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CASE DEFINITIONS FOR INFECTIOUS DISEASES IN MALAYSIA

Ministry of Health
Surveillance for Infectious Disease
Disease Control Division

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Editorial Board

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INTRODUCTION

Surveillance system involves health staff from multi-disciplines, either in government or non-government health facilities. Effective infectious disease surveillance will "contribute to" an effective control of the disease. An effective surveillance system needs to have standards in terminology, reporting formats and methods in order to ensure quality of the surveillance system and to enable easier/consumer friendly participation by those involved

Ministry of Health (MOH) has a standard reporting procedure for the selected infectious diseases (listed in Attachment 1). The reporting uses a standard reporting format. Based on previous workshops by selected experts in the relevant fields and with reference to WHO Recommended Surveillance Standards (2nd Edition – 1999) and CDC Atlanta's Case Definitions for Infectious Conditions Under Public Health Surveillance, this version of Case Definitions for Infectious Diseases in Malaysia has been tailored and edited according to our local needs and the requirement of the current Ministry of Health notification system.

This case definition booklet will serve as a guide for all medical professionals including the Medical Assistants and the nurses who notify infectious diseases. The standard case definitions will harmonise the surveillance activities of these notifiable diseases. The diseases selected have ICD-10 codes for standard reporting and international data exchange. The contact telephone & fax numbers of the nearest health offices and relevant departments are included in this booklet for easy reference or in case of any doubt as to who to notify.

Goals

To facilitate the control of the infectious diseases under surveillance by identifying the following:

a. Prevailing incidence levels, impacts and trends to assist in the development of feasible objectives for prevention and control of the diseases and the evaluation of control programmes.
b. Epidemiologic patterns and risk factors associated with the diseases to assist in the development of intervention strategies.
c. Detection of outbreaks for the purpose of timely response, investigations and effective implementation of control measures.

Quality

If surveillance is considered necessary for any particular infectious disease, then the surveillance must be carried out in such a manner as to be of the highest epidemiologic quality. This implies the following:

a) Use of standard case definitions uniformly across the country for these notifiable infectious diseases.
b) Collection of sufficient, appropriate epidemiologic data on cases and identify preventable cases.
c) Timely transmission of these data from local to district Medical Officer of Health, State and National (Disease Control Division, Ministry of Health) level for analysis, interpretation & trending of the infectious disease pattern
d) Use of the data to enhance control programmes and assist in the development of realistic objectives for reducing the number of preventable cases.
e) Periodic effectiveness and cost-benefit evaluation of the surveillance system and the progress achieved in the control of these infectious diseases.

Reporting of Infectious Disease

a. Reporting or notifying of infectious diseases is mandated by the Prevention and Control of Infectious Disease Act 1988. A Notification Regulation was subsequently gazetted in 1993 whereby to date a total of 26 infectious diseases is required to be notified by law.

b. The use of these case definitions which provides standardized criteria for the reporting of cases will enhance the quality of data received under the national notification of infectious diseases.

c. In most instances, only confirmed cases are reported. A combination of clinical, laboratory and epidemiologic criteria is used to classify these cases.

d. These case definitions include a brief clinical description which is intended for the purpose of notifying & classifying cases and should not be used for making clinical diagnosis by the attending physicians.

e. Probable or suspected cases may be described in the case classification to assist local public health authorities in carrying out their public health

mandate, such as outbreak investigation, contact tracing and prevention & control measures in a timely manner.

f. Physicians diagnosing cases of specific (notifiable) infectious diseases should report these cases based on clinical diagnosis with/without laboratory confirmation to the district health authorities. These authorities are responsible for determining that the cases meet the surveillance case definitions before they officially register the cases. Where there is uncertainty because data are missing or the results are inconclusive, it may be reported as a probable or suspected case, but the status must be confirmed later. The district health authority registering & reporting the case collects all necessary epidemiologic data on it.

g. The reporting of a case should be timely and need not be delayed until all epidemiologic data are available. Such data may be reported later and added to the original case report centrally. While district health authorities are encouraged to collect all information requested by the reporting system, when some items are not available the case should be reported with missing items listed as unknown. A case should never go unreported or deleted because of missing data. The only exception is when data to determine whether the case meets the case definition are missing. Such cases should not be reported.

How to Use Information in This Report

These case definitions are to be used for identifying and classifying cases, both of which are often done retrospectively, for national reporting purposes. They **should not be used as criteria for public health action**. For many conditions of public health importance, action to contain disease should be initiated as soon as a problem is identified; in many circumstances, appropriate public health action should be under-taken even though insufficient information is available to determine whether cases meet the case definition.

Terms that are used in case classification are defined as:

Clinically compatible case: a clinical syndrome generally compatible with the disease, as described in the clinical description.

Suspected case: a case that is classified as suspected for reporting purposes.

Probable case: a case that is classified as probable for reporting purposes

Confirmed case: a case that is classified as confirmed for reporting purposes.

This document will be updated from time to time. Case definition of rubella, *Haemophilus influenza* b and mumps are included in Appendix 2 as these diseases are in the Expanded Programme of Immunisation (EPI) even though they are not made notifiable as yet. MOH has intended since the publication of the first edition of the booklet in 2003, to include the new and emerging infectious diseases, zoonotic diseases and syndromic approach of diseases in the case definition booklet.

In this second edition, new infectious diseases like SARS and avian influenza are also included in this booklet as these diseases have emerged in Malaysia and are under our surveillance system. The special notification formats for these diseases are in the appendices 4 and 5. Influenza-like illness (ILI) is also included in the case definition in view of its importance in influenza pandemic surveillance worldwide.

For further information, comment and suggestion, please contact

Surveillance Section of Communicable Disease
Ministry of Health.

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AIDS
(ICD 10 : B20-B21-B23-B24)

Case Definition

Clinical case definition

For the purpose of epidemiological surveillance, an adult (>12 years of age) is considered to have AIDS if tested positive for HIV antibody, and one or more of the following below is present:

1. 10% body weight loss or cachexia, with diarrhoea or fever, or both, intermittent or constant, for at least 1 month, not known to be due to a condition unrelated to HIV infection

2. Cryptococcal meningitis

3. Pulmonary or extra-pulmonary tuberculosis

4. Kaposi sarcoma

5. Neurological impairment that is sufficient to prevent independent daily activities not known to be due to a condition unrelated to HIV infection (for example, trauma or cerebrovascular accident)

6. Candidiasis of the oesophagus (which may presumptively be diagnosed based on the presence of oral candidiasis accompanied by dysphagia)

7. Clinically diagnosed life-threatening or recurrent episodes of pneumonia, with or without etiological confirmation

8. Invasive cervical cancer

Case Classification

Confirmed: Clinical evidence with laboratory confirmation

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

Any HIV positive case with signs of AIDS should be notified. Notification is made only once for any AIDS cases.

How to notify

An AIDS case should be notified within a week (7 days) to the nearest District Health Office through submission of the notification form.

Contact Information

AIDS/STI Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4387
Fax: 03 - 8883 4285
E-mail: aids@dph.gov.my

HIV INFECTION (ICD 10: B24)

Case Definition

1. In adults, adolescents or children aged ≥ 18 months, a reportable case of HIV infection must meet at least one of the following criteria

a. Laboratory criteria

- **Detection of antibody to HIV virus.**

Reactive result on a screening test for HIV antibody (enzyme-linked immunosorbent assay), and followed by a positive result on a confirmatory test for HIV antibody in all patients except injecting drug users. Confirmatory test for injecting drug user is by a repeat positive enzyme immunoassay test in a fresh second specimen.

- **Detection of HIV virus (viral antigen).**

Positive result or report of detectable quantity on any of the following HIV virology (non-antibody) tests:

- HIV nucleic acid (DNA or RNA) detection.
- HIV p24 antigen test including neutralization assay,
- HIV isolation (viral culture)

b. Clinical or other criteria (if the above laboratory criteria are not met)

Condition that meet criteria included in the case definition for AIDS.

2. In a child aged < 18 months, a reportable case of HIV infection must meet at least one of the following criteria

a. Laboratory criteria

Definitive.

Positive result or report of detectable quantity on any of the following HIV virology (non-antibody) tests:

- HIV nucleic acid (DNA or RNA) detection.
- HIV p24 antigen test including neutralization assay,
- HIV isolation (viral culture)

OR

Presumptive
A child who does not meet the criteria for definitive HIV infection but who has a positive result on only one specimen (excluding cord blood) using the above HIV virology (non-antibody) tests.

OR

b. Clinical or other criteria (if the above laboratory criteria are not met and no other causes of immune suppression)

Condition that meet criteria included in the 1987 paediatric surveillance case definition for AIDS which are:

- Candidiasis of the oesophagus, trachea, bronchi, or lungs
- Cryptococcosis, extrapulmonary
- Cryptosporidiosis with diarrhoea persisting >1 month
- Cytomegalovirus diseases of an organ other than liver, spleen, or lymph nodes in patient >1 month of age
- Herpes simplex virus infection causing a mucocutaneous ulcer persisting >1 month; or bronchitis, pneumonitis, or oesophagitis for any duration in a patient >1 month of age
- Kaposi sarcoma
- Lymphoma of the brain (primary).
- *Mycobacterium avium* complex or *M. kansasii* disease, disseminated (site other than/in addition to lungs, skin, cervical or hilar lymph nodes)
- *Pneumocystis carinii* pneumonia
- Progressive multifocal leukoencephalopathy
- Toxoplasmosis of the brain in a patient >1 month of age
- Two or more bacterial infections within a 2-year period (septicaemia, pneumonia, meningitis, bone or joint infections….) or abscess of an internal organ or body cavity - excluding otitis media or superficial abscesses.

Case Classification

Not applicable

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

All positive HIV cases should be notified; inclusive cases detected through screening activities.

How to notify

An HIV case should be notified within a week (7 days)) to the nearest District Health Office through submission of the notification form.

Contact Information

AIDS/STI Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4387
Fax: 03 - 8883 4285
E-mail: aids@dph.gov.my

CHANCROID (ICD 10: A 51)

Case Definition

Clinical case definition

- A sexually transmitted disease characterized by 1 or more painful genital ulcers with/ without regional lymphadenopathy

Laboratory criteria for diagnosis

- isolation of *Haemophilus ducreyi*

Case Classification

Confirmed: A clinical compatible case that is laboratory confirmed by the isolation of *H. ducreyi*

OR

Probable / Suspected: Clinical compatible case with the exclusion presence of

- Primary syphilis by dark-field examination of exudates or by serological test for syphilis performed at least 7 days after onset of ulcer
- *Herpes genitalis* (painful grouped erosions/ vesicles)

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

Only a positive syphilis case with symptoms and signs on infection should be notified. Cases detected through screening activities i.e. antenatal checkup need not be notified.

How to notify

The syphilis case should be notified within a week (7 days) to the nearest District Health Office through submission of the notification form.

Contact Information

AIDS/STI Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4387
Fax: 03 - 8883 4285
E-mail: aids@dph.gov.my

CHOLERA
ICD 10 : A 00

Case Definition

Clinical case definition
Acute severe watery diarrhea with or without vomiting.

Laboratory criteria for diagnosis
Isolation of *Vibrio cholerae* 01 or 0139 from stools in any patient with diarrhea.

Case Classification

Suspected: A case that meets the clinical case definition

Confirmed: A suspected case that is laboratory-confirmed

Types of Surveillance
Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify
All suspected cholera cases should be notified.

How to notify
A cholera case should be notified by phone to the nearest District Health Office within 24 hours of diagnosis. It is then followed by submission of the notification form.

Outbreak situations
During outbreak situation, surveillance should be intensified with the introduction of active case finding. Laboratory confirmation is to be performed as soon as possible

Special Aspects
The initial suspected cases and aggregated data on cases should be reported to WHO.

Reference Laboratory
IMR: Identify the specific strain; compulsory for the affected locality to sent samples to IMR for finger printing.

Contact Information

Food and Water Borne Unit
Communicable Disease Section
Disease Control Division
Ministry Of Health

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DENGUE FEVER
DENGUE HAEMORRHAGIC FEVER
DENGUE SHOCK SYNDROME
(ICD 10: A90 , A91)

Case Definition

Clinical case definition

Dengue Fever:
Acute onset of high grade fever of usually 2-5 days or more associated with two or more of the following: headache, retro-orbital pain, myalgia, arthralgia, rash and mild haemorrhagic manifestation (epistaxis, gums bleeding and petechiae).

