



Community Assistance Team

Non-Injury Falls
Pilot Evaluation
Conwy and
Denbighshire

Gwasanaeth Tân ac Achub
Fire and Rescue Service



Bwrdd Iechyd Prifysgol
Betsi Cadwaladr
University Health Board



Llywodraeth Cymru
Welsh Government

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Foreword

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I am particularly proud to see North Wales Fire and Rescue Service at the forefront of innovation...

Over the last two years I have been very pleased to see North Wales Fire and Rescue Service (NWFRS) building upon a long tradition of working with our partners to deliver better and more diverse services to the people of North Wales.

Most recently this collaboration has involved fire and rescue service resources being utilised in a pilot Community Assistance Team (CAT).

The CAT has promptly assisted people who have fallen but have not sustained and injury in Conwy and Denbighshire, and has ensured that these people are assisted off the ground, reassured and supported.

Where appropriate, the necessary onwards referral has also been instigated, preventing further falls or other safety events occurring in their homes; all as part of an integrated 'Safe and Well' check.

The small part that North Wales Fire and Rescue Service (NWFRS) and our partners have been able to play in reducing the number of low acuity calls attended by the Welsh Ambulance Services NHS trust (WAST), not only free up their valuable resources that may be required to attend life threatening calls, but also provides a significantly improved outcome and experience for the patient.

The results in this report provide clear evidence of the success of the pilot and feedback from both patients and WAST staff members has been extremely positive.

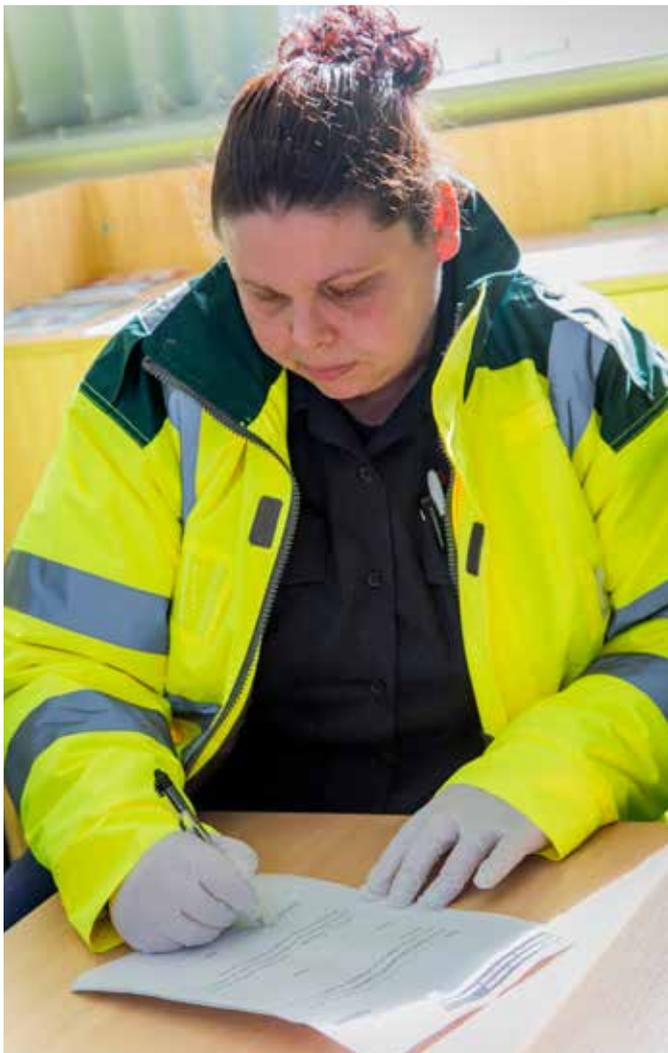


As the role of the Fire and Rescue Service continues to evolve across the UK, and in particular our work from a public health perspective, I am particularly proud to see North Wales Fire and Rescue Service at the forefront of innovation, that is demonstrating realistic and cost effective alternative service delivery models for the future.

Simon Smith
Chief Fire Officer
North Wales Fire and Rescue Service



Gwasanaeth Tân ac Achub
Fire and Rescue Service



The Welsh Ambulance Services (NHS) Trust Perspective



“““

There is an increasing demand on the Welsh Ambulance Services NHS Trust (WAST) to respond to a wide range of patients with highly complex needs in a timely manner with a clear expectation that we will look to engage with our partners to make sure that we improve clinical outcomes and the patient experience.

The Community Assistance Team has demonstrated what is possible by collaborating using a multi-agency model.

It is one of a number of initiatives being trialled in WAST that attempts to support patients with non injury falls in their own home and feedback and experience from patients has been positive. This was one of the most important success factors agreed at the outset of the project along with ensuring there was tangible evidence of endorsing the principles of prudent healthcare.

During the pilot period we have worked hard with our partner agencies not only to improve performance against a backdrop of rising demand and NHS wide system pressures, but also to adapt to the introduction of a new clinical model which altered the way we responded to calls.

In addition, we have continued to innovate and ensure that patients receive the right response to meet their clinical need. This isn't always an ambulance and initiatives such as CAT clearly demonstrate the benefits of multi agency collaboration, particularly to the wider healthcare system but most importantly to the patient.

We are often contacted by patients, families or carers where a person has fallen and, for a number of reasons, may not be able to get up again. Sometimes, these falls have not resulted in an injury – it's simply a case of helping patients back to their feet and making them comfortable again.

We recognise that patients often have to wait too long to be attended to in these circumstances as we have other, more serious cases to deal with. However, we recognise the distress and discomfort which patients find themselves in and the holistic approach afforded by CAT is a fantastic alternative to make sure these patients can get back on their feet as soon as possible and remain safely at home.

WAST is about much more than transporting the sick and injured to hospital. We're gaining a reputation for being at the forefront of innovative developments, working with our blue light partners and the wider healthcare system across Wales to ensure our services are clinically-led and underpinned by a culture of high quality, patient focused care.

We're innovating both as a Trust and as we'll evidence in this evaluation with partners such as North Wales Fire and Rescue Services, North Wales Police, Betsi Cadwaladr University Health Board and Galw Gofal to ensure the people of Wales are able to access the right care for their needs and that we use our resources wisely.

A handwritten signature in black ink that reads 'Sonia Thompson'.

Sonia Thompson
Interim Head of Operations,
WAST



North Wales Police Perspective

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Over the last two years, North Wales Police, Welsh Ambulance Services NHS Trust and North Wales Fire and Rescue Service have been examining ways in which they can work more collaboratively in order to improve service delivery to our Communities.



