GUIDELINE

Newborn Care of the Infant Born to a Mother receiving Minimal or No Antenatal Care

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

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 provide a safe and consistent guide to facilitate urgent screening and prompt treatment of mothers and infants at risk of communicable disease, where antenatal care (ANC) has been minimal or not provided.

Outlines the recommended specific pathway for communication with health professionals and PathWest laboratory services for patients referred to King Edward Memorial Hospital and Perth Children's Hospital. Laboratory services, personnel, and estimated turn-around times of results etc., in other clinical settings are beyond the scope of this document.

Risk

Potential to miss opportunities for the diagnosis and treatment of potentially serious disease if guidelines and processes are not followed. The provision of appropriate counselling and support of patients is essential.

Background

Routine ANC care provides a holistic framework for maternal and neonatal health throughout pregnancy and the postnatal period. The provision of health and wellbeing education and resources, opportunity for medical, psychological, and social support and referral are fundamental.

Detailed health screening for conditions that may adversely affect the pregnancy are routinely conducted at booking, with opportunity for early diagnoses, surveillance, and treatment. Women who have not received ANC warrant counselling and consent to undertake urgent screening for sexually transmitted Infections (STI) and blood borne viruses and commencement of any appropriate therapy for these without delay.

Comprehensive medical and social care must also be provided. Where possible, serology tests should be performed using maternal samples, however special circumstances may require additional resources and neonatal testing, where there is little or no capacity to perform maternal screening (e.g. physical separation or abandonment).

Close communication between the senior obstetric, neonatal and microbiology/ ID physicians is paramount to this model of care and to ensure the correct maternal and neonatal specimens are taken, processed and results communicated without delay.

Key points

- The Clinical Microbiologist on call is the point of contact for obstetric & neonatal investigations and must be contacted by phone in the first instance to facilitate appropriate testing with PathWest laboratory staff; and communication of positive results for all patients cared for at KEMH. An anticipated turn-around-time (*within KEMH only*) for urgent preliminary results is within 24 hours for those processed via this route in normal weekdays and working hours.
- Routine serology services will usually not be available or restricted out-of-hours/weekends/Public Holidays, therefore it remains essential to converse directly with the on call clinical microbiologist and be mindful of a possible extended turnaround time of results despite best efforts.
- Utilise MR488.02 “Neonatal Clinical Deterioration and Sepsis Pathway” to support recognition and management of sepsis in unwell and/or deteriorating infants.
- Request consultation with the neonatal Senior Registrar (page 3377) or Consultant on call, to provide parental counselling of anticipated neonatal care, including determination of a feeding plan.
- Safe discharge planning is paramount and may require an extended period of in-patient care. Thorough assessment of social risk factors with regards to child protection, family violence, financial/residential stress or concerns with mental health and substance use.

Maternal Care

- Maternal care will be coordinated through the Obstetric Consultant/Senior Registrar and Clinical Microbiologist on call (KEMH) to lead patient-centred discussions & risk assessment to ensure appropriate testing and indication for empirical treatment.
- The Obstetric Senior Registrar/Consultant will maintain communication with neonatal team (Senior Registrar/ Consultant) and arrange consultation for maternal counselling of anticipated neonatal care and to formulate an appropriate feeding plan as well as ongoing care and follow-up within the community & support services following discharge.
- Patients at high-risk of blood borne viruses (HIV/Hepatitis B/C) may require prophylaxis (dependent on timing of results) with additional input with the PCH

Infectious Diseases Consultant on call. Refer to Antenatal care: Late presentation (intrapartum or third trimester) with no or minimal antenatal care.

- Send maternal blood samples immediately to the KEMH Pathology (24-hour laboratory). Mark all STI screening specimens (including serology) as **urgent.** Use the printable Pathology Forms in the appendices of the WNHS Antenatal care: Late presentation (intrapartum or third trimester) with no or minimal antenatal care for placenta, bloods and swabs. Include contact information of both the obstetric & microbiology clinician. Standard forms with the same information transcribed can also be used. Samples from KEMH will be processed at PathWest QEII Campus.

Specimens/samples needed from mother

- Serology: Hepatitis B, Hepatitis C, HIV 1/ 2 Serology (Antigen/ Antibody), Rubella (IgG), Syphilis Serology (Trepomonal pallidum Total Antibody Screening).
- Blood Group & Hold, Antibody screen, FBC, Ferritin, Vitamin D
- GBS Vaginal/rectal swab:
  - KEMH: GBS PCR is available for maternal GBS screening using Cepheid collection device.
  - For sites accessing this policy outside of KEMH GBS screening is performed by culture on vaginal/rectal charcoal swabs)
- Vaginal/endocervical swab: Chlamydia trachomatis & Neisseria gonorrhoea PCR (Dry Swab)
- Urine: MC & S (And Chlamydia trachomatis & Neisseria gonorrhoea PCR if swabs not taken)
- Placenta (Upon delivery): Syphilis PCR

Neonatal Care

Consult the on call Infectious diseases physician at PCH. Expert consultation for a patient-specific risk assessment and guidance of empirical therapy and potential additional indications for Antiretroviral prophylaxis (ART) see **MR409 Antiretroviral Regimen and Management Plan for Neonate**, and for Hepatitis B Immunoglobulin & vaccination. Contact microbiology to request urgent testing (including afterhours testing).

NICU Nurse Coordinator to discuss patient contact precautions with the Infection Control Team. Ensure appropriate advice regarding potential exposure to patients and staff, PPE, screening & treatment.

