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Centre universitaire
de médecine générale
et santé publique · Lausanne

Fièvre au retour d'un voyage sous les tropiques

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Cas clinique 1: anamnèse

- Jeune homme de 20 ans en voyage en Thaïlande depuis 2 semaines
- Sa mère me contacte car il est fiévreux depuis 6 jours et ne va pas mieux malgré les soins reçus là-bas
- Au téléphone il me dit qu'il a en effet toujours de la fièvre élevée, mal au ventre, diarrhées et nausées (mais pas de vomissements)
- Il a déjà consulté une clinique puis un hôpital local et ils lui ont dit de revenir cet après-midi pour refaire des examens sanguins et recevoir un traitement intra-veineux
- Il m'envoie les copies des comptes rendus de laboratoire

Cas clinique 1 : laboratoire

- 80 mesures de labo effectués sur 3 jours d'affilée :

- FSC (3 fois)
- Electrolytes, créat, BUN, tests hépatiques (2 fois)
- Test rapide NS1/IgM/IgG pour la Dengue (2 fois)
- Sérologie IgM/IgG Salmonella (1 fois)

+ Radio thorax

- ✓ La bilirubine est à 60 $\mu\text{m/L}$ (norme 3 à 20)
- ✓ Les ASAT sont à 200 U/L (norme <34)
- ✓ Les plaquettes sont à $100 \times 10^3/\mu\text{l}$ (150-450)
- ✓ TOUT le reste est NORMAL / NEGATIF...

Cas clinique 1 : diagnostic et traitement

- Sur un document, il est indiqué comme diagnostics :
 - Fièvre d'origine indéterminée
 - Comorbidités: ictère
 - DD: hépatite virale, toxique ou médicamenteuse
- Médicaments prescrits :
 - Ondansetron 8 mg iv
 - Simeticone 3x/j
 - Domperidone 3x/j pour 10j
 - Omeprazole 20 mg par jour
 - Sachets SRO pour 10 jours
 - KCl 4 tablettes

Cas clinique 1: votre appréciation

- Jeune homme de 20 ans en voyage en Thaïlande depuis 2 semaines, avec fièvre depuis 6 jours, mal au ventre, et diarrhées
- Quel est pour vous le diagnostic différentiel sur la base de l'anamnèse?
- Quels examens de laboratoire auriez-vous demandé si ce patient était venu vous consulter à son retour?



Practice Guidelines for Evaluation of Fever in returning Travelers or Migrants

Version 2012

This website is targeted to health professionals only

In just a few clicks:

Get your own **differential diagnosis**
based on **your patient's destination and time of travel**
with a suggestion of investigations and attitudes!



CEPIC

 We subscribe to the
[HONcode principles of
the HON Foundation.](#)

Start



Practice Guidelines for Evaluation of Fever in returning Travelers or Migrants

[Authors and Panel Members](#)

[Literature Review](#)

[Development of the guidelines](#)

[References](#)

[Disclaimer](#)

[Table of diseases by countries](#)

Target audience :

Primary care practitioners, specialists in internal medicine, emergency care and infectious diseases

Target population:

Travelers or migrants coming from a [tropical or subtropical area](#) and complaining of [fever](#)

This algorithm is not designed for:

- Immunocompromized patients
- Pregnant women
- Children < 8 years old
- Patients with severe underlying chronic disease

Select up to 5 countries visited and the time of travel

use CTRL key to multi-select

Countries visited

Thailand

- Sudan
- Suriname
- Swaziland
- Syria
- Taiwan
- Tajikistan
- Tanzania
- Thailand

DD/MM/YYYY

Date of first consultation [select from calendar](#)

First exposure (or birth date for migrant) [select from calendar](#)

Return date [select from calendar](#)

First symptoms [select from calendar](#)

Do not use dates, enter TimeRS, TimeES and TimeS manually

[TimeRS](#) Days from return date to first symptoms

[TimeES](#) Days from first exposure to first symptoms

[TimeS](#) Days from first symptoms to consultation date



Consult [WHO outbreak news](#) for up-to-date informations.

