Keywords Tissue viability/Covid-19/ Coronavirus services/Self-management

In this article...

- The challenges of providing optimal wound care to patients
- The impact of the coronavirus pandemic on tissue viability services
- How services have found innovative solutions to ensure effective care

What have tissue viability services learnt from the coronavirus pandemic?

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COVID-19

Key points

The cost of wound care is comparable to that of managing obesity

In non-crisis times, wound care accounts for around 50% of the community nursing workload

The coronavirus pandemic response has highlighted the low priority given to chronic wounds

A positive effect of the pandemic response has been advancement of the patient self-care agenda

Due to the pandemic, there is now a greater focus on digital solutions to make sure patients receive appropriate care

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Abstract Suboptimal wound care causes unnecessary distress to patients, increases the economic burden on the NHS and results in more hospital admissions, yet standards of wound care vary across the country and the issue of chronic wounds is largely overlooked. During the coronavirus pandemic, many tissue viability services had to drastically reduce their services as staff were redeployed to other areas. The pandemic required things to be done differently and this article describes how services have risen to the challenge of providing care in new and imaginative ways. The lessons that have been learnt could result in a lasting improvement in the management of chronic wounds.

Citation Schofield A (2021) What have tissue viability services learnt from the coronavirus pandemic? *Nursing Times* [online]; 117: 3, 23-25.

NHS wound care in the UK costs around £4.5-5.1bn a year, while unhealed wounds and their comorbidities cost around £3bn (Guest et al, 2015). The cost of wound care is comparable with that of managing obesity, yet chronic wounds "capture a fraction of the attention" (Greener, 2019). Each year, around 2.2 million people in the UK (4.5% of adults) will have a chronic wound (Guest et al, 2015).

Early diagnosis and treatment, and the prevention of wound care complications, minimises treatment costs and improves patient outcomes and experience (NHS RightCare, 2017; Guest et al, 2015). A study undertaken by NHS England estimated that receiving effective care early reduces leg ulcer healing times from two years to a few months and is 10 times cheaper (NHS RightCare, 2017). However, standards of wound care across the UK vary considerably (National Wound Care Strategy Programme, 2020a), and chronic wound healing rates have been found to be only 43% after one year (Guest et al, 2015).

Suboptimal wound care:

- Causes unnecessary suffering;
- Increases the economic burden on the NHS;
- Results in more hospital admissions and patient deaths (Adderley, 2020).

In England, the NWCSP is working towards achieving a consistently high standard of wound care for pressure ulcers, lower-limb ulcers and surgical wounds. The inclusion of leg ulcers in NHS England and NHS Improvement's (2020a) Commissioning for Quality and Innovation (CQUIN) framework and *The Framework for Enhanced Health in Care Homes* (NHS England and NHS Improvement, 2020b) for 2020-21, aimed to encourage trusts and care commissioning groups to improve assessment, diagnosis and treatment of chronic wounds (Stephenson, 2020). However, problems have since been compounded by the coronavirus pandemic, with service and staffing issues presenting unprecedented challenges in the delivery of wound care and holding back national improvement work

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Fig 1. **Covid-19-related skin manifestation**

(Adderley, 2020). On the positive side, the pandemic has accelerated new ways of working that could lead to lasting improvements in wound care.

Role of tissue viability services

Wound care is mostly nurse led, with two-thirds of it delivered in the community by GPs and community nurses (Guest et al, 2015). It requires specialist skills and tissue viability teams provide:

- Vital support;
- Specialist advice;
- Training;
- Equipment.

This includes advice and care to patients with, or at risk of developing, wounds, and staff education and training.

Tissue viability services are, however, not standardised and the role of tissue viability nurses is poorly defined (Ousey, 2014). Specialist support is not always available or accessed by community staff, who frequently lack a fundamental knowledge of wounds and wound healing (Guest et al, 2015).

