North East Ambulance Service NHS
NHS Foundation Trust

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Private and Confidential

03 MAY 2016

Claire Bailey
Acting Senior Coroner
Her Majesty's Coroner for Teesside
The Coroner's Service
Middlesbrough Town Hall
Albert Road
Middlesbrough
TS1 2QJ

27th April 2016

Dear Ms Bailey

Inquest into the death of Mandeep Singh

Regulation 28: Report to Prevent Future Deaths

We are writing further to your letter of 23 March 2016 enclosing a Regulation 28 report to prevent future deaths which you issued following the Inquest into the death of Madeep Singh which was held on 18 March 2016.

The matters of concern highlighted in your report are:

"A root cause analysis comprehensive and independent investigation report undertaken by the North East Ambulance Service discloses that the reason for the delay of the ambulance arrival include severe demand and shortages in the division. Road closures and diversions did not assist the crews."

North East Ambulance Service NHS Foundation Trust ("the Trust") is disappointed to have received a Regulation 28 report having not been called to provide evidence at the Inquest. At the Inquest the Trust would have been able to provide details of the current issues affecting the Trust in relation to staff shortages and to provide updates of the numerous steps which the Trust are taking to increase ambulance and paramedic resources in an attempt to alleviate, as far as is reasonably practicable, delays in Trust services attending on patients calling the Trust for assistance. We will address each point you have raised in your matters of concern below:

Severe demand

The Trust is limited in ways in which it can control the calls made to it and the demand on its services. However, the Trust has undertaken initiatives to seek to educate both the public in relation to the appropriateness of making calls and to work with colleagues in other sectors to try to reduce the demand on Trust services.

In relation to members of the public the Trust has done extensive advertising including placing signs on the side of its vehicles highlighting whether calls to the ambulance services are really necessary or whether other agencies could assist.

The Trust has also carried out demand reduction work looking at how to reduce the number of red calls made by looking at the appropriateness of those red calls.

The Trust has worked with colleagues in relation to demand reduction. The Trust has worked with health colleagues for example GP's, to ascertain whether requests for ambulance transfers can be reduced.

The Trust has also worked with the police to see if any reduction in ambulances requested by the police can be effected.

In January 2016, the Trust commenced a new six-month trial scheme with the four Fire and Rescue Services based in the region. This includes Cleveland Fire Brigade, County Durham and Darlington Fire and Rescue Service, Northumberland Fire and Rescue Service and Tyne and Wear Fire and Rescue Service.

During this innovative trial, an Emergency Medical Responder (EMR) will be dispatched at the same time as an ambulance. The Trusts ambition for this trial is to improve the survival rate for those people who suffer from a life-threatening illness or injury in the community. The location of EMR's within local communities could mean they are nearer to the scene and can deliver lifesaving care in those first critical minutes of the emergency until an ambulance clinician arrives, enhancing the usual emergency medical response from NEAS.

During the trial, Emergency Medical Response Units, in the form of fire appliances, will deliver emergency medical services when requested by NEAS. The emergency medical services included may involve attending calls where people are suffering from chest pain, difficulty in breathing, cardiac arrest and unconsciousness not due to trauma.

Emergency Medical Responders have been trained to enhance their existing medical care knowledge, including basic life support by managing a patient's airway, giving oxygen therapy, including assisted ventilation, delivering cardio-pulmonary resuscitation (CPR) and defibrillation using a semi-automatic AED and controlling blood loss.

The EMR's are equipped with a kit which includes oxygen and an automated external defibrillator (AED) to help patients in a medical emergency such as a heart attack, collapse or breathing difficulties.

Finally the Trust has worked in partnership with Durham Constabulary and County Durham and Darlington Fire and Rescue Service to introduce the region's first tri-responders working for police, fire and ambulance. The Community First Responders work for Durham Constabulary as PCSOs, County Durham and Darlington Fire and Rescue Service as retained firefighters and as first responders for the NEAS.

It is believed to be only the second project of its kind in the country and was part funded through the national Police Innovation Fund.

The scheme is designed to increase collaboration between the three services and allow efficiencies without reducing frontline services.