Dengue Haemorrhagic Fever:
A probable or confirmed case of Dengue Fever with haemorrhagic tendencies evidenced by one or more of the following:

- Positive tourniquet test (may be absent in pre shock or shock state)
- Petechiae, ecchymoses or purpura
- Bleeding:mucosa, gastrointestinal tract (haematemesis, malaena), injection sites and
- Thrombocytopenia (100 000 cells per mm3 or less)

And evidence of plasma leakage due to increased vascular permeability:

- Rise in haematocrit: ≥20% above baseline.
- Signs of plasma leakage (pleural effusion and ascites, and /or hypoproteinemia).

Dengue Shock Syndrome:
All the above criteria, plus evidence of circulatory failure manifested by rapid and weak pulse, and narrow pulse pressure (≤20 mm Hg) or hypotension for age, cold, clammy skin and altered mental status.

* Any change of diagnosis from DF to DHF should be re-notified.

Laboratory criteria (any of the following).

- Detection of dengue IgM /IgG from serum.
- Demonstration of a fourfold or greater rise in reciprocal IgG/IgM antibody titres to one or more dengue virus antigens in paired serum samples.
- Isolation of the dengue virus from serum, plasma, leukocytes, or autopsy samples.
- Detection of viral genomic sequences in serum or CSF samples or postmortem by polymerase chain reaction (PCR).

- Demonstration of dengue virus antigen in autopsy tissue by immunohistochemistry or immunofluorescence or in serum samples by EIA.

Case Classification

Suspected: A case compatible with clinical description.

Confirmed: A case compatible with the clinical description and laboratory confirmed.

** Ideally paired samples are required after an interval of 10-14 days apart. If the first sample is negative, a second sample should be obtained.

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

All suspected dengue fever or dengue haemorrhagic fever cases should be notified.

How to notify

A suspected dengue fever or dengue haemorrhagic fever case should be notified by phone to the nearest District Health Office within 24 hours of diagnosis. It is then followed by submission of the notification form.

Special Aspects:

An available laboratory result later than the notification should be informed to the District Health Office.

References Laboratory:

IMR: For viral strain identification for surveillance purposes.

Contact Information

Vector Borne Disease Section
Disease Control Division
Ministry of Health

Tel: 03 - 8883 4276
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E-mail: vector@po.jaring.my

DIPHTHERIA (ICD 10 : A 36)

Case Definition

Clinical case definition
An illness of the upper-respiratory tract characterized by laryngitis **or** pharyngitis **or** tonsillitis **and** an adherent membrane of the tonsils, pharynx and/or nose.

Laboratory criteria for diagnosis
Isolation of *Corynebacterium diphtheriae* from a clinical specimen.

Case Classification

Suspect: A clinically compatible case that is not laboratory confirmed and is not epidemiologically linked to a laboratory-confirmed case.

Confirmed: A clinically compatible case that is either laboratory confirmed or epidemiologically linked to a laboratory-confirmed case.

Types of Surveillance
Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify
Any suspected diphtheria case should be notified.

How to notify
A diphteria case should be notified by phone to the nearest District Health Office within 24 hours of diagnosis. It is then followed by submission of the notification form.

Outbreak situations
Intensive surveillance requires to be maintained during outbreaks in view of high infectivity, greater transmission risk and increased mortality.

Special Aspects
Nil

References Lab
IMR: Vaccine potency test, surveillance and investigation on the specific vaccine's batch – used by the affected individual /community.

Contact Information

Vaccine Preventable Diseases Unit
Communicable Disease Section Disease Control Division
Ministry Of Health

Tel: 03 – 8883 4412 / 4506
Fax: 03 – 8888 6270
E-mail: vaccine@dph.gov.my

DYSENTERY (ICD 10 : A 09)

Case Definition

Clinical case definition
Acute diarrhea with visible blood in the stool.

Laboratory criteria for diagnosis
Stool examination is necessary to confirm dysentery. Stoll should be cultured for specific pathogen that causing the dysentry, such as *Shigella dysenteriae* , *E.Coli* 0157, *Entamoeba histolytica* etc.

Case Classification

Suspected: A case with bloody diarrhea that is not laboratory confirmed.

Confirmed: a clinical case that is laboratory confirmed for specific pathogen.

Types of Surveillance
Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify
All dysentry cases should be notified.

How to notify
A dysentry case should be notified to the nearest District Health Office by submission of the notification form.

Special Aspects
Nil

Reference lab
IMR / NPHL: Identification specific strain for surveillance purposes.

Contact Information

Food and Water Borne Unit
Communicable Disease Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4504 / 4503
Fax: 03 – 8888 6270
E-mail: fwbd@dph.gov.my

EBOLA-MARBURG VIRAL DISEASES (ICD 10 : A 98.3, A 98.4)

Case Definition

Clinical Case Definition

Ebola Haemorhagic Fever begins with acute fever, diarrhoea that can be bloody and vomiting. Headacahe, nausea and abdominal pain are common. Conjunctiva injection, dysphagia and haemorrhagic symptoms such as nosebleeds, bleeding gum, vomiting of blood, blood in stool, purpura may further develop. Some patient may also show maculopapular rash on the trunk. Dehydration and significant wasting occur as the disease progresses. At later stages, there is frequent involvement of the central nervous system, manifested by somnolence, delirium or coma. Case fatility rate ranges from 50 to 90 %.

Laboratory Criteria for Diagnosis

Supportive:
Positive serology (ELISA for Ig G and / or Ig M), **or**

Confirmatory:
Positive virus isolation (in laboratory of bio-safety level 4) **or**
Positive skin biopsy (immunohistochemistry) **or**
Positive PCR.

Case Classification

Suspected: A case that is compatible with the clinical description.

Probable: A visitor or returned traveler from epidemic/endemic area or in close contact with a person who has clinical features compatible with the above clinical description and presenting with acute fever and three of the following symptoms; headache, vomiting / nausea, loss of appetite, diarrhea, intense fatigue, abdominal pain, general or articular pain, difficulty in swallowing, difficulty in breathing, or hiccoughs

Confirmed: A probable / suspected case that is laboratory confirmed.

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify
All suspected cases should be notified.

How to notify
A suspected case should be notified by phone to the nearest District Health Office within 24 hours of diagnosis. It is then followed by submission of the notification form.

Outbreak Situation

- Intensified surveillance and active finding of all suspected and probable cases for immediate isolation, all contact subject for daily follow up.
- The surveillance area should be monitored for duration corresponding to estimated incubation periods after date of death / hospital discharge of the last case.

Special Aspects
Extreme biohazard (BSL4) risk is associated with sampling, transportation and laboratory investigation, strict application of bio-safety procedures and appropriate isolation of patients are essential

Reference lab
Consult with IMR, MKAK, UM, UKM

Other References Laboratory
CDC Laboratory Atlanta

Contact Information

International Health Unit
Disease Control Division
Ministry Of Health

Tel: 03 – 8883 4510 / 4509 / 4511

Fax: 03 – 8888 6270
E-mail: ihu@dph.gov.my

FOOD POISONING (ICD 10 : A 05.9)

Case Definition

Clinical Case Definition

Acute onset of vomiting and / or diarrhea and / or other symptoms associated with ingestion of food.

Food poisoning may also be presented with neurological symptoms such as paresthesias, motor weakness and cranial nerve palsies.

Laboratory Criteria for Diagnosis

Isolation of pathogen or identification of non-microbiological agent from specimen.

Case Classification

Any case notified that fulfilled the clinical case definition of food poisoning is considered confirmed case of food poisoning.

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

All food poisoning cases should be notified. Laboratory confirmation is **NOT** required for notification.

How to notify

A food poisoning case or episode should be notified by phone to the nearest District Health Office within 24 hours of diagnosis. It is then followed by submission of the notification form.

Special Aspects

Nil

Reference Lab

IMR / NPHL: Strain / etiologic agent identification for surveillance purposes together with relevant food analyses.

Contact Information

Food and Water Borne Unit
Communicable Disease Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4504 / 4503
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E-mail: fwbd@dph.gov.my

GONOCOCCAL INFECTIONS (ICD 10 : A 54.9)

Case Definition

Clinical case definition
A sexually transmitted infection commonly manifested by urethritis, cervicitis, or salphingitis. Infection may be asymptomatic.

Laboratory criteria for diagnosis
- isolation of *N gonorrhoeae* from a clinical specimen or
- observation of Gram –ve intracellular diplococci in a urethral smear obtained from a male.

Case Classification

Confirmed: A case that is laboratory confirmed

Types of Surveillance
Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify
Only confirmed cases should be notified.

How to notify
A gonorrhoea case should be notified by phone to the nearest District Health Office within 24 hours of diagnosis. It is then followed by submission of the notification form.

Special Aspects
Nil

References Laboratory
NPHL: Sentinel surveillance for anti-microbial drug resistance

Contact Information

AIDS/STI Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4387
Fax: 03 - 8883 4285
E-mail: aids@dph.gov.my

LEPROSY (HANSEN'S DISEASE)
ICD 10 : A 30

Case Definition

Clinical case definition:

The clinical manifestations of the disease represent a spectrum reflecting the cellular immune response to *Mycobacterium leprae*. The following are the major clinical manifestations;

- In lepromatous leprosy (multibacillary), nodules, papules, macules and diffuse infiltrations are bilateral symmetrical and usually numerous and extensive; involvement of the nasal mucosa may lead to crusting, obstructed breathing and epistaxis; ocular involvement leads to iritis and keratitis.
- In tuberculoid leprosy (paucibacillary), skin lesions are single or few, sharply demarcated, anaesthetic or hypoaesthetic, and bilateral asymmetrical, involvement of peripheral nerves tends to be severe.
- Borderline leprosy has features of both polar forms and is more labile.
- Indeterminate leprosy is characterised by hypo-pigmented maculae with ill-defined borders; if untreated, it may progress to tuberculoid, borderline or lepromatous disease.

Laboratory criteria for diagnosis:

1. Acid-fast bacilli in skin smears (made by the scrape-incision method).
2. The presence of granuloma with or without acid fast bacilli from a full thickness skin biopsy of a lesion.
3. Demonstration of acid-fast bacilli in skin or dermal nerve, obtained from the full-thickness skin biopsy of a lepromatous lesion.

Case Classification

WHO operational definition (Diagnostic Criteria for Diagnosis):

A case of leprosy is defined as a person showing one or more of the following features, and who has yet to complete a full course of treatment:

- hypo-pigmented or reddish skin lesions with definite loss of sensation.
- involvement of the peripheral nerves, as demonstrated by definite thickening with loss of sensation.
- skin smear positive for acid-fast bacilli.

Classification (microbiological):
Paucibacillary (PB): includes all smear-negative cases
Multibacillary (MB): includes all smear-positive cases

Classification (clinical):
As defined above

Types of Surveillance
Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify
Notification should be done once the diagnosis is confirmed by laboratory test.

How to notify
Case should be notified to the nearest District Health Office by submission of the notification form.

Special Aspects
Nil

References Laboratory
- Slit skin smear, skin biopsy should be sent to the Dermatology Unit, State Hospital.
- All states should sent skin biopsy for mouse foot pad inoculation to the laboratory in Sungai Buloh Hospital.
    - External Quality Control of slit skin smear to be sent quarterly to the National Public Health Laboratory, Sg. Buloh

Contact Information

TB/Leprosy Unit
Communicable Disease Section Disease Control Division
Ministry of Health

Tel: 03 – 8883 4507
Fax: 03 – 8888 6270
E-mail: tb@dph.gov.my

HEPATITIS A (ICD 10: B15.9)

Case Definition

Clinical case definition
Acute illness typically including fever, malaise, extreme fatigue, anorexia, nausea, acute jaundice and right upper quadrant tenderness with raised alanine aminotransferase more than 2.5 times normal

Laboratory criteria for diagnosis
Positive IgM antibody to Hepatitis A virus (anti HAV).

Case Classification

Suspected: A case that is compatible with clinical description.

Confirmed: A suspected case that is laboratory confirmed.

Types of Surveillance
Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify
All confirmed cases should be notified.

