27es JNI 2026 PARIS
et la région Île-de-France Palais des Congrès

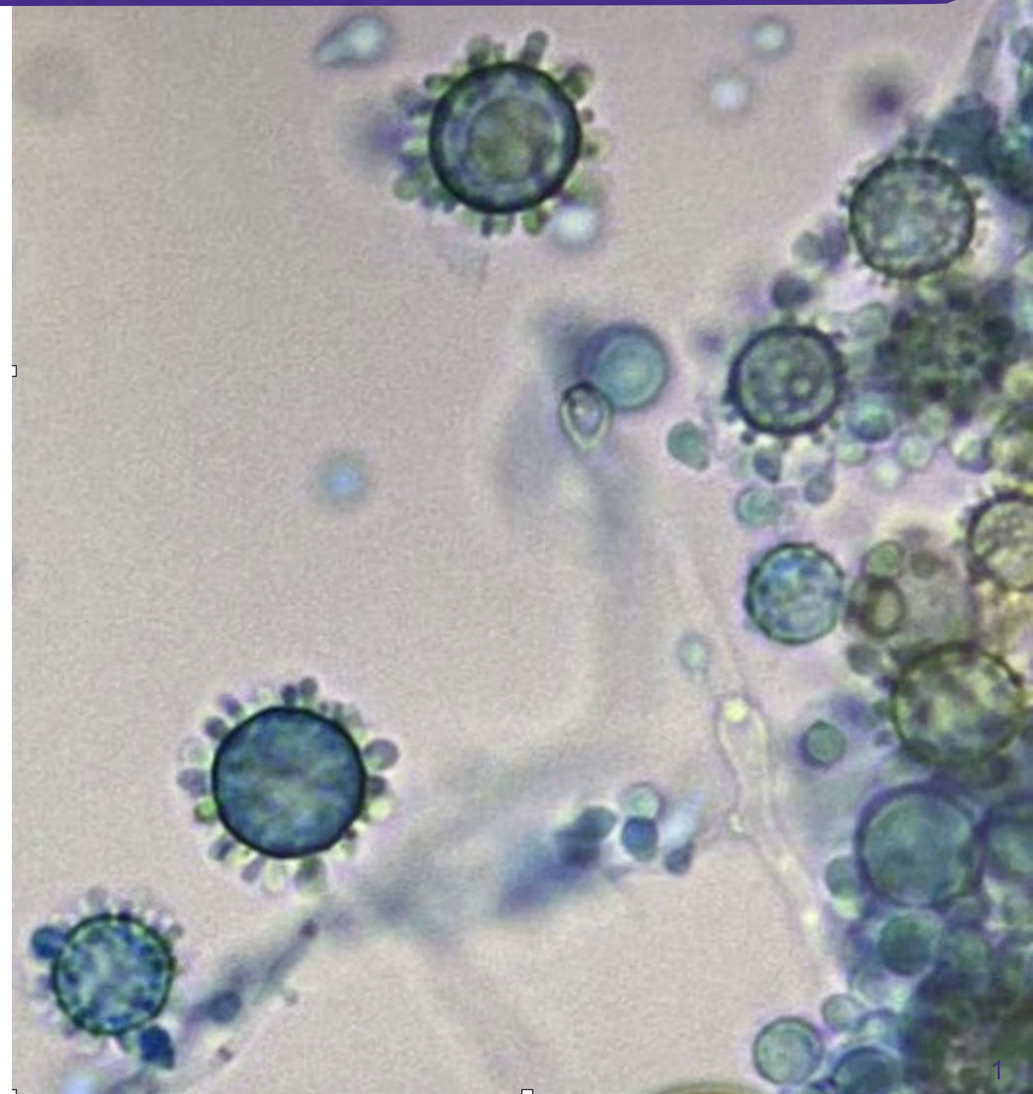
Journées Nationales d'infectiologie
du jeudi 18 juin au samedi 20 juin 2026
Journée Nationale de Formation
des Paramédicaux en Infectiologie
Vendredi 19 juin 2026

# Avancées diagnostiques et pronostiques de l'histoplasmose disséminée

## Session thématique Tropiques caraïbo-latino-américaines : nouvelles menaces infectieuses

Ugo FRANÇOISE

MIT — Hôpital Saint-Antoine
APHP / Sorbonne Université



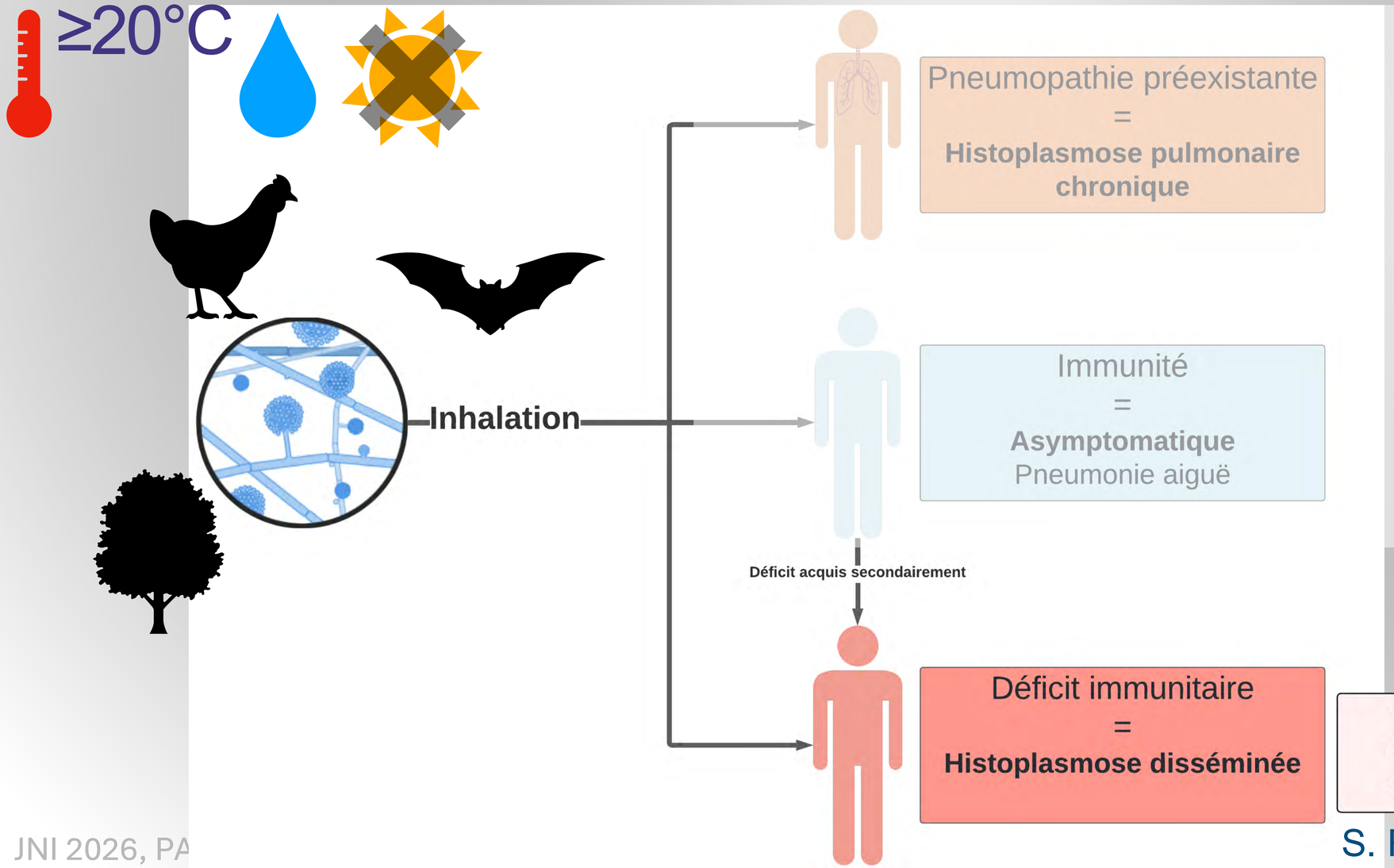
## Déclaration de liens d'intérêt avec les industriels de santé en rapport avec le thème de la présentation (loi du 04/03/2002) :

**L'orateur ne souhaite pas répondre** ☐

- **Intervenant** : Ugo FRANÇOISE
- **Titre** : Avancées diagnostiques et pronostiques de l'histoplasmose disséminée
- Consultant ou membre d'un conseil scientifique
- Conférencier ou auteur/rédacteur rémunéré d'articles ou documents — ☐ OUI ☑ NON
- Prise en charge de frais de voyage, d'hébergement ou d'inscription à des congrès ou autres manifestations — ☐ OUI ☑ NON
- Investigateur principal d'une recherche ou d'une étude clinique — ☐ OUI ☑ NON

☐ OUI ☑ NON

# Qui développe une histoplasmose disséminée ?

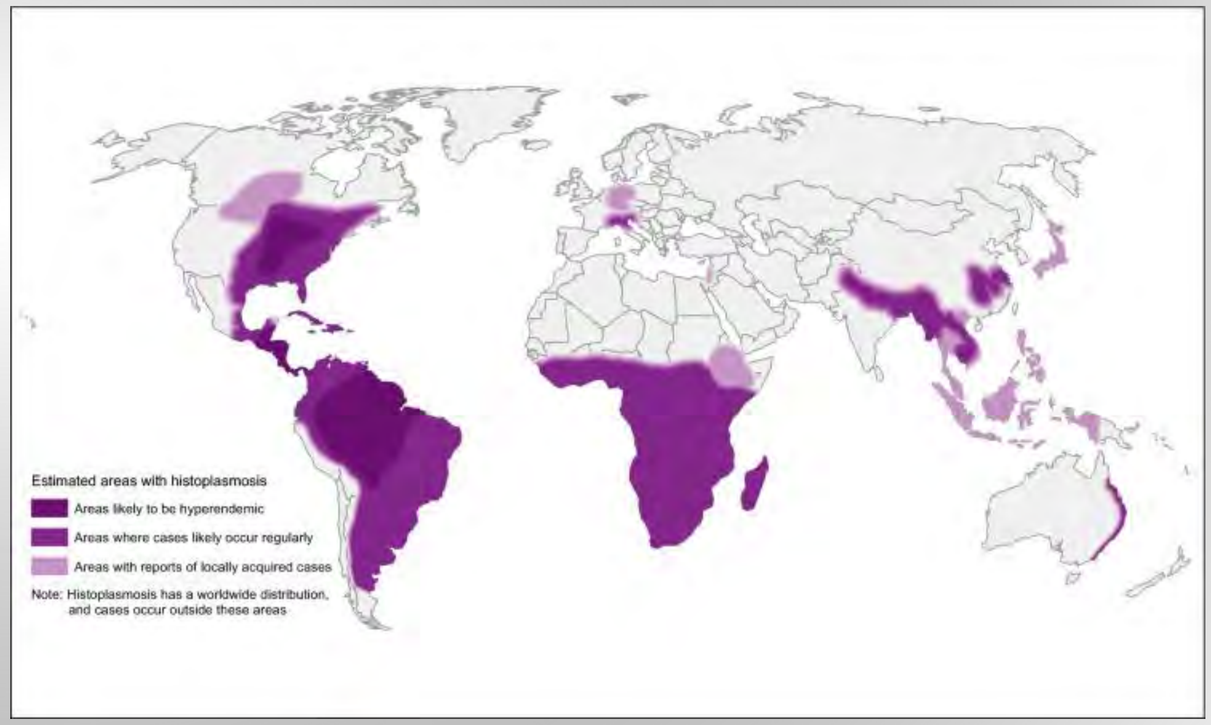



- Immunité cellulaire T (surtout Th1/CD4)
- Fonction phagocytaire
- Axe IL-12 / IFN-γ / TNF-α

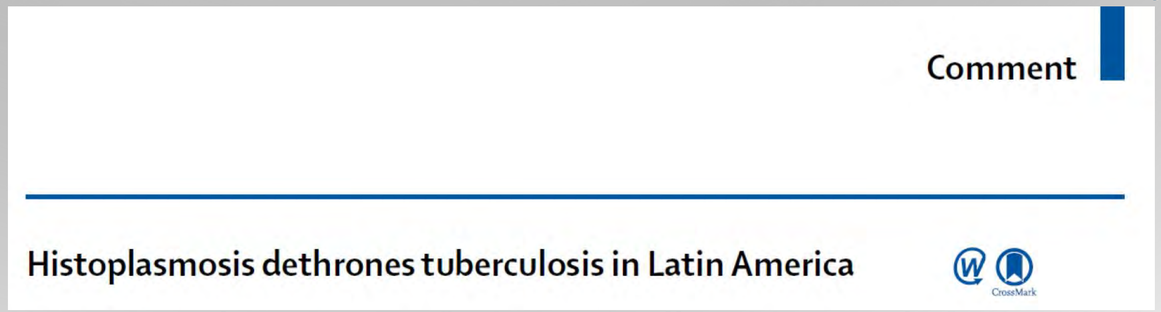
S. R. Arnold et al, *Clin Inf Dis* 2025

# Quand évoquer une histoplasmose disséminée ?


WHO fungal priority pathogens list 2022




N. Ashraf et al, *Mycopathologia* 2020




A Pasqualotto et F. Quieroz-Telles Lancet Inf Dis 2018

# Quand évoquer une histoplasmose disséminée ?

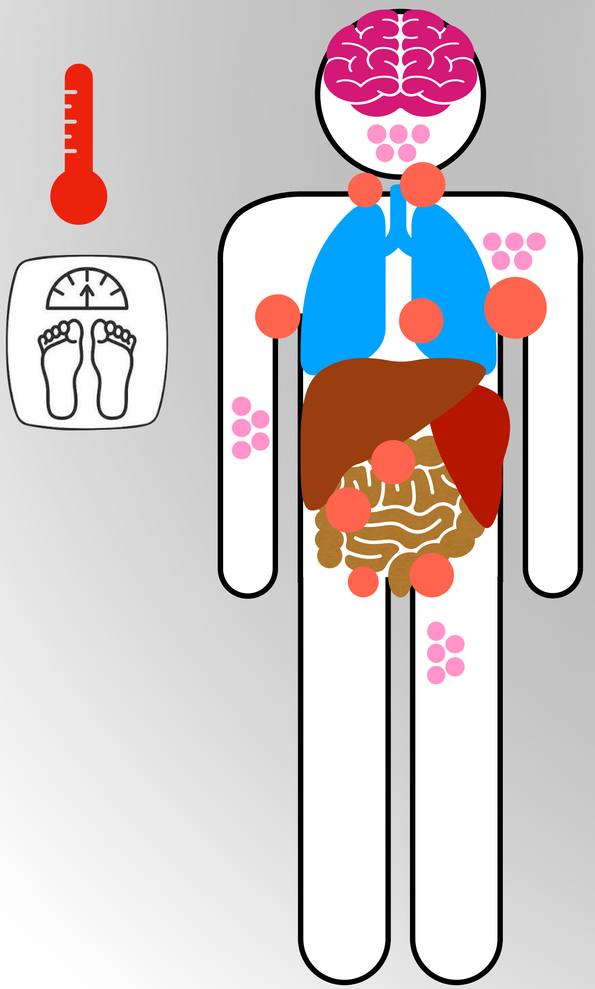
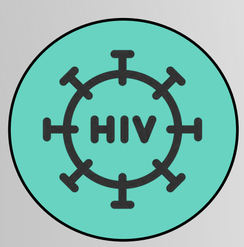


