Coloplast Wound Care Partnership Programme: a pilot study

KEY WORDS
- Coloplast Wound Care Partnership Programme
- Non-healing wounds
- Patient outcomes
- Pilot study

ABSTRACT: This article outlines the results of a three-stage pilot study addressing health inequalities by upskilling and empowering primary care healthcare professionals (HCPs) in standardising care, facilitating supported self-management and releasing clinical capacity. A baseline audit was conducted across seven surgeries in Primary Care Warwickshire, revealing that multiple patients with chronic, non-healing wounds received appointments for wound care more frequently than necessary upon analysis (more than twice a week). This highlighted the need for improved wound assessment, which could improve care, resulting in better patient outcomes and freeing up clinical time and resources (Singleton and Vernon, 2022). Following the audit, a 3-month pilot project took place at Bedworth Health Centre, involving 36 patients, of which 30 were discharged by the end of the pilot. The initial pilot was followed up by an additional 11-month clinical evaluation of 107 patients, which found improved healing rates and patient outcomes.

JOSEPH SINGLETON
Tissue Viability Project Lead, Coloplast LTD

TRACY VERNON
Clinical Nurse Manager, Coloplast LTD

SAMANTHA SHAW
Practice Nurse, Bedworth Health Centre

It has been estimated that the NHS manages 3.8 million patients with wounds per year, at a cost of £8.3 billion pounds, with 29% of this cost attributed to district/community nurse visits and 18% to GP office visits (Guest et al, 2020), with costs now higher still with a predicted 10% increase in wound prevalence year-on-year.

The Secretary of State for Health and Social Care has acknowledged that achieving the target of having 6,000 more GPs in England by 2024/25 and funding an additional 26,000 roles to alleviate pressure on GPs is unlikely to happen by 2023/24 (The King's Fund, 2022). In this time of unprecedented pressure within primary care, there is an increased need for partnership working with all agencies that can help ensure that appropriate care is delivered to patients across the country (Singleton and Vernon, 2022).

COLOPLAST WOUND CARE PARTNERSHIP PROGRAMME

In 2018, Coloplast highlighted a need to support primary care networks to manage complex wounds and from this need, the Coloplast Wound Care Partnership Programme (WCPP) was created.

The Coloplast WCPP is an innovative approach aimed at improving patient outcomes and increasing cost-effective practices across primary care settings. This is achieved through the development and delivery of a bespoke education package for healthcare professionals (HCPs) delivering wound care. Additionally, the programme introduces a Tissue Viability Support Service (TVSS) designed to help triage and ensure optimum patient management pathways.

The TVSS is an innovative new clinical service, which offers a highly experienced Tissue Viability Project Lead (TVPL) to assess and develop evidence-based management plans for non-healing wounds. Moreover, the program incorporates a dedicated referral and follow-up pathway that can be tailored to the specific needs of partnering organisations.

STAGE 1: BASELINE AUDIT FOR SERVICE IMPROVEMENT

In 2021, Coloplast initiated a WCPP with Primary Care Warwickshire, with the intention of developing a quality improvement programme, which aimed to improve the outcomes for the local patient population with wounds. It was quickly established that obtaining

real-world data would be key in driving the project to success, as real-world data analysis offers the opportunity for important insights that can become meaningful platforms for research, product and service improvements (Madu, 2021).

Previous attempts to extract patient data from the EMIS Web system in order to establish the number of patients with wounds had been unsuccessful. This difficulty primarily arose from the use of 'free text' entries within patient records and the lack of standardised wound care codes due to:

- The multitude of available wound-related codes
- The lack of a consistent method of wound assessment
- A lack of clinical time that healthcare professionals had been allocated to deliver wound care (despite the 20-minute allotted time slot).

In response to these challenges, a baseline audit was undertaken to determine the number of patients with wounds across three primary care networks within Primary Care Warwickshire over a 4-week period spanning from the 14th of January to the 11th of February 2022 (Singleton and Vernon, 2022).

