Executive summary — May 2023

Evaluation of Community Assessment and Treatment Units (CATUs) in Cornwall

Understanding the impact of the CATU model on frail, older patients and urgent care delivery in the community.

NHS England

Accelerated Access Collaborative

NIHR | Applied Research Collaboration South West Peninsula

South West Academic Health Science Network

Introducing the South West AHSN —

Transforming lives through health & care innovation

The South West Academic Health Science Network (South West AHSN) is one of 15 AHSNs set up by NHS England in 2013.

We exist to help transform the way our health and care systems in the South West identify, adopt and spread innovation to transform lives, improve population health, and drive economic growth.

Together with our local and national partners we are increasing the impact of research and innovation across the peninsula.

Our region

Our work in the South West is focused across the counties of Devon, Somerset, and Cornwall and the Isles of Scilly.

There is significant variation among our places – from isolated rural farming areas to market towns, coastal communities and urban centres.

This geographical construct creates complex challenges for our health and care systems in delivering services and improving population health.

We work by:

- **Finding and connecting innovators to health and care systems**
- **Developing, testing and evaluating innovation in the real world**
- **Adopting and spreading proven innovations at scale**
- **Creating the conditions to innovate**

Learn more in our Annual Review 2022–23

Context

Older people with frailty often present with urgent medical care needs that cannot be managed by primary care or community services and are referred on to an already stretched and underfunded health and social care system.

Evidence suggests that functional limitations, comorbidity and lack of social support increase Emergency Department (ED) and acute medical team use. Older people are admitted to hospital more frequently and have longer admittance times compared to other population groups, and long stays are worsened by insufficient social care capacity in the community. The age of Cornwall's population is expected to increase ahead of the national average in the next decade, suggesting increasing pressure on services in the coming years.

Cornwall has a disproportionately small hospital bed base and a disproportionately large population over the age of 75, compared to regional and national averages. The rurality of Cornwall means that a large proportion of the population live further from services than average across England (17% of the population of Cornwall versus 73% of the population of England live within a 10 km radius of a Type 1 Emergency Department), meaning very long journeys to the ED at Royal Cornwall Hospital (RCH) in Truro for many frail patients with acute care needs, and those wishing to visit.

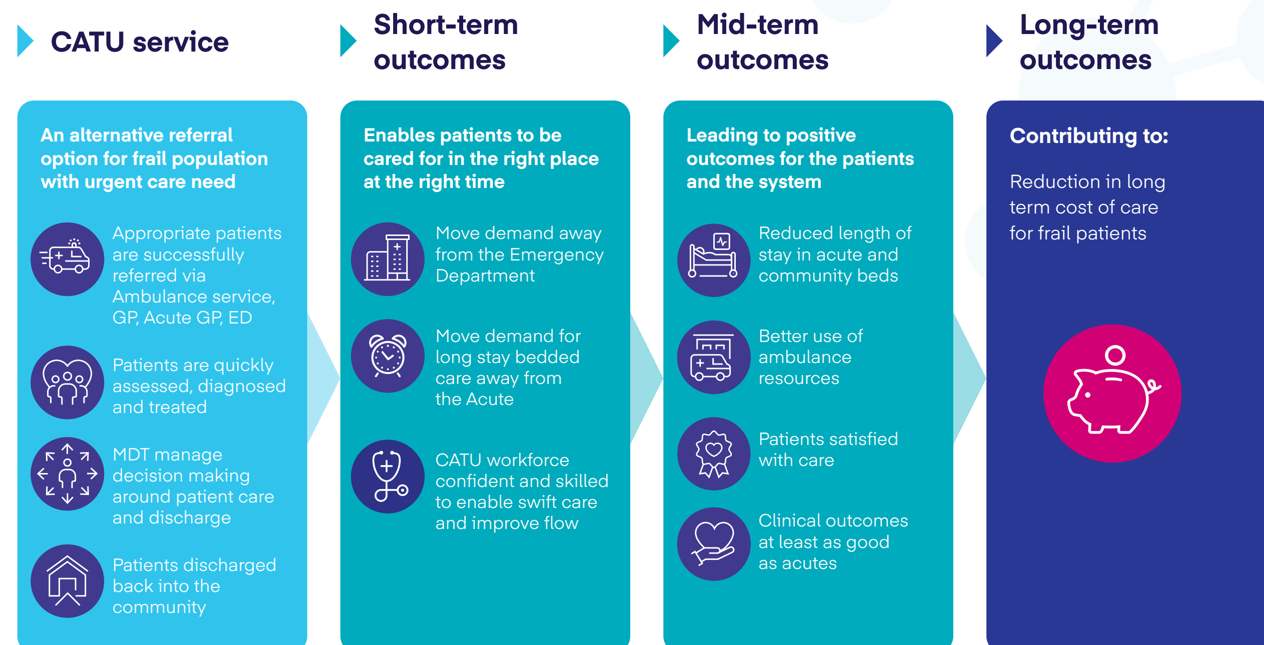
Community Assessment and Treatment Units (CATUs)