In red: country(ies) that were visited

Malaria: Afghanistan, Algeria, Angola, Argentina, Armenia, Australia, Azerbaijan, Bangladesh, Belize, Benin, Bhutan, Bolivia, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, China, Colombia, Comoros, Costa-Rica, Democratic Republic of the Congo, Djibouti, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Ethiopia, French Guyana, Gabon, Gambia, Ghana, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, India, Indonesia, Irak, Iran, Ivory Coast, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Liberia, Libya, Madagascar, Malawi, Malaysia, Maldives, Mali, Mauritania, Mauritius, Mexico, Morocco, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Republic of Congo, Reunion, Rwanda, Saõ Tome and Principe, Saudi Arabia, Senegal, Sierra Leone, Singapore, Solomon Islands, Somalia, South Afrika, Sri Lanka, Sudan, Suriname, Swaziland, Syria, Tajikistan, Tanzania, **Thailand**, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Uganda, Uzbekistan, Vanuatu, Venezuela, Vietnam, Yemen, Zambia, Zimbabwe.

Close | ▶ |

TimeRS: <= 0 day (0 weeks): min. possible incubation time

TimeES: 9 days (1.3 weeks): max. possible incubation time

TimeS: 7 days (1 weeks)

Date of consultation: 04/09/2023

t, respiratory distress
admission ?

imal potentially infected with
d **TimeRS** <=3 weeks ?

Traveled in a **Malaria endemic area** and **TimeES** > 6 days ?

Yes No



Please fill in this form



this diagnosis is possible considering the incubation time and/or the destination. Do you still choose not to consider this diagnosis?

yes no

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Medical content based on the guidelines published in J Trav Med 2003 May, 10 Suppl2:S25-52

min. possible incubation time
max. possible incubation time
2023

with

Traveled in a **Malaria endemic area** and **TimeES** > 6 days ?

Yes No

Are these items present? Please tick

History

Yes No

Bathing, swimming or rafting in fresh water

in a [schistosomiasis endemic area](#) and **TimeRS** \leq 12 weeks and **TimeES** \geq 10 days

in any area (leptospirosis) and **TimeRS** \leq 4 weeks

professional contact with farm animals and **TimeRS** \leq 4 weeks

sexual contacts with a new partner or injections

consumption of raw dairy products and **TimeS** \geq 7 days

Symptoms and Signs

Yes No

jaundice

maculopapular rash

ulcerative skin lesion

Yes No

cough or dyspnea

sore throat

abdominal pain

Yes No

diarrhea

tender and/or enlarged liver

enlarged spleen

Laboratory

Yes No

eosinophils \geq 500 / mm³

Figures selected:

Fig 1: schistosomiasis

Fig 2: leptospirosis

Fig 3: sexual contact

Fig 4: dairy products

Fig 5: jaundice

Fig 6: rash

Fig 7: skin lesion

Fig 8: cough

Fig 9: sore throat

Fig 10: abdominal pain

Fig 11: diarrhea

Fig 12: hepatomegaly

Fig 13: splenomegaly

Fig 14: eosinophilia

No figures selected

See possible diagnosis

Are these items present? Please tick

History

Yes No

- Bathing, swimming or rafting in fresh water**
 in a [schistosomiasis endemic area](#) and **TimeRS \leq 12 weeks and **TimeES** \geq 10 days**
- in any area (leptospirosis) and **TimeRS** \leq 4 weeks**
- professional contact with farm animals and **TimeRS** \leq 4 weeks**
- sexual contacts with a new partner or injections**
- consumption of raw dairy products and **TimeS** \geq 7 days**

Symptoms and Signs

Yes No

- jaundice**
- maculopapular rash**
- ulcerative skin lesion**

Yes No

- cough or dyspnea**
- sore throat**
- abdominal pain**

Yes No

- diarrhea**
- tender and/or enlarged liver**
- enlarged spleen**

Laboratory

Yes No

- eosinophils \geq 500 / mm³**

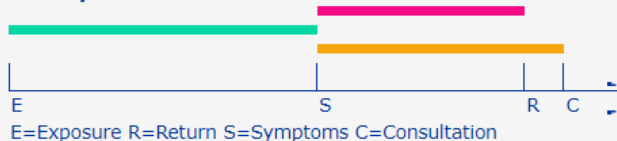
Figures selected:

Fig 1: schistosomiasis
Fig 2: leptospirosis
Fig 3: sexual contact
Fig 4: dairy products
Fig 5: jaundice
Fig 6: rash
Fig 7: skin lesion
Fig 8: cough
Fig 9: sore throat
Fig 10: abdominal pain
Fig 11: diarrhea
Fig 12: hepatomegaly
Fig 13: splenomegaly
Fig 14: eosinophilia

3 figures selected

See possible diagnosis

Country visited: Thailand.



