Implementation of digital wound imaging and proactive caseload management in Podiatry

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Abstract

Purpose Podiatry is a highly specialised profession and within the NHS largely focuses on wound care for ulcerated patients. The Podiatry patient caseload is often very complex, with patients having multiple co-morbidities and requiring individualised treatment plans. Digital wound care solutions have allowed for remote review of these complex patients by senior clinicians who can set appropriate treatment plans and make early interventions.

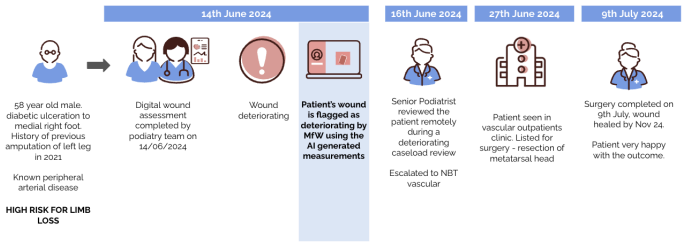
Methodology A digital wound care solution was embedded in a large community podiatry service across the southwest of England. Consistent imagery, artificial intelligence derived wound measurements and standardised assessments were captured at every visit via mobile application. Functionality within the solution allows for algorithmic flagging or deteriorating wounds that can be reviewed in a web based portal by a senior Podiatrist.

Findings To date over 1,200 of these senior reviews have been undertaken of the Podiatry caseload, which has allowed an efficient use of limited clinical time and saving over 500 unrequired face-face visits. Remote prescribing of antibiotics has begun from these reviews and is beginning to be embedded into standard practice.

Case study Senior review of a 58 year old patient, with one limb already lost due to diabetes and peripheral arterial disease. This patient was identified within 1 working day by a deteriorating caseload review. The wound had bone exposure to the medial right first metatarsal joint, carrying extremely high risk of limb loss if not identified and escalated to the appropriate secondary care promptly. The patient received an outpatient vascular appointment where they were listed for resection of the metatarsal head that went on to heal completely.

Conclusion Consistent documentation and increased oversight of the Podiatry caseload is achievable with digital wound solutions and remote caseload review. The senior caseload reviews are having a significant positive impact on patient care and possibly preventing amputations.

Case Study Timeline



Recent Publications

1.Barnes, J.A., Eid, M.A., Creager, M.A. and Goodney, P.P. (2020). Epidemiology and Risk of Amputation in Patients With Diabetes Mellitus and Peripheral Artery Disease. *Arteriosclerosis, Thrombosis, and Vascular Biology*. doi:https://doi.org/10.1161/atvbaha.120.314595.

2.Keegan, A.C. et al. (2023). Implementation of a patient-centered remote wound monitoring system for management of diabetic foot ulcers. *Frontiers in Endocrinology*. doi:https://doi.org/10.3389/fendo.2023.1157518.

3.Kivity, S., et al. (2024). Optimising wound monitoring: Can digital tools improve healing outcomes and clinic efficiency. *Journal of Clinical Nursing*. doi:https://doi.org/10.1111/jocn.17084.

4.Roberts, P.J.J., et al. (2022). The role of podiatry in the early identification and prevention of lower limb venous disease: an ethnographic study. *Journal of Foot and Ankle Research*. doi:https://doi.org/10.1186/s13047-022-00588-7.

5.Shi, C., et al.. (2022). Evidence assessing the development, evaluation and implementation of digital health technologies in wound care: A rapid scoping review. *Journal of Tissue Viability*, doi:https://doi.org/10.1016/j.jtv.2022.09.006.

Biography

Katherine Lock is a Wound Care Pathway Lead Podiatrist, working for Sirona Care and Health. Katherine has a passion for wound care and providing a high quality of clinical care for a wide range of patients, including those with multiple co-morbidities. Katherine qualified from Northampton University and has 10 years of clinical experience, with an additional qualification in Independent Prescribing.

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