

Whipps Cross' ambitious plan to improve perioperative care for older patients undergoing elective surgery



Introduction

The number of older people undergoing surgery is rising. Of the 11 million procedures carried out by the NHS in 2016, nearly five million of them were on patients over the age of 65. The risk of adverse outcomes and slow recovery rates are more common within this age group. However, perioperative management – including a Comprehensive Geriatric Assessment and medical optimisation of the patient before surgery – can significantly reduce postoperative complications and length of stay.

The POPS (Perioperative care for Older People undergoing Surgery) Network helps NHS organisations to redesign elective care to ensure services are designed to meet the needs of older people. It offers a six-month collaborative programme of learning and development events, introducing organisations to proven quality improvement tools and connecting them to others undertaking similar work.

This is Whipps Cross' story...





Whipps Cross Hospital is a busy District General within Barts Health NHS Trust. It is a tertiary centre for the Royal London and Barts.

When Krishanthi Sathanandan joined as a registrar in 2018, there was only a rudimentary Trauma and Perioperative Care for Older Patients (T-POPS) service for patients on the emergency perioperative pathways and no service for elective patients. As Krish entered the final six months of her training in 2019, she began to explore the idea of expanding the T-POPS service to develop a proactive service for emergency patients and to initiate a service for elective.

Why perioperative care for frail patients

After a POPS Fellowship, Krish had seen with her own eyes the impact that interdisciplinary input can have on frail patients. She said:

“Preoperative optimisation can support frail patients to be able to proceed to surgery without unnecessary cancellations or delays. It identifies patients for whom surgery might no longer be the best option due to their frailty or multi-morbidities and enables lower risk procedures to be considered as an alternative. For some patients, it highlights the need for further medical optimisation prior to surgery.”

Impact of COVID

However, within weeks of starting work to develop a T-POPS service for elective patients, the pandemic hit and Krish was deployed to the COVID-19 rota. By the time she was able to return to T-POPS – by then a consultant - surgery looked very different across the hospital. Post-COVID, there were so many competing priorities that Krish admits she struggled to know where to start with developing the new elective Trauma and Perioperative Service for Older Patients. She said:

“I collected a lot of data but with no real idea of how to use it or who to engage with, it was rather disheartening. Senior staff were pre-occupied with rebuilding services after the pandemic. I’d done a POPS Fellowship with clinical lead for the POPS Network, Dr Jugdeep Dhesi so I contacted her for advice. She suggested joining the Network. It wasn’t easy to get funding at first, but I managed to through the Barts charity. Our first meeting was in December 2021.”

What they did

Whipps Cross took a methodical step-by-step approach:

1. Formed a project team

They began by forming a project team to lead the T-POPS work. It started out as a large team, including the executive sponsor, eight heads of surgery, the therapy lead, head of urology, surgical matron, service manager and Krish as the project lead. She said:

“I thought we’d need to engage with a broad range of people from the surgical and anaesthetic directorates, but it quickly became obvious that there were too many. People had different ideas about what the service should look like and different levels of engagement. Within a couple of months, the project was largely being steered by just three of us Tristan Kerr - the executive sponsor, Lauren Blackmore - the senior surgical occupational therapist and me. This worked much better.”

2. Appointed an executive sponsor

When it came to choosing an executive sponsor for the project, Krish approached the only person from the executive team that she knew – Director of Operations, Tristan Kerr. She had met him during COVID and knew he was an advocate for frailty improvement. Krish said:

“He was an important driving force in the project. He understood the benefits of frailty improvement and was motivated to get the T-POPS elective pathway off the ground.”

3. Agreed project objectives

At the start, the T-POPS project aims were broad ranging but, with support from the Network, the team zoned in on two surgical areas – colorectal and urology. Krish explained:

“There was already a good service in place for patients over 65 on the urology and colorectal emergency pathway to undergo a Comprehensive Geriatric Assessment. Within the elective pathway, we wanted to have a robust structure in place for identifying frailty and the increased risk of deconditioning. We wanted to offer early medical optimisation, to identify possible barriers to discharge and to recognise end of life needs.”

4. Worked with the POPS Network

At the start of the project, before their active involvement with the Network, Krish admits to feeling alone and somewhat disheartened by the task in hand. The Network introduced her to a range of Quality Improvement tools including SPC charts, driver diagrams and pareto charts, and helped her to make sense of the mass of data that she had amassed.

“The driver diagrams helped us bring our large aim down into the individual steps that we needed to achieve and to see which datapoints would be the most useful and relevant going forward. The Network supported me to break down the data so I could use it to create a compelling case for change. They also did some of the financial costings for me, including helping me to put costs to the potential bed savings. I had never used data in this way before. We have three data analysts for the entire hospital. It would have been great to have them working alongside us, but they don’t have the capacity, so the surgical therapy lead, and I learned to analyse the data for ourselves. This was great learning for me that will be very useful going forward.”