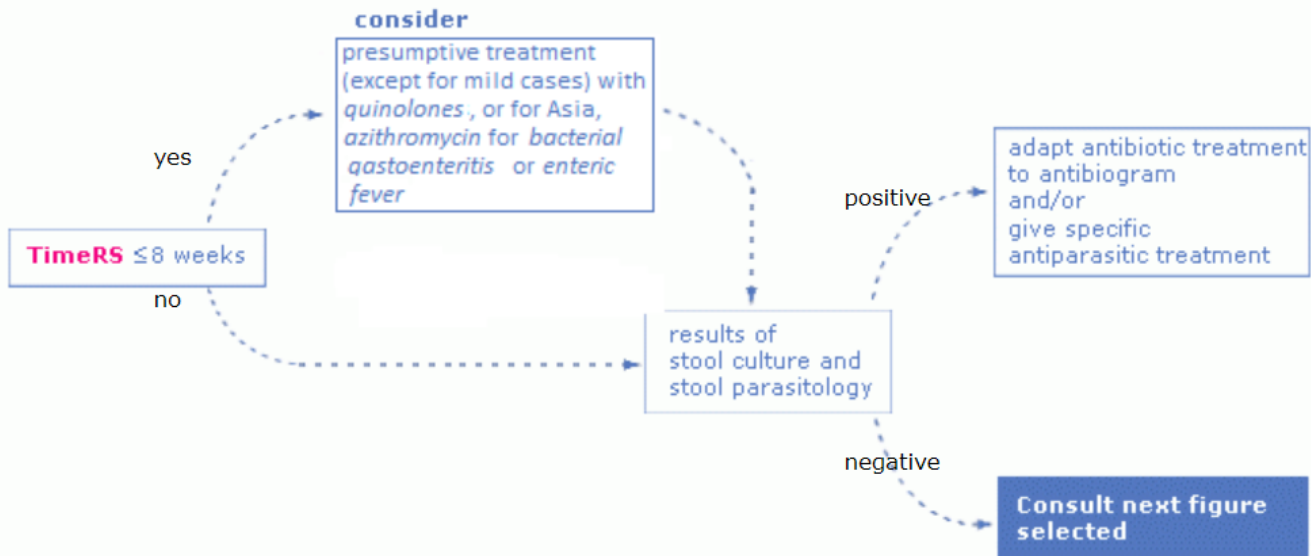
TimeRS: ≤ 0 day (0 weeks): min. possible incubation time

TimeES: 9 days (1.3 weeks): max. possible incubation time

TimeS: 7 days (1 weeks)

Date of consultation: 04/09/2023

Figure 11 - diarrhea



You have selected 3 figures, go through them and make your own differential diagnosis.

Fig 5: [jaundice](#)
Fig 10: [abdominal pain](#)
Fig 11: [diarrhea](#)

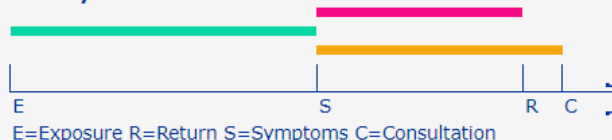
Complete the figures with the information available at this point.

End of case

You can enter the final results of your investigations later.

[Literature](#) for this figure

Country visited: Thailand.



TimeRS: ≤ 0 day (0 weeks): min. possible incubation time

TimeES: 9 days (1.3 weeks): max. possible incubation time

TimeS: 7 days (1 weeks)

Date of consultation: 04/09/2023

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Fig 5: [jaundice](#)

Fig 10: [abdominal pain](#)

Fig 11: [diarrhea](#)

