NHS
Specialised Clinical
Frailty Network

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Lancashire Teaching Hospitals' New Renal Frailty Service

Introduction

The Specialised Clinical Frailty Network (SCFN) is exploring how specialised services can improve the way they deliver care and treatment to people with frailty. Standard specialised care pathways may not always be appropriate to the needs and preferences of more vulnerable patients, where there are greater risks of longer hospital admissions and increased mortality.

The Network's collaborative improvement programme, delivered by NHS Elect, helped NHS trusts to improve the way they identify frailty and make better treatment decisions that would improve patient outcomes. The first wave included renal dialysis, complex cardio surgery and interventional cardiology, and chemotherapy. There were up to five trusts in each specialised area.

This is the experience of one of the renal sites…

Lancashire Teaching Hospitals NHS Foundation Trust (LTHTR) joined the first wave of the SCFN as part of a wider quality improvement initiative. LTHTR's aims were to proactively identify patients living with frailty and address any issues associated with frailty before they became bigger problems. They wanted to minimise episodes of unplanned care and ensure the best possible outcomes for frail patients.

Why they participated

When someone is frail they are more vulnerable to even apparently minor illnesses or injuries, due to the progressive and sustained deterioration of multiple physiological systems in the body. Frailty is most prevalent in older people but younger people can also be frail, especially if they have a long-term health condition like chronic kidney disease (CKD). Each point increase on the Clinical Frailty Scale (CFS) is associated with an increased risk of mortality in patients starting dialysis.

Clinical Research Fellow in Renal Medicine at LTHTR, Andy Nixon has a keen interest in frailty and has published several articles on frailty and CKD in journals such as Clinical Kidney Journal and Nephron. He led the pilot project, supported by the Network.

Andy explained "Frailty is incredibly prevalent in people with CKD. In the general older adult population, the prevalence of frailty has been reported to be 11%. The pathophysiological processes associated with CKD hasten the decline from fitness to frailty, so much so that the prevalence of frailty in those receiving dialysis has been reported to be well over 60%.

Independent of age and co-morbidities, frailty is an important predictor of hospitalisation, mortality and health-related quality of life. We therefore need to try to identify these vulnerable patients earlier so that appropriate interventions and additional support can be offered. Before this project, we weren't proactively identifying patients living with frailty and CKD."

What they did

1. Introduced a systematic frailty screening programme

Before the pilot, Andy and his colleagues performed a research study that evaluated the diagnostic accuracy of various frailty screening methods in patients with CKD. Andy explained that the Frailty Phenotype is often used as the reference standard for diagnosing frailty. It includes the assessment of five components: unintentional weight loss, self-perceived exhaustion, walking speed, hand grip strength and physical activity.

Andy described the Frailty Phenotype as "not particularly quick or easy to perform" and said that validation of a more practical frailty screening tool was needed in patients with CKD. The team compared some of the most commonly used frailty screening methods and concluded that the Rockwood CFS was an accurate and practical frailty screening tool.

Andy said "It provides descriptions for different levels of frailty, is very easy to use and can be used in both inpatient and outpatient settings."

In August 2018, the Department of Renal Medicine at LTHTR introduced a frailty screening programme using the CFS. The screening tool is used by clinicians in clinic, by Kidney Choices clinical nurse specialists who discuss renal replacement therapies with patients, and by dialysis nurses on the haemodialysis units. It has recently been implemented as part of the ward admissions process and is now integrated into the electronic patient care records, with a section to log the patient's frailty score. Nearly 900 patients have been screened to date and a third of them had a score of five or above, indicating that they are frail.

2. Established a multi-disciplinary Renal Frailty Team

LTHTR has established a Renal Frailty Team which includes a senior clinician, dialysis sister, Kidney Choices clinical nurse specialist, dietician, renal psychologist, occupational therapist (OT) and social worker. Patients with CKD and a CFS score of five or more, or those whose mobility, cognition or nutritional status is causing concern regardless of CFS score, can be referred to the Renal Frailty Team. The team holds monthly multi-disciplinary team (MDT) meetings to discuss the medical, nursing, psychological, nutritional, functional and social needs of patients living with frailty. The team also considers the appropriateness of starting discussions with patients about advance care planning. The MDT generates a targeted management plan for each patient that is communicated with the wider renal team.

