



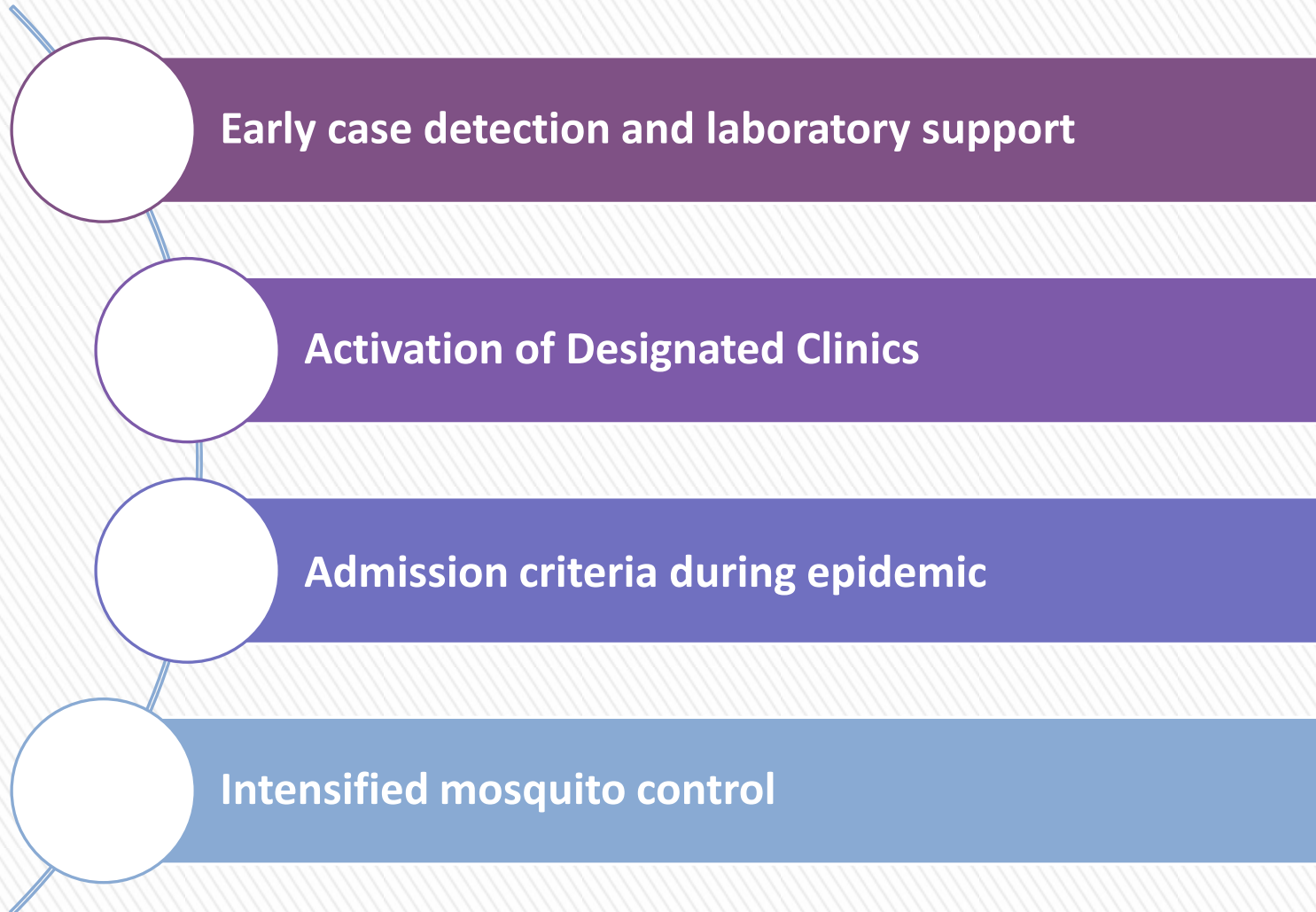
HA Preparedness Plan and Operation Workflow for Mosquito-borne Diseases