The aim of the audit was to obtain local data to explore demographics and contextual information pertaining to patients with wounds. This data would be used to help develop and shape the criteria for referrals to the upcoming local TVSS.

To facilitate this data collection, an audit tool comprising of eight questions was distributed via email to all surgeries within the primary care networks. Each question was to be completed for every patient with a wound and included the following details:

- Surgery name
- Patient ID (EMIS Web No.)
- Healthcare professionals role
- Wound type (selected from a predetermined list)
- Wound duration
- Weekly number of patient visits
- Wound Care/Patient Code used
- Completion of onward referral to the Leg Ulcer Service.

The audit highlighted three main themes:

- Postoperative wounds were the most common type of wound observed
- Just over half of patients identified had non-healing wounds (defined as any wound present for >2 weeks and not progressing as expected)
- Numerous patients were having frequent dressing changes.

A key finding from the audit was that 32% of patients with non-healing wounds were receiving more than two weekly visits from the practice nurse team. Analysis of the audit data enabled the project management team to develop an onward referral criteria and triage system for the TVSS, which supports a structured approach to wound management. This aimed to have a significant impact on patient outcomes and clinical capacity across Primary Care Warwickshire by ensuring that patients are signposted to the TVSS at the earliest opportunity where a holistic assessment and robust management plan could be implemented to optimise patient outcomes.

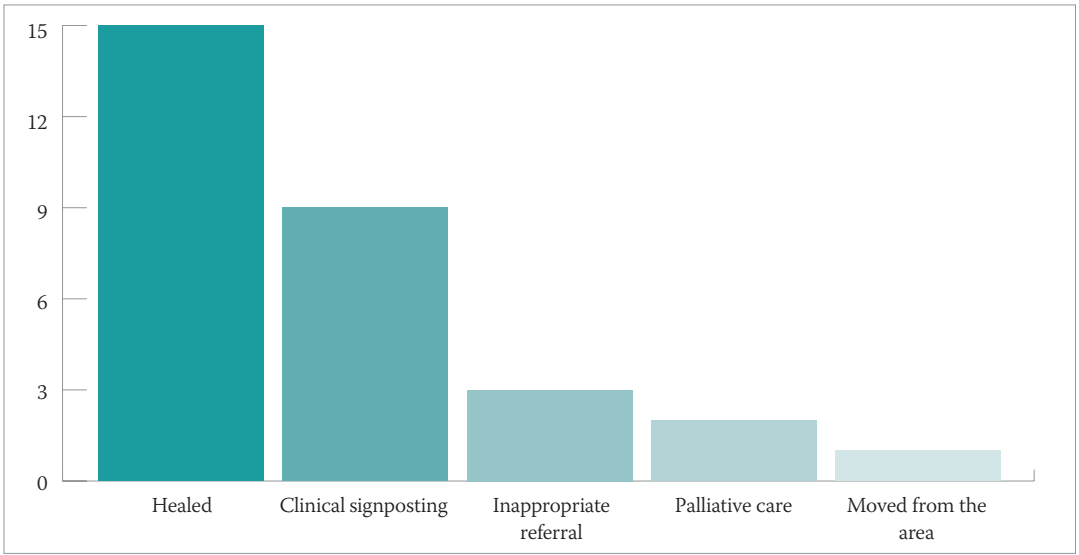
STAGE 2: 3-MONTH PILOT STUDY

Following the initial service audit, a 3-month clinical pilot programme was implemented at Bedworth Health Centre, which happens to be the largest primary care facility within the Primary Care Warwick network, serving a population catchment of approximately 20,500 patients. During this pilot phase, referral and triage criteria were developed to facilitate the referral of patients with non-healing wounds. The clinic operated two days a week, providing a total of 18 appointment slots. In an effort to enhance the quality of care provided, the duration of clinic appointments was extended to 30 minutes each to allow for more time for holistic assessment, wound preparation and the development of patient centred management plans.

