Managing Emergency Pressures Within The Neonatal Unit.

Escalation Policy. V3

Lead Person(s) : Ian MacLennan, Nurse Manager.

Centre : Women and Children’s

First developed : March 2012

Last updated : March 2012

Last reviewed : 

Planned review : March 2014

Keywords : Staffing levels, neonatal nursing, safe, escalation

Written by : Ian MacLennan, Nurse manager, Women and Children’s Services

Consultation : Andrew Tapp Centre Chief
Alison Moore, CD for Governance, Women and Children’s Centre
Bob Welch, Governance Lead, Neonatal Unit
Cathy Smith, Deputy Centre Chief/Head of Midwifery
Anthea Gregory-Page, Deputy head of Midwifery
Sam Davies, Unit Manager, Neonatal Unit
Sheena Hodgett Lead Obstetrician

Comments : References to SaTH Guidelines in the text pertain to the latest version of the Guideline on the intranet.

<table>
<thead>
<tr>
<th>Version</th>
<th>Implementation Date</th>
<th>History</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>N/A</td>
<td>New</td>
<td>First draft for Consultation</td>
</tr>
<tr>
<td>V2</td>
<td>N/A</td>
<td>V2</td>
<td>Alterations to reflect terminology and communication channels following Centre Meeting</td>
</tr>
<tr>
<td>V3</td>
<td></td>
<td></td>
<td>General alterations following Centre Meeting prior to implementation</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>Managing the Escalation Process</td>
<td></td>
</tr>
<tr>
<td>General Principles</td>
<td></td>
</tr>
<tr>
<td>Procedure for assessing cot availability</td>
<td></td>
</tr>
<tr>
<td>Escalation criteria triggers and actions</td>
<td></td>
</tr>
<tr>
<td>General actions escalation Level one</td>
<td></td>
</tr>
<tr>
<td>General actions escalation Level two</td>
<td></td>
</tr>
<tr>
<td>Nicu open to internal admissions Only</td>
<td></td>
</tr>
<tr>
<td>General actions escalation Level three</td>
<td></td>
</tr>
<tr>
<td>NICU closed to IUT’s + EUT’s</td>
<td></td>
</tr>
<tr>
<td>General actions escalation Level four</td>
<td></td>
</tr>
<tr>
<td>NICU closed to all new activity+ Need to make emergency space</td>
<td></td>
</tr>
<tr>
<td>Re-opening of NICU for admissions</td>
<td></td>
</tr>
<tr>
<td>Appendix 1</td>
<td></td>
</tr>
<tr>
<td>Neonatal intensive care unit Daily reporting</td>
<td></td>
</tr>
</tbody>
</table>
1. Introduction

The purpose of this policy is to enhance communication and to ensure accurate information on the availability of Neonatal Intensive Care Unit (NICU) cots, by assessing current care levels, and nurse and medical staffing levels on an ongoing basis in order to:

- Support decisions on admissions/refusals to the NICU
- Identify the number of care levels / cots available by taking into consideration the NICU workload. This will include a review of nurse and medical staffing levels the dependency of infants and pending admissions.
- Facilitate communication within the Consultant Labour Ward West Midlands cot locator web site and the Women Children’s Centre Management Team
- Minimise the need to transfer SaTH patients or sick neonates to other areas within the hospital or to other hospitals within and out of the region/network

2. Managing the Escalation Process

General Principles:

- Irrespective of the reported escalation Level within the NNU or Maternity Units, all babies born within SaTH and the outlying SaTH MLUs remain the responsibility of SaTH and should be admitted accordingly (this is no different to an unexpected delivery presenting at ED)

- The overall purpose of this plan is to provide a Trust wide response to emergency pressures to prevent further escalation and to resume normal operational working as swiftly as possible.

- Levels of escalation in this Plan correspond to the SaTH Maternity Escalation Policy Maternity (V1.1), October 2011

- Requests received to admit neonates or In-utero transfers (IUT) from within the Regional Neonatal Network or from other hospitals will be accepted only within the context of the current escalation level, to include pending internal maternity cases that may require a cot.

- All requests must be considered as a potential trigger to initiating the escalation process.