Shortages in the division

Background

By way of background, there remains a shortage of individuals entering the paramedic profession. This has been the case for some time and is a national issue, which is not exclusive to the North East of England. However, this issue was particularly acute in the North East, where the turnover rate for paramedic staff has increased progressively over the last few years due to a number of factors, including the pressure of increased workload. In light of this, attrition rates for paramedics were high, with more staff leaving the service, whether by way of retirement or to pursue alternative career paths, than the number of staff who could be recruited to fill those vacancies. The Migration Advisory Committee had previously reported that there was a national shortage of individuals entering the paramedic profession.

[redacted] Managing Director of the Association of Ambulance Chief Executives has been previously quoted in the media as stating that: "*the national shortage of paramedics is affecting all Trusts and the Association of Ambulance Chief Executives is working closely with Health Education England to improve the situation. Ambulance Trusts are also having to think of ever more creative ways to recruit to vacant posts*".

On a similar note, an article from the Health Service Journal, dated 20 May 2015, considered the impact of paramedic resource attrition. This confirmed the problem with front line staff having left ambulance trusts across the country. It indicated that the figures had almost doubled in the past 5 years and that there was evidence that emergency staff were leaving in increasing numbers. The article specifically noted that the number of front line staff leaving ambulance services increased from 626 in 2010 - 2011 to 1,223 in 2014 - 2015. Furthermore, the article highlighted that these numbers did not include staff who had died, reached retirement age or explicitly told their employer trusts that they were resigning because of personal circumstances. [redacted] noted in this article that paramedics were an: "*increasingly valuable resource*". [redacted] further indicated that there were now more opportunities for paramedics to pursue careers in alternate areas of the health sector, both in the public NHS sphere and in the private sector. This included individuals who were qualified as paramedics opting to work in Accident & Emergency Departments, Urgent Care Centres, the NHS 111 service (formerly NHS Direct) and in Government roles.

The above noted article continued by explaining that Health Education England had increased the number of training places for paramedics by 44% in its 2015 - 2016 national workforce plan. We will set out below the steps the Trust have taken and continue to take in order to deal with the delays in paramedics qualifying following university education and training. Notwithstanding this, the Health Service Journal did note that the additional commissions from Health Education England would not produce qualified paramedics until 2016-2017, with national forecasts suggesting a potential gap between demand and supply. In light of this, Health Education England recommended that paramedics were placed on the Government's shortage occupational list.

Monitor publish quarterly performance reports, in respect of NHS Foundation Trusts. Monitor is the national regulator for NHS Foundation Trusts. These reports detail ambulance response times. The most recent report issued in February 2016 highlights that demand for ambulance services also rose. Time critical (Category A Red 1) and life threatening (Category A Red 2) calls increased by 1.43% and 4.7% respectively. Ambulance services failed to achieve all key response time targets against Red 1, Red 2 and Category A calls.

The report goes on to highlight that the national standard sets out that 7% of time critical and life threatening Category A (i.e. Red 1 and Red 2) calls should receive an emergency response within eight minutes, and 95% of all Category A calls should receive an emergency response within 19 minutes. For the second consecutive quarter, ambulance services failed Red 1, Red 2 and Category A response time targets with performances of 72.61%, 67.76% and 92.71% respectively. During Q3 2015/16, only 2 of the 11 ambulance services achieved the Red 1 and Red 2 standards and three achieved the Category A standard. NEAS was not within this group.

Ambulance services saw a rise in time critical and life threatening calls during the quarter. Circa 45,500 Red 1 calls were responded to by ambulance services, an increase of 1.43% from Q3 2014/15. The number of Red 2 calls also saw a 4.7% increase compared to the same period last year. In total, ambulance services responded to 825,000 Red 2 calls.

The Trust's overall performance for Red calls (which is made up of both Red 1 and Red 2 dispositions) was 68.58% for 2015 - 2016, which is below the national target.