The Emergency Services Collaboration Board (ESCB), chaired on a rotational basis by a Chief Officer from each organisation, has directed and overseen the work as it develops.

In order to ensure a clear link with national, regional and local agendas, the ESCB sets out its mandate in accordance with the newly drafted National Police Chiefs Council document, The Policing Vision 2025. This sets out the ten year vision for policing.

The plan, and therefore the work of the ESCB, acknowledges that society is increasingly diverse and complex, and more sophisticated responses to the challenges are required. In short, it is essential that policing continues to flex and adapt to modern requirements.

The aspiration for the work the ESCB delivers therefore is for transformative change across the whole of policing, together with our collaborative partners.

The absence of primary legislation in Wales has not prohibited the close working relationships needed to deliver this programme, and the objectives mirror the public expectation which requires the emergency services to protect them from harm.

The Community Assistance Team (CAT) has improved the response to non-injury fallers in the communities, ensuring the right resource at the right time is deployed.

The CAT has been trained to assist North Wales Police (NWP) in searching for persons who are reported as missing. NWP record approximately 3,000 reports each year of persons who are missing, and there will be occasions where CAT have available resources to assist in the proven, critical, early stages of the search strategy.

By assisting in the initial stages of a search, the CAT is increasing the capacity of the emergency services to help protect at risk groups such as children, vulnerable adults and the elderly. This not only frees up resources that may be required to attend urgent calls, but can also provide a significantly improved outcome and experience for the person involved and their families.

Richard Debicki
Assistant Chief Constable
North Wales Police



Project Overview



“““

There have been challenges along the way, but it is clear that this project has been very successful in making a significant improvement to service delivery and patients' experience.

In recent years the three emergency services have been examining ways in which they can work more collaboratively in order to improve service delivery. Here in North Wales we have a well-established history of collaboration with our blue light partners, with examples including a joint control centre between North Wales Police (NWP) and North Wales Fire and Rescue Service (NWFRS), the shared estates and facilities teams between police and fire, and the Ambulance and Fire Service Resource Centre in Wrexham (AFSRC).

In 2015 the three services discussed areas in which we could build further on emergency service collaboration and following this the Tri-service Collaboration Programme Board was formed.

One of the projects commissioned from this Board involved looking at how we prevented and responded to incidents from a multi service perspective, in order to identify a more streamlined and alternative response to calls received by Welsh Ambulance Services NHS Trust (WAST) to non-injury fallers.

It was from this scoping activity that the concept of NWFRS, responding on behalf of the WAST, to non-injury falls, was developed and soon after, the Community Assistance Team (CAT) was formed.

To progress a radical concept to a fully developed service delivery option would not have been possible if it were not to have been properly resourced. The critical success factor of the project has been in the bringing together of the right people from each of the agencies, into the same office to work together, overcoming potential barriers experienced within their own agencies on a daily basis.

The collaboration project team conducted a training needs analysis in order to fully understand training requirements for the new team. Following this new working practices and job descriptions were developed to provide the team with the appropriate skills and knowledge required to effectively deliver the service within the Conwy and Denbighshire areas of North Wales.

The pilot was partially funded by a grant from Welsh Government, sourced through a collaborative bid between NWFRS and Galw Gofal (Care Connect) and supported by staff from NWFRS. Additional support and coordination was provided by WAST and NWP. It went live on 1st August 2016 and concluded on the 31st March 2017.

The CAT responds to non-injury falls, and also undertakes 'Safe and Well' checks, whereby advice is offered and prevention equipment installed where required, free of charge.

This evaluation highlights the key findings and recommendations identified in order to develop further and support a wider roll out of this activity across North Wales.

There have been challenges along the way, but it is clear that this project has been very successful in making a significant improvement to service delivery and patients' experience.

Where the CAT has attended, they have significantly reduced the need for a WAST resource to attend and the patient has been able to remain at home, reducing the burden on WAST and the wider National Health Service (NHS).

The challenges moving forward will include identifying a sustainable funding model to enable this initiative to be expanded across North Wales. It is clear that further investment is required in order to secure future potential savings.

A handwritten signature in black ink that reads "S. Millington".

Stuart Millington

Senior Fire Safety Manager
North Wales Fire and Rescue Service

Project Manager

Executive Summary

Prior to the CAT 'go live' on 1st August 2016 the North Wales 'Prevent and Respond' project team was tasked to develop the concept of North Wales Fire and Rescue Service responding to non-injured fallers. The team visited other services and trusts across the UK in order to identify areas of good practice.



Welsh First...

During these visits it became clear that the approach being taken in North Wales to second and co-locate staff from each of the services working together on a daily basis was a positive approach.

This was the only example of a truly integrated and co-located tri-service team with a focus on improving collaboration in existence in Wales.

The team reviewed previous WAST incident data to understand the faller profile in the pilot area. This understanding enabled the team to tailor the availability of a CAT to the times when it could be of most benefit in supporting WAST in reducing waiting times for patients with low acuity needs.



Up to 4 hours to 26 minutes...

Each day, in North Wales, WAST receives hundreds of calls for service from patients with a variety of complex care needs.

During 2016 WAST implemented a new clinical model following an earlier period of pilot. The aim of the model is to prioritise patient care and end the practice of sending multiple ambulances to a 999 call to meet an antiquated eight-minute target. WAST worked closely with the Chief Ambulance Services Commissioner and the Emergency Ambulance Services Committee in the implementation of the five step Ambulance Care pathways.



Up to 4 hours →



26 mins →

The Ambulance Care Pathway encourages a focus on the way patients flow through the system as a whole and covers the journey from helping patients choose the right service for them (Step 1) to taking very ill patients to hospital or another place of care (Step 5).



Fallers who are not injured, but simply do not possess the strength to lift themselves off the floor have on occasion waited for periods in excess of four hours for an ambulance to arrive. In some instances when a resource became available the person who had originally requested assistance now required hospitalisation because of other health or domiciliary care needs.

The CAT has been able to achieve an average response time across Conwy and Denbighshire of **26 minutes** from the time that WAST passed them the call.

**375 fallers helped by CAT...
96% did not require further
response support from WAST...**

Whilst the pilot was undertaken in the Conwy and Denbighshire areas, during the wider system pressures in early January 2017, a second team was initiated in Wrexham and Flintshire for a fixed period of time. When this period ended the original team continued to mobilise if requested to the Wrexham and Flintshire areas.

During the pilot the CAT received **406 calls** and the team attended and assisted patients on **375 occasions**. On **22 occasions** the team was not required prior to arrival as the patient had been able to get up unassisted and on **nine occasions** the team was already committed on another call and therefore unable to respond.

