***Introduction***

This standardized Case Report Form (CRF) is the result of an ongoing effort between the World Health Organization (WHO), The Pan-American Health Organization (PAHO), Institute Pasteur (IP), and the networks of ISARIC, CONSISE PREPARE and REACTing to generate standardized clinical and epidemiological research tools.

***DESIGN OF THIS CASE REPORT FORM (CRF)***

There are sets of Case Report Forms (CRFs) to be used in combination for prospective cohort studies or case control studies.

These sets of CRFs are to be used at admission and at discharge/going home. For any patients admitted for more than 24 hours, the Baseline and Outcome CRF and the Laboratory Results CRF can be copied and used for daily data recording.

For all studies, we recommend completing a minimum of the **Child Baseline and Outcome (CBO)** CRF, follow by **Child Acute Symptoms (CAS).** If the patientis admitted to a hospital or has further investigations, complete **Child Hospital Stay (CHS)** and **Child Laboratory Results (CLR)** CRFs. We recommend completing the Neonatal CRF and the Maternal Baseline and Outcome CRF to capture maternal and/or neonatal risk factors. If the patient is admitted to an Intensive Care Unit or Pediatric Intensive Care Unit, complete **Child Intensive Care (CIC)** as well. For follow up visit(s) complete **Child follow up visit(s) (CFU).**

Complete the outcomes sections in the **CBO** CRF once all diagnostics laboratory results and final diagnosis are available.

***HOW TO USE THIS CRF***

When completing the CRF modules, please make sure that:

* The patient or consultee/guardian/representative has been given information about the study and the informed consent form has been completed and signed.
* The study ID codes have been assigned for the patient as per hospital protocol and guidelines.
* The study ID codes should be filled in on all pages of paper CRF forms, all information should be kept confidential at all times, and no identifiable information is recorded on the CRFs.
* Patient’s hospital ID and contact details are recorded on a separate contact list to allow later follow up. The contact forms must be kept separate from the CRFs at all times and kept in a secure location.

Each site may choose which data to collect based on available resources and the number of patients enrolled to date. Ideally, data on patients will be collected using all CRF modules as appropriate.

Sites with very low resources or very high patient numbers may select **Child Baseline and Outcome (CBO)** CRF module only. The decision is up to the site Investigators and may be changed throughout the data collection period. All high quality data are valuable for analysis.

**GENERAL GUIDANCE**

* The CRFs are designed to collect data obtained through patient examination, for patient or parent/guardian/representative interview and review of hospital notes.
* Patient ID codes should be filled in on all pages of paper CRF forms.
* Complete every line of every section, except for where the instructions say to skip a section based on certain responses.
* Selections with square boxes (**☐**) are single selection answers (choose one answer only). Selections with circles (**○**) are multiple selection answers (choose as many answers as are applicable).
* It is important to indicate when the answer to a particular question is not known. Please mark the ‘Unknown’ box if this is the case.
* Some sections have open areas where you can write additional information. To permit standardized data entry, please avoid writing additional information outside of these areas.
* We recommend writing clearly in black or blue ink, using BLOCK-CAPITAL LETTERS.
* Place an (X) when you choose the corresponding answer. To make corrections, strike through (----) the data you wish to delete and write the correct data above it. Please initial and date all corrections.
* Please contact us, if we can help with any CRF completion questions, if you have comments and to let us know that you are using the forms. Please contact Dr Gail Carson by email: [gail.carson@ndm.ox.ac.uk](mailto:gail.carson@ndm.ox.ac.uk)

**Disclaimer:** These CRFs are intended for use as a standardized document for the collection of clinical data in studies investigating the Zika virus. Responsibility for use of these CRFs rests with the study investigators. ISARIC and the authors of the CRF accept no responsibility for the use of the CRF in an amended format nor for the use of the standardized CRF outside its intended purpose. *Formatting issues are in the process of being resolved. Word documents are available in order to adapt and translate the CRFs, however, there may be issues between Macs and PCs. The PDF format is also available, which should be well formatted on both systems*.

