Northern Ireland Ambulance Service
Health and Social Care Trust

Northern Ireland Ambulance Service Health and Social Care Trust

Annual Quality Report

For the year ended 31 March 2017

Foreword

As Chief Executive of the Northern Ireland Ambulance Service, I am pleased to present the latest Annual Quality report on behalf of the Trust. The report details progress that has been made throughout 2016/17 in terms of our journey in the drive to protect and improve quality in Health and Social Care in Northern Ireland.

I am delighted to present in this report the excellent practice that we are delivering on a daily basis to the population of Northern Ireland. We have a vital role to play in the delivery of urgent and emergency care, providing a range of clinical responses to patients in their homes and community settings and can potentially integrate seamlessly across the spectrum of providers in health and social care. We can increasingly shift the balance of care away from hospitals, reduce demand on emergency departments and take the pressure off general practice. There are real benefits to be gained for patients by investing in NIAS services to improve the future sustainability and performance of the health system overall. This report clearly presents the progress we are making on this Quality Improvement Journey.

It is clear that demand continues to grow, at a faster rate than our capacity, however, our staff continue to rise to the challenges presented to them and do all within their power to ensure that quality of care for patients, not only remains constant but, continues to improve as a result of training and enhanced working practices. I want to record a special word of gratitude to them for their efforts throughout this year.

You will see within this report that we have much to be proud of this year. The progress with regards to meeting the high quality standards set out by the International Academy of Emergency Dispatches (IAED) is fabulous. This really does ensure that quality and safety are at the heart of what we do, from the moment the emergency call is connected. The continued roll out of Appropriate Care Pathways to ensure that patients received the right treatment, in the right place and at the right time is something to be rightly proud of. Delivering the right care, in the right place, will help to drive key indicators such as ‘see and treat’ rates but most importantly will drive better outcomes for our patients.

We are rightly proud of high levels of clinical care provided by our staff and yet much of this goes unnoticed as our performance continues to be based on the speed of response to Category A (immediately life threatening calls). Once again this year we, regrettably, fell well short of our target of responding to 72.5% of Category A calls within 8 minutes. I am however in a position to report that we have undertaken a major “Capacity Review” of the Service to examine how we are currently delivering the Service and identify improvements that can be made to ensure full complement of crews at all times to ensure response in a more timely fashion. We will also continue to work with colleagues in HSC Trusts to ensure availability of crews to respond to calls.

I hope that the report reflects the commitment of all within the Northern Ireland Ambulance HSC Trust to the vision of Quality 2020 that our service will be “recognised internationally, but especially by the people of Northern Ireland, as a leader for excellence in health and social care”.

Shane Devlin
October 2017

How we manage calls for Ambulance Services

NIAS operates two Control facilities – Emergency Ambulance Control (EAC) in Headquarters, Belfast and Non-Emergency Ambulance Control (NEAC) in Altnagelvin. We have a workforce of 132 (102 EAC + 30 NEAC).The basic functions of the Ambulance Command & Control systems are to:

- Receive Emergency calls, Healthcare Professionals' (HCP) calls and other routine health-related transport bookings.
- Provide on-line advice to callers as appropriate. Record information, prioritise work-load and plan Ambulance dispatch
- Deploy Ambulance resources

Telephone calls are received via Automatic Call Distribution (ACD) which is a call handling system. We receive three types of telephone call; 999 calls; Healthcare Professionals (HCP) calls and Routine calls. When a telephone call arrives at our telephone switch the system delivers it automatically to the first available and suitable call-taker and the whole process occurs within 2 seconds.
During 2016-17 the EAC team handled telephone calls as per Table 1:

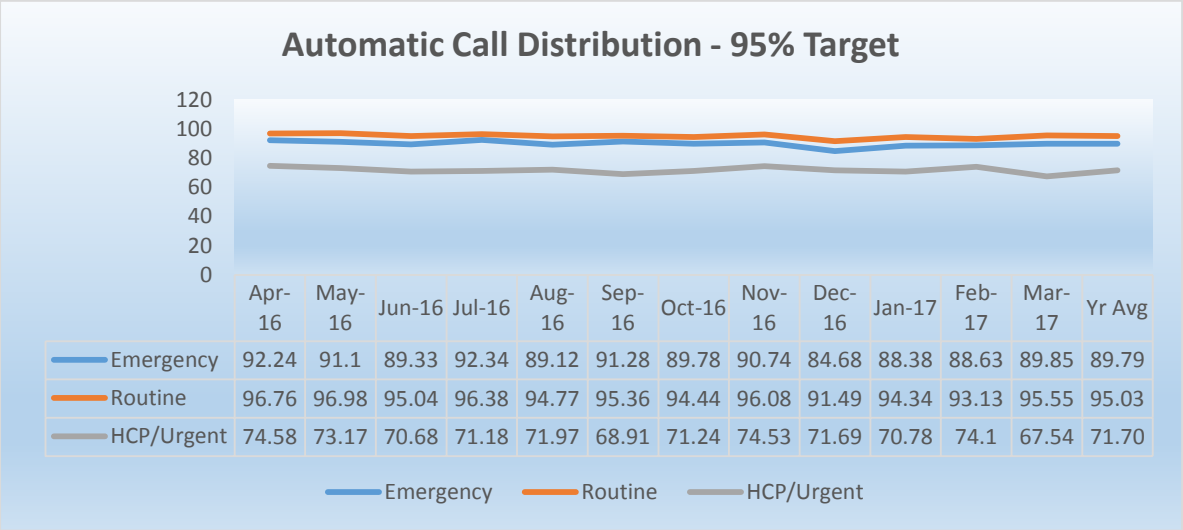
Type of phone call	Calls
999 calls	210,027
Routine calls	143,804
Healthcare Professional calls	38,757
Outgoing calls made	305,618
Total	**698,206**

Calls handled by Emergency Ambulance Control

The figure for 999 calls represents a 4.87% increase in 999 calls over 2015/16

999 Call Answer Times

We aim to answer our telephone calls as quickly as possible and the system delay between the call arriving our telephone switch and distributed to an available call-taker with the appropriate skill set is 2 seconds. Call delays occur when there is no call-taker free when the call arrives. The target for 999 call answering is 95% within 2 seconds.



	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Yr Avg
Emergency	92.24	91.1	89.33	92.34	89.12	91.28	89.78	90.74	84.68	88.38	88.63	89.85	89.79
Routine	96.76	96.98	95.04	96.38	94.77	95.36	94.44	96.08	91.49	94.34	93.13	95.55	95.03
HCP/Urgent	74.58	73.17	70.68	71.18	71.97	68.91	71.24	74.53	71.69	70.78	74.1	67.54	71.70

The graph shows routine calls being answered the quickest and this is because the ALL of our call-takers are available for this type of call i.e. we have EMDs who take Emergency calls and can receive all other calls, HCP Call-takers who take HCP calls but not Emergency calls and some Routine call-takers who only take routine calls and are unable to take Emergency or HCP calls.

How calls are prioritised - Triage

All of our calls undergo a process of systematic questioning to determine wheter they are time-critical and what sort of response might best meet their need. The first questions allow the EMDs to quickly evaluate the patient status and scene conditions and then categorise the call by chief complaint / incident type and set a determinant level i.e. identify the severity of the patients' condition in terms of minor through to Immediately Life Threatening. The protocols enable a trained and certified EMD to assist the caller in immediately helping the patient. MPDS also includes treatment sequence protocols covering cardiac arrest, choking, and childbirth. The MPDS codes allow emergency medical systems to determine the appropriate response mode (i.e. routine or "lights and sirens") and resources to be assigned.

Emergency Control Quality Assurance Process:

During the 2016 / 17 year the Quality Improvement Team managed an increase in the number of 999 calls for audit and review. NIAS is committed to reviewing a percentage of 999 calls in line with annual call volume. For 2016 / 17 this equates to approximately 2.72% of 999 calls or approximately 62 calls per week. Calls are measured across seven areas including customer service and final coding to ensure the highest standards of patient care are provided.

The performance of our EMDs is constantly improving as a consequence of the Quality Assurance processes. High performing EMDs result in minimised resource waste (identifying too many high priority calls which require immediate ambulance response) or minimising risk (identifying high priority calls as low priority therefore creating the risk of not sending an ambulance immediately).

In October 2016, following extensive training, the Ambulance Medical Priority Dispatch System (AMPDS) protocols used to triage 999 calls including the associated software ProQa Paramount, were upgraded to the latest available versions.

ProQa Paramount allows for more "intelligent" instructions, tools and expanded capabilities. Combined with AMPDS v13.0, these form the single most significant change in 999 triage within NIAS since the initial implementation of MPDS over 10 years ago and enhances the role of the Emergency Medical Dispatchers (EMDs) as an integral and critical component in the patient care chain of survival.
Calls are received by NIAS through its 999, Urgent / HCP and Routine lines. 999 calls and Urgent / HCP calls are prioritised as follows:

Call type	Category / code	Expected response
999 life threatening	A (Purple/ Red)	< 8 minutes
999 Serious but not life threatening	B (Amber)	< 21 minutes
999 Neither life threatening or serious	C (Green)	< 60 minutes
Urgent calls	Healthcare Professional calls (HCP) (GPs who 'book' and ambulance after seeing a patient and deciding they need to be admitted to hospital within a set time frame)	1 hour 2 hours 3 hours 4 hours

Some of our recorded KPIs demonstrate our progress towards very high levels of call-take:

Protocol Standards	Partial Compliance	Low Compliance	Non-Compliant
Standard - % less than	10%	10%	7%
Achieved March 2017	9%	2%	7%

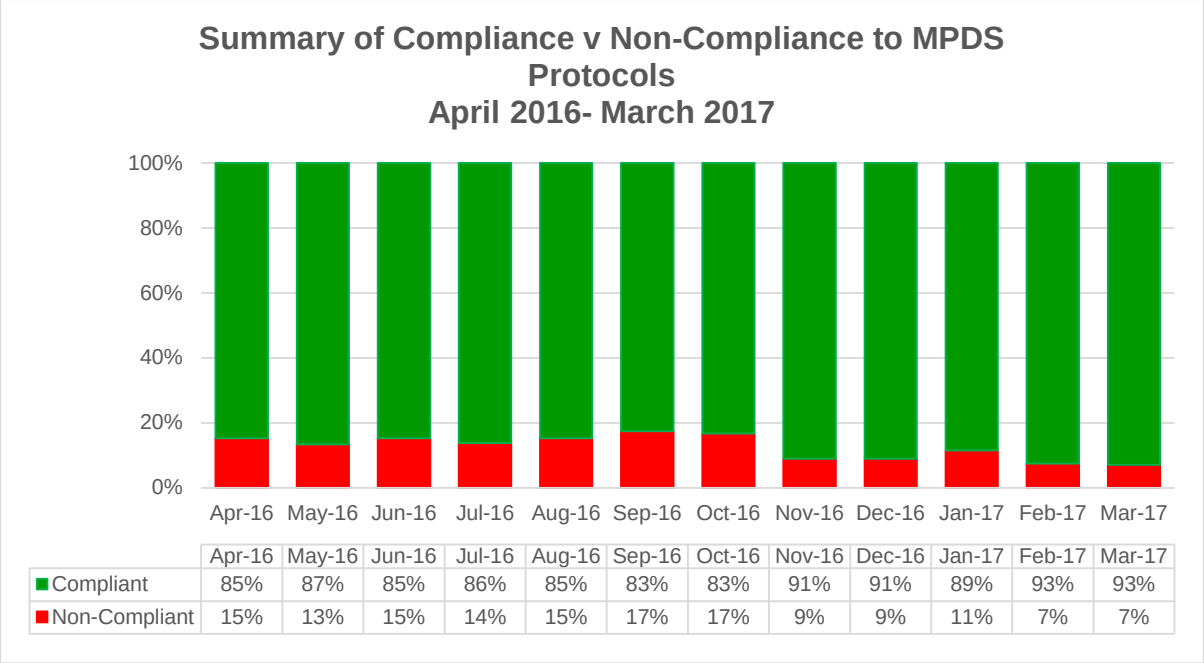
Protocol Deviations	Major	Moderate	Minor
Standard - % less than	3%	3%	3%
Achieved March 2017	0.68%	1.13%	1.16%

Prioritisation Variation	Over-Prioritised	Under-Prioritised
Standard - % less than	5%	5%
Achieved March 2017	0%	0.7%

In both February and March 2017, for the first time since full implementation of audit, NIAS 999 call review met and exceeded the International Academies of Emergency Dispatch standards for Accreditation as a Centre of Excellence.