There is no standard, agreed-upon wound assessment template in use across the practices, which has resulted in only three patients having wound assessment data before referral, confirming the initial suspicion that there was a lack of auditable data within the EMIS documentation.

A total of 151 visits were undertaken for these 36 patients, which equates to an average of 4.2 visits per person, with the number of visits per patient ranging between 1 and 20. As per normal local practice, dressings were provided on the day of review using

Figure 1. Patient outcomes of the 3-month pilot project



standard prescriptions. 78% of the patients (*n*=28) did not pay for their own prescriptions.

Among the 36 patients who participated in the pilot, the outcomes were as follows (*Figure 1*):

- 15 patients achieved healing and were successfully discharged
- 9 patients were clinically signposted to other local services, such as the leg ulcer clinic or surgical team
- 3 patients were inappropriate referrals that did not meet the criteria
- 2 patients with fungating wounds were referred to palliative care to optimise their quality of life, following the implementation of a management plan
- 1 patient was relocated from the area before their wound had fully healed.

Following the analysis of the 3-month pilot, it was agreed to extend the initiative to an 11-month evaluation to continue to gather more data regarding local wound population.

STAGE 3: EXTENDED 11-MONTH CLINICAL EVALUATION

During the extended 11-month clinical evaluation period, a total of 107 patients were seen in the clinic. This translated into 427 appointments, with an average of 4.9 appointments per patient, ranging

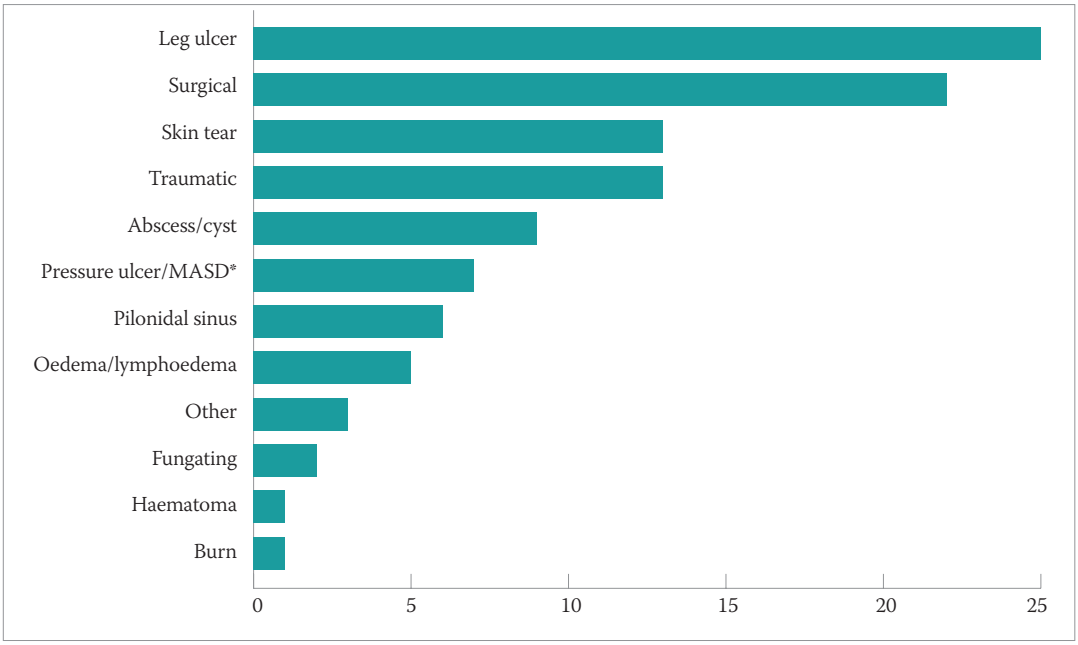
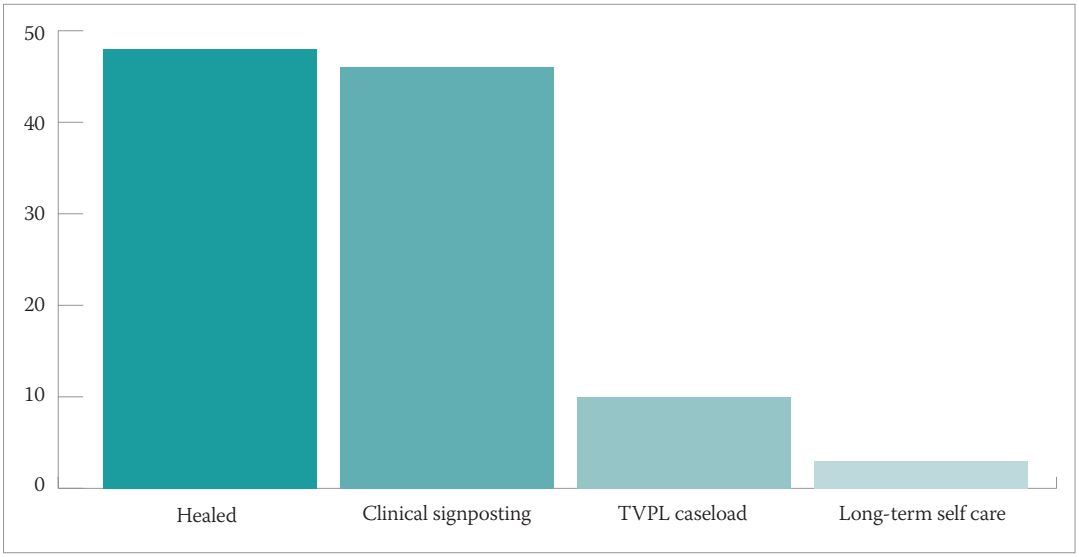