## 1) LABORATORY RESULTS

Record all values available ≤24 hours of presentation/admission as part of the clinical care of patient included in the study. Please use standard (SI) units if possible. Please specify the unit used for each result. For repeat testing, use the most abnormal value per day copy page and ensure date of testing and patient IDs are indicated on each page.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1. **Date of sampling** (dd/mm/yyyy): | **\_\_ / \_\_ / 20 \_\_** |  | | | |
| **Test** | | **Value** | **Specify unit, if other specify unit used.** | | |
| **Inflammatory markers** | |  |  | | |
| 1. **C-reactive protein** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**mg/L | | **☐**other:\_\_\_\_\_ |
| 1. **Erythrocyte sedimentation rate** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**mm/hr | | **☐**other:\_\_\_\_\_ |
| 1. **Procalcitonin** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**ng/mL | | **☐**other:\_\_\_\_\_ |
| **Hematology** | |  |  | |  |
| 1. **Hemoglobin** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**g/L | **☐**g/dL | **☐**other:\_\_\_\_\_ |
| 1. **Hematocrit** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**% | | **☐**other:\_\_\_\_\_ |
| 1. **RBC count** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**x109/L | **☐**x103/μL | **☐**other:\_\_\_\_\_ |
| 1. **MCV** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**μm3 | | **☐**other:\_\_\_\_\_ |
| 1. **White blood cell count** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**x109/L | **☐**x103/µL | **☐**other:\_\_\_\_\_ |
| 1. **Neutrophils** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**103/mm3 | **☐**% | **☐**other:\_\_\_\_\_ |
| 1. **Lymphocytes** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**103/mm3 | **☐**% | **☐**other:\_\_\_\_\_ |
| 1. **Monocytes** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**103/mm3 | **☐**% | **☐**other:\_\_\_\_\_ |
| 1. **Eosinophils** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**103/mm3 | **☐**% | **☐**other:\_\_\_\_\_ |
| 1. **Basophils** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**103/mm3 | **☐**% | **☐**other:\_\_\_\_\_ |
| 1. **Platelets** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**x109/L | **☐**x103/μL | **☐**other:\_\_\_\_\_ |
| 1. **APTT** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**seconds | | |
| 1. **PT** (seconds) | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**seconds | | |
| 1. **Blood film** | **☐**Yes**☐**Not done **☐**Unknown |  | Describe results: | | |
| **Biochemistry** | |  |  | | |
| 1. **Urea nitrogen** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**mmol/L | **☐**mg/dL | **☐**other:\_\_\_\_\_ |
| 1. **Creatinine** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**μmol/L | **☐**mg/dL | **☐**other:\_\_\_\_\_ |
| 1. **Sodium** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**mmol/L | | **☐**other:\_\_\_\_\_ |
| 1. **Potassium** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**mmol/L | | **☐**other:\_\_\_\_\_ |
| 1. **Total protein** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**g/dL | | **☐**other:\_\_\_\_\_ |
| 1. **Albumin** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**g/L | | **☐**other:\_\_\_\_\_ |
| 1. **Bilirubin** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**µmol/L | **☐**mg/dL | **☐**other:\_\_\_\_\_ |
| 1. **AST/SGOT** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**U/L | | **☐**other:\_\_\_\_\_ |
| 1. **ALT/SGPT** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**U/L | | **☐**other:\_\_\_\_\_ |
| 1. **GGT** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**U/L | | **☐**other:\_\_\_\_\_ |
| 1. **ALP** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**U/L | | **☐**other:\_\_\_\_\_ |
| 1. **Calcium** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**mmol/L | | **☐**other:\_\_\_\_\_ |
| 1. **Phosphate** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**mg/dL | | **☐**other:\_\_\_\_\_ |
| 1. **Magnesium** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**mmol/L | | **☐**other:\_\_\_\_\_ |
| 1. **Amylase** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**U/L | | **☐**other:\_\_\_\_\_ |
| 1. **Glucose** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**mmol/L | **☐**mg/dL | **☐**other:\_\_\_\_\_ |
| 1. **Creatine kinase** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**U/L | | **☐**other:\_\_\_\_\_ |
| 1. **Other biochemistry result (specify):** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**Unit:\_\_\_\_\_\_\_\_\_ | | |
| **Other biochemistry result (specify):** | **☐**Yes**☐**Not done **☐**Unknown |  | **☐**Unit:\_\_\_\_\_\_\_\_\_ | | |
| **If yes , describe results:** |  |  | | | |

**2) CSF SAMPLE** (if available as part of routine care)

1. **Lumbar puncture performed?** **☐**Yes **☐**No **☐**Unknown

**If yes, complete tables below. If no, CSF sample skip to section 3.**

1. **Date of lumbar puncture** (dd/mm/yyyy) : \_\_\_ / \_\_\_\_ / 2 0 \_\_

|  |  |
| --- | --- |
| 1. **CSF appearance** | **☐**Clear and colorless **☐**Cloudy **☐**Blood stained **☐**Frank blood/traumatic tap **☐**Unknown |
| 1. **Gram stain** | **☐**No organism seen **☐**Organism seen **☐**Not done  If organism seen, describe the gram morphology: |

