

Annexure 7: Child death review- Line list format for child death review at district level

District/Corporation											
Date of CDA											
Number of Deaths audited											
SN	Name	Age	Date of Death	hospital audit done? (Y/N)	Community audit done?(Y/N)	Cause of Death	Reasons for the cause leading to death	Delay	Reasons for delay	Proposed corrective measures	Activities proposed for corrective measures

Annexure 8: Child death review- Plan of action and compliance report of child death review meeting

District/Corporation			
Date of CDA			
Number of Deaths audited			
SN	Summary Points	Compliance	Remarks
1	Number of of audit completed		
2	What are the common preventable reasons leading to deaths		
3	What are the common problems identified with service deliveries		
4	What are the common areas involved		
5	What are the programs involved		
6	What are the common preventive measures suggested		
7	What are the activities will be implemented in the district to prevent		
8	What was the sugegstions in last death audit		
9	What was the actions taken on last meeting minuites		
10	What is the improvement seen		

Child Death Causes Details and Preventive action

SN	Important Causes: Child death	Definition	Causes	Risk Factors	Diagnosis/Identification	Prevention
1	Birth Asphyxia	<p>Clinically a neonate should be labeled as having suffered perinatal asphyxia if there is presence of any one of the following:</p> <ol style="list-style-type: none"> 1. Gasping or ineffective breathing or lack of breathing at one minute of life. 2. Need for positive pressure ventilation for > 1 minute. 3. Apgar Score <3 at 5 minutes or longer. <p>(Source: FBNC Training Booklet MoHFW)</p>	<p>1. Maternal events (hemorrhage, amniotic fluid embolism; hemodynamic collapse)</p> <p>2. Placental events (acute abruption)</p> <p>3. Uterine events (rupture)</p> <p>4. Cord events (tight nuchal cord, cord prolapse/avulsion)</p> <p>5. Intrapartum infection (maternal fever in labor)</p> <p>1. Failure of gas exchange across the placenta – excessive or prolonged uterine contractions, placental abruption, ruptured uterus</p> <p>2. Interruption of umbilical blood flow – cord compression, cord prolapse, delayed delivery, e.g. shoulder dystocia</p> <p>3. Inadequate maternal placental perfusion, maternal hypotension or hypertension – often with intrauterine growth restriction (IUGR) compromised fetus – anemia, IUGR</p> <p>4. Failure of cardiorespiratory adaptation at birth – failure to breathe.</p>	<p>1. Maternal Factors - Younger/older mother, Hypertension/pre-eclampsia, antepartum bleeding</p> <p>2. Obstetric factors - Prolonged labor, Fetal distress</p> <p>3. Neonatal factors - Prematurity, Low Birth Weight, Postdated delivery history of birth asphyxia in a previous birth.</p>	<p>1. Gasping or ineffective breathing or lack of breathing at one minute of life.</p> <p>2. Need for positive pressure ventilation for > 1minute.</p> <p>3. Apgar Score <3 at 5 minutes or longer.</p>	<ol style="list-style-type: none"> 1. Identification and monitoring of high-risk pregnancies eg. PIH, Anemia 2. Planning delivery of high-risk cases at FRUs 3. Timely referral of high-risk deliveries 4. Monitoring the labor progress through plotting of partograph 5. Emotional support with birth companions 6. Use of ANCS in pre-term births 7. Appropriate management of pre-eclampsia/eclampsia 8. Avoid un necessary augmentation of labor 9. Maintain hydration of mothers at all times 10. Allow mother to assume left lateral position during labor 11. Ask mother to push only during contractions 12. Ask mothers take deep breaths in between contractions 13. Do not apply fundal pressure during labor 14. Newborn corner in LR - Well equipped NBCC in LR of all hospitals 15. Trained Staff at Labor Room (SBA, NSSK trainings)

