Appendix 1. CHILD DEATH REGISTER FORM

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Death  Register No | Surname  Name | Medical record  number | 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