Transfers of premature and sick babies
Acknowledgements

Thank you to the committed and hard-working transport staff across the UK who took the time to respond to our survey and provide us with information for this report. We would also like to thank all of the parents who shared their stories with us.

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This report was written by Shona Cleland, edited by Gemma Ellis and designed by Joana Águas.
16,000 transfers of premature or sick babies take place every year

- 4 out of 17 services did not have a dedicated team to move babies at night
- No air transport for smallest and sickest babies in England
- 8 out of 9 services unable to meet response speed target
- 50% of services reported staffing gaps
- 15% of emergency transfers were because the unit was full
- In a one week snapshot

HOSPITAL

16,000 transfers of premature or sick babies take place every year.
Introduction

The safe transfer of premature and sick babies is an essential component of neonatal care, enabling all babies to be looked after in the right level of neonatal unit, as close to home as possible.

In the past fifteen years there has been significant and welcome progress in this area which has seen the development of 17 neonatal transport services across the UK: 13 in England, two in Wales, one in Scotland and one in Northern Ireland. Previously, neonatal units mostly had individual responsibility for organising transfers of babies in their care. Having dedicated and easily accessible transport services is safer for babies, because they are moved by experienced professionals who specialise in neonatal transport, and neonatal networks and units can more easily move babies to where they need to be.

However, there is still a long way to go until there is a consistent, safe, high quality service available to all babies who need it. Investment in transport services is crucial so that they can meet agreed national standards for quality and safety and keep up with the increase in demand for neonatal care. Wide variation across the UK means that many transport services are understaffed, under-resourced and part time. Not all services are able to offer a dedicated 24-hour service, in line with national standards, that can cope with the number of babies who have to be transferred. As a result, even very sick babies often have to wait much longer than they should to be moved to the right level of unit to receive the appropriate ongoing care.

The Bliss baby report 2015: hanging in the balance found that neonatal units are facing severe staffing and funding challenges, many of which also have an impact on transport services across the UK. As transport services are an essential part of good neonatal care, urgent action from government and other decision makers is needed to address the issues facing neonatal transport. Without investment in all neonatal services vulnerable babies will not get the care they need and deserve.

National standards

There are clear national guidelines that set out what safe, high quality neonatal transport looks like. These include NHS England’s service specification for Neonatal Intensive Care Transport and the Toolkit for High-Quality Neonatal Services in England, the All Wales Neonatal Standards, and Neonatal Care in Scotland: A Quality Framework. These standards include the requirement that transport services are available 24 hours a day and that they should be timely.

The NHS England service specification outlines a detailed set of markers of good practice for a range of areas such as staffing, contact with neonatal units, and the time it should take for transport teams to respond to babies who need to be moved urgently. While this document is only directly applicable to services in England, the UK Neonatal Transport Group, the professional group for transport services across the UK, uses many of these NHS England standards to compare team activity and performance.
Why are babies transferred?

Neonatal transfers are not uncommon; ten per cent of babies who are admitted to neonatal care are moved at least once from one unit to another. Most of these babies are moved to another hospital within the neonatal network that is responsible for co-ordinating the care of babies in the area. However, 17 per cent are transferred outside of their first recorded network of care. This means some families have to travel very long distances to be with their baby, adding to their stress and anxiety during a very difficult time. It also significantly adds to the pressure that many transport services are under.

There are approximately 16,000 transfers of premature and sick babies each year, according to the UK Neonatal Transport Group. Many of these transfers are needed so that babies can be cared for in the right type of neonatal unit. 44 per cent of neonatal transfers in 2014/15 were of babies who were moved to a more specialist unit. For example, this happens when a baby needs complex, long term intensive care because they are very premature or sick. Another 44 per cent of transfers were of babies moved to a less specialist unit when their condition improved.