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2	Sepsis	<p>Neonatal Sepsis-Definition Neonatal sepsis is a clinical syndrome characterized by signs and symptoms of infection with or without accompanying bacteremia in the first month of life. It encompasses various systemic infections of the newborn such as septicemia, meningitis, pneumonia, arthritis, osteomyelitis, and urinary tract infections. Superficial infections like conjunctivitis and oral thrush are not usually included under neonatal sepsis.</p>	<p>1. Neonates acquire infection from a wide range of micro-organisms including bacteria, virus and protozoa. 2. Bacteria-mediated infection constitutes a common morbidity and accounts for nearly one-third of total neonatal deaths. 3. Infections can be superficial and systemic.</p>	<p>Risk factors for early onset sepsis (EOS) in Newborn are; 1. Very low birth weight (<1500 g) 2. Spontaneous preterm delivery 3. Foul smelling liquor 4. Rupture of membranes >24 hours 5. Single unclean or >3 sterile vaginal examination(s) during labor 6. Intra-partum maternal fever</p> <p>(>38°C) Risk factors for late onset sepsis (LOS) in Newborn are; 1. Very low birth weight, prematurity 2. Lack of breastfeeding 3. Delayed enteral feeding 4. Frequent handling 5. Disruption of skin integrity with needle pricks and use of intravenous fluids 6. Poor hygiene 7. Poor maintenance of asepsis in neonatal units including improper hand washing techniques 8. Superficial infections (pyoderma, umbilical sepsis) 9. Previous or prolonged hospitalization</p>	<p>1. Blood culture: It is the gold standard for diagnosis of sepsis 2. Isolation of microorganisms from blood, CSF, urine or pus is diagnostic. 3. In clinically suspected cases of sepsis, blood culture should be sent prior to starting antibiotics. 4. Early onset sepsis (EOS), where the signs and symptoms of sepsis appear within 72 hours of birth. The source of pathogens is the maternal genital tract or the delivery area. 5. Respiratory distress due to congenital (intrauterine) pneumonia is the predominant manifestation of EOS. 6. Late onset sepsis (LOS), where the signs and symptoms of sepsis appear after 72 hours of age. The pathogens are acquired from community or hospital (nosocomial). 7. LOS commonly presents as septicemia, pneumonia or meningitis.</p>	<p>1. Appropriately manage maternal infections and use prophylaxis wherever needed, antibiotics in PROM >24 hours as per guidelines 2. Delivery of high-risk cases eg. IUGR at FRUs 3. Use of Partograph in labor, 4. Do not do unnecessary PV examination 4. Maintain "Six Cleans" during delivery 5. Perform hand hygiene every time before handling the baby 6. Early initiation of breast feeding and exclusive breast feeding, avoid pre-lacteal feeds, 7. KMC for lbw as early as possible, counseling for home based KMC 8. Dry cord care 9. Avoid unnecessary interventions for the baby like routine suctioning of every newborn 10. Immunization as per schedule 11. Early identification of danger signs during home visits by ASHAs/ANM/CHOs 12. Monitoring of high-risk children by ANM/CHOs eg. LBW, SNCU discharged 13. Antibiotic Policy for SNCU 14. Prompt Referral mechanism along with pre-referral treatment 15. Infection control practices in SNCU and other health facilities</p>

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3	Pneumonia	Pneumonia is a form of acute respiratory infection that affects the lungs.	<p>Pneumonia is caused by several infectious agents, including viruses, bacteria and fungi. The most common are the following;</p> <ol style="list-style-type: none"> 1. Streptococcus pneumoniae is the most common cause of bacterial pneumonia in children. 2. Haemophiles influenzae type b (Hib) is the second most common cause of bacterial pneumonia. 3. Respiratory syncytial virus is the most common viral cause of pneumonia. 4. In infants infected with HIV, Pneumocystis Jiroveci is one of the most common causes of pneumonia. 	<ol style="list-style-type: none"> 1. Birth defects like cleft palate, congenital heart disease etc. are important contributors of recurrent childhood Pneumonia 2. Malnutrition - SAM / SUW children 3. Pre-existing illnesses, such as symptomatic HIV infections and measles 4. Infants who are not exclusively breastfed. 5. Indoor Air Pollution 6. Children whose immune systems are compromised 	<ol style="list-style-type: none"> 1. Severe Pneumonia - General danger signs (inability to breastfeed or drink, lethargy or reduced level of consciousness, convulsions) or Chest indrawing 2. Pneumonia Fast breathing: (Respiratory rates: • 2-11 months ≥50/min •12-59 months ≥40/min) 	<ol style="list-style-type: none"> 1. Exclusive breastfeeding for 6 months 2. Adequate complimentary feeding 3. Vitamin A Supp 4. Vaccines - Pertussis, measles, Hib, PCV and rotavirus 5. Monitoring of high-risk children like children with birth defects, heart diseases SAM, LBW etc. 6. Awareness regarding Handwashing with soap 7. Availability and use of Safe drinking water and sanitation practices 8. Reduce household air pollution 9. Early referral & treatment of pneumonia cases 10. Availability of antibiotics with ASHAs for prereferral treatment 11. In case of denial of referral home treatment by ANM of injectables as per guidelines 12. SAANS trainings of all frontline workers