Figure 2. Wound types seen in practice during the 11-month extended pilot
Moisture-associated skin damage

Figure 3. Patient outcomes from the 11-month extended pilot



between 1–31 appointments. Notably, the average number of appointments had increased compared to the initial 3-month pilot, due to the larger number of complex wounds seen during that period.

Over the 11-month period, 213.5 hours of clinical time were undertaken by the TVSS. This allocation of time had the added benefit of freeing up 427 practice nurse appointments, which collectively accounted for 142 hours of clinical time for the practice over the 11 months.

The patients presented with a variety of wounds (see *Figure 2* for a breakdown of the wound types). The surgical wounds seen in practice included dehisced vascular, abdominal and minor post-operative wounds resulting from procedures such as abscess and cyst removal.

Patients' eligibility, suitability and willingness for supported shared care were assessed through a series of sessions using the National Wound Care Strategy Programme (NWCSP) guidelines. The assessment was based on their ability to cleanse and prepare their wound, as well as change wound dressings (NWCSP, 2020).

As a result of these assessments, it was determined that 31% of patients (*n*=33) were suitable for and willing to participate in supported shared care. This equated to a total of 129 individual episodes of supported shared care. Each of these episodes was calculated as requiring 20 minutes of clinical time, which is the standard duration for a practice nurse appointment, consequently, this initiative resulted in freeing up an additional 42 hours of clinical time.

The average duration of wound healing was 13 weeks, with a considerable range spanning from 1 to 365 weeks. Of the wounds seen in clinic, 48 wounds healed, with 46 being referred to local leg ulcer service as per protocol (any wounds to lower limb not healed after 4 weeks from onset), surgical or dermatology (*Figure 3*).

At the conclusion of the pilot, 10 patients remained on the clinical caseload. Of these 10 patients, five went on to fully heal, two were referred to specialist care, involving a surgeon and dermatologist and three with long-term chronic wounds were discharged from the caseload as they were deemed unfit for surgical intervention.