**Table 1.** Frequency of different signs and symptoms and sites sampled to try to identify the pathogen.

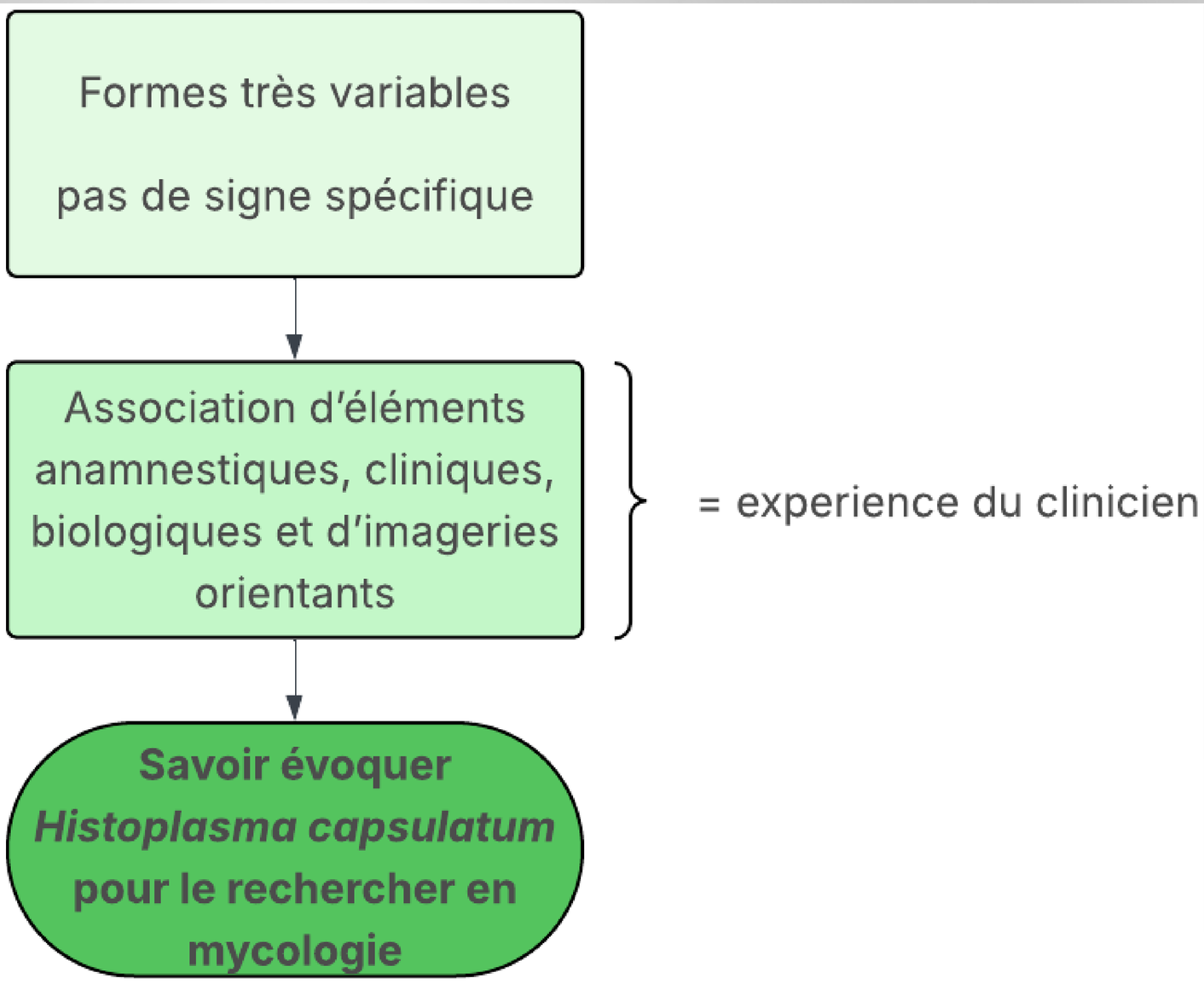
| Variable | N | Proportion (%) | Standard Deviation |
|---|---|---|---|
| **Signs and Symptoms** | | | |
| Fever | 348 | 89 | 31 |
| Weigh loss | 158 | 83 | 37 |
| Digestive | 348 | 70 | 45 |
| Lymph node | 348 | 48 | 50 |
| Pulmonary | 348 | 47 | 50 |
| Neurological | 348 | 20 | 40 |
| Cutaneous | 348 | 6 | 25 |
| Oral | 348 | 5 | 22 |
| Ocular | 348 | 0.28 | 5 |
| **Sampling Sites** | | | |
| Bone marrow | 349 | 61 | 48 |
| Alveolobronchial | 349 | 28 | 45 |
| Blood | 349 | 26 | 43 |
| Liver | 349 | 24 | 43 |
| Lymph node | 349 | 20 | 40 |
| Lower digestive | 349 | 19 | 39 |
| Cerebro-spinal fluid | 349 | 17 | 38 |
| Cutaneomucous | 349 | 11 | 31 |
| Upper digestive | 349 | 8 | 28 |
| Urine | 349 | 5 | 23 |






Mathieu Nacher et al, *J Fungi* 2014

# Quand évoquer une histoplasmose disséminée ?



# Partie I

## Le diagnostic

# Diagnostic de l'histoplasmose disséminée **prouvée**

- Histoplasmose **prouvée** = méthodes « conventionnelles »

JP Donnelly et al, *Clin Inf Dis* 2020

# Diagnostic de l'histoplasmose disséminée **prouvée**

- Examen direct mycologique

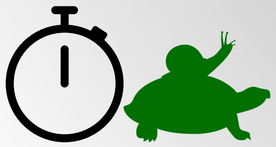
  - **MGG**

- Histologie

  - **Groccott**

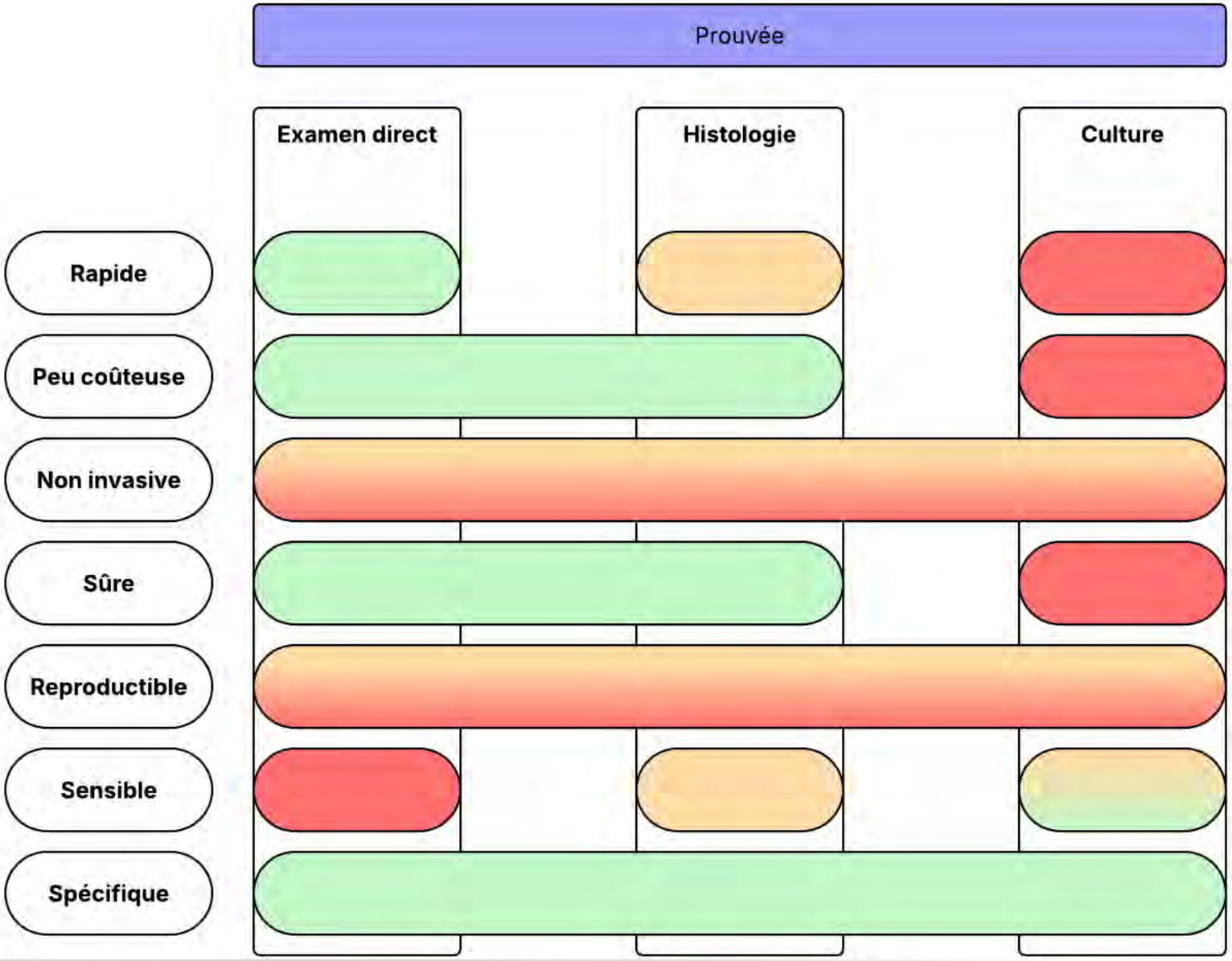
M. Drak Alsibai et al, *Front Cell Infect Microbiol*, 2020

- Culture



  - **25-37°C**
  - **P3**

Scheel CM, Gómez BL, *Curr Trop Med Rep*, 2014



# Diagnostic de l'histoplasmose disséminée **probable**

## Histoplasmose probable

=

exposition environnementale + maladie compatible +

**test antigénique *Histoplasma* positif**

JP Donnelly et al, *Clin Inf Dis* 2020

| Companie | ELISA | LFA |
|---|---|---|
| IMMY | X | |
| MiraVista DIAGNOSTICS Rapid Fungal Testing. Accurate Results. | X | X |
| OIDx | | X |

# Les différents tests antigéniques spécifiques

❖ **ELISA**

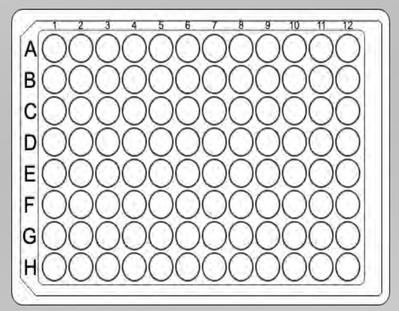
Clarus *Histoplasma* GM

IMMY

**LFA**

En développement

Urines


Test quantitatif

96 échantillons

2h

# Les différents tests antigéniques spécifiques

## ❖ ELISA

MiraVista DIAGNOSTICS
Rapid Fungal Testing. Accurate Results.

## ❖ LFA

Prélèvements à envoyer à Indianapolis
Urine, Serum, Plasma, LCS, LBA

*Histoplasma* Urine Antigen LFA

Test qualitatif 40 min

# Les différents tests antigéniques spécifiques

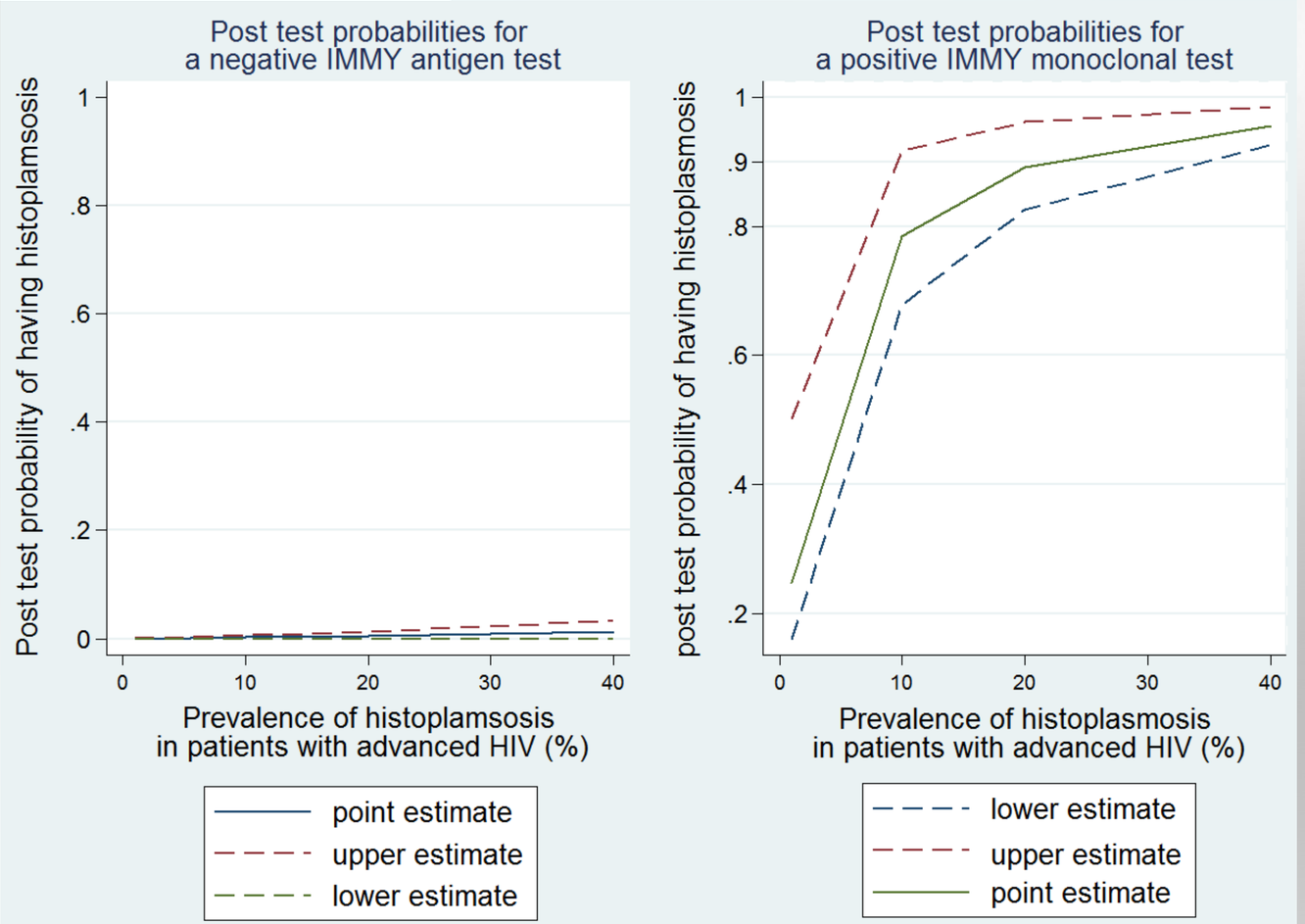
OIDx

❖ LFA


15min

# Les différents tests antigéniques spécifiques

IMMY




MiraVista DIAGNOSTICS
Rapid Fungal Testing. Accurate Results.