Prepared by CICO Office




13 July 2017



HA Preparedness Plan for Dengue Fever



Overview of HA's Response for Dengue Fever

Scenario	Outbreak Stages	HA Actions
<u>A: Sporadic</u> 	<ul style="list-style-type: none"> When there is sporadic no. of local cases 	<ul style="list-style-type: none"> Consider Ad hoc CCIDER Confirmed dengue cases admitted to hospital during viremic phase PHLSB provides diagnostic test Intensify mosquito control program
<u>B: Epidemic</u> 	<ul style="list-style-type: none"> When there are outbreaks (epidemic) of local confirmed DF cases with multiple foci in a season 	<ul style="list-style-type: none"> Consider Ad hoc CCIDER Alert CCC & EEC Setup e-platform (e.g. eDengue) Designated Clinics (DC) will operate If compulsory hospital admission is not feasible, admit only haemodynamically unstable cases and confirmed Dengue cases with high risk conditions. Other cases will be follow-up in Designated Clinics. ICU will support severe dengue and DHF cases HO MICC will provide situation update BSS will intensify HA's mosquito control program
<u>C: Endemic</u> 	<ul style="list-style-type: none"> Annual summer peak when mosquitoes are active (May to June) 	<ul style="list-style-type: none"> Develop a sustainable action plan with reference to EPIDEMIC

Preparedness (1) Laboratory Support



Routine

- PHLSB is supporting the laboratory tests for Dengue
- HA has prepared for supporting Dengue tests

Epidemic Situation

- PHLSB and HA Laboratories will apply a stepwise approach and conduct Dengue Fever test



Preparedness (2) Designated Clinic



- **Activated upon Central Command Committee's decision.**
 - a. when dengue outbreak in community which affects normal operation of AED
 - b. Take 48 hours to activate
 - c. The max. operating capacity, **14,112 attendees/wk**, is able to cope with the MAX. number of 13,533 attendees/wk as predicted from GD outbreak.



Preparedness (3) Criteria for Hospital Admission

1. Presence of any warning signs

- a. Abdominal pain and tenderness
- b. Persistent vomiting
- c. Fluid retention
- d. Mucosal bleeding
- e. Lethargy, restlessness
- f. Liver enlargement > 2cm
- g. Increase in hematocrit (Hct) with rapid decrease in platelet

2. **Plasma leakage:** dehydration, fluid accumulation, not tolerate oral fluid, giddiness, postural hypotension, profuse sweating, fainting, hypotension or cold extremities.

3. **Hemorrhage:** spontaneous bleeding, independent of platelet count.

4. **Organ dysfunctions:** renal, hepatic, neurologic or cardiac

5. **Co-existing conditions:** pregnancy, co-morbid conditions (DM, HT, peptic ulcer, chronic renal or liver diseases, etc), overweight or obese, infancy or elderly.

6. Rising Hct



Preparedness (4) Mosquito Control Measures



- **Weekly** inspection and enhanced inspection after **heavy rain**
- Removal of stagnant water and risky areas trapping water
- Weekly fogging (if needed)
- Placing of mosquito killer machines at open areas, where necessary
- Hospitals with confirmed case will reinforce mosquito control measures **immediately**



Applying Larvicidal Oil / sand



Fogging Service



Implementation of Screening Test for Zika virus on Donated Blood / Blood Product

Effective from 12 July 2017



Background



香港紅十字會輸血服務中心
HONG KONG RED CROSS BLOOD TRANSFUSION SERVICE



The Hong Kong Red Cross Blood Transfusion Service (BTS) is going to implement the screening test for Zika virus on donated blood / blood products **with effect from 12 July 2017.**

With regard to blood products safety, the BTS has started the deferral policy for blood donation since 2 Feb 2016.

