

# Clinician expectations in wound care during the COVID-19 pandemic: March 2020 to January 2021

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A group of 18 European wound care specialists were surveyed in March 2020 on the expected impact of the COVID-19 pandemic on wound care and their clinical practice. The panel expected inadequate wound diagnosis, delays in treatment, increased wound infection and inflammation and increased patient hospitalisations as a result of national lockdowns and redeployment of clinical staff to the acute setting. Seven specialists were followed up nearly a year later in January 2021 to ascertain the realities of the COVID-19 pandemic on wound care. To overcome the main challenges of the pandemic, the group proposed that supporting and educating carers offers an opportunity to improve patient care.

## Declaration:

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The coronavirus disease (COVID-19) pandemic was declared by the World Health Organization (WHO) on March 11, 2020. By April 27, 2020, 2.8 million confirmed COVID-19 cases were notified globally, including 198,668 deaths, of which 1.3 million cases and 124,525 deaths occurred in Europe (WHO, 2020). Although restrictions to movement differed throughout Europe and were imposed at different times, all countries experienced some form of 'lockdown' [Box 1] to restrict the spread of the SARS-CoV-2 virus.

Like so many healthcare sectors, the wound care community has been greatly affected by the COVID-19 pandemic. The situation has had an impact on service delivery, how clinicians communicate with patients, and may have hastened, or permanently changed, the ways in which care is delivered (Moore and Coggins, 2021).

Eighteen wound care specialists were surveyed at the end of March 2020 as national lockdowns

### Box 1. Lockdown definition

A lockdown is a restriction policy for people or communities to remain where they are, usually due to specific risks to themselves or to others if they were to move and interact freely.

across Europe came into force. They were invited to share their expectations of the long-term impact of the COVID-19 pandemic on wound care and their clinical practice. In January 2021, seven of the 18 specialists were invited to complete a follow-up survey to comment on how the pandemic had changed practice in the short and long term, and how they had overcome challenges faced.

### March 2020 survey: Trends that were expected during the pandemic

The wound care specialists were based in France ( $n=5$ ), England ( $n=4$ ), Italy ( $n=2$ ), Wales ( $n=2$ ), Austria ( $n=1$ ), Denmark ( $n=1$ ), Germany ( $n=1$ ), Republic of Ireland ( $n=1$ ) and Spain ( $n=1$ ). Fourteen specialists worked mostly in a hospital setting and two worked mostly in the out-patient/community setting. One specialist worked in their own wound care centre, and one clinician worked in a wound care training facility.

In March 2020, the specialists identified the following long-term challenges as a result of the COVID-19 pandemic:

- Inadequate, or lack of, diagnosis
- Increased wound deterioration due to delays in treatment
- Increased wound infection and inflammation
- Increased hospitalisations.

### Inadequate, or lack of, diagnosis

Inadequate or lack of diagnosis was identified

as a challenge, particularly for patients with minor wounds that could become complex or chronic without appropriate assessment and treatment. Overall, the clinicians reported that routine clinician-led preventative standard care had been stopped. In the UK, attendance to the emergency department dropped to 52% (McConkey and Wyatt, 2020). Organisational changes made in order to create capacity for COVID-19 patients or to protect non-COVID patients and staff, and changes in patient behaviour lead to the reduction in hospital attendance. Patients were fearful to attend routine appointments because of the risk of COVID-19 infection. The patient and caretaker became the primary caregiver, so wound management was reliant on the patient or caregiver's ability.

*"During this period [March 2020], there are two main challenges: firstly, the limitation of access to wound care expertise. Secondly, an insufficient level of competence of the usual carers to manage the situation."* A French clinician

#### **Increased deterioration of wounds due to delays in treatment**

Most of the specialists expected that there would be an increase in the number and severity of wounds due to delays in presentation, referral and escalation. It was expected that the majority of wounds would ultimately require more urgent and severe interventions, such as surgery, when the patient re-attended to clinic after lockdowns. Reasons for increased deterioration included the difficulty of providing adequate home care and patients' fear of being infected with COVID-19 and delaying attendance. In some countries, general physicians closed their practices except for specific emergencies. In these cases, patients were only able to receive basic care, and wound specialists were not able to advise patients on a regular basis or provide regular standard care as per local guidelines.

*"...a diabetic foot ulcer with no debridement, or a venous leg ulcer without compression. It's important to note that without regular contact, patient compliance will fail."* A French clinician

Typically, patients with neuropathic wounds and patients in 'medical deserts', (i.e. without access to technology, or unable to speak the language in the country they resided) were considered to be most at risk of wound deterioration during the pandemic.

One clinic in Austria remained open throughout the lockdown so did not anticipate any deterioration of wounds. In the UK, diabetic

foot ulcer clinics continued to remain open so access to this service was not restricted, but there was variation in the management of other wound types. A few of the specialists surveyed thought that some wounds could improve as patients had become more involved in their own care and would rest and offload their limbs because of the lockdowns.