HIV

| | | Culture | |
|---|---|---|---|
| | | + | – |
| LFA | + | 25 | 3 |
| | – | 1 | 71 |

| | |
|---|---|
| **Sensitivity** | 96% (80–100) |
| **Specificity** | 96% (89–99) |
| **Accuracy** | 96% (90–99) |
| **Positive predictive value** | 89% (73–96) |
| **Negative predictive value** | 99% (91–100) |

DH Caceres et al, *J fungi* 2021

Mathieu Nacher et al, *Plos Negl Trop Dis* 2018

# Les différents tests antigéniques spécifiques

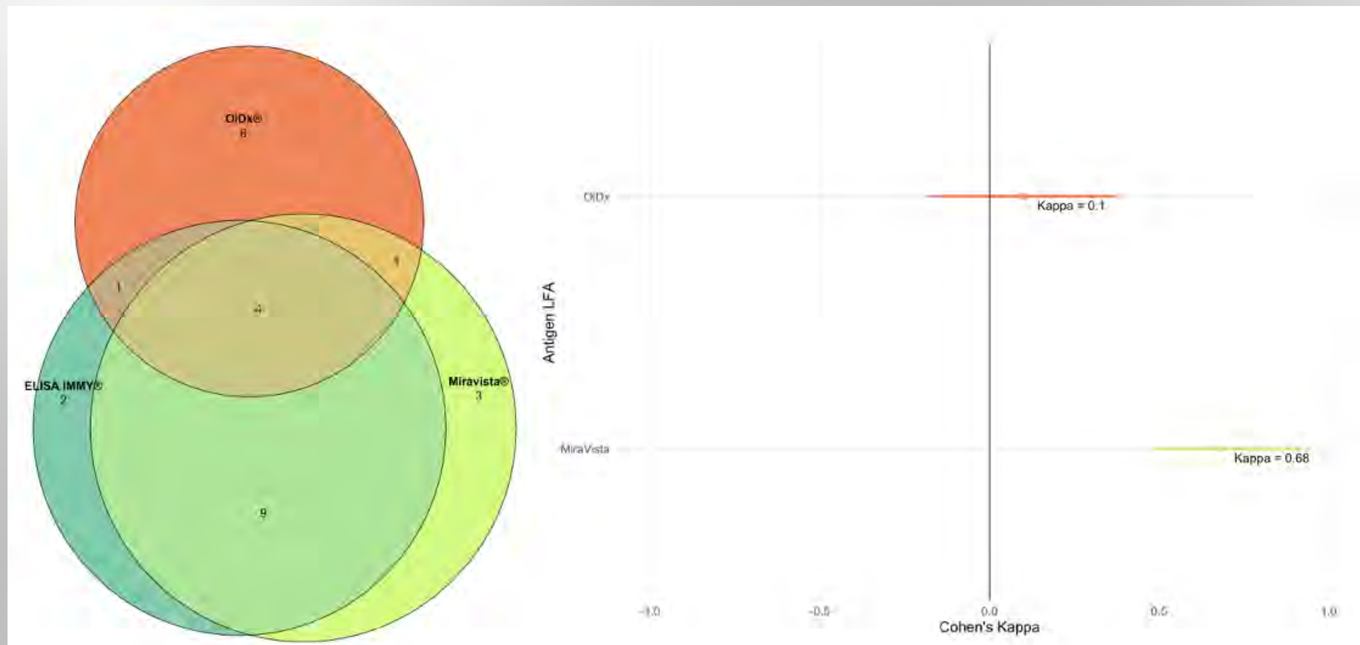
## ❖ Étude de performance Colombie

**Se : 92%** (95% CI 74%–99%)

**Spe : 32%** (95% CI 20%–46%)

DH Caceres et al, Mycopathologia 2022

## ❖ Étude de performance Côte d'Ivoire




A. Sturny-Leclère et al, *Clin Inf Dis* 2025

**Figure S2.a. Euler diagram of the distribution of patients with positive *Histoplasma* antigen tests (EIA, Miravista LFA, OIDx LFA) b. Cohen's kappa coefficients between the LFA (Miravista and OIDx) and *Histoplasma* EIA (IMMY) results, with 95% confidence intervals**

# Les différents tests antigéniques spécifiques

## ⚠ Faux Positifs

- Réactions croisées avec d'autres dimorphiques
- Défaut de sensibilité des méthodes conventionnelles

## ⚠ Faux Négatifs

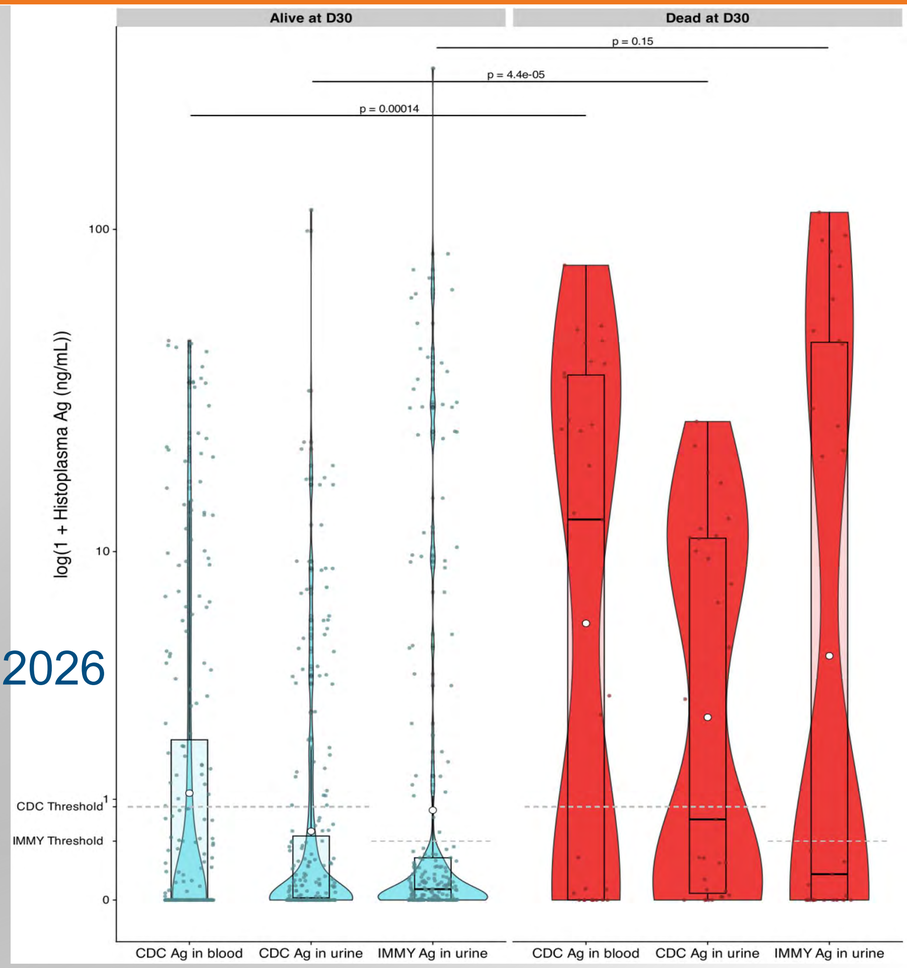
- Dilution de l'antigène urinaire

M Dzombo et al, Microbiol. Spectr. 2024  U. Françoise et al. *Int J Inf Dis* 2026

- Effet post zone  Ten Have et al, *Med Mycol* 2026

## ⚠ Significativité d'un test positif isolé

- Antigénurie sans symptôme = survie possible sans traitement antifongique




A.  Sturny-Leclère et al, *Clin Inf Dis* 2025

I. S Schwartz et A. Pasqualotto *Clin Inf Dis* 2025

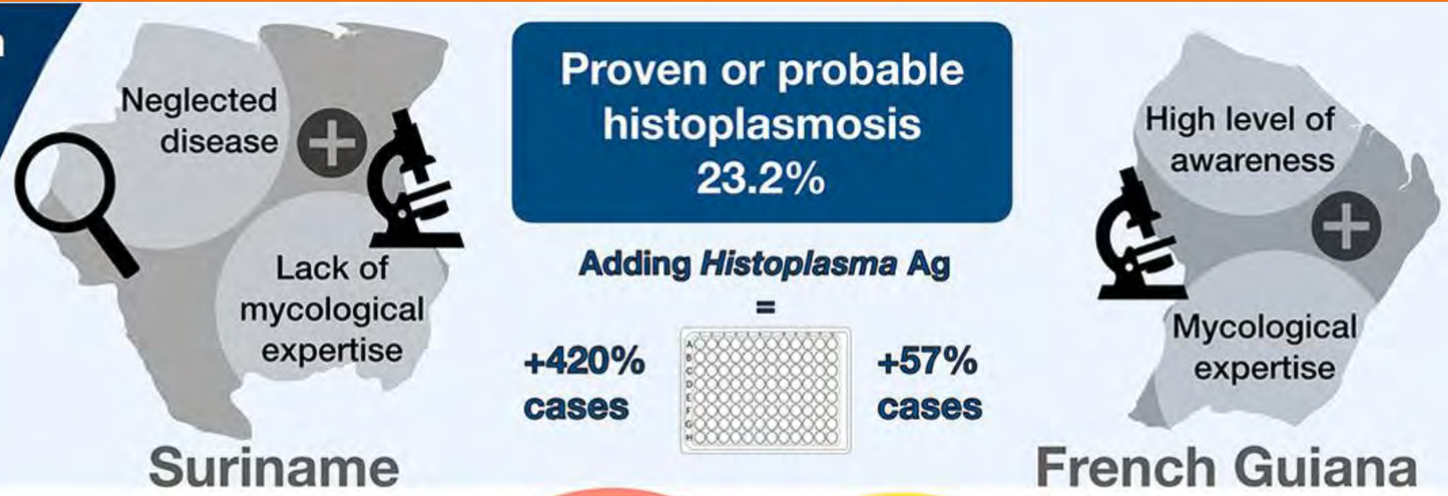
# L’impact des tests antigéniques *Histoplasma*

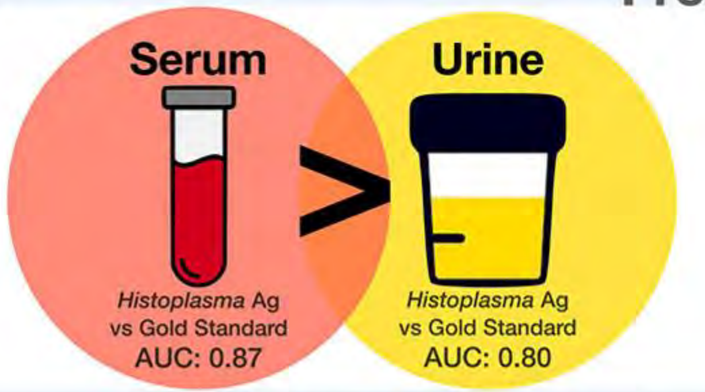
**HIV-associated histoplasmosis in patients living on the the Guiana Shield:**
**a prospective prevalence study**

PLHIV hospitalized for altered general condition, fever, or symptoms suggestive of an infectious syndrome

- **High prevalences** in Suriname and French Guiana
- **Antigen testing increased histoplasmosis diagnosis**
- **Serum antigen detection outperformed urine testing**
- **Higher antigen levels** associated with **severe disease** and **mortality**

Ugo Françoise, Mathieu Nacher, Sigrid Mac Donald, Marja Van Eer, Christina Scheel, Tom Chiller, Diego H Caceres, Beatriz L Gomez, Denis Blanchet, Christine Aznar, Pierre Couppié, Stephen Vreden, Antoine Adenis




