Appendix 1. CHILD DEATH REGISTER FORM

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| Death Register No | SurnameName | Medical recordnumber  | Age | Date of Admission  | Date of Death  | Main Cause of Death | Other Diagnoses | Death Review completed (Y/N) date | Official death certificate completed  |
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Hospital: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Ward: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Month: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Year \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Appendix 2.

**CHILD DEATH REVIEW FORM**

Please complete both sides of this form whenever a child or newborn dies in the community, a health centre or hospital. Also complete an official death certificate.

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| **Name of child who died:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **Date of birth:**/ / | **Age:**\_\_ \_\_yrs \_\_ \_\_mths \_\_ \_\_days |
| [ ] 1 **Male** [ ] 2 **Female** |  **Weight:**\_\_ \_\_ .\_\_Kg | **Date of death:** / / | **Time of death:**\_\_ \_\_.\_\_ \_\_ am/pm |
| **Province:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **District:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **Village / town:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **Name of health facility reporting the death: \_\_\_\_\_**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **1. Place of death:** [ ] 1 Hospital[ ] 2 Health center[ ] 3 Home / village[ ] 4 In-transit to health facility | **2. Days child was sick before presentation:** \_\_ \_\_ days**3. Date of Hospital Admission:** / /  |
| **4. Describe the story of what happened to the child** |
| **5. Distance and time traveled to reach the health facility:** \_\_ \_\_ km \_\_ \_\_ hrs **6. Mode of transport\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| **7. Was child referred from another health facility**[ ] 0 No[ ] 1 Yes(which one)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **8. Delay in transport or referral**[ ] 0 No[ ] 1 Yes(why)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **9. Had the child recently been an inpatient?**[ ] 0 No[ ] 1 Yes(how many days ago was the child discharged)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **10. Neonatal death**[ ] 0 No ***(go to Question 17)*** [ ] 1 Yes | **11. Mother attended antenatal care:** \_\_ \_\_ times |
| **12. Premature onset of labour**[ ] 0 No [ ] 1 Yes[ ] 9 Unknown  | **13. How long were the membranes ruptured  before the baby was born:** \_\_ \_\_ hrs**14. Duration of labour:** \_\_ \_\_ hrs |

|  |  |
| --- | --- |
| **15. Place of birth:** [ ] 1 Hospital[ ] 2 Health center[ ] 3 Home / village[ ] 9 Unknown | **16. Apgar score** **at 1 minute** \_\_ \_\_ **at 5 minutes** \_\_ \_\_  |
| **17. Vaccine Status**[ ]  Vaccines up to date for age[ ]  Some vaccines received but not complete for age[ ]  No vaccines ever received | **18. Nutritional status**[ ]  Normal nutrition (>-2 Z-scores weight for age or weight for length)[ ]  Moderate malnutrition (-2 to -3 Z-scores)[ ]  Severe malnutrition (<-3 Z-scores or Kwashiorkor)  |
| **19. Investigations done** |
| **20. List the DIAGNOSES that were made** (use the standardized diagnoses on the PHR, or add another diagnosis if not included): |
| **Primary diagnosis** leading to death\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**Underlying diagnosis (e.g. a chronic illness)**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Other diagnoses\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other diagnoses\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **21. What environmental or social factors were involved?** |
| **22. What TREATMENTS did the child receive?** (list all the treatments that were given) |
| **23. Were there any complications of treatment?** (specify) |
| **24. Were any treatments you wanted to give *not* available at the time the child presented?** [ ] 0 No [ ] 1 Yes(specify)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  |
| **25. WAS THIS CHILD’S DEATH POSSIBLY AVOIDABLE?**[ ] 0 No [ ] 1 Yes (If yes, **please write full details** of *where* improvements should occur, and what should be done) **Home or community:** **Primary care or referral system:****Hospital:** |

