Southend Neonatal Unit designation

Southend City Council People Scrutiny Committee

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1. Introduction

The purpose of this paper is to provide an overview of the proposal and rationale to redesignate the status of the neonatal unit at Southend from a Level 2 Local Neonatal Unit (LNU) to a Level 1 Special Care Baby Unit (SCBU). The demand across mid and south Essex does not warrant the current neonatal capacity provided and therefore is not the best use of our stretched workforce who would be better deployed to support our Paediatric Assessment Unit (PAU), benefitting thousands of children per year.

This proposal has been through and supported at the relevant MSEFT meetings and Committees. It has also been supported at the Mid and South Essex Local Maternity and Neonatal System Board. The proposal was discussed at the East of England Specialised Services Joint Commissioning Committee on 31 January 2024 where the outcome was for referral to the HOSCs.

2. Action required

To note the contents of the report and consider the recommendation in section 4.13.

3. Executive summary

All neonatal units across mid and south Essex are classified as level 2 LNUs. The demand across mid and south Essex does not warrant the current neonatal capacity provided and so this paper proposes a redesignation of the neonatal unit at Southend to a level 1 SCBU and a reduction in the total cot capacity. This will enable the reallocation of some of the medical workforce time to other areas of the service where the need and impact is greater.

The workforce is stretched to cover all three units to this level and, in particular, this impacts on the cover that the consultants on the Southend site are able to provide to the Children's Emergency Department and PAU. The current consultant job plans do not provide direct clinical care and oversight for the paediatric assessment area and there is no consultant oversight for the paediatric emergency pathways which is currently provided by agency and locum cover. The redesignation allows the reduction in attending activity on the neonatal unit, providing an opportunity to cover direct clinical care for the paediatric emergency pathways thereby improving quality and safety within these services in a sustainable and lower-cost way.

This document sets out the quality, capacity, workforce, and estates case for change and draws upon the temporary 32-week gestation cap for care at Southend during 2023 describe the low level of impact this had on women/people booked for maternity care at Southend Hospital or in other Mid and South Essex NHS Foundation Trust sites in terms of absorbing these patients.

4.1 Background

Neonatal units are classified as follows:

- Level 1 Special Care Baby Unit (SCBU) – provides local care for babies born at 30* weeks' gestation or more and >1000g birthweight who require only special care or short-term high dependency care.
- Level 2 Local Neonatal Unit (LNU) – provides care for all babies born at 27 weeks' gestation or more, >800g birthweight or multiple pregnancies >28 weeks (which includes short-term intensive care where necessary) and may receive babies 27-29* weeks who require high dependency care.
- Level 3 Neonatal Intensive Care Unit (NICU) – provides care for babies born below 27 weeks' gestation, <800g or those requiring the most complex interventions.

** It is anticipated that the SCBU gestation floor will reduce to 32 weeks from April 2024 and therefore this proposal is made on this basis.*

All three units across MSE are currently classified as level 2 LNUs and there is no level 3 NICU within Essex. All women / birthing people requiring level 3 care are therefore transferred outside of MSE, with their babies repatriated when they meet the criteria described above. Neonatal care should always be provided as close to home as possible to minimise the time that new-borns and their parents spend apart.

4.2 Proposal

Southend is currently classified as a level 2 Local Neonatal Unit (LNU). As a Special Care Baby Unit (SCBU) Southend Hospital would provide local care for babies born at 32 weeks or more and >1000g birthweight who require only special care or short-term high dependency care. All pregnant women or people who fall outside these categories will have a birthing plan to deliver at Basildon or Broomfield hospitals. Babies who unexpectedly need intensive care are transferred to an appropriate unit including those who require level 3 care who will be discussed via PaNDR (Paediatric and Neonatal Decision Support and Retrieval service).

The service will continue to deliver transitional care capacity within neonatal services, there are no proposed changes to this service delivery for consideration.

The number and designation of cots at Southend is proposed to change as shown in Table 1.

