

MSF

Médecins Sans  
Frontières Suisse



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## Improving wound care in Africa

# WE NEED YOU!

### There is a need for effective wound care in Africa

Acute or chronic wounds are a common condition, although little recognized in Africa. Besides the pathologies similar to those existing in Europe (or metabolic vascular ulcers, surgical wounds or traumatic ...), there are more specific wounds. Tropical infectious ulcers (ulcers phagedenic, Buruli ulcer, leishmaniasis, leprosy ...) are characteristic but there are also the burns particularly related to domestic accidents in children. The epidemiological transition underway in many African countries, results in an increase in diabetic wounds and ulcers that affect the elderly, paraplegics or end of life HIV patient.

The WHO has recently published a guide to sum up the principles of modern wound care: The WHO Buruli Group includes in its recommendations the principles of wound bed preparation.

In Africa, we also see that it is possible to use the four pillars of wound healing with different approaches. Some rely on the use of conventional dressings that are cheap and available locally. Here we should especially mention the work of Professor Ryan for the treatment of filariasis<sup>1</sup> and Dr. Grauwin for the treatment of leprosy<sup>2</sup>. Others aim to build on local medicine noting the use of honey or plants such as papaya. Also, MSF has developed a new approach to introduce a simplified range of modern dressings.

### BURULI ULCER PROGRAM IN CAMEROON

Buruli ulcer is an infectious disease that occurs in tropical regions, around slow running rivers. The mode of transmission is still not studied enough, but it is suspected to be transmitted via micro-organisms living in slow running rivers, which enter the skin.

The symptoms start often with small nodules. The tissue below the visible part of the skin slowly dies, eventually leading to open wounds. These can spread over arms, legs and the back. Buruli ulcer is rarely lethal, but it leaves those who suffer from it with debilitating deformations of arms and legs. Sadly patients often come at a late stage, when the open wound is already developed and too large to be easily treated.

The treatment has four components:

- **Antibiotics**
  - A combination of antibiotics (rifampicin and streptomycin or clarithromycin) is necessary during end months to fight infection.
- **Wound Care**
  - Wound care is a key element for cicatrisation.
- **Physiotherapy**
  - Physiotherapy helps to prevent disabilities.
- **Surgery**
  - Surgical treatment is useful for large debridement, skin graft or osteomyelitis.



The child's wound is a buruli ulcer  
(credits – Eric Comte/MSF)

Wound care represents a real medical issue. Unfortunately the international consensus in favour of wound bed preparation is largely ignored in Africa. The practice to dry and disinfect the wound care prevails leading to inefficient, time-consuming and expensive sources of pain, sometimes resulting in permanent disabilities.

However, several initiatives exist that seek to promote a modern approach to wound care by using simple equipment suitable for resource-limited settings.

<sup>1</sup> [www.oxfordinternationalwoundfoundation.org/develop/develop4.html](http://www.oxfordinternationalwoundfoundation.org/develop/develop4.html)  
<sup>2</sup> Grauwin MY. Techniques simples de pansement de plaies et maux perforant plantaires applicables à un programme national de lutte contre la lèpre. Bulletin de l'ALLF n° 25 mai 2010. [http://sfdermato.actu.com/allf/bulletin\\_allf\\_25\\_pages-3-a-62.pdf](http://sfdermato.actu.com/allf/bulletin_allf_25_pages-3-a-62.pdf)



Akonolinga is a rural district with very limited resources. The district is divided into 12 'health sectors', each with its own health centre. There is one district hospital in Akonolinga town. A study done in 2007 found high prevalence rates of Buruli ulcer throughout the district, indicating that the disease is a public health problem. It was found that 25 out of 10,000 inhabitants in the district were infected with skin ulcers.

The MSF programme opened in 2002 to support the Ministry of Health district hospital. All medical activities to treat Buruli ulcer are conducted by a joint team of National MSF-staff and international employees. MSF offers free treatment and provides the infrastructure, equipment, and medication necessary to run the Buruli ulcer treatment programme. MSF has established an independent pharmacy in the hospital, and also provides laboratory support, organisation of surgery and sterilisation, and nutritional support to patients. MSF staff participates in scientific meetings. MSF also trains local staff and brings foreign specialists for short periods to Akonolinga. Since 2002, the programme has treated over 900 patients.

For four years, MSF, with the help of the haute Ecole de Santé de Geneva and University Hospital of Geneva, has developed an innovative approach to its wound care programme. The aim of

#### WE NEED YOUR HELP

To carry out this work, we need to network with people with experience in wound care. We would like to share our experience with health care providers or institutions working in the area of wounds in the tropics.

We also need to establish courses and guidelines adapted to tropical settings with limited resources. We will build on existing courses and guidelines.

It is difficult to find qualified personnel who can volunteer to work for at least one year in Cameroon under the auspices of a voluntary humanitarian organization. We are seeking specialist nurses in wound care and dermatologists interested in tropical medicine.