How to notify
A case should be notified to the nearest District Health Office by submission of the notification form.

Outbreak situations
All outbreaks should be investigated immediately and confirmed serologically.

Special Aspects
Nil

Reference laboratory
IMR – For sero-prevalence, confirmation and vaccine potency test

Contact Information

Food And Water Borne Unit
Communicable Disease Section Disease Control Division
Ministry of Health

Tel:03 – 8883 4504 / 4503
Fax: 03 – 8888 6270
E-mail: fwbd@dph.gov.my

HEPATITIS B
(ICD 10: B 16.9)

Case Definition

Clinical case definition

- Acute illness typically including acute jaundice, dark urine, anorexia, malaise, extreme fatigue, and right upper quadrant tenderness with raised alanine aminotransferase more than 2.5 times normal.
- Chronic infection may be asymptomatic or symptomatic

Laboratory criteria for diagnosis

Acute: HBsAg or IgM anti-HB core- positive

Chronic: HBsAg positive > 6months

Case Classification

Suspected: A case that is compatible with clinical description

Confirmed: A case that is compatible with clinical description that is laboratory confirmed

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

All confirmed acute cases should be notified.

How to notify

A case should be notified to the nearest District Health Office by submission of the notification form.

Outbreak situations

All outbreaks should be investigated immediately and confirmed serologically.

Special Aspects

Nil.

References Laboratory

IMR: Sero-prevalence study and vaccine potency test surveillance

(Note: Persons who have chronic hepatitis or persons identified as HBsAg positive or anti-HCV positive should not be reported as having acute viral hepatitis unless they have evidence of an acute illness compatible with viral hepatitis (with the exception of perinatal hepatitis B infection. Up to 20% of acute hepatitis C will be anti-HAC negative when reported and will be classified as non-A, non-B hepatitis because some (5-10%) have not yet seroconverted and others (5-10%) remain negative even with prolonged follow-up. Available serologic tests for anti-HCV do not distinguish between acute and chronic or past infection. Thus other causes of acute hepatitis should be excluded from anti-HCV positive patients who have an acute illness compatible with viral hepatitis).

Contact Information

Vaccine Preventable Diseases Unit
Communicable Disease Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4412 / 4506
Fax: 03 – 8888 6270
E-mail: vaccine@dph.gov.my

ACUTE VIRAL HEPATITIS C, D & E (ICD 10 : B 17.0, B17.1, B 17.2)

Case Definition

Clinical case definition

Acute illness typically including acute jaundice, dark urine, anorexia, malaise, extreme fatigue and right upper quadrant tenderness. Biological signs include increased urine urobilinogen and more than 2.5 times the upper limit of serum alanine aminotransferase (ALT)

Laboratory criteria for diagnosis

Hepatitis Non A & B: - IgM anti-HAV and IgM anti-HBc (or HBs Ag) negative.
Hepatitis C: - Anti-HCV positive
Hepatitis D: - HBs Ag positive or IgM anti-HBc positive + anti-HDV positive (only as co-infection or superinfection of Hepatitis B.

Hepatitis E: - IgM anti- HEV positive.

Case Classification

Suspected: A case that is compatible with the clinical description.

Confirmed: A suspected case that is laboratory confirmed.

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

All confirmed acute cases should be notified.

How to notify

A case should be notified to the nearest District Health Office by submission of the notification form.

Outbreak situations

All outbreaks should be investigated immediately and confirmed serologically.

Special Aspects
Nil

References Laboratory
IMR

Contact Information

Vaccine Preventable Diseases Unit
Communicable Disease Section Disease Control Division
Ministry Of Health

Tel:03 – 8883 4412 / 4506
Fax: 03 – 8888 6270
E-mail: vaccine@dph.gov.my

JAPANESE ENCEPHALITIS (ICD 10: A83.0)

Case Definition

Clinical case definition

A febrile illness of variable severity associated with neurological symptoms ranging from headache to meningitis or encephalitis. Symptoms can include: headache, fever, meningeal signs, stupor, disorientation, coma, tremors, paresis (generalized), hypertonia, loss of coordination.

Laboratory criteria for diagnosis

Presumptive: Detection of an acute phase anti-viral antibody response through one of the following:

- Elevated and stable serum antibody titres to JE virus through ELISA, haemagglutination-inhibition or virus neutralization assays or
- IgM antibody to the virus in the serum.

Confirmatory:

- JE virus-specific IgM in the CSF, or
- Fourfold or greater rise in the JE virus-specific antibody in paired sera (acute and convalesent phases) through IgM /IgG, ELISA, haemagglutination inhibition test or virus neutralization test, in a patient with no history of recent yellow fever vaccination and where cross-reactions to other flaviviruses have been excluded.
- Detection of the JE virus, antigen or genome in tissue, blood or other body fluid by immunochemistry or immunofluroscence or PCR.

Case Classification

Suspected: A case that is compatible with the clinical description.

Probable: A suspected case with presumptive laboratory results.

Confirmed: A suspected case with confirmatory laboratory results.

(Note: JE infections are common and the majority is asymptomatic. JE infections may occur concurrently with other infections causing central nervous system symptoms, and serological evidence of recent JE viral infection may not be correct in indicating JE to be the cause of the illness. A suspected case without a confirmatory laboratory results for JE will be notified as viral encephalitis clinically).

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

All confirmed cases should be notified.

How to notify

A case should be notified to the nearest District Health Office by submission of the notification form.

Special Aspects:

Nil

References Laboratory

Virology Division of UM, UNIMAS, IMR: Sero-prevalence and Vaccine potency test

Collaboration with VRI and Veterinary Department, Ministry of Agriculture

Contact Information

Vector Borne Disease Section
Disease Control Division
Ministry of Health

Tel: 03 - 8883 4276
Fax: 03 – 8888 6251 / 6215
E-mail: vector@po.jaring.my

MALARIA (ICD 10: B54)

Case Definition

Clinical case definition

Signs and symptoms are variable; most patients experience fever. In addition to fever, common associated symptoms include: headache, back pain, chills, sweating, myalgia, nausea, vomiting, diarrhoea and commonly associated signs of anaemia and/ or splenomegaly.

Untreated or complicated Malaria (P. falciparum infections) can lead to cerebral malaria and other neurological features like coma & generalized convulsions, renal failure, jaundice and hepatic dysfunction, pulmonary oedema, hypotension & circulatory collapse, normocytic anaemia & blackwater fever (haemoglobinaemia), hypoglycaemia, lactic acidosis, septicaemia, disseminated intravascular coagulation (DIVC), fluid and electrolyte imbalance, hyperparasitemia and death.

Asymptomatic parasitemia can occur among persons who have been long-term residents of areas in which malaria is hyperendemic.

Laboratory criteria for diagnosis

- Microscopic parasitic detection in peripheral blood film or
- Positive Dipstick antigen detection tests (HRP II or LDH)

Note** (If the Dipstick Test is negative or positive for other than P. falciparum in a suspected malarial case, microscopic examination is required).

Case Classification

Confirmed asymptomatic malaria: A person with no symptoms and/or signs of malaria who shows laboratory confirmation of parasitemia

Confirmed uncomplicated malaria: A patient with symptoms and/or signs of malaria without complication but with laboratory confirmation of diagnosis.

Confirmed severe or complicated malaria: A laboratory confirmed case of malaria presenting with one or more of its complication as listed above.

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

- **Passive surveillance** through routine notification by health facilities to the nearest district health office.
- **Active surveillance** amongst high risk groups in endemic areas like Orang Asli, land schemes settlers and migrant workers.

When to notify

Any laboratory confirmed cases should be notified.

How to notify

A case should be notified to the nearest District Health Office by submission of the notification form within 7 days from date of confirmed diagnosis.

Special Aspects

Nil

Reference lab

NPHL /IMR: Identification of parasite strain and pattern of anti-malarial drug resistance

Contact Information

Vector Borne Disease Section
Disease Control Division
Ministry of Health

Tel: 03 - 8883 4276
Fax: 03 – 8888 6251 / 6215
E-mail: vector@po.jaring.my

MEASLES (ICD 10: B 05)

Case Definition

Clinical case definition:

Any person with:

- Fever, **and**
- maculopapular (i.e. non-vesicular) rash **and**
- cough, coryza, or conjunctivitis or

Laboratory criteria for diagnosis

- Presence of measles-specific IgM antibodies, or
- Presence of measles virus in clinical samples using culture techniques, or
- Presence of measles virus in clinical samples using molecular techniques.

Case Classification

Suspected: any person diagnosed as measles by a clinician.

Confirmed: A case that is laboratory confirmed or that meets the clinical case definition and is epidemiologically linked to a laboratory-confirmed case.

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

All cases, suspect or confirmed cases should be notified. Cases should be notified within 48 hours onset of rash as many of the cases detected late. It is advisable to notify the case as soon as possible via telephone as required by the Measles Elimination Programme.

How to notify

A case should be notified to the nearest District Health Office by submission of the notification form.

Outbreak situations

Intensive surveillance requires to be maintained during outbreaks in view of high infectivity, short incubation period, greater transmission risk and increased morbidity and mortality especially among under- five years of age.

Clinical specimens should be taken from some patients with clinical presentations in the initial phase of the outbreak for confirmation.

Special Aspects

Nil

Reference laboratory

NPHL /IMR: Sero-prevalence study and vaccine potency test

Contact Information

Vaccine Preventable Diseases Unit
Communicable Disease Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4412 / 4506
Fax: 03 – 8888 6270
E-mail: vaccine@dph.gov.my

PERTUSSIS (WHOOPING COUGH) (ICD 10 : A 37.0)

Case Definition

Clinical case definition

A person with a cough lasting at least 2 weeks **with at least one of the following**:

- Paroxysms (i.e. fits) of coughing
- inspiratory "whoop"
- post-tussive vomiting (i.e. vomiting immediately after coughing)
- without other apparent cause

Laboratory criteria for diagnosis

- Isolation of *Bordetella pertussis* from clinical specimens or
- Positive polymerase chain reaction (PCR) for *B. pertussis*

Case Classification

Suspected: a case that meets the clinical case definition

Confirmed: A clinically compatible case that is laboratory confirmed

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

All suspected and confirmed case should be notified.

How to notify

A case should be notified to the nearest District Health Office by submission of the notification form within 7 days from date of diagnosis.

Outbreak situations

Intensive surveillance requires to be maintained during outbreaks in view of high infectivity, short incubation period, greater transmission risk and increased morbidity and mortality especially among under-five years of age.

Special Aspects

Nil

References Laboratory

IMR: Vaccine potency test surveillance and investigation of the affected batch of the vaccine

Contact Information

Vaccine Preventable Diseases Unit
Communicable Disease Section Disease Control Division
Ministry Of Health

Tel:03 – 8883 4412 / 4506
Fax: 03 – 8888 6270
E-mail: vaccine@dph.gov.my

PLAGUE
(ICD 10 : A20.9)

Case Definition

Clinical case definition

Disease characterized by rapid onset of fever, chills, headache, severe malaise, prostration that manifest in one or more of the following clinical forms:

- Bubonic form (plague): Regional lymphadenitis -extreme painful swelling of lymph nodes (buboes)
- Pneumonic form (plague): cough with blood-stained sputum, chest pain, difficult breathing resulting from haematogenous spread in bubonic cases (secondary pneumonic plague) or inhalation of infectious droplets (primary pneumonic plague)
- Septicaemic form: Both forms above can progress to a septicaemia with toxaemia. Sepsis without evident buboes rarely occurs

Laboratory criteria for diagnosis

- Isolation of *Yersinia pestis* in cultures from buboes, blood, CSF or sputum or
- Passive haemagglutination (PHA) test, demonstrating an at least fourfold rise in antibody titre, specific for F1 antigen of *Y pestis* as determined by haemagglutination test in paired sera

Case Classification

Suspected: A case compatible with the clinical description

Confirmed: A suspected case that is laboratory confirmed

Both suspected and confirmed cases should be notified.

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

All suspected and confirmed case should be notified.

How to notify

A plague case should be notified by phone to the nearest District Health Office within 24 hours of diagnosis. It is then followed by submission of the notification form.