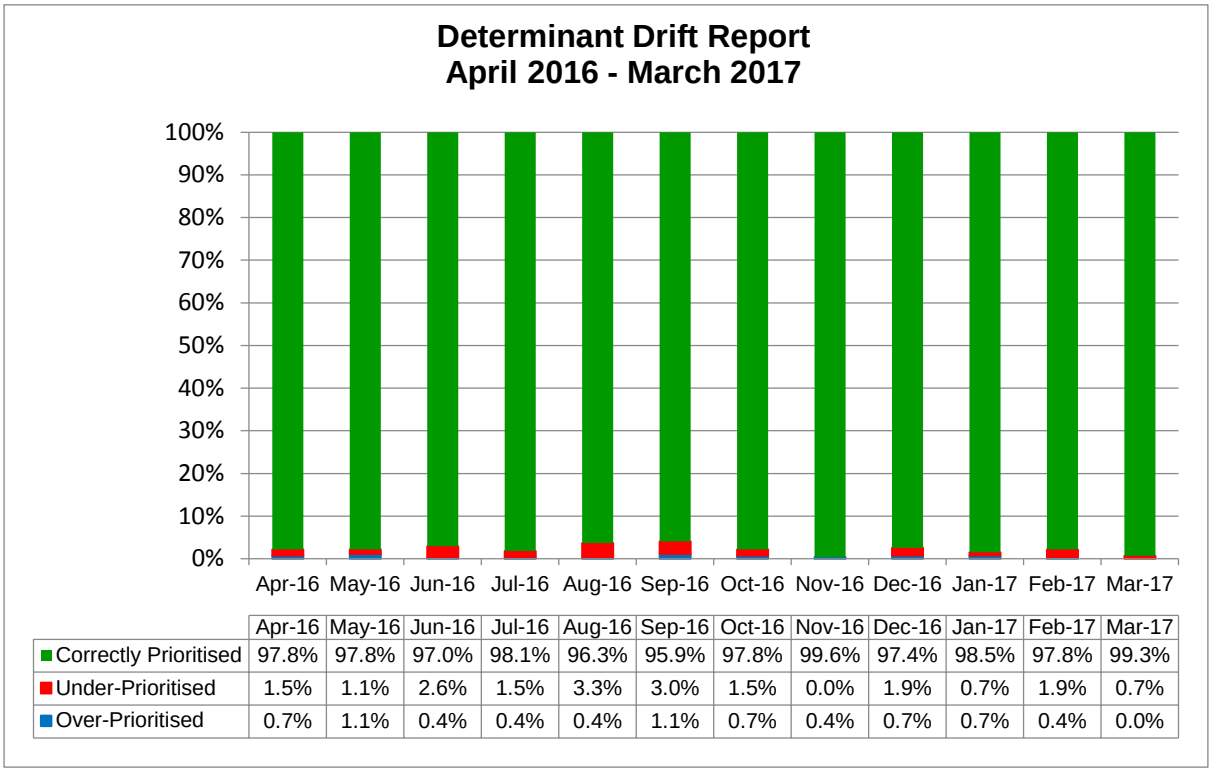
Six months of audit must meet standard before NIAS can submit an application for ACE recognition as an Accredited Centre of Excellence.

The following charts and tables show the continuing improvement in standards before and after the upgrade to both MPDS v13.0 and ProQA Paramount:



	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17
Compliant	85%	87%	85%	86%	85%	83%	83%	91%	91%	89%	93%	93%
Non-Compliant	15%	13%	15%	14%	15%	17%	17%	9%	9%	11%	7%	7%

Steady achievement in accuracy of triage coding



	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17
Correctly Prioritised	97.8%	97.8%	97.0%	98.1%	96.3%	95.9%	97.8%	99.6%	97.4%	98.5%	97.8%	99.3%
Under-Prioritised	1.5%	1.1%	2.6%	1.5%	3.3%	3.0%	1.5%	0.0%	1.9%	0.7%	1.9%	0.7%
Over-Prioritised	0.7%	1.1%	0.4%	0.4%	0.4%	1.1%	0.7%	0.4%	0.7%	0.7%	0.4%	0.0%

EMD Award Scheme

NIAS implemented an EMD award scheme in September 2015 awarding certificates and badges for randomly selected calls with overall “High Compliance” and for calls with exemplary (100%) Customer Service. Other awards are for Baby Born, Cardiac Life Saver & Non-Cardiac Life Saver. In order to attain these awards the call must be reviewed as “Compliant” or “High Compliance”.

Below are the level and number of awards attained by EMDs for the year 2016-17. February saw the first gold award for 100 calls reviewed as “High Compliance” achieved.

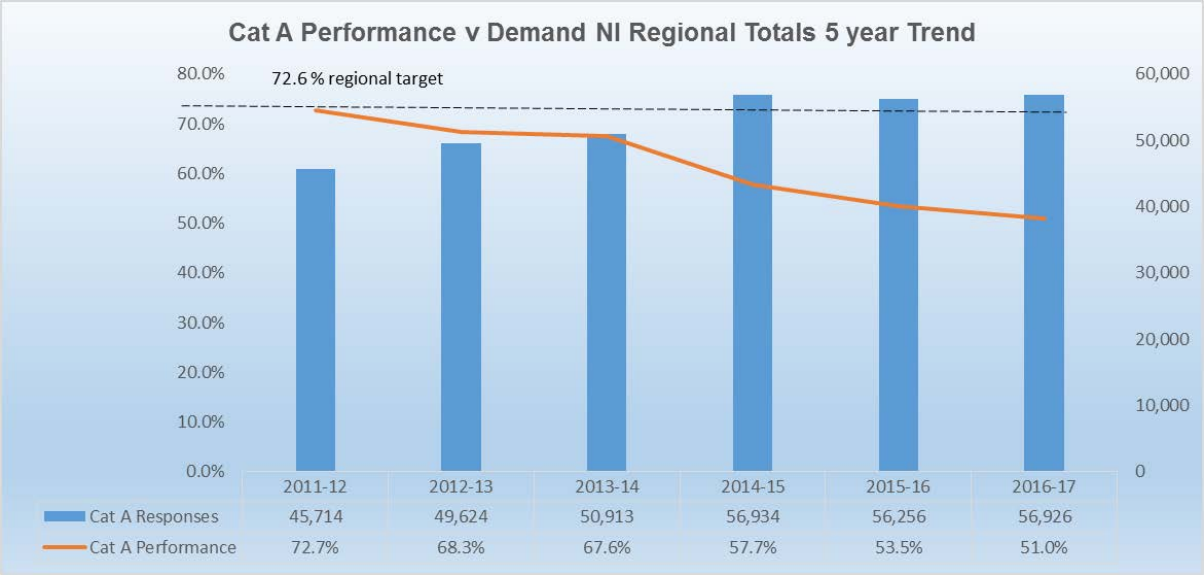
Award Type	Level	2016-17
High Compliance	Certificate	19
	25 Call Bronze	19
	50 Call Silver	22
	100 Call Gold	2
Customer Service	Certificate	7
	25 Call Bronze	8
	50 Call Bronze	21
	100 Call Gold	31
Baby Born	Boy	5
	Girl	3
	Twins	0
Life Saver	Cardiac	0
	Non-Cardiac	0

IAED Ireland Navigator Dispatcher of the Year Award

In addition to the internal awards as above, the International Academies of Emergency Dispatch held a conference (Ireland Navigator) in Dublin during March 2017. For this conference nominations are invited from all UK & Republic of Ireland Ambulance Services for the award of Dispatcher of the Year. The IAED Dispatcher of the Year award was created to identify and recognise individuals who have made the most significant contributions to further the values and mission of the Academies through personal action. This award is bestowed upon the IAED certified emergency dispatcher who has most successfully exemplified the values and mission of the Academies.

This year five NIAS EMDs were nominated: Emma Campbell, Louise Delaney, Gavin Flynn, Matthew Graham and Kelly Anne McKee. All five nominees were shortlisted and one was chosen to receive the award. Kelly Anne McKee was selected as Dispatcher of the Year 2017 for her compliance to protocol and excellent customer service while providing instructions to a caller delivering a baby at home. The picture below shows the nominees and winner receiving the award at the Dublin Navigator presentation ceremony:

Responding to calls

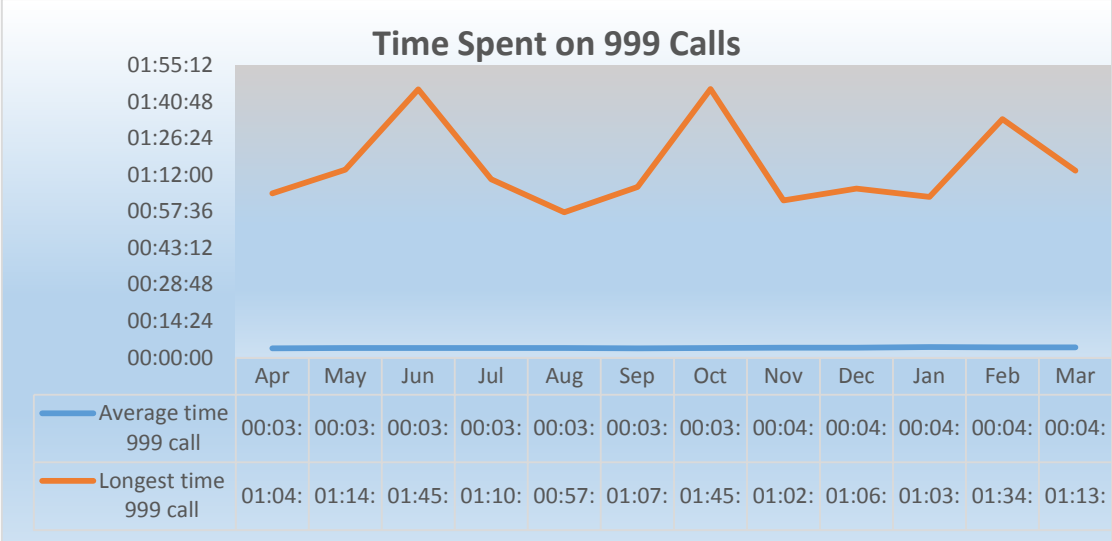


As the demand of emergency ambulances has increase, our ability to reach the most serious calls within the specified eight minutes has declined

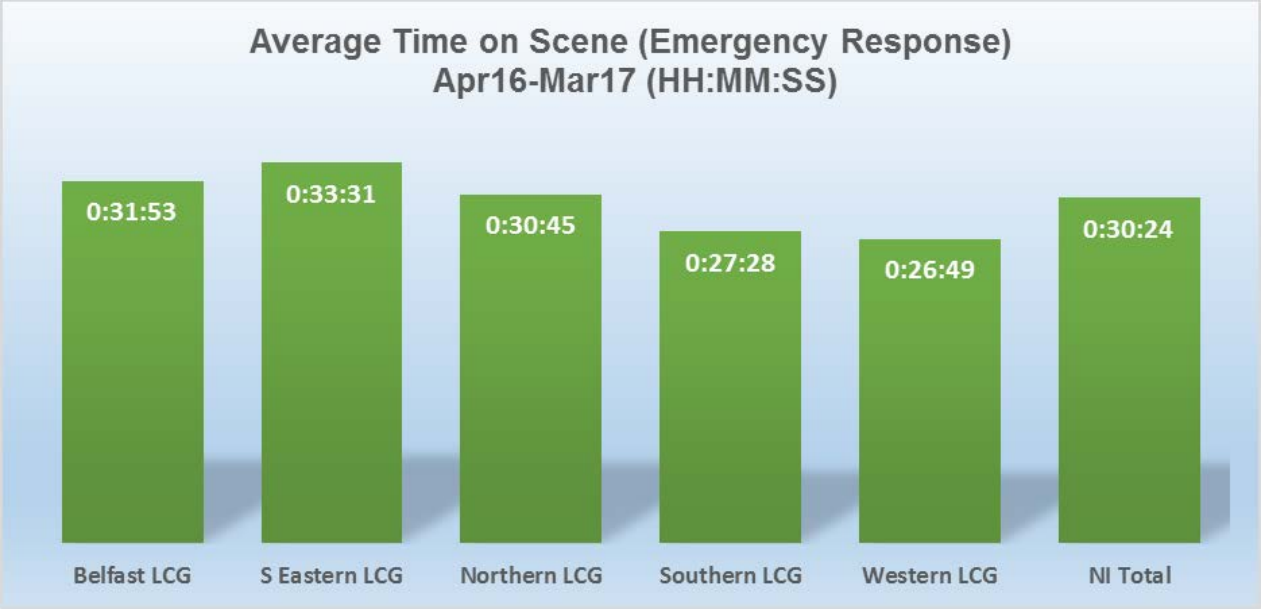
Time spent on Emergency calls

Emergency Medical Dispatchers who take the Emergency calls are required to remain on the line for certain health critical situations. The purpose of them remaining on the line is to provide support and advice to callers until one of our operational Ambulance resources is in attendance at the scene. Our EMDs have available to them a selection of advice on subjects ranging from detecting ineffective breathing to delivering Cardio Pulmonary Resuscitation (CPR), managing a choking patient to supporting callers in the process of childbirth.