A CATU is a bedded unit, sited within a community or sub-acute hospital that supports frail patients with an urgent medical need who cannot be managed in the community, and would otherwise be presenting at the ED and/or admitted to acute medical wards.

Three CATUs were established as part of the Cornwall and Isles of Scilly (CIoS) COVID-19 response, to divert older patients with frailty from attending hospital, and treat them closer to their homes, protecting them from COVID-19 and other nosocomial harms (i.e. infections originating in a hospital). These were established at Bodmin Community Hospital (BCH), and Camborne Redruth Community Hospital (CRCH) run by the community trust Cornwall Partnership NHS Foundation Trust (CFT), and West Cornwall Hospital in Penzance, run by the acute trust, Royal Cornwall Hospitals NHS Trust.

The CATU model provides as short a stay as possible in a single location, supporting people to remain independent for longer. Figure 1 depicts the logic of how key CATU functions should lead to improved outcomes.

Highly frail but low complexity patients are presenting at ED as there is no viable alternative to care for their needs outside of an acute setting. CATUs aim to provide safe alternative care for older people, closer to home



Evaluation of the CATUs

The South West AHSN has evaluated the impacts of the CATU model in Cornwall in collaboration with the National Institute for Health and Care Research Applied Research Collaboration South West Peninsula (NIHR PenARC).

The project was funded by the NHS Accelerated Access Collaborative and supported by the NIHR through the NHS Insights Prioritisation Programme.

The evaluation aimed to better understand the impact of the CATUs on redirecting frail, elderly patients away from Cornwall's acute hospital services, and the factors that contribute to the delivery of a more place-based model of urgent care. The evaluation used a mixed-methods approach, combining quantitative and qualitative methods, along with the establishment of forums for cross-CATU learning and PPIE (Patient and Public Involvement and Engagement) to support service improvements.

Results

CATUs were very quickly established as a safe alternative referral route for the frail population with urgent medical need, taking referrals primarily from South Western Ambulance Service Trust (SWAST) and Royal Cornwall Hospital (RCH, also known as Treliske) ED to avoid acute admission.

System resource

Across the three CATUs, between the evaluation period April 2020 and December 2022, over 3,900 patients were supported, who all required an urgent admission. System data shows that around 8% of CATU patients are referred on to the acute hospital and 92% are discharged to other settings (mostly their usual place of residence). Given that all patients being admitted to CATUs are in need of urgent, bedded care, approximately 3,600 hospital admissions have been redirected over the evaluation period (approximately 1,200 avoided hospital admissions per year).

Offer alternative referral option for frail population with urgent care need:

3,900 patients have been admitted to CATU from ambulance services, GPs, ED and others.

A significant proportion of referral to CATUs come from the community: SWAST, GP, home, community teams and MIU resulting in approximately 1,500 avoided attendances at ED over the evaluation period under review (around 550 per year).

Move demand for long stay bedded care away from the Acute:

1,200 long stay admissions a year redirected to CATU.

A substantial proportion of patients referred from 'home' and 'community' will have also been transferred by ambulance (by SWAST), bypassing both the wait to be seen and attendance at ED.

On average, SWAST ambulance crews wait for 3 hours and 23 minutes to handover patients at RCH ED. Data suggests that the CATUs have saved over 5,000 hours of ambulance handover waits at RCH. More significantly, the availability of beds in the CATU, acceptance of direct referrals from the community and avoided waits at ED, have increased the availability for SWAST to respond to more people in need of urgent or emergency care.

Better use of ambulatory resource:

Reduced ambulance handover time by over 1,500 hours per year, freeing crews up to support more people with an urgent care need across Cornwall.