“Our baby was transferred on the day he was born to a hospital with appropriate intensive care facilities. When he was three months old (he was transferred) to, and from, another hospital for surgery. The transport service was excellent every time. All the transport staff were lovely and explained everything clearly. We were offered the option to travel with our baby or not, so we felt fully involved in his care.” (Mother of baby born at 26 weeks)

“Only one parent (my wife) could travel with our baby. This was very important to us. Saying goodbye to my son as the ambulance sped off was one of the hardest things I’ve done. Knowing my wife was there helped a lot.” (Father of baby born at 26 weeks)
However, not all transfers take place for clinical reasons. In 2014/15, **15 per cent of all emergency transfers were due to lack of capacity at the transferring neonatal unit**, meaning that the unit had more babies than it could safely care for with the staff and resources available. At least 974 babies were moved due to lack of capacity in 2014/15; however, as three services were unable to provide this data, this is likely to underestimate the scale of the problem. Transferring babies is one way that neonatal units cope with being understaffed and it shows that services are under severe pressure. Urgent action must be taken to ensure this shortage of capacity within neonatal units is addressed, because moving sick babies unnecessarily not only puts them at risk\textsuperscript{11,12} but also adds to their families’ stress and worry, and puts a strain on transport services.

### Neonatal transfers in 2014/15

<table>
<thead>
<tr>
<th></th>
<th>Emergency</th>
<th>Non-emergency</th>
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<tbody>
<tr>
<td></td>
<td>Escalation of care</td>
<td>Lack of capacity</td>
</tr>
<tr>
<td>Number of transfers</td>
<td>5,578</td>
<td>974</td>
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<tr>
<td>Percentage of total</td>
<td>44%</td>
<td>8%</td>
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*includes 48 transfers that are uncategorised

Based on information provided by 15 out of 18 transport services that were operational in 2014/15, in response to Bliss’ survey
Transport services vary widely, not only in terms of how busy they are but also in their ability to meet national standards for quality and safety. In part, this reflects regional differences such as population density and geography, but it also reveals worrying inconsistencies in the way services are planned and resourced.

Availability

National standards are clear that transport services should be available 24 hours a day, 7 days a week, as babies may have to be moved at any time; for example if their condition deteriorates and they need more specialist care urgently. However, four of 17 transport services were not resourced to have a team available at night, leaving neonatal units reliant on neighbouring transport services or neonatal unit staff.

“A key issue for us is that our transport service is not 24 hours and is run on goodwill out of hours. This is becoming increasingly difficult to maintain given the shortages of doctors and nurses.” (Neonatal Network Manager)

One region is not commissioned to have a dedicated transport service at all, even during the day, and must rely on staff from the base neonatal units to undertake transfers. This puts the units at risk of becoming understaffed, at a time when many neonatal units are already under severe pressure, and means transfers must fit in with other demands on the service. In 2003, the government recommended that in England, “staffing arrangements for the neonatal transport service should be separate from the clinical inpatient service so that care of babies is not compromised by lack of staff availability.” This has been reiterated by the government and the NHS since, and it is now a matter of urgency that all services have the resources they need to meet these standards.

4 out of 17 services did not have a dedicated team to move babies at night
Throughout the UK, there is also variation in the number of staff teams on hand within each service to undertake transfers, ranging from one to three during the day. Some services need more teams because they cover a larger geographical area and population than others. However, the number of extra teams does not always match up to the much higher volume of transfers that some services undertake, or the size of the geographical area they are responsible for. One service undertook an average of 178 transfers per team during the year, while others had to cope with nearly 500 transfers per team.18

“Three out of 17 services did not have any dedicated road vehicles equipped for neonatal transport, leaving them reliant on frontline ambulances. Not having access to vehicles that are specially set up for transferring babies can be problematic. It can affect how quickly they are able to respond in an emergency, as the team may have to wait for an ambulance to be free and it can put additional pressure on the ambulance service.” (Mother of baby born at 34 weeks)

Vehicles and equipment

Air transfers are also a necessary part of the service because of the distances involved and the time that can sometimes be saved by flying the most seriously ill babies. They are also required for some babies who have been born unexpectedly a long way from home and need to be relocated closer to their family. However, the provision of neonatal air transport across the UK is very variable.