#### **Increased wound infection and inflammation**

Approximately two thirds of the specialists expected an increase in wound infection and inflammation as a result of the COVID-19 pandemic. The group expected that as general and emergency clinicians were more familiar with the diagnosis and management of acute infection compared to inflammation, accurate inflammation diagnosis and management would be a greater clinical challenge, especially for stalled non-progressing wounds.

*"Perhaps patients with infected wounds have been treated at least with antibiotics, but inflamed wounds will be the most common scenario".*

A Spanish clinician

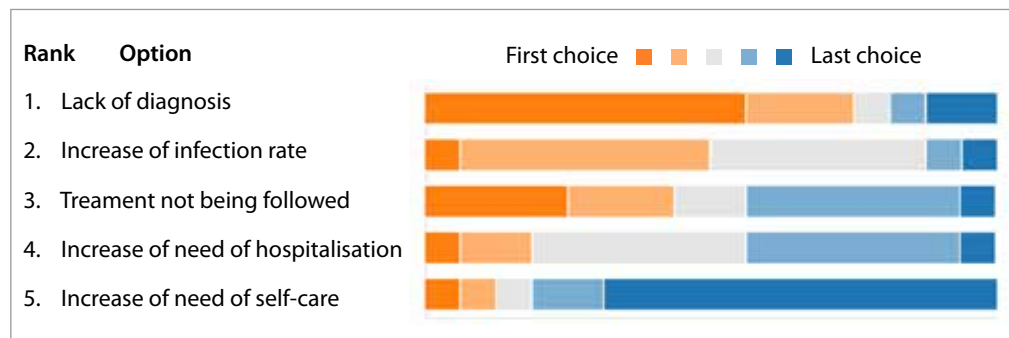
This was thought to lead to more severe and prolonged wound treatment, not only in terms of wound care, but also regarding systemic complications of advanced infection.

Some clinicians thought that the greater awareness of hand hygiene and cleansing could have a positive effect on raising awareness and reducing wound infection.

#### **Increased hospitalisations**

About half of the specialists expected that there would be an increase in the number of patients requiring hospitalisation as a result of their wound. In March 2020, community/outpatient care centres were closing or providing minimal service; clinicians were concerned that patients would delay presenting to wound care services and then require more aggressive treatment, such as intravenous antibiotics and surgery. Three clinicians had observed increases in hospitalisations due to lower limb cellulitis, a result of undiagnosed venous hypertension, which could be managed in the community. Two specialists expected that hospitalisations would reduce once telemedicine was efficiently integrated, and caregivers were supported to use it and conduct standard care.

The other half of the group expected that there would not be an increase in hospitalisations due to patients' fear of COVID-19 contamination and hospital admissions being reserved for only the most seriously infected wounds.



**Figure 1.** What will be your number one concern once the lockdown is over? (please rank in order of concern) (n=18).

*“During the lockdown period, hospitalisation was reserved for the most seriously infected wounds. All the other patients were treated with normal consultations in dedicated office or with an increased number of telemedicine consultations.”*

An Italian clinician

### March 2020 survey: Trends that were expected to continue after the COVID-19 pandemic

The specialists ranked their concerns for wound care once lockdown was lifted from biggest concern to least concern. The biggest concern was a lack of diagnosis and increase in infection rates [Figure 1]. The specialists expected that there would be an increase in referrals, delays in treatment and deteriorated wounds. One clinician also expected to support staff to reduce scars and skin trauma caused by personal protective equipment.

*“A period of 2–3 months of lockdown could generate an increased number of consultations requested and consequently a spike in the need for advanced dressings and therapies. My expectation is to return to routine activity at the end of 2020. This normal situation could be interrupted in 2021 in case of relapse of COVID 19 pandemic.”*

An Italian clinician

*“The majority of our patients have deteriorating wounds and approximately 60% of wound have become stalled.”*

A Spanish clinician

*“Treatment of non-healing wounds has, as all other disease problems, been reduced because of the focus on COVID-19. This results in increasing waiting lists for all diseases, including wound care, in and out of hospitals. The workload for treating wounds will increase, but I do not think the principles will change much. Perhaps a bigger focus on infected non-healing wounds.”*

A Danish clinician

The use of telemedicine has been expanding rapidly in recent years, and nine specialists thought that telemedicine would be a continuing trend as lockdown restrictions eased. Telemedicine has been shown to offer a safe option to manage comorbid, complex wound care patients in a randomised controlled trial in France, which compared care delivered via telemedicine, home care or in the wound clinic (Téot et al, 2020).

In the survey, telemedicine and video consultations were especially useful for housebound patients and those with less complex wounds. The shift to remote consultations also increased patient and carer involvement in wound management. Three specialists hoped that patients would continue to self-care with support once lockdown restrictions were reduced.

