Inquest touching the death of Meha Carneiro.

Response of Sherwood Forest Hospitals NHS Foundation Trust to Regulation 28 report to prevent future deaths.

This is the organisational response from Sherwood Forest Hospitals NHS Foundation Trust to the Regulation 28: Report to Prevent Future Deaths issued by HM Coroner, following the conclusion of the inquest touching the death of Miss Meha Carneiro.

We reiterate our condolences and apologies to Miss Carneiro's family, and we hope this response that considers the matters of concern raised by HM Coroner provides reassurance that the Trust recognises and acknowledges its shortcomings and is committed to ensuring that we learn from this to prevent future deaths.

Matters of concern raised within the report and responses for each point are as follows:

1)There were insufficient trained Paediatric nurses on duty in the Emergency Department (ED), on the day of Meha's admission, and there was no effective escalation to senior nursing staff to highlight this.

The Royal College of Paediatrics and Child Health (RCPCH) Facing the Future: Standards for Children in Emergency Care Settings (2018) describe national standards for care applicable to children in Emergency Care settings. Recommendation 10 of these standards states that every Emergency Department (ED) must be staffed with two registered children's nurses on each shift. However, the Care Quality Commission (CQC) and RCPCH recognise the challenges in recruiting Registered Children's Nurses (RNC) and are working to support services through provision of guidance and an audit tool kit.

As a district general hospital recruiting of RNCs is challenging despite active recruitment. Sherwood Forest Hospital (SFH) acknowledge that it is unable to meet the workforce standards outlined by the RCPCH. The following mitigations are in place in line with CQC guidance:

- A profile of when children and young people attend the ED over a 1-year period has been obtained to ensure that RNCs are rostered on at peak times.
- A minimum set of core competencies that adult nurses must have completed prior to caring for a child or young person has been agreed as follows:
    a. Minimum of 18 months post registration experience
    b. Completion of Paediatric intermediate life support training
    c. Completion of the internal 2 day paediatric study days
    d. Completion of paediatric sepsis e-learning package
    e. Following completion of the above, an additional day shadowing a trained Registered Children's Nurse will be completed.
- RNC staffing within the ED is recorded on the Trust risk register as a significant risk and is reviewed monthly by the specialty and Trust Risk Committee. This has led to the development of the rotational post (see below).

- Continuous collaborative working between ED and the division of Women and Children to develop a rotation pathway for RNC's is planned to be in place by October 2024.
- ED Adult Nurse released to complete Paediatric Nurse Training (18 months) due to complete in September 2024. This will increase staffing by 1WTE.

The ED senior leadership team have reviewed the escalation processes in place for proactively reviewing and escalating nursing staffing concerns.

Healthroster, a system for producing rosters which take into account an employee's skills, is used to proactively maximise the likelihood that each department has the appropriate number of staff whilst ensuring there is a safe skill mix. The ED children's area rota is produced by the band 7 lead nurse a minimum of 6 weeks in advance. An additional Band 5 RN shift has been added to the roster from 4pm-2am to support ED Children and Young People attendance at peak times. Following the Inquest, improvements have been made locally to the Healthroster system to highlight specific nursing shifts for the children's area. This change enables clear identification of where there are gaps in RNC cover thus enabling the ED leads to ensure adult nurses with the minimum paediatric competencies are on duty.

It is not possible to predict sickness and short-term unplanned absence therefore changes to staffing availability may need to be escalated and acted upon at short notice. At the time of Meha's attendance, the band 7 leads were rostered on day shifts only and included within the ED staffing figures. A new band 7 supervisory Nurse in Charge (NIC) role has been implemented within ED to ensure there is now visible senior support available 24 hours a day for the entire department. At present, the NIC is included within staffing figures, however from July 2024 this role will be supernumerary. Within this role the NIC is required to ensure staff allocation for their shift and the following shift meets the Trust's minimum requirements described above and are responsible for escalating any concerns to the Division or Duty Nurse Manager to identify additional workforce from other clinical areas in the Trust to support ED.

2) There was overall a lack of recognition of how unwell Meha was on admission and over the subsequent hours prior to her death- this included both nursing and medical staff in ED:

SFH provides medical and nursing colleagues with an appropriate range of training specific to their individual roles. In relation to recognising an unwell child or young person there are a number of tools and processes in place to be used alongside clinical judgement including but not limited to:

Observations recorded and calculated using PEWS on Nervecentre.