Table 1 – cot provision current and proposed, Southend Hospital

Level of care	Current	Average Occupancy 2023	Proposed	Variance
Intensive Care (HRG1)	2	19%	1	-1
High Dependency (HRG2)	3	66%	3	0
Special Care (HRG3)	11	38%	8	-3
Total	**16**	**41%**	**12**	**-4**

The proposal is to redesignate the neonatal Unit at Southend Hospital as a level 1 SCBU from 1 April 2024 or as soon as is practicable after this date.

The SCBU will retain one intensive care cot for stabilisation prior to transfer out and three high dependency cots for babies requiring additional care but still meeting the SCBU definition.

4.3 Case for change

Data and modelling of the neonatal cot requirements across MSEFT indicates that we do not need to run three level 2 LNUs to meet the needs of our patients across our geographical area. The three units are only marginally reaching the activity levels of 1000 Intensive Care / High Dependency bed days per year expected for LNU designation. This is also impacting the opportunity to develop and maintain clinical knowledge and skills to deliver a high-quality service.

From a national perspective, there are clear guidelines in place to support a local care pathway for neonatal services as identified within the NHS Long Term Plan which states each neonatal network should comprise of several maternity and neonatal services with one or two (level 3) NICUs and a small number of LNUs/SCBUs depending on local population need. All these units working together should support the delivery of a “local care pathway” which should have the capacity and resources to care for women who live within the network area and their babies for all conditions, except neonatal surgical or cardiac services and extremely rare conditions that are provided on a regional or supra-regional basis (NHS England and Improvement, 2019).

At the end of 2022, the neonatal service at Southend Hospital was temporarily capped at 32 weeks due to safety and quality concerns:

- There was not a sustainable medical workforce in place to deliver the care requirements of a local neonatal unit to enable British Association of Perinatal Medicine (BAPM)-compliant staffing levels and consequent service safety.
- After 20 years with very few reported serious incidents (SIs), there had been six at Southend Hospital since the introduction of centralised Datix reporting and incident management, plus seven internal investigations within 12 months of the merger. This suggests under-reporting previously.
- Concerns raised about culture and working relationships within the paediatric and neonatal workforce including poor feedback from trainees.

The Southend neonatal unit does not meet the NHS standards for neonatal delivery related to cot space and size, medical gas supply and electrical capacity and supply. This is currently an identified risk on the Care Group 5 risk register and mitigations are in place, however a recent infection outbreak identified that cot spacing was one of the contributing factors to the outbreak. Quotes are pending for the investment that would be required to bring the unit up to the required standard. While yet to be received, based on previous works, the cost is expected to be in the region of £1-2m.

Since the merger, the Trust has been identifying opportunities for redesigning models of care which operate effectively across the three sites, ensuring that high-quality, effective pathways are in place to utilise workforce skills and numbers and provide patients with high standards of care at the point of access. The neonatal pathways have been identified as an area of opportunity for redesign which fully utilises the workforce skills whilst providing the right care in the right place for babies and their families.

The current consultant job plans at Southend do not provide direct clinical care and oversight for the paediatric assessment unit and there is no consultant oversight for the paediatric emergency pathways which is currently provided by agency and locum cover. Reducing attending activity on a neonatal unit will provide an opportunity to cover direct clinical care for the paediatric emergency pathways thereby improving quality and safety within these services in a sustainable and lower-cost way.

4.4 Options appraisal

The information above made Southend Hospital the obvious choice for the unit to redesignate as level 1. However, all options have been considered with several key indicators reviewed and ranked to assess whether this is the right decision. Assuming no weighting of indicators, this assessment concludes that it is the Southend LNU that should be redesignated as a SCBU – see Table 2.