HEALTHCARE PROFESSIONAL EDUCATION

A need was identified to support the delivery of clinical education in wound care to equip healthcare professionals with the necessary knowledge to manage wounds appropriately. Therefore, as part of the WCPP, Coloplast has developed a series of clinically focused educational modules, ensuring that the basic principles of wound healing are addressed, setting a foundation for knowledge before progressing through to the more advanced aspects of wound management (Letchford et al, 2022).

The aim of the educational modules is to enhance the skills and knowledge of healthcare professionals who are actively involved in the treatment and management of wounds. Education is key to improve

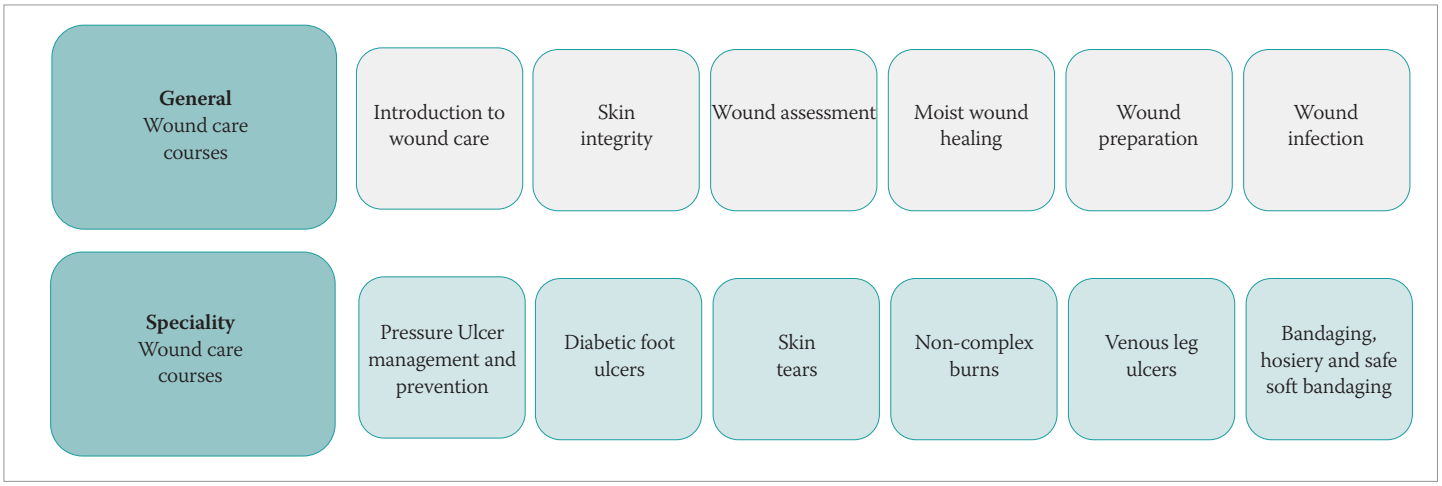


Figure 4. Training modules

patient outcomes and help reduce unwarranted variation of care (Letchford et al, 2022). The modules have been created with content that reflects the current landscape within primary care and consist of 12 modules, each with educational content lasting up to 60 minutes. Furthermore, the content includes associated clinical pathways that complement the educational delivery. These modules are available in both face-to-face and virtual formats and delivered by Coloplast's TVPL, ensuring that the educational content is delivered effectively and comprehensively (*Figure 4*).

Before the delivery of each module, a short pre-knowledge assessment consisting of 10 multiple-choice questions is undertaken to ascertain the initial baseline levels of knowledge possessed by the healthcare professionals. Following the completion of the module, the knowledge assessment is repeated, with the results showing an increase in knowledge among those who underwent the training. These positive results will enable the healthcare professional managing wounds to translate their knowledge into clinical practice and have a subsequent effect on the care delivery for patients with wounds (Letchford et al, 2022).

