

Digitising Wound Assessment, Management and Documentation within an Irish Public Health Nursing Service – a Proof of Concept Evaluation.

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This proof of concept evaluation demonstrates that “pinch point specialist areas” within community nursing such as wound care can be enhanced through a digital health solution.

Staff feedback

“Using photos to track the progress of a wound is more objective”

“This what is used in the hospital by the vascular team”

“Using words to describe a wound is subjective and depends on the nurses experience of wound care”

“A larger device e.g., tablet would be beneficial to carry out wound care assessments with apps”

“Going forward I agree that the use of a digital app for wound care would be beneficial”

Background

To provide cost effective, quality wound care it is imperative to understand the burden wound management places on community services. 1-1.5% of population affected by wounds ¹, assuming a prevalence of 0.0447%, 159,640 individuals of the Irish population require wound care ² with up to 70% of community nursing time spent on wound care ³. Costs have been estimated to be €629,064,198 pa or €3,941 per patient equivalent to 6% of the Irish Public Health expenditure ². Despite the introduction in Ireland of National Wound Care Guidelines in 2009 ⁴ and the updated version in 2018 ⁵, community wound prevalence data ^{6,7} identified the following challenges in community nursing wound care provision;

- Access to specialist services and timely referral
- Variations in staff wound care education and knowledge
- Limited access to wound measuring equipment, standardised assessment, and documentation
- Inconsistent and subjective approach to wound care

Aim and Objectives

Aim:

- Facilitate efficient, reliable digital wound imaging, wound measurement, documentation and monitoring of wound progress on one data platform.

Objectives:

- Procure a digital solution that supports system-wide evidence based wound care.
- Evaluate the suitability for expanding the concept of digital wound assessment for wider adoption

Methods

A digital application was sourced and funded to test the feasibility and suitability within community nursing services within a large rural and urban geographical area on the East coast of Ireland. The digital application provided the clinician with a platform for wound assessment, measurement and treatment plans with drop down fields which were in-line with National Wound Care Guidelines ⁴. The clinical site ran the proof of concept for 8 weeks from June 2023-August 2023. Pre and post implementation questionnaires were developed for data collection and they were administered via a digital survey platform providing anonymous and self-reported data from the participants.

Implications for Wound Care

Patient



Timely access to assessment, treatment, referral and specialist
Reduced hospital admission, readmission, inappropriate treatments, care provided closer to home
Reduced healing times and over use of antibiotics
Improved quality of life

System



Provision of a co-ordinated standardised consistent approach to clinical care provision across primary, secondary and tertiary care
Reduced carbon footprint- reduction in patient and clinicians need to travel, use of paper resources, overuse of antibiotics
Cost savings- products, medications, antibiotic use, clinical appointment, clinical setting, waitlists, transport, care services
Timely access to quality data for service planning, budgeting, service deliver, health promotion initiatives, targeted population care

Clinicians



Releasing time to care as reduction in time to treat
Accurate standardised consistent assessment and documentation of wound care
Centralised wound data repository for all clinicians providing patient wound care
Simple, easy to learn, easy to use solution to a perennial clinical problem

Results

- 67% of clinicians found it “easy” to **input** wound assessment information on the digital application
- 50% of clinicians “agree” that wound management digital applications play a role in **improving continuity of care**,
- 50% of users reported that using the digital application improved their **communication with other clinicians**
- 66% of users reported that the digital application assisted with their **communication with the patient** regarding their wound care
- 83% of users reported that the digital app assisted with **real time tracking and monitoring** of the wound(s) progress
- 83% of users reported that the digital app supports their **clinical assessment and documentation** of wound care
- All users reported that overall the digital application was a **valuable tool** for wound assessment and documentation, with 50% identifying that using the digital application **improved their workflow**

Next Steps

Completion of the National Business Case
Commence procurement and tender process

Feasibility and usability with a focus on “shared care”
Clinician and Patient personas to include self – management, remote monitoring, integration

Accessibility and inclusivity of nursing staff and patients to digital technology and digital solutions

Adoption and integration in wound care services across all care settings
Development of standardised patient care and treatment pathways

Conclusion

Digital applications can improve access for the nursing workforce and the patient cohort to the right clinical expert at the right time in the right setting. Proof of concept evaluations can make the case for digital technologies within the relevant government departments

References

1. Gotttrup F. A specialized wound-healing centre concept: importance of a multidisciplinary department structure and surgical treatment facilities in the treatment of chronic wounds. The American journal of surgery. 2004 May 1;187(5):S38-43.
2. Gillespie P, Carter L, McIntosh C, Gethin G. Estimating the health-care costs of wound care in Ireland. Journal of wound care. 2019 Jun 2;28(6):324-30.
3. Skerritt L, Moore Z. The prevalence, aetiology and management of

wounds in a community care area in Ireland. British journal of community nursing. 2014 Jun 1;19(Sup6):S11-7.
- 4. Health Service Executive (2009) National best practice and evidence based guidelines for wound management.
- 5. Wynne MM. HSE National Wound Management Guidelines 2018.
- 6. Skerritt L, (2019) Community Wound Prevalence Audit, unpublished.
- 7. Dermody T, (2019) Community Wound Prevalence Audit, unpublished.

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