- Anyone who has resided in or visited any countries which are affected by Zika Virus Diseases will be deferred from blood donation for at least 28 days from the date he/she departed from the affected areas.
- Incubation period of Zika virus disease is typically between 3 and 12 days

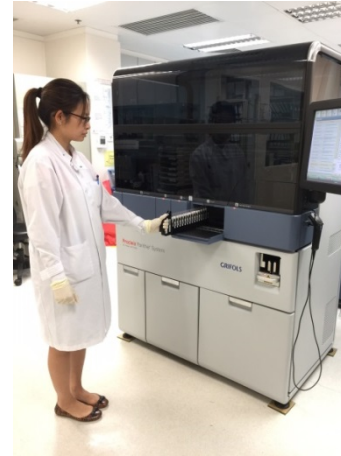
In addition, an enhanced precautionary measure of provision of Zika-virus-screened blood/blood products for high-risk patients was advised by the HA (BTS) Expert Panel on Blood and Blood Products Safety and the HA Central Committee on Infectious Diseases and Emergency Response (CCIDER).

Scope of intended recipients of Zika-virus-negative blood/blood products



All patients with **known pregnancy**, excluding:

1. Patients at peripartum* / postpartum stage;
2. Patients who undergo termination of pregnancy (TOP);
3. Patients who present with miscarriage, stillbirth, ectopic pregnancy, or molar pregnancy



Zika Virus Screening in Blood Donation Samples



Zika screened blood product

* It is not necessary to order Zika-virus-negative blood/blood products for the routine crossmatch during intrapartum, preparation for labour induction for Caesarean section because vast majority of blood transfusion will be given after the delivery of the baby.

Transmission of Zika virus infection to pregnant woman through blood transfusion

Up to now, there is no **documented report** of transmission of Zika virus infection to pregnant woman through blood transfusion.

The consequences for the foetus of a transfusion-transmitted Zika virus infection to pregnant women are **not yet ascertained** [ECDC, 28 Oct 2016].

Estimated Risks of Zika-related birth defects

During January 1, 2016–April 25, 2017, U.S. territories with local transmission of Zika virus reported **2,549** completed pregnancies (live births and pregnancy losses at any gestational age) with laboratory evidence of recent possible Zika virus infection; **5%** of fetuses or infants resulting from these pregnancies had birth defects potentially associated with Zika virus infection.

Among pregnancies with NAT-confirmed maternal infections, the percentages of fetuses or infants with possible Zika-associated birth defects:

- **8% in the first trimester**
- **5% in the second trimester**
- **4% in the third trimester**

Prioritization on the use of Zika-virus-negative Blood/Blood products

In case the demand of Zika-virus-negative blood/blood products is greater than its availability, the priority of pregnant women to receive Zika-virus-negative blood/blood products will be given by risk stratification:

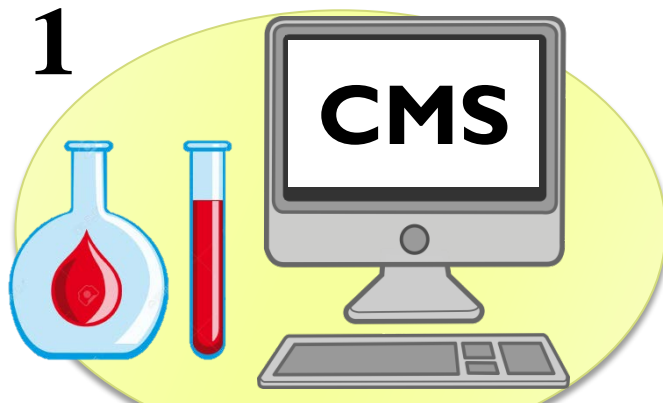
- 1 • First pregnancy trimester
- 2 • Second pregnancy trimester
- 3 • Third pregnancy trimester