On 96% (360) of occasions, the CAT resolved the incident without an ambulance response. On 4% (15) of occasions, upon arrival, the team identified injuries that had not previously been communicated by the patient at point of triage, therefore WAST attended.



helped by CAT...

96%

**did not require any further
response support from WAST...**

96% of fallers remained at home... potential saving of more than £500,000

96% **Did not require
any further
response
support from
WAST...**

96% **of fallers stayed
at home**

By utilising a more cost effective non clinical response to assist non-injury fallers it is inevitable that savings will be made. The more efficient use of resources are both financial and in terms of hours that can be put back into the system to release WAST ambulance resources to be able to respond to higher acuity calls.

Whilst it is relatively simple to compare the unit cost per hour between the salaries of CAT compared to an emergency ambulance it is a little more difficult to identify the full costs associated with the mobilisation of each vehicle.

It is also difficult to accurately identify the savings associated with preventing falls, preventing injuries or preventing the need for attendance at hospital as it is not possible to quantify an event that has not occurred. Because of this we must make certain assumptions in order to compare costs.

During the period of pilot the CAT attended **375 calls**, freeing up **540 hours** of the emergency ambulance time. The staffing unit hour cost for an emergency ambulance is **£64.03** compared to that of CAT being **£43.52**.

Although there is no staff cost saving as the ambulance costs are not being removed, the more cost effective deployment of CAT enables the higher skilled WAST operatives to respond to higher acuity calls leading to improved patient outcomes.

According to NHS Wales the average costs associated with a stay in hospital is recognised as being in the region of **£400** a day. The average stay in hospital for an injured faller is **17 days (£6,800)**.

Of the **375** fallers who CAT responded to **96%** or **360** were able to stay at home. If a patient initially presents as a non-injury faller, but subsequently deteriorates because of the length of time that they have been waiting for assistance, they may subsequently require hospitalisation. If only **5%** or **16** of them were required to attend hospital the potential associated costs are **£122,400**. If we look at the same **5%** figure from a predicted annual perspective, the potential costs are **£265,200**. If **10%** required hospitalisation the figures escalate to **£550,800**.



Missing from Home

Both North Wales Police and North Wales Fire and Rescue Service have the safety of the persons visiting, working in, or living in North Wales as key objectives and so have a vested interest in ensuring measures are taken to mitigate this risk.

NWP record approximately 3000 reports each year of persons who are missing, and there will be occasions where CAT have available resources to assist in the proven, critical, early stages of NWP's search strategy which may prevent the escalation into a more serious outcome. By assisting NWP in the initial stages of appropriate missing from home cases, CAT is increasing the capacity of the emergency services to help protect at risk groups such as children, vulnerable adults and the elderly. The 3000 reports a year evidenced that a problem existed regarding high demand on NWP and that assistance from NWFRS deploying CAT, would lead to a reduction in demand, as well as a better service to the community of North Wales. Having more people to help in the search would help locate the person faster and hopefully safe and well which would give a wider public benefit. Experience indicates that when a person goes missing, especially if they are classed as high risk, there is significant concern amongst their family,

and in the case of young children this significant concern is echoed throughout the community. Having CAT to assist in searching, provides reassurance to the community and family that positive steps are being made to locate the person.

This project has facilitated the following benefits:

- Reduced demand on NWP
- More "feet on the ground" – so improving the search strategy
- As a significant proportion of persons reported missing are from chaotic backgrounds, and potentially at a higher risk of coming to harm, swift location of them resulted in much quicker engagement from partner agencies to provide support. This included intervention from Social Services, Mental Health Teams and other medical services, and should lead to a reduction in them going missing in the future.



Crime prevention and 'Safe and Well' checks...

North Wales Fire and Rescue Service has been undertaking home safety checks for over **15 years** and has achieved significant reductions in the numbers of accidental dwelling fires as a result.

The organisation currently undertakes 20,000 checks across North Wales providing 20,000 opportunities to engage with people in their own homes in relation to a variety of crime reduction and health related needs. This prevents duplication of visits from a variety of organisations undertaking individual assessments. This in itself has a cost and environmental saving.

The integrated 'Safe and Well' check includes a fire and general home safety assessment and a falls risk assessment, fitting prevention equipment if necessary, free of charge.

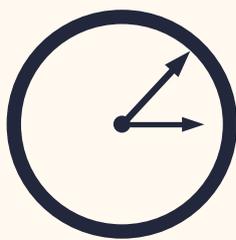
Staff have been provided with bespoke training in brief interventions and the principles of 'Making Every Contact Count', as well as mental health awareness and crime reduction. They now utilise these skills during visits.

Where appropriate, following attendance at an incident, the team delivered the 'Safe and Well' check. This was achieved on **83% (311)** occasions and any prevention equipment that was required was installed.

On **73% (274) occasions** the team provided crime prevention advice.

When not responding to incidents, CAT undertook 'Safe and Well' checks on behalf of the NWFRS, completing **621 checks**.





540 hours



540 hours freed up to attend life threatening calls...

The typical time taken from when a WAST ambulance resource is allocated to an incident to them being available for the next task is 90 minutes. These times are significantly increased if a WAST resource is unable to discharge the patient in a timely manner at the receiving hospital.

During the pilot period 540 hours were made available allowing WAST to attend higher acuity life threatening calls with the potential for a number of lives to be saved.

Referral pathway in place... 85% referred for additional support...

Prior to going live, arrangements were put in place to meet the needs of those requiring additional support to be independent and to stay in their own homes, reducing the risk of further falls.

The pathway for onward referral was supported by both Conwy and Denbighshire Single Point of Access (SPOA) contact centres.

Of the 375 calls attended, 318 referrals for additional support services to the SPOA were made. Additional support includes a multi-factorial falls risk assessment which may include medication review by a general practitioner, physiotherapy or occupational therapy provision.

With patient agreement their general practitioner was informed of the incident that CAT had attended enhancing continuity of care.



85%



90%

Bilingual service offered on 90% of occasions...

The teams were recruited, selected and rostered so that on as many occasions as possible a bilingual Welsh and English service was available to patients. This service was offered on 90% of occasions.



100%

100% positive patient experience...

Patient feedback questionnaires normally achieve a completion and return rate of 12%. During the pilot period, all patients attended were given a feedback form and **111 people completed and returned them**. This equates to a **30%** return rate.

Feedback received suggested that patients' experience of the CAT had been positive.

99% said that they were dealt with in a polite manner.

98% of people said they felt they were listened to.

93% felt that they received the assistance they requested.



The service was exceptionally good. Thank you very much for this valued service. This was my first experience of this service, keep up the good work, diolch yn fawr iawn.

Summary of Recommendations

On the basis of this evaluation, the following recommendations are proposed.

