The Newcastle upon Tyne Hospitals NHS Foundation Trust

Guideline for action following collapse requiring resuscitation or unexpected death during a neonatal transport episode

Version No.:	1.0
Effective From:	14/12/2017
Expiry Date:	01/12/2020
Date Ratified:	13/12/2017
Ratified By:	Newcastle Neonatal services/NNeTS
Authors	RT

1 Introduction

Acute deterioration in transport which requires resuscitation is an uncommon event if planning, stabilisation and packaging has been correctly completed. However, it can happen occasionally as a consequence of the need to transport the sickest babies, with the least physiological reserve, in order to reach potentially life-saving treatment such as ECMO or abdominal surgery.

2 Guideline scope

This guideline is intended to be used by all NNeTS staff involved in the delivery of clinical care to Neonates moved by NNeTS. It covers actions to be taken in the event of a resuscitation during either of the two 'shared care' phases of transport (at either the referring or receiving hospital), or during the ambulance journey to the receiving hospital.

This guideline **does not cover the situation of <u>expected or anticipated</u> death during transfer**, namely where the transport episode is a designated in advance as a 'palliative care' transport moving a baby to a different place of care specifically for end of life care (e.g. base hospital, hospice or home). On those occasions, anticipatory planning should have been completed (with relevant forms covering action in event of acute deterioration or natural death in place) and a clear plan for death in transport made ahead of the transport.

Note: If a baby who has a life limiting condition is being transported for ongoing care (e.g. respite care) and *is **not** expected to collapse or die en-route*, this guidance should be followed as for any other unexpected collapse or death where active treatment was being pursued.

3 Evidence Review and Evaluation

The need for written guidance regarding procedures if death occurs during neonatal transport was outlined as one of 12 core documents required by the 2014 NHS England CRG document for Neonatal Transport with in the Neonatal Critical Care standards. This guideline is intended to meet this requirement.

4 Main Body of the guideline

As death in transfer is a rare and serious occurrence, any occasion on which it happens will result mandatory review as per the established NNeTS governance process. If any factors have occurred which suggest it should be investigated as a Serious Incident (SI) then this will be done in accordance with the Newcastle Hospitals NHS Foundation Trust SI investigation process.

As a minimum during the review process:
All discussions relating to the case will be recorded/documented on clinical history sheets and signed/dated by those present both at the daily activity ('yellow sheet') review and when the case is discussed at the bimonthly NNeTS governance meeting. These will then be kept with the baby's transport clinical record.

Logistic/clinical considerations for moving extremely sick babies: Pre-transfer

For very sick babies, for whom there is a risk of dying during transport, careful detailed discussions should take place between the NNeTS team (including the NNeTS consultant on call), referring and receiving consultants, to discuss the risks and benefits of transfer. These discussions must be clearly documented by the NNeTS team in the transport record. Transferring such patients away from the family may not be in their best interest, and a unified front from the clinical teams outlining uncertainties to the family during this period of shared care is essential to avoid conflict in an already difficult situation.

The Consultant (or senior clinician) from the local team and the senior member of the NNeTS team on-scene should engage in discussion with the parents/family **together**. This discussion must cover:

- The baby's current condition
- The risks of transport
- The risks/anticipated outcome of not transferring
- An honest appraisal of what might the likely outcome would be from ongoing care at the receiving centre including, if appropriate, chances of survival*
- Explicit information to the parents that their baby may not survive the transfer
- Plans for management of deterioration and resuscitation during transfer including treatment limitations which may or may not have been in place previously
- Plans as to whether to proceed to receiving unit or return to referring unit depending on the parent's wishes and proximity to referring and receiving unit

*This element of the conversation will require input from both the Transport consultant and receiving unit consultant *prior* to talking to parents

This discussion is to be documented in a written plan on the transport **and** referring hospital documentation.

Consider family dynamics: establish if there is any extended family support available for single parents and consider taking *both* parents in the ambulance especially if the baby is critically sick and/or parents may lack ability to drive independently and safely. In these circumstances parents must be briefed that in the event of a sudden deterioration, they may be asked to move out of the back of the ambulance to allow space for resuscitation to take place.

Where they have independent, safe transport parents should be encouraged **not** to leave before the NNeTS Team depart and given specific instructions **not** to 'tailgate' the ambulance or stop behind any stationary ambulances they happen to see at the roadside on the way to their destination.

Where time allows and does not delay definitive treatment consider offering the family a blessing/christening ceremony before departing.