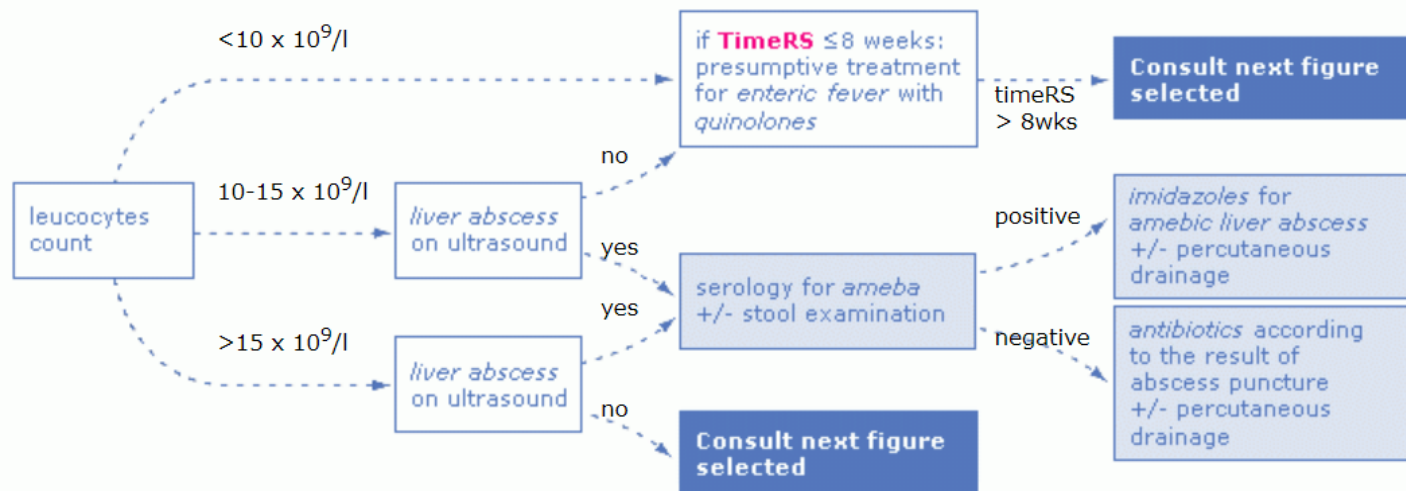
Complete the figures with the information available at this point.

End of case

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[Literature](#) for this figure

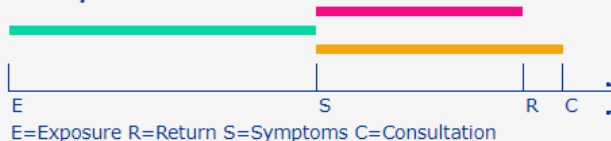
Figure 10 - abdominal pain



Contact with a specialist if doubt

In the presence of peritoneal irritation sign, call for surgeon

Country visited: Thailand.



TimeRS: ≤ 0 day (0 weeks): min. possible incubation time
TimeES: 9 days (1.3 weeks): max. possible incubation time
TimeS: 7 days (1 weeks)

Date of consultation: 04/09/2023

E=Exposure R=Return S=Symptoms C=Consultation

You have selected 3 figures, go through them and make your own differential diagnosis.

Fig 5: [jaundice](#)
Fig 10: [abdominal pain](#)
Fig 11: [diarrhea](#)

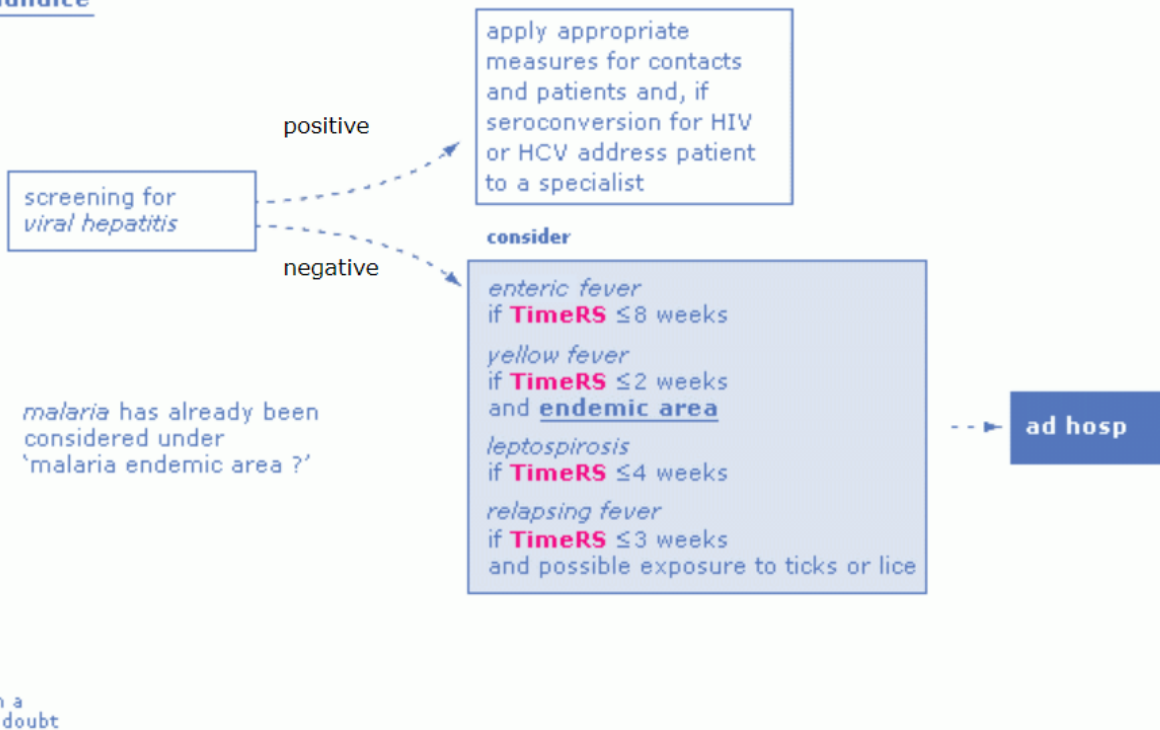
Complete the figures with the information available at this point.

