

Practical challenges in the identification and management of histoplasmosis

Antonio Flores, MD, ID specialist

HIV/TB Programmatic Implementer

Southern Africa Medical Unit (SAMU), Médecins Sans Frontières/Doctors Without Borders

CDC/CHAI/Unitaid Advanced HIV Disease Global ECHO Webinar Series

9 December 2020



Session outline

- MSF and advanced HIV disease (AHD)
- AHD package of care
- Histoplasmosis presentation
- Challenges in diagnosis
- Challenges in treatment
- Summary

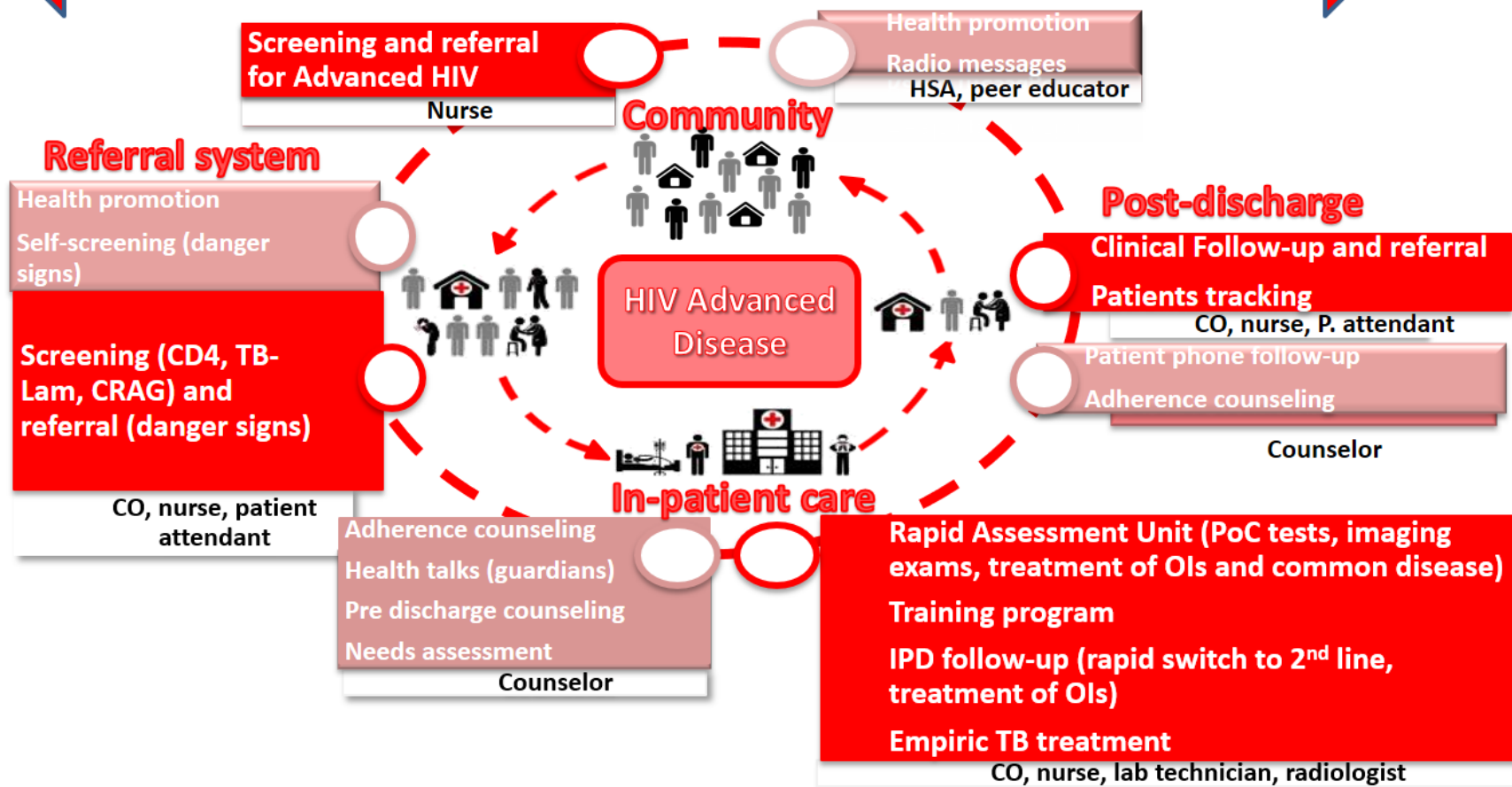
Advanced HIV coverage in MSF-supported programs



Advanced HIV: a public health approach

- Diagnose and treat main causes of morbidity and mortality
- Implement at all levels of care
- Non-specialist healthcare workers and task shifting
- Easy-to-use diagnostic tools, short turnaround time
- Same-day OI treatment initiation and safer drugs





Circle of care



Advanced HIV Disease screening package

We need a mix of CD4 testing tools to keep favorable costs

PIMA

25mins to result
2-3 samples per hour
\$6-10 per test (excl device)



BD FACSpresto

25mins to result
8-10 samples per hour
\$7.50 per test (excl device)



Omega Visitect CD4 LFA

40mins to result
\$3.90 per test



Storage requirements, training requirements & ease of use, time to results, additional materials, cost etc...

