NHS
Elect

Perioperative Care Service off to a good start at Cardiff and Vale

Introduction

In 2021, Cardiff and Vale University Health Board joined the first ever cohort of the POPS (Perioperative Care for Older People undergoing Surgery) Network. The Network was set up to support trusts to optimise the health and wellbeing of older patients awaiting surgery. As waiting times increase, taking a proactive approach to prehabilitation can reduce the risk of complications, cut recovery times and improve outcomes among vulnerable patients.

Cardiff and Vale wanted to ensure that all patients over the age of 65 years admitted for emergency surgery underwent a routine assessment for frailty and those who were frail received a Comprehensive Geriatric Assessment (CGA). The Health Board was also particularly keen to improve the pathway for patients having an emergency laparotomy. In the long-term, its aim is to improve the care of all older patients undergoing surgery, whether emergency or elective. This is their story…

PERIOPERATIVE CARE OF OLDER PEOPLE UNDERGOING SURGERY

Cardiff and Vale is a large health board that includes the University Hospital of Wales, a 1000-bed teaching hospital and tertiary referral service for several different specialties. The Health Board had previously participated in the Ambulatory Emergency Care (AEC) Network and Acute Frailty Network (AFN), and was keen to get involved with the new POPS Network. Improving the care of frail patients is a priority within the Cardiff and Vale University Health Board and it is particularly keen to focus on the emergency laparotomy pathway for older patients.

Project team

Dr Nia Humphry, who joined the Health Board as a Consultant Perioperative Geriatrician (General Surgery) in October 2020, headed up the project. She was supported by a multi-disciplinary team (MDT) that included a Consultant Colorectal Surgeon, Consultant Anaesthetist, Emergency Medicine Consultant, Nurse Practitioner, Physiotherapists and Occupational Therapists, as well as representatives from Pharmacy, Dietetics and Service Improvement.

Nia said "The creation of this new POPS team has been one of the best things to come out of our work with the Network. Prior to this, there were just a few of us acting in isolation but being part of the POPS Network and working in a focused way brought different disciplines together as a team with the same overarching objective. This has given new momentum to our perioperative work for older patients. We began by collecting and analysing data before agreeing our aims and developing an improvement plan. Each time we met, we produced an action log with agreed priorities."

Baseline data

Obtaining data enabled the improvement team to establish a baseline, which has been valuable both in showing where they were at from the outset and demonstrating the impact their work is having.

Nia explained "There is a national initiative to ensure that older patients having an emergency laparotomy receive input from a geriatrician to mitigate the risks of poor outcomes. At the outset of our project, the data showed that less than 5% of patients aged over 65 years having the procedure at Cardiff and Vale, saw a geriatrician.

Now that the general surgery directorate has supported the initiation of a POPS service, the number is up to 85%, which is a huge improvement. We have a standardised approach to ensure early patient identification and prompt review of eligible patients on the ward after surgery, or when they step-down from intensive care. However, we are a small team with no geriatrician cross-cover so have not been able to reach 100%."

Driver diagram

The POPS team met fortnightly via MS Teams and attended the POPS Network events monthly. Early on in the process, they mapped the patient journey so they could identify where the problems lay and what needed changing. From this they created a driver diagram with five key areas for improvement. These were:

1. Identifying frail patients over the age of 65 years admitted for emergency general surgery:

They wanted to use the clinical frailty scale (CFS) to score patients for frailty as they came into the hospital. This would enable them to see which patients might need greater support before and after surgery.

2. Providing a CGA for all frail patients:

Patients with a CFS score of five and over would be referred to the POPS team for a CGA. This would allow a holistic patient assessment including exploration of the patient's advanced wishes and goals for discharge.

3. Safe prescribing:

The team wanted to review any existing medication the patients were taking and to develop a perioperative medication plan. It was keen to ensure that certain protocols were being followed, such as administering antibiotics within an hour for patients with sepsis, and appropriate use of opiate medication.

4. Improving patient experience:

Experience Based Design (EBD) questionnaires provided by the POPS Network would be used to understand more about the experience of frail patients and the staff caring for them. There was an aspiration to move senior decision-makers closer to the front door and to reduce the number of ward moves, both of which the team believed would contribute to an improved patient experience.