End of case

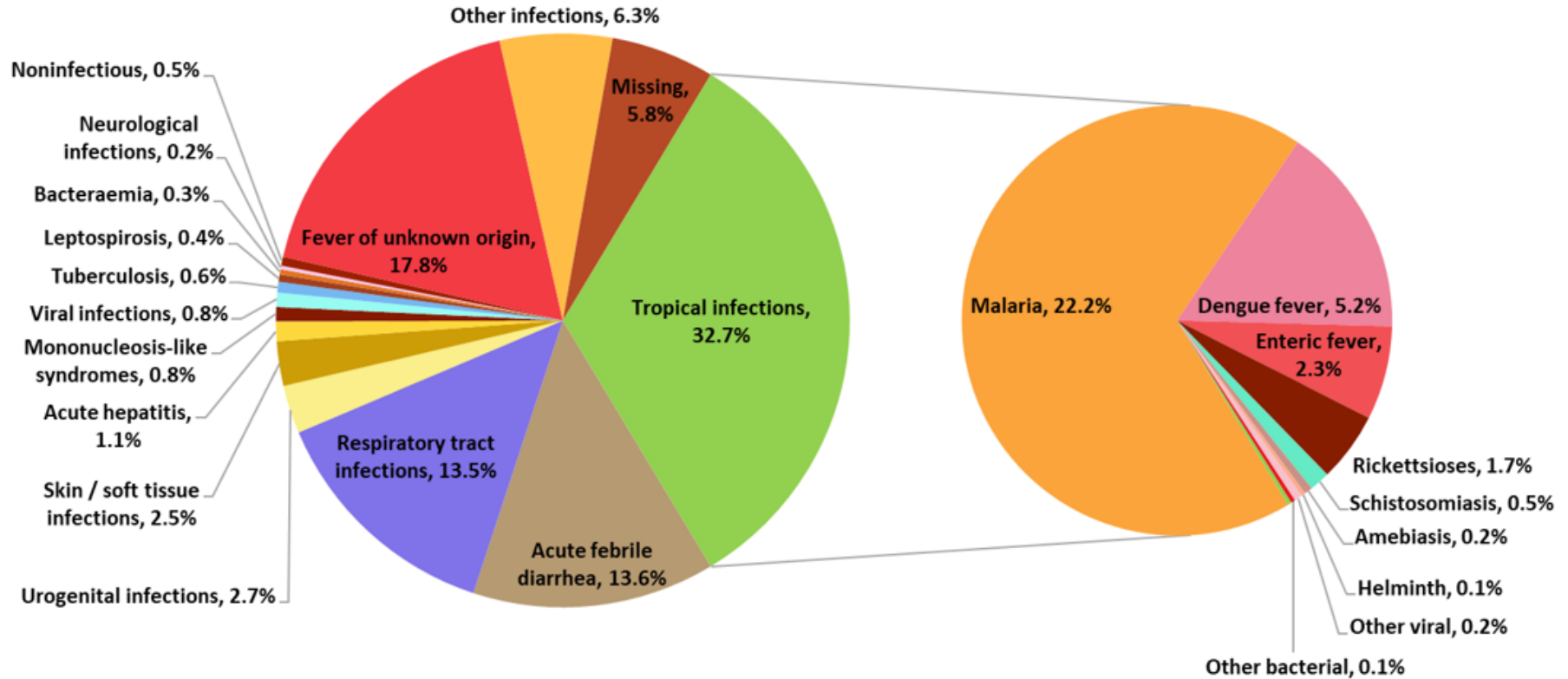
You can enter the final results of your investigations later.