U. Françoise et al. *Int J Inf Dis* 2026

**Mild form**

Low antigen level

Low mortality

Survival without antifungals

**Severe form**

High antigen level

High mortality

Deaths despite antifungals

# Diagnostic chez l'immunodéprimé non VIH

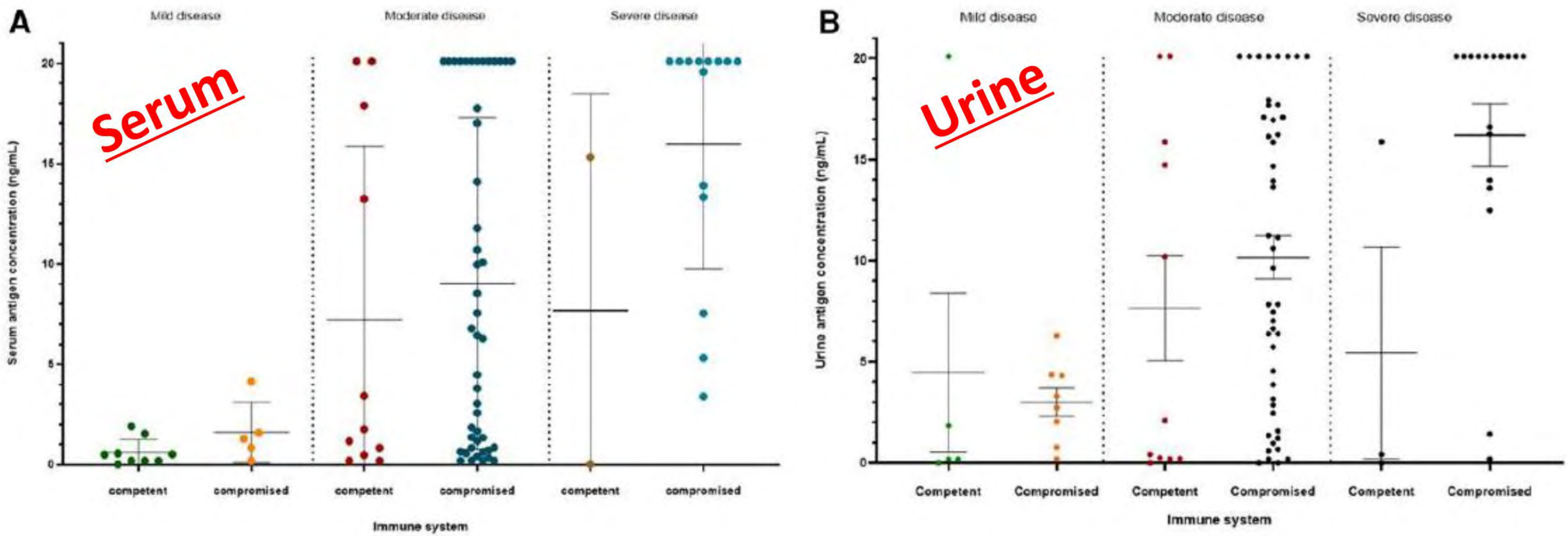
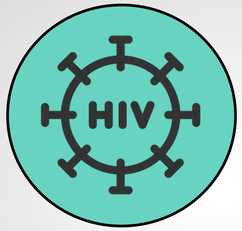
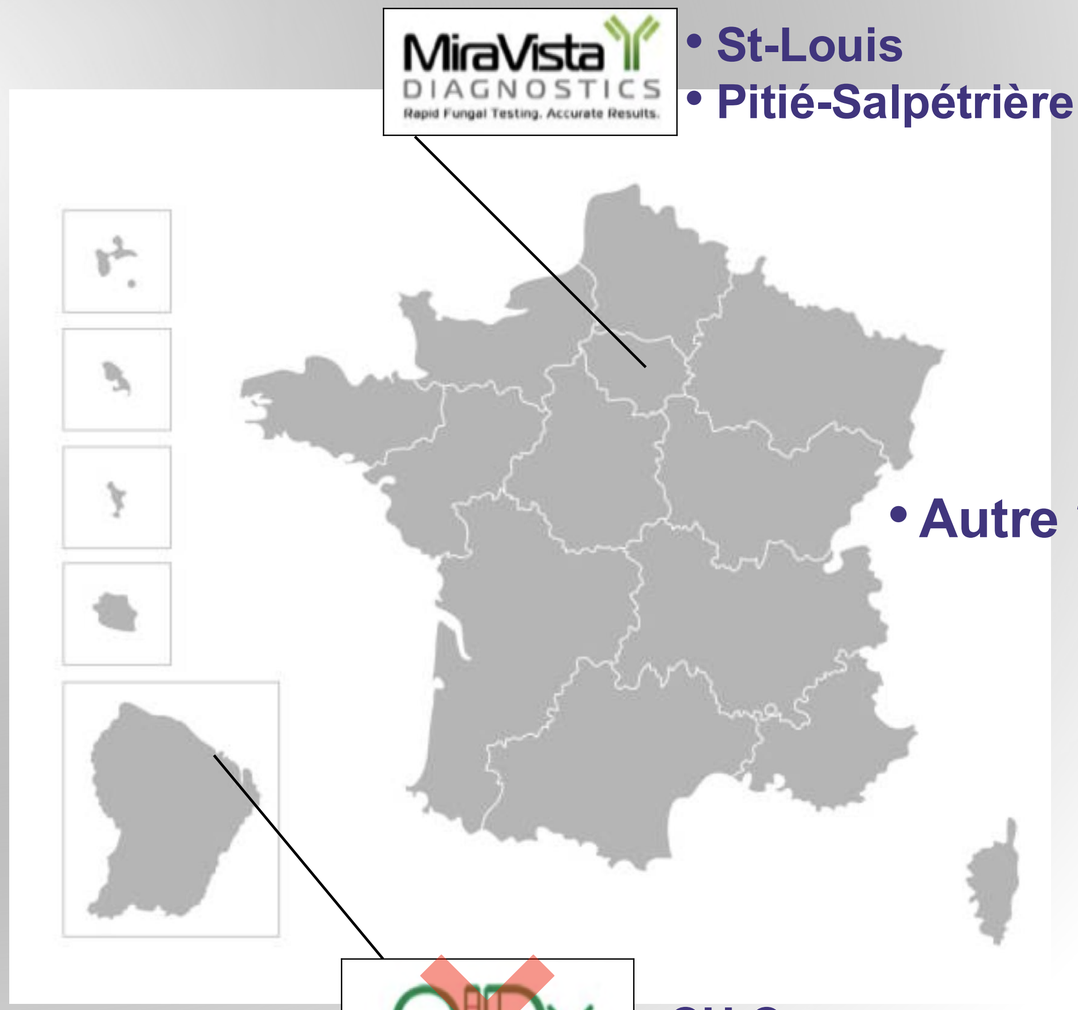



**Figure 1.** Antigen concentration by disease severity and immune status. *A*, Serum antigen concentrations by EIA. *B*, Urine antigen concentrations by EIA.

N Barros et al, *Open Forum Inf Dis* 2025

# Disponibilité des tests antigéniques


- La disponibilité des tests antigéniques d'*Histoplasma* nécessiterait d'être plus large en France.

# Tests antigéniques « classiques » : ß-D-glucane & GM

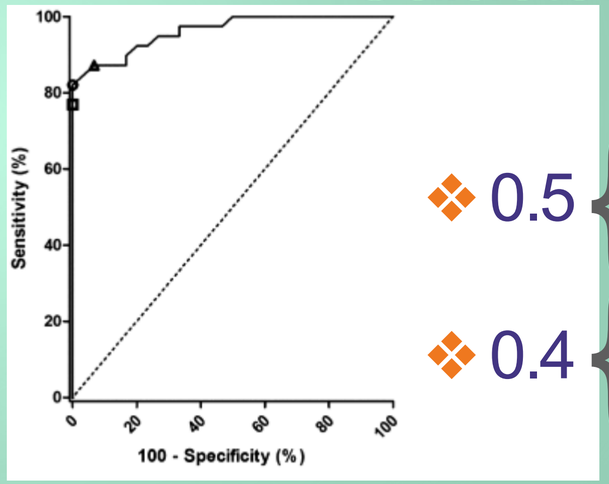
## ❖ ß-D-glucane

**Table 1. Results of (1–>3)-β-d-Glucan Testing by Diagnosis**

| (1–>3)-β-D-Glucan Level | All PDH (n = 36) | PDH With Respiratory Symptoms (n = 31) | PCP (n = 41) |
|---|---|---|---|
| Mean (±SD), pg/mL | 339.5 (±185.4) | 333.6 (±185.9) | 440.3 (±134.3) |
| Min, max, pg/mL | 42, 500 | 42, 500 | 30, 500 |
| Median (Q1, Q3), pg/mL | 475.0 (118, 500) | 465 (116, 500) | 500 (489, 500) |
| Positive (≥80 pg/mL) | 33 (91.7) | 29 (93.6) | 40 (97.5) |
| Indeterminate (60–79 pg/mL) | 1 (2.7) | 1 (3.2) | 0 |
| Negative (<60 pg/mL) | 2 (5.6) | 1 (3.2) | 1 (2.4) |
| ≥500 pg/mL | 17 (47.2) | 14 (45.2) | 31 (75.6) |

M Saccente et G Krishnan, Clin Inf Dis 2021

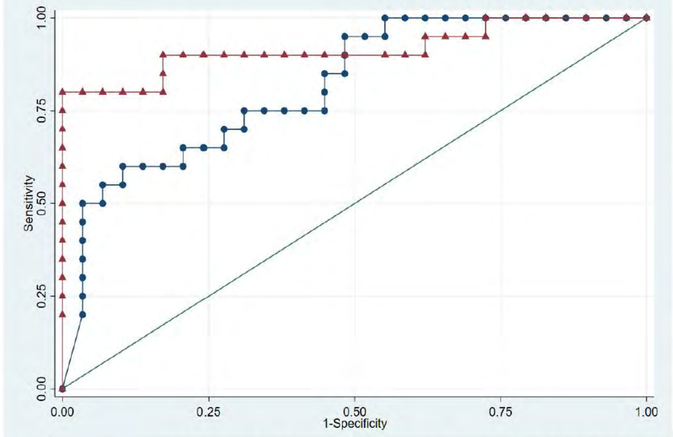
## ❖ Galactomannane




Histo prouvée : **39/69**

- ❖ 0.5
  - **Se 77%** (IC95%: 60-88)
  - **Spe 100%** (IC95%: 86-100)
- ❖ 0.4
  - **Se 82%** (IC95%: 66-92)
  - **Spe 100%** (IC95%: 86-100)

X. Iriart et al, Int J Med Microbiol 2014




| | BDG (150 pg/mL) | GM (0.5) |
|---|---|---|
| Sensitivity | 95% [85-100] | 90% [77-100] |
| Specificity | 52% [34-70] | 83% [69-97] |
| Positive LR | 2 [1.4-3.0] | 5.3 [2.4-12.0] |
| Negative LR | 0.1 [0.01-0.7] | 0.12 [0.03-0.45] |

**Optimal thresholds :**

| | BDG (288 pg/mL) | GM (1.29) |
|---|---|---|
| Sensitivity | 60% | 80% |
| Specificity | 89.7% | 100% |
| Positive LR | 5.8 | - |
| Negative LR | 0.45 | 0.2 |
| Exactitude | 77.6% | 92% |

A. Moussiegt et al, Int J Inf Dis 2025

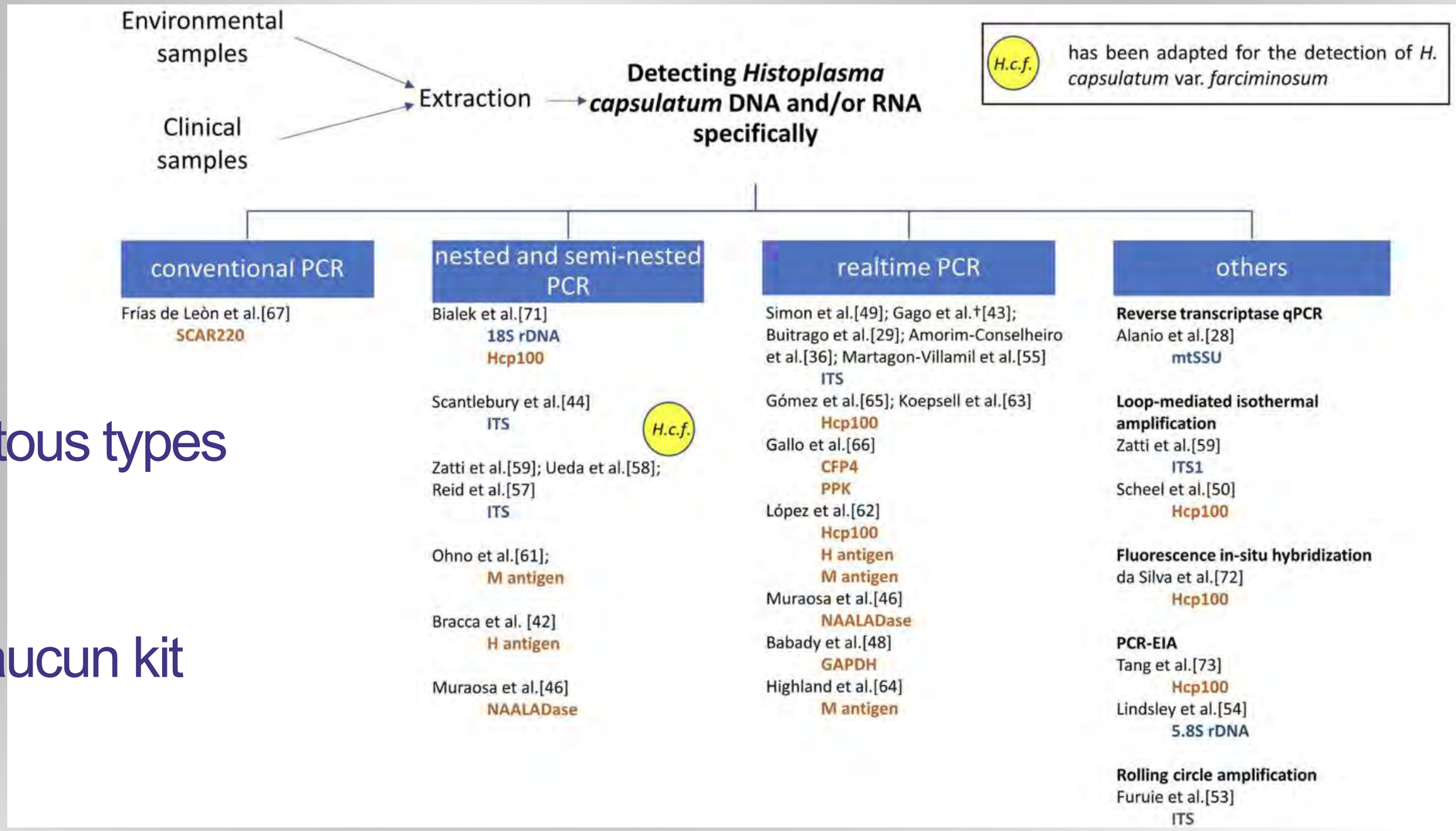
# Tests antigéniques « classiques » : ß-D-glucane & GM