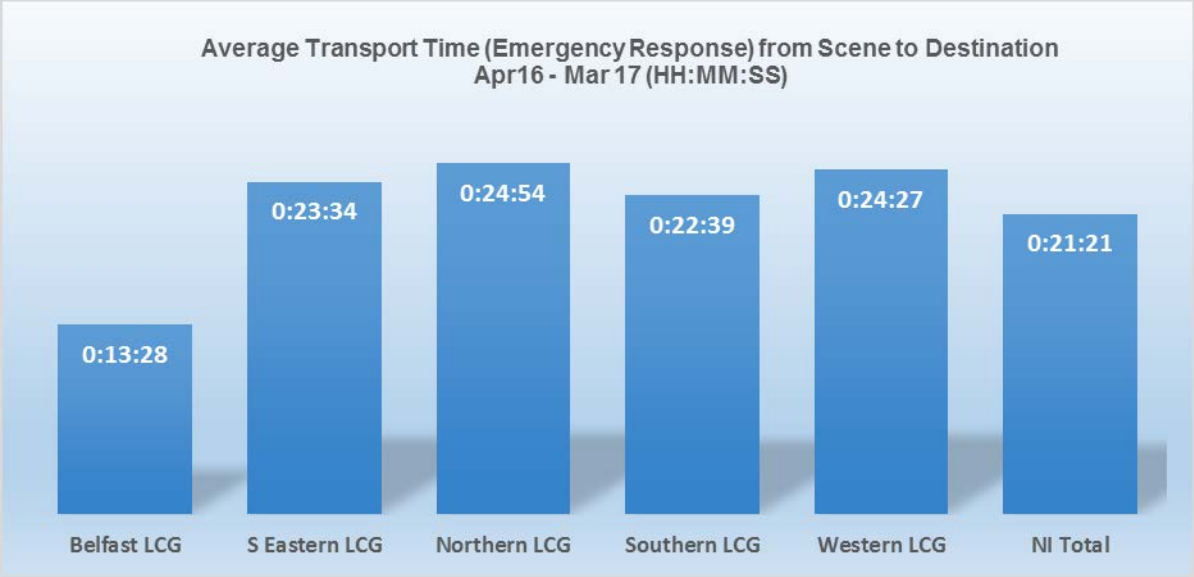
The average telephone call time is around 4 minutes and the longest times can be in the region of one hour plus. In some instances the EMD stays on the line to provide assistance and advice until an ambulance arrives – this accounts for the longer calls.



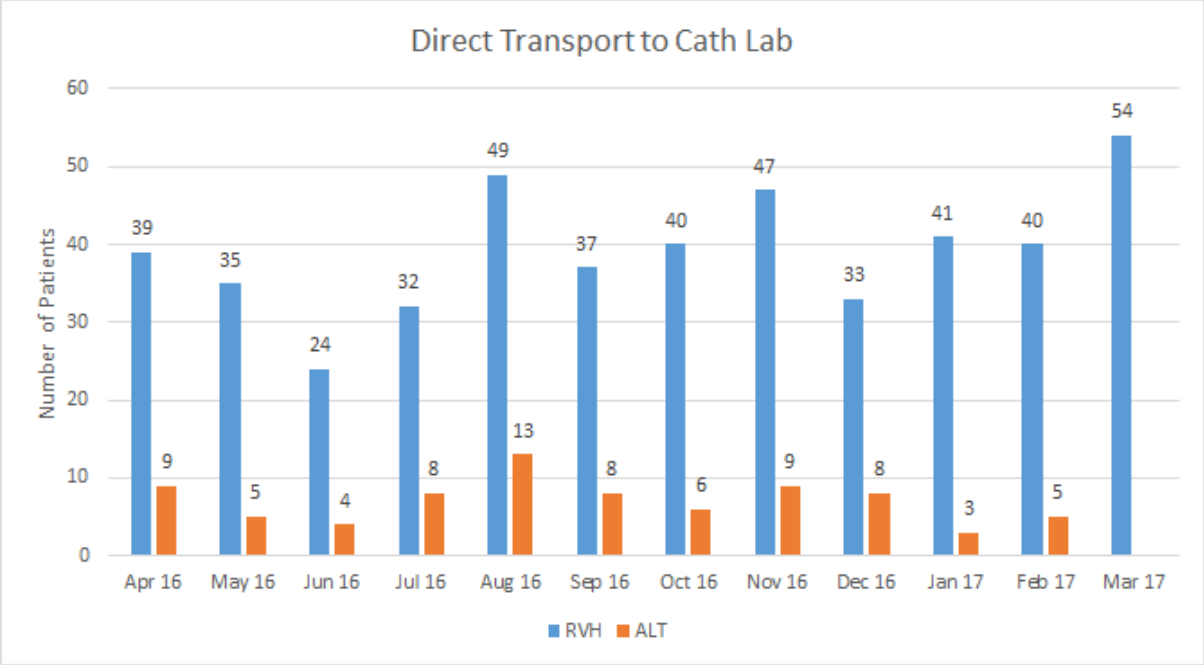
Our crews typically spend around half an hour assessing and treating patient's at the scene of an emergency call. This includes taking a history, measuring clinical observations, providing treatment, arranging admission and preparing a patient for transport.



In the past ambulance crews routinely transported patients to the casualty department of the nearest hospital. Nowadays our crews will make independent decisions about the most appropriate destination for each patient based on their clinical needs and hence will often bypass a local hospital to go directly to one which offers specialist treatment. This may result in a longer journey initially, but means that the patient can access definitive care more rapidly.



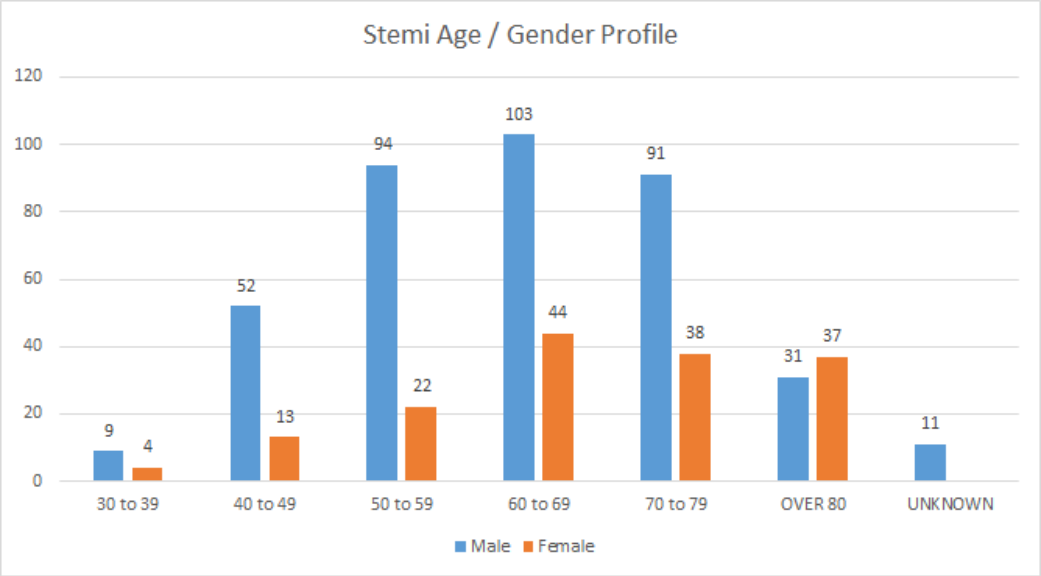
An example of this is delivering patients who have suffered a heart attack directly to one of the two Northern Ireland Cardiac Catheterisation labs in Belfast or Altnagelvin.



The chart above shows the number of direct transfers where NIAS has identified the need for a patient to go to a Cath Lab directly.

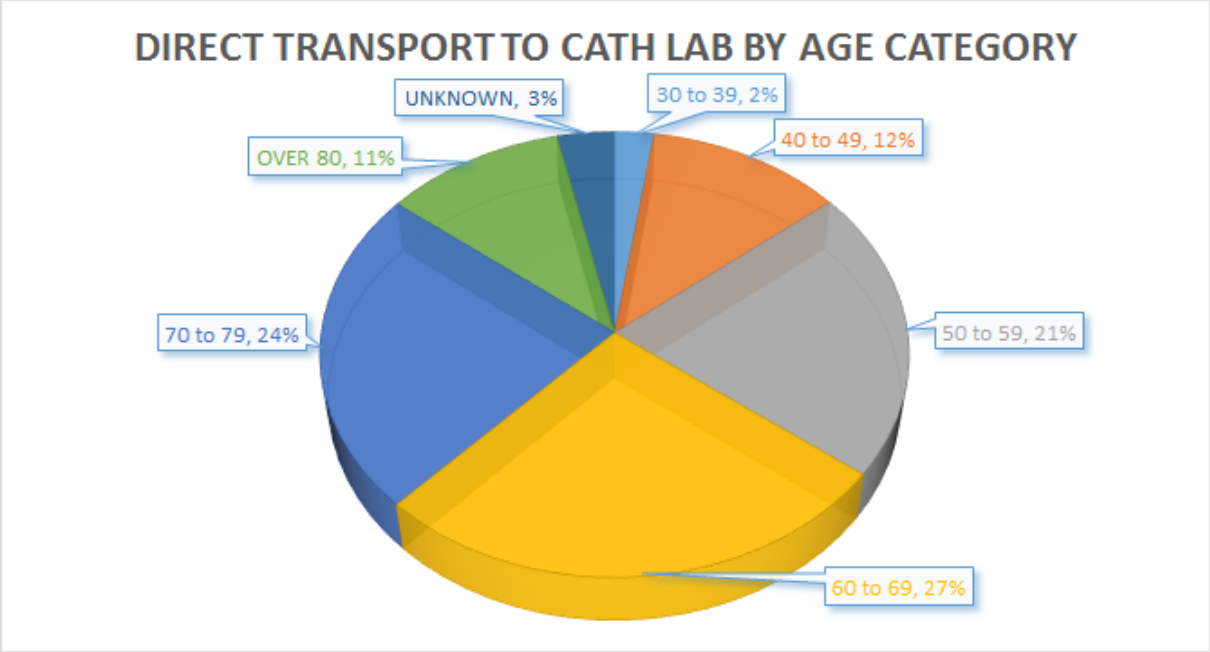
- NIAS responded to 196,642 incidents in the 2016/17 financial year.
- There were 471 attendances to the RVH Cath Lab for 2016/17 (0.24% of all emergency responses)
- There were 78 attendances to the ALT Cath Lab for 2016/17 (0.04% of all emergency responses)
- Average of 39.3 responses per month for the RVH Cath Lab

- Average of 7.1 responses per month for the ALT Cath Lab



- 71% of attendances at a Cath Lab for males and 29% for females.