\*Must be taken within 4 hours of the lumbar puncture, record capillary blood glucose if laboratory glucose not done

|  |  |  |  |
| --- | --- | --- | --- |
| **Test** | **Value** | **Specify unit** | |
| 1. **CSF protein** |  | **☐**mg/dl | **☐**other: |
| 1. **CSF glucose** |  | **☐**mmol/l | **☐**other: |
| 1. **Plasma glucose at time of LP\*** |  | **☐**mmol/l | **☐**other: |
| 1. **CSF RBC count** |  | **☐**per mm3 | **☐**other: |
| 1. **CSF WBC count** |  | **☐**per mm3 | **☐**other: |
| 1. **Lymphocytes** |  | **☐**% | **☐**other: |
| 1. **Neutrophils** |  | **☐**% | **☐**other: |
| 1. **Other (specify):** |  | **☐**unit: \_\_\_\_\_ |  |

## 4) PATHOGEN TESTING

Record all pathogen testing carried out for differential diagnosis. Record all results available from local, regional or other laboratories. For additional sample type, add to other, or copy in additional rows as needed. For additional follow up sampling, copy table.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sample type** | **Pathogen** | **Date of**  **sampling**  [dd/mm/yyyy] | **Method** | **Results** | **Methods/Assays used** | **Comments** |
| 1. **Guthrie test (Dried blood spot) Only for under 1 year old** |  | \_\_/\_\_/20\_\_\_ | **☐**PCR  **☐**Serology  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| **Guthrie test (Dried blood spot) Only for under 1 year old** |  | \_\_/\_\_/20\_\_\_ | **☐**PCR  **☐**Serology  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| 1. **Blood** |  | \_\_/\_\_/\_\_\_\_\_\_ | **☐**PCR  **☐**Culture  **☐**Serology  **☐**Microscopy  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| **Blood** |  | \_\_/\_\_/\_\_\_\_\_\_ | **☐**PCR  **☐**Culture  **☐**Serology  **☐**Microscopy  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| 1. **Urine** |  | \_\_/\_\_/\_\_\_\_\_\_ | **☐**PCR  **☐**Culture  **☐**Serology  **☐**Microscopy  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| **Urine** |  | \_\_/\_\_/\_\_\_\_\_\_ | **☐**PCR  **☐**Culture  **☐**Serology  **☐**Microscopy  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| 1. **☐Saliva swab** 2. **☐Throat swab** 3. **☐Nasal swab** |  | \_\_/\_\_/\_\_\_\_\_\_ | **☐**PCR  **☐**Culture  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| 1. **CSF** |  | \_\_/\_\_/\_\_\_\_\_\_ | **☐**PCR  **☐**Culture  **☐**Serology  **☐**Microscopy  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| **CSF** |  | \_\_/\_\_/\_\_\_\_\_\_ | **☐**PCR  **☐**Culture  **☐**Serology  **☐**Microscopy  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| 1. **Stool / Feces** |  | \_\_/\_\_/\_\_\_\_\_\_ | **☐**PCR  **☐**Culture  **☐**Serology  **☐**Microscopy  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| **Stool/Feces** |  | \_\_/\_\_/\_\_\_\_\_\_ | **☐**PCR  **☐**Culture  **☐**Serology  **☐**Microscopy  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| 1. **Other (specify):** |  | \_\_/\_\_/\_\_\_\_\_\_ | **☐**PCR  **☐**Culture  **☐**Serology  **☐**Microscopy  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| **Other (specify):** |  | \_\_/\_\_/\_\_\_\_\_\_ | **☐**PCR  **☐**Culture  **☐**Serology  **☐**Microscopy  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| **Other (specify):** |  | \_\_/\_\_/\_\_\_\_\_\_ | **☐**PCR  **☐**Culture  **☐**Serology  **☐**Microscopy  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| **Other (specify):** |  | \_\_/\_\_/\_\_\_\_\_\_ | **☐**PCR  **☐**Culture  **☐**Serology  **☐**Microscopy  **☐**Other:  \_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |

# 5) CASE REPORT FORM COMPLETED BY

|  |  |  |  |
| --- | --- | --- | --- |
| **Name and role** |  | | |
| **Signature** |  | **Date** (dd/mm/yyyy) |  |