- A NICU daily activity proforma detailing the current activity / staffing levels / Skill mix and escalation level will be produced (appendix 1) and will be taken to ‘Board Round’ meetings on the Consultant Unit at 09.00 and 1730 daily by the co-ordinator of the NNU.

- No matter what Escalation level the NNU is at, the decision to refuse an admission / referral must be made jointly by the NICU Co-ordinator, Neonatal Consultant, Labour Ward Co-ordinator and Obstetric Consultant. The Nurse Manager and Deputy Head of Midwifery will be informed and involved in decision making where necessary.
All decisions and actions to be documented on NICU daily activity proforma. (Appx 1)

Throughout the escalation process, liaison will be maintained with, the Centre Management Team and Clinical Site Manager.

Within Normal Hours, the decisions made in relation to transfers in or out or escalation levels at the Board Rounds will be kept as per the proforma in Appendix X

Out of hours, a record of decisions made and rationale must be kept by W+C’s on-call Manager. This record may be used for debriefs and internal/external investigations.

Debriefs should take place to include NICU Consultant, Nursing Shift Co-ordinator, Unit Manager, Nurse Manager, Obstetric and Children’s wards representative, when escalation level 3 has been sustained and de-escalation not achieved in a timely manner.

The Clinical Site Manager should inform the Director of Operations of the Centre’s level of escalation on a daily basis via the Site report.

3. PROLABOUR WARDRE FOR ASSESSING COT AVAILABILITY

3.1 Cot availability by Care Levels

The NICU Nurse Co-ordinator and the Neonatal Consultant (or Registrar) will agree on cot availability, by using the agreed care level scoring system (appendix 1). The NICU Unit Manager is kept informed.

The NICU Co-ordinator will produce an accurate cot occupancy and number of care levels available at Intensive Care, High Dependency Care and Special Care. This will be reported:

- 09.00 hours and 17.30 hours for the Board Rounds on the Consultant Labour Ward.
- At nursing handovers

Assessment of cot / care level availability will be based upon:

- Medical and nurse staffing levels and skill mix
- Current number of infants and care levels
- Planned transfers and discharges
- Infants previously transferred out needing transferring back to NICU
- Feasibility of transfers of transitional care babies to cubicles in children’s wards
- Requests for retrieval
- Requests for transfer to tertiary units
- Requests for in-utero transfer
- Pending admissions to the Consultant Delivery Units and the current workload and dependency of patients
- Infections that can not be contained when clinically required.
4. **Escalation Levels - Triggers and actions**

4.1 **Escalation Level 1**

| Escalation Level One  
<table>
<thead>
<tr>
<th>NICU Open</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Triggers:</strong></td>
</tr>
<tr>
<td>Level one is determined where nurse and medical staffing levels / skill mix /care levels, cot occupancy and equipment availability is un-compromised:</td>
</tr>
<tr>
<td>Sufficient Nurses on duty to meet patient need (according to staffing calculator, which will return value of 0 or greater).</td>
</tr>
<tr>
<td>Full compliment of Medical Staff on duty ( Min cover out of hours: 1 SHO for neonates only, I reg shared with paeds, one consultant shared with paeds)</td>
</tr>
<tr>
<td>Capacity to admit average number of babies of any dependency onto the Unit.</td>
</tr>
<tr>
<td>Sufficient Equipment to care for current workload with capacity for additional babies transferred in.</td>
</tr>
<tr>
<td><strong>Actions:</strong></td>
</tr>
<tr>
<td>• NNU co-ordinator will telephone labour ward co-ordinator to I form them that the status of NNU is green with the ability to accept admissions of any type, prior to the Labour ward Meetings at 08.30 and 17.30</td>
</tr>
<tr>
<td>• In-utero transfers and elective pre term deliveries should be discussed at the Labour Ward board Rounds prior to acceptance to check cot availability.</td>
</tr>
<tr>
<td>• Co-ordinator and NNU consultant to determine if outlying babies can be repatriated.</td>
</tr>
<tr>
<td>• Daily Activity Proforma to be completed and e mailed to agreed distribution list, to include Trust and Centre Management Team (appendix 2)</td>
</tr>
<tr>
<td>• The obstetric unit will make attempts to retrieve back any outlying pregnant ladies previously transferred to outlying hospitals.</td>
</tr>
</tbody>
</table>
## Escalation Level Two

**NICU Open To Internal Admissions Only**

### Triggers:

Level Two is determined where nurse and medical staffing levels / skill mix/care levels, cot occupancy and equipment availability compromised:

- There is one too few nurses to look after the babies currently on the Unit according to the Nurse Staffing Calculator (which will return a result of between 0 and -1).
- One Doctor off sick but cover arriving from agency
- The Remaining Cot availability is for Emergency Babies only
- There is insufficient equipment immediately available to provide care for any emergency admissions.