3. Developed home assessments

Patients who are referred to the Renal Frailty Team are offered a home assessment by an OT. The Trust's Integrated Frailty Team Occupational Therapy Lead, Julie Brown was very supportive of the renal frailty service, even though there was no funding available to develop it. She provided some committed OT time, enabling the team to implement a modified Comprehensive Geriatric Assessment (CGA).

Andy explained "The CGA is the accepted gold standard for caring for people living with frailty. It is a multidimensional, multidisciplinary process used to identify medical, social, and functional needs and leads to the development of a coordinated care plan to meet those needs. We offered a modified version of the CGA as the initial assessment was performed by our OT rather than by several health professionals.

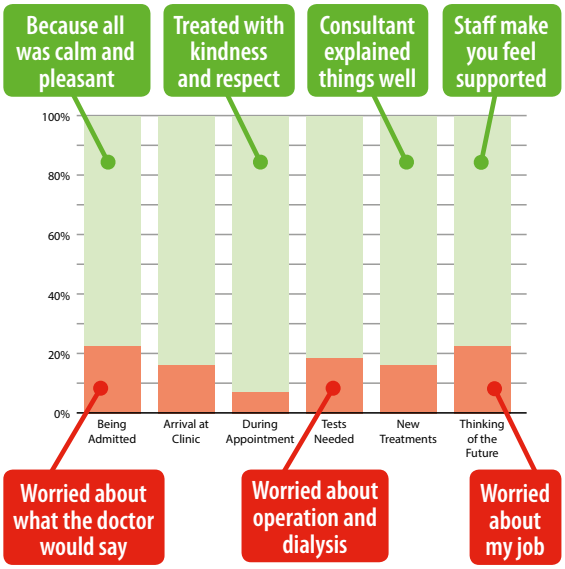
Our monthly meetings then involve the whole MDT who create a personalised care plan for the patient. Throughout this process, we have discovered otherwise unknown patient needs. For example, we may discover that an individual has poor mobility or that they have been falling. We can then arrange for specific equipment to be provided at home to help maintain their functional ability and consider further investigation into the cause of their falls."

Experience Based Design

The team was keen to learn about the experience of patients with advanced kidney disease using its services. It used Experience Based Design (EBD) at the start of the improvement programme to invite feedback. Staff identified where they felt the emotional touch points on the pathway were, for patients attending the outpatient clinic. These areas were then tested to explore how patients felt before they arrived, when they attended for the first time, during their appointment, afterwards and when thinking about the future.

An emotional map was produced from patient responses to show where patients had a good experience and had a positive feeling about that aspect of their care (green) or where they had less positive feelings (areas in red).

Figure 1. Emotional map produced following patient feedback.



Overall the feedback was largely positive although patients expressed some concerns about what they might be told in clinic or how their condition might develop. As these results were understandable and consistent with what was expected, no specific improvement interventions resulted from the EBD work.

The process took place before the implementation of home-based assessments and the team decided to repeat the study with the new renal frailty service in place. A number of those who experienced home-based services were sent an invitation to participate in a telephone follow-up and 11 of the 21 patients who had received a visit agreed to participate.

Patients (or their carers) were asked questions about how they felt before the occupational therapist arrived, when they arrived at the home, during the visit, about any problems identified and interventions suggested, and how they felt about the future. The analysis demonstrated that, overall, the patient experience of home visits was positive, although concerns were expressed that following the visit they were not clear regarding actions planned, due to the lack of follow-up.

The LTHTR team plans to see how in the future it can assure patients and communicate with them following the visit to check that the actions agreed are completed.

Staff education

The Renal Frailty Team provided education to staff about frailty and the new service, both informally in ward, dialysis unit and outpatient settings, and via formal presentations delivered at departmental meetings. The team also created a video graphic to explain the new renal frailty service to staff, why it is needed and how to use it. The video outlined what the team was doing and publicised the email address for referrals.

The team wanted to be more proactive about initiating advance care planning conversations with frail patients who are at the highest risk of adverse outcomes. They have worked with End of Life Educator, Linda Dewhurst, who has delivered focused education sessions with nursing staff on how to support advance care planning conversations with patients attending for dialysis or when admitted to hospital.

One dialysis nurse said "This training will help me be more confident in supporting patients to talk about their future wishes and preferences when they become less well."

Linda reported that following sessions "Staff talked of increased knowledge and confidence to help support their patients and those important to them."

Data analysis

Interim data analysis suggests that frail patients are more likely to be admitted to hospital and more likely to have a longer length of stay. More in-depth data analysis will take place over the next few months.