Patient experience

The original aim of the CATUs was to assess, treat and discharge patients within 3 days. Data suggests that the actual length of stay within the CATUs is an average (median) of 11 days. Average length of stay is longer than in an acute (median = 6 days), as are delays for discharge (18 days for CATU versus 8 days for acute) suggesting much of the difference is a result of poor patient outflow.

Simplify the patient journey:

Patients have a longer stay but in a "more personal" facility slightly closer to home and are slightly less likely to be readmitted following discharge.

The proportion of patients readmitted within three months following discharge was slightly lower for CATUs (6%) than in a similar sample of patients from the acute setting (8%) suggesting that delivering care at place is not compromising quality.

Overall, patients were largely happy with the care they received. The vast majority of comments about the quality of their care were positive, stating that it was excellent, they feel safe and well looked after and staff were kind and caring. However, some patients stated that they would like to be kept better informed about their care planning or plans for discharge. Many noticed that the unit was not fully staffed.

Of the population of patients admitted to CATU, 42% live within 20km of the CATU to which they were admitted. Of those same patients, 30% live within 20km of the acute hospital, RCH. This shows that a higher proportion of people have been treated closer to home, although more could be done to improve these figures.

Workforce

Staff working in the CATUs report higher levels of job satisfaction compared to the wider system (of Cornwall), with particularly positive responses regarding opportunities to improve knowledge and skills and across a range of team measures.

However, the majority of respondents felt there were not enough staff in their organisation (CFT (Cornwall Partnership NHS Foundation Trust)). Difficulty in recruiting to short-term and substantive roles has resulted in significant proportion of care being delivered by a temporary and flexible workforce, that is more costly and offers less consistency for patient care and the CATU approach.

Culture

Locating CATUs in community hospitals has created a challenge for ways of working, as staff have had to upskill in order to treat higher acuity patients effectively and safely. This requires a shift in mindset and in some cases a shift in working practices and relationships. Staff described the positive professional impact of treating this patient group in the 'CATU way', with speedy interventions allowing patients to be rapidly assessed, treated and medically optimised for discharge: "I could use my skills. And you could see the results." However, the 'rapid turnaround' model can create tensions within the workforce and leadership around whether to manage 'social' as well as medical problems, what can be raised at MDT (multi-disciplinary team) meetings and what is appropriate care for a CATU patient.

> "We [should not be] expected to improve them to a point that was better in terms of their function than when they came in."

The new CATU culture, which has been championed by many senior staff, centres the importance of working to 'modern' nursing and healthcare principles that take a less paternalistic approach, shifting the nurse-patient relationship by encouraging patients to self-manage and stay physically and mentally active where possible. This contrasts with the tradition of the 'cottage hospital', the precursor to the 'community hospital', both of which were designed primarily for rehabilitation and took a 'slowly does it', 'tending' approach to nursing care. There are varying degrees of buy-in to the approach across the workforce, creating a sense of live debate in and around the CATUs.

MDTs and rapid clinical decision-making are central to the CATU approach, to get people to a point of being medically optimised and discharged as soon as possible thereafter. Building skills and confidence across all staff groups and creating a culture of engagement were seen as essential for the effective implementation of this rapid way of working.

The shifting of clinician responsibility and risk from the acute setting into the community setting requires a shift in mindset from medical staff in the acute, such as consultant geriatricians who would previously have had responsibility for the kind of patients who are now being treated by GPs in CATUs. This requires a level of professional trust from the consultants, that frail elderly patients can be cared for appropriately by GPs and nurses on CATUs.

Skillset

Senior stakeholders in the CATUs feel that the nature of the CATU approach, including treating higher-acuity patients and aiming for rapid turnaround, suggests that the units are most appropriately staffed by experienced staff who are confident to engage in rapid decision-making around clinical matters and discharge, to keep a CATU functioning efficiently. Staff with training or experience in an acute setting can be an asset, but staff who have been operating in community hospitals might need upskilling to deal with the increased acuity of CATU patients, while medical staff will ideally have experience both in hospital and community settings, to support holistic understanding of the patient group and their needs.

> **CATU workforce confident and skilled to enable swift care and improve flow:**
>
> Nurses from the CATUs describe a strong culture of internal upskilling and nurses becoming more confident in supporting clinician decision-making.