### Actions

The NICU co-ordinator and NICU Consultant (or Registrar) should begin to consider contingency plans, such as transferring babies to other units in and out of the region/network or the children’s wards.

- Antenatal inpatients that may require a NICU cot will need to be reviewed by the Obstetric Team. Details of which will need to be discussed at the Labour Ward Board Rounds and recorded in the pending admission book
- NICU Unit Coordinator and the Consultant covering NICU, to agree the risk of keeping the pending antenatal inpatient cases or requiring the Obstetric Team to transfer agreed cases out to other maternity hospitals for ongoing care.
- Whenever possible, when a woman has to be transferred out of SaTH for delivery, this should be to a hospital within the SSBC Network or the West Midlands region.
- When a transfer is indicated, the Labour Ward Co-ordinator will complete the appropriate proforma and forward a copy to the NICU where a record will be made of the refusal.
- Inform the cot locator service when contacted of the status of the NICU.
- NICU coordinator / NICU Manager / Consultant of the Week to review clinical priorities and dependencies for following days’ activities.
- Attempt in-utero transfers out of babies below 35 weeks or 1.8kg.
- NICU will record outliers in the pending books and document their return.
- Identify the nursing skill mix required to meet activity and attempt to rectify skill mix in accordance with usual practice
- Consider transfer of babies to paediatric wards or transitional care.

If unable to maintain level two position consider moving directly to level three
## Escalation Level Three

### NICU CLOSED TO Intra Uterine Transfers + Admissions from other NNUs

| Triggers: | Level Three is determined where nurse and medical staffing levels / skill mix/care levels, cot occupancy & equipment availability is severely compromised:  
|           | There is between one and two too few nurses to look after the babies currently on the Unit according to the Nurse Staffing Calculator (which will return a result of between -1 and -2).  
|           | and/or One doctor not available for duty, and no cover available from agency (nb: Consultant must be available)  
|           | and/or The Remaining Cot availability is for Emergency Babies only  
|           | and/or There is insufficient key equipment immediately available to provide care for current babies on the Unit and any emergency admissions.  
|           | and/or There is an infection on the Unit which can not be contained in line with infection control procedures. |

| Actions (additional to those carried out for escalation level 1 and 2) | Board Round Meetings will escalate to involve The Centre Management Team (Deputy Centre Chief, Deputy Head of Midwifery and Nurse Manager). The responsibility for the decision to escalate to Level 3 lies with this “Enhanced Board Round Group”, chaired by the most Senior Clinician Present.  
|                                    | Out of hours, the decision rests with jointly with the Consultant On-call for the NNU and the Consultant Obstetrician.  
|                                    | In the event of closure to admissions, the information should be cascaded to the following people:  
|                                    | ▪ In Hours: The Nurse Manager for NNU → The Governance Lead for NNU → the CD for Quality and Safety → the Deputy Centre Chief via telephone or pager or email, →the Centre Chief .  
|                                    | ▪ Out of Hours: The Clinical Site Manager → the W+C on call Manager who may make the decision to contact the Trust’s Off Site Manager and/or Off Site Executive.  
|                                    | ▪ Any babies that can be re located to hospital of origin to be facilitated (additionally consider other ex-utero transfers) . This will mean engaging with the Neonatal Network Transport Team to request Escalation Transfer  
|                                    | ▪ Close to admissions from other neonatal units and to transfers of mothers not delivered from other maternity units.  
|                                    | ▪ Attempt to obtain key equipment utilising key equipment list (see appendix)  
|                                    | ▪ Consultant Obstetrician to review and d/w NICU consultant (in hours) and on-call consultant (out of hours) all remaining <35 week and <1.8 kg in utero cases.  
|                                    | ▪ Ask additional consultant to cover medical rota if possible/contact medical locum agencies for cover |
4.4 Escalation Level 4