- En pratique :


  - ß-D-glucane **indétectable** = pas d'histoplasmose disséminée ?
  - ß-D-glucane augmenté + CTMX = **penser** à l'histoplasmose

  - GM sérique <0,5 = **n'élimine pas** le diagnostic
  - GM sérique ≥0,5 = savoir **évoquer** l'histoplasmose si terrain compatible

# PCR *Histoplasma*




- Réalisable sur tous types d'échantillons
- PCR-maison, aucun kit commercialisé

A. Alanio et al. *J Mol Diagn* 2021

# PCR *Histoplasma*

- RT-qPCR prometteuse { Se 97,7% / Spe 99%

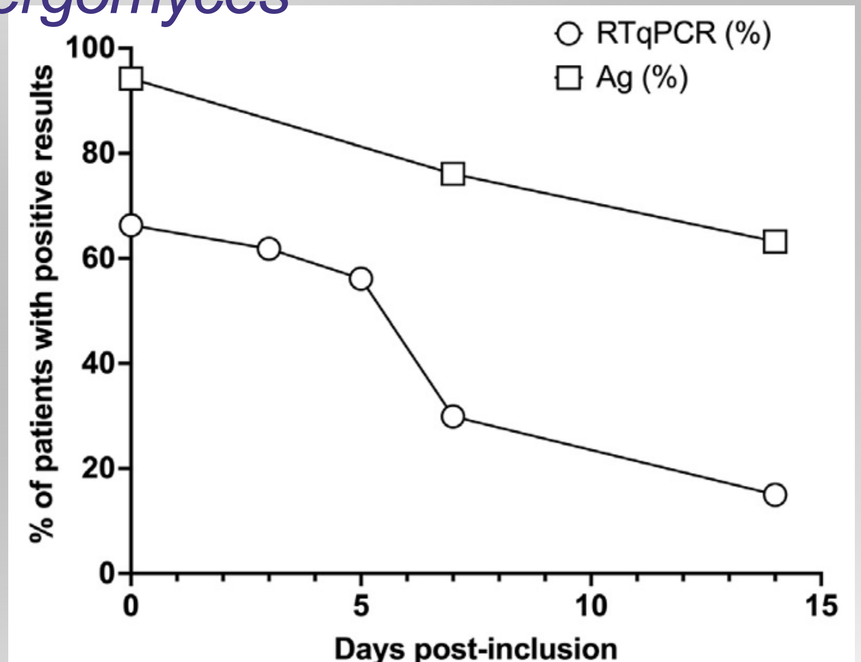
A. Alanio et al. *J Mol Diagn* 2021

- Validation externe multicentrique :
  - faux positifs *Blastomyces* et *Emergomyces*

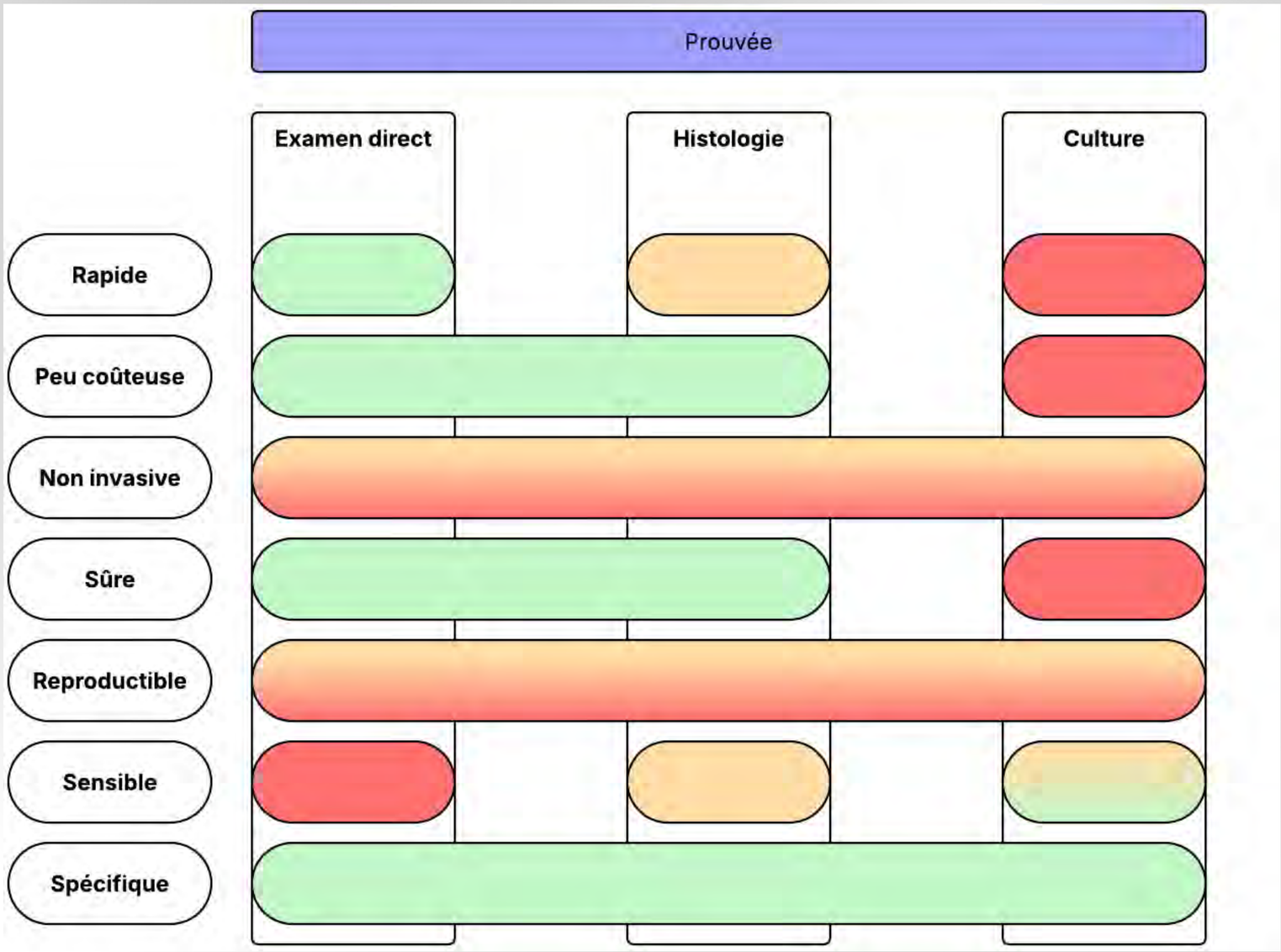
D. Wilmes et al. *Mycoses* 2023

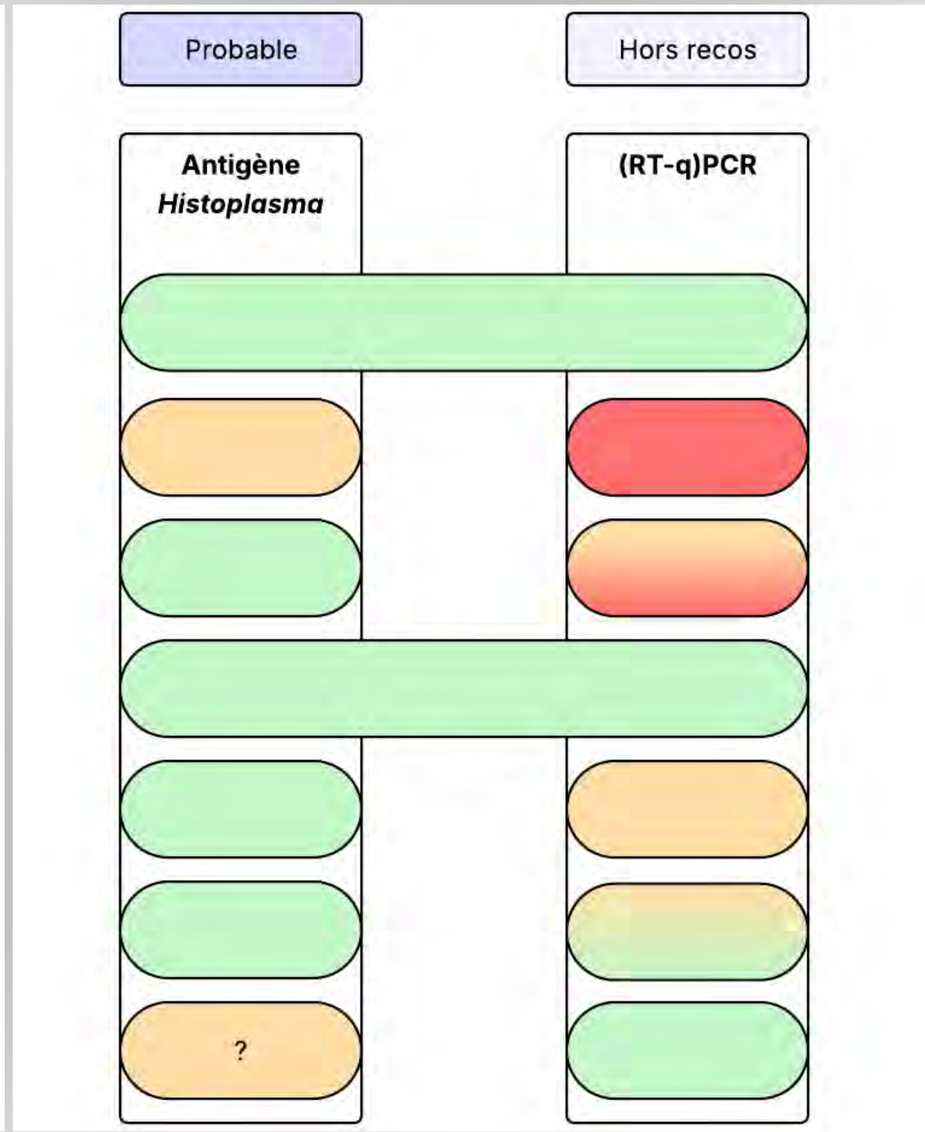
- Intérêt pour le suivi

A. Sturny-Leclère et al. Clin Microbiol Infect 2025



# Diagnostic de l’histoplasmose disséminée



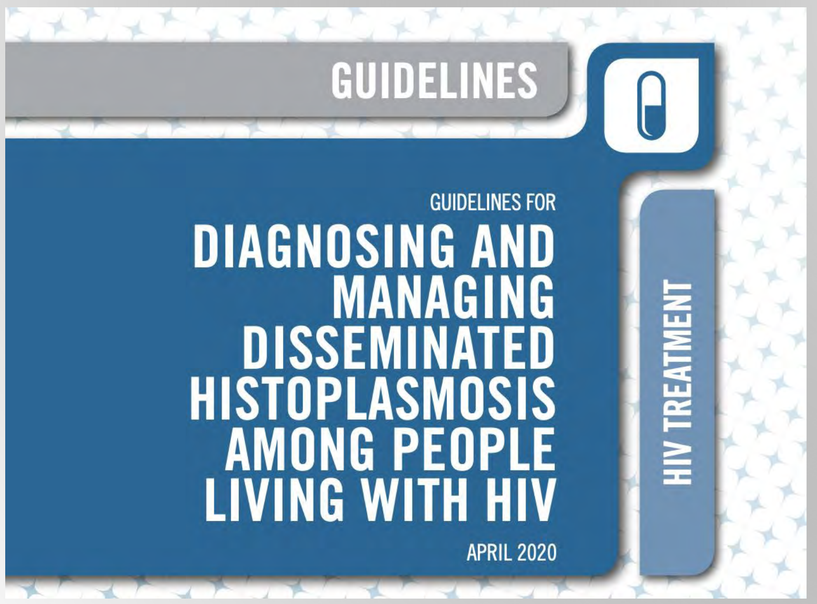



# Partie II

## Traitement et pronostic

# Traitement de l’histoplasmose disséminée

- Recommandations mondiales — européennes — françaises



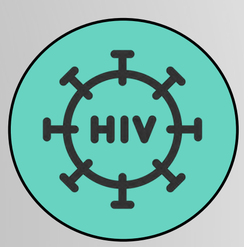

PAHO-WHO Guidelines 2020


EACS 13.0 2025


Rapport d’experts CNS 2024

# Traitement de l'histoplasmose disséminée

## Résumé des recommandations




| | Attaque | Entretien | Grade |
|---|---|---|---|
| **Non grave** | **Itraconazole 12 mois** (3-6 mois) | | A-B |
| **Grave** | L-AmB 3mg/kg 1-2 semaines | **Itraconazole 12 mois** (3-6 mois) | A-B |
| **Neuroméningée** | L-AmB 5 mg/kg 4-6 semaines | **Itraconazole > 12 mois** | C |

**Dosage Itraconazole : Taux résiduel > 1 mg/L & < 3-4 mg/L**

# Traitement de l'histoplasmose disséminée

## Recommandations autres immunodéprimés

**Table 2. Categories of Immunocompromise and Risk for Disseminated/Severe Histoplasmosis**

Categories of immunocompromise represent a continuum rather than distinct categories. Conditions are categorized here as a guide; given limited evidence, this table is not exhaustive or exact.

| High | Moderate | Low[a] |
|---|---|---|
| Receiving corticosteroids: [11] ≥2 mg/kg/d of prednisone (or equivalent) for persons ≤10 kg or ≥20 mg/d of prednisone (or equivalent) for persons >10 kg for at least 2 wks | Receiving corticosteroids: [11] 0.5–2 mg/kg/d of prednisone (or equivalent) for persons <10 kg or 5–20 mg/d of prednisone (or equivalent) for persons >10 kg for at least 4 wks | Receiving corticosteroids: [11] <0.5 mg/kg/d of prednisone (or equivalent) for persons <10 kg or ≤5 mg/d of prednisone (or equivalent) for persons >10 kg for at least 4 wks |
| Primary cellular immunodeficiency (eg, SCID, autosomal dominant hyperIgE syndrome [AD HIES], interferon-gamma receptor/IL-12 pathway defects) | Primary immunodeficiency (eg, common variable immunodeficiency, Nuclear factor-kappaB Essential Modulator [NEMO] deficiency, chronic mucocutaneous candidiasis, X-linked hyper IgM syndrome, autosomal recessive HIES) | |
| Advanced or untreated HIV/AIDS (CD4 <200 cells/mm$^3$)[b] [8] | HIV (CD4 200–300 cells/mm$^3$) [8, 12–21] | HIV (CD4 ≥300 cells/mm$^3$); VL undetectable [8] |
| Hematopoietic stem cell transplant within 100 d or receiving immunosuppressive therapy for graft versus host disease | Hematopoietic stem cell transplant >100 d prior and no evidence of graft versus host disease | |
| | Hematologic malignancy | |
| Chimeric antigen receptor (CAR) T-cell therapy within 90 d [22] | CAR T-cell therapy >90 d and resolved cytopenias [22] | |
| Solid organ transplant and treatment of rejection[c] | Solid organ transplant recipient on maintenance immunosuppressive regimen[c] | |
| Autoimmune and rheumatic diseases requiring treatment with biologic agents[d], especially those that interfere with T-cell function and granuloma formation [18, 23–28] | | Autoimmune and rheumatic diseases not requiring treatment |
| | | General medical frailty, including but not limited to: Liver, kidney, lung disease, diabetes, malnutrition |

Abbreviations: HIV, human immunodeficiency virus; IgE, immunoglobulin E; IL, interleukin; NF, nuclear factor; SCID, severe combined immunodeficiency; VL, viral load.