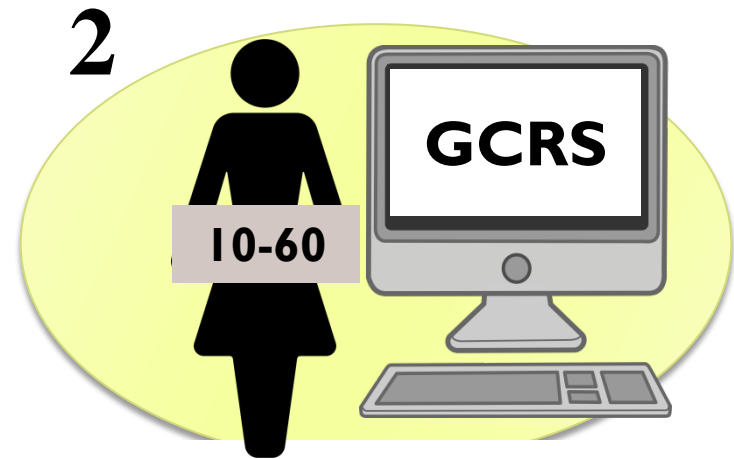
Summary of national recommendations on zika virus screening of blood donation

country	Universal blood donation screening	Blood screening of Zika virus based on risk of recipient	Blood donor deferral policy
[US] FDA Revised Recommendations for Reducing the Risk of Zika Virus Transmission by Blood and Blood components, Aug 2016	Yes, started on 26 August 2016		<ul style="list-style-type: none"> • If donor volunteers a recent history of zika virus infection • Defer the donor for 120 days after a positive viral test or the resolution of symptoms, whichever timeframe is longer
[Singapore] Health Science Authority, Singapore, Jan 2017	Yes, started on 16 Jan 2017		
[Malaysia] The Ministry of Health Guidelines on Zika Virus in Pregnancy, Dec 2016		Priority of using zika virus screened negative blood: <ul style="list-style-type: none"> • All pregnant women in the antenatal period • Women in the reproductive age group who are transfusion dependent and are planning to start for their family • All intrauterine transfusion 	Counsel and temporarily deferred, if required, based on the risk of zika virus exposure
[Canada] Blood Services, 3 Feb 2016			3 weeks after return for anyone who has travelled outside of Canada, the Continental US and Europe
[Australia] Red Cross Blood Service, Dec 2016			<ul style="list-style-type: none"> • Travelers to affected areas: 28 days • Donors with confirmed zika virus infection: fully recovered and a 4 months deferral period • Sexual contact with a confirmed zika virus infection: 4 weeks to 7 months (regular partner) • Local transmission event: 28 days

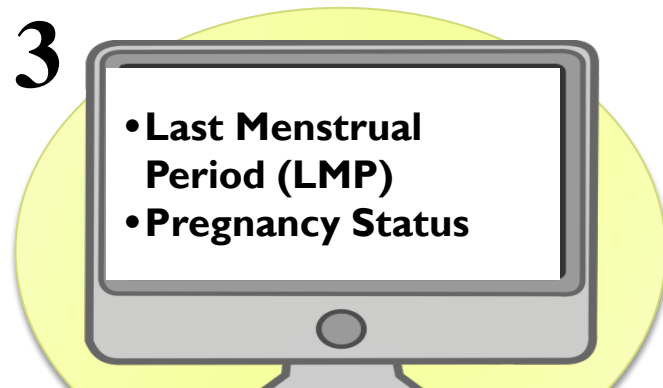
Workflow for requesting Zika-virus-negative blood/blood product



Make blood / blood products request through CMS



GCRS prompt will be triggered for female aged 10-60 or patients with unknown sex or age



Clinicians should provide information for 2 mandatory questions in the “type & screen, component, component (blood group required)”



When pregnancy status is indicated as “antepartum”, a request for Zika-virus-negative blood / blood products will be automatically sent to Blood Bank

GCRS Mandatory Question: **LMP** (for clinician's input)

Patient-specific Function(s)

+Reminder

Unknown

Details

NKDA

CHAN, B

F

33y

DOB: 05-Apr-1984

B256887(5)

MED

5A

Adm: 23-Jan-2017

HN17000026(Y)

