided, or developed post-amputation, and are failing to heal or have become re-infected. Some wounds present with thick slough/biofilm covering the entire wound with eroded margins; some have secondary wound infections associated with *Pseudomonas*. Many of our patients are reluctant to participate in further surgical interventions, some have financial constraints or are travelling from very remote places, tired of carrying out dressing changes and dissatisfied with the existing treatment regimen. We prefer to apply UrgoClean Ag directly to the wound following cleansing or minor debridement, as it can remove slough and release silver ions into the wound bed; the dressing provides a combined antimicrobial and complete and continuous cleaning action to fight microorganisms. I have observed the rapid effects of the dressing after minor or short debridement sessions.

While using UrgoClean Ag, we observed a decrease in slough and discharge from the wound bed. After 3–4 dressing changes, new granulation tissue was present, showing a healthy wound bed ready for closure. As a result, we avoided unnecessary surgical intervention, hospital admission and extra costs to the patient. UrgoClean Ag may also be used for wounds where surgery is risky or contraindicated.

I would recommend UrgoClean Ag to other clinicians because:

- The method of application and removal is easy to handle
- Managing wounds is easy — small wounds with moderate slough can be very well managed and treated
- Frequency of dressing changes reduces
- Application and removal is painless
- The dressing provides a good antimicrobial action
- Patients can be managed in remote places as they don't have to visit hospital repeatedly
- No local skin maceration or disturbance is observed.

Dr. Sachin Arsule's top tips:

- UrgoClean Ag is ideal for all infected wounds with slough, exudate and signs of biofilm
- Dry or wet gangrene needs to be treated with other methods initially before UrgoClean Ag can be applied.

One of the main benefits of UrgoClean Ag, in our opinion, is that clinicians can clean the wound bed in a few applications, thus promoting wound healing without major surgical intervention. This helps to avoid hospitalisation and prevents further wound deterioration.

Overall, ease of application, pain-free dressing removal, fewer dressing changes or need for medical assistance has helped to increase patient compliance with UrgoClean Ag.

Case study 1

A 39-year-old male who had undergone amputation presented with a non-healing wound with secondary infection of over 6 weeks' duration, measuring 5cm (length) x 6cm (width) x 4cm (depth) [Figure 1]. The wound bed was covered with slough, with foul-smelling discharge. The patient rated wound pain as 4–6 out of 10 (0=no pain, 10=extreme pain). Heavy exudate was present and the periwound area was macerated. Previous treatment included an antiseptic solution, povidone-iodine, and application of a cotton gauze absorbent dressing, on alternate days. The decision was made to cleanse the wound with normal saline and UrgoClean Ag was selected for use. Dressing changes were carried out every 3 days. After 3 days of treatment, slough, exudate levels and ulcer size had reduced. The patient also found the wound less painful and rated pain 3–4 out of 10. After 6 days of treatment, slough and pain had reduced further and exudate levels were low. After 8 days of treatment, the wound bed appeared clean, the ulcer now measured 3cm (length) x 4cm (width) x 2cm (depth), and the patient had no pain. The wound was later treated with platelet-derived growth factor therapy along with application of UrgoTul Contact Layer. Figure 2 shows the wound after 27 days of treatment. After 33 days of treatment, the wound was progressing towards healing [Figure 3].

Figure 1: Initial presentation

Figure 2: 27 days of treatment

Figure 3: Final review (33 days of treatment)

Case study 2

A 72-year-old male presented with a non-healing cracked heel with secondary infection of 30 days' duration, measuring 4cm (length) x 4cm (width) [Figure 1]. The wound bed was covered with slough, with foul-smelling discharge. The wound was very painful. Exudate levels were heavy and the periwound skin was macerated. Previous treatment included hydrogen peroxide, povidone-iodine, and application of a cotton gauze absorbent dressing, on alternate days. The wound was cleansed with normal saline and UrgoClean Ag selected for use. Dressing changes were carried out every 3 days. After 3 days of treatment, ulcer size remained the same, but slough, odour, and pain levels had reduced. After 6 days, the wound bed had improved further and slough had visibly reduced. Exudate levels were mild, and the wound was less painful. Ulcer size had also reduced, and the wound measured 3cm (length) x 5cm (width). Figure 2 shows the wound after 8 days of treatment with UrgoClean Ag. After 15 days, the wound bed was granulating and appeared healthy [Figure 3], there was no exudate and pain levels had reduced further. Over the treatment period, ulcer size had significantly reduced; the wound now measured 3cm (length) x 3cm (width). The decision was made to continue using UrgoClean Ag to increase granulation tissue and promote wound healing.

Figure 1: Initial presentation

Figure 2: 8 days of treatment

Figure 3: Final review (15 days of treatment)

Dr. Rajagopal Sridhar

Associate Professor, Department of Hand and Reconstructive Microsurgery, TNGMSSH, Chennai, India

> UrgoClean Ag is safe, simple and effective when used on small- to medium-sized challenging wounds.

UrgoClean Ag has been used on diabetic foot ulcers (DFUs), with sizes ranging from 3cm (length) x 3cm (width) to 10cm (length) x 5cm (width), and venous leg ulcers (VLUs), with sizes ranging from 2cm (length) x 2cm (width) to 8cm (length) x 3cm (width). These wounds were located on the leg and foot. UrgoClean Ag was selected for use as these were chronic non-healing wounds that were failing to respond to regular treatment options. UrgoClean Ag was applied following surgical debridement in two cases, and mechanical debridement in other cases. Antibiotics were given alongside this dressing option.