[a]The following conditions confer no known increased risk: sickle cell disease and other asplenia syndromes; antibody, complement, or neutrophil deficiencies.

[b]Severe immunocompromise in children ≤5 y of age is defined as CD4+ T lymphocyte [CD4+] percentage <15%, and in individuals ≥6 y, CD4+ percentage <15% and CD4+ >200 lymphocytes/mm$^3$ [11].

[c]Carefully consider drug-drug interactions (eg, tacrolimus for graft-vs-host disease prophylaxis).

[d]There are a variety of biologic agents with varying levels of immunosuppression. Serious infections have happened in patients receiving biologic response modifiers, including tuberculosis and disseminated infections caused by viruses, fungi, or bacteria. Frequently reported biologics associated with disseminated/severe histoplasmosis include: Tumor necrosis factor-alpha inhibitors (TNF-alpha inhibitors [eg, infliximab, etanercept, adalimumab]); IL-12/IL-23 blockade (ustekinumab, risankizumab, guselkumab).

2025 Clinical Practice Guideline Update by the Infectious Diseases Society of America on Histoplasmosis: Treatment of Mild or Moderate Acute Pulmonary Histoplasmosis in Adults, Children, and Pregnant People

Peter Pappas,[1,2] Robert J. Lentz,[2,4,5] Kayla R. Stover,[3,5] Nathan P. Wiederhold,[4,5] Monica I. Ardura,[3,6,5] John W. Baddley,[7] Nevert Badreldin,[8] Nathan C. Bahr,[9,10,5] Karen Bloch,[11] Carol A. Kauffman,[12] Rachel A. Miller,[13] Satish Mocherla,[14] Michael Saccente,[15] Ilan Schwartz,[13,5] Joshua Wolf,[16,5] Jennifer Loveless,[17,5] Andrej Spec,[18,5,19] and Sandra R. Arnold[19,20,5]

- Histoplasmose pulmonaire aiguë
- Stratification du risque de dissémination

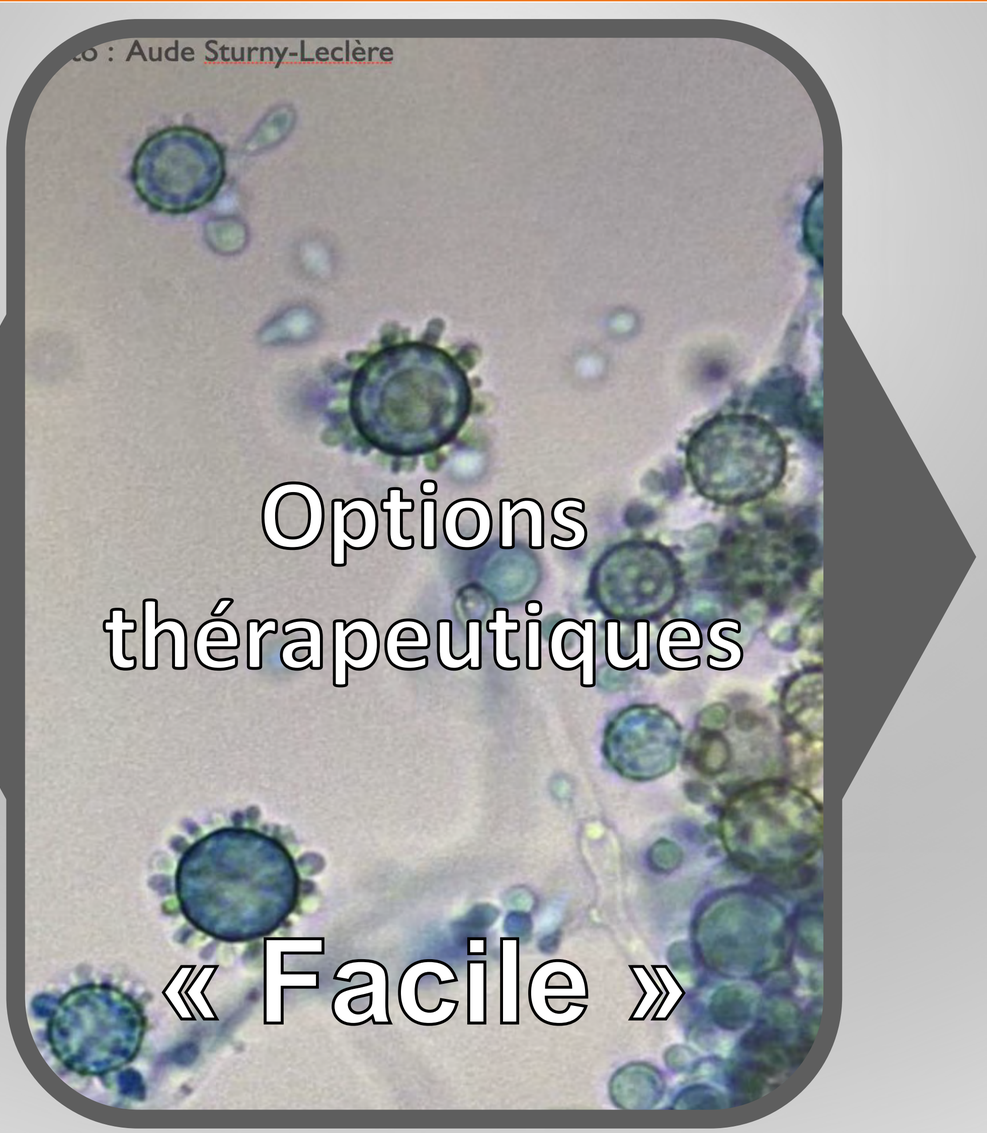
| Risque de dissémination | Élevé | Modéré | Faible |
|---|---|---|---|
| Nodule **asymptomatique** | **Discuter itraconazole** | | Pas de traitement |
| Histoplasmose pulmonaire aiguë **non grave** | **Itraconazole** | | Pas de traitement |
| Histoplasmose pulmonaire aiguë **grave** | **Itraconazole** | | |

S. R. Arnold et al, *Clin Inf Dis* 2025

# Évaluation de la gravité

- **Grave**

- **L-AmB**

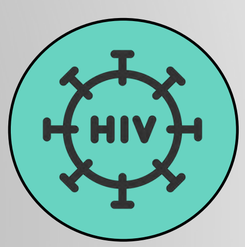



- **Non grave**

- **Itraconazole**

# L'histoplasmose disséminée grave

- Gravité « évidente »
  - Atteinte neuroméningée




*« may require extending induction therapy or increasing dosage »*

*« ART as soon as possible CNS involvement is not suspected or proven »*

*« The efficacy and duration of the required maintenance therapy is less clear »*

PAHO-WHO Guidelines 2020

- Syndrome d'activation lymphohistiocytaire
  - Histoplasmose = 1° cause chez le PVVIH

Duc Nguyen et al., *Front. Cell. Infect. Microbio* 2020

- **L-AmB**

# Évaluation de la gravité

CDC-NIH-HIVMA-IDSA
C. Benson et al, *MMWR Recomm Rep* 2004

**Grave**

- Fièvre >39°C
- PAS <90 mmHg
- PO2 <70 mmHg
- Amaigrissement >5%
- Karnofsky <70
- Albumine < 35g/L
- Coagulopathie
- Hb <10g/dL
- PNN <1G/L
- Plaquettes <100 G/L
- ASAT >2,5 N
- Bilirubinémie >2 N
- Créatininémie >2N
- Autre défaillance d'organe
- Méningite

PAHO-WHO
2020

**Modérément grave/grave**

- Insuffisance respiratoire ou circulatoire
- Signes neurologiques
- Défaillance rénale
- Anomalies de la coagulation
- Performance status OMS >2

**Légère / Modérée**

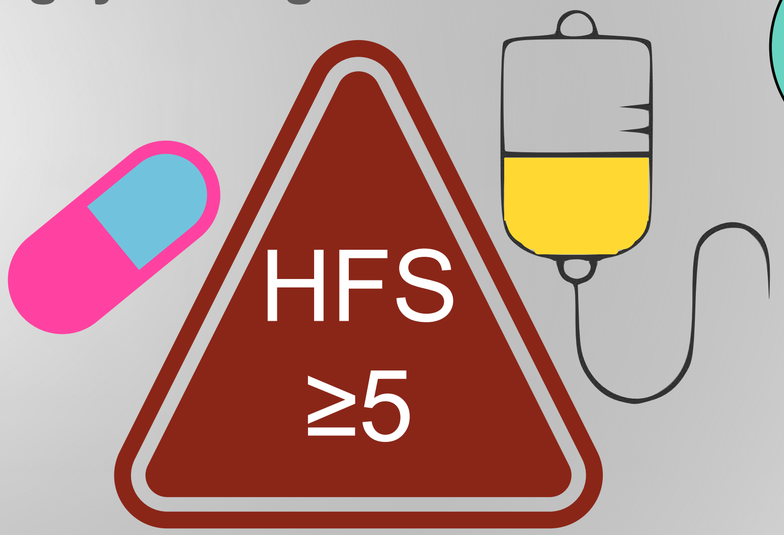
Aucun signe précédent

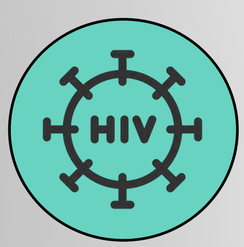
- **Peu pratiques**
- **Pas validées**
- **Peu reproductibles**

# Histoplasmosis case-Fatality Score

**AUC 0,91**
(IC95% : 0,88-0,94)

https://cicec-antilles-guyane.org/hfs


| |
|---|
| Se 84% (95%CI: 73-93) |
| Spe 81% (95%CI: 76-84) |
| PPV 40% (95%CI: 33-49) |
| **NPV 97%** (95%CI: 95-99) |

U. Françoise et al. *Int J Inf Dis* 2023

❖ **Validation externe en cours**

# Monodose d'Amphotéricine B Liposomale

## Single High-dose of Liposomal Amphotericin B in HIV/AIDS-related Disseminated Histoplasmosis: a Randomized Trial

Pasqualotto et al., 2023 | *Clinical Infectious Diseases*

IDSA Infectious Diseases Society of Amer

HIV

Liposomal amphotericin is the drug of choice for disseminated histoplasmosis, but access is limited due to the high costs of the conventional long regimens.

PARTICIPANTS: Adult people living with HIV, hospitalized and diagnosed with disseminated histoplasmosis, in six Brazilian tertiary medical centers.

**METHODS**

Prospective randomized multicenter open-label trial. Interventions: One or two-dose induction L-AmB therapy versus control (three arms), all followed by oral itraconazole therapy.

| | Single dose 10 mg/kg of L-AmB | ARR = +10.5% 95% CI [-7.7% - 28.7%] | 10 mg/kg of L-AmB on D1, and 5 mg/kg of L-AmB on D3 | ARR = -4.2% 95% CI [-24.8% - 16.3%] | 3 mg/kg of L-AmB daily for 2 weeks (control) |
|---|---|---|---|---|---|
| Clinical response at day 14 | 84.0% | | 69.0% | | 74.0% |
| Overall survival at day 14 | 89.0% | ARR = -2.6% 95% CI [-15.6% - 10.4%] | 78.0% | ARR = -13.7% 95% CI [-29.5% - 2.1%] | 89.7% |
| 1-year overall survival | 73.7% | | 65.8% | | 76.9% |
| Nephrotoxicity at day 14 (any AKI criteria) | 11.8% | | 26.7% | | 29.7% |

One day induction therapy with 10 mg/kg of L-AmB in AIDS-related histoplasmosis was safe. A phase III clinical trial is needed to confirm clinical response. A single-dose regimen would markedly reduce drug-acquisition costs and shorten and simplify treatment, which are key points in terms of increased access.