Figure 2. SPC chart demonstrating the total number of patients screened each week.

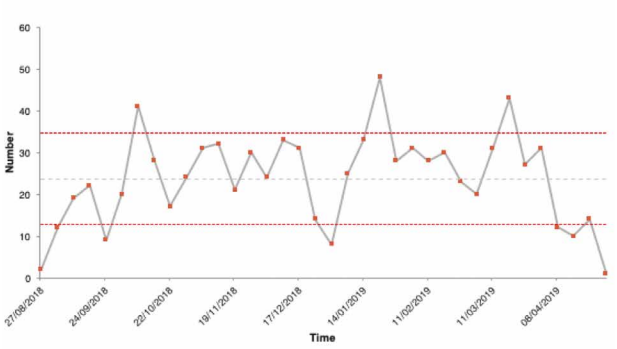


Figure 3. Emergency admissions following CFS assessment for non-frail patients (admission data was only available for Preston and Chorley residents).

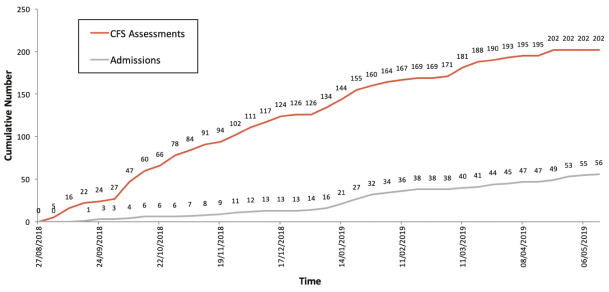
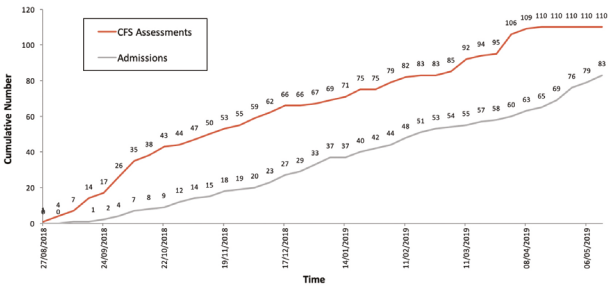


Figure 4. Emergency admissions following CFS assessment for patients living with frailty (admission data was only available for Preston and Chorley residents).



Challenges

LTHTR has faced similar challenges to many organisations involved in this type of improvement work.

1. Evidencing impact

One of the major challenges has been to demonstrate outcomes. It is still early days, with only 21 home assessments conducted so far, so there is too little data to be able to evidence impact. However, the team has a clear plan, as Andy explained "It is incredibly challenging to demonstrate impact at this stage as we are still very early in our improvement journey. We are planning to look at the number of admissions pre and post assessment. We have been asking patients to complete quality of life questionnaires before they are assessed and three months after assessment. We are also asking carers to complete carer burden questionnaires. We are planning a comprehensive analysis of the data in a few months' time."

The team acknowledges that it may be too soon to assess if the new renal frailty service has resulted in fewer admissions.

2. Lack of dedicated funding

The project team has been hampered by an absence of dedicated funding.

Andy explained "We have been able to make progress because we have an incredibly supportive OT lead and executive sponsorship but without this it would have been difficult. I am pleased to report that we have just secured charity funding for a part-time OT post for the next 12 months. This is a significant step in our journey to create a sustainable service that aims to improve the health and wellbeing of our patients living with frailty and CKD. It will allow us the time needed to gather sufficient quantitative and qualitative data to be able to develop a strong business case for the Renal Frailty Team."

3. Geographical limitations

The Department of Renal Medicine at LTHTR offers a renal service to a huge geographical area. However, reliance on OTs from the hospital's Integrated Frailty Team has meant the service is very limited geographically. Currently, home assessments are only available for patients living in Preston and Chorley. Andy hopes that the charity-funded OT post will allow home assessments to be performed further afield.

Success factors

Factors that have contributed to the improvements achieved so far include:

1. Membership of the Network

Andy explained how the team has benefited from being part of the SCFN "The Network helped us to drive change that otherwise would have taken a long time to achieve and, alongside our executive sponsor Gail Naylor, it has opened a lot of doors for us.