Medical staff and nurses at BCH and CRCH CATUs were positive about working in nurse-led units. The key skills required of medical staff and nurses on the CATUs have some overlaps, most notably around 'advanced examination skills' that allow both staff groups to be involved in rapid clinician decision-making. Cornwall Foundation Trust (CFT) nurses have access to a training module to support this. Medical staff and nurses were positive about the relationship they had with the consultant geriatricians at RCHT, via the Silverline service. Regarding Healthcare Assistants (HCAs), those working on CATUs are required to take bloods and perform ECG monitoring. This is within the usual scope of HCA working, but not within the skillset of all HCAs, suggesting a need for substantive CATU HCA roles, again to allow for efficient CATU working. Allied Health Professionals (AHPs) working on the CATUs describe having to work in a more rapid way as somewhat challenging.

At a system level, staff would ideally be rotated across different types of healthcare services, to develop a workforce that has a deeper understanding of the entire healthcare system, the skills required for each area, and an appreciation of the challenges faced by their colleagues in other services.

Learning and opportunities

Pressure on the acute hospital in Cornwall to improve patient flow and the subsequent appropriateness of referrals to the CATUs has an impact on how the CATUs can operate. The CATUs located in community hospitals run the by CFT have provided a more sustainable model of CATU care than the CATU located in the sub-acute setting (run by the acute provider RCHT), which has less control over criteria to admit.

Barriers to patient flow

Long delays following patients being medically optimised for discharge in the CATUs appear to be caused by a lack of resource across a system that is under constant pressure to relieve demand for acute beds. This is exacerbated by a diversity of views about the role of CATUs in the system of care for frail elderly patients, resulting in an inconsistency in clinical risk tolerance and decision-making around discharge.

> Analysis of length of delays also showed significantly longer delays for CATU patients (18 days) versus matched patients in the acute hospital (8 days).

Cornwall is a predominantly rural county that has a lack of affordable housing, poor public transport infrastructure, a relatively small working-age population from which to draw the workforce, uncompetitive pay rates in social care (compared to other local industries) and a lack of sufficient education and training facilities locally. These factors all contribute to the challenge of staffing in health and social care across Cornwall which ultimately constrains patient flow through the CATUs.

> "Workload is increasing, daily workforce is decreasing, we struggle to recruit."

CATUs have not been running with fully agreed staffing levels in place. If the units are functioning on too few staff, patient care is prioritised over discharge planning. Short-term and substantive vacancies have been unfilled for long periods of time, leading to a lack of staff and an increased use of the flexible, yet more costly and less consistent, workforce of bank and agency staff.

Opportunities

The national drive to keep patients at home for longer creates a situation whereby increasingly higher levels of acuity are held in the community (e.g. through GPs and virtual wards). The CATUs can act as a 'safety net' for primary care and community services to hold higher acuity and therefore greater clinical risk at home, without adding to the demand on Cornwall's only 'front door' (the ED).

> "...it allows us to confidently manage increasingly complex people at home. Because if that fails, we've got a community-based backup plan, psychological safety net for developing more and more community intermediate care."

Community hospitals and specifically CATUs are treating patients with unprecedented levels of acuity and complexity, in comparison to how they have operated in the past. This is due to the need to support the acute trust, the ageing population, and attempts to keep patients at home or as close to home as possible. This requires 'a steep learning curve' at all levels, from junior staff right up to senior management developing policies and processes that are fit for this (new) purpose. With more consistent, substantive positions filled, flow would improve, and even more patients could avoid acute intervention.

Community healthcare providers, and those working in primary care, believe CATU beds should be made more accessible to those operating in the community, in order for them to manage their patients more effectively and provide greater continuity of care at place.

Conclusion

The evaluation activity has reinforced cross-CATU learning and the adoption of purposeful PPIE and data collection to support service improvements. Cornwall's health and social care system has a strong culture of innovation and embracing change, and engaged positively with the evaluation, in order to help understand how best to configure acute services in a system facing the challenges of workload, stress and financial constraint seen across England.

The evaluation was not able to reach definitive conclusions about whether investment in CATUs should be continued but we found evidence that they are valuable as part of a whole system, and have a clear place in diversifying the urgent care options available to the growing frail and elderly population. They deliver urgent care, safely, away from the acute hospital, and are at the vanguard of modernising clinical care including the reduction of risk averse and disempowering care. For those contemplating development of CATUs elsewhere it is clear that it is important to consider clinical leadership within units and across the system, alongside flexible protocols, staffing roles and data sharing across providers.

Get in touch

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