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4	Prematurity and LBW	Preterm birth is defined by WHO as all births before 37 completed weeks of gestation or fewer than 259 days since the first day of a woman's last menstrual period. Low birth weight infants defined as babies born with a birth weight below 2.5kg regardless of gestational age	<p>1. IUGR -Maternal - Undernutrition, Maternal hypoxia, e.g. cyanotic heart disease, chronic respiratory disease, high altitude. Drugs, e.g. cigarettes, alcohol, illicit drug use.</p> <p>2. Placental - Reduced maternal uterine vascular supply – pre-eclampsia, chronic maternal disease, e.g. hypertension, diabetes mellitus, renal disease. Placental vascular thrombosis and/or infarction, e.g. sickle cell disease. Unequal sharing of uteroplacental vascularity – multiple gestation</p> <p>3. Fetal Chromosomal disorders, e.g., trisomy 18 and other syndromes</p> <p>4. Preterm - Most preterm births happen spontaneously, common causes include multiple pregnancies, infections and chronic conditions, such as diabetes and high blood pressure; Short inter -pregnancy interval of <6 months, previous premature birth, infections in pregnancy, anemia, Maternal nutrition – low BMI (body mass index), Obese mothers, Problems with the uterus, cervix or placenta, Some infections, mainly those of the amniotic fluid and lower genital tract, High levels of maternal psychological or social stress, Smoking cigarettes, taking illicit drugs or drinking alcohol, underage or elderly pregnancy.</p>		Preterm birth can be further sub -divided based on gestational age: extremely preterm (<28 weeks), very preterm (28 - <32 weeks) and moderate preterm (32 - <37 completed weeks of gestation)	<p>Services for married couples</p> <ol style="list-style-type: none"> 1. Increase spacing between pregnancies 2. In Preconception period - Folic acid supplementation, anemia correction, Smoking, tobacco cessation counseling <p>During ANC</p> <ol style="list-style-type: none"> 1. All 4 ANC Checkups, weight gain monitoring, lab tests and sonography, 2. Anemia detection and treatment (facility/PHC wise performance) 3. Identification of high-risk cases and treatment eg. PIH, sickle cell, IUGR, GDM 4. Counseling regarding smoking, tobacco cessation, diet, supplementary nutrition 5. Monitoring Amrut Ahar, THR, supplementary nutrition taken by ANC 6. Birth preparedness plan of high-risk cases at FRUs <p>Intra partum Care –</p> <ol style="list-style-type: none"> 1. Antenatal corticosteroids 2. Use of antibiotics for Preterm premature rupture of the membranes (PPROM) 3. Use of CPAP and surfactants if required 4. Trained staff at LR

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						<p>(NSSK, SBA)</p> <p>5. Well equipped LR with NBCC</p> <p>6. Early referral of high-risk cases at FRUs, Delivery of IUGR cases at FRUs.</p> <p>Post Partum –</p> <ol style="list-style-type: none"> 1. Early and exclusive breastfeeding, complementary feeding counseling and monitoring 2. Kangaroo Mother Care: For all LBW babies at facilities 3. Home Based KMC Counselling by ANM/MO and ASHAs 4. Strengthening HBNC and HBYC visits of ASHAs 5. Nutritional supplements for LBW as per guidelines (Vitamin D, Calcium and Phosphorus, IFA, Multivitamin with Zinc) 6. Vitamin A supplementation 7. IFA syrup as per AMB guidelines and Deworming of all children, detection of anemia in children and treatment 8. Monitoring of high-risk children - SAM, LBW, CONGENITAL DEFECTS like Heart diseases 9. Early identification of growth failure and management 10. Health checkup of all high-risk children on monthly basis by CHOs/ANM 11. Identification of

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						<p>SAM cases and referral to NRC/CTC, follow - up after discharge</p> <p>12. Follow-up and monitoring of SNCU discharged children at home by CHO/ANM</p>