During an outbreak:

Intensified surveillance: active case-finding and contact tracing should be undertaken in order that treatment is started for cases and contacts; targeting environmental measures; community education. A daily report of the number of cases and contacts as well as their treatment status and vital status must be produced. A weekly report must summarise the outbreak situation, the control measures taken, and those planned to interrupt the outbreak.

International:

Mandatory reporting of all suspected and confirmed cases to WHO within 24 hours

Special Aspects:

Collaboration with Veterinary Department in surveillance that relevant to the disease.

Contact Information

Vector Borne Disease Section
Disease Control Division
Ministry of Health

Tel: 03 - 8883 4276
Fax: 03 – 8888 6251 / 6215
E-mail: vector@po.jaring.my

ACUTE POLIOMYELITIS
(ICD 10 : A 36)

Case Definition

Clinical case definition

A disease due to poliovirus infection, often recognized by an acute onset of flaccid paralysis.

Criteria for diagnosing acute poliomyelitis:

- poliovirus is isolated OR
- positive serology(4 fold or greater rise in Ab) OR
- epidemiological linkage to another confirmed case.

Case Classification

Suspected: A case compatible with the clinical description.

Confirmed: A case with any of the above criteria for diagnosis.

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

Immediate reporting

The detection of any wild poliovirus will require **URGENT ATTENTION**.

How to notify

An acute poliomyelitis case should be notified by phone to the nearest District Health Office within 24 hours of diagnosis. It is then followed by submission of the notification form.

Outbreak situations

The detection of any wild poliovirus in Malaysia will be considered a national emergency. In this situation it is vital to immediately activate the National Plan of Action for the Importation of Wild Poliovirus. All outbreaks should be investigated **IMMEDIATELY.**

Special Aspects

As poliomyelitis is under the Eradication Programme, the enhanced surveillance of poliomyelitis is done through acute flaccid paralysis (AFP) surveillance (refer attachment).

References Laboratory:

IMR: For lab surveillance and vaccine potency test surveillance. Investigation of the affected batch of the vaccine will be done by the Family Health Division / Disease Control Division.

Contact Information

Vaccine Preventable Diseases Unit
Communicable Disease Section Disease Control Division
Ministry Of Health

Tel:03 – 8883 4412 / 4506
Fax: 03 – 8888 6270
E-mail: vaccine@dph.gov.my

RABIES
(ICD 10 : A 82)

Case Definition

Clinical case definition

Rabies is an acute neurological syndrome (encephalomyelitis) dominated by forms of hyperactivity or paralytic syndromes that almost always progresses towards coma and death, usually by respiratory failure, within 7-10 days after the first symptom if no intensive care is instituted. Other clinical symptoms include dysphagia, hydrophobia and convulsions.

Laboratory criteria for diagnosis

- Detection of rabies viral antigens by direct fluorescent antibody (FA) in clinical specimens, preferably brain tissue (post mortem) or from skin or corneal smear (ante mortem).
- FA positive after inoculation of brain tissue, saliva, cerebrospinal fluid (CSF) in cell culture, in mice or suckling mice.
- Isolation of rabies virus from clinical specimens and conformation of the rabies viral antigens by direct fluorescent antibody testing.

Case Classification

Suspected: A case that is compatible with the clinical definition.

Probable: A suspected case plus a history of contact or being bitten by a rabid animal

Confirmed: A probable/suspected case that is laboratory-confirmed.

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

Both probable/suspected and confirmed cases should be notified.

How to notify

A rabies case should be notified by phone to the nearest District Health Office within 24 hours of diagnosis. It is then followed by submission of the notification form.

Outbreak situations

Intensive surveillance together with Veterinary Services Department requires to be maintained during outbreaks in view of the number of persons exposed, greater transmission risk from rabid animals and increased mortality. This would assist in the rationalized usage of vaccine and immunoglobulin.

Special Aspects

Collaboration with Veterinary Department (including Zoonotic Surveillance) to track rabid animals.

Reference Laboratory

Veterinary Research Institute

Contact Information

Zoonotic Disease Unit
Communicable Disease Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4506
Fax: 03 – 8888 6270
E-mail: zoonotic@dph.gov.my

RELAPSING FEVER (ICD 10 : A 68.9)

Case Definition

Clinical case definition

An acute febrile illness caused by spirochetes of the genus *Borrelia*. The high fevers of presenting patients spontaneously abate and then recur. It is transmitted to humans by 2 vectors, ticks and lice. Louse-borne relapsing fever is more severe than the tick-borne variety.

Clinical manifestations are includes abrupt onset of fever with prodromic symptoms, pulse is rapid in proportion to the fever, cough and systemic symptoms including gastrointestinal upset and jaundice.

Relapses episode characterized by:

- The primary febrile episode typically ends after 3-6 days by crisis that can culminate in fatal shock. About 7-10 days later, the first relapse occurs abruptly. Subsequent relapses tend to be less severe.
- The primary febrile episode, usually only 1-2.
- Louse-borne relapsing fever normally produces fewer relapses.
- In tick-borne disease, average episode of relapse is 3 but there can be more than 10.

Laboratory criteria for diagnosis

- Definitive diagnosis is established by visualizing spirochetes in smears of peripheral blood during a febrile episode.
- Multiple smears (both thick and thin, using Wright and Giemsa stains) may need to be examined.

Case Classification

Suspected: A case that is compatible with the clinical definition.

Confirmed: A suspected case that is laboratory-confirmed.

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify
All suspected and confirmed case should be notified.

How to notify
A relapsing fever case should be notified to the nearest District Health Office by submission of the notification form.

Outbreak situations
Intensive surveillance is requires to be maintained during outbreaks in view of number persons of persons exposed, greater transmission risk and increased mortality.

Special Aspects
Nil

Reference Laboratory
IMR

Contact Information

Vector Borne Disease Section
Disease Control Division
Ministry of Health

Tel: 03 - 8883 4276
Fax: 03 – 8888 6251 / 6215
E-mail: vector@po.jaring.my

SALMONELLOSIS (ICD 10: A02.0)

Case Definition

Clinical case definition
An illness with fever, diarrhoea, vomiting and abdominal cramps.

Laboratory criteria for confirmation
Isolation of *Salmonella species* from blood, stool or other clinical specimens.

Case Classification

Suspected: A case that meets the clinical case definition.

Confirmed: A suspected case with laboratory confirmation.

Types of Surveillance
Notified to National Notification of Infectious Diseases as a typhoid / paratyphoid and other salmonellosis.

Any *Salmonella* positive culture is notified through Laboratory-based Surveillance System.

When to notify
All suspected and confirmed case should be notified.

How to notify
A salmonellosis case should be notified to the nearest District Health Office by submission of the notification form within 7 days from the diagnosis date.

Special Aspects
Nil

Reference lab
IMR and PHL Ipoh: Identification of specific strain for surveillance purposes.

Contact Information

Food And Water Borne Unit
Communicable Disease Section Disease Control Division
Ministry of Health

Tel:03 – 8883 4504 / 4503
Fax: 03 – 8888 6270
E-mail: fwbd@dph.gov.my

SYPHILIS

Case Definition

1. Acquired

a. Primary Syphilis (ICD 10: A51.0)

Clinical case definition

- characteristic lesion is the chancre(solitary, painless indurated ulcer), but atypical primary lesions may occur

Laboratory criteria for diagnosis

- demonstration of *T. pallidum* in clinical specimens by dark field microscopy
- serology

b. Secondary Syphilis (ICD 10: A51.4)

Clinical case definition

A stage of infection caused by *T. pallidum* and characterized by:

- localised or diffused mucocutaneous lesion and generalized lymphadenopathy
- constitutional symptoms which are common and clinical manifestations are protean
- the primary chancre may still be present

Laboratory criteria for diagnosis

- demonstration of *T. pallidum* in clinical specimens by dark field microscopy
- serology

c. Latent Syphilis (ICD 10: A53.0)

Clinical case definition

- a stage of asymptomatic infection due to *T. pallidum*
- Latent syphilis is subdivided into early latent syphilis when duration of infection is < 24months and late latent syphilis after >24 months from initial infection

Presence of one or more of the following criteria indicates early latent syphilis:

- a non reactive serology test for syphilis or a non-treponemal titer that has dropped fourfold within the past 24months
- a history of symptoms consistent with primary or secondary syphilis without a history of subsequent treatment in the past 24months

- a history of sexual exposure to a partner with confirmed or presumptive primary or secondary syphilis or presumptive early latent syphilis and no history of treatment in the past 24months
- reactive non-treponemal and treponemal tests from an individual whose only possible exposure occurred within the preceding 24months

Late latent syphilis cases are those without the above criteria

Laboratory criteria for diagnosis

- demonstration of *T. pallidum* by dark field microscopy
- serology

d. Neurosyphilis (A52.3)

Clinical case definition

- evidence of central nervous system (CNS) infection with *T. pallidum*

Laboratory criteria for diagnosis

- a reactive serologic test for syphilis and reactive VDRL in cerebrospinal fluid (CSF)

2. Congenital Syphilis (A50.9)

Clinical case definition

- a condition caused by infection in utero with *T. pallidum*. A wide spectrum of severity exists, and only severe cases are clinically apparent at birth.
- A infant or child (< 2 years) may have signs such as hepatosplenomegaly, characteristic skin rash, condyloma lata, snuffles, jaundice (non viral hepatitis), pseudoparalysis, anemia, or edema (nephrotic syndrome and /malnutrtion).
- An older child may have stigmata such as interstitial keratitis, nerve deafness, anterior bowing of shins, frontal bossing, mulberrry molars, Hutchinson teeth, saddle nose, rhagades, or Clutton joints

Laboratory criteria for diagnosis

- demonstration of *T. pallidum* by dark field microscopy
- serology

Case Classification

Confirmed: A clinically compatible case that is laboratory confirmed.

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

Only confirmed cases should be notified.

How to notify

A syphilis case should be notified to the nearest District Health Office by submission of the notification form within 7 days from the diagnosis date.

Contact Information

AIDS/STI Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4387
Fax: 03 - 8883 4285
E-mail: aids@dph.gov.my

TETANUS
(ICD 10: A 33)

Case Definition

Clinical case definition

Neonatal Tetanus (< 28 days of age)
Any neonate with a normal ability to suck and cry in the first two days of life, and who between the 3 and 28 days of age cannot suck normally, and become stiff or has convulsions (i.e. jerking of muscles) or both.

Post Neonatal Tetanus (Children & Adults)
Acute onset of hypertonia and/or painful muscular contractions (usually of the muscles of the jaw and neck) and generalized muscle spasms without other apparent medical cause.

Laboratory criteria for diagnosis
Not applicable

Case Classification

Confirmed: A clinically compatible case as reported by a doctor

Diagnosis of the cases **does not require laboratory or bacteriological confirmation**

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify
Any case diagnose by the treating doctor as tetanus should be notified.

How to notify
A tetanus case should be notified to the nearest District Health Office by submission of the notification form within 7 days from the diagnosis date.

Outbreak situations
Intensive surveillance requires to be maintained during outbreaks in view of high infectivity, variable incubation period, and increased mortality especially among neonates. Improve immunization coverage among high risk antenatal women.

Special aspects
Nil

Reference Laboratory
IMR: Vaccine test potency test surveillance and investigation of the related batch.

Contact Information

Vaccine Preventable Diseases Unit
Communicable Disease Section Disease Control Division
Ministry Of Health

Tel:03 – 8883 4412 / 4506
Fax: 03 – 8888 6270
E-mail: vaccine@dph.gov.my

TUBERCULOSIS (CD 10: A 15-A19)

Case Definition

Clinical case definition

DEFINITIONS OF WHO / IUATLD (International Union against Tuberculosis (TB) and Lung diseases)

Site and bacteriology

Pulmonary tuberculosis, sputum smear positive (PTB+)

- Tuberculosis in a patient with at least two initial sputum smear examinations (direct microscopy) positive for acid-fast bacilli (AFB) or
- Tuberculosis in a patient with one sputum smear examination positive for AFB and radiographic abnormalities consistent with active pulmonary tuberculosis as determined by the treating medical officer, or
- Tuberculosis in a patient with at least one sputum specimen positive for AFB and at least one sputum that is culture positive for *M. tuberculosis*.