<table>
<thead>
<tr>
<th>Triggers:</th>
<th>Actions</th>
</tr>
</thead>
</table>
| **Escalation Level Three+**  
NICU closed to all admissions + need to make a short term emergency cot space | **Ensure all Level three actions have been completed**                   |
| Level Three + is determined where nurse and medical staffing levels / skill mix /care levels, cot occupancy & equipment availability is severely compromised:  
There is between one and two too few nurses to look after the babies currently on the Unit according to the Nurse Staffing Calculator (which will return a result of between –3 and -8).  
and/or  
Two doctors not available for duty (including a consultant).  
and/or  
The Only emergency space is to use the transport incubator are full and an admission is expected from the Midwifery Unit  
and/or  
There is insufficient key equipment immediately available to provide care for current babies on the Unit and an emergency admission is expected. | All of above will be reflected within the Maternity and Neonatal Bed and Activity Status document, which will require to be updated as the position changes. All of the above are triggers to remain closed.  
Requests for transfer of babies from other hospitals not to be facilitated  
Requests for intrauterine transfer to be declined, Labour Ward and NICU to manage this situation.  
Centre Chief/Deputy Centre Chief and CD for governance to be kept fully briefed and endorse actions.  
The Closure of the Maternity Unit should be considered in Line with the Maternity Unit Closure Policy  
The trust Executive Team must be contacted to inform them (they may have been informed at Level 3) |

NB Even when all measures have been put into place NICU will always be placed into a risk situation where outside hospitals are unable to accept babies to relieve pressure or when an unplanned obstetric emergency arises.
5. **RE-OPENING OF NICU FOR ADMISSIONS**

The decision to re-open NICU for admissions will be made by the Neonatal Consultant/Registrar and the NICU Co-ordinator who will immediately inform:

- Obstetric Consultant of the day
- CU Co-ordinator
- Network/region via the cot allocator web site
- Agreed Trust and Centre distribution list (appendix 2)

The NICU manager and coordinator will then be responsible for the following:

- Update daily Activity Proforma
- Assessing staffing levels
- Informing Network transport team

**MONITORING**

Completed Maternity and Neonatal Bed and Activity Status document (appendix XX) will be the basis of ongoing monitoring of refusal to admit, or transfer and the closure of NICU to admissions.

The information will be reported to:

- Centre Manger for the basis for discussion with Network/regional commissioners
- NICU Consultant for the annual report
- Lead CU Consultant and CU Manager

The Current establishment at SaTH permits a maximum of 7 nurses on duty during the day, and 6 at night. This is based on the facility to care for 3 ITU babies, 3 HDU babies and 16 Special Care Babies. In order to determine the required, nurse patient ratio, the following working excel spreadsheet can be used (double click to open). A difference will be noted between BAPM guidance and the Minimum Safe Staffing Levels utilising the current SaTH establishment.

<table>
<thead>
<tr>
<th>Nurse requirement Calculator SaTH NNU</th>
<th>BAPM</th>
<th>SaTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>No babies</td>
<td>All shifts</td>
<td>E</td>
</tr>
<tr>
<td>ITU</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>HDU</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Special Care</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>Total Staff Required</td>
<td>9</td>
<td>8</td>
</tr>
</tbody>
</table>

(NB: Additional Staff on the E and L are to accommodate a Shift co-ordinator)

Alternatively, the following calculation can be used to determine the number of nurses required for a particular dependency of shift:

<table>
<thead>
<tr>
<th>Staffing Imbalance Calculator – Neonatal Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Baby</td>
</tr>
<tr>
<td>ITU patients</td>
</tr>
<tr>
<td>HDU patients</td>
</tr>
<tr>
<td>Special Care</td>
</tr>
<tr>
<td>Total needed (round the answer) = A+B+C = (D)</td>
</tr>
</tbody>
</table>

| Staff Available | Imbalance (minus D from staff Available) = |

(NB: Consider requirement for co-ordinator on E and L dependant on workload)