Tissue viability services manage acute and chronic wounds, with the main chronic wounds being pressure ulcers, and leg and foot ulcers. A focus on preventing pressure ulcers nationally means management of lower-limb ulcers is often overlooked, despite these representing the greatest healthcare burden – around 730,000 people in the UK (1.5% of adults) have active leg (below the knee) and foot ulcers (Guest et al, 2015). Leg ulcers are the most commonly treated wounds, but it has been reported that fewer than a quarter of people who have lower-leg wounds receive the appropriate assessment and treatment (Stephenson, 2020).

Most leg ulceration is due to venous insufficiency but, without specialist support, community nurses can fail to identify venous leg ulcers and, as such, also fail to apply the all-important compression therapy, which has been shown to double venous ulcer healing (Guest et al, 2015; Stephenson, 2020). Healing is also improved through better care pathways – for example, by giving people with venous leg ulcers access to vascular surgery – and commissioning joined-up wound care clinics (Greener, 2019).

Non-healing foot ulcers can be a complication of diabetes but, whether the ulcers are associated with diabetes or not, patients who have them are at high risk of leg, foot or toe amputation and increased risk of death (NWCSP, 2020a). Preventative interventions can reduce the incidence of ulceration and new draft lower-limb recommendations state that all of those people who have a foot ulcer should be assessed within 24 hours after initial assessment (NWCSP, 2020a).

QUICK FACT **2.2 million** Number of people each year who will experience a chronic wound

The impact of Covid-19

The pandemic has seen resources diverted from non-Covid-19 areas of healthcare. In 'normal', non-crisis times, wound care accounts for around 50% of the community nursing workload (NWCSP, 2020b). Less time on wound care must be balanced with the cost of delayed healing and wound complications if care is inadequate (NWCSP, 2020b).

In the first wave of the pandemic, the plug was pulled on prevention work, and some areas struggled to provide even essential wound care. There were frequent reports of patients:

- Unable to access appointments, advice or home visits;
- Being left without essential dressings and equipment (Adderley, 2020; Atkin, 2020).

A poll of 170 lower-limb clinicians revealed that more than a third of full lower-limb assessments – including Doppler – were not being undertaken, while another 8% were delayed by more than two weeks (Schofield, 2020). Experts voiced concerns that chronic wounds had dropped off the priority list, and that the associated risks of this were not being properly assessed (Adderley, 2020; Schofield, 2020).

Challenges faced by tissue viability services

In the first wave of the pandemic, the immediate problem was staff shortages, with specialist staff, such as tissue viability nurses, redeployed to wards and into community district nursing teams. Some tissue viability services closed down altogether and all wound care education stopped. Chronic wound care clinics closed, requiring new solutions to relieve the burden of time-consuming home visits. There were also the practical difficulties of providing wound care in full personal protective equipment. Patients discharged home earlier to free up hospital space added to the workload. Nursing home lockdowns were a concern, as staff there often lacked expertise in wound management.

There was also the need to make sure that Covid-safe services for staff and patients resumed, which required new ways of working. Many patients were reluctant to seek help for skin problems or attend face-to-face consultations for fear of contracting the virus, and it became apparent that a whole new range of skin manifestations were related to Covid-19 and a symptom of coronavirus infection (Fig 1).

Box 1. **Case study: supported self-care**

At Northern Lincolnshire and Goole NHS Foundation Trust, Covid-19 was a spur to advance the self-care agenda. Before its venous ulcer clinics closed, we discussed with suitable patients the option of a shared care pathway. This included teaching patients how to self-care and discussing what support they needed. Some wanted a nurse visit every two weeks, some preferred a scheduled call and the remainder were happy to contact us when they needed a visit.

Patients are encouraged to keep diaries, and some use their smartphone to take photos of their wounds and send them to the nurses for advice. A crucial element involved switching from compression bandaging to compression hosiery or wraps, which were easier for patients to use.