Alere Urine TB Lam (25mins to results; \$3.5 per test)



IMMY CrAg LFA (10mins to result; \$2 per test)



GeneXpert: HIV VL, MTB/Rif.

(Optional device for resourced bigger Health Centers)

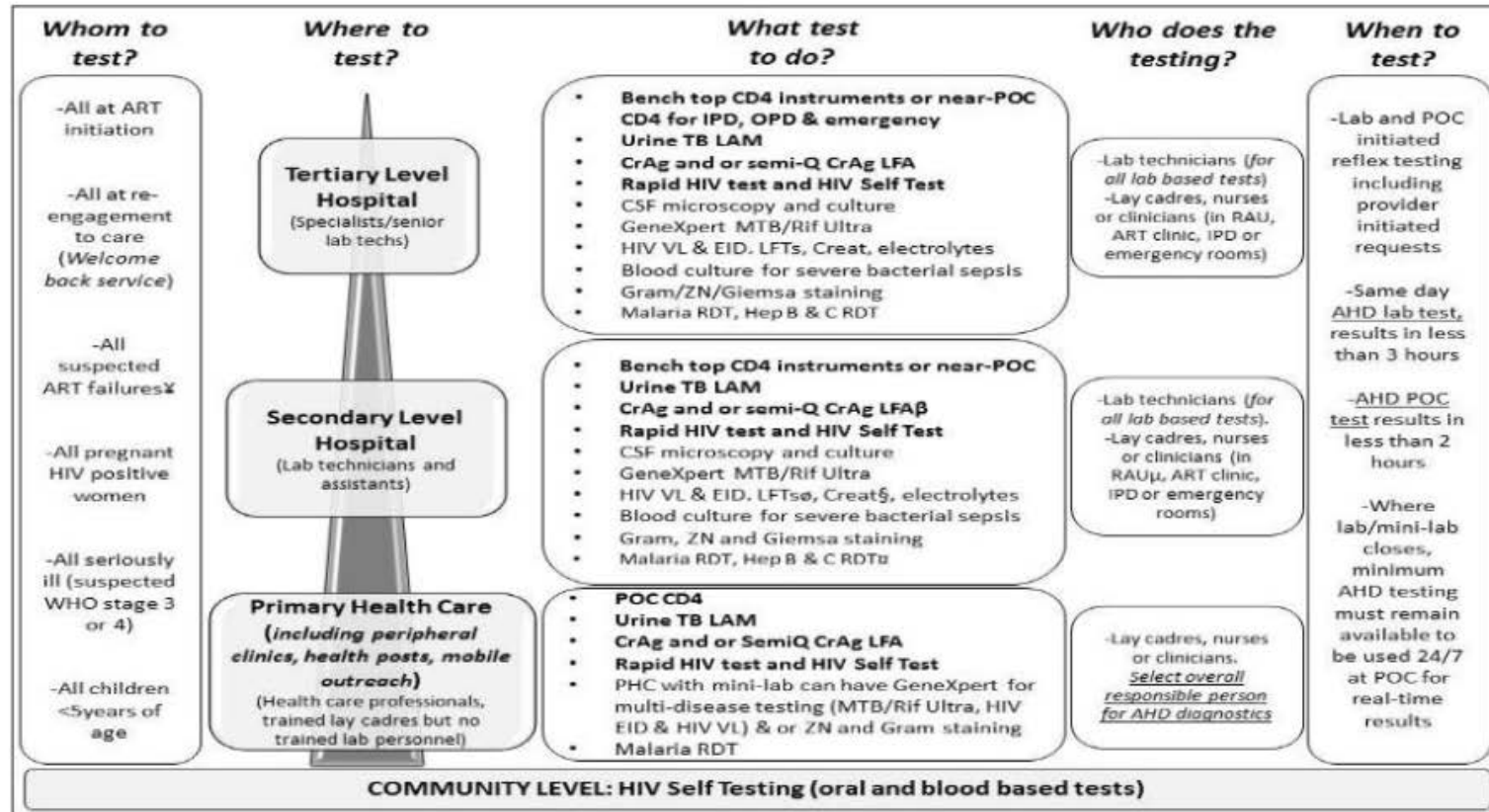
PLOS ONE

RESEARCH ARTICLE

Diagnostic performance and usability of the VISITECT CD4 semi-quantitative test for advanced HIV disease screening

Zibusiso Ndlovu^{1*}, Lamin Massaquoi², Ndim Eugene Bangwen³, John N. Batumba⁴

Framework for implementation of AHD diagnostic testing (MSF experience)



Lancet HIV 2020

Framework for the implementation of advanced HIV disease diagnostics in sub-Saharan Africa: programmatic perspectives



Zibusiso Ndlovu, Rosie Burton, Rosanna Stewart, Helen Bygrave, Teri Roberts, Emmanuel Fajardo, Anafi Mataka, Elisabeth Szumilin, Bernhard Kerschberger, Gilles Van Cutsem, Tom Ellman

A patient arrives in the emergency room...