**Example calculation:** 3 ITU babies, 3 HDU, 10 Special Care babies and only 5 nurses rostered for duty:

<table>
<thead>
<tr>
<th>Staffing Imbalance Calculator – Neonatal Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Baby</td>
</tr>
<tr>
<td>ITU patients</td>
</tr>
<tr>
<td>HDU patients</td>
</tr>
<tr>
<td>Special Care</td>
</tr>
<tr>
<td>Total needed (round the answer) = A+B+C = 7 (D)</td>
</tr>
</tbody>
</table>

| Staff Available | Imbalance (minus D from staff Available) = -2 |

-1
### Appendix 2

**Distribution List For Maternity and Neonatal Bed and Activity Status document**

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centre Chief</td>
<td>Mr Andrew Tapp</td>
</tr>
<tr>
<td>Deputy Centre Chief/Head of Midwifery</td>
<td>Cathy Smith</td>
</tr>
<tr>
<td>Lead Consultant Neonatologist (Business)</td>
<td>Dr Sanjeev Deshpande</td>
</tr>
<tr>
<td>Lead Consultant Neonatologist (Governance)</td>
<td>Dr Wendy Tyler</td>
</tr>
<tr>
<td>Senior Midwife for CU</td>
<td>Maggie Kennerley</td>
</tr>
<tr>
<td>Lead Consultant Obstetrician</td>
<td>Dr Michelle Mohajer</td>
</tr>
<tr>
<td>Nurse Manager</td>
<td>Ian MacLennan</td>
</tr>
<tr>
<td>Clinical Site Manager</td>
<td>via generic e-mail</td>
</tr>
</tbody>
</table>
Neonatal Unit,  
Royal Shrewsbury Hospital  
Mytton Oak Road  
Shrewsbury  
Shropshire  
SY3 8QX

Date:

Dear

I would like to apologies for the fact that following your delivery, it was necessary to transfer your baby for ongoing care to another Neonatal Unit owing to the temporary closure of the Neonatal Unit at The Royal Shrewsbury Hospital. Please be assured that the Health and Safety of your baby was the prime concern when the decision to refer them to another hospital was made.

Any decision to close the Neonatal Unit is always made as a last resort, but we understand how stressful this situation may have been for you.

We would like to offer you the opportunity for further explanation if you feel you need it. This can be arranged in a number of ways.

If you would like to take up this opportunity, please do not hesitate to contact my secretary on the number below and I will arrange for the appropriate people to contact you at your convenience.

Yours sincerely

[Signature]

Ian MacLennan,  
Nurse Manager, Women and Children’s Centre,  

Tel: 01743 261000 ext 3834.  
Email: ian.macclennan@sath.nhs.uk
LABOUR WARD:
- All Patients
- Planned LSCS / Theatre Cases
- Serious / Critical Incidents

ANTENATAL WARD:
- New Admissions
- MEWS ≥ 3
- Fetal / Neonatal High Risk Cases
  At risk of delivery within: next 24 hours / next 7 days
  - Pregnancy < 35 weeks gestation
  - Pregnancy with EFW < 1.8 kg
  - Congenital anomalies
- Other High Risk Cases
- TOPs / IUDs
- Inductions
- Serious / Critical Incidents

POSTNATAL WARD:
- MEWS ≥ 3
- Other High Risk Cases
- TOPs / IUDs
- Patient Requiring Debriefing
- Serious / Critical Incidents

NEONATAL UNIT:
- Cot Status Green / Amber / Red

ITU / HDU (RSH/PRH):
- All Patients

OTHER WARDS:
- All Patients

A & E ATTENDANCE:
- All Patients
Details of any outlying women in the following clinical areas to be recorded below:

**ITU/HDU:**

**A&E:**

Any other non-obstetric wards:

<table>
<thead>
<tr>
<th>Date:</th>
<th>.. / .. / ..</th>
<th>Date:</th>
<th>.. / .. / ..</th>
<th>Date:</th>
<th>.. / .. / ..</th>
</tr>
</thead>
</table>

Signature: On-Coming Consultant  
Signature: Off-Going Middle Grade  
Signature: Labour Ward Shift Co-ordinator