“It is particularly poor in England,20 currently, there is no provision at all to fly babies in heated incubators. This means that, at the time of writing, the smallest and sickest babies in England do not have any access to air transport.” (Mother of twins born at 29 weeks)
Safe, high quality air transport, by both helicopter and fixed-wing aircraft, is an essential part of a comprehensive neonatal transport system. The NHS England service specification is clear that all services should be able to organise air transfers for babies who need it, and that vehicles and equipment should be effective and fit for purpose. It is vital that services have access to equitable, co-ordinated air transport by teams that are fully funded, equipped and supported to provide it.

“We are concerned about the commissioning vacuum that currently exists with regards to air transport for neonates. We have developed a service based on local commissioning arrangements and partnerships with charitable and commercial aircraft providers, but this is limited by the lack of an air transport incubator... We would advocate for national commissioning of air transport provided by a small number of high volume services with demonstrable quality and safety.”

(Lead Consultant)

Contact with neonatal units

Transport teams and neonatal units should be able to work seamlessly together. The NHS England service specification and Neonatal Care in Scotland: A Quality Framework state that there should be a single point of telephone contact on which cot and maternal bed availability, and the transfer service, can be accessed and activated at all times. Help with locating cots and beds is important for units because it ensures time is not wasted by staff members having to make multiple phone calls to different units to find out where a cot is available at the right level of care for their patient.

The NHS England service specification is also clear that clinical advice should always be available via this single point of contact. This can make a big difference to babies’ care. For example, a special care baby unit might need advice on whether a baby needs to be moved to another unit for more specialist care, and how best to care for the baby until the transport team arrives.

However, only half (eight out of 16) of transport services were able to provide this 24-hour single point of contact during 2014/15. One service was not able to offer this service at all, while seven reported a partial service, for example a service that is only available for part of the day or which cannot help with finding an available cot.
Response speed

In England, the service specification says that for time-critical transfers the transport team should set off from their base within one hour of the phone call requesting the transfer, in at least 95 per cent of cases. Only one out of the nine services who provided information about the time it takes them to set off were able to meet this standard. This is of particular concern, because if a transfer is deemed time critical then this suggests that a baby needs ongoing specialist care with some urgency. On average, services were able to set off within one hour 80 per cent of the time, which is far short of the 95 per cent standard. However, there was significant variation, with one service only able to set off within one hour 39 per cent of the time.

There are a number of reasons why services may be unable to meet this standard. An important factor may be how well staffed and resourced they are. Commissioners should ensure that each service has enough teams to cope with the number of babies and geographical area that it is responsible for, and that it has the resources it needs. For example, lack of access to dedicated vehicles can mean that a team is reliant upon frontline ambulances that may not always be available to them. The service that had most difficulty meeting this standard told Bliss that, “the ambulance service and commissioners have not committed to providing dedicated ambulance staff or drivers which limits the responsiveness of the team on many occasions...” and, “the main operational problems relate to ambulance delays which severely impact on our ability to meet the national standard for time-critical transfers.”

For transfers of babies requiring intensive care at more specialist units, there are also NHS England standards that the team should arrive at the new unit within 3.5 hours of the referral, in at least 80 per cent of cases. Scottish and Welsh standards are also clear that transfers should be timely and delays should be minimised. Two out of the 14 services that provided data about the time it takes them to get to the new unit reported being unable to arrive within the 3.5 hour target 80 per cent of the time. This means that very sick babies often have to wait longer than this to reach the right level of neonatal unit for their ongoing care.

8 out of 9 services unable to meet response speed target
Staffing

Difficulties recruiting enough staff is a challenge for transport services, which often face the same skills shortages as neonatal units. The Bliss baby report 2015 found that there were 450 unfilled medical vacancies and 650 nursing vacancies at neonatal units in England. Over half (six out of 11) of neonatal transport services who provided information about their staffing reported at least one unfilled gap in their rota during a single week in 2015. This is a snapshot, indicating that unfilled rota gaps affect transport services on a regular basis. As with neonatal units, services reported particular problems with finding enough senior nurses and middle grade doctors to fill their rotas. The gaps reported by services during this week included band six and band seven nurses, advanced neonatal nurse practitioners (ANNPs), and tier two (middle grade) doctors.