5. Reducing waste on the patient journey:

There were several elements to this including early mobilisation of patients after surgery and improving the discharge process to get them home sooner. The team also wanted to reduce the number of personal items getting lost along the pathway.

Priority areas for improvement

Cardiff and Vale decided to prioritise four areas during its six-month period with the POPS Network:

- Improving the identification of frail patients
- Delivering CGA
- Safe prescribing
- Nutrition

It established a workstream for each of these areas.

Branding the POPS team

It was important to develop a distinct identity for the POPS service, with its own logo, to help raise the profile of this work and signpost clinical staff where to go for perioperative support for older surgical patients. Posters were put up showing the POPS team's availability (Monday, Tuesday, Thursday and Friday 8am to 5pm) and how to contact them.

What they did

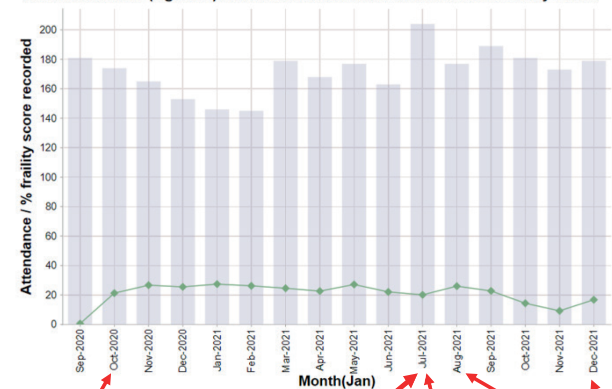
Cardiff and Vale has worked consistently on its four priority areas:

1&2. Identifying frail patients and providing CGA:

Work is underway to identify frail patients at the front door using the Clinical Frailty Scale (CFS). A standard proforma has been developed and the POPS team has spent time with junior doctors and triage nurses in the assessment units explaining why clinical frailty scoring is important. Unfortunately, uptake of CFS has been slower than anticipated and Nia believes that it may take longer than they originally thought to change the organisational culture.

She said "The POPS Network put us in touch with the team in North Middlesex who had faced similar issues to us in identifying frail patients at the front door. This was really helpful as it helped us to realise that our initial targets may have been over-ambitious. In the six months that we were part of the Network, we achieved rates of around 25% compliance with CFS. However, three years in, the team in North Middlesex is up to 70% compliance – this has made us feel more optimistic and be more realistic!

I think it will take time to change the mindset of triage nurses and doctors. From talking to North Middlesex, it is about showing colleagues the difference that clinical frailty scoring makes to the patient's experience so they don't regard it as just another thing to do. We are pushing towards frailty scoring being recorded electronically as part of the standard triage process and our aim is for all patients identified as frail to have a CGA by the POPS team. We have also produced posters with the hashtag #CAVFrailtyMatters explaining what frailty is and why it's important to identify it early on."



3. Safe Prescribing:

The POPS team collected data over a two-week period among patients over the age of 65 having an emergency laparotomy. This revealed high levels of inappropriate prescribing of the drug Tramadol, which carries a risk of delirium among frail patients. The POPS team consulted with the Pain Team and Anaesthetists and a new pain pathway is being rolled out to frail emergency laparotomy patients within Cardiff and Vale. The aim is to streamline prescribing of pain medication and to reduce the inappropriate use of Tramadol.

4. Nutritional Risk Scoring:

Cardiff and Vale uses the WAASP (Weight, Appetite, Ability to eat, Stress factors, Pressure sores/wounds) screening tool to assess nutritional risk among frail patients. The POPS team carried out an audit across its wards to check compliance with WAASP. This showed that in 89% of cases, screening was being carried out within 24 hours of admission or after surgery which was an encouraging statistic. However, two thirds of patients didn't have their weight recorded and 22% who should have been referred to a dietician weren't referred. In response, a practice development nurse has held education sessions with ward staff. A pilot will take place on one ward to record WAASP screening and make dietetic referrals electronically. With the aim of preventing missed referrals. The team will then re-audit and if it was successful, the approach will be rolled out across all the wards.

