

Specialised Clinical Frailty Network  
**Imperial College  
Healthcare NHS Trust**

Turbo-charged frailty training in  
North-West London



# Introduction

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The Specialised Clinical Frailty Network (SCFN) explores 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, helps NHS trusts to improve the way they identify frailty and make better treatment decisions to improve patient outcomes. The second wave included Neurosurgery, Spinal Surgery and Adult Critical Care. There were up to six trusts in each specialised area.

## This is the experience of one of the Neurosurgery sites...

**Imperial College Healthcare NHS Trust** is the specialist neurosciences centre for North West London. Thirteen consultant neurosurgeons serve a population of around 2.2 million from two hospital sites – St Mary’s and Charing Cross. Imperial College joined the second wave of hospitals working with the SCFN to improve the identification and care of frail patients. The aim was to ensure the most appropriate care for frail patients aged 65 years and over referred for acute cranial neurosurgery. The improvement project focused on the frailty pathway at Charing Cross Hospital.

### Neurosurgery and the importance of frailty

The neurosurgery speciality at Imperial College sees a high number of older patients, many of whom have frailty. There are a number of reasons for this including an ageing population and the frequent use of medications that thin the blood, leading to an increased risk of bleeding.

Prior to the frailty improvement project, the Neurosurgery Department at Charing Cross Hospital had carried out some research which showed that frailty was linked to increased length of stay and number of red days (those days not contributing to a patient’s treatment or discharge). In patients aged over 65 years with a brain tumour, higher levels of frailty meant they were less likely to be able to complete adjuvant chemotherapy and radiotherapy. In addition, risk assessments for falls and deep vein thrombosis were low, there was no identification or management of delirium and there was limited discharge planning. Patient and family satisfaction levels were suboptimal.



Sophie Camp, Consultant Neurosurgeon and clinical lead for the frailty neurosurgery improvement project, said “Although some members of our wider multi-disciplinary team (MDT) were aware of the concept of frailty, we had not moved forward with respect to training the wider team, or implementing any strategies to manage our frail patients. We wanted to address this in our project.”

### Project aims

Frail patients with acute cranial conditions are seen at each of Imperial’s two sites, either in the Major Trauma Centre at St. Mary’s Hospital, or in acute and elective neurosurgery based at Charing Cross Hospital.

Wherever patients were seen, the Trust wanted to ensure that frailty was identified early on using Rockwood Clinical Frailty Scale (CFS), and that patients followed a clear frailty pathway. To achieve this, the Trust believed it needed an engaged and empowered MDT, with clearly defined roles and areas of responsibility in caring for frail patients.

At the start of this project, the Major Trauma Centre already employed a Geriatric Liaison Consultant, Dr George Peck. The frailty improvement team was able to draw on the experience of the Major Trauma Centre team when planning and undertaking work at Charing Cross Hospital, which is where the improvement project focused.

## Joining the SCFN

Imperial College's Neurosurgery Frailty Team became part of the second wave of the SCFN. Sophie explained "Joining the Network gave us the opportunity to meet with other groups involved in this work at national meetings and to exchange ideas and benefit from their experience. The SCFN also provided a host of valuable resources and expertise, such as resources, events, support and networking opportunities."

## What they did

### Formed a project team

The first step was to form the Imperial Neurosurgery Frailty Team. Sophie, who headed up the team as clinical lead, explained "We invited participation from diverse aspects of the MDT, including therapies, nursing and medical staff, our management, transformation and the Trust frailty teams, and a data analyst. Kate Sendall, the Trust Frailty Clinical Manager joined us to introduce the wider neurosurgery team to the concept of frailty and measurement using the Rockwood CFS."

### Turbo teaching

Although the teaching provided by Kate was very well received and led to a demonstrable improvement in understanding of frailty among the therapists and junior medical staff who participated, it was not accessible to everyone. Nursing staff and junior doctors were unable to leave the ward to take part. Abby Harper-Payne, Neurosurgery Advanced Clinical Practitioner, introduced the concept of turbo teaching for ward staff who had been unable to attend the MDT training.



Abby said "Turbo training consists of five to ten minutes of teaching integral to the nursing handover. The same topic is covered for a number of days, to ensure the whole team is trained. We focused on the 5Ms – mind, mobility, medication, multi-complexity and matters most."