At the time of Meha's attendance to ED children and young people's observations were recorded and calculated manually on paper using the Paediatric Observation Priority Score (POPS). During the Trust's investigation concerns regarding the reliability of this were raised and following extensive consultation between Emergency

Medicine and Paediatrics this was discontinued. Children and young peoples' observations are now recorded on 'Nervecentre' a digital system that allows observations to be recorded and calculated electronically using the Paediatric Early Warning System (PEWS).

To support the visibility of observations every member of clinical staff now has access to a handheld device to record and view observations in real time. In addition, as Nervecentre is used across the organisation for children and young people, the Paediatric specialty have the ability to review patient's observations remotely.

When considering visibility of observations, a further review was undertaken following the Inquest and it was recognised that the methodology to monitor whether patients were receiving observations at the required frequency in real time required improvement. Within both the major's area and children's and young people's area, large screens which provide a Nervecentre oversight dashboard of a specific task have been installed. The location of these was carefully considered to ensure there was no information governance risk, whilst they were in a location easily visible to departmental staff. Each screen is set to live observation view which enables staff at a glance to identify any patient with an elevated PEWS and the time repeat observations are required in line with PEWS escalation guidance. Each patient's current PEWS score has a coloured background which automatically updates, White represents scores 1-5, green is 6-8, amber 9-12 and red 13 and above. In addition, the time due changes to red if observations become overdue thus facilitating easy identification of which patients are acutely unwell.

With the introduction of the new supervisory nurse-in-charge role there is now a designated accountable band 7 lead responsible for ensuring these screens are effectively utilised and monitored to ensure the staff caring for patients with elevated PEWS scores are supported by a senior member staff.

Children and young people escalation tool.

In conjunction with changes to visibility of observations, and implementation of a supervisory NIC role the Children and Young People (CYP) escalation tool has been reviewed to ensure there is clear guidance on escalation triggers and the actions required. A copy of the Children and Young People escalation plan within appendix 1 has been circulated to all employees within the ED, however staff have been instructed this is not to be used in isolation and clinical judgement and parental/carer concerns should always be taken into consideration. Use of the updated Children and Young People escalation tool will aid timely escalation of any issues identified, ensure senior support is available and appropriate plans implemented to maintain patient safety.

Paediatric sepsis e-learning.

The Trust paediatric e-learning training package has been made re-introduced as mandatory for all medical and nursing staff within the ED from 1st May 2024.

Compliance is monitored at divisional level fortnightly and is reported to the Trust Sepsis Group for assurance.

In addition to the above training currently in place to support staff the Paediatric Sepsis 6 Care Bundle, a document to screen and identify children at risk of sepsis and outline the appropriate treatment, is under review by Emergency Medicine and Paediatrics to be completed by August 2024.The proposed changes include specifying that patients with Trisomy 21 and babies under the age of 3 months are at higher risk of developing sepsis to ensure this is taken into consideration when deciding whether to trigger commencement of sepsis treatment.

Implementation of core competencies to care for children and young people.

Recognition of an acutely unwell child is the responsibility of both medical and nursing staff within the department. As previously set out, a set of core competencies that adult nurses must have undertaken to care for children and young people is in place. The Standard Operating Procedure for Children and Young People within the Emergency Department, (see appendix 2) has been updated to reflect the new minimum training requirements for medical staff to ensure they have the appropriate skills to effectively identify an unwell child. Staff who do not meet these criteria are no longer directly responsible for the care of children and young people in the ED.

Increase in senior staff availability.

At the time of Meha's attendance, there was no supervisory band 7 nurse charge on shift. This role is now embedded into the Healthroster, with shifts filled for the preceding six weeks. The NIC role provides 24-hour senior nursing support to staff caring for children.

Within the action plan review provided to HM Coroner immediately following the Inquest, reference to a further review of the Paediatric ED staffing with specific reference to medical cover was made. This took place on the 10th April 2024. The Trust can confirm that following this review the medical model of clinicians responsible for the care of Children and Young People has been amended, and a Tier 3 or above Doctor is now responsible for caring for this cohort of patients with the support of the consultant in charge.

Senior Review and Out of hours ED Consultant Call Criteria have been produced and implemented to provide additional guidance as to when a consultant should be contacted out of hours. This has been shared with all Clinicians. Consultants have confirmed they are engaged and actively promote and encourage staff to contact them for support and guidance. These criteria, set out within appendix 3, are not an exhaustive list and staff are aware that any concerns they feel require discussion with a Consultant must lead to contact being made.