UrgoClean Ag is an easy-to-use dressing and has helped to simplify and improve wound management delivery in our department. I would recommend UrgoClean Ag to other clinicians due to its clinical results and ease of application.

Dr. Rajagopal Sridhar's top tips:

- Use of this dressing does not negate the need for appropriate systemic antibiotic treatment of infected wounds in line with local policy
- The indications for UrgoClean Ag are locally infected and 'at risk' acute and chronic wounds.

My experience of treating patients with UrgoClean Ag has been positive. The dressing has helped in the debridement process and provides a complete and continuous cleaning action, which aids removal of slough, biofilm and debris. UrgoClean Ag provides a cost-effective option in comparison to other treatments, such as an absorbent antimicrobial barrier dressing.

For small- to medium-sized challenging wounds, UrgoClean Ag offers a good treatment option. It is also convenient for the patient to change the dressing at home. All my patients are happy with the product and its results. The dressing is easy to apply, and removal has been pain-free. Patients commented on the dressing's comfort during wear time and its ability to stay in place. UrgoClean Ag is an ideal dressing for locally infected and 'at risk' wounds, as well as wounds failing to progress towards healing.

Case study 1

A 52-year-old male with an 8-year history of diabetes mellitus presented with a 3-month-old diabetic foot ulcer due to prolonged standing and pressure on the feet, measuring 3cm (length) x 2cm (width) [Figure 1]. The wound bed was sloughy, exudate levels were low, and the surrounding skin was healthy. The patient rated his wound pain at 7 out of 10 (0=no pain, 10=extreme pain). After cleansing the wound with normal saline, UrgoClean Ag was applied. After 4 days, there had been an increase in granulation tissue, slough had reduced, and exudate was minimal. The wound was also less painful (5 out of 10). After 8 days, further improvements were seen: granulation tissue continued to increase [Figure 2], the surrounding skin remained healthy and there was no exudate. The wound had decreased in size, measuring 2cm (length) x 1cm (width) and was now less painful (2 out of 10). After 13 days of treatment with UrgoClean Ag, the wound had healed [Figure 3].

Figure 1: Initial presentation

Figure 2: 8 days of treatment

Figure 3: Final review (13 days of treatment)

Case study 2

A 58-year-old male with a history of diabetes and hypertension presented with a 2-month-old DFU, measuring 7cm (length) x 2cm (width) [Figure 1]. The wound was sloughy and showing signs of infection (oedema); however, exudate levels were low. The patient rated his wound pain as unbearable (10 out of 10; 0=no pain, 10=extreme pain). The wound was cleansed with normal saline and treatment commenced with UrgoClean Ag. After 4 days of treatment, the wound consisted of healthy granulation tissue, exudate had reduced, and the patient was experiencing less pain (7 out of 10). The wound now measured 5cm x 2cm and there was also a significant reduction in oedema and slough. After 8 days, a further reduction in wound size was identified [Figure 2]; the wound measured 3cm (length) x 1.5cm (width). The wound bed remained healthy, and oedema continued to decrease, along with pain levels (2 out of 10). After 13 days, the wound had completely healed [Figure 3]. There was no pain or exudate, and the surrounding skin was healthy.

Figure 1: Initial presentation

Figure 2: 8 days of treatment

Figure 3: Final review (13 days of treatment)

THE ONLY SILVER DRESSING WITH COMPLETE & CONTINUOUS CLEANING ACTION

UrgoClean Ag

UrgoClean Ag effectively fights against local infection

- ✓ Fast & effective antimicrobial action[1]
- ✓ Complete & continuous cleaning action to remove slough, exudate and bacterial residues[2]
- ✓ Destroys and removes biofilms[3]

For all wounds at risk or with signs of local infection

Boost the silver with cleaning power !

1. UrgoTul Silver data on file. 2. Schierle CF, et al. Staphylococcal biofilms impair wound healing by delaying reepithelialization in a murine cutaneous wound model. Wound Repair Regen. 2009;17(3):354-9 3.Dalac S, et al. Clinical evaluation of a dressing with poly-absorbent fibres and a silver matrix for managing chronic wounds at risk of infection: a non comparative trial. J Wound Care. 2016 Sep;25(9):531-8.

CONCLUSION

The clinical experiences presented in this supplement focus on UrgoClean Ag in real life — a dressing that combines the cleaning and desloughing action of polyabsorbent fibres with antimicrobial ionic silver to remove barriers to healing, such as slough, exudate, and bacterial residues within the wound. The clinicians reported that UrgoClean Ag is easy to use; the dressing helps patients to carry out dressing changes at home and to feel more involved with their own care. Patients have commented that the dressing is comfortable during wear time and atraumatic and pain-free at removal.

UrgoClean Ag is indicated for the local treatment of chronic (leg ulcers, pressure ulcers, diabetic foot ulcers) and acute (burns, traumatic wounds, surgical wounds) exuding wounds at risk or with signs of local infection, after the wound has been debrided. It is the only silver dressing that has a combined cleaning and antimicrobial action to help support both the prevention and management of locally infected and at-risk wounds, and wounds that are not progressing to healing.

Summary of benefits of UrgoClean Ag in practice:

- Reduces the bacterial load and keeps the wound clean from exudate, slough, and bacterial residues
- Prevents and fights against local infection with the combined antimicrobial and complete cleaning action
- Comfortable during wear time
- Pain-free at removal.

WOUNDS ASIA