**Name and address of person reporting death** (for purposes of providing feedback)

Appendix 3. LIST OF DIAGNOSIS/CAUSE OF DEATH/ICD-10 CODES

|  |  |  |
| --- | --- | --- |
| **Category** | **Diagnosis/ Causes of death**  | **ICD-Code** |
| Respiratory | Pneumonia  |  |
| Bronchiectasis |  |
| Lung abscess |  |
| Pneumothorax |  |
| Whooping cough |  |
| Croup |  |
| Epiglottitis |  |
| Bronchiolitis |  |
| Asthma  |  |
| Congenital malformations of the respiratory system  |  |
| Respiratory other (specify)  |  |
|  Gastrointestinal  | Acute watery diarrhoea |  |
| Persistent diarrhoea  |  |
| Dysentery |  |
| Cholera  |  |
| Gastrointestinal other  |  |
|  Nutritional  | Severe acute malnutrition –  |  |
| Marasmus |  |
| Kwashiorkor |  |
|  | Nutritional disorders (specify) |  |
| Malaria  | Cerebral malaria |  |
| Malaria severe (with complications) |  |
| Malaria uncomplicated |  |
| Neuro/Meningitis  | Meningitis – Haemophilus influenzae |  |
| Meningitis – Streptococcus pneumoniae  |  |
| Meningitis – Neisseria meningitides  |  |
| Cryptococcal meningitis  |  |
| Meningitis – no cause identified  |  |
| Convulsions |  |
| Encephalitis – other  |  |
| Epilepsy  |  |
| Hydrocephalus |  |
| Cerebral palsy  |  |
| Neurological other  |  |
| Tuberculosis  | Pulmonary TB |  |
| TB meningitis  |  |
| Lymph node TB |  |
| Bone and joint TB (including Potts disease of the spine)  |  |
| Abdominal TB  |  |
| Miliary TB  |  |
| TB pericardial effusion  |  |
| Disseminated TB (including miliary TB)  |  |
| Proven Multi-drug resistant TB (MDRTB)  |  |
| Infections | Sepsis (including bacteraemia) |  |
| Typhoid |  |
| Measles |  |
| HIV/AIDS |  |
| Hepatitis |  |
| Dengue fever  |  |
| Dengue shock syndrome  |  |
| Dengue haemorrhagic fever |  |
| Cellulitis (skin sepsis) |  |
| Osteomyelitis (bone infection) |  |
| Septic arthritis (joint infection) |  |
| Pyomyositis (muscle infection or abscess) |  |
|  |  |
| Emergency/Surgical | Appendicitis  |  |
| Bowel obstruction |  |
| Burns |  |
| Drowning  |  |
| Poisoning  |  |
| Snakebite  |  |
| Trauma |  |
| Tetanus  |  |
| Surgical - other  |  |
| Accident – transport related  |  |
| Renal | Urinary tract infection |  |
| Glomerulonephritis |  |
| Acute renal failure  |  |
| Chronic renal disease |  |
| Renal – other  |  |
| Haematology/Endocrine | Severe anaemia |  |
| Sickle-cell anaemia |  |
| Bleeding disorder |  |
| Thalassaemia |  |
| Hypoglycaemia  |  |
| Type 1 Diabetes  |  |
| Type 2 Diabetes |  |
| Thyroid disease  |  |
| Haematology – other specify |  |
| Endocrine other specify |  |
| Heart disease  | Heart disease – congenital  |  |
| Heart disease – rheumatic  |  |
| Heart disease – other  |  |
|  Cancer | Wilms Tumour  |  |
| Leukaemia  |  |
| Lymphoma  |  |
| Retinoblastoma  |  |
| CNS tumour  |  |
| Neuroblastoma  |  |
| Cancer – other specify |  |
| Child protection  | Physical abuse  |  |
| Sexual abuse  |  |
| Neglect  |  |
| Homicide  |  |
| Suicide  |  |
| Other diagnosis | Other diagnosis (specify)  |  |
| Unknown cause | Ill-defined/Unknown cause of mortality  |  |

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| **Neonatal** |
| Low birth weight | 1500-2500 grams  |  |
| 1000-1499 grams  |  |
| <1000 grams  |  |
| Prematurity < 37 weeks  |  |  |
| Neonatal infections  | Pneumonia  |  |
| Meningitis  |  |
| Sepsis neonatal |  |
| Cord sepsis  |  |
| Skin sepsis  |  |
| Congenital syphilis  |  |
| Congenital malaria  |  |
| Congenital rubella syndrome  |  |
| Neonatal tetanus |  |
| Diarrhoea |  |
| Neonatal infections – other  |  |
| Neonatal Conditions  | Birth asphyxia/meconium aspiration |  |
| Respiratory distress syndrome (RDS) |  |
| Jaundice  |  |
| Necrotising enterocolitis (NEC) |  |
| Neonatal – other  |  |
| Congenital Malformations | Multiple congenital malformations |  |
| Congenital heart disease  |  |
| Tracheo-oesophageal fistula |  |
| Congenital diaphragmatic hernia |  |
| Imperforate anus |  |
| Abdominal wall defect (Omphalocele / Gastroscisis) |  |
| Hirschsprung disease  |  |
| Malrotation  |  |

Appendix 4.

| **ACTION PLAN SUMMARY FORM** |  |
| --- | --- |
| **Name of Hospital\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Province\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date of mortality audit meeting \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **Review action at follow-up M&M meeting** |
| **Finding to be improved** | **Action to be taken**  | **Level where action is required**  | **Deadline**  | **Person responsible for making change**  | **What action was taken and what is the outcome?**  |
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| **Name: Signature:** |

Appendix 5.

**Social determinants / potentially modifiable social risk factors**

* Unsafe home environment
* Adopted child
* Possible neglect
* Lost to medical follow-up
* Delayed presentation
* Unvaccinated child
* Lack of adequate adult supervision
* Homeless family
* Extreme poverty
* Domestic violence in family
* Evidence of parental drug or alcohol abuse
* Previous sibling death in family
* Known to child protection or social welfare services