Ix Request

Ix Information

Blood Bank

Test Information

Type & Screen

1. History :

2. Indication :

3. Body weight :

4. BMT status :

5. LMP :

(Please type

6. Pregnancy

7. Haemoglobi

Menopause

Premenarche

Sterilisation performed

Hysterectomy done

Negative pregnancy test within one week

Urgent and over-riding clinical need

- {Free text entry}

- Menopause

- Premenarche

- Sterilisation performed

- Hysterectomy done

- Negative pregnancy test within one week

- Urgent and over-riding clinical need

Retrieve latest result from ePR

Reset All

Save

Cancel

GCRS Mandatory Question: **Pregnancy status** (for clinician's input)

Patient-specific Function(s)

+Reminder

Unknown Details NKDA

CHAN, B

F 33y DOB: 05-Apr-1984 B256887(5) MED 5A Adm: 23-Jan-2017 HN17000026(Y)

Ix Request X

Ix Information

Blood Bank

Test Information

Type & Screen

1. History :

2. Indication :

3. Body weight :

4. BMT status :

5. LMP :

(Please type the alternatives if not provided on the list)

6. Pregnancy status : ☐ Antepartum
☐ Peripartum/Postpartum
☐ Not pregnant/Unknown (Pregnancy test cannot be performed)

7. Haemoglobin (Hb) :

Retrieve latest result from ePR

Reset All Save Cancel

Note: For patients who meet the exclusion criteria (ii) patients who undergo termination of pregnancy (TOP) or (iii) patients who present with miscarriage, stillbirth, ectopic pregnancy, or molar pregnancy, please indicate the pregnancy status as "Unknown".

GCRS Mandatory Question: **Pregnancy status** If “**Not pregnant/Unknown (Pregnancy test cannot be performed)**” is chosen

Patient-specific Function(s)

CHAN, B

+Reminder

Unknown Details NKDA

F 33y DOB: 05-Apr-1984 B256887(5) MED 5A Adm: 23-Jan-2017 HN17000026(Y)

Ix Request ×

Ix Information

Blood Bank

Test Information

Type & Screen

1. History :

2. Indication :

3. Body weight :

4. BMT status :

5. LMP :

(Please type the alternatives if not provided on the list)

6. Pregnancy status : ☐ Antepartum
☐ Peripartum/Postpartum
☒ Not pregnant/Unknown (Pregnancy test cannot be performed)

☐ Please note Zika virus screened blood and blood products will NOT be arranged.