- Most STEMI patients fall in the 60 to 69 age range (27%) with the next most common age range being 70 to 79 (23%)



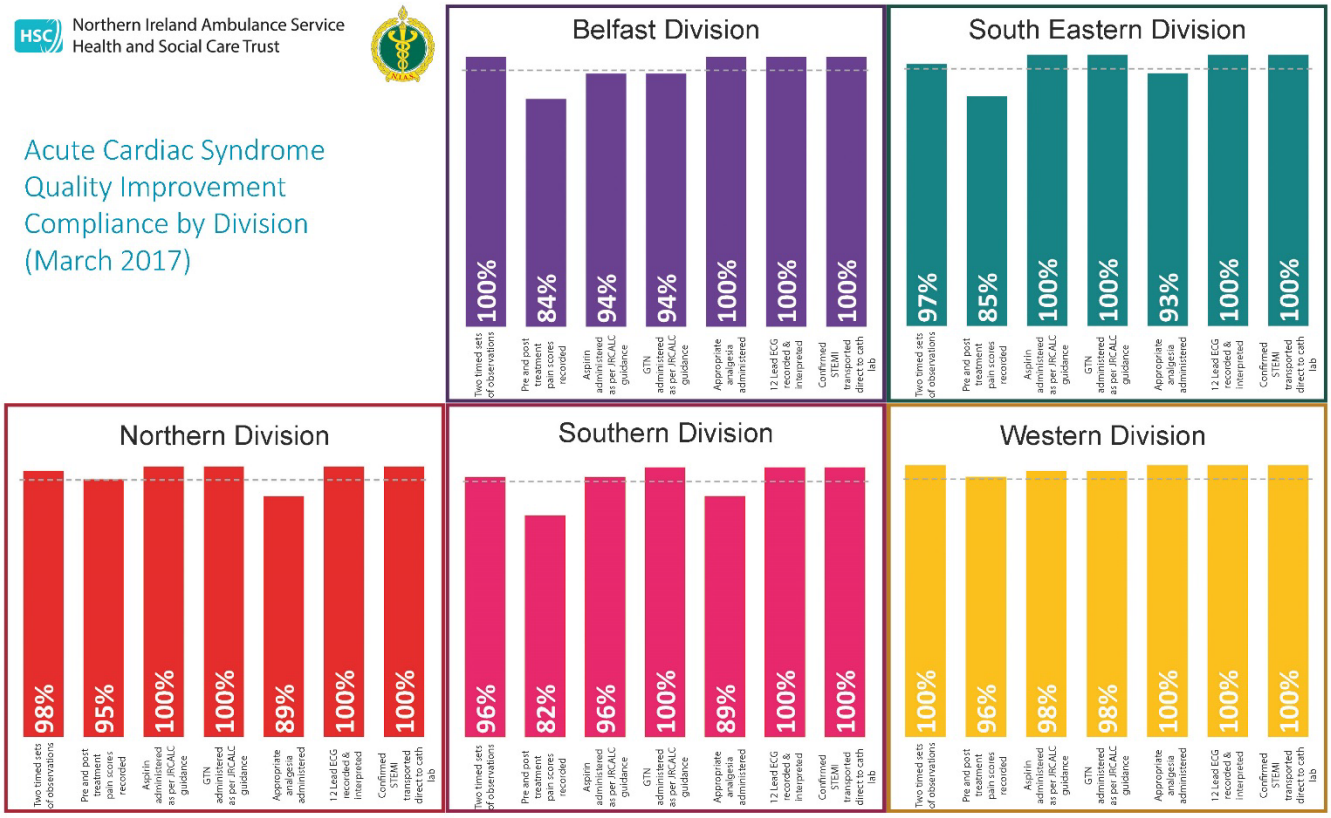
- Minimum recorded age for direct STEMI transport is 21.
- Maximum recorded age is 97.
- Average age for attendance is 64.
- Most common ages for attendance are 64 and 73.

Calls that are directly admitted have an average:

9 mins 11 secs
Response Time for Cat A Calls

29 mins 54 secs
Spent At Scene

24 mins 3 secs
Journey to cardiac lab



Cardiac care is just one of the range of topics that we review on a regular basis with the aim of ensuring consistently high quality. Our Clinical Support Officers review samples of completed patient report forms to assess whether the full “bundle” of care is being given to every patient with a heart attack (or stroke, diabetic episode, seizure, fall etc.) We then use this data to inform our training programme to address any items that still need improving.

On a wider scale, we contribute to national audits of the management of both cardiac and stroke patients. The latest MINAP data shows that despite adopting the primary PCI approach regionally some time after our colleagues in the rest of the UK, our performance in Northern Ireland is already better than many other ambulance service areas.

The time from a patient suffering a heart attack anywhere in Northern Ireland calling 999 to having their coronary artery unblocked in either Belfast or Altnagelvin…

108 minutes

New Equipment, New Care

New developments in pre-hospital emergency care mean that we have to equip our workforce with the latest equipment, and one of our most important devices is the combined patient monitor / defibrillator which allows is to check a patient's vital functions, communicate information to the hospital and undertake emergency treatment. Our previous model served well for eight years but at the end of a long assessment we successfully tendered for a new model to take us into the next decade

The Corpuls3 is already in services with other UK ambulance trusts and the Royal Air Force, and offers us the ability to measure new parameters such as carbon monoxide levels in the body, transmit more comprehensive patient information without the need to connect to a separate mobile phone, and is lighter to carry than the previous unit while having a new battery management system that will simplify charging routines. The device will start rolling out across NIAS later in 2017

Smaller lighter automatic defibrillators (AEDs) have also replaced the previous model carried on all of our non-emergency vehicles and officer's cars

A huge amount of work has being going in to creating the first Helicopter Emergency Medical Service (HEMS) for Northern Ireland. We have now been directed to commence work with our nominated charity partner, **Air Ambulance Northern Ireland**, who will provide the airbase, aircraft and flight crew necessary to operate the service. Specially trained doctors and paramedics will work together to bring advanced surgical and anaesthetic skills directly to patients who suffer serious trauma anywhere in Northern Ireland, complementing the skills of our road-based paramedics and technicians. We expect this service to commence operations in August 2017

HEMS directly complements regional work being undertaken to develop a Northern Ireland Trauma Network, coordinating the treatment for seriously injured patients across all of our hospitals to ensure that regardless of where accident or injury occurs, patients will receive the highest standard of care.

The co-ordinated approach to the management of cardiac arrest is also moving forwards in line with the Community Resuscitation Strategy. We currently have over 800 public access defibrillators registered on our control system, meaning that we can direct bystanders to collect one of these potentially life-saving devices while a caller administers CPR to a patient.

At the same time we are engaging with an increasing number of Community First Responder Groups comprising volunteers who can be alerted by pager to nearby collapsed patients in order to bring their lifesaver skills training and equipment to the scene

We also continue to review our pharmacy arrangements and based on staff feedback have extended the range of drugs available in our treatment packs to allow for more comprehensive and easier treatment of patients, leading to the ability to successfully treat more people at home and avoid the need for transfer to hospital.

A new range of specialist drugs will be required to facilitate the HEMS team and we are working with the Department of Health to gain the necessary licences to obtain and administer these items. We are also reviewing the type of gas cylinders carried by our crews and vehicles in order to increase efficiency through swapping to lightweight units which actually contain significantly more oxygen or nitrous oxide (analgesic gas), meaning fewer cylinders are needed.

Transforming the Culture

NIAS will make achieving high quality the top priority at all levels in health and social care. We will promote and encourage partnerships between staff, patients, clients and carers to support decision making.

Patient and Client Experience & Personal and Public Involvement

Personal and Public Involvement (PPI), and Patient Client Experience (PCE), are two important factors that help to transform and improve the Trust's organisational culture. These are overseen by regular reporting to the Trust Board.

During 2016/17, under the Trust's Equality and PPI Steering Group and staff Equality Forum, work commenced on reviewing PPI structures, systems, strategy and outcomes. The purpose of this review is to improve existing mechanisms and ensure all Trust activity is delivering the PHA's PPI standards.

As a regional partner, NIAS participated in a range of work which is closely integrated with the Trust's equality action plan, including the Public Health Agency's Regional Personal and Public Involvement Forum.

NIAS Equality, PPI and PCE team also contributed to a regional project on e-learning for HSC staff, to improve staff knowledge and awareness of relevant public duties.

PPI and PCE work was used to assist the Trust's ongoing transformation and modernisation programme. For example, transformational improvement and related equality advice was driven through a range of methods, including taking account of public engagements and feedback. This included the following engagements:

- Disability Action's Exhibition - 3 and 4 June 2016
- A series of shopping centre visits in Belfast and Bangor in October 2016
- Presentation to Northern HSC Trust's Older People's Panel in Ballymena to raise awareness of and seek views on Appropriate Care Pathways, particularly those which might affect older people – 25 January 2017
- Older People's Conference in Craigavon - 15 March 2017
- Park Centre shopping centre – 16 March 2017
- Presentation on changes to the Ambulance Service to South Eastern Trust's Profoundly Deaf Service User Group, Bangor - 31 March 2017

Paramedic David Heatley speaks to service users at the Disability Exhibition, June 2016

Staff demonstrate our services to members of the public, Belfast, October 2016

Ciaran McKenna, Clinical Service Improvement Lead, discusses changes to our services at Northern Trust's Older People's Panel, Ballymena, January 2017

Patient Client Experience

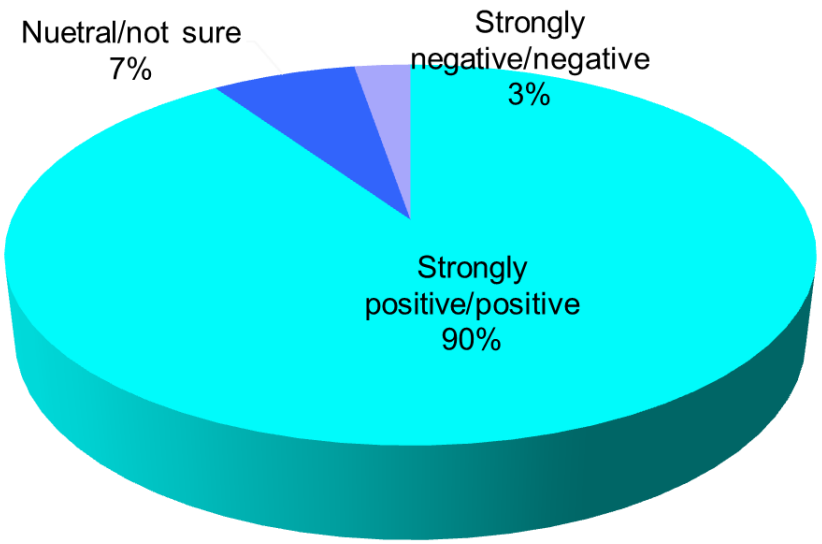
NIAS remains committed to complying with the Department's standards for improving PCE and enhancing the quality of care it delivers through continuous learning and changing practice where required. The Trust continued to implement the regional methodology on the five PCE standards (respect, attitude, behaviour, communication, and privacy and dignity). NIAS worked with other Health and Social Care organisations to implement systems to assess PCE including undertaking surveys, completion of observations of practice and gathering patient stories as part of the 10,000 Voices project.

The Trust analysed patient experience information in conjunction with an analysis of complaints to identify where we can make improvements. Results from this work have generally been positive. Where the potential for improvement has been identified, NIAS took remedial action through training, review of policies or individual engagement with staff. Learning for improvement is not restricted to where things have gone wrong; we have also learned from positive experiences, sharing best practice where appropriate.

10,000 Voices

With support from the Public Health Agency, the Trust continued to promote the regional 10,000 Voices project by gathering more patient stories, reviewing progress and learning from results with service users and collecting over 300 stories about patients' experiences of using our services. The vast majority (90%) of patient stories received so far have been positive and reflect a high degree of satisfaction in terms of compliance with the patient experience standards.