[Litterature](#) for this figure

Figure 5 - jaundice



Fièvre au retour de voyage: étiologies



Fièvre au retour de voyage: probabilités

Probabilité pré-test
de la typhoïde = 3%

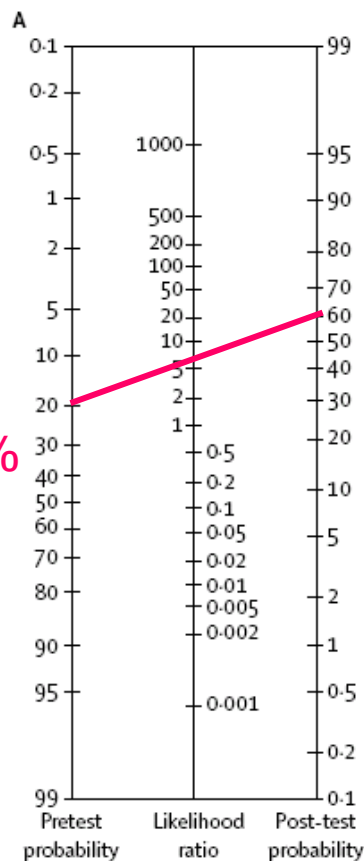
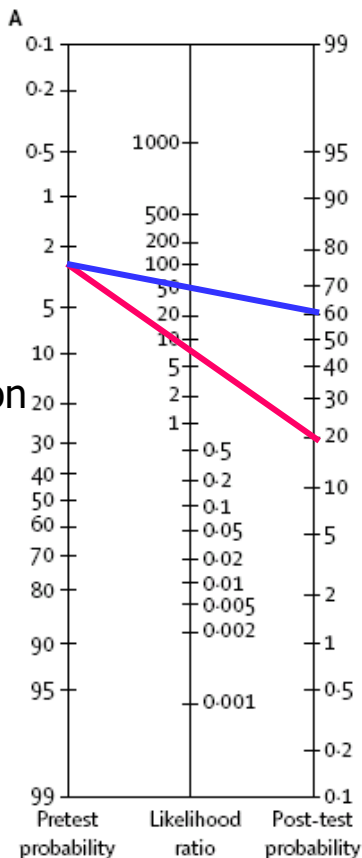
FV+ de la tension
abdominale = 7

$$6 \times 7 = 42$$

Probabilité post-test
de la typhoïde = 20%

FV+ de la
jaunisse = 6

Probabilité post-test
de la typhoïde = 60%





Management strategy

In the absence of any danger or haemorrhagic signs:

- your patient is not in danger (provided autochthonous diseases have been considered)

Management strategy in the absence of a **documented diagnosis**:

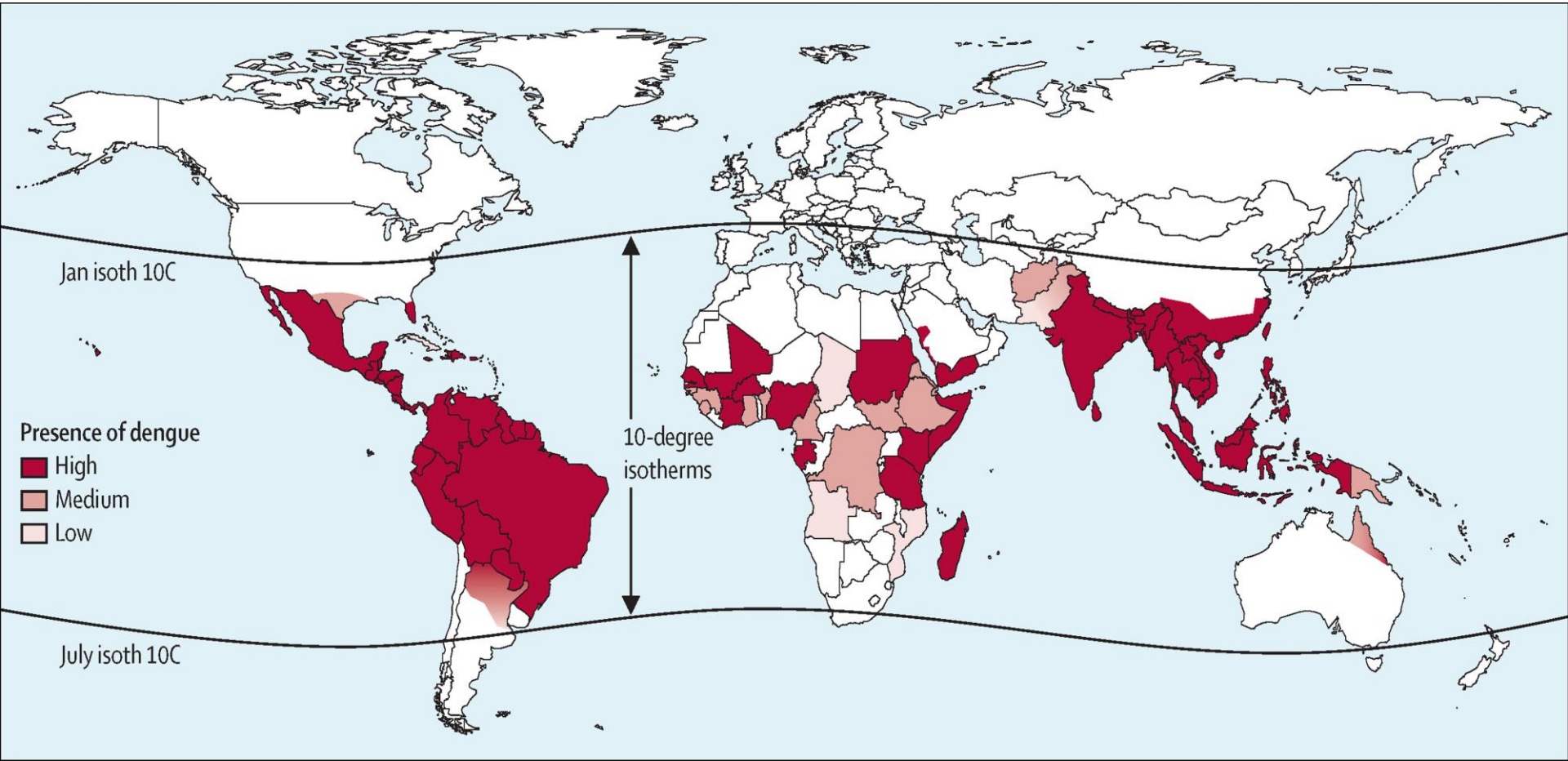
- RDT with NS1 ag and IgM for dengue fever if **TimeRS** \leq 2 weeks and endemic area