The turbo teaching showed a marked improvement in knowledge of frailty. 92% of participants reported that their knowledge and understanding of frailty was improved following attending the turbo teaching sessions.

### Clinical frailty scoring

Clinical frailty scoring has been added to the online referral system for neurosurgery at Imperial. All neurosurgical patients aged 65 years and over now undergo routine frailty scoring at the point of referral and on admission.

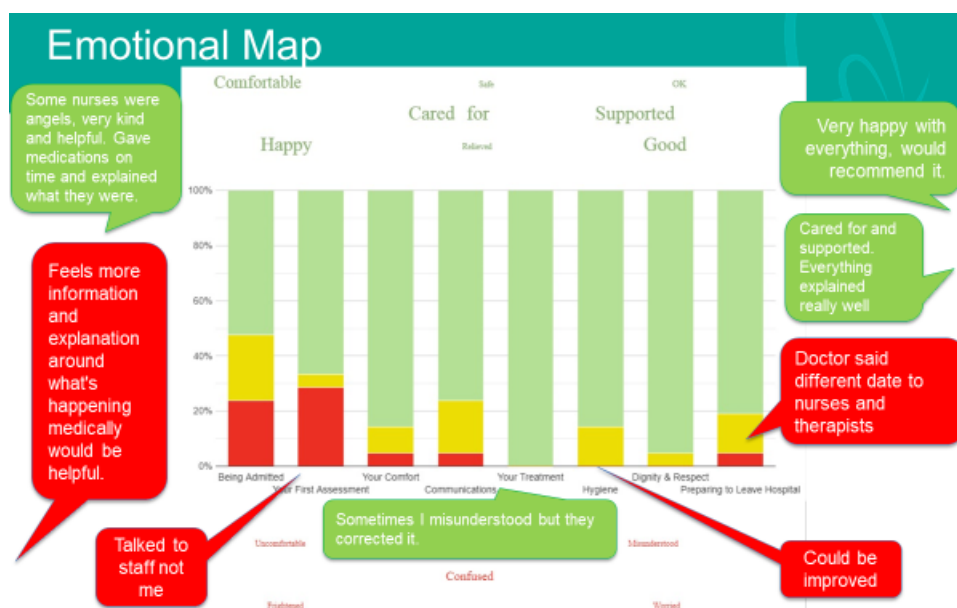


In one of its PDSA (plan, do, study, act) cycles, the team compared frailty scores on admission and at the point of referral. The team are mindful that inaccurate frailty scoring has the potential to act as a barrier towards accessing neurosurgical care. They wanted to evaluate accuracy, as a frailty score can play a key role in decision-making. The data showed that the clinical frailty score at referral was only accurate in one third of cases. Work is currently being undertaken to investigate the cause of these inaccuracies and formulate a plan to address this. Given that the service covers North West London as a whole, engagement with referring hospitals will be required to further establish where potential challenges and barriers lie.

## Experience based design

Experience based design (EBD) was used to map how patients were feeling at different stages on their journey. The work showed a largely positive picture in relation to treatment and dignity and respect. However, there was some dissatisfaction at the time of being admitted and first assessment, with comments like “more information and explanation around what’s happening medically would be helpful” and “talked to staff and not me”. The themes identified are being addressed as part of the Ward Improvement Programme. The team plans to undertake further focused work to unpick the findings of the EBD through collaboration with the public and patients. This work is in the early design phase and the team hope to build upon this in the coming months.

Patient feedback also suggested that there was a need for a leaflet on subdural haematoma, which is currently being developed.



## PDSA: increasing patient activity

PDSA cycles are used to test out proposed changes prior to full implementation, ensuring that they work in the way that is intended. The Imperial Neurosurgery Frailty team used PDSA cycles to test out plans to increase patient activity levels and time out of bed. This is important for frail patients because prolonged periods in bed can lead to an increased risk of deconditioning, loss of muscle strength and more rapid muscle aging. In turn, this may result in a longer length of stay and ongoing loss of independence and function.

Nic Crawshaw, Neurosciences Physiotherapist led a PDSA cycle which aimed to encourage patients to get out bed to eat lunch. Nic explained “Neurosurgery patients and their families are often unsure as to whether they are allowed to mobilise. This confusion can lead to deconditioning, muscle ageing and loss of strength, especially in the older age group.”

