Diabetes and lower-limb complications. A thematic review of clinical negligence claims

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NHS Resolution has undertaken a review of 92 clinical negligence claims involving patients with diabetes and a lower-limb complication. The claims were reviewed using qualitative analysis to identify recurrent clinical themes.

All clinical negligence claims, regardless of the amount of damages paid, provide an opportunity for learning. This review has included claims where liability was admitted, as well as those that were repudiated (liability denied).

Among the claims included in this review, the majority of patients involved underwent a major lower-limb amputation. A lower-limb amputation, or loss of normal limb function, can have a devastating effect on a patient and their family's lives. By extracting learning from claims and sharing these insights through the published report, NHS Resolution hopes to contribute to the common aim of reducing the number of avoidable lower-limb amputations, as well as reducing variation in service provision and patient outcomes.

The review analysed the care provided across different aspects of management, including: preventative care; pathways between services; management of diabetic foot disease; escalation into and discharge from inpatient care; peripheral arterial disease; education provision, patient compliance and psychological support.

Findings and discussion

The claims highlighted an overall lack of standardised care across all aspects of the patient journey. An absence of thorough, evidence-based, and consistent assessments, descriptions and treatments meant that the complete clinical picture was often not realised, and the extent and severity of the situation missed.

Non-descript and inconsistent language describing pathologies contributed to an inability to make accurate comparisons between clinical reviews and ascertain if the situation was improving or deteriorating.

An absence of an identified, accountable team overseeing the care of the patient and coordinating a holistic management plan, further contributed to a common pattern of care that was disjointed and fraught with discrepancies and duplication. While there were often multiple disciplines involved in the care of the patient, this did not automatically equate to integrated multidisciplinary care. Additionally, while the majority of claims made reference to multidisciplinary footcare teams (MDFT), there was variation across these teams as to their remit, the clinicians involved, and the frequency of the reviews they provided. Overall, the MDFTs were seen to provide input, not oversight, and were not the primary team coordinating the care of the patient. Peripheral neuropathy appeared to be a further contributor to missed recognition of severity, with an absence of pain prematurely interpreted as a reassuring feature and evidence of an absence of serious pathology.

These common themes were apparent across all aspects of care, and are discussed throughout the report in further detail under the topics described below. The report contains seven recommendations, which have been developed in collaboration with external stakeholders and clinical advisors, with the aim of ensuring the learning drawn from the claims can translate into clinical practice and lead to positive change for patients, staff and services.

Preventative care

Among the 92 claims reviewed, 78 patients (85%) should have fallen into the high risk category, yet only 5% were correctly identified and labelled as such. Diabetic foot assessments were typically brief, and did not result in accurate identification of risk factors or the classification of patients into appropriate risk categories. Prior to the onset of pathology patients received minimal preventative care in the form of foot protection service (FPS) input, diabetic footcare education, or advice to safety self-manage aspects of their lower-limb health.

Pathways between primary care and specialist footcare teams

Once a problem arose, there were delays in referring patients from primary care into the specialist footcare teams, and there were also delays in reviewing patients once the referral had been received. Following review by the specialist footcare service, the GP was still relied upon to provide key aspects of management including: prescribing antibiotics, reviewing patients on an emergency basis, arranging admission into hospital, referring into vascular and orthopaedic services and even moving patients between community and acute footcare teams. This resulted in a lack of clarity as to who was responsible for providing aspects of care, as well as overall coordination and further highlighted a lack of standardisation across specialist footcare services as to their roles and remit.

Management of diabetic foot disease

There was an absence of evidence-based assessments, classifications and interventions utilised in the management of diabetic foot disease, specifically diabetic foot ulcers. Key aspects of care, including ulcer debridement, specimen sampling for microbiology review, undertaking imaging or performing probe to bone or depth assessments, were all provided inconsistently, late in the progression of disease, or not at all. Even more commonly missed, were aspects of care related to biomechanics and offloading. Overall, 53 patients (58%) had no offloading interventions performed at all (*n*=92).

Emergency department (ED), admission and discharge

In the claims reviewed, there was no standardised process for admitting a patient into hospital, with 25 different scenarios seen for arranging admission. Out of all the cases where the pathway into admission is documented (*n*=112), only nine patients (8%) were admitted directly from the MDFT. Pathways from inpatient care back through the footcare services were likewise convoluted, with the majority of patients involved in the claims deteriorating shortly after discharge, and requiring more than one admission for the same pathology.