NHS Number
Hospital No.
Forename(s)
Surname
Date of Birth DD / MM / YYYY
Address
Postcode:
ADDRESSOGRAPH

ADULT NUTRITIONAL RISK SCREENING TOOL (WAASP)

GIG CYMRU NHS WALES

TO BE COMPLETED IN BLACK INK

Category		Score				
	Admission Date DD/MM/YYYY **Weight**_______ kg **Height** _______ m **BMI** _______ kg/m² Circle: **M**easured/ **R**eported/ **E**stimated/ **U**nable to weigh		DD/MM/YYYY	DD/MM/YYYY	DD/MM/YYYY	DD/MM/YYYY
	Time (24hour clock)		_:_	_:_	_:_	_:_
	Weight (kg) / indicate reason if no weight (**M**easured, **R**eported, **E**stimated, or **U**nable to weigh)					
Weight (consider fluid retention when assessing weight history)	**Unintentional weight loss** of 6 kg or more (1 stone) within last 6 months, **extremely thin or cachexic**, *BMI < 18.5 kg/m²	7				
	Unintentional weight loss 3kg (7lb) within last 6 months	2				
	No weight loss	0				
Appetite (current)	**Little or no appetite** or refuses meals and drinks	4				
	Poor: eating less than a quarter (1/4) of meals and drinks	3				
	Reduced: eating half of meals	1				
	Good: eats 3 meals/day or is fully established on tube feed	0				
Ability to eat (current)	**NBM** for more than 5 days	7				
	Unable to tolerate food via gastrointestinal tract due to nausea or vomiting, constipation or diarrhoea, difficulty chewing/swallowing	4				
	Requires prompting, encouragement or assistance to eat and drink	1				
	No difficulties, able to eat and drink normally and independently	0				
Stress Factor (if clinical condition is not listed, choose a similar condition)	**Upper GI cancer** (pre/post-surgery), **extensive** bowel resection, **high output** stoma/fistula. **Head & neck** cancer surgery, both **kidney & pancreatic or Bone Marrow** transplants, **Mixed depth burns** (≥20%)	7				
	Moderate surgery e.g. cardiothoracic, kidney transplant, vascular **Malignant disease** with complication e.g. infection. **Recent multiple injuries** e.g. spinal injury/trauma, head injury, **GBS** **Bowel surgery** (uncomplicated), **liver disease** (decompensated) **Kidney** e.g. acute kidney injury, renal replacement therapy (HD/PD) **Severe infection** e.g. sepsis, endocarditis, pneumonia, peritonitis. **Pancreatitis** (acute & chronic), **HIV, Burns** (15-20% mixed depth)	4				
	Progressive disorders e.g. MND, MS, Parkinson's, dementia, heart failure, COPD). **Stroke** Fractured neck of femur, inflammatory bowel disease Uncomplicated /stable malignant disease, 10-15% mixed depth burn	2				
	Uncomplicated condition with no interruption in food intake e.g. MI	0				
Pressure Ulcer/ Wound (if ungradable choose highest)	**Cat 4** pressure ulcer or open abdomen	7				
	Cat 3 pressure ulcer or dehisced/infected/moderate exudate wound	4				
	Cat 1-2 pressure ulcer or non-healing/low level exudate wound	2				
	Pressure areas intact, healing or healthy wound	0				
	Total Score					
	Completed by (Initials)					
	Supervising Registrant (Initials)					

See Page 2 for Actions

Version: 2.1
Review Date: 06/12/2018 **Issue Date:** 03/10/2019 **Approved by:** Directors of Nursing

ADULT NUTRITIONAL RISK SCREENING TOOL (WAASP) GUIDANCE

GIG CYMRU NHS WALES

Note: This nutritional risk screening tool does not supersede clinical judgement; refer to the Dietitian if you have any concerns regarding the patient's nutrition

Guidelines for completion
Complete assessment within 24 hours of admission to hospital
Record weight and height (if unable, ask the patient or relative to estimate)
Select the **highest** score that applies in **each** section
Add the score of each section and record in the **total** box
Assess risk depending on the score and take appropriate action
Reassess weekly

SCORE and ACTION
0-2 LOW RISK
- Repeat screening in one week or sooner if patient condition changes

3-6 MODERATE RISK
Assist with meal choice
Encourage eating and drinking and assist if required
Encourage milky drinks and snacks between meals
Monitor intake on the All Wales Food Record Chart
Complete/initiate local care plans – refer to local policy
Repeat screening in one week or sooner if patient condition changes

7+ HIGH RISK
Refer to the Dietitian & follow actions as per Moderate Risk
Monitor intake on the All Wales Food Record Chart
Complete/initiate local care plans – refer to local policy
Repeat screening in one week or sooner if patient condition changes

Referral to the Dietitian should be made irrespective of WAASP score if the patient:
Requires or is receiving any form of Enteral or Parenteral nutrition support
Reports the use of prescribed nutritional supplements on admission
Newly diagnosed therapeutic diet e.g. gluten free, Type 1 Diabetic

If the patient requires a therapeutic diet e.g. texture modified diet, potassium restriction, food allergy or intolerance– inform catering of the specific dietary need and refer to the Dietitian if the patient requires additional support.