In order to seek to address this shortfall, the Trust has been following an Emergency Care Workforce Plan. This Workforce Plan has always existed however, given the increase in attrition of staff, a Task and Finish Group was established in October 2014, in order to ensure that the Trust is employing as many strategies as possible to increase emergency workforce numbers. This includes a two-year programme designed to increase the number of paramedics employed by the Trust and involves various initiatives which are aimed at tackling the problem of paramedic attrition. We will explain in greater detail below the specific steps which the Trust is taking pursuant to the Workforce Plan to address resource and recruitment issues. It was previously hoped that the process to address the current shortfall in paramedics would be fully addressed by September 2016. While the Trust has made considerable advances in improving its paramedic resource base, it has encountered challenges, primarily the fact that all ambulance services are seeking to recruit the same individuals. As such, the Trust hope that with the various ongoing measures and strategies in place, this process will be complete by around March 2017.

Before going on to explain the Workforce Plan in greater detail, it should be noted that one major issue which has for some time been impacting on Trust ambulance resource availability, (both in the North East and more widely across the country), and is continuing to have an adverse impact with respect to paramedic resources arriving to treat patients in a timely fashion, is ambulances having to queue at Accident and Emergency Departments for excessive periods of time in order to hand patients over to hospital clinicians. As noted, this is a national issue and has been reported in both the local and national media on a regular basis. Such delays have a major impact on the Trust's vehicle and paramedic resources, which are available to attend to emergency calls. We therefore also set out below details of certain measures which the Trust has been taking for some time, in conjunction with local hospitals in the region, to attempt to address this issue.

In addition to the issues raised above, the Trust also experiences the usual resource pressures faced by any large organisation, including absence due to sickness, maternity/paternity leave, career breaks and secondments, as well as staff operating on only fixed term contracts. We will set out in further detail below the steps which the Trust has been actively taking in order to address these additional pressures, with the aim of improving paramedic resource availability and avoiding delays in ambulances arriving to attend on patients.

A final issue which has had a major impact on ambulance resource availability is the fact that the number of calls classified as Red (life threatening) incidents has been increasing over the last few years. This higher Red disposition rate is also having an effect on the Trust's response times to Green calls (30 minute – 1 hour responses), with patients waiting currently longer on average for an ambulance than was previously the case. For instance, in 2016, the rate of red calls has increased by 16% from 2015. Such delays by their very nature are resulting in an increased number of calls to the Trust's Contact Centre requesting an estimated time of arrival for an ambulance. This is also having a negative impact on Contact Centre call answering performance.

An estimated time of arrival (ETA) call is where a patient/caller has already telephoned for an ambulance, which has been dispatched, but then places an additional call in order to ascertain when the ambulance is likely to arrive.

Long-term Workforce Recruitment Plan

The Trust has been actively working to recruit more paramedics into the service in order to increase the resources it has available to respond to the higher volume of emergency calls which it is required to deal with in the present climate. The Trust has always had a workforce plan in place however new strategies have since been introduced after the Trust discovered in/around mid-2014 that more paramedics were leaving their employment than the numbers being recruited to fill vacancies.

At this stage, the Trust has recruited 104 student paramedics and 204 emergency care assistants since January 2014. In addition the Trust has planned to recruit an additional 40 student paramedics during 2016/2017. The Trust has also recruited 31.5 qualified paramedics and will continue to recruit in this role with a healthy pipeline. The emergency care assistants and technicians will support paramedics in attending emergency calls, including driving the ambulance and assisting with medical intervention, having been trained in basic life support.

At the same time, the Trust has been transferring advanced technicians to frontline operational roles in order to reduce frontline pressures for lead clinicians. 20 members of staff have so far agreed to this. Advanced technicians, like paramedics, are trained to deal with life threatening illnesses and injuries. They are therefore very experienced members of staff. However, paramedics are also trained to undertake invasive procedures which may need to be performed during the most serious medical emergencies, including intubation (where a tube is inserted into the windpipe to help a patient breathe) and cannulation (where a thin tube is inserted into a vein in order to introduce fluid and drugs as quickly as possible).

The Trust has also implemented a paramedic bank for recent leavers, whereby qualified paramedics who leave the Trust's employment, are asked whether they are interested in joining the Trust's paramedic bank. This is designed to increase the number of qualified paramedics available to fill vacant shifts. The Trust proceed to complete recruitment checks on these individuals and will provide updated training for ex-members of staff who join the paramedic bank. It was initially anticipated that these individuals would be available to undertake frontline clinical duties from around May 2015. Given the recruitment pressures which the Trust has faced, this was pushed back slightly, however the paramedic bank has been in place since around October/November 2015, therefore allowing cover for the winter pressure period.