Number	Recommendation
1	Undertake a review of WAST falls-related incident data to determine whether all appropriate calls were directed to the CAT, and if there are other codes where a CAT response might have been appropriate.
2	Consider increasing the capacity of the CAT response to accommodate simultaneous incidents across a wider geographical area.
3	Consider future base locations for additional CAT resources to take account of main trunk roads and larger, more populated communities.
4	Ensure that those who are identified as being at risk from falling during 'Safe and Well' checks are referred to a relevant agency in order to ensure that the current care package meets their needs.
5	Consider the additional activities that the CAT may be able to accommodate allowing patients to remain in their own homes for longer.
6	Consider the role that the CAT could play in supporting home adaptations teams, in installing prevention equipment including handrails in those areas where falls are more likely.
7	Undertake a detailed review of the difference in support arrangements provided by care providers to potential fallers on different days of the week and at different times of day.
8	Target interventions including the 'Safe and Well' checks towards those who are aged 80 and above, as a result of their increased likelihood of falling, suffering a fire or being a victim of crime.
9	Commission research to determine why females are more likely to fall than males, or why when they fall they are less likely to have the strength to help themselves up.
10	Expand the number and type of activities that the CAT can assist with, including assisting with searches for those who are missing from home, assisting NWP with concerns for safety.
11	Target preventative action at those who are at increased risk of repeat falls at particular times of day
12	Consider upskilling the CAT enabling the staff to undertake the multi factorial risk assessment, make the appropriate onward referral for physiotherapy, occupational therapy, medication review or other appropriate intervention.
13	Explore technologies available regarding patient monitoring and telemetry; which would support a more informed 'Hear and Treat' clinical assessment.

Background

People in Wales are living longer and healthier lives in their own homes. By the year 2030 the number of people aged over 85 will increase by 90%, to 85,000.

This will almost certainly lead to higher levels of frailty, dementia and chronic conditions, either singly or in combination, so increasing the demand for additional support from both health and social care services.

There is an increasing demand on WAST to respond to patients with complex needs, to improve patient experience and, most importantly, to improve clinical outcome. It is estimated that over the next 4 years, demand will increase by 4% year on year. (*Demand and Capacity review.*)

Aim

The aim of this project was to implement a pilot scheme to assist non-injured fallers within the Conwy and Denbighshire areas. NWFRS worked in partnership with WAST, NWP, Welsh Government, Betsi Cadwaladr University Health Board (BCUHB), Conwy and Denbighshire local authorities, and Galw Gofal to:

- Respond to high volume low priority calls
- Reduce the demand on emergency services whilst striving to improve a patient outcome
- Install crime prevention interventions and carry out welfare checks on behalf of NWP
- Maintain and reduce the exposure to dwelling fires as part of an integrated 'safe and well' visit.

Purpose

The primary purpose of the pilot was to enhance the emergency medical response provided by WAST by identifying a more streamlined alternative response to non-injured fallers and subsequently complement the service provision available to residents of Conwy and Denbighshire.

A secondary consideration was the need to test the concept and gather the necessary evidence and learning to support a wider delivery of this service across North Wales.

Scope

The scope was for CAT to respond to non-injured fallers who were identified following a clinical assessment by WAST clinicians using the Manchester Triage System (MTS). If on arrival the CAT identified that the non-injured faller presented with a medical condition or injury which was not declared during MTS a process was in place for WAST to be mobilised and provide the necessary support.

The CAT practitioners were provided with bespoke training and equipment to enable them to stay with the patient if further advanced medical care was needed. This integrated approach designed to support WAST in providing the right person with the right skills at the right time was intended to enhance the patient experience in an area where opportunities to improve had previously been identified.

The pilot ran over a period of eight months, between 1st August 2016 and 31st March 2017.

Funding

A joint bid with Galw Gofal was submitted to the Welsh Government's 'Efficiency Through Technology Fund' with initial proposals to:

- Enhance the response services in Conwy provided by social care support workers by introducing a lifting service, and
- Partner with the NWFRS in Denbighshire to provide a new model that would include welfare checks, risk reduction advice, home safety advice and a lifting service.

The proposal was for £100,000 in grant funding, augmented by NWFRS staff to an equivalent value.

Geographical area

Soon after the successful grant was awarded it's transpired that the Galw Gofal team which was originally identified to provide an enhanced service in Conwy was to be decommissioned and as a result it was agreed for NWFRS to extend the pilot to cover both Conwy and Denbighshire areas.

Demand profile

Previous WAST incident data had been examined for Denbighshire and upon later examination a similar data set presented for Conwy.

Table 1 on page 14 shows the number of code 17 calls in Denbighshire over the previous two years.

Code 17 is a recognised code within the clinical response model that identifies types of falls, ranging from falls from height to accidental falls in the home.

	2014-15	2015-16
Apr	251	243
May	257	222
Jun	270	223
Jul	271	246
Aug	279	257
Sep	235	273
Oct	247	273
Nov	242	251
Dec	265	232
Jan	268	250
Feb	234	238
Mar	240	273
Total	3059	2981

Table 1: Denbighshire Code 17 falls by month

It was identified that a significant number of these code 17 calls would have been categorised in a sub category for non-injury falls that could have been resolved by a non-clinical response such as CAT. Initial scoping suggested that the team may be required to respond between three and six times a day.

To maximise coverage in Conwy and Denbighshire areas the decision was taken to strategically locate the CAT at St Asaph Fire Station.

This location is close to the A55 express way and would enable access to the most densely populated areas in both counties within 30 minutes at normal road speed and to all other parts of the counties within 45 minutes.

WAST data was analysed in relation to time of day and day of the week in Denbighshire.

This analysis by WAST health informatics identified that the majority of falls occurred between 7am - 11pm, showing clearly where the CAT would add most value in support of non-injury calls.

Consequently two shifts were implemented, covering this period: 7am - 3pm and 3pm -11pm, seven days a week, 365 days per year.