If negative :

- daily medical consultation and malaria test (if endemic area)
- in the presence of any new symptom or sign, the patient should be run through the decision chart again
- after 3 days of observation and neither resolution of fever nor alternative autochthonous disease diagnosis, an expert in travel/tropical medicine should be contacted

Close

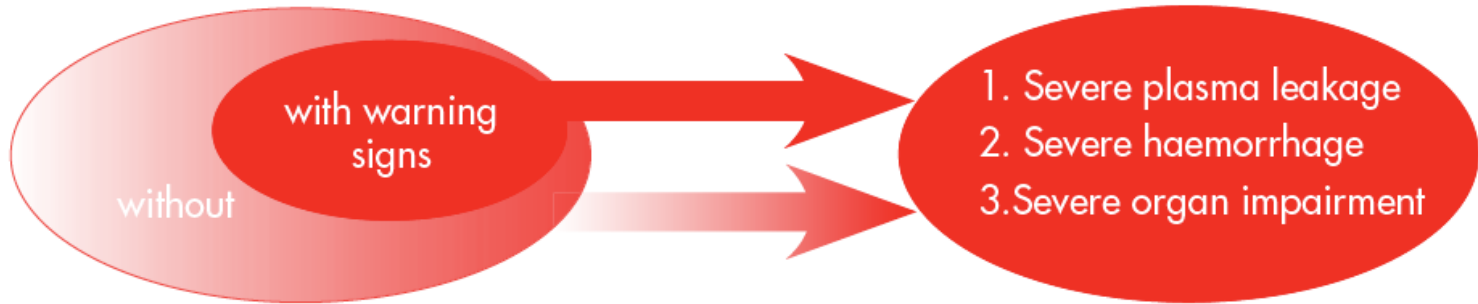
Dengue: distribution géographique



Dengue: critères cliniques

DENGUE ± WARNING SIGNS

SEVERE DENGUE



CRITERIA FOR DENGUE ± WARNING SIGNS

Probable dengue

live in /travel to dengue endemic area.