Moreover, the Trust had also placed an advert for qualified paramedics in the periodical "Ambulance Life" which has an international reach and has been pursuing other international recruitment campaigns. This has resulted in the recruitment of 19 paramedics from Poland, with 4 individuals ready to commence front-line clinical roles and the remaining 15 currently being processed.

As noted above, one major issue faced by Ambulance Trust's nationally with respect to recruitment is the fact that all would-be paramedics have to undertake a 2 year training course at University, which effectively means that the Trust has to recruit 2 years in advance of employment commencement. As such, and in order to attempt to tackle the resource shortfall, the Trust has increased the number of places on its 2 year in-house graduate training programme from the usual 24 places to 48 places, with a two-stage intake in February and April. This results in the Trust having a year-end forecast number of student paramedics of approximately 100. The Trust have also visited universities in an attempt to recruit paramedics who are pursuing their studies but are not yet linked to a particular ambulance service upon qualification. An arrangement has also been negotiated with Sunderland University whereby they will train paramedics as and when requested by the Trust and not just in line with the academic year in order to help match our demand.

The Trust has consequently maximised its recruitment capacity for student paramedics in university training. In light of this, and with the increased numbers of student paramedics able to enrol onto the training programme, the Trust should increase its future paramedic resource baseline, whilst student paramedics are also able to gain invaluable work experience by working alongside qualified 'mentor' paramedics. Student paramedics will effectively be operating as emergency care assistants and are coupled with a fully qualified paramedic on a double crewed ambulance.

The Trust has also recruited a total of 56 Emergency Care Clinical Managers (ECCMs) who have been recruited from the current team leader pool. ECCMs manage the Trust's ambulance stations and ordinarily spend 90% of their time undertaking management/supervisory/governance work, with the remaining 10% on the front line. However, in order to help ease frontline pressures in the current climate, the ECCMs will spend 50% of their time working on the front line and will be able to cover a number of shifts.

In addition, the Trust has been looking to increase the number of PTS (Patient Transport Service) staff. A PTS member of staff transports patients to and from planned appointments at a range of healthcare providers. Our PTS staff are now fully integrated into the Trust's workforce system and are allocated jobs appropriate to their skill base. This should help free up the Trust's more experienced and qualified paramedics to deal with the most urgent emergency calls.

The Trust's emergency crews are required to work twelve hour shifts and as part of the European Working Time Directive, as well as pursuant to the Trust's role as a responsible employer, the Trust have to require staff to take rest periods. At such times, the crews are stood down and are not part of the planned response to emergency incidents, except in exceptional circumstances.

The question as to whether staff should be available to respond to calls during their statutory meal break has been debated extensively by the Association of Ambulance Chief Executives and with the Secretary of State for Health. We have held detailed discussions with other ambulance services about this issue also. The Trust have now proposed to the paramedic Unions that crews should be asked whether they will agree to cease their meal break in order to attend life threatening Red 1 (8 minute emergency response) calls. This proposal was initially rejected by the Unions. However, we have continued to seek the Unions' engagement on this issue and both Unison and GMB have since both agreed in principle for their members to be asked to volunteer to respond to R1 calls while they are on their break. The Trust is currently working through the details of this new arrangement and aim to have this in place during May 2016.

In addition, there was to be a change to the meal break policy across the Trust PTS team in order to enable staff to be able to take their meal breaks at locations away from their base stations and at other sites. Pursuant to the previous meal break policy, staff returned to their own base stations in order to have their compulsory meal break and were effectively unable to respond to any incoming calls during this period. The aim was therefore to reduce travelling time going to/from base stations and to improve resource allocation and utilisation of staff time by reducing travelling. Such changes were also intended to reduce vehicle usage, with less fuel and vehicle maintenance being required, therefore allowing the Trust to keep more vehicles on the road to attend emergency calls.