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Grand Total	%
Mon	13	11	8	12	10	9	11	12	19	30	24	15	29	31	27	17	19	21	26	16	12	16	9	11	408	2.3%
Tue	12	15	8	6	9	7	8	16	18	15	25	16	23	19	24	32	23	22	26	14	21	14	12	18	403	2.3%
Wed	15	6	21	8	11	7	15	13	16	26	25	22	20	23	24	22	13	25	18	14	27	21	17	12	421	2.4%
Thur	10	13	15	7	6	7	13	10	20	17	21	27	16	21	17	19	26	20	32	16	17	15	10	12	387	2.2%
Fri	11	15	13	9	14	15	12	17	24	16	22	24	28	26	19	20	17	20	34	21	23	28	13	17	458	2.6%
Sat	22	16	16	8	14	5	10	11	17	13	14	26	31	21	18	25	24	25	22	20	22	19	28	25	452	2.6%
Sun	18	23	19	16	7	13	8	9	16	22	22	25	34	25	26	33	20	15	18	22	17	18	14	12	452	2.6%
Grand Total	101	99	100	66	71	63	77	88	130	139	153	155	181	166	155	168	142	148	176	123	139	131	103	107	2,981	
%	0.6%	0.6%	0.6%	0.4%	0.4%	0.4%	0.4%	0.5%	0.7%	0.8%	0.9%	0.9%	1.0%	0.9%	0.9%	0.9%	0.8%	0.8%	1.0%	0.7%	0.8%	0.7%	0.6%	0.6%		

Table 2: Denbighshire Code 17 falls by time of day

Winter pressures

As a result of winter pressures in early January 2017 a multi-agency Strategic Coordination Group (SCG) was called, whereby blue light and health colleagues considered what support could be offered to assist with spate conditions being encountered by WAST and BCUHB.

As a direct result of the positive impact that CAT was having it was decided to initiate a second team for a fixed period initially of two weeks.

After further demand and analysis CAT2 was implemented to cover Wrexham and Flintshire, based in the AFSRC in Wrexham.

The CAT2 disbanded once the wider system pressures reduced. However, a decision was taken to continue responding to incidents in Wrexham and Flintshire if available.



Activity

Performance indicators

Prior to the launch of the team a set of performance indicators was identified from a multi-agency perspective. These included:



Welsh Ambulance Services NHS Trust

- Call statistics
- Call out update
- Hospital admissions
- Remained at home
- Day and time of fall calls
- Location of fall within the home
- Reason for fall
- Patient experience questionnaire responses
- Call numbers attended previously by emergency ambulance and now CAT
- Previous and current numbers of concerns received for non-injury falls
- Patient outcome



North Wales Fire and Rescue Service

- Attended non injured fallers - location
- Attended non injured fallers - incident types
- Number of home safety checks
- Interventions fitted
- Non-attendance – rationale
- Domiciliary needs



North Wales Police

- Number of crime prevention checks
- Welfare checks carried out on those who are deemed vulnerable and reported as concern by family/friends
- Assisting in searches for persons who are reported as missing from home



Conwy and Denbighshire Single Point of Access (SPOA)

- Number of referrals to the fallers pathway
- Patient outcome

Performance achieved

Between 1st August 2016 and 31st March 2017 the CAT was called on **406 occasions**.

Total falls calls
406

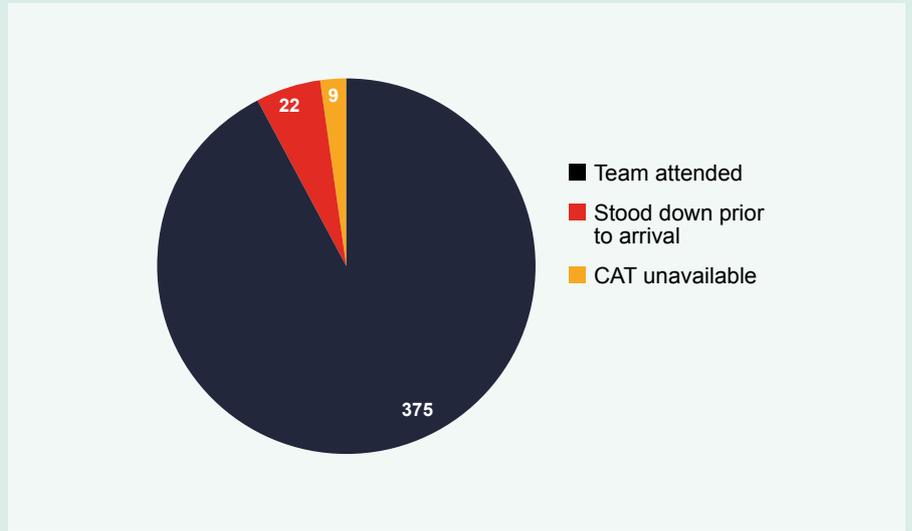


Figure 1: Total calls for service during pilot period

On **375 of those occasions** the team attended and at 360 calls was able to resolve the incident without any further support from WAST, other than closure of the incident through the clinical desk. This would suggest that the MTS process by WAST clinicians was successful and that the team was deployed to the level of incident that was commensurate with the level of training that the team members had received.

On **22 occasions** the situation changed before the team arrived so it was no longer required to attend, either because the person had managed to get up, or an injury was later reported.

On **nine occasions** the team was not available. On one occasion this was due to a vehicle problem and on the other occasions the team was already committed to another incident.

Total falls attended
375

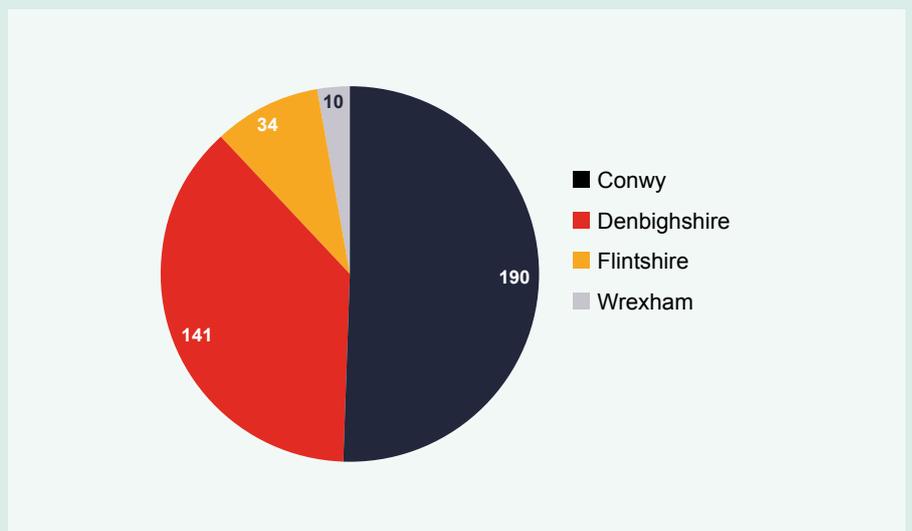


Figure 2: Total falls attended during pilot

96% of all calls attended were resolved without the need for further intervention and the patient was able to remain at home. At a time when hospitals were suffering significant pressures a prompt attendance by the CAT may have contributed to a reduced number of admissions to the emergency department due to social and domiciliary needs.