Clinical Infectious Diseases https://doi.org/10.1093/cid/ciad313

# Importance de la restauration immunitaire

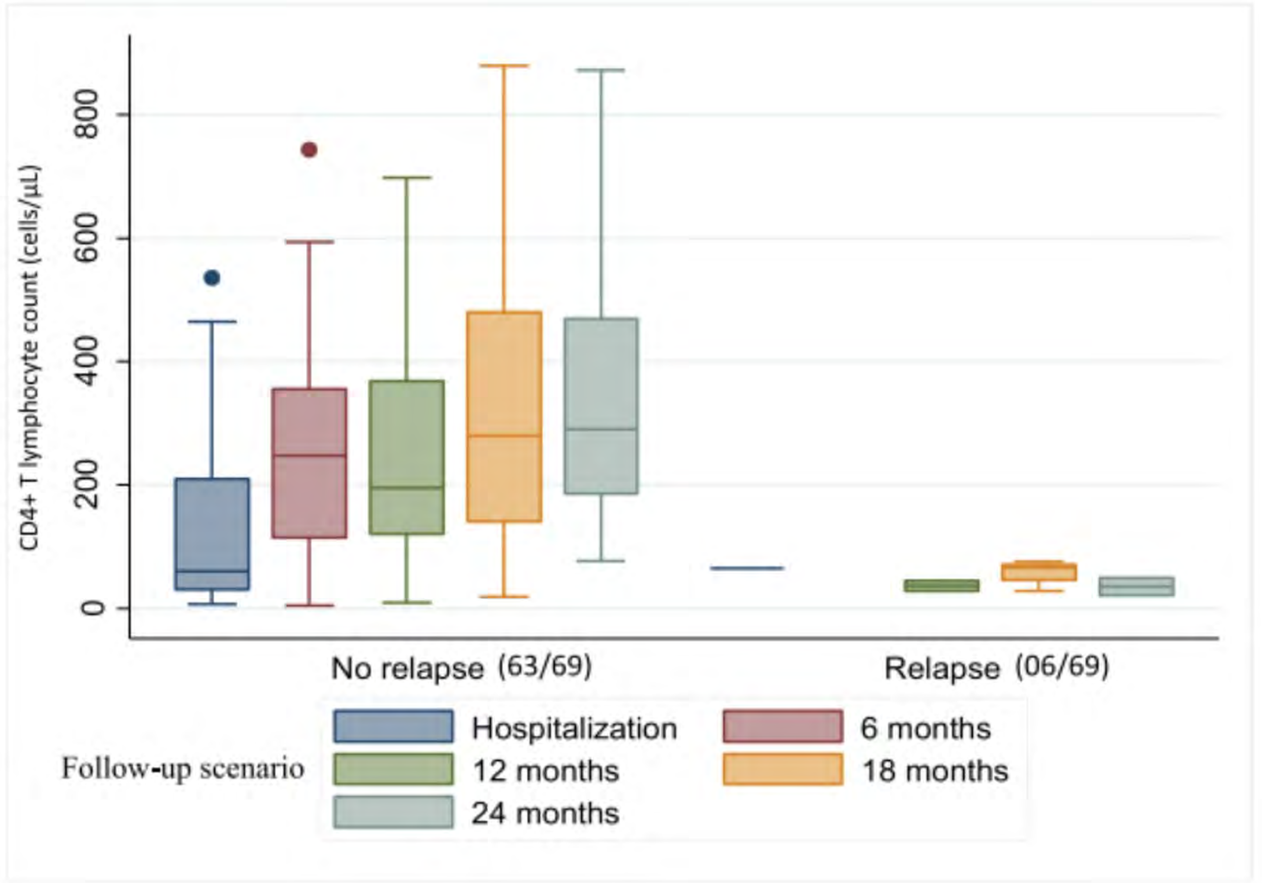



**Fig. 2.** Immune recovery *versus* fungal relapse in patients with disseminated histoplasmosis/AIDS coinfection followed up at the São José Hospital outpatient clinic during antifungal consolidation therapy, 2010–2015, Fortaleza/Ceará, Brazil.

Antônio Mauro Barros Almeida Júnior et al., *Journal of Medical Mycology* 2024

# Avancées diagnostiques et pronostiques de l'histoplasmose disséminée

## Les clés diagnostiques

- Y penser
- Bien prélever / Tout prélever
- Sensibiliser les biologistes
- Demander l'Ag *Histoplasma*

## Les clés thérapeutiques

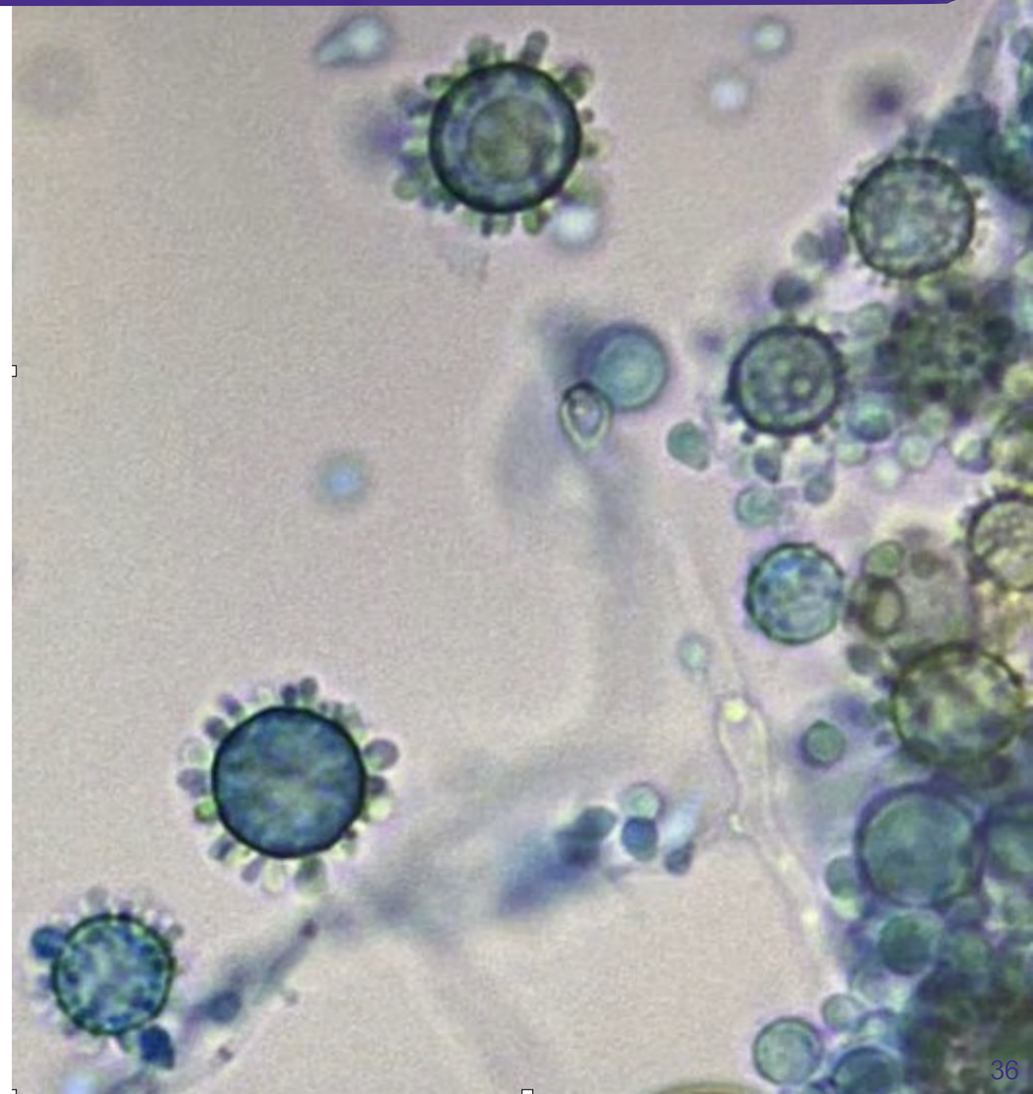
- Y penser
- Évaluer la gravité
- Traiter sans attendre
- Restaurer l'immunité

# Merci pour votre attention

## Session thématique Tropiques caraïbo-latino-américaines : nouvelles menaces infectieuses

Ugo FRANÇOISE

MIT — Hôpital Saint-Antoine
APHP / Sorbonne Université



# Méthodes diagnostiques conventionnelles

## ❖ Examen anatomopathologique

+ <7 jours ouvrés

+ Peu coûteux

- Prélèvements invasifs

- Qualité/quantité de prélèvement

- Colorations complexes/toxiques

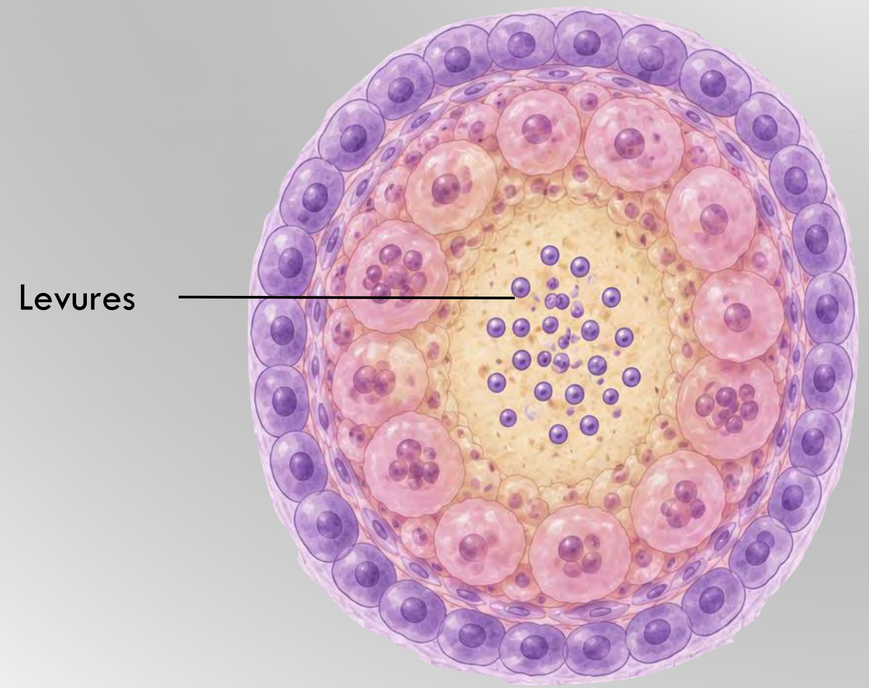
- Expérience du biologiste

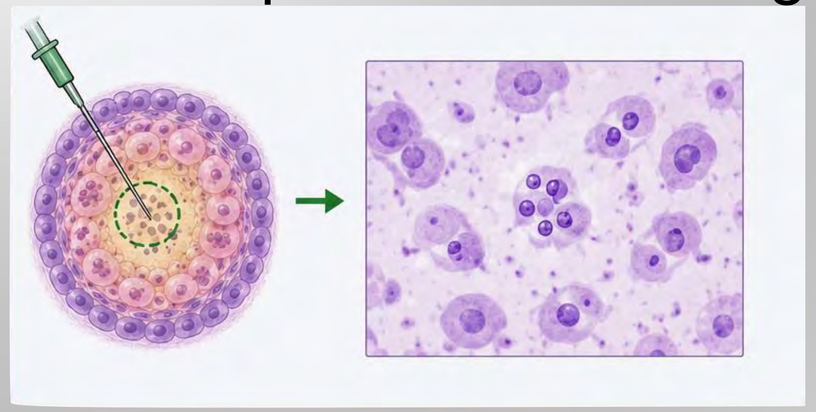
# Méthodes diagnostiques conventionnelles

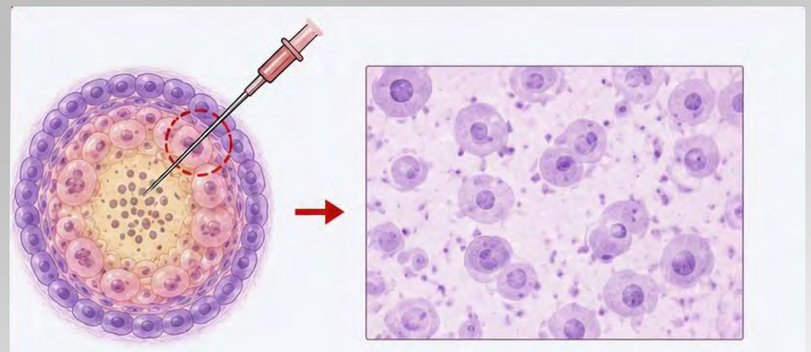
## ❖ Examen direct mycologique

+ Rapide <24h (jours ouvrés)
+ Peu coûteux

- Prélèvements invasifs
- Qualité/quantité de prélèvement
- Expérience du biologiste





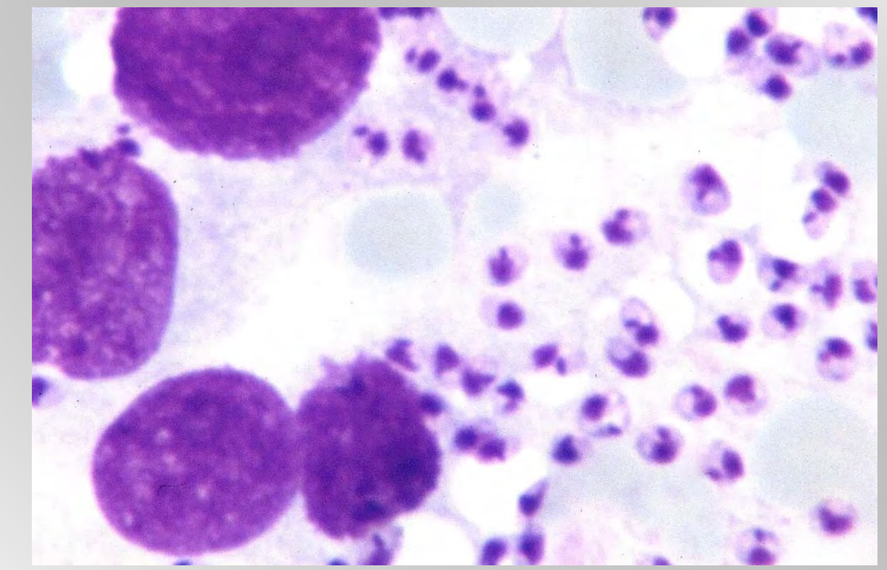
⚠ Faux négatifs

# Méthodes diagnostiques conventionnelles

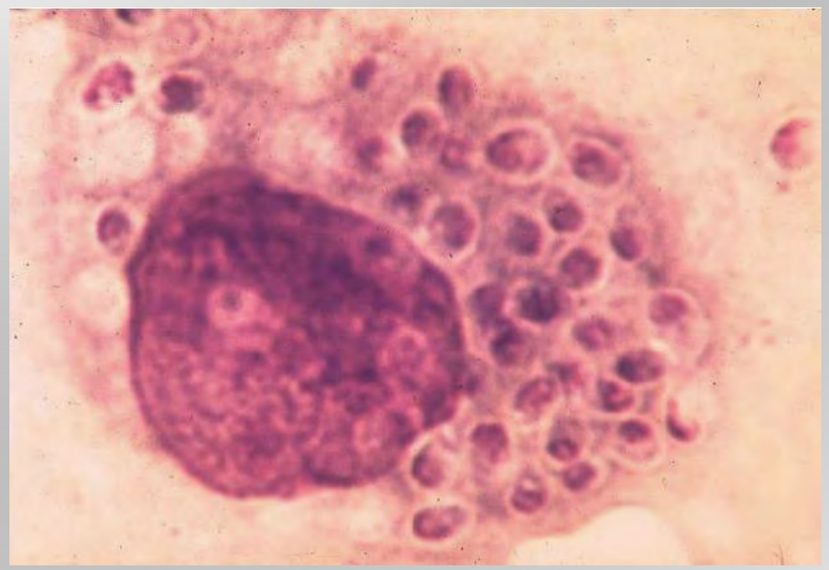
## ❖ Examen direct mycologique

+ Rapide <24h (jours ouvrés)
+ Peu coûteux

- Prélèvements invasifs
- Qualité/quantité de prélèvement
- Expérience du biologiste