Nature of Patients' Experiences:



Source: NIAS 10,000 Voices Survey

Further work was undertaken to use 10,000 Voices as a learning and engagement tool for the Transformation and Modernisation Programme's Appropriate Care Pathways (ACPs), including a pilot of a separate survey on ACPs.

A service user workshop on the results of 10,000 Voices was held on 13 April 2017. The aim was to review the themes emerging from patient stories collected with the Public Health Agency and service users.

All stories collected through 10,000 Voices were shared with Trust Board. The Trust continues to collect patient stories and work with the PHA and service users on the evaluation of the stories in order to ensure learning from 10,000 Voices leads to improved services.

Public Involvement

It is always difficult for ambulance services to directly engage our previous patients as historically our partnership ended once they were admitted to hospital. However, patients are now making their voices heard by providing their experience as a client of our services through working on consultation groups relating to areas such as cardiac care, provision of stroke services and our provision for patients suffering acute mental health crises.

Time for change

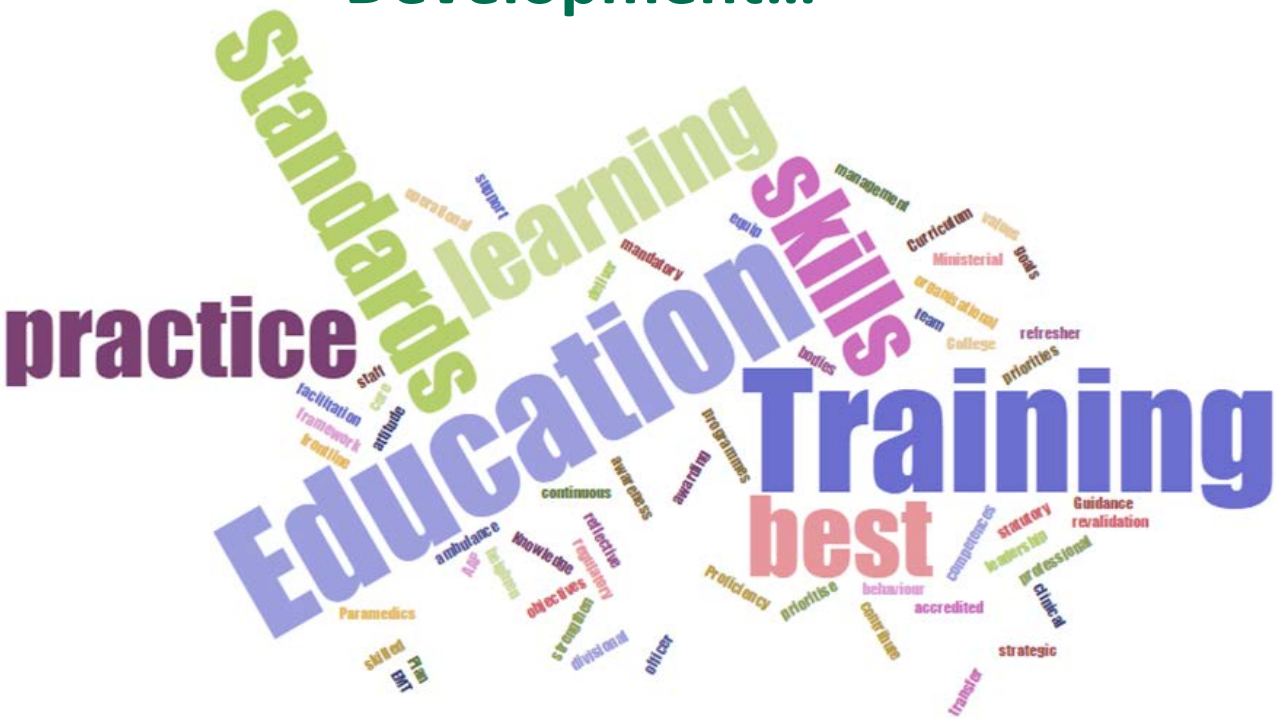
As many of our services are modernising, we undertook the opportunity to consult widely on a new style of uniform for all of our staff, and in September we adopted a fresh new look for our crews, switching from the royal blue uniform which we have used since 1995…

…to a new green outfit for all staff in keeping with the kit used by other UK ambulance services.

Strengthening the Workforce

NIAS will provide the right education, training and support to deliver a high quality service. We will develop leadership skills at all levels and empower staff to take decisions and make changes.

"Education, Learning and Development…"



The strategic objective for Education, Learning and Development (ELD) is to build and maintain a high performing, appropriately skilled and educated workforce, suitably equipped and fit for the purpose of delivering safe, high Ambulance Training Centre (RATC). The main means for delivery of ELD initiatives is the Regional Ambulance Training Centre (RATC). The RATC produces and delivers a comprehensive annual ELD plan which supports Trust priorities, modernisation and reform programme and shaping and developing the workforce.

Key Performance Indicators 2016—2017

Maintaining a competent and professional workforce to enable staff to deliver optimum patient safety and care through the promotion of a life-long learning culture and delivery of effective Education, Training and Development programmes

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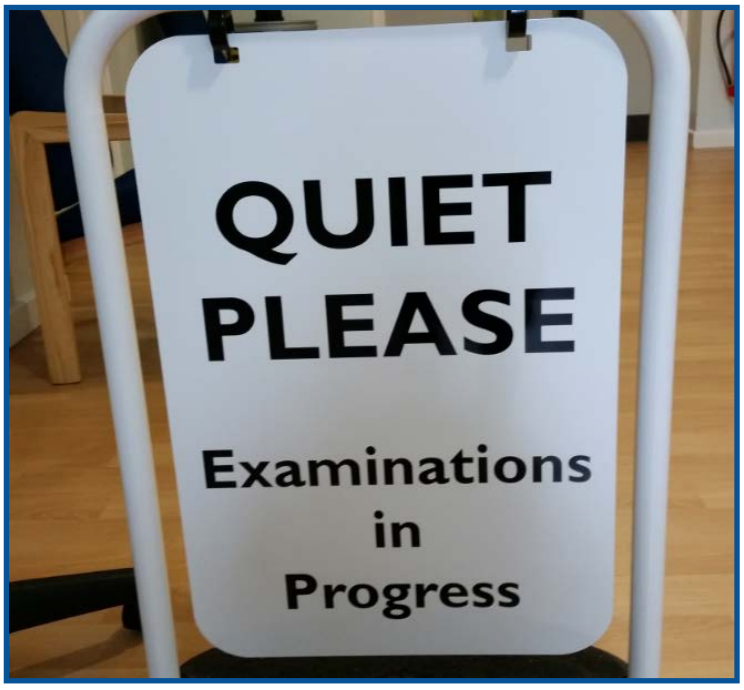
Modernising Education, Training and Development, seeking new and innovative ways for staff to learn, ensuring reflective practice and transfer of learning.



"The Regional Ambulance Training Centre was approved as a centre for delivery of new accredited regulated qualifications by awarding body FutureQuals"

FutureQuals™
INSPIRING LEARNING AND SKILLS

2016-17 was again another particularly busy year for the Regional Ambulance Training Centre (RATC). The primary focus remained on clinical priorities and work continued from the previous year to provide training aligned with recruitment to assist in stabilising the workforce. The delivery of an Emergency Medical Technician (EMT) programme in Quarter 1 and two Ambulance Care Attendant (ACA) programmes (Q1 and Q2) added newly trained personnel to the Emergency and Non-emergency workforce.

AAP Cohort One with course tutors including Mickey Hughes who passed away recently and is a great loss to the organisation and the Training Department in particular.

A significant event in the year was the cessation of the traditional EMT and Paramedic training options with the withdrawal of the Institute of Health and Care Development (IHCD) Ambulance programmes. This led to a major piece of work for RATC to develop a replacement EMT and associated driving programmes. This was achieved with the approval of RATC by awarding body FutureQuals as a centre for delivery of new accredited, regulated qualifications. In Quarter 3 delivery of the new programmes commenced with the first cohort of students undertaking the Level 2 Award in Ambulance Driving and Level 3 Certificate in Emergency Response Ambulance Driving. This was followed by the commencement of the programme for Level 4 Diploma for Associate Ambulance Practitioners (AAP). The AAP programme prepares recruits to work as an EMT and subsequent to the classroom element of the course, qualification is gained after 750 hours of workplace practice placement. The first students enter practice placement in April 2017.

A second major development was the initiation of a Pre-Registration Paramedic Education Project which has been established in recognition of recent and emerging developments within the Paramedic profession across the UK. Key deliverables of this ongoing project include scoping out options and recommending a way forward for the current and future provision of Under-Graduate Paramedic Education to meet the needs of NIAS and the wider HSC arena, and the development of a formal Clinical Supervision Strategy.

ACA Cohort 2

The RATC's Clinical Training Officers and Clinical Support Officers, supported by the RATC Admin team continue to deliver a variety of education and training in addition to clinical support to frontline staff, assisting in clinical governance and the quality improvement (QI) programme.

A programme of post qualification (commonly referred to as PP) training and development was delivered to frontline operational staff. For the Emergency tier, this included Transformation and Modernisation subject content aimed at the use of Appropriate Care Pathways.

New initiatives included the establishment of a small ELD team to develop a clinical decision-making seminar which they delivered to all paramedics between January and March. Members of the training team also completed a university module in Patient Assessment & Clinical Reasoning (PACR). Both of these initiatives received very positive feedback from all who attended.

Raising the Standards

NIAS will establish a framework of a clear evidence based standards and best practice guidance. We will establish dynamic partnerships between service users, commissioners and providers to develop, monitor and review.

Paramedic Pre-Registration Education & Clinical Supervision Project

The Trust's PPRE&CS Project was established in November 2016 to deliver two key developments, a new Paramedic Pre-Registration Education programme and a formal Post-Registration Clinical Supervision model.

Phase one is well underway, with a tender in development to engage a Higher Education Institution to work in partnership with the Trust's Clinical Education Team to develop the new programme, accredit the qualification as a Diploma of Higher Education in Paramedic Practice and to seek joint approval for the programme by the Health & Care Professions Council. The Trust anticipates the qualification will take approximately two years to complete and will include a fast-track route for existing Emergency Medical Technicians wishing to apply to become a Paramedic.

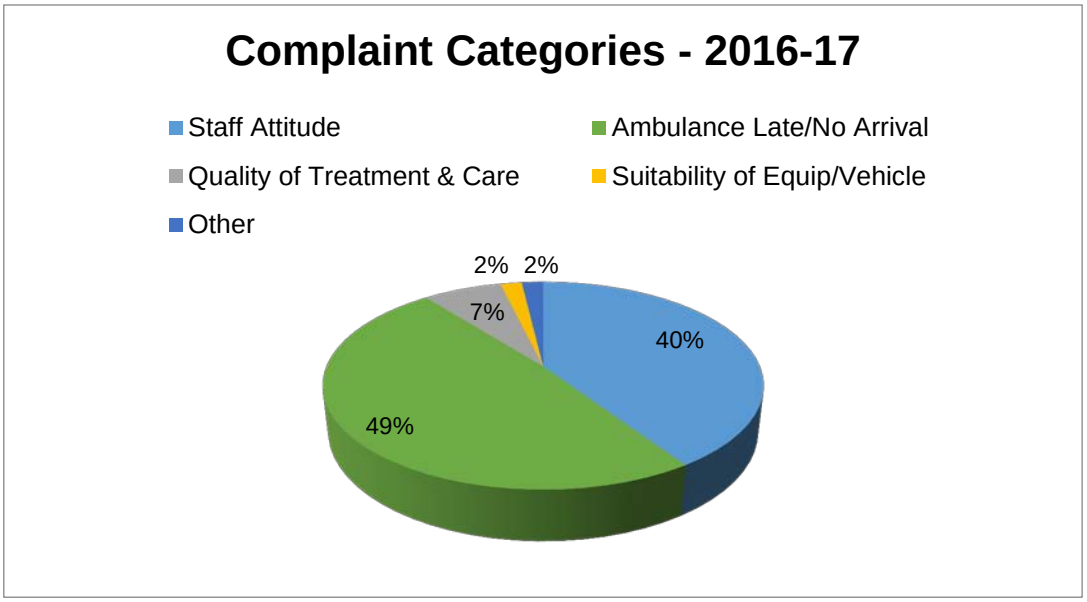
Phase two, the development of a formal post-registration clinical supervision model in line with the Clinical Supervision Strategy for Allied Health Professionals (AHPs) in Northern
Ireland (NI), will commence in September 2017.