The Network also provided emotional support and encouragement, as Krish explained:

“The Network was very supportive, and the regular meetings were useful. They put us in touch with other people developing a similar service so we could see what they were doing, what data they were collecting. Having access to peer support has been amazing.”

5. Used data to make the case for change

Krish believes one of the most important benefits of being part of the Network and working alongside an executive sponsor has been learning how to collect and use data in a way that is meaningful to clinicians and the Board that can help her to build a case for change. By necessity, she was unable to rely on the hospital’s over-stretched business analysts to collate the data and she has found learning to do this herself a vital skill. She said:

“Nationally, Barts Health has the fifth highest volume of frailty on enhanced recovery surgical pathways. Each month at Whipps Cross more than 100 patients over 80 are admitted onto the enhanced recovery general surgical pathway. When the data was analysed, the evidence for greater perioperative input for these patients was compelling.”

What the data showed

The data showed that, every month, older patients who are reviewed by T-POPS experience better care in at least five different areas:

1. Early identification and optimisation of medical morbidity and frailty – There’s an 80% likelihood that up to four chronic conditions will be optimised by T-POPS and a 40% likelihood of between one and three new chronic diagnoses.

1. T-POPS supports early identification & optimisation or medical morbidity and frailty

What conditions are T-POPs most likely to address

Chronic conditions:	Undiagnosed chronic conditions:	Acute medical illness:
<ul style="list-style-type: none"> HTN Cardiac condition (AF, IHD and HF) Cognition Diabetes COPD 	<ul style="list-style-type: none"> Bone health and falls Cognitive impairment and mood Issues with continence or constipation Anaemia Cardiac: Issues with BP or new cardiac diagnosis (valvular HD, arrhythmia, HF, IHD) 	<ul style="list-style-type: none"> Electrolyte abnormalities Falls Delirium Pneumonia AKI Cardiac (fluid overload, AF, ischaemia or BP related)

2. Addressing polypharmacy – If a patient is reviewed by T-POPS it is likely to lead to two to four alterations in medication. There’s a 50% likelihood that between one and four medications will be stopped altogether.

2. T-POPs addresses polypharmacy

What medications does T-POPs change?

Medications most likely to be stopped:	Medications most likely to be started:
<ul style="list-style-type: none"> Antihypertensives Antipsychotics and anticoagulants Diuretics Anticholinergics Oral iron 	<ul style="list-style-type: none"> Laxatives Diuretics Analgesia Enthymolobates Nutritional replacement inc IV iron

3. Improving decision-making in relation to end of life – There is a greater than 80% likelihood that after a T-POPS review between one and four patients will have their palliative care needs identified and addressed. There’s also a higher than 80% likelihood that between one and two patients a month will avoid inappropriate emergency surgery.

3. T-POPs supports improvement in end of life care decision making

4. Reducing transfers to older person and general medical wards

5. Supporting patients to return to their own home – Before T-POPS 17% of patients were likely to return to their own home albeit with higher levels of support. After T-POPS the figure is 40%.

4. Reducing transfers to older person and general medical wards

5. Supporting patients to return to their own home – Before T-POPS 17% of patients were likely to return to their own home albeit with higher levels of support. After T-POPS the figure is 40%.

4. T-POPs reduces transfers of care

5. Supports patients returning to their own home

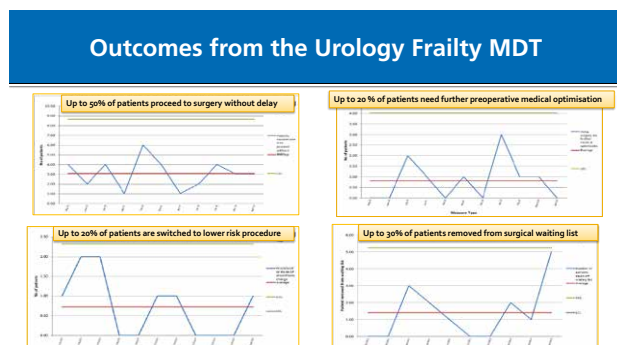
The hospital has demonstrated consistent excellence in supporting most older patients to return home at their previous functional level on discharge from the surgical wards.