On **15 occasions** it was necessary for the patient to attend hospital, because:

- an injury was identified after the CAT arrived, or
- The call was to an injured caller and was initially attended by a paramedic team rather than call a second ambulance the CAT was called to assist.

The average attendance time during the pilot was 26 minutes. Prior to implementation of the CAT pilot, due to demand and hospital pressures low acuity calls such as non-injury falls may have required the patient to wait for a number of hours before receiving a face to face contact.

These extended periods often led to other health or domiciliary care issues, where patients would require hospitalisation when the WAST resource did attend.

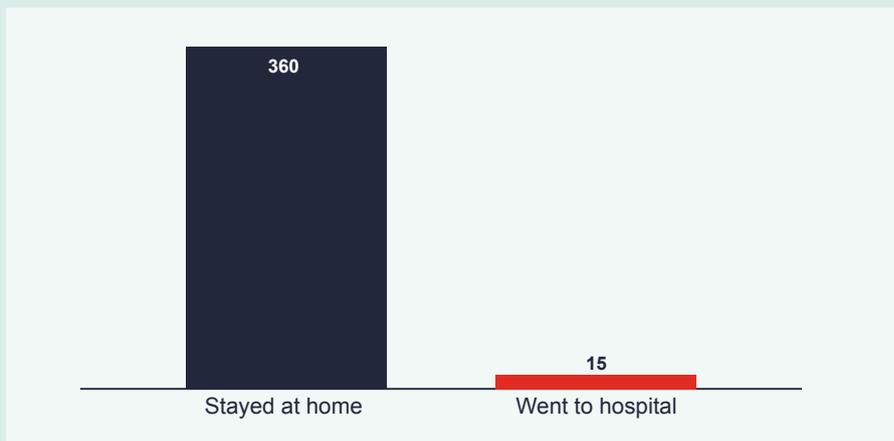


Figure 3: Patient outcome



Key Findings

- 1 On most occasions the CAT was able to resolve the incident without further response support from WAST, suggesting appropriate triage of calls.
- 2 On nine occasions the CAT was not available to attend calls.
- 3 Patients experienced positive service delivery, with most being able to stay where they wanted to be - at home.
- 4 Shortened attendance times would potentially reduce admissions due to the prevention of medical conditions or domiciliary care requirements following the length of time on the floor after a fall.

Recommendations

- 1 Undertake a review of WAST falls-related incident data to determine whether all appropriate calls were directed to the CAT, and if there are other codes where a CAT response might have been appropriate.
- 2 Consider increasing the capacity of the CAT response to accommodate simultaneous incidents across a wider geographical area.

Incident location

Of the 375 incidents attended, the highest number occurred in the Abergele area of Conwy, followed closely by Rhyl in Denbighshire and Colwyn Bay in Conwy. It is clear from the map on the right that the higher number of falls, are centred in densely populated areas.

During the pilot period there were very few calls to attend in rural areas. The larger towns along the Conwy and Denbighshire coast have a high number of older people, residing in retirement style accommodation, with those living in rural farming communities potentially remaining active, independent and at less risk of falling with age.

However, falls are not inevitable and people do not fall simply due to age. Often, more than one underlying cause or risk factor is involved in a fall. As the number of risk factors rises, so does the risk of falling.

Incident types

When patients were asked why they had fallen, the majority described how they had either slipped or lost balance. On 19 occasions there was an underlying medical condition, whereas 346 falls or 93% were as the result of the patient either tripping, slipping, losing balance or legs giving way whilst transferring from one place to another, referred to clinically as being a mechanical issue.

Ten people were described as 'other' and this refers to patients who had called, who had not necessarily fallen, but who needed assistance from a chair, out of a car, off the toilet or into bed.



Figure 4: Geographical location of falls during pilot



Key Findings

- 5 A significant number of falls occurred in more populated areas of Conwy and Denbighshire, in coastal locations that are known to have higher density of older people living in retirement communities.
- 6 Falls occurred most often when the patient was undertaking a mechanical activity and transferring or moving from one place to another.
- 7 A smaller number of patients fell as a result of an underlying medical condition.
- 8 The CAT was also able to assist people who were not able to help themselves out of their chair or to bed.

Recommendations

- 3 Consider future base locations for additional CAT resources to take account of main trunk roads and larger, more populated communities.
- 4 Ensure that those who are identified as being at risk from falling during 'Safe and Well' checks are referred to a relevant agency in order to ensure that the current care package meets their needs.
- 5 Consider the additional activities that the CAT may be able to accommodate allowing patients to remain in their own homes for longer.

Where in the home?

During the pilot CAT attended a variety of non-injured fall incidents, the most common location being the bedroom (34%) and the lounge (34%).

Whilst the number of fallers in bathrooms was low, it could be that there is an increased likelihood of injury when falling in a bathroom and as a result many cases would still require the attendance of a WAST resource, and therefore would be out of scope for the CAT.

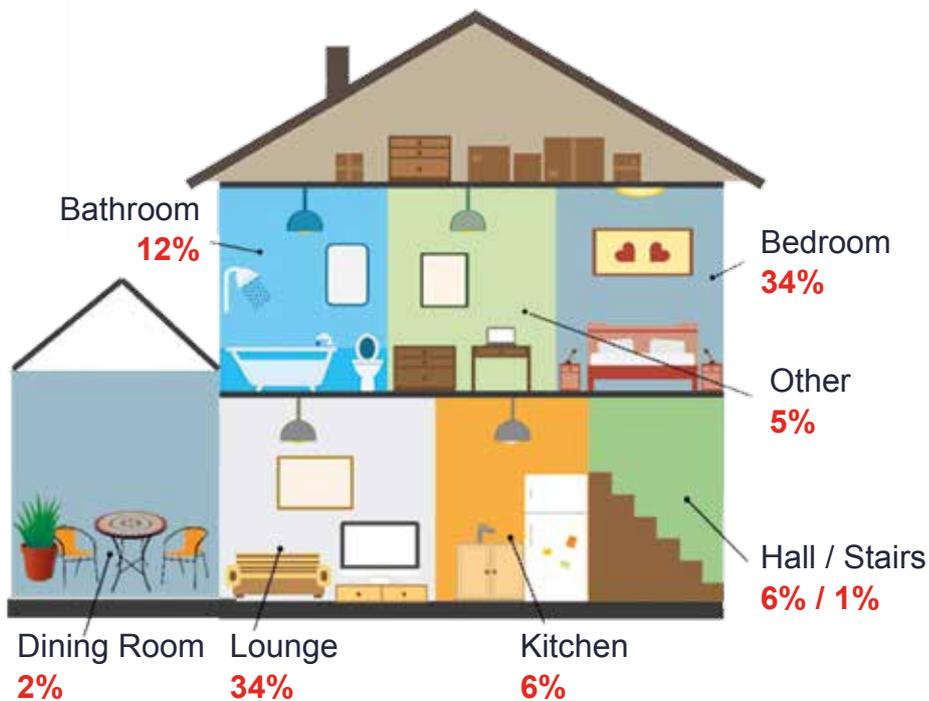


Figure 5: Falls location by room

Key Findings

- 9 Falls without injury occurred more frequently in the lounge and the bedroom.
- 10 The number of fallers in the bathroom was low, but it is hypothesised that there is a higher likelihood of injury when falling in a bathroom and therefore less likely that the CAT would be the most appropriate attendance.