On a separate note, the Trust has been planning for some time to implement a new overtime policy which would see an increased number of paramedic resources being available across all shifts. This has taken a while to implement as a consequence of extensive negotiations with the Unions however the Trust anticipate such a policy being introduced very shortly.

In addition to those measures set out above, in the long term, the Trust has been looking to increase its own recruitment capacity, by employing more staff in recruitment, human resources and training roles. This will enable new staff to be recruited and trained in a timely manner in order to fill frontline vacancies. This remains the case.

Interim Operational Resource Availability Measures

The Trust have also implemented an interim Operational Recovery Action Plan, which focuses on short term solutions to deal with operational resource availability and is expected to increase the Trust's resources on a day to day basis by utilising third party providers to fill current vacancies. A number of initiatives have also been implemented to increase efficiencies within the emergency care system to improve response times to low priority calls (i.e. calls which are not categorised as a red '8 minute' emergency response).

Third party agencies on the Trust's local framework continue to be utilised on a daily basis in order to provide support and to assist with responding to G2 (30 minute) and low priority emergency and GP urgent calls, which are within their capability. Third party providers on the framework are trained to an equivalent level as a Trust Ambulance Technician or a Trust PTS Assistant. The Trust is still currently seeking qualified paramedics from third party providers as a further short term solution to increasing higher skilled operational roles whilst recruitment continues pursuant to the above mentioned Workforce Plan. Using the Trust's local third party framework, an agreement has been reached where our third party partners can be drawn upon to cover short falls in emergency and urgent care resources, where necessary.

Third parties provide crews, vehicles and equipment. Although vehicle availability and equipment is not generally an issue at the Trust, on average 25 double crewed third party vehicles and crews are available to the Trust to cover rota lines, (i.e. the working rota which is used in order to ensure that there is a sufficient number of qualified staff available to meet service demands). Additional vehicles and crews have been made available during the winter pressure periods. These third parties can cover vacant shifts in order to alleviate pressures on the front line and are allocated appropriately and in accordance with demand. This continues to be the case.

Additional Measures

Furthermore, the Trust has introduced other initiatives which are designed to alleviate the pressures on front line resources and achieve faster response times to emergency calls. For instance, in December 2014, a memo was sent to all dispatch staff which noted that with immediate effect, a G2 (30 minute) disposition would be upgraded to a G1 (20 minute) response for patients 65 years of age and over, who had suffered a fall and had waited for one hour longer than the original G2 disposition (i.e. 1 hour 30 minutes in total).

Furthermore, from 7 January 2015, with immediate effect, any G3 (1 hour) disposition that has been waiting for an additional hour past the original 1 hour disposition time (i.e. 2 hours in total), is automatically upgraded to a G2 (30 minute) response.

Finally, since late September 2014, any G2 (30 minute) road traffic collision call received from the police that has breached the 30 minute disposition time has been automatically upgraded to a G1 (20 minute) disposition. The aim of these new protocols is to build in safeguards around waiting times where possible.

Furthermore, the Trust has been working closely with the local Clinical Commissioning Groups to sustain and improve the provision of patient care over the winter periods through specific winter projects. A winter care plan was in place to help alleviate the additional seasonal pressures. The Trust has also undertaken a review of its agency and partnership arrangements in order to determine if current arrangements can be improved. These measures are aimed at maximising patient care within the home environment, where appropriate, in order to avoid unnecessary Accident and Emergency Department attendances. This is designed to increase Trust emergency ambulance resource availability. The Trust also continues to engage with other providers/pathways in order to manage patients outside of hospital, where appropriate.

Ambulance Hospital Delays

As noted above, another issue which has impacted on ambulance resource availability is where crews are tied up at hospital when handing patients over to A&E staff.

The Trust once again deployed Hospital Ambulance Liaison Officers (HALOs) across the region during the winter period, in order to assist both hospitals and ambulance crews during times of pressure. The HALOs ceased their role in March 2016. This responsibility has now been taken up by the ECCMs who undertake this role throughout the rest of the year.