If you are interested in one of these approaches do not hesitate to contact us: [MSF-Buruli@geneva.msf.org](mailto:MSF-Buruli@geneva.msf.org)

**MÉDECINS SANS FRONTIÈRES** is a private international association operating in more than 75 countries with close to 400 aid programmes.

**MSF provides assistance to populations in distress, to victims of natural or man-made disasters and to victims of armed conflict.**

**The organisation was awarded the Nobel Peace Prize in 1999. MSF has been working in Cameroon for more than eight years, providing HIV/Aids-care and responding to emergencies. At present, MSF provides medical care for Buruli Ulcer.**

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*The building is the hospital in Akonolinga. Building on the left is the Buruli ward.*

*(credits – Marcell Nimfuehr /MSF)*

this project was to show that modern dressing protocols can be adapted to tropical settings.

MSF has trained doctors and nurses in Cameroon to update knowledge on the international consensus on healing. MSF has also worked with Cameroonian colleagues to adapt a sheet description of wounds that reflects the characteristics of Buruli ulcer. Colour sheets were designed to facilitate decision-making on treatment methods.

MSF has also introduced a limited range of modern dressings (alginate, hydrogel, hydrocellular, Vaseline tulle). The concepts of wound infection have been addressed to rationalize the use of antiseptics and antibiotics and attention was drawn to the struggle against oedema in order to improve cicatrization. Modern dressings facilitate the work of nurses and improve patient comfort. They also require fewer dressing changes, and enable patient care by mobile teams that travel to villages twice a week, instead of forcing patients to come to the clinic on a daily basis.

Beyond our experience, we want to open the debate on the need in Africa to use these techniques and to remove obstacles to the development of modern dressings (cost and availability of products, training ...).



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Audrey Reverdi

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## Wound care nurse in Cameroon – A Testimony

# Much more than a nurse

Audrey Reverdi worked during seven months in Akonolinga (Cameroon) – two hours east of Yaounde by road – where Médecins Sans Frontières Suisse (MSF) opened a Buruli ulcer ward. In 2010, a team of less than ten caregivers took over 120 patients suffering from this chronic disease which causes large sores that are very difficult to heal. The young nurse explains her motivations and what she got out of this mission.

**How did you end up working in Akonolinga?**

**Audrey Reverdi:** I trained as a nurse specializing in cancer wounds at the Curie Institute in Paris, a hospital and research institute against cancer. I had always wanted to go on a mission after my diploma, and my trainer in Paris put me in contact with MSF.

The problems posed by cancer wounds are not the same as those pertaining to Buruli ulcer. However, I have been trained on wound care in general, on scar healing and the evolution of dressings, and know how to distinguish between lab marketing and real innovations.

**What are the specifics of the management of Buruli ulcer?**

Buruli ulcer is caused by a mycobacterium whose vector has not yet been identified. There is talk of a water flea. As for the mosquito hypothesis, it has been rather ruled out. The vector inoculates the

bacterium, which proliferates in the subcutaneous tissue and necroses it. The wounds are often multiple, and therefore very difficult to treat.

The evolution of the bacterium remains an enigma. For example, a patient can have an ulcer on the left wrist that later reappears on another part of his/her body. Patients with HIV/AIDS or suffering from malnutrition have the most serious wounds, because their body is weakened.

**What did your days look like?**

They seldom went according to plan! Nevertheless, I always tried to spend as much time as possible in the wound care room. The day usually began with a ward team briefing in order to review the health status of hospitalized patients. MSF now has protocols to treat Buruli ulcer; however, the disease is so unpredictable that nothing can ever be taken for granted. This endless battle can sometimes be quite discouraging, but it is a very interesting one.

Modern dressings have helped improve scar healing. Above all, they are more comfortable. This is very important, because patients wear them for months at a time. When patients arrive with 20-year-old sores, healing is impossible unless you perform a graft. Therefore, you have to teach them to live with and take care of their wounds. Education is the key to managing this illness. You have to convince local people that they have to be examined as soon as possible to avoid hospitalization. That is another fascinating aspect, as you have to raise awareness among people who are not of the same culture. In Cameroon, Buruli ulcer is considered a curse and sufferers are rejected. Mentalities only evolve slowly.

**What did you get out of this mission?**

In Cameroon, in addition to being a nurse I also had to supervise the team of the Buruli ulcer ward. I started by observing how they worked before making the necessary adjustments. I also had to reorganize the pharmacy and make sure that protocols were implemented. I became more self-assured. I learned to defend my views and to be more aggressive.

**And on a more personal level?**

It taught me to put things into perspective. In the field of oncology, death is everywhere but remains a taboo subject. In Africa, it is a painful experience, but life goes on. I don't give the same answers anymore, be it in my work or in my personal life.

*The evolution of the bacterium remains an enigma. For example, a patient can have an ulcer on the left wrist that later reappears on another part of the body.*