Location for caring for children when the CYP area is closed out of hours.

Previously, children who required care within ED outside the hours of 09:00-02:00 were cared for in various locations across the department. This practise has been reviewed and out of hours all children are now cared for within a designated area within Majors. Caring for children and young people in a specific area enables the Tier 3 doctor responsible to have improved oversight and promotes visibility of the patients.

3) Whilst switching from use of POPS to PEWS in ED, is likely to assist in ensuring repeat observations in a sick child, a PEWS of 6-8 only triggers review by a junior rather than a senior ED Doctor, the former less likely to recognise severity of illness and respond appropriately.

Following the Inquest, the Trust acknowledged the additional concerns raised by HM Coroner and in conjunction the ED team and Paediatric specialty reviewed national guidance regarding whom a child or young person should be escalated to based upon their PEWS score. The Trust PEWS escalation guidance now states a patient with a PEWS between 6-8 or a single observation in one parameter that scores a 3 will trigger a review by a minimum of a Tier 3 or above Doctor will be made aware within 30 minutes of escalation. In addition to acting on PEWS scores and clinical concerns, staff are empowered to escalate parental or carer concerns. This has been reflected in the ED Paediatric Triage Documents. Upon completing the review if the Doctor feels additional support and guidance is required there is always a consultant on call accessible. Additionally, the paediatric team can be contacted for specialist support.

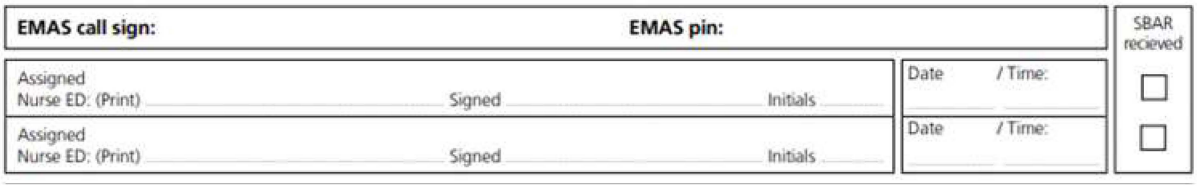
Implementation of the new medical model providing minimum Tier 3 cover to oversee the care of children and young people enables these changes to be effectively implemented. The updated PEWS escalation guidance has been cascaded to all medical and nursing staff working within the ED and paediatrics.

4) There was insufficient and ineffective handover between medical staff, with lack of documentation of key information, and agreed clinical plans- between doctors in ED, and between ED and Paediatric staff.

During the Inquest it was acknowledged that ineffective verbal handovers between Doctor's and missed opportunities to provide contemporaneous medical documentation directly impacted the care provided to Meha.

The additional information submitted by the Trust to HM Coroner following the Inquest detailed information regarding use of SBAR (Situation, Background, Assessment and Recommendation) for handovers. SBAR is a recognised method for medical handover and training on structured handovers is routinely provided to all medical and nursing staff. All Sherwood Forest clinical staff are required to utilise a structured handover to ensure effective and assertive communication. In addition, use of a structured handover ensures clear recommendations are provided preventing ambiguity through encouraging staff to repeat the information back to the provider to confirm understanding.

The ED Registered Nurse local induction covers SBAR and accountability handover and staff are provided with examples of how to use SBAR effectively. Whilst SBAR must be used for any verbal handover there was no documentation requirement to confirm whether this had taken place at the time of Meha's attendance to the ED. The ED Paediatric triage document has been updated and nurses are now required to confirm an SBAR verbal handover has been provided:



Compliance with staff signing the accountability handover is to be monitored via the Emergency Department Quality and Safety Assurance Paediatric Monthly Audit registered on AMAT (clinical audit assurance software) and any omissions are escalated in a timely manner to the appropriate managers. The first cycle of audit is June 2024.

All clinical staff working in ED have been instructed that accurate and contemporaneous record keeping is mandatory, in line with Sherwood Forest Hospitals Clinical Record Keeping Standards Policy (2023). To gain assurance that medical documentation is being completed contemporaneously to a high standard, regular reviews are undertaken, and feedback, education and support provided to any individuals as deemed required.

The changes to the medical model previously described means that there is a designated Tier 3 or above Doctor overseeing the care of all children. The Tier 3 or above doctor will lead and manage handovers between specialities and at shift change, thus reducing the number of handovers required and improving continuity of care.