Pulmonary tuberculosis, sputum smear negative (PTB-)

Tuberculosis in a patient with symptoms suggestive of tuberculosis and having one of the following:

- Three sputum specimens negative for AFB,
- Radiographic abnormalities consistent with pulmonary tuberculosis, and a lack of clinical response to one week of broad spectrum antibiotics determined by a physician
- Decision by physician to treat patient with a full course of anti-TB therapy

Pulmonary tuberculosis, sputum smear negative, culture positive

Tuberculosis in a patient with symptoms suggestive of tuberculosis and having sputum smear negative for AFB and at least one sputum specimen that is culture positive for *M. tuberculosis* complex

Extra-pulmonary tuberculosis

- Tuberculosis of organs other than lungs parenchyma: pleura, lymph nodes, abdomen, genito-urinary tract, skin, joints and bones, tuberculosis meningitis, etc.
- Diagnosis should be based on at least one culture positive specimen from an extra pulmonary site, or histological or strong clinical evidence consistent with active

extra-pulmonary tuberculosis, followed by a decision by a medical officer to treat with a full course of anti-tuberculosis therapy

- Any patient diagnosed with both pulmonary and extra-pulmonary tuberculosis should be classified as a case of pulmonary tuberculosis.

Case classification

Category of patient

New case: A patient who has never had treatment for tuberculosis or who has taken anti-tuberculosis drugs for less than 4 weeks. A new case is also defined as any treated old tuberculosis case that becomes smear positive again after more than 2 years of treatment.

Relapse case: A patient previously treated for tuberculosis and declared cured by a medical officer after one full course of chemotherapy, but reports back to the health service with active disease confirmed bacteriological positive (smear or culture) or histology or radiology or clinical assessment.

Treatment failure: A patient who, while on treatment, remains or becomes smear-positive again five months or later after commencing treatment. It is also a patient who was initially smear-negative before starting treatment and becomes smear-positive after the second month of treatment.

Treatment after interruption (TAI) (previously known as return after default): A patient who interrupts treatment for two months and more, and returns to the health service with smear-positive sputum (sometimes smear-negative but still with active tuberculosis as judged on clinical and radiological assessment).

Chronic case: A patient who remains or becomes smear-positive again after completing a fully supervised re-treatment regime.

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

Any case(s) that fullfilled any of the above case definition should be notified.

How to notify

A tuberculosis case should be notified to the nearest District Health Office by submission of the notification form within 7 days from the diagnosis date.

Special Aspects
Nil.

References Laboratory
NPHL: For strain identification and pattern of drug resistance in relation to epidemiological distribution

Contact Information
TB/Leprosy Unit
Communicable Disease Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4507
Fax: 03 – 8888 6270
E-mail: tb@dph.gov.my

TYPHOID / PARATYPHOID
ICD 10: A01.0/A01.1-A01.4

Case Definition

Clinical case definition
An illness with prolonged fever, constitutional symptoms (e.g. malaise, headache, anorexia) and hepatosplenomegaly.

Laboratory criteria for confirmation
Isolation of *Salmonella typhi / paratyphi* from blood, stool or other clinical specimens.

Case Classification

Suspected: A case that meets the clinical case definition.

Probable: A suspected case with positive serodiagnosis or antigen detection test but without *Salmonella typhi / paratyphi*.

Confirmed: Isolation of *Salmonella typhi / paratyphi* from blood, stool or other clinical specimens.

Types of Surveillance
Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify
Any suspected or confirmed case should be notified.

How to notify
A typhoid / paratyphoid case should be notified to the nearest District Health Office by submission of the notification form within 7 days from the diagnosis date.

Outbreak situation
Surveillance should be intensified with the introduction of active case finding.

Special Aspects
Nil

Reference laboratory
IMR and PHL Ipoh: Identification of specific strain for surveillance purposes.

IMR: Specialised in finger printing for molecular epidemiologic surveillance.

Contact Information

Food And Water Borne Unit
Communicable Disease Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4504 / 4503
Fax: 03 – 8888 6270
E-mail: fwbd@dph.gov.my

TYPHUS
(ICD 10: A75.9)

Case Definition

Clinical case definition

a. Scrub typhus (mite-borne)

- Acute onset of fever associated with headache, rash, profuse sweating, myalgia and gastrointestinal symptoms.
- Classical triad of
  - : Eschar ('punched out' skin ulcer where the bite(s) occurs)
  - : regional lymphadenopathy
  - : maculopapular rash within a week on the trunk & extends to the extremities (seen seldom in indigenous population)
- Severe cases: Encephalitis and interstitial pneumonitis as a prominent feature.

b. Murine typhus (louse-borne)

- Presence of fever with chills, headache, myalgia, arthralgia
- Maculopapular rash especially over the axilla and inner surfaces of arms and trunk.
- Pulmonary involvement, non productive cough, effusion and infiltrate in the Chest Xray.

c. Tick typhus (tick-borne)

- Presence of high grade fever, headache and prostration
- Skin rash (maculopapular, petechiae appear on the fifth day of illness).
- Multisystem involvement and prominent neurological manifestation.

(**Note**: Response within 48 hours following tetracycline therapy strongly suggest a rickettsiea infection

Laboratory criteria for diagnosis

- Positive immunoperoxidase test, with IgG titre >1:400 or IgM ≥1:50 or four fold rise in antibody titre in paired serum.

- Isolation of *"Rickettsia tsutsutgamushi"* by inoculation of patient blood in white mice (preferably treated with cyclophosphamaide at 0.2mg/g intraperitonealy or intramuscularly on days 1, 2 and 4 after inoculation.

Case Classification

Suspected: A case that is compatible with the clinical description

Confirmed: A suspected case with laboratory confirmation

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

Any suspected or confirmed case should be notified.

How to notify

A typhus case should be notified to the nearest District Health Office by submission of the notification form within 7 days from the diagnosis date.

Special Aspects

Nil.

Reference Laboratory

IMR: For strain identification and epidemiological surveillance.

Contact Information

Vector Borne Disease Control Section
Disease Control Division
Ministry Of Health

Tel: 03 - 8883 4276
Fax: 03 – 8888 6251 / 6215
E-mail: vector@po.jaring.my

YELLOW FEVER (ICD 10 : A95.9)

Case Definition

Clinical case definition

A mosquito-borne illness characterized by acute onset of fever followed by jaundice within 2 weeks of onset of first symptoms. Haemorrhagic manifestations and signs of renal failure may occur. Travel history to an endemic area is helpful in diagnosis.

Laboratory criteria for diagnosis

- Isolation of yellow fever virus, or
- Presence of yellow fever specific IgM or a four-fold or greater rise in serum IgG levels in paired sera (acute and convalescent) or
- Positive post-mortem liver histopathology or
- Detection of yellow fever antigen in tissues by immunohistochemistry or
- Detection of yellow fever virus genomic sequences in blood or organs by PCR

Case Classification

Suspected: A case that is compatible with the clinical description

Confirmed: A suspected case that is laboratory confirmed or epidemiologically linked to a confirmed case or outbreak

Types of Surveillance

Mandatory National Notification of Infectious Diseases under the Infectious Disease Prevention and Control Act 1988.

When to notify

Any suspected or confirmed case should be notified.

How to notify

A suspected or confirmed yellow fever case should be notified by phone to the nearest District Health Office within 24 hours of diagnosis. It is then followed by submission of the notification form.

Special Aspects

Mandatory reporting of all suspected and confirmed cases to WHO within 24 hours of diagnosis.

References Laboratory

IMR and NPHL

Contact Information

Vector Borne Disease Control Section
Disease Control Division
Ministry Of Health

Tel: 03 - 8883 4276
Fax: 03 – 8888 6251 / 6215
E-mail: vector@po.jaring.my

International Health Unit
Communicable Disease Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4510 / 4512 / 4511
Fax: 03 – 8888 6270
E-mail: ihu@dph.gov.my

List of Notifiable Disease **Appendix 1**

DISEASES	Notification by phone within 24 hours	Written notification within 1 week	Laboratory confirmation	Notification by Clinical diagnosis	Diagnosis Status by Laboratory diagnosis
AIDS		•	REQUIRED	No	Yes
HIV INFECTION		•	REQUIRED	No	Yes
CHANCROID		•	REQUIRED	No	Yes
CHOLERA	•		REQUIRED	Yes	Yes
DENGUE FEVER, DHF, DSS	•		REQUIRED	Yes	Yes
DIPHTERIA	•		REQUIRED	Yes	Yes
DYSENTRY		•	REQUIRED	Yes	Yes
EBOLA-MARBURG DISEASE	•		REQUIRED	Yes	Yes
FOOD POISONING	•		NOT REQUIRED	Yes	No
GONOCOCCAL INFECTIONS		•	REQUIRED	No	Yes
LEPROSY		•	REQUIRED	No	Yes

DISEASES	Notification by phone within 24 hours	Written notification within 1 week	Laboratory confirmation	Notification by Clinical diagnosis	Diagnosis Status by Laboratory diagnosis
VIRAL HEPATITIS		•	REQUIRED	Yes	Yes
HEPATITIS A		•	REQUIRED	No	Yes
HEPATITIS B		•	REQUIRED	No	Yes
ACUTE VIRAL HEPATITIS C, D& E		•	REQUIRED	No	Yes
ACUTE ENCEPHALITIS JAPANESE ENCEPHALITIS		•	REQUIRED REQUIRED	Yes No	Yes Yes
MALARIA		•	REQUIRED	No	Yes
MEASLES		•	NOT REQUIRED	Yes	Yes
PERTUSSIS		•	REQUIRED	Yes	Yes
PLAGUE	●		REQUIRED	Yes	Yes
POLIOMYELITIS (AC)	●		REQUIRED	Yes	Yes
RABIES	●		REQUIRED	Yes	Yes
RELAPSING FEVER		•	REQUIRED	Yes	Yes

DISEASES	Notification by phone within 24 hours	Written notification within 1 week	Lab confirmation	Notification by Clinical diagnosis	Diagnosis Status by Laboratory diagnosis
SALMONELLOSIS		•	REQUIRED	No	Yes
SYPHILIS		•	REQUIRED	No	Yes
TETANUS		•	NOT REQUIRED	Yes	No
TUBERCULOSIS		•	REQUIRED	No	Yes
TYPHOID/ PARATYPHOID		•	REQUIRED	Yes	Yes
TYPHUS		•	REQUIRED	Yes	Yes
YELLOW FEVER	•		REQUIRED	Yes	Yes

Appendix 2

ACUTE FLACCID PARALYSIS (AFP)

Case Definition

Clinical case definition

A diagnosis of an AFP is considered if a child age less than 15 years developed an acute onset of flaccid paralysis.

Inclusive Criteria

It is a case of AFP if it has any one of the following criteria:-

- Poliovirus is isolated
- positive serology(4 fold or greater rise in Ab)
- epidemiological linkage to another confirmed case
- residual paralysis after 60 days
- death of a suspected case
- lack of follow-up

Laboratory criteria for diagnosis

Poliovirus isolation from 2 separate stool specimens, collected 24 hours to 48 hours apart; and both taken within 14 days of onset of paralysis.

Case Classification

Suspected: An AFP case that meets the clinical case definition.

Confirmed: All reported cases of acute flaccid paralysis (AFP) are reviewed by a national expert committee before a final classification is made. The final classification is decided based on the WHO Classification System for AFP cases into confirmed, poliomyelitis compatible or discarded.

Discard case(s) if

- laboratory evidence is absent or non-conclusive
- no epidemiological linkage to a confirmed case
- alternative cause for paralysis documented
- no residual paralysis at 60 days

Confirmed cases by laboratory isolation of the polio virus are then further classified based on epidemiologic and laboratory criteria into wild or imported poliovirus or Vaccine Associated Paralytic Poliomyelitis (VAPP).

Vaccine Associated Paralytic Poliomyelitis (VAPP)

Criteria For Diagnosis Of VAPP

- Clinical polio and no epidemiological links with wild virus confirmed or outbreak associated polio cases,
- History of recent exposure to OPV 'Adequate' stool specimens negative for wild virus,
- Positive for Sabin in WHO accredited lab,
- Other causes of AFP ruled out,
- Polio-like sequelae at 60-day follow-up,
- Review and diagnosis by 'Expert Review Committee'

Types of VADP

i. **Recipient VAPP**
RECIPIENT VAPP - AFP with onset of paralysis 4 - 30 days after receiving OPV dose **and** presence of neurological sequelae compatible with poliomyelitis for 60 days or more following day of onset of paralysis; **and** isolation of vaccine-derived poliovirus from the stools.

ii. **Contact VAPP**
CONTACT VAPP - paralytic polio in which patient has known contact with vaccinee who received OPV within 7 - 70 days, and the contact occurred 4 - 30 days before paralysis onset of the patient.

