North East Ambulance Service NHS
NHS Foundation Trust

Path to Excellence consultation: NEAS consideration of proposals

1.0 Introduction and purpose

The purpose of this paper is to set out the North East Ambulance Service's Response to the Path to Excellence(PtE) Phase 1 acute service change proposals across South Tyneside (STDH) and Sunderland (SRH). Having considered each proposed clinical option, it will:

- Set out the organisational view of the clinical merits of the proposed service changes
- Illustrate NEAS' role in supporting the successful delivery of such changes
- Assess the operational ability of NEAS to deliver timely responses and transfers relating to the proposed changes
- Highlight any potential unpredicted risks relating to the proposed changes
- Assess the aggregated impact on NEAS and any wider system impact on service delivery outwith the scope of the proposed changes
- Suggest potential mitigation and further work/support

2.0 Background and method

- NEAS has been working with the Path to Excellence Programme from the outset and will continue to do so through the next stages of the consultation and implementation of the preferred options.
- The Trust Board has considered and supports the proposed services changes and is satisfied that the clinical rationale for the changes is sound and that subject to mitigation being put in place for the impact on NEAS, that we can continue to manage a safe service for patients.
- A high-level assessment of the proposals was undertaken at pre-consultation stage and further refinement has taken place in conjunction with the PtE programme office.
- The NEAS position has been informed by:
    - data from the PtE programme which has been cross-checked against ambulance conveyance volumes
    - a number of data review sessions with PtE programme team
    - Clinical conversations across the PtE programme and NEAS

NEAS went live with the Ambulance Response Programme in October 2017, which includes new national response standards. It has not been possible to analyse the impact of these changes for the Path to Excellence programme. No hospitals are now classed as 'places of safety' which would have previously 'stopped the clock'. All calls requiring emergency blue transport would be allocated based on priority. During 2018, the process for HCP calls will change so that calls from HCPs will receive a triage to identify the most suitable transport. This would not delay transport for patients requiring immediate life threatening onward conveyance.

3.0 Paediatrics

3.1 View on the proposals

Paediatric conveyances to ED at STDH are currently around 1,200 per year, or 100 per month. Of these, 26.5% (~ 300 per year) take place between the hours of 10pm and 8am and a further 12.5% (~ 142 per year) between the hours of 8pm and 10pm.

The daily average for paediatric conveyances to ED at STDH is around 1 per day during the out of hours period. Across a 24 hour period, the average volume of conveyances is estimated at 3 per day.

There needs to be a significant mitigation to manage the risk of patients requiring blue-light transport (assumed with a paramedic crew) to Sunderland which would not previously have required blue light transport as they would have self-presented plus the mitigation of NEAS travelling further with patients (by going to Sunderland) and then needing to provide a timely response back in South Tyneside.

Paediatrics Solution 1

Under ***Paediatrics Solution 1***, and based solely on those incidents currently responded to by NEAS, should out of hours paediatric ED services be relocated to SRH, the impact on existing NEAS services is expected to see approximately 7 paediatric incidents per week conveyed to SRH. This information is taken from NEAS systems.

Information has been provided to NEAS to show the maximum volume of demand for hospital transfers the acute providers would plan to expect should patients self-present at STDH after services have been transferred. Under this paediatric option, the providers would plan for an annual total of 145 emergency transfers from STDH to SRH.

Paediatrics Solution 2

Under ***Paediatrics Solution 2***, it is proposed to move all acute paediatric services to SRH whilst providing a nurse practitioner led Minor Injuries Unit (MIU)/Urgent Care Centre (UCC) service between the hours of 8am and 10pm. It is expected, using information received from South Tyneside and Sunderland Healthcare Group, that up to 91% (subject to further clinical audit) of the paediatric activity currently experienced during these hours would be suitable to this nurse practitioner led service.

There are a number of patients that arrive at ED via other means. Data from South Tyneside NHS Foundation Trust shows that, in 2015/16, there were 14,827 attendances at ED via these alternative means. If 91% were able to be treated at a nurse practitioner led care setting, it would leave almost 1379 patients requiring to attend SRH. Again, should these patients attend STDH and require an emergency ambulance to convey them to SRH, the impact would be significant.