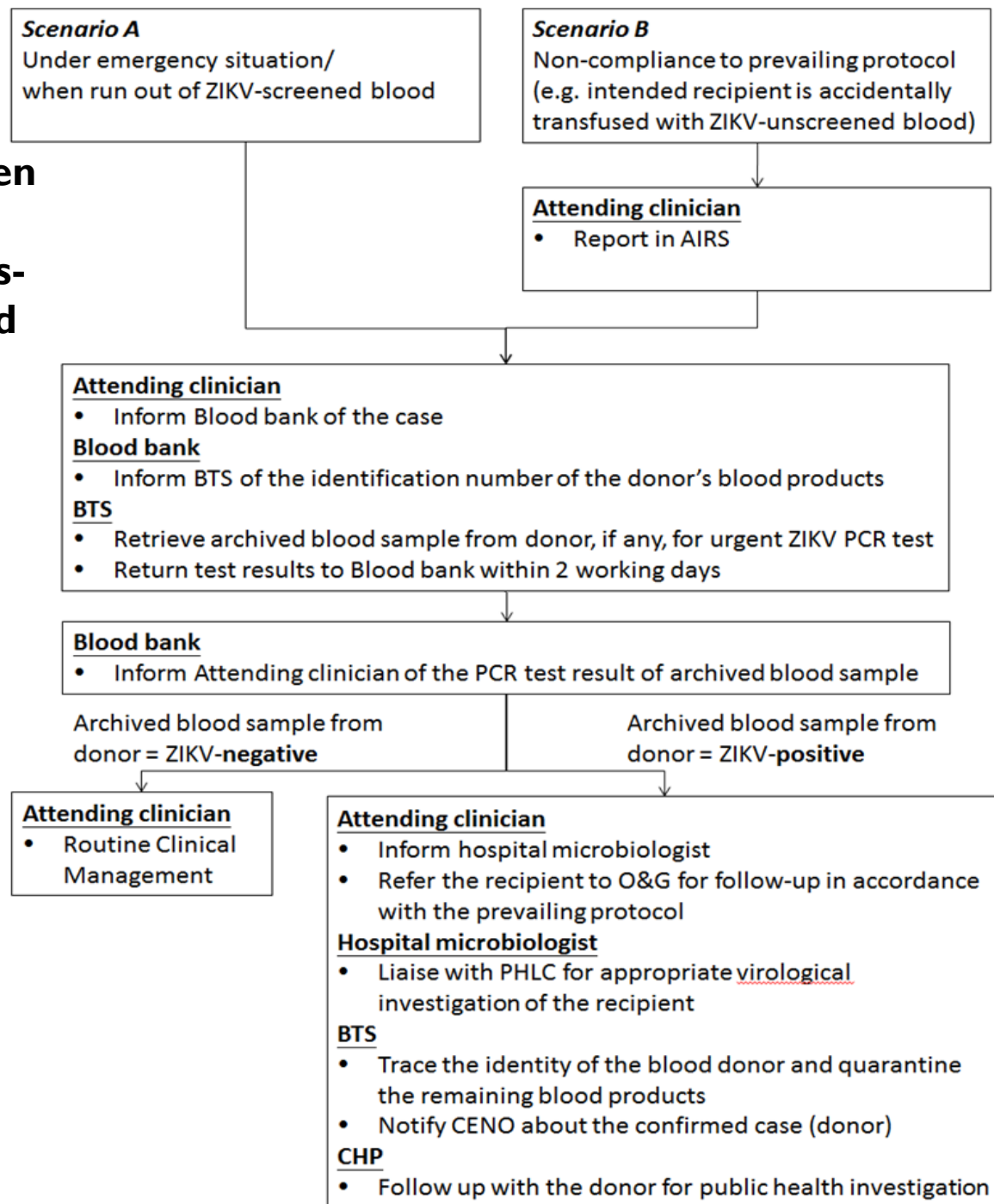
7. Haemoglobin (Hb) :

Retrieve latest result from ePR

Reset All Save Cancel

If clinician select “Not pregnant/unknown (pregnancy test cannot be performed)” in Pregnancy status, then the message of “**Please note Zika-virus-screened blood and blood products will NOT be arranged**” will pop up.

Actions to be taken when an intended recipient is provided with Zika-virus-unscreened blood /blood products



Communication

For Patient

When seeking informed consent for pregnant patients who require blood transfusion, please provide the patient with the **information leaflet.**



Chinese:

[http://qsdportal/iec/Website/IEC%20Webpage/Zika%20virus/Blood%20Transfusion/Annex%20I%20-%20Info%20leaflet%20for%20patients%20\(Chi\)%2020170704.pdf](http://qsdportal/iec/Website/IEC%20Webpage/Zika%20virus/Blood%20Transfusion/Annex%20I%20-%20Info%20leaflet%20for%20patients%20(Chi)%2020170704.pdf)

English:

[http://qsdportal/iec/Website/IEC%20Webpage/Zika%20virus/Blood%20Transfusion/Annex%20I%20-%20Info%20leaflet%20for%20patients%20\(Eng\)%2020170704.pdf](http://qsdportal/iec/Website/IEC%20Webpage/Zika%20virus/Blood%20Transfusion/Annex%20I%20-%20Info%20leaflet%20for%20patients%20(Eng)%2020170704.pdf)

For Staff

For further information on Zika virus infection, please visit the Zika designated website

<http://qsdportal/iec/Website/IEC%20Webpage/Zika%20virus/Zika%20Virus.htm>



Infection Control and Isolation Precautions

- Standard Precautions
- However, mosquito may acquire infection when they feed on a viraemic person resulting in local spread of the virus
- The confirmed case should be hospitalized during viraemic phase and is required **to stay in a vector-free (mosquito-free) environment.**
- Mosquito control in hospitals is important