Types of Surveillance

Based on AFP surveillance by WHO.

Immediate reporting

The detection of any wild poliovirus will require URGENT ATTENTION. Notification will be done by IMR to Disease Control Division; as it is the reference laboratory for Poliomyelitis Eradication Programme.

Outbreak situations

The detection of any wild poliovirus in Malaysia will be considered a national emergency. In this situation it is vital to immediately activate the National Plan of Action for the Importation of Wild Poliovirus. All outbreaks should be investigated IMMEDIATELY.

Special Aspects:

Nil

Reference Laboratory:

IMR : The reference laboratory for Poliomyelitis Eradication Programme IN Malaysia.

Contact Information

Vaccine Preventable Diseases Unit
Communicable Disease Section Disease Control Division
Ministry Of Health

Tel:03 – 8883 4412 / 4506
Fax: 03 – 8888 6270
E-mail: vaccine@dph.gov.my

RUBELLA - Adult type (ICD 10 : B 06.9)

Case Definition

Clinical case definition

An illness that has all the following characteristics:

- Acute onset of generalized maculopapular rash
- Temperature >99.0 F (>37.2 C), if measured
- Arthralgia/arthritis, lymphadenopathy, or conjunctivitis

Laboratory criteria for diagnosis

- Isolation of rubella virus, or
- Significant rise between acute- and convalescent-phase titers in serum rubella immunoglobulin G antibody level by any standard serologic assay, or
- Positive serologic test for rubella immunoglobulin M (IgM) antibody

Case Classification

Suspected: A case that meets the clinical case definition

Confirmed: A case that is laboratory confirmed or that meets the clinical case definition and is epidemiologically linked to a laboratory-confirmed case

Comments

Serum rubella IgM test results that are false positives have been reported in persons with other viral infections (e.g., acute infection with Epstein-Barr virus [infectious mononucleosis], recent cytomegalovirus infection, and parvovirus infection) or in the presence of rheumatoid factor. Patients who have laboratory evidence of recent measles infection are excluded.

Type of Surveillance

To be considered for inclusion under the National Notification of Infectious Diseases.

Outbreak situations

Intensive surveillance requires to be maintained during outbreak in view of high infectivity, short incubation period, greater transmission risk and increased morbidity and mortality.

Special Aspects

Nil

Reference Laboratory

IMR: Vaccine potency test surveillance and investigation of the affected batch of the vaccine

Contact Information

Vaccine Preventable Diseases Unit
Communicable Disease Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4412 / 4506
Fax: 03 – 8888 6270
E-mail: vaccine@dph.gov.my

RUBELLA-Congenital Syndrome (ICD 10: P35.0)

Case Definition

Clinical case definition

Presence of any defects or laboratory data consistent with congenital rubella infection which are defined as the following:

An illness usually manifest in infant, resulting from rubella infection in utero and characterised by signs or symptoms from the following categories:

a) Cataracts/congenital glaucoma, congenital heart disease (most commonly patent ductus arteriosus, or peripheral pulmonary artery stenosis), loss of hearing, pigmentary retinopathy

b) Purpura, splenomegaly, jaundice, microcephaly, mental retardation, meningoencephalitis, radiolucent bone disease.

Laboratory criteria for diagnosis

- Isolation of rubella virus, or
- Demonstration of rubella-specific immunoglobulin M antibody, or
- Infant rubella antibody level that persists at a higher level and for a longer period than expected from passive transfer of maternal antibody (i.e., rubella titer that does not drop at the expected rate of a twofold dilution per month)

Case Classification

Probable: A case that is not laboratory confirmed and that has any two complications listed in paragraph (a) above of the clinical description or one complication from paragraph (a) and one from paragraph (b) above, and lacks evidence of any other aetiology.

Confirmed: A clinically compatible case that is laboratory confirmed.

Infection is a case that demonstrates laboratory evidence of infection, but without any clinical symptoms or signs.

Comment

In probable cases, either or both of the eye-related findings (i.e., cataracts and congenital glaucoma) are interpreted as a single complication. In cases classified as infection only, if

any compatible signs or symptoms (e.g., hearing loss) are identified later, the case is reclassified as confirmed.

Types of Surveillance

To be considered for inclusion under the National Notification of Infectious Diseases.

When to notify

Both probable and confirmed case should be notified within 1 week.

Outbreak situations

Intensive surveillance requires to be maintained during outbreaks in view of high infectivity, short incubation period, greater transmission risk and increased morbidity and mortality.

Special Aspects

Nil

Reference Laboratory

IMR: Vaccine potency test surveillance and investigation of the affected batch of the vaccine

Contact Information

Vaccine Preventable Diseases Unit
Communicable Disease Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4412 / 4506
Fax: 03 – 8888 6270
E-mail: vaccine@dph.gov.my

HAEMOPHILUS INFLUENZAE DISEASE (ICD 10 : G00.0)

Case Definition

Clinical case definition

Invasive disease caused by *Haemophilus influenzae type b* may produce any of several clinical syndromes, including meningitis, bacteraemia, epiglottitis, or pneumonia.

Laboratory criteria for diagnosis

Isolation of *H. Influenzae type b* from a normally sterile site (e.g., blood or cerebrospinal fluid [CSF] or, less commonly, joint, pleural, or pericardial fluid)

Case Classification

Probable: A clinically compatible case with detection of *H. influenzae type b* antigen in CSF

Confirmed: A case that is laboratory confirmed (growth or identification of Hib in CSF or blood)

Notes: Positive antigen test results from urine or serum samples are unreliable for diagnosis of *H. Influenzae type b* disease. Any person with Hib isolated in CSF or blood may be reported as a confirmed case, regardless of whether their clinical syndrome was meningitis

Type of Surveillance

To be considered for inclusion under the National Notification of Infectious Diseases.

Special Aspects

Nil

Reference Laboratory

IMR: Vaccine potency test and sero-prevalence study

Contact Information

Vaccine Preventable Diseases Unit
Communicable Disease Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4412 / 4506
Fax: 03 – 8888 6270
E-mail: vaccine@dph.gov.my

MUMPS
(ICD 10 : B 26.9)

Case Definition

Clinical Case Definition

An illness with acute onset of unilateral or bilateral tender, self-limited swelling of the parotid or other salivary gland, lasting for = or > 2 days, and without other apparent cause

Laboratory criteria for diagnosis

- Isolation of mumps virus from clinical specimen, or
- Significant rise between acute- and convalescent-phase titers in serum mumps immunoglobulin G antibody level by any standard serologic assay, or
- Positive serologic test for mumps immunoglobulin M (IgM) antibody

Case Classification

Probable: A case that meets the clinical case definition, has noncontributory or no serologic or virologic testing, and is not epidemiologically linked to a confirmed or probable case

Confirmed: A case that is laboratory confirmed or that meets the clinical case definition and is epidemiologically linked to a confirmed or probable case. A laboratory-confirmed case does not need to meet the clinical case definition.

Comment

Two probable cases that are epidemiologically linked would be considered confirmed, even in the absence of laboratory confirmation. False-positive IgM results by immunofluorescent antibody assays have been reported.

Types of Surveillance

To be considered for inclusion under the National Notification of Infectious Diseases

Reference Laboratory:

IMR: Vaccine potency test and sero-prevalence study

Contact Information

Vaccine Preventable Diseases Unit
Communicable Disease Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4412 / 4506
Fax: 03 – 8888 6270
E-mail: vaccine@dph.gov.my

INFLUENZA-LIKE ILLNESS (ILI)

Case Definition

Clinical case definition

ABRUPT ONSET of high grade fever (axilla > 38 ^{o}C or oral > 38.5 ^{o}C) **with** dry cough within 48 hours and / or sore throat / irritation **WITH / WITHOUT** any of the following symptoms;

- Nasal congestion / blockage
- Myalgia
- Convulsion (infants)
- Vomiting (infants)

Laboratory criteria for diagnosis

- isolation of influenza virus

Case Classification

Suspected: A case that meets the clinical case definition.

Confirmed: A suspected case in which laboratory investigation confirms the presence of influenza virus in a clinical specimen.

Laboratory confirmation is **NOT** required for management of patient and compiling of ILI data.

Types Of Surveillance

National Sentinel Surveillance of ILI.

Contact Information

Surveillance Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4370
Fax: 03 – 8888 6271
E-mail: survelan@dph.gov.my

AVIAN INFLUENZA (AI) IN HUMAN

Case classification

1. Patient under Investigation (PUI)

Patient under investigation is any individual presenting with **fever (temperature >38°C)**

AND

one or more of the following symptoms: **cough; sore throat; shortness of breath;**

AND

having been in direct contact with dead poultry or birds during the last 7 days prior to the onset of symptoms.

2. Suspect influenza A/H5 case

2(a): Any individual presenting with **fever (temperature >38°C)**

AND

one or more of the following symptoms: **cough; sore throat; shortness of breath;**

AND

Living within / history of visiting to **300 meter radius** from the index house / farm of the confirmed A/H5 among birds/chickens in an affected area gazetted by DVS **AND** having been in direct contact with **birds / poultry** during the last 7 days prior to the onset of symptoms

OR

Living outside the 300 meter radius but within **10 kilometer radius** from the index house / farm of the confirmed A/H5 among birds/chickens in an affected area gazetted by DVS **OR** history of visiting that area **AND**

having been in direct handling with **dead or ill birds / poultry** in that area during the last 7 days prior to the onset of symptoms

OR

having **worked in a laboratory** during 7 days prior to the onset of symptoms where there is **processing** of samples from human or animals that are **suspected of having highly pathogenic avian influenza (HPAI)** infection.

2(b): Death from an **unexplained acute respiratory illness**

AND

one or more of the following:

a. residing within **1 kilometer area** where **HPAI is suspected or confirmed** in human or animal;

b. having been in **direct contact** during the last 7 days prior to the onset of symptoms with a **confirmed case of Influenza A/H5** among poultry or human during its infectious period (starting from a day before the onset of symptoms up to 7 days after onset of symptoms).

Laboratory criteria for diagnosis

An individual for whom laboratory testing demonstrates one or more of the following:

a. positive viral culture for Influenza A/H5;

b. positive PCR for Influenza A/H5;

c. immunofluorescence antibody (IFA) test positive using Influenza A/H5 monoclonal antibodies;

d. 4-fold rise in Influenza A/H5 specific antibody titre in paired serum samples.

Case Classification

PUI / Suspected: A case that meets the clinical case definition.

Confirmed: A PUI/suspected case in which laboratory investigation confirms the presence of influenza virus of avian origin i.e. H5 and H7 in a clinical specimen.

Laboratory confirmation is **NOT** required for initial management of patient (isolation) and notification of case.

Types Of Surveillance

National Surveillance of avian influenza.

Contact Information

Surveillance Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4370
Fax: 03 – 8888 6271
E-mail: survelan@dph.gov.my

SEVERE ACUTE RESPIRATORY SYMPTOMS (SARS)

Case Definition

Clinical case definition

A person with a history of fever (≥ 38°C)

AND

One or more symptoms of lower respiratory tract illness (cough, difficulty in breathing, shortness of breath)

AND

Radiographic evidence of lung infiltrates consistent with pneumonia or RDS **OR** autopsy findings consistent with the pathology of pneumonia or RDS without an identifiable cause.

AND

No alternative diagnosis can fully explain the illness.

Laboratory criteria for diagnosis

A person with symptoms and signs that are clinically suggestive of SARS **AND** positive laboratory findings for SARS-CoV based on one or more of the following diagnostic criteria:

a) ***PCR positive for SARS-CoV*** using a validated method from:

- at least two different clinical specimens (e.g. nasopharyngeal and stool)

  OR

- The same clinical specimen collected on two or more occasions during the course of the illness (e.g. sequential nasopharyngeal aspirates)

  OR

- Two different assays or repeat PCR using a new RNA extract from the original clinical sample on each occasion of testing.

b) ***Seroconversion by ELISA or IFA***

- Negative antibody test on acute serum followed by positive antibody test on convalescent phase serum tested in parallel

OR

- Fourfold or greater rise in antibody titre between acute and convalescent phase sera tested in parallel.

c) ***Virus isolation***

- Isolation in cell culture of SARS-CoV from any specimen

AND

PCR confirmation using a validated method.