In discussions with the PtE programme office, we have identified that the percentage of patients managed by Nurse practitioners, identified above is based on actuals rather than forecasts and that there is also scope for the number to reduce if patients in Jarrow and Hebburn choose to self-present to the QE Hospital at Gateshead instead. At this point in time we can expect that there will be a transition over time but that we should plan for the worst case scenario from day one of the changes

3.2 NEAS role in supporting delivery of proposed options

3.2.1 Onward conveyance of ambulance patients from South Tyneside to Sunderland

NEAS would have a role in taking those patients that would have previously required an ambulance to take them to STDH paediatric ED (and who subsequently required admission to a paediatric short stay assessment bed at STDH) to SRH. South Tyneside and Sunderland Healthcare Group data shows that 6% of all Paediatric ED attendances arrive by ambulance.

Conveyance would continue to be by usual double-crewed ambulance vehicle with the standard paediatric competencies.

Onward Paediatric conveyances between STDH and SRH amounted to 1231 in 2015/16. These have therefore been removed from the calculation of impact on NEAS.

Where a patient could not be treated at South Tyneside and requires emergency treatment not available at that site, this would require a blue light ambulance transfer to Sunderland. Our modelling software shows that the expected time for this journey is 12mins, subject to time of day, patient condition and traffic on the day.

3.2.2 Transfer of any self-presenting patients at South Tyneside to Sunderland (SRH)

There is a potential role for NEAS in transferring patients who self-present at STDH but who require a greater level of care and consequent transfer to SRH not available through the proposed new care models. It is necessary that an appropriately skilled paramedic led crew would be available if required to undertake emergency transfers as and when required.

Under option 1 (10pm-8am), assuming that the same volume of patients continue to self-present at STDH in the same way they have historically, data shows that around 172 patients each year would require transfer to another hospital for admission to a short stay or inpatient bed. NEAS is already transferring a number of South Tyneside patients to other hospitals for admission so the total additional journeys required would be 145. ST&S data also suggests that an increasing number of South Tyneside patients may also begin to use other services, particularly patients with postcodes in Jarrow and Hebburn who may choose to use 24/7 services at QE/RVI. It is anticipated that this impact may be felt over time and not immediately at the point of implementation. Self-presenting activity may also dissipate further as a consequence of planned communications around final model for implementation.

Under option 2, assuming that self-presenting activity rates remain the same, data shows that 1379 each year may need transferring from STDH to SRH. A proportion of transfers from STHD to other hospitals are already undertaken, reducing the total annual estimation to 1231.

The acuity of likely transfers is being assessed as not all patients may require an emergency ambulance.

It should be noted that South Tyneside Hospital is no longer classed as ‘a place of safety’ for emergencies. Before the Ambulance response programme was introduced, the place of safety categorisation mean tthat a patient in the community may be prioritised as someone in a place of safety already had access to clinical support. Under the Ambulance response Programme, this is no longer the case Not all transfers to Sunderland will need to be made on blue lights but each case would be assessed by our Emergency Operations Centre to determine the specific requirements

3.3 Operational ability to support proposed changes

The following table takes into account the impact on the ambulance service of potential new transfers from South Tyneside to Sunderland based on existing activity for NEAS and a percentage of self-presenters which based on our analysis would require onward conveyance. We have removed the number of transfers we are already undertaking.

The calculation of impact in terms of hours is the sum of;

- Additional travel time between the two sites (assuming that if a patient would previously have been transported to south Tyneside that the difference is then the additional travel time to sunderland) For incidents to the south of South Shields, the travel time would be lower but we’ve kept the timeframe common across all options.

- Additional Job cycle time – this includes the time on scene, based on our current performance, abstraction (mealbreaks, training etc) and the time to return to South Shields

Adding these together produces the total ambulance hours required. This is a calculation of hours required and not a calculation of the ability to respond to an incident. Each incident would be considered on an individual basis within the Ambulance Response Programme standards to identify the timeframe for response.