Fever and 2 of the following criteria:

- Nausea, vomiting
- Rash
- Aches and pains
- Tourniquet test positive
- Leukopenia
- Any warning sign

Warning signs*

- Abdominal pain or tenderness
- Persistent vomiting
- Clinical fluid accumulation
- Mucosal bleed
- Lethargy, restlessness
- Liver enlargement >2 cm
- Laboratory: increase in HCT concurrent with rapid decrease

CRITERIA FOR SEVERE DENGUE

Severe plasma leakage

leading to:

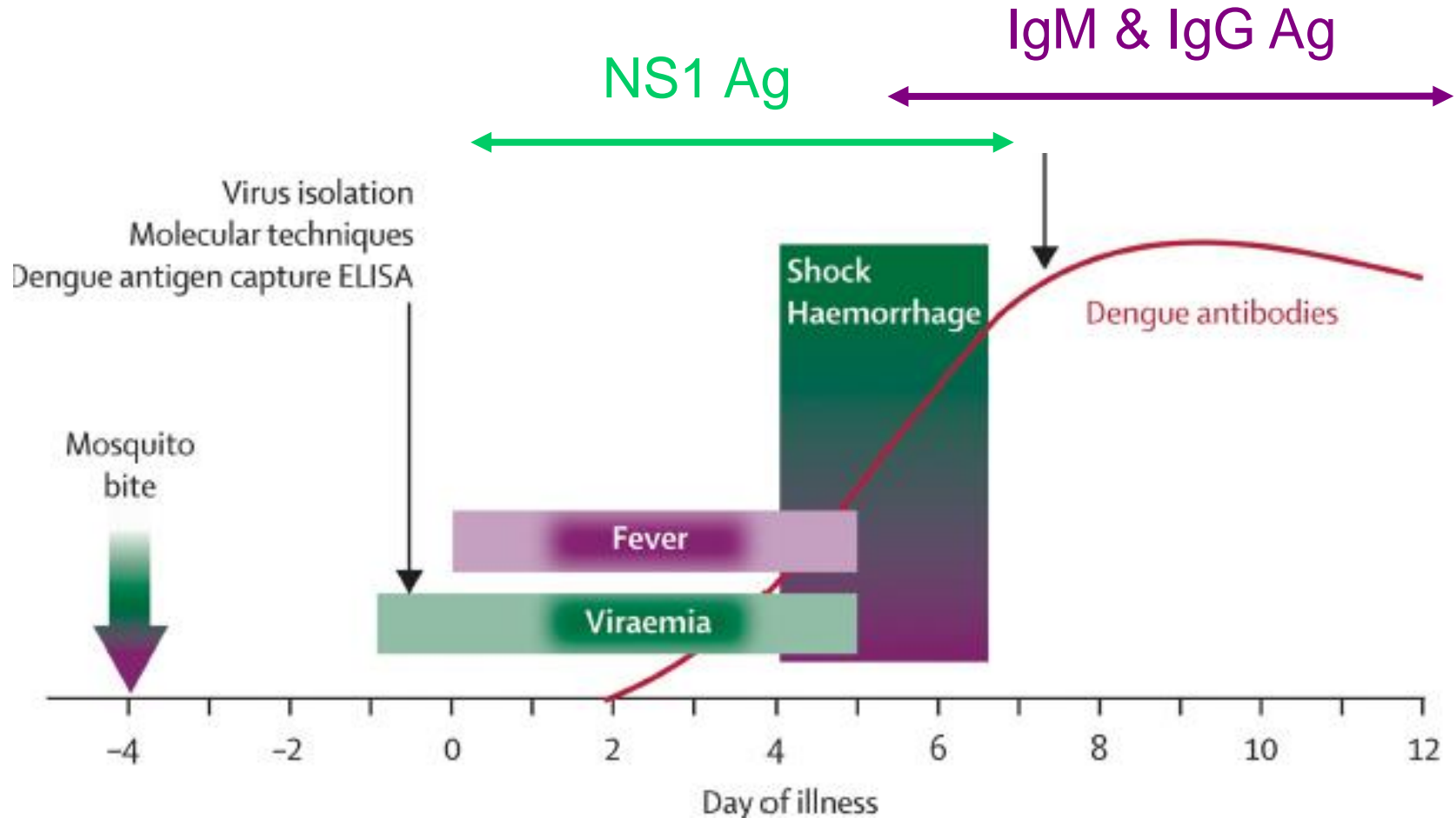
- Shock (DSS)
- Fluid accumulation with respiratory distress

Severe bleeding

as evaluated by clinician

Severe organ involvement

Dengue: test rapide Duo



Take home messages

- Considérer la destination et les temps d'incubation
- Poser quelques questions clés
- Effectuer un test de malaria pour tous les voyageurs revenant d'une zone d'endémie et un test VIH
- Prendre en compte dans le diagnostic différentiel les maladies autochtones et cosmopolites
- Ne pas faire d'investigations « à l'aveugle »