Case Classification

Suspected: A case that meets the clinical case definition.

Confirmed: A suspected case in which laboratory investigation confirms the presence of SARS virus, either with positive antibody against SARS or detection of SARS-CoV in a clinical specimen.

Laboratory confirmation is **NOT** required for management of patient (isolation and epidemiological investigation) and notification of case.

Types Of Surveillance

National Surveillance of SARS in Post-Outbreak Period.

Contact Information

Surveillance Section
Disease Control Division
Ministry Of Health

Tel:03 – 8883 4370
Fax: 03 – 8888 6271
E-mail: survelan@dph.gov.my

ASAL

Appendix 3

Borang: Health 1 Rev 2001
No Siri: …….

BORANG
Subperaturan 10(2)
AKTA PENCEGAHAN DAN PENGAWALAN PENYAKIT BERJANGKIT 1988
PERATURAN-PERATURAN PENCEGAHAN DAN PENGAWALAN PENYAKIT BERJANGKIT (BORANG NOTIS) 1993
NOTIFIKASI PENYAKIT BERJANGKIT YANG PERLU DILAPORKAN

A. MAKLUMAT PESAKIT.

1. Nama Penuh(HURUF BESAR) :

Nama Ibu/Bapa/Penjaga (Jika 12 Tahun Dan Ke bawah) :

2. No. Pengenalan Diri/Dokumen Perjalanan : ☐ Sendiri ☐ Pengirim No. Daftar Hospital/Klinik: Tahun : No./Nama Wad:	3. Warganegara Malaysia: ☐ Ya Keturunan : …….. Subketurunan : …….. ☐ Tidak Negara Asal : …….. ☐ Izin ☐ Tanpa Izin ☐ Pemastautin Tetap 4. Jantina : ☐ Lelaki ☐ Perempuan

5. Tarikh Lahir : - - 6. Umur : ☐Hari/☐Bulan/☐Tahun

7. Pekerjaan : (Jika tidak bekerja, nyatakan status diri) :

8. Alamat Kediaman:

Poskod Negeri

9. Alamat Tempat Kerja/Belajar/Pusat Asuhan Kanak-Kanak:(Nyatakan alamat tempat kejadian jika Keracunan Makanan).

Poskod Negeri

10. Nombor Telefon : ☐ Ada ☐ Tiada Rumah :
Pejabat : Tel. Bimbit: E-Mail :

B. DIAGNOSIS PENYAKIT

11. Pilihan Diagnosis

☐ 1. Acute Flaccid Paralysis	16 ☐. Kolera.	☐ 31. Tuberkulosis – PTB smear positif.
☐ 2. AIDS.	17 ☐. Kusta (Paucibacillary).	☐ 32. Tuberkulosis – PTB smear positif.
☐ 3. Batuk Kokol.	18 ☐. Kusta (Multibacillary).	☐ 33. Tuberkulosis – PTB smear positif.
☐ 4. Campak.	☐ 19. Malaria (Sp:……).	☐ 34. Tuberkulosis – Extra PTB dengan smear +ve.
☐ 5. Chancroid.	☐ 20. Plague (Jenis:……..……).	☐ 35. Tuberkulosis – Extra PTB dengan smear –ve.
☐ 6. Demam Denggi	☐ 21. Poliomielitis (Akut).	☐ 36. Demam Denggi
☐ 7. Demam Denggi Berdarah.	22 ☐. Rabies.	☐ 37. Demam Denggi Berdarah.
☐ 8. Demam Kuning	23 ☐. Relapsing Fever.	☐ 38. Demam Kuning
☐ 9. Difteria.	24. ☐ Sifilis – acquired.	☐ 39. Difteria.
☐ 10. Disenteri.	☐ 25. Sifilis – congenital.	☐ 40. Disenteri.
☐ 11. Ebola.	☐ 26. Tetanus Neonatorum.	☐ 41. Ebola.
12 ☐. Gonorea.	☐ 27. Tetanus (Lain-lain).	42 ☐. Gonorea.
13 ☐. Hand, Foot and Mouth Disease.	☐ 28. Tifoid – Salmonella typhi.	43 ☐. Hand, Foot and Mouth Disease.
14 ☐. HIV	☐ 29. Tifoid – Paratyphoid (Jenis:……..…).	
15 ☐. Keracunan Makanan.	☐ 30. Tifus – scrub.	

12. Status Pesakit : Tarikh Mati : 13. Tarikh Mula :
☐ Hidup ☐ Mati 14. Cara Pengesanan : ☐ Kes ☐ Kontek Kes ☐ FOMEMA ☐ Ujian Saringan (…….)

Notifikasi melalui telefon dalam masa 24 jam perlu dilakukan bagi kes berikut selain dari notifikasi bertulis : Poliomielitis (Akut) , Kolera, Demam Denggi, Difteria, Keracunan Makanan, Plague, Rabies dan Demam Kuning

15. Status Diagnosis (Mengikut Definisi Kes) ☐ Sementara (Provisional/Suspected) ☐ Disahkan (Confirmed) Tarikh Diagnosis : - -	16. Ujian Makmal/Siasatan : ☐ Ada ☐ Tiada 17. Nama Ujian Makmal/Siasatan : 18. Tarikh Sampel Diambil/ Siasatan Dibuat : - -	19. Keputusan Ujian Makmal/Siasatan : ☐ Positif ☐ Negatif ☐ Belum Siap ……

20. Maklumat Klinikal Yang Relevan:	21. Komen :

C. MAKLUMAT PEMBERITAHU.

22. Nama Pengamal Perubatan (HURUF BESAR) :

23. Nama Hospital/Klinik dan Alamat :

24. Tarikh Notifikasi : - -	25. No Telefon : -	26. No Faks: -	27. E-Mail :

Appendix 4

KKM/BKP/SARS/2003/Pind.3

NOTIFICATION FORM
FOR SEVERE ACUTE RESPIRATORY SYNDROME (SARS)

For Disease Control Division use only
ID No:

Disease Control Division
Ministry Of Health Malaysia

Note: *Please fax this form within 24 hours to District Health Office*

1.Reporting Centre	**Name of Hospital:**			**State**
Phone:	**Fax:**		**E-mail:**	
2. Information of Patient	**Name:**		**Age**	**Sex ( ) Male ( ) Female**
Address:			**Phone(Home):** **H/Phone:**	**RN No:**
Nationality	( ) Malaysian	**Ethnicity: M / C / I / Other** Please specify:	**IC No:**	
	( ) Non Malaysian	Country of Origin	**Passport No:**	
Healthcare worker ( ) **Yes**. Category: _____ Place: _____ (Ward/clinic/etc) **( ) No**			**Date of symptom onset [dd/mm/yr]**	
3.Signs and Symptoms	( ) Fever	( ) Cough		
	Temperature: °C	Place taken: oral / axilla / other (Specify)		
4.Chest X-ray finding	Evidence of lung infiltrates consistent with pneumonia or RDS ( ) Yes ( ) No			
5. Is there any alternative diagnosis that can fully explain patient's illness?	( ) Yes ( ) No			
6.Clinical status at time of report	Was patient hospitalized? ( ) Yes, Date: ( ) Brought In Dead (BID) Date:	Ward: ( ) Isolation ward ( ) General ward ( ) ICU	Ward ( ) On treatment ( ) Died Date:	
If patient died: Was an autopsy performed? ( ) Yes ( ) No ( ) Pending		Was pathology consistent with Respiratory Distress Syndrome? ( ) Yes ( ) No		
7.Exposure History	Indicate if the patient was in *close contact with SARS case: ( ) Yes ( ) No	If yes, please state the name and address of the person		
	Name: Address:			
8.Travel History	Has the patient travelled to any of the following destinations within 10 days prior to onset of symptoms ( ) Yes , if yes please state the country ( ) No			

	Country/State/ province visited	Duration of stay From**[dd/mm/yr]**	To**[dd/mm/yr]**	Name of Airline & Flight No/ Cruise/ Other mode of transportation
1				
2				
3				

Date of return to Malaysia: | Entry point:

9.Diagnostic Evaluation	Date taken	Date send to IMR	Result
Virology			
10. Working diagnosis (Please state)			
11. Contact tracing (to be filled by District Helath Office)	Has contact tracing been initiated? ( ) Yes ( ) No Number of contacts: …… No. on home quarantine: …… No. on active surveillance: ……..		
12.Reporting Officer:		Signature:	
Designation:		Date:	H/Phone No:

For Disease Control Division use only		
	SARS	Comments:
	Not SARS	
Review by : Date:		

****Close contact: having cared for, lived with, or had direct contact with respiratory secretions or body fluids of a suspect or probable case of SARS***

Annex 5

NOTIFICATION FORM
FOR AVIAN INFLUENZA CASE
Disease Control Division
Ministry Of Health Malaysia

KKM/BKP/Influen

For Disease Control Division use only
ID No:

1.Reporting Centre	**Name of Hospital / Clinic:**		**State:**
Phone	Fax: ---	E-mail: ---	
2. Information of Patient	**Name:**	**Age**:	**Sex**: ☐ Male ☐ Female
Address:	Phone (Home):	RN No:	
Nationality: ☐ Malaysian ☐ Non Malaysian	***Ethnicity:*** ☐ Malay ☐ Chinese ☐ Indian ☐ *Other, specify:*	Country of Origin: ---	IC No: / Passport No: ---
Occupation: ☐ HCW ☐ Poultry Farmer ☐ *Other, please state:*			**Date of symptom onset** *[dd/mm/yy] :*

3. Signs and Symptoms	☐ Fever ☐ Cough ☐ Sorethroat ☐ Myalgia ☐ Headache	☐ Shortness of breath/dificulty breathing
	Temperature on admission: ____**°C**	☐ Other symptom, specify :
4. Chest X-Ray finding	Evidence of lung infiltrates consistent with pneumonia	☐ Yes ☐ No ☐ Not done
5. Is there any alternative diagnosis that can fully explain patient's illness?		☐ Yes ☐ No

6. Clinical status at time of report	Was patient hospitazed? ☐ Yes, Date: _____ ☐ Brought In Dead (BID) *Date:* ____	Ward: ☐ Isolation ward ☐ General ward ☐ ICU	Progress: ☐ On treatment, specify: _____ ☐ Died *Date :* ____
If patient died: Was an autopsy performed?	☐ Yes ☐ No ☐ Pending		

7. Exposure History		*If yes, please state the name and address*
	i. Did patient visit any poultry farm?	☐ Yes ☐ No
	history of contact with birds?	☐ Yes ☐ No
	iii. Did patient had history of contact with deseased birds?	☐ Yes ☐ No
	Name: Address: **LOT 47, KG. PAUH, BADANG, 15350 KOTA BHARU, KELANTAN**	

8. Similar illness	Anybody in the neighbourhood had similar illness? ☐ Yes ☐ No

9. Diagnostic Evaluation	Date Taken	Date send to lab	Name of laboratory	Result
Virology				

10. Working diagnosis: *(please state)*

11. Reporting Officer:		Signature: ---
Designation:	**Date:**	H/phone No:

For District Health Office use only

12. Contact Tracing	Has contact tracing been done? ☐ Yes ☐ No Date of contact tracing done: Number of contacts examined:	Number of contact with similar illness: Number of contact quarantined: Number of contact referred to hospital:
13. Active case finding	Has active case finding been initiated? ☐ Yes ☐ No Number of people with similar illness:	No. of cases referred to hospital: Number of cases quarantined:
14. Investigating Officer:		Signature: ---
Designation:	Date:	H/Phone No:

For Disease Control Division use only

Comments: **NIL**

Note: *Please fax this form within 24 hours to District Health Office*

CONTACT INFORMATION

STATE	OFFICE	PHONE / FAX NO.
PERLIS	State Health Office Tingkat 8, Bangunan Persekutuan, Persiaran Jubli Emas, 01000 Kangar.	04 – 9773333 (phone) 04 – 9760764 (fax)
	Kangar District Health Office Jalan Hospital 01000 Kangar	04 – 9761388 (phone) 04 – 9774517 (fax)
KEDAH	State Health Office Jalan Perak Off Seberang Jalan Putera 05150 Alor Setar	04 – 7335533 (phone) 04 – 73149364 (fax)
	Pej. Kes. Daerah Langkawi 07000 Langkawi	04 – 9667141 (phone) 04 – 9669034 (fax)
	Pej. Kes. Daerah Kubang Pasu 06000 Jitra	04 – 9171355 (phone) 04 – 9178644 (fax)
	Pej. Kes. Daerah Kota Setar Lebuhraya Darulaman, Bakar Batu 05100 Alor Setar	04 – 7332775 (phone) 04 – 7332359 (fax)
	Pej. Kes. Daerah Kuala Muda No. 81 Jalan Padang 08000 Sg. Petani	04 – 4213355 (phone) 04 – 4210076 (fax)
	Pej. Kes. Daerah Padang Terap 06300 Kuala Nerang	04 – 7866094 (phone) 04 – 7866507 (fax)
	Pej. Kes. Daerah Baling Jalan Weng 09100 Baling	04 – 4701351 (phone) 04 – 4705178 (fax)

	Pej. Kes. Daerah Kulim 09000 Kulim	04 – 4906170 (phone) 04 – 4911843 (fax)
	Pej. Kes. Daerah Bandar Baharu 09000 Kulim	04 – 4906170 (phone) 04 – 4911843 (fax)
	Pej. Kes. Daerah Yan 08000 Guar Cempedak	04 – 4683155 (phone) 04 – 4684251 (fax)
	Pej. Kes. Daerah Pendang Jalan Sungai Tiang, 06700 Pendang	04 – 4596412 (phone) 04 – 4594963 (fax)
	Pej. Kes. Daerah Sik 08200 Sik	04 – 4695704 (phone) 04 – 4693130 (fax)
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	Pej. Kes. Timur Laut No. 344 Jalan Tull 10450 Penang	04 – 2298131 (phone) 04 – 2299109 (fax)
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	Pej. Kes. Daerah Kerian Jalan Sekolah 342000 Parit Buntar	05 – 7612355 (phone) 05 – 7165355 (fax)
	Pej. Kes. Daerah Hilir Perak Jalan Maharajalela 36000 Telok Intan	05 – 6221011 (phone) 05 – 6212401 (fax)
	Pej. Kes. Daerah Perak Tengah Sri Iskandar 32600 Bota	05 – 3764891 (phone) 05 – 3764890 (fax)
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	Pej. Kes. Daerah Manjung Jalan Dato Ahmad Yunus 33000 Kuala Kangsar	05 – 6913355 (phone) 05 – 6919545 (fax)
	Pej. Kes. Daerah Batang Padang Jalan Temoh, 35000 Tapah	05 – 4011342 (phone) 05 – 4014364 (fax)
	Pej. Kes. Daerah Hulu Perak 33300 Gerik	05 – 7911335 (phone) 05 – 7911426 (fax)

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	Pej. Kes. Daerah Kuala Selangor Jalan Semarak 45000 Kuala Selangor	03 – 8893454 (phone) 03 – 8895044 (fax)
	Pej. Kes. Daerah Sabak Bernam 45300 Sungai Besar Sabak Bernam	03 – 8842355 (phone) 03 – 8841358 (phone) 03 – 8841354 (fax)
	Pej. Kes. Daerah Kuala Langat Jalan Morib 42700 Banting	03 – 8672355 (phone) 03 – 8672972 (fax)
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	Pej. Kes. Daerah Gombak 23 & 25, Jalan 2/8, Bandar Baru Selayang, 68100 Batu Caves.	03 – 61207601 (phone) 03 – 61207602 (fax)
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	Pej. Kes. Daerah Kuala Pilah / Jempol, 72000 Kuala Pilah	06 – 4811315 (phone) 06 – 4811316 (fax)
	Pej. Kes. Daerah Rembau / Tampin 73009 Tampin	06 – 4411643 (phone) 06 – 4415900 (fax)
	Pej. Kes. Daerah Port Dickson, 71000 Port Dickson	06 – 6473200 (phone) 06 – 6473179 (fax)
	Pej. Kes. Daerah Jelebu 71600 Kuala Klawang	06 – 6136977 (phone) 06 – 6137614 (fax)
MELAKA	State Health Office Tingkat 6, Wisma Persekutuan Jalan Hang Tuah 75300 Melaka	06 – 2828344 (phone) 06 – 2839233 (fax)
	Pej. Kes. Daerah Melaka Tengah Jalan Bukit Baru 75150 Melaka	06 – 2822332 (phone) 06 – 2816219 (fax)
	Pej. Kes. Daerah Alor Gajah Jalan Hospital, 78000 Alor Gajah	06 – 5566237 (phone) 06 – 5566249 (fax)
	Pej. Kes. Daerah Jasin 77000 Jasin	06 – 5292333 (phone) 06 – 5292812 (fax)

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	Pej. Kes. Daerah Johor Bahru Jalan Abdul Samad, 80100 Johor Bahru.	07 – 2224711 (phone)/ 07 – 2224818 07 – 2236549 (fax)
	Pej. Kes. Daerah Muar Jalan Othman, 84000 Muar	06 – 9522296 (phone)/ 06 - 9522326 06 – 9516533 (fax)
	Pej. Kes. Daerah Segamat 85000 Segamat	07 – 9313355 (phone)/ 07 - 9326527 07 – 9321204 (fax)
	Pej. Kes. Daerah Batu Pahat 83000 Batu Pahat	07 – 4341011 (phone)/ 07 - 4341021 07 – 4322026 (fax)
	Pej. Kes. Daerah Pontian Jalan Alsagoff, 82000 Pontian	07 – 6879333 (phone)/ 07 - 6862808 07 – 6873092 (fax)
	Pej. Kes. Daerah Mersing 86800 Mersing	07 – 7991836 (phone) 07 – 7994145 (fax)
	Pej. Kes. Daerah Kota Tinggi 81900 Kota Tinggi	07 – 8831133 (phone) 07 – 8831273 (fax)
	Pej. Kes. Daerah Kluang 86000 Kluang	07 – 7721852 (phone) 07 – 7735526 (fax)
PAHANG	State Health Office Tingkat 12, Wisma Persekutuan Jalan Gambut, 25000 Kuantan	09 – 5511366 (phone) 09 – 5161366 (phone) 09 – 5511048 (fax) 09 – 5135528(fax)
	Pej. Kes. Daerah Kuantan Jalan Gambut, 25000 Kuantan	09 – 522055 (phone) 09 – 51427128 (fax)

	Pej. Kes. Daerah Pekan 26000 Pekan	09 – 4221044 (phone) 09 – 4223086 (fax)
	Pej. Kes. Daerah Rompin 26800 Rompin	09 – 4145164 (phone) 09 – 4146386 (fax)
	Pej. Kes. Daerah Maran 26500 Maran	09 – 4771346 (phone) 09 – 4771216 (fax)
	Pej. Kes. Daerah Temerloh Jalan Tun Ismail, 28000 Temerloh	09 – 2961800 (phone) 09 – 2964885 (fax)
	Pej. Kes. Daerah Bera Jalan Masjid 28300 Triang	09 – 2554261 (phone) 09 – 2557639 (fax)
	Pej. Kes. Daerah Jerantut 27000 Jerantut	09 – 2662218 (phone) 09 – 2665430 (fax)
	Pej. Kes. Daerah Kuala Lipis Jalan Benta, 27200 Kuala Lipis	09 – 3121037 (phone) 09 – 3122685 (fax)
	Pej. Kes. Daerah Raub 27600 Raub	09 – 3552355 (phone) 09 – 3556639 (fax)
	Pej. Kes. Daerah Bentong 27800 Bentong	09 – 2221220 (phone) 09 – 2220461 (fax)
	Pej. Kes. Daerah Cameron Highlands 39000 Tanah Rata	05 – 4911966 (phone) 05 – 4912480 (fax)
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	Pej. Kes. Daerah Kota Bharu Jalan Doktor, 16000 Kota Bharu	09 – 7484309 (phone) 09 – 7448559 (fax)
	Pej. Kes. Daerah Pasir Mas 17000 Pasir Mas	09 – 7908333 (phone) 09 – 7903358 (fax)

	Pej. Kes. Daerah Tanah Merah 17500 Tanah Merah	09 – 9556333 (phone) 09 – 9556533 (fax)
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	Pej. Kes. Daerah Machang 18500 Machang	09 – 9752333 (phone) 09 – 9751039 (fax)
	Pej. Kes. Daerah Tumpat 16000 Tumpat	09 – 7256033 (phone) 09 – 7258730 (fax)
	Pej. Kes. Daerah Bachok 16300 Bachok	09 – 7788333 (phone) 09 – 7788680 (fax)
	Pej. Kes. Daerah Kuala Krai 18000 Kuala Krai	09 – 9666066 (phone) 09 – 9663303 (fax)
	Pej. Kes. Daerah Gua Musang 18300 Gua Musang	09 – 9121454 (phone) 09 – 9121009 (fax)
	Pej. Kes. Daerah Jeli 17600 Jeli	09 – 9440275 (phone) 09 – 9440275 (fax)
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	Pej. Kes. Daerah Kuala Terengganu Jalan Sultan Mahmud, 20400 K. Trg	09 – 6223355 (phone) 09 – 6230605 (fax)
	Pej. Kes. Daerah Kemaman 20400 Kemaman	09 – 8591330 (phone) 09 – 8593430 (fax)
	Pej. Kes. Daerah Dungun Jalan Yahya Ahmad, 23000 Dungun	09 – 8441366 (phone) 09 – 8444680 (fax)

	Pej. Kes. Daerah Marang 21600 Marang	09 – 6182545 (phone) 09 – 6185582 (fax) 09 – 6183984 (fax)
	Pej. Kes. Daerah Hulu Terengganu 21700 Hulu Terengganu	09 – 6812333 (phone) 09 – 6812191 (fax)
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	Pej. Kes. Daerah Besut 22200 Kg. Raja, Besut	09 – 6958700 (phone) 09 – 6958699 (fax)
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	Pej. Kes. Daerah Serian 94700 Serian	082 – 874311 (phone) 082 – 875182 (fax) – H 082 – 876811 (fax) - PKD
	Pej. Kes. Daerah Simunjan 94800 Simunjan	082 – 803612 (phone) 082 – 803823 (fax)

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	Pej. Kes. Daerah Lubuk Antu 95800 Lubok Antu	083 – 584105 (phone) 083 – 584080 (fax)
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	Pej. Kes. Bahagian Sarikei 96100 Sarikei	084 – 651077 (phone) 084 – 654402 (fax)
	Pej. Kes. Daerah Daro 96200 Daro	084 – 823333 (phone) 084 – 823624 (fax) – H 084 – 823886 (fax) - PKD
	Pej. Kes. Daerah Julau 96600 Julau	084 – 734067 (phone) 084 – 734253 (fax)
BAHAGIAN MIRI	Pej. Kes. Bahagian Miri 98000 Miri	085 – 424722 (phone) 085 – 422234 (fax)
	Pej. Kes. Daerah Marudi / Baram 98050 Marudi	085 – 755511 (phone) 084 – 755217 (fax)
BAHAGIAN SIBU	Pej. Kes. Bahagian Sibu 96000 Sibu	084 – 315494 (phone) 084 – 331492 (fax)
	Pej. Kes. Daerah Kanowit 96700 Kanowit	084 – 752333 (phone) 084 – 752682 (fax)
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BAHAGIAN LIMBANG	Pej. Kes. Bahagian Limbang 98700 Limbang	085 – 211046 (phone) 085 – 213294 (fax)
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	Pej. Kes. Daerah Betong 95700 Betong	083 – 472116 (phone) 083 – 471870 (fax)
BAHAGIAN MUKAH	Pej. Kes. Daerah Dalat 96300 Dalat	084 – 863087 (for both phone and fax)
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	Pej. Kes. Daerah Papar Peti Surat 109 89608 Papar	088 – 913512 (phone) 088 – 913216 (fax)
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