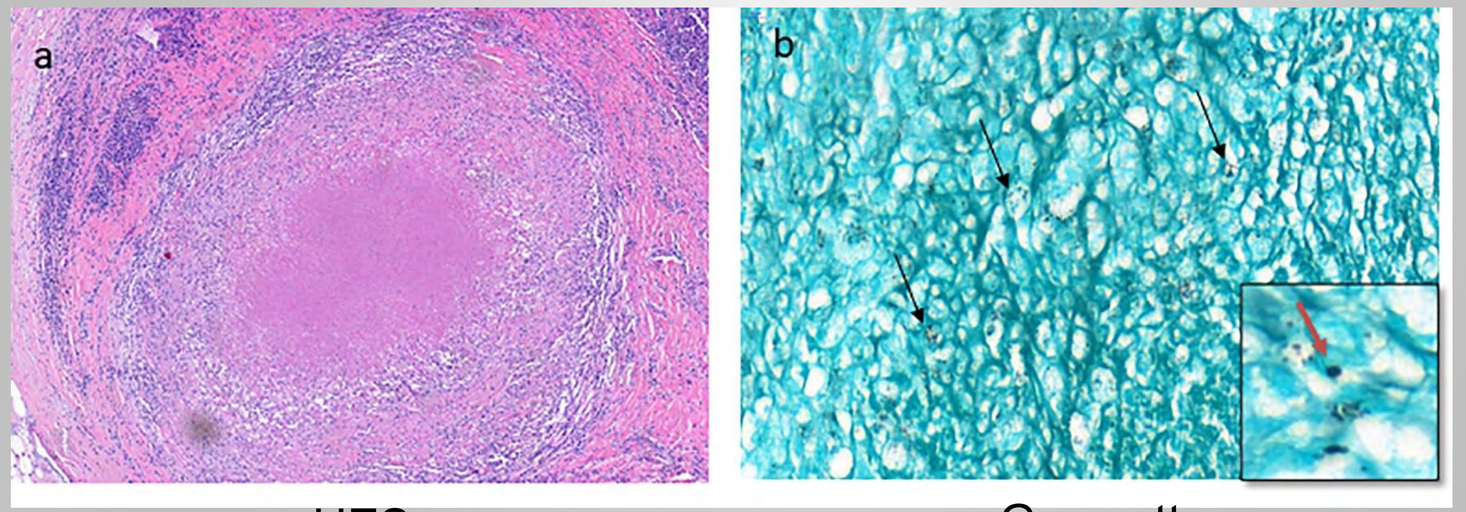
*Leshmania*

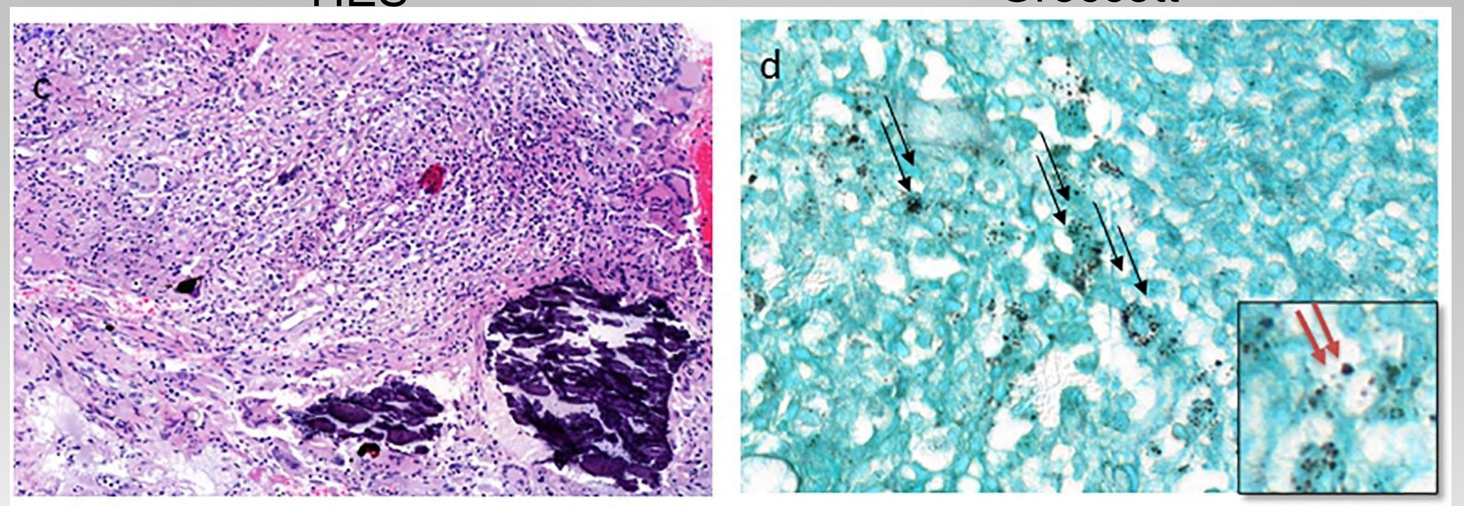


*Histoplasma*

# Méthodes diagnostiques conventionnelles

## ❖ Examen anatomopathologique




**(a)** Granulome ganglionnaire avec nécrose caséeuse

**(b)** Rares levures intracellulaires en périphérie

**(c)** Granulome bronchique non nécrotique

**(d)** Rares levures intracellulaires focales

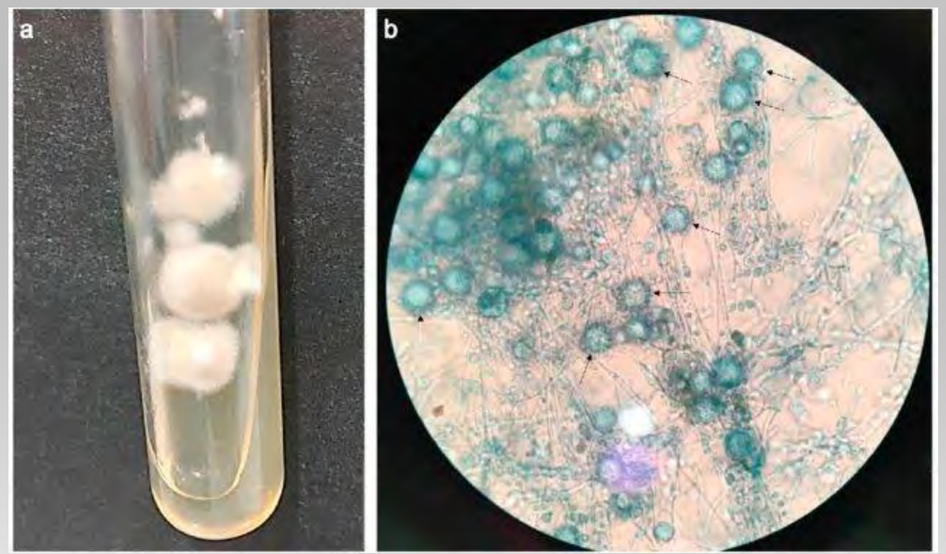
M. Drak Alsibai & al, Front. Cell. Infect. Microbiol., 2020

# Méthodes diagnostiques conventionnelles

+ Plus sensible

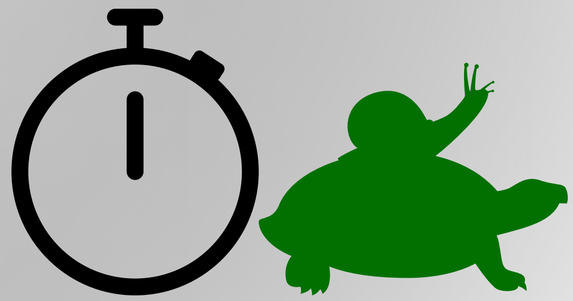
## ❖ Culture mycologique

- Prélèvements invasifs
- Qualité/quantité de prélèvement
- Laboratoire P3
- Prolongées : 2-8S (jusqu'à 12S)




37°C milieux riches

25°C Sabouraud



Scheel CM, Gómez BL. Curr Trop Med Rep. 2014

Lima da Silva Lomônaco et al, Med Mycol Case Rep 2020

# Traitement de la coinfection Histo-TB

Viewpoints

## Histoplasmosis or Tuberculosis in HIV-Infected Patients in the Amazon: What Should Be Treated First?

Mathieu Nacher[1,2]*, Antoine Adenis[1,2], Emilie Sambourg[2,3], Florence Huber[4], Philippe
Loïc Epelboin[2,5], Emilie Mosnier[5,6], Vincent Vantilcke[7], Julie Dufour[2,3], Félix Djossou[2]
Magalie Demar[2,8], Pierre Couppié[2,3]

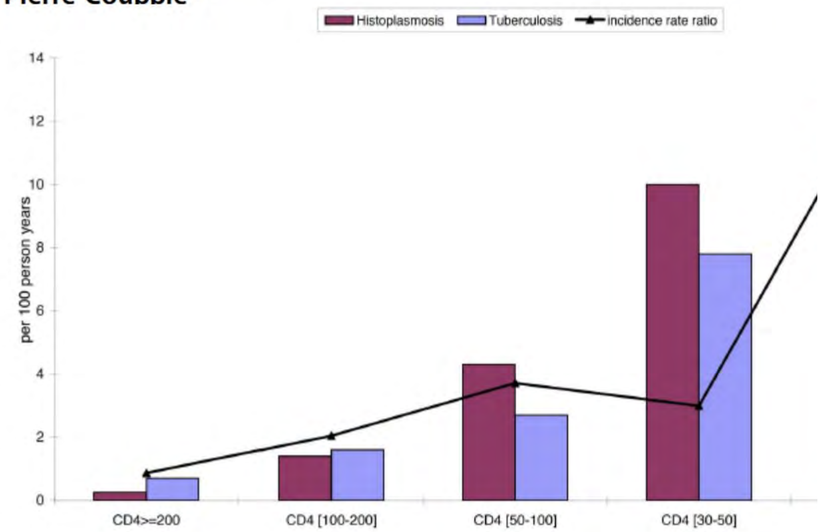



**Figure 1. Shows the incidence rate for tuberculosis and histoplasmosis for different CD4 strata.**
doi:10.1371/journal.pntd.0003290.g001

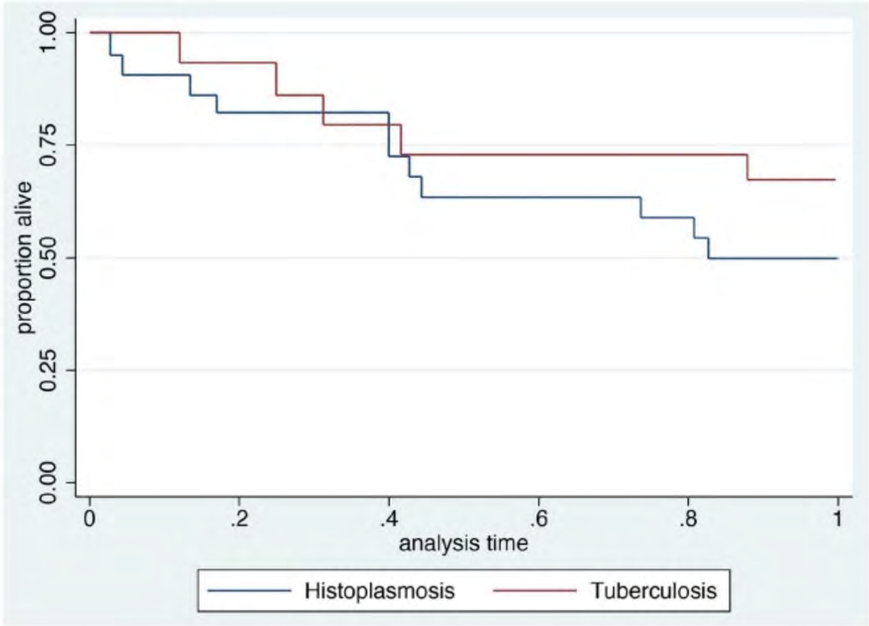



**Figure 2. Shows the incidence of death during the first year afer histoplasmosis or tuberculosis among patients with CD4 counts less than 200.**
doi:10.1371/journal.pntd.0003290.g002

# L’histoplasmose disséminée

## Immune reconstitution inflammatory syndrome

**22 cases from 1997-2017**

- **13 infectious IRIS**
- **9 paradoxal IRIS**

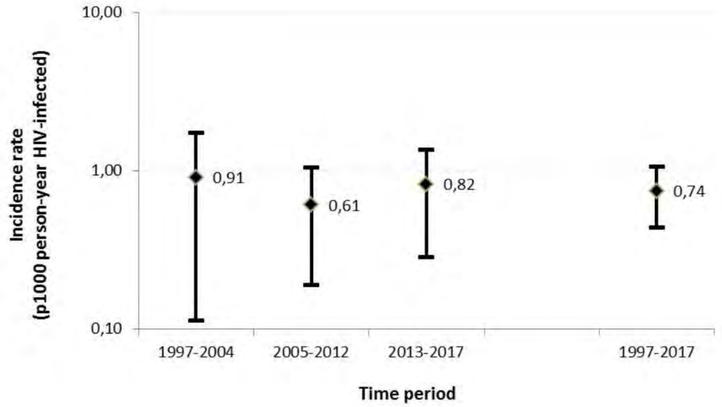
**No ART class dependance**

**High morbidity, No deaths**

**Similar to the 22 cases published**

**« Wait and see » attitude**

**ART and antifungals until clinical resolution**




*Melzani & al., CID, 2019*