At first, the team introduced a red strip above the bed with Yes or No to show whether or not a patient could mobilise/sit out. This worked well initially, however it was identified that when patients moved beds, the signs were not always updated promptly. So, the team moved on to implement a more robust method, in the form of a mobility chart detailing seating, transfer method and a named therapist. The mobility chart, together with signs for patient tables, posters, and training, have increased ability to achieve the identified aims - empowering patients, relatives, and staff to assist patients out of bed, wherever appropriate. The team recently re-audited the number of inpatients sitting out for lunch and plan to re-audit after the implementation of some new initiatives to encourage patients to sit out to eat where possible.

Staff, patients and relatives were asked for their feedback about the red strips. Among the comments were:

*Nurse:* “I saw that and got them out for breakfast”

*HCA:* “Red strips were helpful for everyone to know when patients can get out”

*Rehabilitation Assistant:* “The red strips and table signs are great visual prompts for staff and family”

*Patient:* “That’s true, I don’t need to be in bed” (patient then got two other patients out of bed as well!)



Comparison with other wards in the hospital was also undertaken to show the number of patients sitting out for lunch on a given day as a percentage of those who could. This comparison specifically related to Acute and Medicine for the Elderly wards where Frailty work is more established and rates of compliance are greater. The Neurosurgery Team have therefore been able to learn from the successes of the Acute and Medicine for the Elderly Teams to assist them in ensuring improved statistics across the Neurosurgery wards.

## Impact

The frailty improvement project has increased understanding in the wider MDT of frailty, how to assess it, and its implications for patients. The team recently introduced a Geriatric Liaison Registrar, who works with the Neurosurgical MDT and sees patients two or three days per week. Due to the role being recently introduced, no formal data is available, however a subjective improvement in the identification and management of frail patients has been noted. The team recently nominated Frailty Champions to promote its work on the Neurosurgical

wards. Staff from across the MDT self-nominated and were supported by their line managers to attend the recent Frailty Champion Training. There was an excellent response and six Frailty Champions have been trained so far. It is hoped to expand this over the coming months. Together with the Geriatric Liaison team, it is hoped they will help to maintain engagement in relation to this important topic, thus improving patient outcome and experience in addition to increasing awareness and confidence amongst staff in relation to frailty.

Cranial neurosurgery patients with frailty are now identified earlier, thanks to the introduction of clinical frailty scoring at referral and admission. As previously discussed, new projects are underway to enhance their experience, ensuring their MDT input is appropriately focused.

Improvements in the way frail patients are managed on the ward – for example, encouraging patients who are able to do so to get out of bed for lunch – has resulted in improved patient experience, as reflected in feedback from questionnaires.

**PDSA: Increasing patient activity levels**

**Aim:** To increase patients activity levels and time out of bed.

**Rationale:** Frail patients are at ↑ risk of deconditioning, muscle aging, and muscle strength loss with prolonged periods in bed, which leads to ↑ length of stay and ↓ function and independence.

**Interventions:**

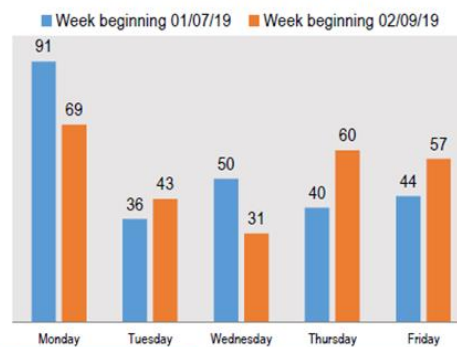
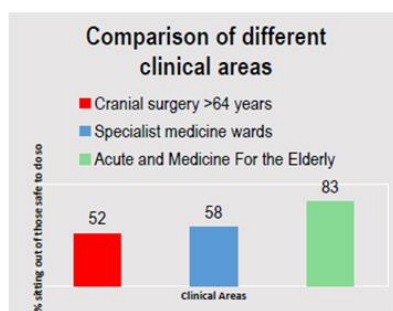
- signs for patient tables and bed space 'red strips'
- posters for staff and visitors
- leaflets for patients and relatives
- therapist induction training on ↑ patient activity levels
- ad hoc promotion of signs with ward nursing staff

**Measures:**

baseline and follow up lunch time audit of number of patients sitting out / number safe to sit out (%).