The most common reason for these rota gaps, cited by four services, was an inability to recruit staff to fill vacant positions. Other factors included staff absence (reported by two services) and too few consultants on the rota (a problem for one service, which is being addressed). One Nurse Consultant said that a shortage of medical trainees meant that they changed the way they staff their service, moving to an on-call medical and ANNP rota out of hours.

Another service commented, unprompted, that they do not have enough funding to cover staff absences. The Consultant Neonatologist said that, “to cover maternity leave and other long term sick leave, three night shifts were covered internally by our existing transport staff on bank shifts. Whilst the funding is sufficient to cover all shifts if there are no staff absences, there is no uplift to cover these eventualities…”

“Generally short notice absence is terribly difficult to manage as we only have one team available at any one time. It is unusual to be able to draw a transport-experienced team member from the NICU establishment.” (Lead Nurse)

Only one third (five out of 15) of services have a dedicated consultant rota to cover neonatal transport outside normal working hours. Two services did not have a dedicated consultant rota during the day either, so the consultant was also covering other services such as their base neonatal unit. This means that at a busy service the consultant may not always be able to give their full attention to the transport service when needed.

On three occasions during a single week in 2015, two services were unable to provide a team that they were commissioned to provide. Both of these services had nursing gaps in their rotas and reported recruitment problems. This suggests that, as with neonatal units, skills shortages can have a serious impact on services’ ability to provide a comprehensive and high quality service.
Impact on families

Having a baby admitted to neonatal care is very difficult for families, and if their baby needs to be moved to another hospital during their stay then this can add to their stress and worry. If their baby is very small or sick and needs to be moved to a more specialist unit in a hurry, this can be extremely traumatic and confusing. In this situation, the journey itself may be a source of anxiety in case something goes wrong. Even if their baby is getting better and being moved to a unit closer to home, this can mean parents have to leave a unit they are familiar with. This can be difficult for families if they have got to know the health professionals looking after their baby and made friends with other parents who they have leaned on for support.

There are several things that neonatal units and transport services can do to help parents cope and feel involved in their baby’s care, many of which are clearly set out in the NHS England service specification, Neonatal Care in Scotland: A Quality Framework and the All Wales Neonatal Standards. For example, parents should be offered the chance to see their baby before they are moved and they should be given the opportunity to accompany their baby if possible. Where this is not possible, alternative transport arrangements should be made for them. However, two thirds (11 out of 17) of services said that they do not make alternative arrangements for parents who are unable to accompany their baby but wish to do so, though the referring unit often helps with this.

Good communication can also make a big difference to families. However, a common issue raised by many parents who responded to our survey was that they were not told what was going on. One mother described being distraught when the ambulance transferring their daughter put its sirens and lights on. She described being, “hysterical all the way to the hospital, convinced I would be given bad news on arrival.” When they arrived, a nurse explained that they were just minimising the amount of time it took to transfer her baby. She said, “I was fine once this was explained to me but it would have been better if someone had mentioned it before they set off. I know it’s just a small thing but to me it was a huge thing.”

“We were not given a choice [to travel with our baby]... The transport team were friendly and told us ‘we will take care of your baby’ but it was one more separation... One more thing taken away from us.” (Mother of baby born at 27 weeks)

“For the first trips I couldn’t go with my baby but for one I did and it helped me feel part of what was going on, even though I wasn’t actually doing anything.” (Mother of baby born at 23 weeks)

“When leaving the hospital I was able to travel with my baby but my husband, who doesn’t drive, was sent to catch the train – bearing in mind we were 75 miles from home.” (Mother of baby born at 28 weeks)
Conclusions and recommendations

Neonatal transport is integral to the delivery of a high quality neonatal service, allowing babies to be cared for in the right place, as close to home as possible. Parents often tell Bliss how much they appreciate the dedication, kindness and expertise of the members of the transport team that move their baby. However, like many of the health professionals working in neonatal services, these teams are often overstretched and under-resourced. This puts babies at unnecessary risk.