Table 2 – Options appraisal

Indicator	**Basildon**	**Broomfield**	**Southend**
Annual Maternities	2 *(3800)*	1 *(4500)*	3 *(3500)*
Indices of deprivation (2019)	1 *(100)*	3 *(253)*	2 *(110)*
Estate infrastructure	1 *(new build)*	2 *(meets standards)*	3 *(does not meet standards and requires significant investment)*
Safety concerns	1 *(no concerns)*	1 *(no concerns)*	3 *(concerns raised, as per case for change section)*
Staffing gaps	1 *(no gaps)*	2 *(unrelated gap)*	3 *(PAU/ED gaps)*
Outpatient waiting time for referred children	2 *(50w)*	1 *(38w)*	3 *(56w)*
Total	8	10	17

1 = lowest need/indication to change to level 1, 3 = highest need/indication to change to level 1

4.5 Workforce implications

The medical workforce across paediatrics and neonatology at Southend will consist of 14 consultants undertaking a 1:14 rota covering both services. To staff the middle-grade rota and be compliant with European working time directive while maintaining a minimum of two senior children's doctors on the site at any time requires a rota of 12 doctors which is the current establishment.

Delivery of the new medical model will require a formal consultation due to the changes of terms and conditions for practice of the reduction in the level of neonatal care provided (one consultant has indicated that they would like to continue working at a local neonatal unit level and five middle-grade doctors who would be affected by the changes), and the steps required to support this have been developed in the project plan. Implementation is currently expected in late Spring 2024 to support the timeframe for the consultation and onboarding of recently recruited substantive consultants and any job planning changes required.

There are no anticipated changes to the run rate of the nursing workforce as establishment levels have already been reduced due to the temporary gestation cap and activity levels. The establishment and skill mix will be kept under review as vacancies arise to meet BAPM standards.

4.6 Review of impact of the temporary gestation cap

In 2023, 40 pregnant women/people were transferred out from Southend to another hospital. The breakdown of this is as follows:

- 18 women were less than 27 weeks' pregnant and so required level 3 NICU care (not provided across mid and south Essex, so transferred to another Trust – not be impacted by this change).
- Two women were transferred for maternal reasons unrelated to neonatal care.
- Three were transferred due to lack of neonatal unit capacity/staffing.
- Three were transferred due to the temporarily raised cap (to 36 weeks) while the MRSA works and restrictions were in place.
- 14 women were transferred to another Mid and South Essex NHS Foundation Trust site, or another trust, as they were between 27 and 31 weeks pregnant – this is the cohort directly impacted by the substantiation of this change.
    - Five of these women were transferred to another MSEFT site and three went on to deliver at this attendance. Their babies were initially cared for within the other MSEFT site and then transferred back to Southend Hospital neonatal unit when meeting the criteria.
    - Nine of these women were transferred outside of mid and south Essex, from which four babies were repatriated to Southend for SCBU care later in their pathway. The remainder either did not deliver at this attendance or their baby's neonatal care was completed in the unit to which they were transferred. This frequency has been discussed within the care group and our Clinical Reference Group will improve pathways to increase the proportion of women/people from Southend who remain within mid and south Essex.
- 12 babies were treated at Basildon or Broomfield hospital that would otherwise have been repatriated (post ITU care) or stayed at Southend (for High Dependency Unit care). This includes three babies transferred immediately after delivery.

Based on 2023 data, less than 0.5% of women/people who were booked to deliver at Southend Hospital were impacted by the temporary cap. When planning for a permanent change, to best manage patient expectations and service capacity, it is possible that more women at high risk of pre-term labour will be pro-actively booked at another MSEFT site. This is estimated to be at most 1-2%, or a maximum of 70 women/people.

4.7 Implications operationally and on clinical pathways

The main impact of the change will be for babies born between 27- and 32-weeks' gestation who will need to be transferred to Basildon or Broomfield hospitals. Babies requiring level 3 care will be discussed via PaNDR (Paediatric and Neonatal Decision Support and Retrieval service) on a case-by-case basis. Women at high risk or identified as needing a higher level of neonatal care prior to delivery will have a birth plan which reflects a Basildon or Broomfield hospital delivery is required. This includes women and birthing people seen antenatally in the Fetal Medicine Unit at Southend.

All neonatal units need to be prepared for unexpected extremely preterm birth outside of their normal gestation limit. Should a baby be born at a gestation less than 32 weeks before in-utero transfer of the pregnant person could be accomplished, the infant would be stabilised and transferred within mid and south Essex if 27-weeks plus or to a tertiary unit if under 27 weeks. There will be one ITU cot which will be used for this purpose.