I don't have a quality improvement (QI) background so it has been really helpful to have support and guidance from a team of QI specialists. Working together to create a driver diagram helped us identify the most important factors needed to achieve our goal. The process empowered members of the wider specialty group to propose ideas on how best to succeed, thereby giving them ownership of the project right from the beginning. The contributions of the whole team have been integral to the development and sustainability of the project. During the creation of our driver diagram, we considered how we could embed measurement for improvement within each planned change. We have subsequently been able to evaluate the changes implemented, identifying those that were successful and those less so. This has allowed us to continually improve our patient pathway."

Judi Todd, Dialysis Sister said "Being part of the Renal Frailty Team has allowed me to be part of a team aiming to improve care for our patients. This feels as though it is fulfilling a need in our service that has increased over time due to the changes in the dialysis population. Joining the SCFN has helped support our work and allowed us to explore what is being done in other clinical areas and learn from their experience."

Emily Dickinson, Dialysis Staff Nurse said: "The CFS scores have allowed me to actively monitor my patients and detect any deterioration, leading to increased frailty and vulnerability. I now have the means to act upon this deterioration and positively impact my patient's levels of independence at home."

Mark Harrison, Occupational Therapist said "As a renal patient myself, I am very committed to the renal frailty project. I have gained a tremendous sense of satisfaction, fulfilment and confidence through my interactions with renal patients, and I am learning continually. I feel that this work is important and positively impacting on the education, health and welfare of renal patients. I am hopeful that it will provide useful data and enhance patient care going forward. The feedback from patients so far has been positive and I hope very much to continue this work for the foreseeable future."

Dawn Brannigan, Renal Clinical Psychologist said "It is an example of MDT working where the input of each team member has equal value in identifying the individual needs of patients and collaborating in the service of enhancing patient care, thus improving quality of life. It is encouraging a broader perspective of quality care for patients and enabling continuity of care beyond the renal service."

2. Executive support

The team recognises that without the support of executive sponsor, Gail Naylor and Lancashire Integrated Frailty Team OT Lead Julie Brown, progress would have been more limited.

Julie Brown said "As the Frailty Therapy Team Lead in the Trust, the development and implementation of a CGA for those patients screened as having a Rockwood CFS of four or above has proven beneficial in avoiding admission and reducing length of stay. It is therefore evident that such an assessment would have wider benefits if implemented with other patient groups. By providing a holistic assessment we could identify potential issues that may require support/actions and reduce the risk of crisis intervention. This would ensure that patients remain at the centre of developing planned treatment/plans."

Dr Mark Brady, Clinical Director Renal Medicine said "As a service we are very proud and committed to the excellent work from our Renal Clinical Frailty team. Under Andy's leadership there has been sustained impressive progress that is always inclusive and reflective. As a team they have done a great job bringing people together who understand that the needs of our communities cannot be served by ever increasing specialty medicine. As healthcare professionals we should avoid focusing on one aspect of an individual's circumstances by ensuring that we place everything in a meaningful context. The Clinical Frailty score allows us to do that easily; underpinned by Andy's research in this area demonstrating relevance to patients with reduced kidney function. The support from NHS Elect has been invaluable in making effective change possible through quality improvement expertise, frequent contact and guidance. There is plenty of work to be done but solid foundations have been laid."

Next steps

The team at LTHTR has made a positive start but recognises that there is a lot more to do, including:

Managing frailty in renal patients

Although the identification of renal patients with frailty is now more structured, one of its biggest challenges is how best to care for these patients.

Andy said "Most of the evidence on how best to manage patients living with frailty is taken from the Gerontology literature. We are adopting principles proposed in the older adult population. We hope that they will meet the needs of patients living with frailty and CKD and that, using a 'measurement mindset', we will be able to demonstrate an improvement in patient outcomes."

Involving primary care

To date, all of the renal frailty improvement work has taken place in secondary care but the team is keen to link in with primary care to provide a more integrated service. It is hoping to introduce a trial with local GP practices and discussions have recently got underway. Early indications are promising but nothing has been implemented as yet.

Key learning

1. There is a high prevalence of frailty in patients living with CKD.
2. Patients living with frailty and CKD are more likely to be admitted to hospital and, if admitted to hospital, are more likely to have a longer hospital stay.
3. The CFS is a practical frailty screening tool that can be incorporated into clinical practice across all areas of Renal Services.
4. It is possible to successfully implement a modified CGA within Renal Services. In doing so, otherwise unknown patient needs are identified and can be addressed by a MDT.

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