Planning and funding

Published standards in England, Scotland and Wales are clear that 24-hour, dedicated services should be available whenever and wherever they are needed. Despite this, not all regions are able to provide a comprehensive, consistent, high quality service in line with national standards because they are not funded to do so. There is also wide variation in access to air transport for babies who need it. This compromises the quality of neonatal transport services and has a negative impact on babies’ care.

Recommendations

1. Governments and health service bodies must ensure that all neonatal transport services are funded to:
   - have enough dedicated transport teams so that they can cope with the number of patients and geographical area for which they are responsible
   - provide a 24-hour service
   - have a sufficient number of dedicated road vehicles that are fully equipped for transporting premature or sick babies.

2. In the one remaining region where there is no dedicated transport service with staff additional to those working on the neonatal unit, the specialised commissioner must address this urgently.

3. Governments and health service bodies should ensure that all babies who need it have access to a well co-ordinated and centrally commissioned air transport service that is fully funded and supported to provide safe, high quality air transfers.

Staffing

Neonatal transport services, along with neonatal units, face national skills shortages and recruitment problems that can prevent them from staffing the teams they are commissioned to provide. Without action from governments, health services and health education bodies, these problems will worsen, making it increasingly difficult for all neonatal services to meet national standards for safe, high quality care.

Recommendations

4. Health education bodies, in consultation with Royal Colleges, should put medium to long term plans in place that address the skills shortages identified in this report and in the Bliss baby report 2015.
Governments and health service bodies should provide sufficient funding for services to recruit the transport staff they need and to cover staff absences.

**Parent involvement**

Having a baby admitted to neonatal care is a scary and confusing time for parents. If their baby needs to be moved to a new, unfamiliar neonatal unit then this can add to parents’ stress and worry. Good communication with parents is crucial to help them cope with this and enable them to be as involved as possible in their baby’s care.

**Recommendation**

Neonatal services, in line with the Bliss Baby Charter, should ensure parents are involved in the possible transfer of their baby, including by:

- explaining and involving them in discussions on transfers
- giving them comprehensive information on transfers
- enabling them to accompany their baby where possible
- encouraging them to visit a new unit in advance of the transfer where possible
- making sure they know who to talk to at the new unit, for example a named nurse.

**Standards and accountability**

Clear national standards are essential to be able to assess quality and ensure that a consistent service is available to all babies who need it.

The NHS England service specification for *Neonatal Intensive Care Transport* provides a detailed set of markers of good practice against which to assess neonatal transport services in England. The *All Wales Neonatal Standards* and *Neonatal Care in Scotland: A Quality Framework* provide a welcome baseline for services in Wales and Scotland; however, more detailed, publicly available markers of good practice are needed to be able to assess the performance of transport services in Wales, Scotland and Northern Ireland. Services should be assessed more rigorously against good practice markers in all four nations with clear action plans put in place to address the issues highlighted by this process and in this report.

**Recommendation**

Governments and health service bodies in Wales, Scotland and Northern Ireland should develop and publish detailed markers of good practice for neonatal transport services. In all four nations, the ability of transport services to meet these standards must be regularly assessed and action should be taken to address the service issues identified.
Methodology

In June 2015, Bliss sent a survey to the 18 neonatal transport services in the UK that were operational during 2014/15: 14 in England, two in Wales, one in Scotland and one in Northern Ireland. 17 of these services responded.

Our transport survey included questions about the number and type of neonatal transfers, response times, hours of operation, vehicles, staffing, telephone contact with neonatal units, and parent involvement. The majority of these questions were for the financial year 2014/15, though most questions about staffing and hours of operation related to a single week in April 2015 to give a snapshot of service provision across the UK. The survey also included space for comments, from which the health professional quotes in this report are drawn.

Some of the data from these surveys were published in the England Bliss baby report 2015: hanging in the balance, and will also be used in separate reports about neonatal care in other nations of the UK.