The Trust has been implementing the PERIPrem bundle: Birth in the right place. The pathways which are in place for this programme of work can be utilised to support the transfer of women up to 32-weeks' gestation from Southend to enable delivery at Basildon/Broomfield hospital sites where there will be LNU support. Geographically this equates to a 14-mile journey, approximately 27 minutes in a car or quicker with emergency ambulance transport. Where possible and through parental choice, babies would be repatriated back to Southend Hospital when clinically suitable for care provision locally prior to discharge. Pathways are already in place to support these transfers between sites, and these will be reviewed and strengthened, including transfers of some women *to* Southend site for delivery when LNU care is not anticipated to safely manage maternity capacity, ahead of the proposed redesignation through a clinical reference group.

4.8 Future implications for neonatal service provision

There is a need to review the provision of neonatal services at Basildon and Broomfield hospitals to ensure there is not a negative impact on the service delivery pathways because of this change. The data and modelling of the cot requirements suggests that the other two LNUs have the capacity to support the change. Please see tables 3 and 4 below which demonstrate sufficient capacity based on 2023 activity, which already includes babies transferred due to the temporary cap on gestation. This will be reviewed regularly as per yearly business planning and bed modelling cycles.

Table 3 – cot provision, Basildon Hospital

Level of care	**Current**	**Average Occupancy 2023**
Intensive Care (HRG1)	3	40%
High Dependency (HRG2)	5	81%
Special Care (HRG3)	11	46%
Total	**19**	**55%**

Table 4 – cot provision, Broomfield Hospital

Level of care	**Current**	**Average Occupancy 2023**
Intensive Care (HRG1)	2	36%
High Dependency (HRG2)	4	69%
Special Care (HRG3)	10	62%
Total	**16**	**64%**

As well as using the Transitional Care service to provide care for neonates while they stay resident with their mothers, there will be further opportunities for future service development through the implementation of a neonatal outreach service which would help to reduce the number of admissions into the neonatal unit and support babies to be cared for with their mothers either within maternity services or at home. This is a service development that would require funding and is separate to this case.

4.9 Intended outcomes

Improved patient safety

One of the drivers for the reconfiguration, after the excess capacity not being required, is the lack of consultant cover for the paediatric assessment unit and the paediatric emergency pathways at Southend Hospital; these are currently being covered by locum and agency, which is not a sustainable or cost-effective solution. The cot reconfiguration will reduce activity within the neonatal unit and provide direct clinical cover for the paediatric emergency pathways, thereby helping to maintain safety of children and young people and increasing opportunities for clinical engagement within this area. This would be an appropriate local care pathway for the local population and initial conversations with the East of England Neonatal Operational Delivery Network (ODN) suggest it would be an appropriate use of the MSEFT neonatal service provision.

A reduction in the number of cots will allow for additional spacing in between the cots which will improve compliance towards the NHS standards thereby providing mitigation and reducing risk within the clinical area. It will also support with the availability of medical gas supply as there are currently 12 spaces available with services in place with less investment required to bring the service up to specification.

Improving workforce and culture

There is considerable evidence that team working within organisations leads to improvement in safety as well as productivity. Neonatal staff work in a stressful environment and effective team working is key to delivering high quality care. Effective communication of threats to patient safety is an increasing challenge in the multispecialty shift-based workplace (BAPM 2022).

Multi-professional shared learning within an organisation is important in maintaining professional performance and skills. It promotes team culture and optimised human factors and can help to ensure a common understanding and set of values and goals. Perinatal services should have a culture that supports education and training, with regular training opportunities for all staff both at the bedside and in the classroom (BAPM 2022).

Whilst there is minimal direct impact to the requirements of cover for the nursing workforce, these changes would allow development of nursing and allied health professional training and career development into advanced practice roles with potential for a whole career pathway from band 3 to 8B within neonatal services across the three sites.