**Results:**

**% 65+ Patients sitting out for lunch**



**Feedback on red strips and signs:**

I saw that and got them out for breakfast (nurse)

Red strips were helpful for everyone to know when patients can get out (HCA)

That's true, I don't need to be in bed (patient who then got out as well as 2 others in the bay)

The red strips and table signs are great visual prompts for staff and family (rehab assistant)

Reflecting on the frailty improvement work, staff said:

*“The project has allowed me to get to know the team and gain insight into their roles within the speciality.”*

*“Completing the Clinical Frailty Score encourages the team to fully consider frailty in their management.”*

## Challenges

One of the key challenges for Imperial was ward staff being unable to leave the ward to attend training, addressed with the introduction of turbo teaching. Staff knowledge about frailty varies widely so the Trust's frailty team has helped to create a comprehensive training programme.

The fact that the workforce rotates presented possibly the greatest challenge to the frailty team, so frailty training is now incorporated as part of the departmental induction process to ensure that all staff are included. Because the patient group is diverse, staff gain experience in working with different types of patients and develop transferrable skills that are fully embedded into their practice.

## Success factors

Imperial believes that the most important contributor to the project's success has been the enthusiastic and knowledgeable team and the willingness of staff to engage with the project. Sophie said "They have worked closely together at every opportunity and used their considerable skills to great effect. Linking with the Trust Frailty team and accessing their resources have also been invaluable and holding regular meetings with them and other subgroups has ensured we have maintained momentum with the work."

## Next steps

To build on its frailty improvement work so far, the team at Imperial is planning to introduce nominated Frailty Champions, to promote its work on the wards. Sophie said "We are keen to work with our Geriatric Liaison team who, we anticipate, will maintain enthusiasm and engagement, and ensure we address the needs of frail neurosurgical patients. In addition, we will be implementing lunch rounds, where it will become normal practice for therapist, rehabilitation assistants, and nursing staff, to work together prior to lunch to assist patients to sit out."

Issy Manning, Ward Matron, has also produced a ward leaflet, for which they are currently awaiting Trust approval, prior to its introduction onto the ward. In addition, the team is planning two quality improvement projects around the concept of 'stop/start' in frailty, with specific focus on bowel management and anticoagulant prescribing. Stop/start aims to identify medications which pose potential risk or challenges to the frail patient population, ensuring comprehensive medication review. This aims to ensure that any unnecessary medications are de-prescribed and where necessary, alternative or supplementary options are added. The team aims to specifically focus on anticoagulants and laxatives due to the importance within the Neurosurgery specialty and the potential impact on length of stay, complications and patient experience.


Finally, they are planning to review the pre-assessment process for neurosurgical patients aged 65 years and over, including the addition of a therapy review prior to admission for elective surgery. This aims to optimise their recovery, reduce length of stay and increase provision of self-directed exercise programmes.

Jeremy Butler, Executive Sponsor and Director of Transformation, said "It's been wonderful to witness the improvements made by the Neurosurgery team with our frail elderly patients. They've generated and embedded some excellent improvements, and the Specialised



Clinical Frailty Network has really helped us to structure this and ensure that we sustain the changes made. The quotes are testament to the power of incremental improvements, and we just need to do more and more of this across our hospitals!"


Sophie concluded "This project has provided a fantastic opportunity for MDT working, ensuring a better understanding of frailty and its implications. We continue to work to improve the patient experience and deliver an excellent clinical service for our patients."




**Specialised Clinical Frailty Network**

# Imperial College Healthcare

NHS Trust





## FRAILITY IN ACUTE CRANIAL NEUROSURGICAL PATIENTS

N Crawshaw, S Riches, A Harper-Payne, C Ford, E Moncur, J Webster, H Ota, M Williamson, M Awan, I Manning, A Badarau, H Asher, J Butler, V Jeram, K Tsang, G Peck, C Sendall, S Camp

### Aim of our project

To ensure access to and delivery of the most appropriate care for frail patients aged 65 and over (65+) referred with acute cranial neurosurgery (NS)

### Our theory of change

**to ensure access to and delivery of the most appropriate care for frail patients aged 65+ referred with acute cranial NS**

all frail NS pts are identified & this informs their care

there is a clear pt pathway for frail NS pts 65+

**OUTCOME MEASURES:**

- no. of pts with CFS completed within 24 hrs of admission
- no. of real days
- length of stay
- no. of pts with completed DNAR/resuscitation plan within 48 hrs of admissions
- documented anticoagulation guidance

all NS pts 65+ to have Clinical Frailty Score (CFS) completed at point of referral and on admission

clear admission points to the neurosurgical unit for all appropriate frail pts 65+