Recommendations

- 6 Consider the role that the CAT could play in supporting home adaptations teams, in installing prevention equipment including handrails in those areas where falls are more likely.



Time and day

Whilst it is clear from the tables on the right that non-injured falls calls are relatively evenly distributed throughout the week, there does appear to a slightly higher number during the early part of the working week.

Anecdotally it has been suggested that whilst family members who support ageing relatives may be able to help during the weekend, when they return to work at the start of the week, older relatives may be required to be more independent, with increased numbers of mechanical related falls resulting.

In terms of hours of day when more non-injured falls calls are received, the period between 10am and midday sees a sharp increase, which maybe explained by the falls being reported by a carer on attendance.

The relatively busy periods can be seen to occur during the morning and evening when people are getting up and going to bed - between 7am - 11am and again between 6pm - 10pm.



Day	Number of Calls
Monday	63
Tuesday	70
Wednesday	60
Thursday	55
Friday	37
Saturday	40
Sunday	50
Total	375

Table 3: Total falls by day of week

Hour of Day	Number of Calls
7	22
8	24
9	25
10	35
11	32
12	15
13	18
14	26
15	24
16	26
17	14
18	22
19	27
20	27
21	23
22	15
Total	375

Table 4: Total falls by time of day



Key Findings

- Analysis of the day of week where more people fall shows a slight increase in the earlier part of the working week.
- An examination of the time of day when more falls have occurred shows a sharp increase between 10am and midday.

Recommendations

- Undertake a detailed review of the difference in support arrangements provided by care providers to potential fallers on different days of the week and at different times of day.



Age profile

Of the 375 attended incidents, CAT dealt with 360 non-injured fallers.

Ages ranged from 33 to 101, with the average age being 80.



Key Findings

- 13** Whilst the age range of fallers included those with underlying health conditions as young as 33, the majority of fallers were older than 80.
- 14** The number of female fallers was higher than the number of male fallers. The percentile difference between female and male fallers is higher than the difference in population.

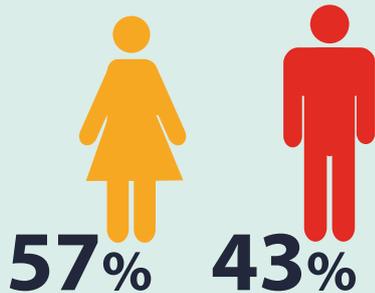
Recommendations

- 8** Target interventions including the 'Safe and Well' checks towards those who are aged 80 and above, as a result of their increased likelihood of falling, suffering a fire or being a victim of crime.
- 9** Commission research to determine why females are more likely to fall than males, or why when they fall they are less likely to have the strength to help themselves up.



Gender profile

In terms of gender, 57% of the non-injured fallers were female and the remaining 43% were male.



Prevention Activities

When not responding to non-injury incidents, the CAT is actively engaged in prevention activity.



For some time the fire and rescue service has been undertaking safety checks in peoples homes. Previously known as a Home Safety check this activity is now referred to as a 'Safe and Well' check and includes:

- Undertaking a fire risk assessment and installing smoke alarms or other prevention equipment if required
- Undertaking a falls risk assessment
- Providing crime reduction advice
- Utilising the 'Making Every Contact Count' brief intervention methodology to discuss healthy lifestyle choices
- Providing road safety advice for older drivers

During the pilot the CAT has undertaken 621 of these visits and installed a number of smoke alarms and other preventative equipment.

The CAT also attended 33 high risk referrals, where intelligence from NWP suggested that the resident was at significant risk from arson attack, following threats to burn.

The CAT has recently received bespoke training from the NWP search advisor (POLSA) and would join other trained members of staff and the police in coordinated searches, in the event of vulnerable persons going missing.

Key Findings

- 15** When not attending non-injury incidents the CAT has the capacity to undertake prevention activities that assist a variety of agencies.

Recommendations

- 10** Expand the number and type of activities that the CAT can assist with, including assisting with searches for those who are missing from home, assisting NWP with concerns for safety.
- 11** Target preventative action at those who are at increased risk of repeat falls at particular times of day

Welsh language

Public services in Wales are now subject to the requirements of the Welsh Language Standards (No. 2) Regulations 2016.

The standards have been drafted with a focus on:

- Improving the services Welsh-speakers can expect to receive from organisations in Welsh
- Increasing the use people make of Welsh-language services
- Making it clear to organisations what they need to do in terms of the Welsh language
- Ensuring that there is an appropriate degree of consistency in terms of the duties placed on organisations in the same sectors.

The CAT was recruited and selected with these standards in mind and whilst the Service does not have a specific standard for Welsh language whilst delivering emergency interventions, in the spirit of improving services that Welsh speakers can expect, on **90% or 338 occasions**, the patient was offered a bilingual service.



Prevention following a fall

When a traditional ambulance response is sent to a non-injured faller, there is usually only limited time to discuss concerns and undertake a comprehensive risk assessment before onward referral and then being quickly dispatched to the next emergency call.

However, the CAT has the advantage of being able to invest more time in people; to understand their needs or concerns, to ensure that they are as safe as they can be before leaving the scene and to make the most appropriate onward referral following discussions with the patients through agreed referral pathways.

As a consequence of this at **311 (83%) incidents** it has been appropriate for the team to undertake a 'Safe and Well' check and at **274 (73%) incidents** crime prevention advice and equipment was provided.

Key Findings

- 16** As the CAT is able to assist non-injured fallers quickly, the faller is often able to actively engage in a 'Safe and Well' check.
- 17** The CAT is able to spend a greater period of time with the faller. Through utilising the principles of 'Brief Interventions' and 'Making Every Contact Count' they are able to gather a greater understanding of the underlying causes for the fall and make the appropriate onward referral.

Recommendations

- 12** Consider upskilling the CAT enabling the staff to undertake the multi factorial risk assessment, make the appropriate onward referral for physiotherapy, occupational therapy, medication review or other appropriate intervention.