Management of peripheral arterial disease

In assessing and managing peripheral arterial disease (PAD), patients experienced delays at every stage of the pathway. There was a lack of both integrated care and communication between the footcare services and vascular surgery teams. Prior to review by a vascular surgeon, vascular assessments were brief and typically involved pulse palpation only. Non-invasive diagnostic tools such as hand-held Dopplers and toe pressure index measurements were rarely used. For the patients who underwent a revascularisation procedure (*n*=34), the majority (97%) did not have any MDFT input following the procedure. Post-revascularisation, 31 patients (91.2%) were seen to clinically deteriorate following the procedure.

Education and psychological support.

In the claims reviewed, there were high levels of non-compliance and a lack of engagement from the patients involved. Education provision was minimal with diabetic footcare education only seen to be provided, in any capacity, in 19 of the claims (21%) (*n*=92). Only one patient (1%) had documented education given prior to the start of pathology developing. The impact that diabetic foot disease can have on a patient's mental health and wellbeing was seldom acknowledged. Despite nearly half the patients involved in the claims having either a diagnosed or probable mental health or social issue, there were minimal mental health assessments performed or endeavours to provide emotional or psychological support. Following an amputation, patients reflected that they had not been aware of the risk of this outcome.

Conclusion

There is a well-recognised need to address the current variation in outcomes for patients with diabetes and lower-limb complications. The report highlighted a lack of standardised practice in the way patients involved in the claims were assessed, described and managed.

The current literature suggests that preventative measures, rapid action when problems occur, and multidisciplinary team care can all result in improved patient outcomes and more efficient use of resources. Despite this evidence, these principles of care did not translate into practice for the patients involved in the claims reviewed.

The model of care that patients did receive appeared to be one which was resource heavy, yet

Note from author: NHS Resolution is now focussed on measuring 'Recommendation to Implementation'. Further details of the themes and recommendations are documented in the report. Please feel free to contact Nicole Mottolini (Podiatrist and Clinical Fellow at NHS Resolution n.mottolini@nhs.net) with any feedback, particularly regarding experiences implementing recommendations. Thank you in advance.

outcome-light. Despite being seen by multiple clinicians, often at each point of care a lack of complete information hindered the ability to see the full clinical picture, recognise severity, and make an appropriate holistic management decision.

The vast majority of clinicians go above and beyond in delivering the best possible care that they can to patients, and there were certainly commendable individual endeavours from the clinicians involved. The lack of system coordination however, and absence of accountability across the entire patient journey impacted on the care that was delivered, and also hindered the ability for any one team to accurately reflect, draw learning and make changes when needed.

As well as addressing systemic issues impacting on the ease with which the complete clinical picture is available, clinicians still need to undertake thorough assessments and consider both medical history and risk status alongside a patient's immediate presentation at a specific point in time. Conclusions cannot be made that a situation is stable or improving without definitive evidence based on holistic investigations.

Recommendations

The recommendations that have been made represent an attempt to consider how evidence-based management principles and current national guidance can be implemented into consistent standards of practice. The recommendations have been made under the headings below, with the full report detailing all associated national and local actions.

Recommendation 1: Education and training

Diabetic footcare education should be provided on a regular basis to all patients as soon as diabetes is diagnosed. Patients should be empowered through education to self-manage and commence safe foot and lower-limb care habits before the onset of pathology.

Recommendation 2: Pathways and the provision of consistent services

Pathways should facilitate streamlined care between primary, community, acute and inpatient services, allowing patients to move rapidly and seamlessly through the entire footcare pathway without delay. To ensure pathways enable the delivery of consistent care, the structure and remit of the services they feed into should also be well defined and standardised. One of the actions included in the report under this recommendation involves clarifying the minimum criteria that services need to meet to be labelled an MDFT and an FPS. Additionally, to ensure pathology is first accurately diagnosed, allowing the appropriate guidance to be able to be followed, all national guidance and recommendations should include clear specific definitions for the diabetic foot pathologies, patients, or situations they refer to (e.g. specify what a diabetic foot ulcer or a limb-threatening emergency etc is)

Recommendation 3: Biomechanics and offloading (pressure relief)

A focussed review should be undertaken to address current barriers to services offering evidence-based offloading including total contact casting.

Recommendation 4: Commissioning of services

One identifiable governing team should have responsibility for and be able to review and audit the entire patient journey through primary care to tertiary services.

Recommendation 5: Public health campaign

Recommending a national public health campaign to increase awareness of diabetic foot disease and the impact it has on patients and their family and friends.

Recommendation 6: Leadership and workforce

Urgent review of current workforce levels, with a particular focus on retention of skilled diabetes footcare clinicians (in particular senior and experienced podiatrists and orthotists) is likely critical to the long-term successful reduction of lower-limb amputations.

Recommendation 7: Participation in the National Diabetes Footcare Audit (NDFA) and local service audits

NHS England and NHS Improvement to work to ensure 100% participation in the NDFA by working with commissioners to ensure all services have the ability to complete this audit. ■