Patients are reviewed regularly and there are no reports of them failing to manage their wounds. Even after clinics reopened, these patients have continued to self-care, reducing the waiting times for other patients.

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Box 2. **Case study: nursing home education**

Project ECHO (Extension of Community Healthcare Outcomes) is a hospice-based community education programme that is being used to help tackle the problem of pressure ulcers in nursing homes (Bit.ly/ECHOCommunity). The programme creates a supportive knowledge network of teachers and learners, which meets regularly via video conferencing. My team at Northern Lincolnshire and Goole NHS Foundation Trust is hosting the programme and delivering a four-week rolling education programme in pressure ulcer prevention and management for nursing home staff. The programme is now being extended across the Humber, East Coast and Vale Integrated Care System as part of a larger project to standardise pressure ulcer management. We hope to eventually widen the programme to cover all of tissue viability.

"The pandemic has accelerated new ways of working that could lead to lasting improvements in wound care"

How services adapted

The pandemic necessitated doing things differently, and many services rose to the challenge. The NWCSP (2020b) recommended the following:

- Supporting more patients to self-care;
- Increasing the use of telemedicine;
- Using tele-triage before home visits.

Many more patients are now being supported to self-care, requiring fewer face-to-face visits (Box 1). Empowering patients to be involved in carrying out their own care encourages concordance and this change in culture is a positive outcome of the pandemic. However, self-care can only occur safely after a full initial assessment, and good shared-care systems are needed to ensure adequate dressings, clinical review and support (NWCSP, 2020c).

Digital solutions are also coming to the fore; although the wider NHS is less advanced than GPs when it comes to telehealth, the NWCSP is surveying the use of apps to see what works best. Tele-triage has been widely adopted, allowing complex cases to be prioritised for face-to-face care, while other patients receive advice and education. Some trusts have reported that tele-triaging is allowing more patients to be assessed and reducing waiting times (Williams, 2020).

Many routine reviews are also being conducted by telephone. There are instances of outpatient departments running vascular hot clinics/emergency assessment clinics, with daily access for the most critical patients, and services offering imaging and angiography as day cases (Adderley, 2020).

Box 3. **Learning points**

- Caring for people with chronic wounds should be prioritised, and the risks associated with deferral should be properly assessed and properly recorded
- The barriers to supported self-care and telemedicine have been lifted, but these modes of care delivery will not suit all patients
- Self-care does not mean support and good shared-care systems are no longer needed
- Shared care links to the health coaching model for chronic disease management (NHS England, 2019), with the opportunity to include interventions such as obesity management, diet and exercise
- Online teaching requires different skills, and staff need to receive the appropriate training
- Education programmes are needed to train staff on Covid-19-related skin conditions

Teaching and education has also moved online and my trust is providing this for community staff, including domiciliary carers. However, it is no substitute for hands-on learning and it takes skill to achieve interaction digitally. Despite this, a hospice-based community learning programme is showing great promise in delivering education to nursing homes (Box 2).

Not all solutions are technological. For example, tissue viability services at Royal Wolverhampton NHS Trust are providing nursing homes with clinical pathways and accompanying slide packs, clinical care boxes for skin tears, along with an equipment delivery service, in a bid to reduce emergency hospital admissions from nursing homes (Bit.ly/WoundCOVID). Some experts are also pointing to instances of improved knowledge sharing, and closer and greater flexibility of working between tissue viability service specialists and other health services as a result of the pandemic (Adderley, 2020; Ford, 2020).

The way forward

The coronavirus pandemic has highlighted deficiencies in the system, but it has also led to new ways of working that can be beneficial, and we need to measure the impact of these. Box 3 outlines the lessons learnt to date.

There is some evidence that the areas that have adapted best are those with well-resourced tissue viability services that are already offering advanced care. However, the need to do things differently has led to a broader cultural shift, with more assessments and consultations by telephone and video call, and more patients supported to self-care. These changes are likely to endure well after the pandemic is over and will accelerate the redesign of services. **NT**

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