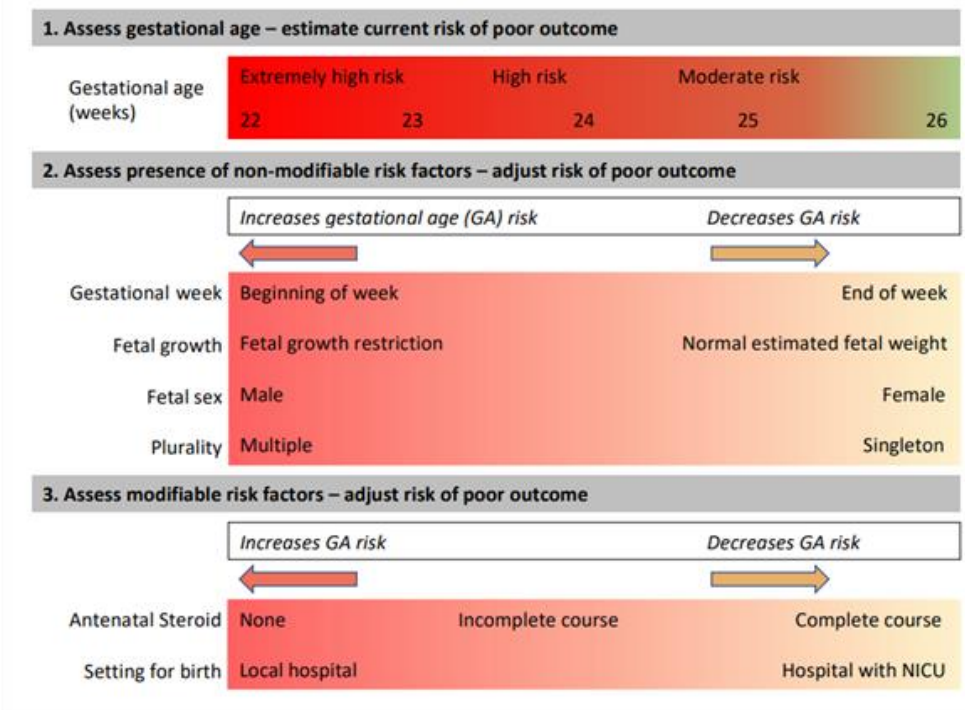
BABIES BORN EXTREMELY PREMATURELY: 22^{+0}–26^{+6} WEEKS GESTATION

INTRODUCTION

- Outcomes for babies born very preterm improve with each additional week of gestational age; and have improved for any given gestation over time (see EPICure studies http://www.epicure.ac.uk)
- **Make all efforts** to enable discussions between consultant-led obstetric and neonatal/paediatric teams and parents-to-be to take place **before** the birth of the baby
- See **BAPM framework for practice** https://www.bapm.org/resources/80-perinatal-management-of-extreme-preterm-birth-before-27-weeks-of-gestation-2019 to inform discussions and make an individualised clearly documented plan for the management of the baby
- Once the baby is born, further management decisions should be made in the baby's best interests, taking into account:
  - prognostic factors
  - discussions between obstetric and neonatal teams and parents-to-be
  - clinical condition at birth
  - response to stabilisation/resuscitative efforts
- In the event of imminent delivery before discussions have taken place (if fetal heart heard during labour), call neonatal team to attend delivery and request urgent neonatal/paediatric consultant assistance

MANAGEMENT

- Using the prognostic features from **BAPM Framework for practice**, babies will fall into one of the following groups: extremely high risk; high risk; or medium risk of dying/surviving without a good quality of life



Extremely high risk
- Babies with >90% chance of either dying/surviving with severe impairment if active care is instigated e.g.:
- babies 22^{+0}–22^{+6} weeks' gestation with unfavourable risk factors
- some babies 23^{+0}–23^{+6} weeks' gestation with unfavourable risk factors, including severe fetal growth restriction
- (rarely) babies ≥24^{+0} weeks' gestation with significant unfavourable risk factors, including severe fetal growth restriction

High risk
- Babies with 50–90% chance of either dying or surviving with severe impairment if active care instituted, e.g.:
- babies 22^{+0}–23^{+6} weeks' gestation with favourable risk factors
- some babies ≥24^{+0} weeks' gestation with unfavourable risk factors and/or co-morbidities

Moderate risk
- Babies with <50% chance of either dying/surviving with severe impairment if active care instituted e.g.:
- most babies ≥24^{+0} weeks' gestation
- some babies at 23^{+0}–23^{+6} weeks' gestation with favourable risk factors

MANAGEMENT AT BIRTH

- Consultant neonatologist/paediatrician should ideally be present at delivery of babies <27 weeks' gestation where survival-focused care may be attempted

Extremely high risk
- Palliative (comfort-focused) care would be in best interests of the baby and life-sustaining treatment should not be offered
- this should be compassionately explained to the parents by the perinatal team
- Generally neonatal team would not attend the birth (however may be helpful for individual families – offer if appropriate)

High risk
- For these babies it is uncertain whether survival-focused management is in the best interests of the baby and their family
- Counsel parents carefully; parental wishes should inform a joint decision to provide either survival-focused or comfort-focused treatment
- Senior neonatal clinician (ideally known to the parents) will attend the birth if at all possible, to lead/oversee implementation of agreed approach

Counsel parents that the plan for care may need to change based on the clinical condition of the baby before, at or after birth, or subsequently in NICU

Active (survival focused) neonatal management
- Stabilisation and support for transition to be carried out by/under direct supervision of most senior member of neonatal/paediatric team available (ideally team will be experienced in stabilisation of extremely preterm babies and led by consultant neonatologist)
- Team should be aware of parental wishes, but when the baby is born in **unexpectedly poor, or unexpectedly good,** condition it is reasonable for attending neonatologist to proceed with care in the baby's best interests
- Use optimal cord management and appropriate thermoregulation
- Care should be taken not to over distend lungs when supporting respiratory transition, CPAP may be successfully used in babies from 24^{+0} weeks' gestation

- If no response to mask ventilation **and** any doubt around adequacy of ventilation, intubate and administer surfactant [see **Surfactant replacement therapy – including less invasive surfactant administration (LISA) technique** guideline]
- If the baby does not respond to stabilisation/resuscitative efforts, most senior attending professional to decide if/when attempts should stop
- absent heart rate/severe bradycardia despite effective cardiopulmonary resuscitation for more than a few minutes is associated with very poor outcome in extremely preterm babies
- Stabilisation normally undertaken in same room as parents
- offer parents opportunity to see, touch, hold and photograph their baby
- Following successful stabilisation of the baby, the mother should be supported to express breast milk as early as possible (see **Breastfeeding** guideline), with ongoing facilitation of parental contact and family involvement

Palliative (comfort focused) neonatal management

- Aim is to support the parents and their dying baby, and to avoid interventions that may cause discomfort, pain or separation of the baby from the parents
- Care to be delivered in most appropriate location for the family (may not be NNU, and does not require in utero transfer of mother)
- For some families the presence of a senior neonatologist/paediatrician at delivery may be helpful
- all involved should understand that respiratory support will not be provided
- Give opportunities and support parents in creating positive memories of their baby
- Offer parents the opportunity to hold and spend as much time as they wish with their baby in a quiet and private location
- In the unlikely scenario of the baby being born in much better condition than expected, palliative management may need to be reconsidered

PARENT INFORMATION

- See https://www.bapm.org/resources/80-perinatal-management-of-extreme-preterm-birth-before-27-weeks-of-gestation-2019 **Appendix 4: Helping parents to understand extreme preterm birth**