GUIDELINE

Extreme Prematurity:

Periviable Gestations (22 and 23 weeks)

Scope (Staff):	Nursing and Medical Staff
Scope (Area):	NICU KEMH, NICU PCH, NETS WA

Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this disclaimer

Aim

To outline a best practice management plan for infants born between 22^{+0} and 23^{+6} weeks gestation including planning of place and mode of birth and administration of antenatal corticosteroids.

Risk

This is an area of high risk where poor communication and a lack of an agreed and documented management plan may lead to a serious adverse event and significant distress to the family and staff.

Background

The birth of 22^{+0} to 23^{+6} weeks infants continues to be challenging both morally and ethically. The management of infants born at these early gestations can frequently cause moral distress for parents and staff.

Local data including a very small number of survivors from 22^{+0}-22^{+6} gestation suggest that survival without significant impairment is possible, with around 4/10 infants surviving and of the survivors 6/10 had no disability at a minimum of 2 years follow up. However, it should be noted this group is likely to include only those with other favourable factors such as antenatal corticosteroid, tertiary delivery centre and singleton pregnancy and a small number of cases.[1]

International data are available for babies born in countries where a proactive approach to these babies is evident. It is estimated that in ideal circumstances the expected survival rate would be 30 per cent for births in tertiary perinatal centres, like

KEMH. Of the survivors approximately 2/10 will have no disability at 2 years with 4/10 having mild-moderate disability and 4/10 having severe disability.[2]

Zone of parental discretion

The **zone of parental discretion** (ZPD) refers to scenarios where it is ethically legitimate for parents to make decisions regarding resuscitation of their baby after birth. If the risk is extremely high (>90% risk of death or severe disability) then active management is not considered to be in the best interest of the infant. See Fig. 1

Making decisions about what care is most appropriate for an infant born extremely preterm (EP) is very stressful for families. Consider and support the wellbeing of the family at all stages of the decision-making process. The management plan should be individualised with the emphasis on parental preference and the presence or absence of critical risk factors.

Key points

- This guideline only applies to those pregnancies where birth is not a consequence of a requested abortion. As per the *Abortion Legislation Reform Act 2023 (WA)*
- Consider individual maternal, fetal risk factors and other important determinants of outcome for previable gestations:
    - The birth hospital resources for active management at the time of their birth. Birth outside of KEMH has significantly higher risk of mortality.
    - Antenatal corticosteroid exposure (ideally a full course)
    - Birthweight
    - Plurality
- Parents considering active management, including resuscitation, should be informed about the medical uncertainty regarding long-term outcomes of these babies in Australia.
- Discussion of care plan with a Senior Obstetrician to optimize birth mode, degree of monitoring and corticosteroid exposure.

Figure 1. Zone of parental discretion

<table>
<tr><td colspan="2">Palliative care
<22+0 weeks</td><td>Currently considered outside of the ZPD as their likelihood of dying or surviving with severe disability is >90 per cent.

Life sustaining intervention is not supported</td></tr>
<tr><td rowspan="2">Zone of parental discretion</td><td>22+0 to 22+6 weeks</td><td>Palliative care recommended but take parental view and other risk factors in to account. Resuscitation is only recommended in optimal circumstances:

ABSOLUTE:
• Birth at KEMH
RELATIVE
• Not severely growth restricted
• Completed course of antenatal corticosteroids (after 2nd dose)
• No adverse perinatal risk factors, i.e prolonged rupture of membranes, evidence of clinical chorioamnionitis.
• Gestations 22+5 or 22+6
• Singleton</td></tr>
<tr><td>23+0 to 23+6 weeks</td><td>Active management generally recommended if born at KEMH but parental view respected</td></tr>
<tr><td colspan="2">Active care
≥24+0 weeks</td><td>Active management is generally recommended but takes into consideration adverse risk factors for the baby (some examples are: outborn, severe IUGR, congenital anomaly).</td></tr>
</table>

Inadequate time for shared decision making and/or gestational age is uncertain

Where birth is imminent, and there is little or no time to discuss options and parental wishes, active management from 23 weeks onwards is recommended in the first instance, unless there are known adverse maternal and/or other fetal risk factors. For example, outborn infants <23 weeks and severe IUGR (but not limited to these examples).

Active care is generally not recommended between 22^{+0} and 22^{+6} weeks gestation if a shared decision cannot be reached. However, it is suggested to treat on a case-by-case basis including the assessment of other risk factors and discussion with more than one senior clinician.

Parental Counselling principles

- Counselling should be provided by a Consultant Neonatologist whenever possible and joint counselling with the Obstetrics and Neonatal team where possible. Frame positive and negative outcomes together and use local outcomes where possible. Beware of overuse of statistics.
- Have support/appropriate family members present and allow time for decision making and offer a follow up counselling session
- Written/visual guidance regarding outcomes should be offered (parent information sheet 22/23 weeks' gestation in development)
- Be aware of health professional own personal beliefs and moral distress when counselling
- Where decision making is particularly challenging a second senior Neonatal opinion is advised.

Documentation of Counselling and Neonatal Management Plan at 22 and 23 weeks gestation

The counselling and documentation will, in most situations, be completed by a Neonatal Consultant. There may be some circumstances when a neonatal senior registrar may provide counselling. If parents are undecided or there is a decision to not resuscitate at 23 weeks then a neonatal consultant must be contacted and provide counselling.