These are two very exciting developments that will bring Paramedic pre-registration education into the higher education arena for the first time in NI and will lead to all post-registration Paramedics within the Trust, regardless of job title, being on a par with AHPs across the Health & Social Care arena in terms of the introduction of a formal clinical supervision model.

In the patient-centred environment of the NIAS Trust, patients are encouraged to express their views about the treatment and services that they receive. NIAS operates the Department of Health (DoH) Complaints Policy and Procedure. Through this the Trust works to ensure a robust investigation of complaints received within specified agreed timescales as per the regional guidance. NIAS will continue to welcome and encourage complaints as the associated learning outcomes are a key element to; the Trust is committed to ensuring that learning is fed into quality improvement so we can utilise feedback effectively to improve the quality of our services and prevent a recurrence of factors giving rise to a concern or complaint. Complaints with associated 'high risk' or 'opportunity' are fed into the NIAS Learning Outcomes Group, which is responsible for developing a learning culture within the organisation and ensuring there is continuous quality improvement through sharing

and agreeing actions which will ensure maximum benefit of lessons learned across the NIAS Trust.

During 2016-17 we received a total of 164 complaints (representing just 0.05% of all calls). These were made up from the following areas:

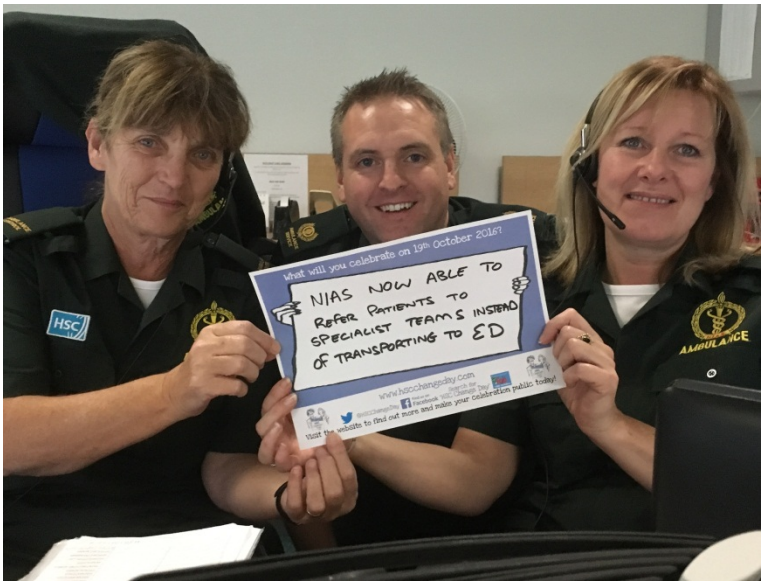


Regular reports in respect of complaints are sent to the Trusts Senior Executive Management Team (SEMT) and anonymised details of all complaints received are sent to Trust Board and also published on the NIAS website for public access.

During 2016-17 NIAS received a total of 174 complements from patients and service users. These are as equally important to the Trust and are a positive opportunity for learning and improving services. Compliments are available to view by members of the public on the NIAS website.

Integrating your Care

NIAS will develop integrated pathways of care for individuals. We will make better use of multidisciplinary team working and shared opportunities for learning and development in the HSC and with external providers.



Staff in Ambulance Control making their pledges as part of HSC Change Day.

Staff presenting a poster at the Delivering Safer Care Conference in Craigavon in March 2017.

The NIAS Transformation and Modernisation Programme has been in place since 14/15. This encompassed a range of projects including the NIAS Transforming Your Care project. Ten Appropriate Care Pathways were implemented by March 2016 to provide appropriate alternatives to hospital attendance and ambulance transportation, contributing to improved care for patients close to home. NIAS has worked closely with other Trusts and Integrated Care Partnerships on the development of Appropriate Care Pathways. By March 2017 a further two pathways

were implemented, a further one piloted and a significant programme of embedding and increasing usage of the pathways was implemented.

Internal Targets

There were no targets or deliverables set by HSCB for delivery in 16/17, however NIAS set three internal targets in line with the funding allocated by HSCB.

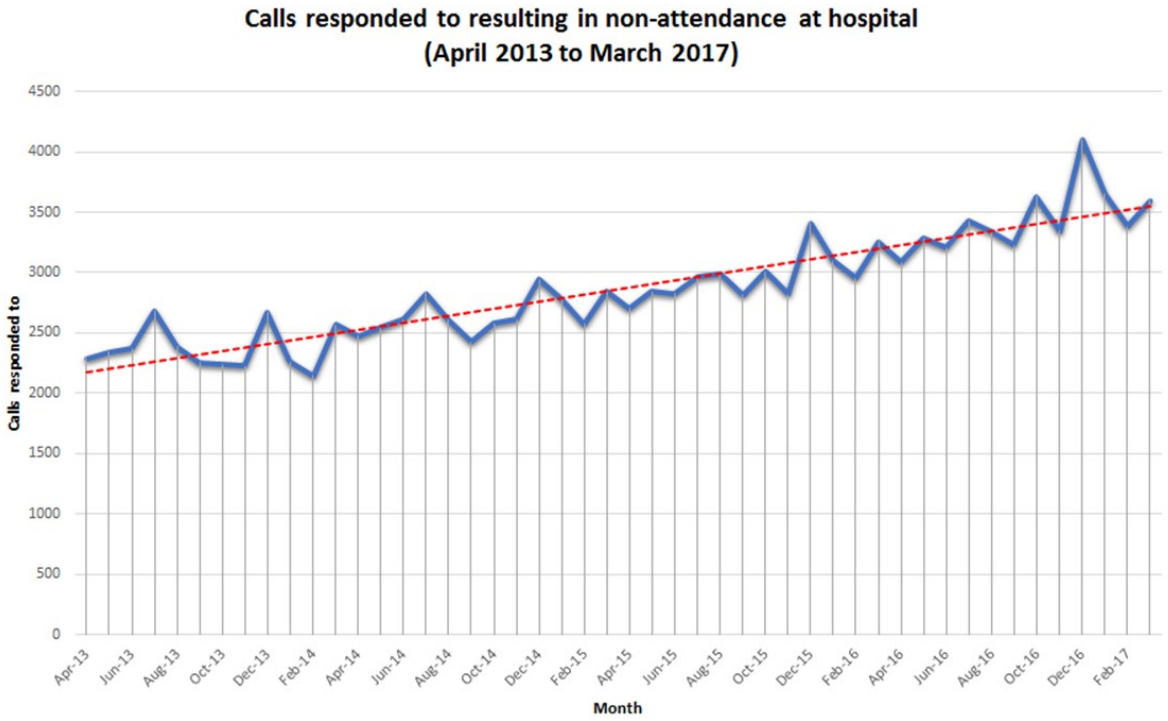
These were:

- In comparison to the 2013/14 baseline, increase Non-Conveyances to Emergency Department by 10,000 by end of March 2017

- Increase Usage of Appropriate Care Pathways by 20% and Alternative Destinations by 10%

- Increase Hear and Treat rate by 20% by the end of March 2017 with a 12% increase by end of July.

Outcomes



Reduction in Conveyances to Emergency Department by 10,000by end of March 2017

Total Reductions in Conveyances to ED in comparison with Pre-TYC baseline i.e. 2013/14, as at 31/03/2017	**14,698 ***
Full Year (12 Month) Target	**10,000**
Target Status	**Achieved**

Use of ACPs to Increase by 20% and Alternative Destinations by 10%

	Monthly Target Usage by March 2017	Mar 2017	Cumulative (Apr 16 - Mar 17)
ACPs	247	442 *	3,882 *
Alternative Destination	129	185 *	1,852 *

By end of March 2017 all pathways were regional apart from Falls and Minor Injuries in Belfast and the Alcohol Recovery Centre which is only available in the Belfast locality. During 16/17 **a Heart Failure** pathway was introduced in Belfast & Southern Trusts and a **Hyperglycaemia** pathway piloted in South-Eastern locality and is being evaluated in April 2017. A **Safeguarding** pathway was introduced regionally for

potentially vulnerable patients and has received very positive feedback with almost all referrals deemed appropriate from social care.

A comprehensive Embedding Programme was implemented with a model called 'Impact' which gave a focus on a particular pathway each month for six months of the year. In these months Breakfast clubs were organised with a focus on a particular topic, CPD was arranged, ride-alongs and ED information sessions from the Speciality teams from each ACP were held.

TYC - APPROPRIATE CARE PATHWAYS / REFERRALS MADE

April 2016 – March 2017	
Diabetes Treat and Leave / Refer	486
Falls Referral	1,091
Southern Trust Acute Care at Home Team *	49 *
South Eastern Trust Enhanced Care at Home Team *	10 *
Belfast Trust Acute Care at Home Team *	124 *
Palliative Care	53
Epilepsy	103
Respiratory	56
Community Nursing	155
GP Referral	1,755
Total	**3,882**

TYC – OTHER ASSOCIATED CARE PATHWAYS / STOP CODES

April 2016 – March 2017	
ACP Minor Injuries Referral	23
Assisted Not Conveyed	4,545
Own Transport To Emergency Department	1,019
Own Transport to In Hours GP Service	29
Own Transport to Out of Hours GP Service	23
Own Transport to Pharmacy	5
Total	**5,644**

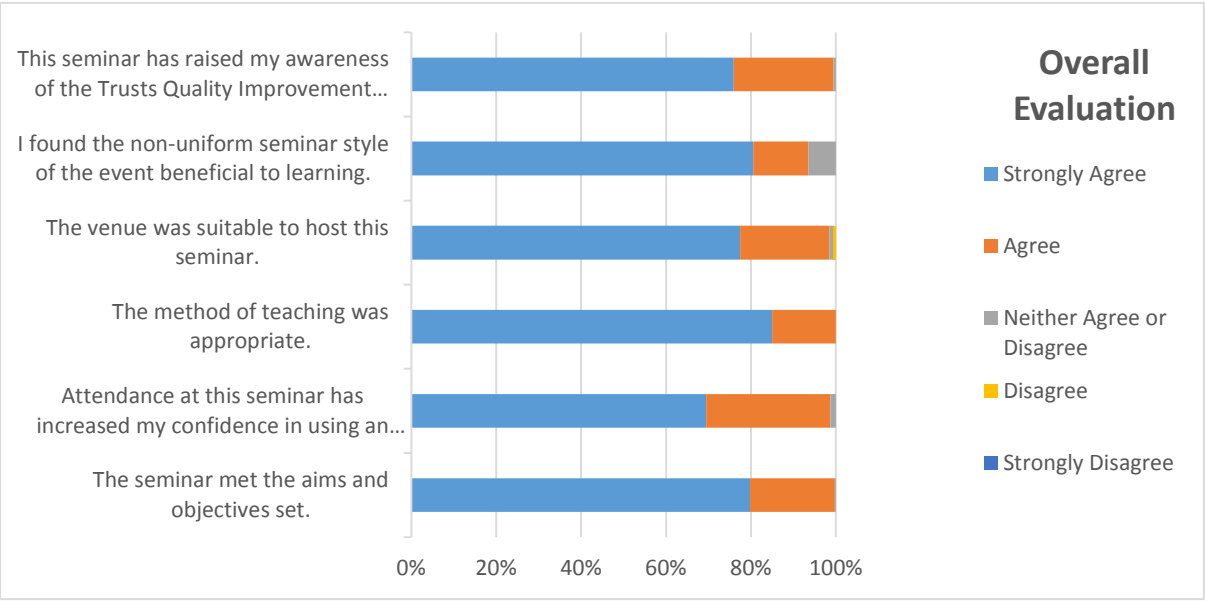
Hear and Treat rate to increase by 20% of eligible calls by the end of March 2017 with a 12% increase by end of July.