Specimens/samples needed from the infant

- Blood Culture, FBC, LFTs, CRP.
- Blood Group & DAT

- Ear Swab: Charcoal swabs for MC & S and MRSA screen if maternal Microalert B or C.
- Eye Swab if eye discharge: Chlamydia & Gonorrhoea; syphilis PCR if discharge present. Dry swabs for all PCRs.
- Nose/Throat/Umbilical Swabs: MRSA Screen (if mother know to be positive)
- Gastric Aspirate: MC&S.

Note: Additional testing will be determined by availability of maternal results. If maternal infection screening results unknown take 0.6mL from the infant for serology testing (green top/lithium).

Communication

- NICU medical team to follow-up with Microbiology and document neonatal results.
- If applicable for a notifiable disease, contact Communicable Disease Control Directorate via phone number available on website. Complete the Infectious & Related Disease Notification Form and email to CDCD.directorate@health.wa.gov.au
- Appropriate referrals are to be actioned for specialist and community follow-up and resources, with clearly documented communication. Includes telephone and written communication to the family, GP, Child Health Nurse, (or local medical service), specialist out-patient clinics and resources for patient counselling and social support where needed.

Neonatal Therapy

Empirical antibiotic therapy for sepsis covers potential GBS & Syphilis **pending** results. IV Benzylpenicillin together with IV Gentamicin

If maternal syphilis serology is positive, the baby is >3kg and clinically well, and results and treatment history indicate the infant is at low risk for congenital syphilis; seek advice from microbiology/infectious disease physician about the appropriateness of Benzathine Penicillin IM. Refer to NICU Benzathine Penicillin monograph for further advice.

Access all monographs via Neonatal Medication Protocols

The infant's skin should be cleansed of blood/liquor and allowed to dry prior to administration of IM injections (Vitamin K, Hepatitis B Vaccination).

- ≤ 27 weeks use Povidine-iodine 10% swab (60 secs drying time). Wash off excess solution after the procedure with sterile water or saline.
- > 27 weeks - use 1% Chlorhexidine /70% Alcohol swab/soln (30 secs drying time).

Indications for anti-retroviral prophylaxis and/or Hepatitis B vaccine & immunoglobulin are patient-specific and must be discussed urgently with the on-call PCH Paediatric Infectious Diseases Consultant.

Zidovudine (IV or oral) is prescribed most commonly and sometimes in combination with Nevirapine and Lamivudine.

Avoidance of maternal breast milk exposure may be appropriate in very high risk of HIV. See HIV: Care of the Infant Born to HIV Positive Women. If the infant is born ≤35 weeks gestation NICU admission and IV ART therapy will be indicated and consideration of the use of PDHM pending maternal results. The planned mode of feeding, made in association with the mother, must be clearly documented in the **MR409 Antiretroviral Regimen and Management Plan for Neonate**.

If the mother is found to be HBsAg positive, then Hepatitis B Immunoglobulin HBIG is recommended immediately for the neonate.

Efficacy of HBIG deteriorates markedly if administration is delayed beyond 48 hours of birth; however, administration of Hepatitis B Vaccination should not be delayed pending results.

Related CAHS internal policies, procedures, and guidelines
Neonatology • Hepatitis B Virus: Care of the infant born to HBV positive women • HIV: Care of the Infant born to HIV Positive Women • Syphilis: Investigation and Management of the Neonate Born to a Mother with Syphilis • Hepatitis-B-Vaccine.pdf (health.wa.gov.au) WNHS • Antenatal Care Schedule • Antenatal care: Late presentation (intrapartum or third trimester) with no or minimal antenatal care. • Sexually Transmitted Infections • Syphilis in Pregnancy

Useful resources
Infectious & Related Disease Notification Form (STI/BBV or HIV notification form available to download from https://www.health.wa.gov.au/Silver-book/STI-or-HIV-notification).
MR409 Antiretroviral Regimen and Management Plan for Neonate

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

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Neonatology | Community Health | Mental Health | Perth Children's Hospital

Appendix 1: Quick Reference Guide of Maternal and Neonatal Specimen Collection

Specimens/samples needed from mother	Specimens/samples needed from the infant
Serology: Hepatitis B, Hepatitis C, HIV 1/2 Serology (Antigen/ Antibody), Rubella (IgG), Syphilis Serology (Trepomonal pallidum Total Antibody Screening)	Blood Culture, FBC, LFTs, CRP.
Blood Group & Hold, Antibody screen, FBC, Ferritin, Vitamin D	Blood Group & DAT
GBS Vaginal/rectal swab: ○ KEMH: GBS PCR is available for maternal GBS screening using Cepheid collection device. ○ For sites accessing this policy outside of KEMH GBS screening is performed by culture on vaginal/rectal charcoal swabs)	Ear Swab: Charcoal swabs for MC & S and MRSA screen if maternal Micro alert B or C.
Vaginal/endocervical swab: Chlamydia trachomatis & Neisseria gonorrhoea PCR (Dry Swab)	If eye discharge present, eye swab: Chlamydia & Gonorrhoea; syphilis PCR present. Dry swabs for all PCRs.
Urine: MC & S (And Chlamydia trachomatis & Neisseria gonorrhoea PCR if swabs not taken)	Nose/Throat/Umbilical Swabs: MRSA Screen (if mother know to be positive)
Placenta (Upon delivery): Syphilis PCR	Gastric Aspirate: MC&S.