In July 2015, Bliss asked parents to tell us about their experiences of neonatal care in an online survey. 340 parents in the UK responded, of which 180 told us about their experiences of neonatal transport. The parent quotes in this report come from this survey.
**Glossary**

**Base neonatal unit** means the neonatal unit that a transport team works out of. A single transport service may have a team based at more than one neonatal unit, particularly if it covers a large geographical area.

**Categories of care**

- **Special care** is the least intensive level of neonatal care and is the most common. Babies receiving special care may need to have their breathing and heart rate monitored, be fed through a tube, supplied with extra oxygen or be treated for jaundice.

- **High dependency care** is provided to babies who need continuous monitoring, for example those who weigh less than 1,000g, or are receiving help with their breathing via continuous positive airway pressure or intravenous feeding, but who do not require intensive care.

- **Intensive care** is highly specialised care for the smallest and most seriously ill babies who require constant care and, often, mechanical ventilation to keep them alive.

**Commissioning** is the process of planning, funding and monitoring services.

**Medical tiers**

- **Tier one** medical staff are junior staff members such as doctors new to the speciality and advanced neonatal nurse practitioners (ANNPs).

- **Tier two** medical staff are middle grade staff members such as speciality doctors and ANNPs.

- **Tier three** medical staff are medical consultants.

**Neonatal networks** are responsible for co-ordinating the care of babies in their area across the range of neonatal units to ensure that babies receive the care that they need, as close to home as possible. When babies in a neonatal network need to be transferred they will usually be moved to another unit within the same network.

**Neonatal units**

- **Special care baby units** provide special care for their local population. Depending on local arrangements, they may also provide some high dependency care.

- **Local neonatal units** provide all categories of neonatal care, but babies who require complex or longer term intensive care are transferred to a neonatal intensive care unit.

- **Neonatal intensive care units** provide the whole range of neonatal care for their local population and the most specialist care for the smallest and sickest babies across their network. They are often co-located with other specialist services such as paediatric surgery.
These dedicated services may be for the transfer of children as well as babies. Some services also facilitate in-utero transfers.

Neonatal Data Analysis Unit (2014) NDAU 2014 Report


NHS and Department of Health (2009) Toolkit for High-Quality Neonatal Services

Welsh Health Specialised Services Committee on behalf of Local Health Boards in Wales (2013) All Wales Neonatal Standards, 2nd edition


RCPCH (2015)

There were 7,997 neonatal transfers in the first six months of 2015, equating to approximately 16,000 neonatal transfers per year. Data provided by the UK Neonatal Transport Group.


During the single week in 2015 that we asked about in our survey in order to get a snapshot of service provision across the UK (see methodology)


NHS and Department of Health (2009), p.51

NHS England (2013), p.4

Calculated based on the average number of teams operational in a 24-hour period during one week in April 2015, of those services that provide a 24-hour service

Many ambulance services are already under pressure. As of February 2013, only four of the 12 ambulance trusts in England were meeting the core target of responding to 75 per cent of the most time-critical calls within 8 minutes: House of Commons Health Committee (2013) Urgent and emergency services: Second Report of Session 2013-14, vol. 1, p.45

There is an independent provider that undertakes neonatal air transfers in Northern Ireland and, in Scotland, the transport service is able to carry out air transfers. In Wales, a national transfer service which has neonatal component, EMRTS CYMRU, was launched in 2015

All of these services are in England


Bliss (2015) Bliss Family Friendly Accreditation Scheme. Available at: bliss.org.uk/bffas
“My daughter was transferred from our local unit to a specialist centre fifty miles away when she was nine days old... Watching the team repeatedly take blood pressures and blood gases for over three hours to try to stabilise my baby will always be one of the most traumatic experiences of my life, but this amazing team did everything they could to help me through it, including keeping the hair they had shaved for her baby book.”

(Mother of baby born at 27 weeks)

We rely on donations to fund our vital work and your support could be life changing to premature and sick babies.

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