	Total Emg. Calls	Emg. Calls identified as eligible for NIAS GP	Actual eligible calls triaged by NIAS GP	% Downgraded ICV Suitable	% Calls resolved by providing Telephone advice with no face-to-face resource (i.e. Hear and Treat)	HCP Ringbacks	% Ambulance arrived before Triage Complete	NIAS GP on duty
Cumulative Total (Apr 16 – Mar 17)	211,800	24,442	7,504	27%	12%	12%	5%	53%

NIAS has operated a system of secondary medical triage for a number of years using doctors based in our control room, but we also aimed to introduce a Paramedic Clinical Support Desk staffed by paramedics who could engage with a wider range of acute emergencies as well as working with hospital units to identify which transfers were most critical at times of competing demand. The CSD was not progressed due to issues relating to agreeing a job description in partnership with NIAS staffside representatives.

In late 2016 a Contingency CSD plan was developed with support from the Director of Operations and Medical Director. This included enhancing performance management and audit of the GPs in Control, consideration of a further recruitment exercise, and changes to the triage system and call stack to make referrals to the GPs safer and managed more effectively. However the 'Hear and Treat' results did not improve due to the decreasing availability of GPs and other issues so the internal target was not achieved. It was agreed to continue to pursue the Paramedic Clinical Support Desk as the preferred option, with the aim of introducing this in the Autumn of 2017, and a range of actions were taken to resolve the outstanding issues resulting in staffside representatives ultimately re-engaging in the process in March 2017.

A new Clinical Decision-Making seminar was offered to all paramedics between January and March. The curriculum for this seminar was collated and delivered by a Training Officer, Jonny Noble, and 2 Clinical Support Officers, Davy McCartney and Mike Patton, funded by monies from TYC. The evaluations for this were overwhelmingly positive.


This seminar has raised my awareness of the Trusts Quality Improvement…
I found the non-uniform seminar style of the event beneficial to learning.
The venue was suitable to host this seminar.
The method of teaching was appropriate.
Attendance at this seminar has increased my confidence in using an…
The seminar met the aims and objectives set.
0%
20%
40%
60%
80%
100%
Overall Evaluation
Strongly Agree
Agree
Neither Agree or Disagree
Disagree
Strongly Disagree

Other Information

Maintaining relationships with all the providers of the ACPs is an important and growing service within NIAS. There are 40 different services to liaise with, queries to respond to, audit and review meetings etc. In 16/17 there were amendments made to Appropriate Care Pathways such as Falls and Acute Care at Home Services. Changes to consent for referral for Diabetes and Seizures pathways were implemented in line with NASMED guidance. There are ongoing meetings to scope new pathways in conjunction with ICPs, Trusts, PHA, HSCB and the Community/Voluntary sector.

The Transformation and Modernisation team made a wide range of presentations on the changing service delivery in NIAS: in Trust locality meetings, to GPs at Federation and Practice Based Learning sessions, at regional meetings and conferences and at the national Paramedic Conference.

As highlighted already, a comprehensive programme of education for Paramedics was commenced. In addition, members of the training team completed a university module in Patient Assessment and Clinical Reasoning funded by TYC. This will aid their support to frontline staff in clinical assessment relating to the Appropriate Care Pathways.

Other highlights from the Transforming Your Care and Transformation and Modernisation workstreams include:

- Development of the new pathways had a programme of comprehensive engagement built in. A range of meetings were held with Nursing home managers to explain the new pathways and discuss appropriate ambulance usage.

- As in previous years a suite of monthly reports were developed by the Information Department (utilising funding for a full-time postholder) as well as a wide range of adhoc reports to support the develop and evaluation of pathways and new in-reach work (such as presentations to Nursing Home managers etc).

- Initial evaluation of the new ACPs was a key impetus for the development and rollout of a new Quality Improvement Programme which has focused on the

use of Care Bundles and Clinical Performance Indicators with 5 clinical areas being focused on and staff given feedback as real-time as possible on the quality of their patient assessment.

- A Communications programme was implemented including use of social media, participation on local radio shows, community education events etc. A number of service user engagement events were held in October and November in the Kennedy and Bloomfield shopping centres. These events gave our staff the opportunity to speak to the public about the role of NIAS and specifically the Appropriate Care Pathways.

- A new Clinical Newsletter was developed which has been greeted favourably by operational staff and has been used to share good new stories and clinical education relating to the new pathways.

- In August 2016 the Adastra system (an IT system used by the Out of Hours GP service) was introduced in Emergency Ambulance Control to facilitate the referral of patients who contacted 999 but whose condition was assessed as being suitable to be dealt with by a GP i.e. did not require an emergency ambulance.

- Work continues with the HSCB to develop a regional Directory of Services to ensure NIAS has access to Trust based Care Pathways.

- Development of a Mobile App to support the Appropriate Care Pathways was approved in March 2017. This App will also contain the Clinical Practice Guidelines used by operational staff and should help support the clinical decision making of operational ambulance staff.

Feedback

A structure patient questionnaire was developed to evaluate patient experience of NIAS' Appropriate Care Pathways and to link these with outcomes for patients as agreed by the Medical Director. The survey took place between 17th October 2016 and 30th November. The process involved working with the relevant teams – Falls, Diabetes, COPD, Community Nursing, Minor Injury Units and asking patients when they make contact them if they would be willing to be contacted by NIAS by phone with a short survey. The results were almost all positive, with some examples given below:

HSC Staff Comments:

Do you have any further comments to describe the benefit of this referral pathway for this patient?

"Very positive experience with NIAS attending call with this gentleman. Had a raiser recliner insitu very quickly."
"Patient's daughter was given a key person to contact to benefit care."
"Patients will have an in-depth full multidisciplinary assessment."
"We have knowledge this patient is being followed up by other disciplines".
"This patient will now be seen at a level three clinic. To be seen by multidisplinary team."
"Patient received a comprehensive geriatric [medical] assessment which included a full functional and cognitive assessment from OT as well as Nursing, Medical and Physiotherapy assessment."
"Patient was given information and advice to help reduce the chance of falling. GP changing medication."

Patient Comments:

Do you have any comments you would like to add about your experience of being seen by the Ambulance service?

"Very pleasant and put Mr J at ease."
"Very quick to act and treat. Prompt service and arrival."
"Very quick."
"Patient stated couldn't get a better service. Very happy with contact/treatment and referral pathway."
"Very grateful for the referral and immediate action. The staff were lovely."
"Great procedure but not necessarily required as C has been bed bound since the fall and her GP organised admission to nursing home."

“M was very happy with her treatment and we grateful for the referral as she recognises she needs assurance.”
“Stated ambulance crew very helpful.”
“Patient unaware if falls team did anything for K but is extremely happy with the support given by GP and subsequent physio, OT and care package.”
“Very satisfied with the overall service.”
“Very grateful for the referral and the immediate action. The staff [were] lovely.”

Clinical Performance Indicators: Quality Improvement in NIAS

HSC Safety Forum
Promoting shared learning and leadership

Northern Ireland Project ECHO

The performance of Ambulance Services in the UK has traditionally been monitored by response times for emergency calls rather than assessing the quality of care delivered to patients. This situation has been changing over the past few years with more and more emphasis on ensuring that the people we help receive a consistently high standard of treatment, and in order to maintain this we constantly monitor multiple clinical parameters on the frontline. The NIAS Quality Improvement Programme has this year focused on further the use of Clinical Performance Indicators. This work was led by Clinical Support Officers, the Clinical Training Manager, Training Officers and the Transformation & Modernisation team.

A small group linked in for regular teaching and mentorship with staff from the HSC Safety Forum using Project Echo and video-conferencing to share in learning with other clinical teams across NI.

Clinical Performance Indicators:

Historically clinical feedback to staff was given via Observational ‘ride-alongs’ by Clinical Support Officers (CSOs) and the random audit of patient records, focusing on completion of key fields rather than clinical assessment. Clinical Performance Indicators for cardiac and stroke care were analysed by Clinical Audit team, but this process could take up to 6 months to complete.

The area of initial focus for the NIAS Quality Improvement Programme in NIAS has been introducing a new process for reviewing a summary of our Clinical Performance Indicators in ‘real-time’ by CSOs reviewing 7 PRFs per month per station across 5 clinical categories. The aim to give staff feedback on their clinical assessment of the patient within a few days where possible. This will support evaluation of usage of the Appropriate Care Pathways.

Five areas of clinical practice currently fall under the QI programme, they are:

- Stroke
- Acute Cardiac Syndrome
- Cardiac Arrest
- Falls
- Hypoglycaemia

Each area has an associated "care bundle". Care bundles are collections of interventions that when delivered together, result in better patient outcomes than when implemented individually. They are being used increasingly within healthcare to set standards for the delivery of care, performance reporting, and commissioning of services.

A care bundle is distinct in several ways from just any checklist about patients' care. The elements in a bundle are best practices based on evidence, and all clinicians should know them. In routine clinical practice, these elements may not always be done in the same way, making patient care vary. A bundle, therefore, aims to tie them together into a cohesive unit that must be adhered to for every patient, every time.

Stroke Care Bundle

- Time of onset of symptoms
- FAST recorded
- Blood glucose recorded
- Blood pressure recorded
- Standby placed to a stroke centre

ACS Care Bundle

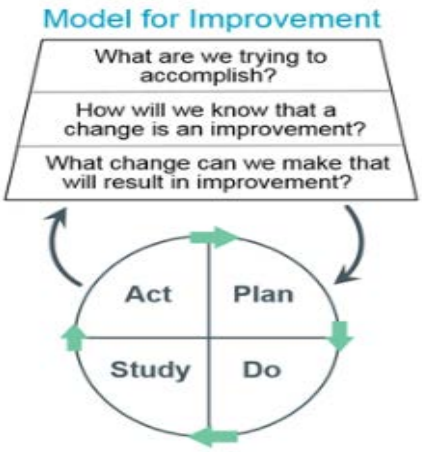
- Two timed sets of basic observations
- Pre AND post treatment pain scores recorded
- Aspirin administered as per JRCALC guidance
- GTN administered as per JRCALC guidance
- Appropriate analgesia administered e.g. Entonox / morphine
- 12 Lead ECG recorded and interpreted
- Patients with a confirmed STEMI transported direct to cath lab

Cardiac Arrest Care Bundle

- History of event documented
- Was "arrest witnessed" documented?
- Bystander CPR recorded
- Public access defibrillator used
- Presenting rhythm recorded
- NIAS resuscitation attempt recorded
- Defibrillation recorded for shockable rhythms
- Advanced airway management
- Intravenous / intraosseous access attempted
- ETCO2 recorded
- ROSC at hospital recorded
- ROLE recorded
- Standby recorded

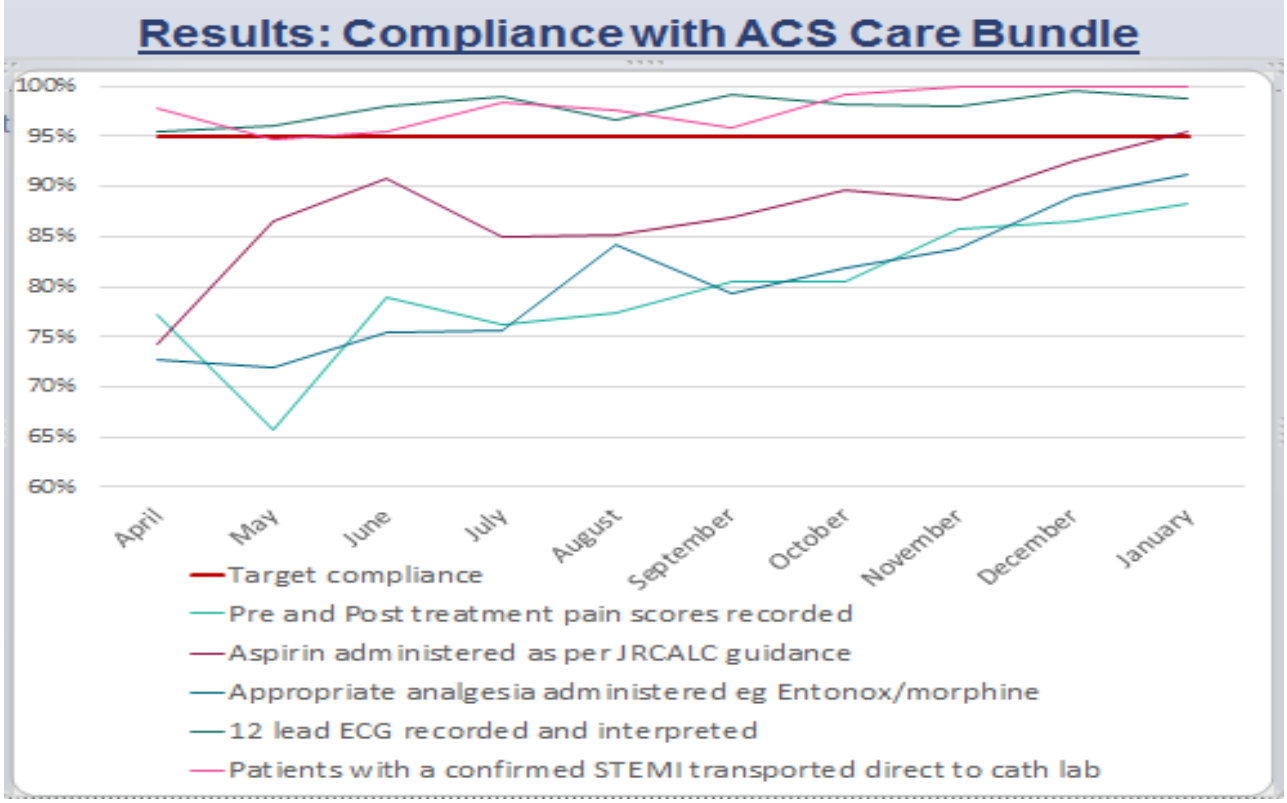
Methodology:

Institute for Healthcare Improvement methodology has been used to carry out tests of change across the 5 clinical categories currently being monitored.