The role of the HALO is to work in partnership with the Emergency Department practitioners at the local hospitals in order to support the effective and efficient management of patient streams, particularly patient handover and ambulance turnaround times within the A&E Department. The HALO will act as an initial point of contact for the ambulance crews, establish the condition of the patient and liaise with the Emergency Department staff, if suitable, in order to re-direct/refer the patient elsewhere, such as an Urgent Care Centre, should this be appropriate. The HALO will also anticipate any potential problems within the hospital's Emergency Department which may impact on ambulance turnaround times and will work collaboratively with the relevant staff within the Emergency Department in an attempt to prevent the escalation of such issues.

The HALO will also liaise closely with the Trust's Contact Centre, enabling the Trust to work in a more proactive manner before delays or issues exacerbate. In addition to the above, hourly updates will be provided by the HALO to the Trust's "flight deck" in the Contact Centre with respect to bed availability in the particular hospital's Emergency Department.

The HALO role is deployed at specific hospitals as and when pressure in the system requires their support in assisting with patient handovers. The role of the HALO is carried out by an experienced Trust staff member who has undertaken this role previously. The aim of this measure is to improve operational efficiency and performance to allow crews to become available earlier and to respond to the next incident sooner than would otherwise have been the case.

The Trust has found the initiative to be of benefit in terms of improving ambulance hospital turnaround times.

Similarly, the Trust has sought to make use of dedicated Ambulance Resource Assistants (ARAs) over the recent winter periods, who play a key role in supporting the utilisation of our front line emergency and PTS crews by ensuring equipment and consumables are restocked at hospitals and operational stations, thereby reducing the need for crews to travel back to core sites to restock, losing valuable operational time which could be spent responding to incidents. The ARAs also ensure that vehicles are transported to the appropriate locations for the commencements of shifts, thereby maximising the utilisation time amongst crews responding to incidents. The intention behind this scheme is to improve performance since more crews will be available to respond to incidents, being resourced with drugs/equipment and will be in the correct place at the correct time for the commencement of their shift. This will also enable the reduced down time of vehicles having to travel back to base to restock and reduce the number of delayed shift commencements due to non-availability of vehicles. The Trust will continue to review and evaluate the benefit of this scheme going forward.

Finally, the Trust are also continuing to utilise Advanced Paramedic Practitioners (APPs). These clinicians have proven advanced patient assessment skills of the same level as Emergency Care Practitioners and are able to assess, treat and in most cases, ensure that the patient is safely treated at home, where appropriate. As a result, suitable patients are assessed and treated by APPs in their own home if this is more appropriate than a transfer to hospital. This forms part of the Trust's focus on improving patient care and experience, as well as to reduce the demand on front line emergency crews by recognising the importance of ensuring that only those patients who are in need of a hospital admission in an emergency situation receive an emergency ambulance disposition.

Going Forward

In light of the above issues, all ambulance services across the country, including the Trust, are pursuing various workforce recruitment strategies in an attempt to increase their emergency care resource base. Over the last 12 months, the Trust has improved its paramedic resource base and attrition rates have improved, whereby there are now more paramedics commencing roles at the Trust than the number of staff leaving employment. At this stage, the Trust has a skill vacancy of around 20% which has reduced from 25% The Trust's attrition rate has therefore improved in comparison to other ambulance services across the country. However, there still remains a shortfall of people entering the paramedic profession nationally. As such, the Trust will continue with its workforce recruitment strategies which go beyond ordinary workforce planning.

Road Closures and Diversions

The Trust does not always get informed of road closures by the Highways Department. However the Trust works as closely as possible with other agencies, for example the fire and police, who will provide intelligence in relation to road closures where these are known. In addition, when a crew handover takes place any road closures or other issues with highways are put into the shift report so that incoming crews are aware of various local issues.

The Trust's satellite navigation system, Terrafix, does not alert the driver of the ambulance to road closures. The route taken is selected by either local knowledge or by the route suggested by the Terrafix system where a crew is working out of area. However, the Trust will pass on as much local information as it can to crew members where the Trust has this information.

We hope that this addresses the matters of concern which you have highlighted. If we can be of any further assistance please do not hesitate to contact [REDACTED] Head of Risk and Regulatory Services at the Trust.

Yours faithfully

Yvonne Ormston
Chief Executive