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## CLINICAL SCENARIO

- ✓ 56-year-old woman (Bangkok, Thailand), Brain-dead donor
- ✓ **Dengue IgM positive**
- ✓ **NAT (PCR) negative**

**Key dilemma:** Active infection vs past exposure?



## HOW TO INTERPRET IgM+/NAT-

### Possible explanations:

- ✓ Late convalescent infection
- ✓ Cross-reactive flavivirus antibodies
- ✓ Recent vaccination
- ✓ False-positive IgM

### Key limitation:

IgM may persist for months → poor marker of active infection

### In endemic/hyperendemic areas:

May indicate recent infection.  
Often considered **high risk in deceased donors**

### Diagnostic grey zone:

Limited evidence → decisions rely on **epidemiology + clinical context**

### Clinical clues:

Fever, thrombocytopenia, transaminitis (<30 days) ↑ suspicion  
Up to **75% asymptomatic**; **transplant urgency remains a decisive factor**



## KEY DIAGNOSIS

### Diagnosis relies on viral markers:

#### Early phase (days 1–7):

- ✓ NAT → highest sensitivity
- ✓ NS1 antigen

#### After day 3–7:

IgM appears (may persist up to 12 weeks)

#### Late phase:

IgG → past infection

#### Best approach:

Combine **NS1 + IgM** (better sensitivity across timeline)

#### Limitations:

NS1 sensitivity ↓ in **secondary infections**  
Performance varies in endemic settings

#### Current practice:

NAT or NS1 when dengue is suspected  
No strong evidence for systematic screening



## OUTCOMES IN RECIPIENTS

Limited data

Reported spectrum:

- ✓ Mild disease
- ✓ Severe complications

#### Key message:

Individualized risk-benefit assessment is essential



## RED FLAGS & PRACTICAL TIPS

### NAT-negative ≠ no risk

Transmission reported from **aviremic donors**  
Viral RNA may persist in **kidney / urine / tissue**

### Additional consideration:

Urine PCR in selected kidney donors

### Clinical limitation:

~75% infections asymptomatic → screening unreliable

### Living donor strategy:

Delay donation

Repeat testing after **15 days**

Persistently negative IgG → suggests false IgM

### Warning signs (regardless of NAT):

- ✓ Fever
- ✓ Thrombocytopenia
- ✓ Transaminitis (<30 days)



## COMMENTS ON GUIDELINES

No universally accepted global guidelines

Current recommendations:

- ✓ Risk-benefit approach
- ✓ Combined NS1 + IgM testing
- ✓ Avoid IgM+ deceased donors in high-endemic areas

### Unresolved issue:

Risk of transmission with **isolated IgM positivity remains uncertain**

**CONCLUSION:** A structured, context-based approach to dengue testing in organ donors improves safety, supports decision-making, and preserves access to transplantation

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