Actions during transport if a baby acutely deteriorates and/or dies

If a baby deteriorates during transfer the ambulance should be safely stopped and the pre-transport agreed resuscitation plan followed. The NNeTS consultant should be telephoned for support/advice. The consultant at the receiving hospital should be made aware of the need for resuscitation by the transport team at an appropriate moment. Call conferencing can facilitate this communication.

Following a successful resuscitation:

Discussion should take place with the receiving consultant and the decision to continue to destination confirmed.

Once the infant/child is in a relatively stable condition for transport, travel may recommence.

Stopping resuscitative efforts

The responsibility for a decision to stop a resuscitation attempt lies with, and should be made by, the NNeTS consultant after discussion with the wider team.

Following an unsuccessful resuscitation (where parents are not present in the ambulance):

- Record the time of death
- Leave all intravascular lines, drains and ETT in-situ
- Turn off ventilator and monitors
- Turn off pumps and disconnect infusions (but do not discard syringes)
- Wrap the infant /child
- Maintain incubator temperature
- Ensure that the NNeTS team has informed the receiving team, referring hospital and NNeTS consultant on call

- Transport team to inform parents of deterioration and advise to return to referring hospital *or* proceed to receiving hospital (as appropriate). **In the case of an unsuccessful resuscitation it may not be appropriate to proceed to the receiving hospital. In these situations the choice of destination will be informed by the team's earlier discussion with the parents.**
- Inform appropriate hospital to prepare private area for the baby and family with available support (clarify the appropriate hospital entrance to return to with the baby: this may not be the 'usual' entrance to the hospital)
- Once a baby has died and arrived at the destination hospital, their body must remain in this hospital. The body cannot be moved until that organisation has issued a death certificate after appropriate discussions with the mortuary staff and the coroner's officer

Where parents have travelled with the baby:

- The ETT may be removed if there are no concerns that a displaced ETT has contributed to the clinical deterioration (discuss with NNeTS consultant).
- Once infusions have been disconnected and the baby is wrapped, the accompanying parents may have cuddles with their baby while decisions are made about whether to return to the referring unit or receiving unit.

Post transfer considerations

- All deaths in transfer must be reported to the local Coroner by the team at the hospital in which the baby ends up (in the first instance) and to the NNeTS risk management team by the NNeTS team involved
- Repatriation of a baby's body is **not** in NNeTS' remit. NNeTS **do not** possess the correct equipment to transfer a cadaver or keep it at refrigeration temperatures. It *may only* be considered in **truly exceptional** circumstances by consensus where the following have been fulfilled as a minimum:
    - other means (including funeral directors, mortuary to mortuary inter-hospital transfer) have been exhausted
    - there is no bearing on any ongoing Coronial process
    - it will not impact on ongoing NNeTS clinical work

  NOTE: the body of the baby who dies in transport is to be subject of discussions with the coroner and therefore belongs to the coroner in whose jurisdiction the body lies and cannot be moved out of the place of rest (hospital) without that coroner's permission.
- The NNeTS clinical team must be offered an immediate debriefing on return to the RVI with a risk assessment made (and documented) as to the

appropriateness of the same team attending follow-on jobs if staff have experienced a stressful transfer involving prolonged resuscitation or death

- Staff must be invited for a formal debriefing session following an episode of prolonged resuscitation or death en-route (to be organised by NNeTS SNTL [BF] and where possible attended by both the NNeTS transport consultant of that week, and the Medical Lead for NNeTS [RT]).
- NuTH will provide information for staff for counselling if required or requested
- *Every* child death now has to be reviewed locally by a child death review panel whose findings are sent to the regional CDOP panel. In the case of death in transport undertaken by NNeTS, the quorum of this review must be multidisciplinary. The location of the review can be organised by consent at either the referring or receiving hospital or at the RVI (NNeTS host base). **Representation from all of these organisations** (referring, receiving, NNeTS) must be present at both consultant and nurse level as a minimum, with a neonatologist (preferably with a Transport interest/expertise) from an organisation not involved in the transport episode present for the meeting to be considered quorate. An external chair is also good practice but in reality is difficult to obtain. Any other relevant specialities or relevant organisations involved should also be invited to attend (e.g. NEAS).

5 Training, Implementation, Resource Implications

This guideline utilises clinical and governance procedures already in place and so has no extra resource cost implication. This guidance will be circulated amongst NNeTS staff and simulation training will be used to prepare staff for this eventuality.

6 Monitoring Section

Due to the rarity of this as an event, the data will be collected on an annual basis regarding occurrence.

Any specific learning from event reviews will be disseminated to the NNeTS team, statutory bodies requiring notification, and the Northern Neonatal Network.