Compliance with ACS Care Bundle

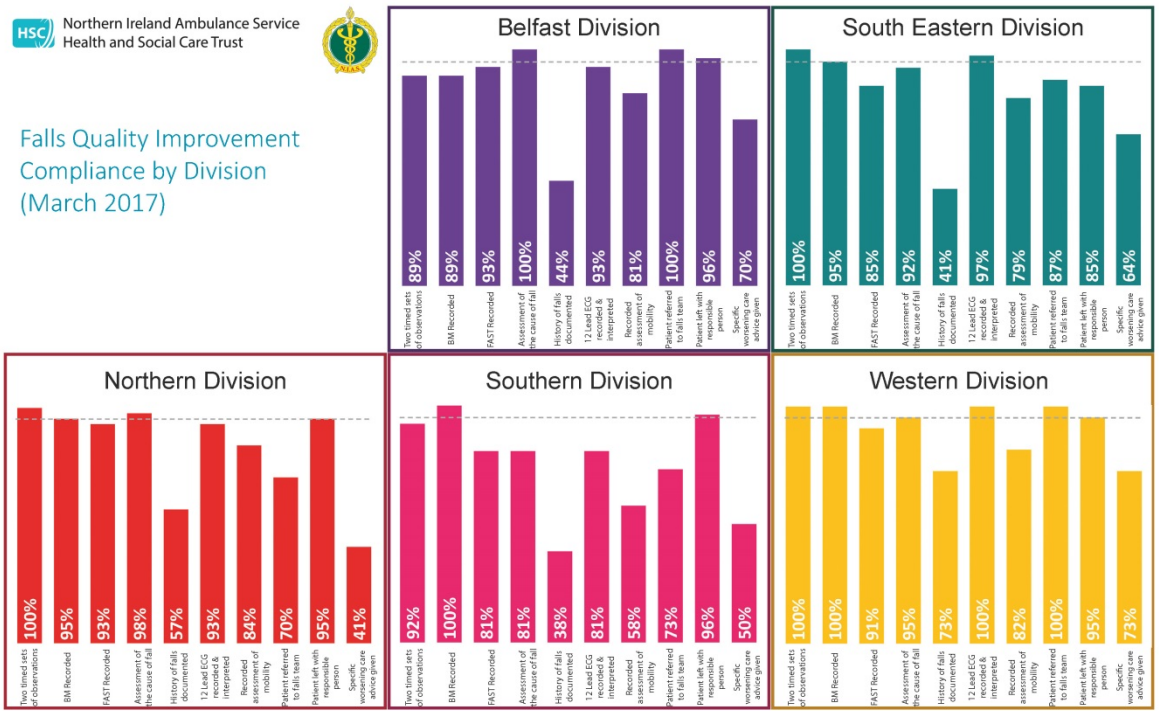
Earlier in the report we touched on how we strive to deliver high quality care to patients with cardiac conditions, but reaching this standard takes much time and effort. The care we are striving for is based on sound medical evidence which we use to define what our clinical staff should provide to patients. Over time we use feedback to staff to gradually improve compliance with level of care expected



A range of tests of change were carried out to improve compliance. A focus group was held in Magherafelt station to identify some of the key issues impacting compliance. These included breakfast clubs, a Care Bundle leaflet and stickers placed on the drug cabinet in the Ambulance, as a ‘topic of conversation’ to remind staff.

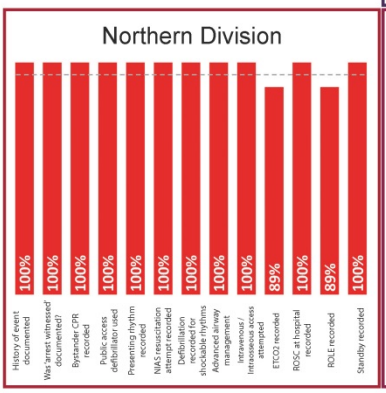
Clinical Performance Indicators

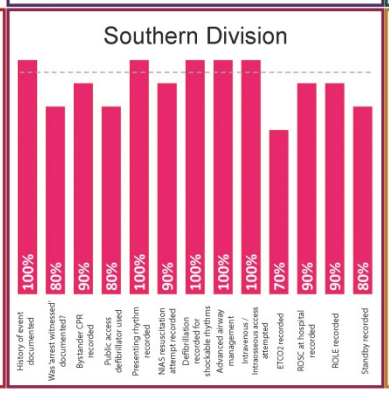
Clinical Performance Indicators are now being reported on every month with the goal of 7 per category per station per month (unless there are not 7 of these type of calls). The number of PRFs have reduced due to competing pressures, but the results for March 2017 are reported on below.

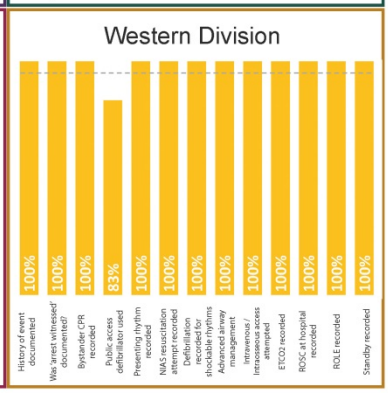


Northern Ireland Ambulance Service
Health and Social Care Trust

Cardiac Quality Improvement Compliance by Division (March 2017)

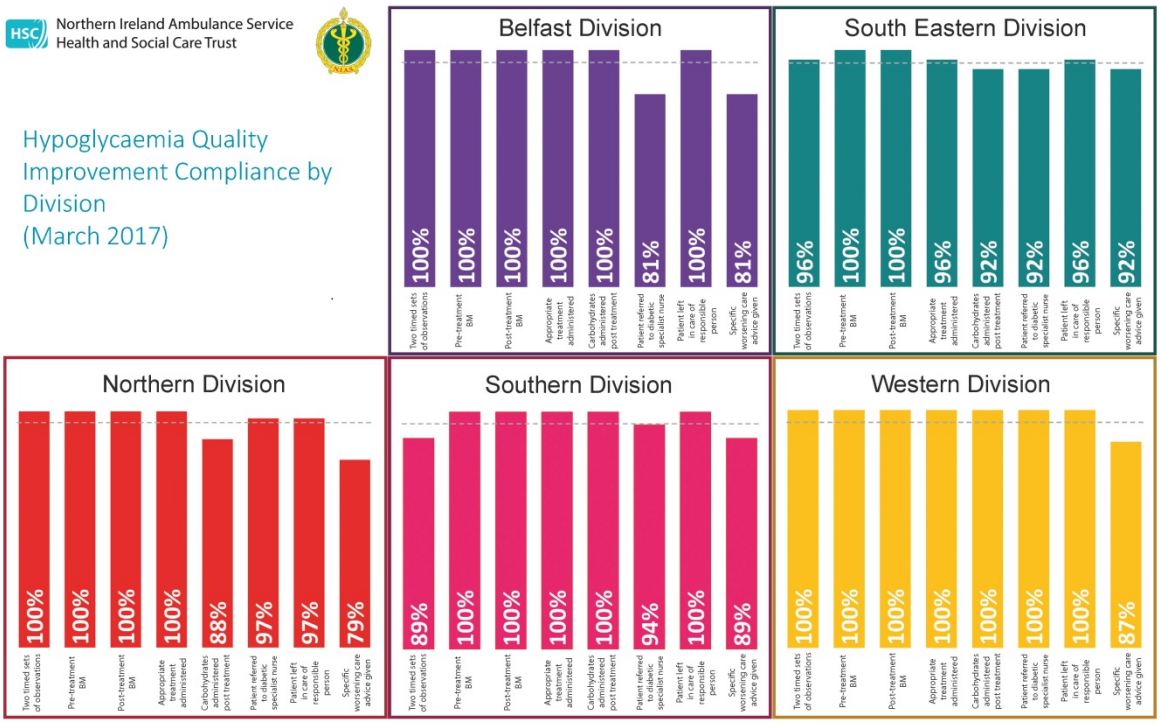






Northern Ireland Ambulance Service
Health and Social Care Trust

Hypoglycaemia Quality Improvement Compliance by Division (March 2017)



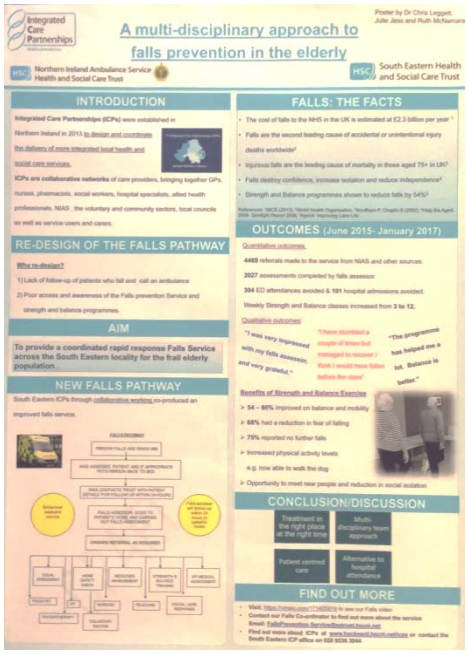
For further information on the QI process, please contact your CSO.

Northern Ireland Ambulance Service
Health and Social Care Trust

Stroke Quality Improvement Compliance by Division (March 2017)

Our Transformation and Organisational Change Programme Manager is a member of the Health Foundation funded “Q community” and has set up a special interest Ambulance Quality Improvement Group. This has attracted interested throughout the UK and the United States, and there have been a range of calls to share learning of Quality Improvement work in a number of Ambulance Services.

NIAS staff on a Q teleconference learning session with ambulance colleagues across the globe who are interested in Quality Improvement.



The referral of patients who have suffered falls to specialist follow-up services continues to be one of the most successful ACPs. NIAS have strong relationships with all the Trusts and Area Manager Ruth McNamara was asked to co-present at the 2017 International Conference for Integrated Care along with Dr Leggett and Julie Jess from the South Eastern Trust.

Clinical Education Courses

To support all frontline staff in the use of Appropriate Care Pathways, NIAS in collaboration with the CEC offered a suite of courses to all frontline staff in a range of venues across NI. Over 600 spaces were made available and courses included:

- Advanced Cardiac Rhythm Interpretation
- Bereavement Grief and Loss
- Delirium Awareness Session
- Epilepsy Management & Administration of Buccal Midazolam
- Heart and Lungs Sounds
- Record Keeping
- Safeguarding Adults
- Safeguarding Children