Analysis from the first six general wound care modules indicated a 35% uplift in learning, with an overall pre-learning score of 54% versus a post-learning score of 89% (*Figure 5*). This enhanced knowledge and the subsequent application of skills in clinical practice will undoubtedly contribute to improve patient outcomes, as well as improve the levels of confidence and competence for these healthcare professionals delivering wound care (Letchford et al, 2022).

Figure 5. Average assessment scores (from Letchford et al, 2022)

Average assessment scores	Pre–	Post–
Introduction to wound care	59%	92%
Skin integrity	58%	92%
Wound healing	45%	89%
Wound assessment	61%	82%
Wound preparation	64%	94%
Wound infection	36%	83%
Average	**54%**	**89%**

An healthcare professional from Bedworth Health Centre stated:

> *"The WCPP educational modules provided some of the best teaching I have received. Everything we were taught I have been able to apply to practice and have seen wounds improve from my new knowledge and sharing it with my colleagues."*

The education offered within the WCPP has been found to reduce variations of care, as well as support the development of pathways to streamline care and support clinicians in practice (Letchford et al, 2022). Feedback from participants has been consistently positive and the long-term effects of upskilling healthcare professionals will be continuously monitored and reported in future publications.

PATIENT AND STAFF FEEDBACK

Patient feedback from the complex wound clinics has been positive, with several notable improvements reported:

- Improved wound healing times
- Increased self-confidence in managing their wounds
- Increased understanding of their wound and the healing process
- Prompt and efficient clinical signposting, when needed.

One patient shared:

> *"After my first visit to the tissue viability nurse, I suddenly had confidence that there was someone who knew what they were doing and understood the complexity of the wound, and at last, I thought that there'd be an improvement."*

Additionally, practice staff have acknowledged the improved outcomes for both patients with non-healing wounds and their own practice. One practice staff shared:

> *"Working alongside the TVPL has been of great benefit to our patients. Patients with hard-to-heal wounds have made much progress, and documentation for wound care is much improved from when I started at the practice."*

CONCLUSIONS

The initial audit highlighted the need to use local data to outline the clinical need for a service improvement programme. This data-driven approach laid the foundation for the subsequent pilot study. The successful implementation of the pilot programme notably improved healing rates and patient outcomes, particularly for those with non-healing wounds. The identification of clinical upskilling, in conjunction with a comprehensive educational program, has clearly had a positive impact when translated into clinical practice.

The pilot projects have led to the creation of a TVSS HUB within the area which will enable the continuation of improved patient outcomes and reduction in unwarranted variations and health inequalities that subsequently impact the patients' quality of life. This HUB model will continue to free up clinical capacity locally. WUK

ACKNOWLEDGEMENT

The PCW WCPP has been a multidisciplinary project with many important contributors. The authors would like to extend their thanks to all who have been involved with the project

DECLARATION OF INTEREST

This article has been supported by Coloplast LTD.

REFERENCES

Guest JF, Fuller GW, Vowden P (2020) Cohort study evaluating the burden of wounds to the UK's National Health Service in 2017/2018: update from 2012/2013. *BMJ Open* 10(12):e045253. https://doi.org/10.1136/bmjopen-2020-045253

King's Fund (2022) NHS workforce: Our position. https://www.kingsfund.org.uk/projects/positions/nhs-workforce (accessed 21 July 2023)

Letchford J, Buckley E, Singleton J, Vernon T (2022) How to deliver essential wound management education in the primary care setting. Poster presentation

Madu T (2021) Conducting meaningful real-world data analysis in wound care – a guide. *J Wound Care* 30(2): 93–94

National Wound Care Strategy Programme (2020) Shared Care for Wounds. https://www.nationalwoundcarestrategy.net/wp-content/uploads/2021/05/Shared-Care-for-Wounds-30.03.20.pdf (accessed 25 August 2023)

Singleton J, Vernon T (2022) Wound audit results to drive the creation of a Tissue Viability Specialist Service. Poster presentation