Outcomes

During the pilot there were challenges to overcome, but changes to operational practices such as shift pattern and improved support and supervision for team members resulted in a model that can now be expanded to cover a wider geographical area, with the confidence that it is fit for purpose and improves the service provided to communities across North Wales.

Following the introduction of the CAT there have been a number of positive outcomes. These have included:

- A quicker response to non-injured fallers.
- Fewer hospitalisations resulting from health or domiciliary care needs resulting from waiting for extended periods.
- Fewer responses by WAST, freeing them up to attend higher acuity calls.
- Significant savings to the wider public purse.
- Better patient experience as a result of them being able to remain where they want to be - at home.
- Reducing exacerbation of patients medical conditions after a fall.
- Carrying out integrated 'Safe and Well' checks whilst in attendance at the initial call, rather than the inconvenience of future appointments.
- Additional support for WAST and BCUHB during the period of wider system pressures.
- Assisted WAST to achieve Action 31 of their Integrated Medium Term Plan "Explore and expand where possible the provision of co-responding groups across Wales" (Fire and Rescue Services, Police Services, RNLI, RLSS etc.)
- Improvements in partnership working and reciprocal referral pathways between agencies including, Single Point of Access (SPOA), Galw Gofal, BCUHB, Community Health Council, NWFRS, NWP and local authorities.

- Assisted NWFRS in achieving their target of 20,000 'Safe and Well' checks during 2016/17.
- Assisted North Wales Fire and Rescue Authority in providing evidence against objective 4 of 'Your service your choices' 'Exploring the possibility of doing more things for our communities'.
- Expanding the role of the fire and rescue service in line with the Welsh Government Fire and Rescue National Framework.

The Well-being of Future Generations (Wales) Act 2015 states; Public bodies need to make sure that when making their decisions they take into account the impact they could have on people living their lives in Wales in the future.

It will expect them to:

- Work together better - The way in which the CAT brings together different services in one place at one time and makes the most appropriate referrals demonstrates good practice in working together.
- Involve people reflecting the diversity of our communities - the CAT is made up of people who live and work in North Wales. The teams are mixed sexes and are able to communicate bilingually with the communities that we serve. During the pilot a bilingual service was offered on 90% of occasions.

- Look to the long term as well as focussing on the now – the CAT undertakes preventative activities and educates patients to avoid falls in the future. This makes sure that the necessary referral pathways are accessed to support future care needs.
- Take action to prevent problems escalating – multi factorial risk assessments and prevention equipment installation is part of the response that can be deployed in the future.

The CAT approach is aligned to the principles of prudent healthcare in that it helps to:

- achieve health and wellbeing with the public, patients and professionals as equal partners through co-production; all parties working toward a common goal.
- care for those with the greatest health need first, making the most effective use of all skills and resources; address issues of priorities so that those with the greatest need are supported by early and appropriate care.
- do only what is needed, no more, no less; and do no harm; care based on evidence of 'what works' and to provide care on the basis of 'what's needed', and does no harm.
- reduce inappropriate variation using evidence based practices consistently and transparently; evidence is dynamic, transparency is critical.



The team also supports WAST in achieving the ambulance care pathway objectives included in their Integrated Medium Term Plan (IMTP) with focus on:

- Help me choose - Public education in times of need to explain that the most appropriate resource may not be an emergency response vehicle and that the CAT may well be able to resolve a call successfully instead.
- Answer my call - Answered and correctly triaged quickly, with a CAT mobilised without delay.
- Come to See Me - Right response at the right time with the CAT in attendance within a relatively short period of time.
- Give me treatment – the CAT will lift, assess and make the appropriate referral.

The CAT also assists WAST in demonstrating evidence against their objectives to 'Improve Healthcare' and for 'Falls prevention and hospital avoidance – New Clinical response model and alternative care pathways' and 'Implement service provision for non-injury falls'.

During the pilot there have been challenges to overcome, but changes to operational practices such as shift pattern and improved support and supervision for team members has resulted in a model that can now be expanded to cover a wider geographical area, with the confidence that it is fit for purpose and improves the service provided to the communities across North Wales.

If we were designing an emergency service from a blank sheet of paper, it is clear that the current three service model may be different. Whilst there are significant benefits to having specialist services there are also some challenges to overcome, for example, a silo approach to working and a lack of communication between partners relating to the needs of our shared communities.

The partnership approach taken in North Wales since the formation of the tri-service Prevent and Respond team has been one of seeking the best opportunities to put citizens first and to consider their outcomes as a priority. In doing so, the CAT has managed to reduce bureaucracy and red tape and break down barriers between public services working towards the same goals. The CAT is a powerful example of what can be achieved to the mutual benefit of all when agencies come together with a clearly defined requirement to get things done.

The CAT pilot has achieved a significant impact in Conwy and Denbighshire and the next opportunity to 'get things done' is to expand this ground breaking and service changing model across North Wales in 2017.

NEW Technology

- Whilst the clinical governance and Manchester triage process has been robust throughout the trial, technology is available to give provide additional safeguards and further assurances from a clinical perspective.
- This technology allows a non-clinical practitioner to connect a patient to a device that communicates with cloud based packages and provides real time vital statistics to a remote location, whereby clinicians can make an even more informed decision about the patient's needs.

Recommendations

- 13** Explore technologies available regarding patient monitoring and telemetry; which would support a more informed 'Hear and Treat' clinical assessment.

Testimonials

Positive Paramedic feedback...

In addition to feedback from patients, feedback has also been positive on the occasions when WAST paramedics have been in attendance.

“ Just want to pass on my appreciation and thanks to the CAT Team for their help on a job I was at on the RRV in Rhyl on the 15th Feb...They were great, I was really impressed. Both were very helpful and lovely with the patient...It was the first time I've used the CAT team to assist and I can't fault them. Crews should definitely be using them more often.”

“ Due to the team's excellent assessment of a patient when moving him and after noticing he had a swollen leg that was very hot to touch and tight that they called for the patient to be further assessed. The patient was taken to ED where a clot (DVT) was found, he also believes that if the team had not had the presence of mind to call for further assessment he may well have sustained more significant injury.”

“The patient's daughter was present throughout as her mother is deaf, newly blind and has signs of dementia. The whole experience was exceptional for its efficiency, skill, good humour and professionalism.”

“We were kept informed at all times we were invited to watch the procedure from start to finish and were most impressed by the two gentlemen. We were treated with respect at all times and I would welcome them both into my home again.”

“What an excellent service and project idea! It obviously takes the pressure off 'emergency 999' calls and is greatly needed. The two ladies that attended were great, for which many thanks.”

helped by CAT...

96%

did not require any further response support from WAST...