Version: 2.1
Review Date: 06/12/2018 **Issue Date:** 03/10/2019 **Approved by:** Directors of Nursing

Adult Nutritional Risk Screening Tool can be viewed in full and downloaded by scanning the QR code to the right or at:

https://bit.ly/3pbAwSl

Impact

The POPS service is still in its infancy at Cardiff and Vale. However, the early signs are encouraging. Cardiff and Vale is pleased to have established a multidisciplinary POPS team with its own distinct identity and operating practices. The team has been particularly successful at improving the number of emergency laparotomy patients over 65 being seen by a geriatrician, which is up from <5% in October 2020 to 85% in April 2022. Over the same period, frailty scoring at the front door rose from 0% to ~30% and the POPS team is working to educate colleagues in the Surgical Assessment Unit about the importance of early frailty identification to improve patient outcomes.

Key Learning

1. It takes time:

Six months is a very short time to see any demonstrable improvements in practice and the team at Cardiff and Vale was encouraged by talking to colleagues at North Middlesex who have been working to overcome similar challenges over a three-year period.

2. Face to face discussions make a difference:

Nia believes that face-to-face interaction with colleagues is the key to bringing about culture change.

She said "The POPS team needs to be more visible at the front door in the surgical assessment unit. In hindsight, maybe we should have done this sooner. When people understand why it's important to identify frailty and how much difference this can make to patients, they are far more willing to get on board."

3. The POPS Network provides valuable support:

Having support from the POPS Network has helped Cardiff and Vale to build momentum for change from a standing start.

Nia said "It helped to learn from what other organisations are doing, including the team at Guys and St.Thomas' and North Middlesex. I have now joined a working group and am sharing what we have learned with the next cohort. Although things have not gone as quickly as we'd have liked, it would have been slower and more difficult without the support of the Network. It has helped us to understand how to undertake improvement work and what we need to do to push the POPS service forward."

Dean Whittle, General Surgery Directorate Pharmacist said "I really enjoyed being part of the Cardiff and Vale POPS Network team and I felt that being part of the POPS Network brought us closer together as a team of colleagues. The process highlighted the improvements that we have already made to the perioperative care of older patients and helped facilitate further change for the benefit of our patients. By benchmarking against other centres, we were able to identify what we are doing well in addition to other areas for future development."

Mr Chris Morris, Clinical Director, Emergency General Surgery, Cardiff and Vale said "One of the major priorities of our Emergency General Surgery Service in Cardiff is to identify and optimise the management of frailty with the aims of improving outcomes and quality of life, as well as reducing length of stay. Involvement in the POPS Network has been invaluable in bringing together the multi-disciplinary team under the leadership of our POPS Consultant Nia Humphry and providing a structure to develop the service.

Having the ability to connect with other teams around the UK and discussing challenges and solutions has helped hugely. Developing an entirely new service can be challenging, but through the development of the driver diagram and using a data-driven approach we have developed clear priorities to take this service forward. Consequently, the profile of the POPS service and the POPS team have grown over recent months with successful recruitment and the feedback about the service from other team members is excellent."

Next steps

The POPS team at Cardiff and Vale continue to build on what has been achieved so far, meeting monthly to share ideas and discuss improvement work. Embedding and increasing frailty scoring on admission is key, to ensure frailty is identified early and CGA is targeted at those who would benefit the most from it. In the longer term, the team hopes to develop a memory link worker and perioperative delirium pathway, as well as starting a POPS service in the elective surgery stream.

Key Contact

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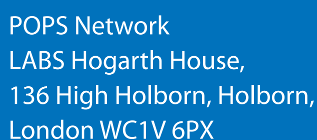

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