Camera enabled tracking of assessed pts, their CFS & Key Performance Indicators (KPIs)

clearly defined standard MDT assessment of frail pts including delirium, VTE, DNAR/consents of care, falls & cognition

Workflow & CERNER configured to support pt pathway & evaluation of KPIs/metrics

frailty is appropriately considered at all steps in the pt pathway (including pre- and post-operatively)

clear roles & areas of responsibility for the MDT in the varied aspects of care plans

staff to have training & resources to support their knowledge, confidence and skills in caring for frail NS pts

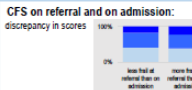
clearly in the Trust & Network services to support frail pts on discharge

clear protocols for discharging pts


pts/relatives given information of pt pathway & condition

### Workstreams

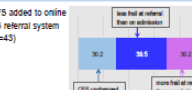
**CFS on referral and on admission:**



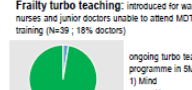
**CFS MDT training:**



**CFS added to online NS referral system (N=43)**



**Frailty turbo teaching:** introduced for ward nurses and junior doctors unable to attend MDT training (N=39; 18% doctors)



ongoing turbo teaching programme in SMS:

- Mind
- Mobility
- Medication
- Multi-complexity
- Matters most

**PSDA: Increasing patient activity levels**

**Aim:** To increase patients activity levels and time out of bed.

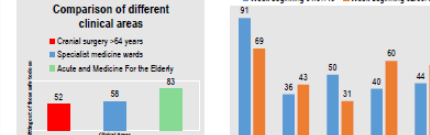
**Rationale:** Frail patients are at ↑ risk of deconditioning, muscle aging, and muscle strength loss with prolonged periods in bed, which leads to ↑ length of stay and ↓ function and independence.

**Interventions:**

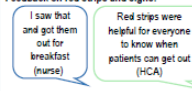
- signs for patient tables and bed space 'red strips'
- posters for staff and visitors
- leaflets for patients and relatives
- therapist induction training on ↑ patient activity levels
- ad hoc promotion of signs with ward nursing staff

**Results:**

**% 65+ Patients sitting out for lunch**



**Comparison of different clinical areas**



**Feedback on red strips and signs:**

I saw that and got them out for breakfast (nurse)

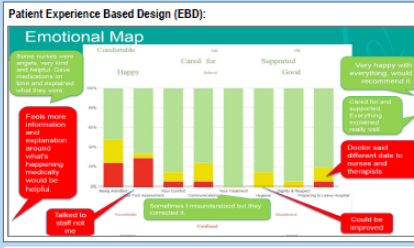
Red strips were helpful for everyone to know when patients can get out (HCA)

That's true, I don't need to be in bed (patient who then got out as well as 2 others in the bay)

The red strips and table signs are great visual prompts for staff and family (rehab assistant)

### Patient Experience Based Design (EBD):

**Emotional Map**



**Subdural haematoma (SDH) leaflet:** developed with patient representative feedback

### Reflections...

**Team reflection on project**

- the project has allowed me to get to know the team and gain insight into their roles within the speciality
- completing the CFS encourages the team to fully consider frailty in their management

**Staff reflection on project**

- induction education session are fairly new and will take time to embed
- accuracy of pre-morbid function for the CFS is dependent on therapists
- a copy of CFS on the computers on wheels is helpful

### Successes and challenges

- improvement in MDT frailty knowledge
- increased communication across the MDT
- consideration of the impact of a hospital stay on frail patients
- development of SDH patient leaflet

- staff availability to attend training
- variability of staff knowledge base
- variation in ward patient population
- embedding training into practice
- sustainability of change with rotational workforce

### Next steps

- experience based co-design for subsequent phases of the project
- rolling frailty turbo teaching programme on 11S ward and extension to include wards accommodating neurosurgical outliers and AHPs
- lunch rounding i.e. where it becomes normal practise for therapists, rehabilitation assistants and nursing staff to work together prior to lunch to assist patients to sit out
- Frailty Champions within NS

Interested in finding out more about our project, sharing ideas and networking? Get in touch [@NSxFrailtyTeam](https://twitter.com/NSxFrailtyTeam)

For more information please contact:

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