Trust vision and strategic objectives

This proposal supports the Trust's aim for high quality local services and opportunities for our staff as described above. It also supports the 2023/24 strategic objectives by ensuring that our care is delivered by skilled and empowered staff, providing enough of the right capacity to treat all our patients, and improving value in all we do.

4.10 Stakeholder engagement

A significant number of stakeholders have been engaged in the development of this proposal and are involved in the ultimate approval of this proposal. Stakeholders include:

- The Neonatal Operational Delivery Network (ODN) has been fully supportive of the gestation cap and understand the need for change within in the services. They are supportive of the Trust proposal for neonatal configuration and have been involved in discussions to date.

- The Local Maternity and Neonatal System (LMNS) Board, including the ICB, is sighted on the temporary gestation cap which its Neonatal sub-group has been supportive of. Support for this proposal was given at the LMNS Board on 30 January 2024.
- The Maternity and Neonatal Voices Partnership (MNVP) – discussions have been undertaken to provide awareness and an opportunity to raise concerns. No concerns have been raised to date and once the final proposal is agreed, further engagement will be undertaken.
- All Health Overview and Scrutiny Committee (or equivalent) Chairs have been written to outlining the proposal with the offer of attending a meeting for the matter to be discussed.
- All Healthwatch Chief Executives have been written to outlining the proposal.
- Senior staff within Neonatal services at Southend have been engaged for their views on redesignation. Staff have concluded that this is an inevitable change which they support and are now keen to expedite to ensure clarity of the service model.
- As a senior leadership team, the impact on maternity services has been considered and the team were consulted on when the restrictions were placed temporarily in 2022. Support for progressing this as a permanent change was gained at the Care Group 5 Board on 3 January 2024.
- East of England Ambulance Service and PaNDR are aware of the existing temporary cap and are able to support transfers as required.

4.11 Risks for delivery

A Steering Group has been established to oversee this proposed change with suitable clinical membership. A Clinical Reference Group has been established to feed into the Steering Group, focussed on ensuring safe clinical pathways are in place. These governance arrangements are designed to mitigate the potential delivery risks and a draft risk log has been put in place.

The changes to the medical workforce rosters require a full establishment of substantive consultants. Successful recruitment was undertaken in late November 2023 with two existing locum consultants appointed substantively and two external appointees who start in mid-March and early May. Job planning changes are also required to support the roster changes subject to consultation with the affected staff.

Discussions with the Deanery have also been completed and they have no concerns about the training impact as all trainees are on paediatric rather than neonatal rotations.

4.12 Estimated costs

There are no anticipated costs to this change. Workforce costs will be regularly reviewed during and after implementation to identify opportunities to reduce locum and agency spend and to provide an opportunity for improving value. Any delay in implementation increases the financial burden on MSEFT and consequently Mid and South Essex Integrated Care Board.

Total non-pay costs across mid and south Essex are not expected to be impacted as the service provision will switch between sites. Budgets may therefore need to be realigned to match the revised model. Similarly, there is no anticipated impact on income.

If the proposal to reduce to 12 cots is agreed, the service will be compliant with medical air, oxygen and suction points as there is enough already installed in the unit for 12 cots which helps mitigate the risk within the unit. There will still need to be a review of electrical socket capacity reviewed which is currently mitigated through semi-permanent options.

4.13 Recommendation

The Southend People Scrutiny Committee is asked to approve the redesignation of the Southend Neonatal unit as a level 1 SCBU as described and proposed in this paper with effect from 1 April 2024.

4.14 References

NHS England and NHS Improvement (2019) *Implementing the Recommendations of the Neonatal Critical Care Transformation Review* available at: https://www.england.nhs.uk/wp-content/uploads/2019/12/Implementing-theRecommendations-of-the-Neonatal-Critical-Care-Transformation-Review-FINAL.pdf

British Association of Perinatal Medicine (2022) *The British Association of Perinatal Medicine*

Service and Quality Standards for Provision of Neonatal Care in the UK available at:

https://www.bapm.org/resources/service-and-quality-standards-for-provision-of-neonatal-care-in-the-uk