Paediatric service changes	Incidents	additional travel time (00:12:11)	Additional job cycle time		Total ambulance hours required
Option 1					
Existing activity average 7 per week	364	73:54:44			
New activity from self-presenters	172		699:49:56		
Less transfers to SRH	145			589:58:29	**663:53:13**
Option 2					
Existing activity	776	157:34:16			
New activity from self-presenters	1379		5610:51:47		
Less transfers to SRH	1231			5008:40:55	**5166:15:11**

3.4 Potential unpredicted risk

Whilst we have included in calculations, an estimate of those patients self-presenting at STDH likely to require transport to SRH, there may also be patients who instead choose to access services through 999 or NHS111 services.

4.0 Obstetrics and gynaecology

4.1 View on the proposals

We recognise the pressure being experienced across the healthcare system to recruit and retain clinicians at the present time and the need for reconfiguration of services to ensure that a safe level of care can be provided to all patients.

4.2 NEAS role in supporting delivery of proposed options

4.2.1 Onward conveyance of ambulance patients from South Tyneside to Sunderland

Additional ambulance journeys for patients previously taken to STDH would be required. This would be for high risk deliveries only under option 1 and all deliveries under option 2. There would be an additional drive time of 12 minutes on blue lights between the two sites. Clearly some patients who are already south of South Shields may experience a faster journey time.

The numbers of women requiring ambulance conveyance to hospital are however, low. There is an average of 5 cases per month requiring onward conveyance under option 1, 10 per month in option 2

4.2.2 Transfer of any self-presenting patients at South Tyneside to Sunderland

Under both options, a small number of women may present at STDH in labour and require ambulance transport to SRH. Option 1 would be high risk patients who should be delivering at SRH and Option 2 would be any patients.

There may be a need for ambulance transfers of any gynaecology patients who self-present at STDH but require senior gynaecological medical review and/or further assessment or admission at SRH. Numbers are however small once as a large proportion of gynaecological patients are expected to continue to be seen at STDH

4.2.3 Transfers from South Tyneside FMLU (option 1)

NEAS would supply an emergency response ambulance vehicle in instances where a transfer of mother and or baby was required to the nearest available hospital. Staff are fully trained for these cases and would be travelling with a member of staff from South Tyneside to support the mother/baby.

We recognise that a further risk stratification could be applied to the numbers of expectant mothers as to the likelihood of them needing to be transferred to another hospital and the number of times that this would be likely to require an emergency transfer. Evidence from the PtE programme team suggests that the numbers of emergency transfers could be less than one patient every two months.

We have included all potential transfers in our modelling but the way we calculate the impact on our resources is not affected as to whether it is an 'emergency transfer' or otherwise. All incidents are categorised using the national Ambulance Response Programme standards and are affected by the availability of resource at the exact time of each incident. Whilst we can assess the impact of additional hours required in terms of resource we will continue to strive to meet ARP targets and provide a timely response to all transfer requests.

4.2.4 Neonatal transfers to SCBU/NICU at SRH

In exceptional cases it is possible that a baby born in a low risk maternity environment (option 1) could require additional level of care that would be available at SRH under both options. This would require an emergency ambulance transfer.

This is likely to be offset against a reduction in pre-term and intrauterine transfers from STDH to SRH, given that high risk deliveries likely to require neonatal care will be at SRH from the outset.

4.3 Operational ability to support proposed changes

Neither option for Obstetrics and Gynaecology is expected to have a significant impact on NEAS when considered on its own.

The two options have been developed based on existing emergency incidents which NEAS responded to in 2015-2016 plus the potential self-presenters (based on data provided by the PtE programme team) which could require onward conveyance.

In discussion with the PtE team, we are assured that a number of patients could be seen in A&E and either treated there or referred for an inpatient appointment rather than require transport to another hospital.

The same factors noted in section 3.3 apply to these calculations in terms of how we've calculated the impact on NEAS.