For patients who do not return to their previous baseline, a T-POPS encounter is associated with being:

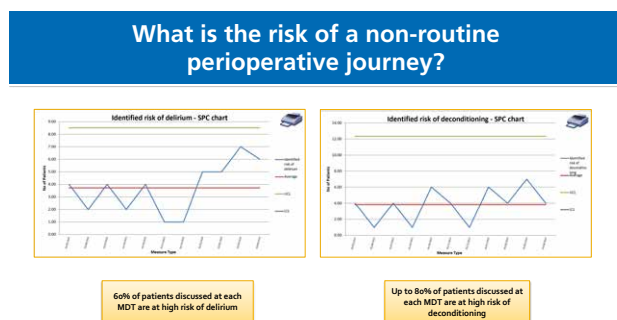
- More likely to still return to own home albeit with higher levels of support
- Pre-service 12% of patients T-POPS vs. 40% of patients
- Less likely to be transferred to another speciality
- Pre-service 33% of patients T-POPS vs. 21% of patients
- Less likely to be transferred to OPS ward
- Pre-service 12% of patients T-POPS vs. 7% of patients

6. Assessed the potential benefits of a T-POPS elective pathway

Data also helped to demonstrate the potential benefits for patients on the elective pathway of receiving preoperative input from a T-POPS frailty team. Whipps Cross was already running an elective multidisciplinary team meeting focusing on frailty. Outcomes from these meetings showed that up to 30% of patients were removed from the surgical waiting list, up to 20% needed further preoperative medical optimisation and up to 20% were switched to a lower risk procedure following these meetings.



By contrast, without any perioperative input 69% were at high risk of delirium and 80% at high risk of deconditioning.



7. Built an ambitious business case

Working with the POPS Network has enabled the team at Whipps Cross to build an ambitious business case for its new T-POPS emergency and elective pathways. Learning about quality improvement methodology, understanding how to use data effectively and working alongside an executive sponsor were all key components in helping the team to create a compelling case to put to the Board. The executive sponsor's involvement enabled them to be far more ambitious in their goals than Krish would have believed possible. She said:

“He knew the steps we would have to go through to bring about service improvement and he was instrumental in advising us to put forward our business case for a larger sum of money that we might have done otherwise and to tie this into financial planning for 2023. He changed my perspective to something much greater. In our business case, we are putting forward two possible scenarios – one which includes everything we would like straight away and one which is split over two years. It is a big challenge at a time when the Trust is trying to reduce its budgets for next year, but he gave us the confidence and support to develop a compelling case for what we want to do.”



Next steps

The business case has now been submitted and the team hopes that by Spring 2023 it will have funding for at least half of what it is proposing. It is aiming to be running perioperative clinics for elective surgical patients by the Autumn.

Success factors

- 1. Executive sponsorship:** One of the biggest successes for the Whipps Cross project team was engaging with a motivated and supportive executive sponsor. "It meant we became part of the wider radar of the hospital," said Krish. "Without this and the support of the Network, which helped us to compile great data, I doubt we'd have had the confidence to put forward such an ambitious business case."
- 2. Building relationships:** Although many of the people involved at the outset are no longer part of the main project group, the T-POPS work has helped to form better relationships across different teams, including surgical and therapy teams.
- 3. Being part of the Network:** Alongside learning quality improvement methodology and receiving practical support from the Network team, one of the most helpful things about being part of the POPS Network was working alongside peers. "Not many of the people in my department could understand the challenges I was facing but the peer support from others in the Network was amazing. I found it reassuring to hear so many project leads saying they felt alone or overwhelmed because I realised it wasn't just me. In addition, many different people came to talk to us about their POPS service or routes to funding. There were lots of really helpful ideas."

Key learning

- **Pace yourself** – Krish said "I felt under pressure because this was a six month programme. At the start I worked evenings and weekends, particularly on the measurement metrics, and that was exhausting. I would say 'pace yourself, don't feel you have to do everything straight away.'"
- **Data is crucial** – From the start, the team had plenty of data but wasn't sure how to use it. Krish said "It would have been great to have input from our data analysts early on, but this wasn't possible. The Network was really helpful in helping us learn how collect and analyse the right data. This was great learning for me that will be very useful going forward."
- **Get together as a project team before you join the Network** – Krish said "You don't need to know exactly what areas you want to work on, but I'd recommend having a few meetings with your project team before you start so you have an idea of where you might like to focus. We spent a lot of our early meetings discussing this."

Key Contact

Dr Krishanthi Sathanandan,
Consultant Geriatrician | Trauma and
Perioperative Older People's Service (T-POPS)
Whipps Cross Hospital, Barts Health NHS Trust
krishanthi.sathanandan@nhs.net

POPS Network
LABS Hogarth House,
136 High Holborn, Holborn,
London WC1V 6PX

Tel: 020 3925 4851
Email: networksinfo@nhselect.org.uk