*“Because of lockdowns, access to consultations is difficult, and clinics will probably be saturated when lockdowns lift. Telemedicine is an interesting response that will better guide the indications, and change practices to optimise wound management and caregiver training.”*

### January 2021 survey: Trends expected to continue

Seven clinicians were invited to complete a follow up survey in January 2021 to investigate whether their expectations were realised. The clinicians were based in Austria, England, France, Germany, Ireland, Spain and Wales. Table 1 summarises the positive changes and challenges of the COVID-19 pandemic on wound care provided by the specialists.

Clinicians reported an increase in the use of telemedicine to connect with patients and an increase in the patient’s role in their wound management, as long as they were supported with sufficient education.

However, specialists reported that their biggest concerns continued to be lack of or inadequate diagnosis and delays in patients

**Table 1. The impact of the COVID-19 pandemic on wound care reported by clinicians (n=7).**

Positive changes	Challenges
<ul style="list-style-type: none"> <li>■ Increased use of telemedicine to communicate with patients and their carers, i.e. video-calling, sharing photographs of wounds</li> <li>■ Reduced activity of patients who were advised to offload and rest to encourage wound healing</li> <li>■ Increased patient knowledge and responsibility of their own wounds, increased compliance and better understanding of worst-case scenario</li> <li>■ Wound care teams were more defined and focused, allowing for greater interest in wound management and upskilling</li> <li>■ Streamlined access from emergency/urgent care into outpatient clinics</li> </ul>	<ul style="list-style-type: none"> <li>■ Self-management was often used as a way to discharge patients or as a treatment path for patients for whom self-care was not appropriate (e.g. patients with malignant wounds)</li> <li>■ Increased referrals from community/outpatients to acute/inpatient setting for wounds that would previously have been managed in the community</li> <li>■ Disrupted patient follow up</li> <li>■ Delays in initiating treatments caused by:                             <ul style="list-style-type: none"> <li>■ Patients' fear of COVID-19 stopped them attending clinic appointments</li> <li>■ Reduced workforce caused by clinicians required to isolate if they tested positive for COVID-19</li> <li>■ Lack of accurate diagnosis and increased time to referral to the specialist</li> </ul> </li> </ul>

receiving referrals and specialist care. The clinicians reported that since March 2020, the number of patients with wounds attending the acute sector had increased dramatically. As a result, the clinicians were treating more complex patients, a higher number of infected wounds and more patients requiring amputations. There were some concerns that patient self-management was being used inappropriately for some patients who were not suitable or able to self-care.

### Overcoming challenges of the COVID-19 pandemic

Although vaccination programmes are underway, the effects of the COVID-19 pandemic on service delivery and patient outcomes are expected to continue for some time. Challenges remain in delivering medical services, and have influenced the prioritisation of interventions, particularly in elective surgeries, including the treatment of wounds (Bermuth et al, 2020; COVIDSurg Collaborative, GlobalSurg Collaborative, 2021). The group provided suggestions and solutions to overcome long-term challenges of the COVID-19 pandemic, which centred on preventive actions:

- Support caregivers and patients with the basic standard of care required for chronic wounds and the knowledge of 'red flags' for when to seek specialist care in a format that is understandable, especially for inflammation and infection.
- Support staff to be able to:
  - Identify the patients who are most appropriate to engage in self-care.

- Identify and protect the most vulnerable and high-risk patients.
- Upskill and follow new guidelines that have been published (e.g. UK national guidelines [AHSN Network, 2020]; International wound hygiene consensus [Murphy et al, 2020]).
- Use pathways and protocols to standardise care and support adoption of evidence-based practices. Pathways help clinicians to identify a clear stop point of when care must change, when to consider referral and when to re-assess and review the diagnosis, patient objectives and expectations (Fletcher et al, 2020). Adoption of evidence-based technology and treatment that have been clinically shown to increase rates of healing of chronic wounds if used earlier in the treatment regimen (e.g. 3M™ Promogran™ Matrix Family; Cullen et al, 2012).
- Specialist services (e.g. surgical, vascular, tissue viability) need to be more widely accessible in the outpatient setting and working alongside community teams.

### Conclusion

The COVID-19 pandemic has profoundly affected the way that clinical practice is conducted, resulting mainly in a lack of, or inadequate, diagnosis and delays in care for patients. From March 2020 to January 2021 many of the challenges reported by the group remained the same. A focus on prevention is key to alleviating the challenges associated with the pandemic while keeping patient care at the

heart of all service delivery. Following evidence-based pathways that incorporate the use of technology with high levels of clinical research can help to standardise care and provide a framework for consistent care (Fletcher et al, 2020). Education of patients, caregivers and non-wound care specialist staff on the 'red flags', especially on infection and inflammation, and when to seek specialist care, are key to ensuring that the challenges of the pandemic on wound care are minimised.

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