Obstetrics and Gynaecology Services	Incidents	additional travel time (00:12:11)	Additional job cycle time			Total ambulance hours required
Option 1						
Existing activity	60	12:11:00				
New activity from self-presenters	734		2986:29:34			
Less patients anticipated to be seen in A&E	359			1460:41:46		
Less patients seen in Early Pregnancy Assessment Service	157				638:48:01	650:59:01
Option 2						
Existing activity	120	24:22:00				
New activity from self-presenters	734		2986:29:34			
Less patients anticipated to be seen in A&E	359			1460:41:46		
Less patients seen in Early Pregnancy Assessment Service	157				638:48:01	663:10:01

5.0 Stroke

5.1 View on the proposals

We recognise the pressure being experienced across the healthcare system to recruit and retain clinicians at the present time and the need for reconfiguration of services to ensure that a safe level of care can be provided to all patients.

5.2 NEAS role in supporting delivery of proposed options

5.2.1 Onward conveyance of ambulance patients from South Tyneside to Sunderland

Patients experiencing stroke-like symptoms will require ambulance transfer from South Tyneside to SRH.

There is an additional travel time of 12 minutes (on top of any journey that previously would have resulted in the patient attending South Tyneside) but this is well within the clinical parameters for eligible patients to receive thrombolysis (4.5 hours), subject to the time from symptoms presenting themselves.

The volume of patients for NEAS from 2015/2016 figures (includes stroke mimic at 543), equates to approximately 10 conveyances from the South Tyneside area per week.

5.2.2 Transfer of any self-presenting patients at South Tyneside to Sunderland

The risk of a patient with stroke-like symptoms self presenting and requiring emergency ambulance transfer exists but these numbers are expected to be low as all current health advice encourages patients and the public to ring 999 when a patient displays stroke symptoms. As such we have not factored in any self-presenters for stroke which would require an emergency transfer.

5.2.3 Repatriation of patients from Sunderland to South Tyneside (options 2 and 3)

Options 2 and 3 will require repatriation from SRH to STDH, 76 for option 3 and 55 per annum for option 2.

The nature of ambulance transfer is likely to be non-emergency and once this is agreed via contracting we are more than satisfied that this service can be mobilised very quickly using the most appropriate workforce.

5.3 Operational ability to support proposed changes

NEAS is already supporting the temporary change to the stroke pathway by transporting South Tyneside patients to SRH.

Stroke Services		Incidents	Additional travel time	Total ambulance hours required
	Existing activity	543	110:15:33	
	New activity from self-presenters	156	634:43:53	744:59:26

6.0 Assessment of aggregated service and wider system impact

The overall impact on NEAS is therefore a requirement to provide an additional 6574hours of additional hours (based on paediatrics option two being selected alongside option two for obstetrics and gynae and stroke treatment being moved) which equates to approximately one additional double crewed ambulance based in the South Shields area.

If paediatrics option one is selected alongside option 1 for Obstetrics and Gynae and Stroke being transferred then the number of hours impacted would reduce to an estimated 2059 hours.

If paediatrics option one is selected alongside option 2 for Obstetrics and Gynae and Stroke being transferred then the number of additional hours needed would be 2072 hours.

This provision of any additional coverage would complement the existing services already in existence and would be reviewed at 6 months and 12 months post-implementation. The crew provided would not be soley dedicated to this service change as all ambulance crews are available based on deployment against the national Ambulance response standards. Any additional vehicle will therefore operate based on need and not be ‘parked’ outside South Tyneside hospital.

7.0 Risk mitigation and implementation considerations

There will be continued joint working once preferred options have been agreed to ensure safe ambulance conveyance and transfer protocols. This will require clinical input from all involved partners to understand deployment protocols and clear pathways for patient care.

A three-month mobilisation period would be required for NEAS once the preferred options have been selected, with the exception of stroke repatriation which may be mobilised sooner. We would envisage having a kick-off meeting as soon as possible after the decision is announced to put this in place although we have already built this into our forward planning as a possibility.

Post-implementation monitoring arrangements would need to be in place immediately with a formal review at 6 and 12 months