A Neonatal Management Plan MR409.90 must be completed in the following circumstances:

1. **Parents decide to resuscitate at 22/23 weeks**
   In most circumstances a Neonatal consultant will complete the NMP which is then filed in the DMR of mother's medical records AND a scanned copy is circulated via email. However, in some time critical situations a Senior Registrar may complete the NMP.

2. **Parents decide NOT to resuscitate at 23 weeks**

   - If a Senior registrar has commenced counselling and parents indicate a wish to not resuscitate then a Neonatal consultant should be contacted to provide counselling. The Neonatal consultant documents on the NMP clearly stating that "The plan to not resuscitate is valid only for ---- week of GA" AND "Date of next review……."
   - The NMP will be filed in the DMR of the mother's medical records AND a scanned copy circulated via email
   - Once invalid, and if relevant to the ongoing care, Obstetric staff will inform neonatal staff to revisit parents to formulate a new NMP.

- **Neonatal consultant** to document the palliative care plan discussion and decision with the family and team in the maternal progress notes (DMR).
- There is a likelihood that the management plan may need to be changed so a review date needs to be clearly documented on the plan and communicated with Obstetric and Midwifery staff.

Parents are undecided

Where parents are undecided, the neonatal consultant will document it in the maternal progress notes (DMR). Obstetric staff to follow up daily with parents if they have made any decision. If required, Obstetric staff will ask neonatal staff to revisit parents.

Any change in parents' decision regarding neonatal resuscitation must be communicated immediately to neonatal staff who will then complete a NMP.

Pregnancies ≥ 24 weeks

Counselling can be provided by either a Neonatal Senior Registrar or Consultant. A NMP form is generally not required ≥24 weeks as resuscitation is usually a standard practice. Document the details regarding parental counselling in the maternal progress notes (DMR).

Where parents indicate a decision to not resuscitate at ≥ 24 weeks then a Neonatal consultant has to be informed and senior advice sought.

Outborn (non-KEMH site)

Efforts should be made to transfer to KEMH for birth whenever possible following discussion with the most senior obstetrician on call for labour and birth suite (LBS) at KEMH. Where this is not possible, counselling regarding Neonatal care plan options can be supported by the NETS team with a KEMH Consultant on the call (1300NETSWA). Advice regarding obstetric management can be supported by the most senior on-call obstetrician at KEMH.

Corticosteroids should be administered as soon as possible when it is considered there is a significant chance of birth within the next seven days.

Resuscitation <23 weeks for **outborn** babies is not recommended.

Resuscitation 23^{+0}-23^{+6} for **outborn** babies is associated with a significantly higher risk of death and long-term disability and is therefore generally not recommended however, supported if parental wishes are to provide active care.[3,4]

Moral Distress of Staff

Assessments regarding the best interests of the baby (or whether a baby will be harmed by a management plan) are influenced by personal beliefs and values. There may be conflicting beliefs between different staff members or staff members and the family.

Strategies for managing moral distress

- Perinatal healthcare providers should provide a supportive environment where clinicians are empowered to ask questions respectfully, raise concerns and seek peer support in shared decision making.
- Address questions with transparent and informed responses. Acknowledge any uncertainty.
- Encourage clinicians to self-reflect. This may promote constructive conversations and identify where differences in beliefs and values lie
- Managers give appropriate support, debriefing where necessary and offer employer assistance program

Related CAHS internal policies, procedures and guidelines
Resuscitation: Neonatal (health.wa.gov.au)
Labour and Birth: Neonatal team attendance for births (health.wa.gov.au)

References and related external legislation, policies, and guidelines

1. Athalye-Jape G, Abdul Aziz S, Harris E, Gardiner L, Sharp M. 2023 From the borders of viability: a 21-year Western Australian experience of outcomes in infants born between 22-22+6 weeks gestation Annals Pediatrics and Child Health 2023
2. Myrhaug HT, Brurberg KG, Hov L, et al. Survival and Impairment of Extremely Premature Infants: A Meta-analysis. Pediatrics 2019;143(2):e20180933. doi: 10.1542/peds.2018-0933
3. Davis JW, Seeber CE, Nathan EA, et al Outcomes to 5 years of outborn versus inborn infants <32 weeks in Western Australia: a cohort study of infants born between 2005 and 2018Archives of Disease in Childhood - Fetal and Neonatal Edition 2023;108:499-504.
4. Helenius K, Longford N, Lehtonen L, et al. Association of early postnatal transfer and birth outside a tertiary hospital with mortality and severe brain injury in extremely preterm infants: observational cohort study with propensity score matching. BMJ 2019;367:l5678. doi: 10.1136/bmj.l5678

BAPM guideline: www.bapm.org/articles/109-new-bapm-framework-on-extreme-preterm-birth-published#:~:text=BAPM%20have%20published%20a%20new%20Framework%20for%20Practice,of%20gestation%20or%20less%20in%20the%20United%20Kingdom.

Safer care Victoria: extreme prematurity guideline

Abortion Legislation Reform Act 2023 (WA)

Useful resources (including related forms)

MR409.90 Neonatal Management Plan

Parent Information leaflet 22 and 23 gestation infants (in development)

This document can be made available in alternative formats on request.

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