Female, 31y

Living with HIV,
stopped ART

CD4 = 29

Weight loss >
10kg in 2mo

Fever x 3/52

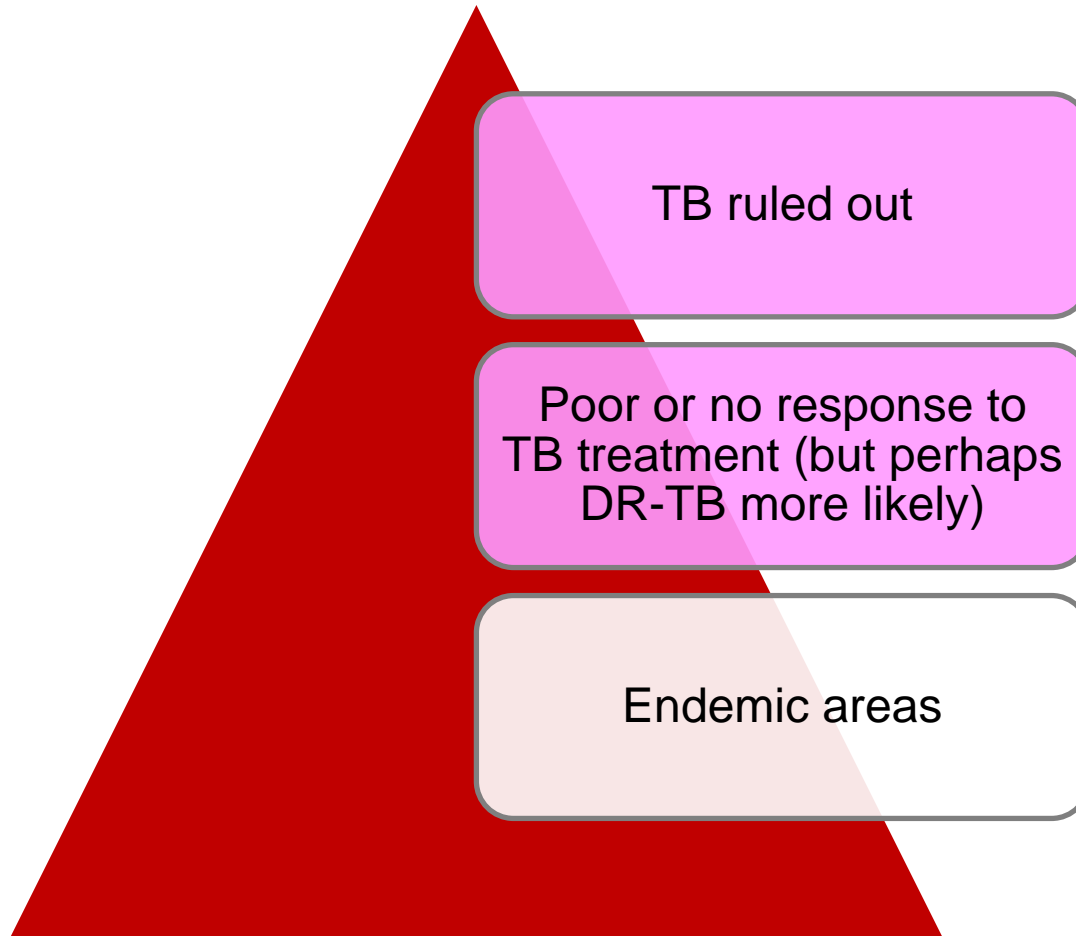
Multiple groin
ulcers

Fundoscopy
negative

TB LAM
negative (2x)

GeneXpert
negative (scanty
sputum)

When do we suspect histoplasmosis in AHD?



Histoplasmosis: a disease with unspecific presentation

Table 2. Findings on Clinical Examination, Diagnostic Imaging, and Laboratory Tests in PLWHA With or Without Probable/Proven Histoplasmosis at Study Inclusion

Clinical Manifestations	No Histoplasmosis (n = 447)	Probable/Proven Histoplasmosis (n = 123)	PValue
Weakness, No. (%)	374 (83.7)	111 (90.2)	.070
Anorexia, No. (%)	254 (56.8)	99 (80.5)	<.001
Night sweats, No. (%)	183 (40.9)	69 (56.1)	.003
Weight loss, No. (%)	336 (75.2)	112 (91.1)	<.001
Amount of weight loss, median [IQR], kg	10 [6–15]	10 [7–15]	.412
Time losing weight, median [IQR], d	60 [30–90]	60 [30–90]	.486
Dyspnea, No (%)	206 (46.1)	53 (43.1)	.555
Generalized lymph node enlargement, No. (%)	69 (15.4)	7 (5.7)	.005
Oral lesions, No. (%)	131 (29.3)	53 (43.1)	.004
Diarrhea, No (%)	149 (33.3)	40 (32.5)	.865
Splenomegaly, No. (%)	55 (12.3)	29 (23.6)	.002
Hepatomegaly, No. (%)	78 (17.5)	43 (35.0)	<.001
Skin lesions, No. (%)	114 (25.5)	48 (39.0)	.003
Papular rash, No. (%)	11 (2.5)	11 (8.9)	.001

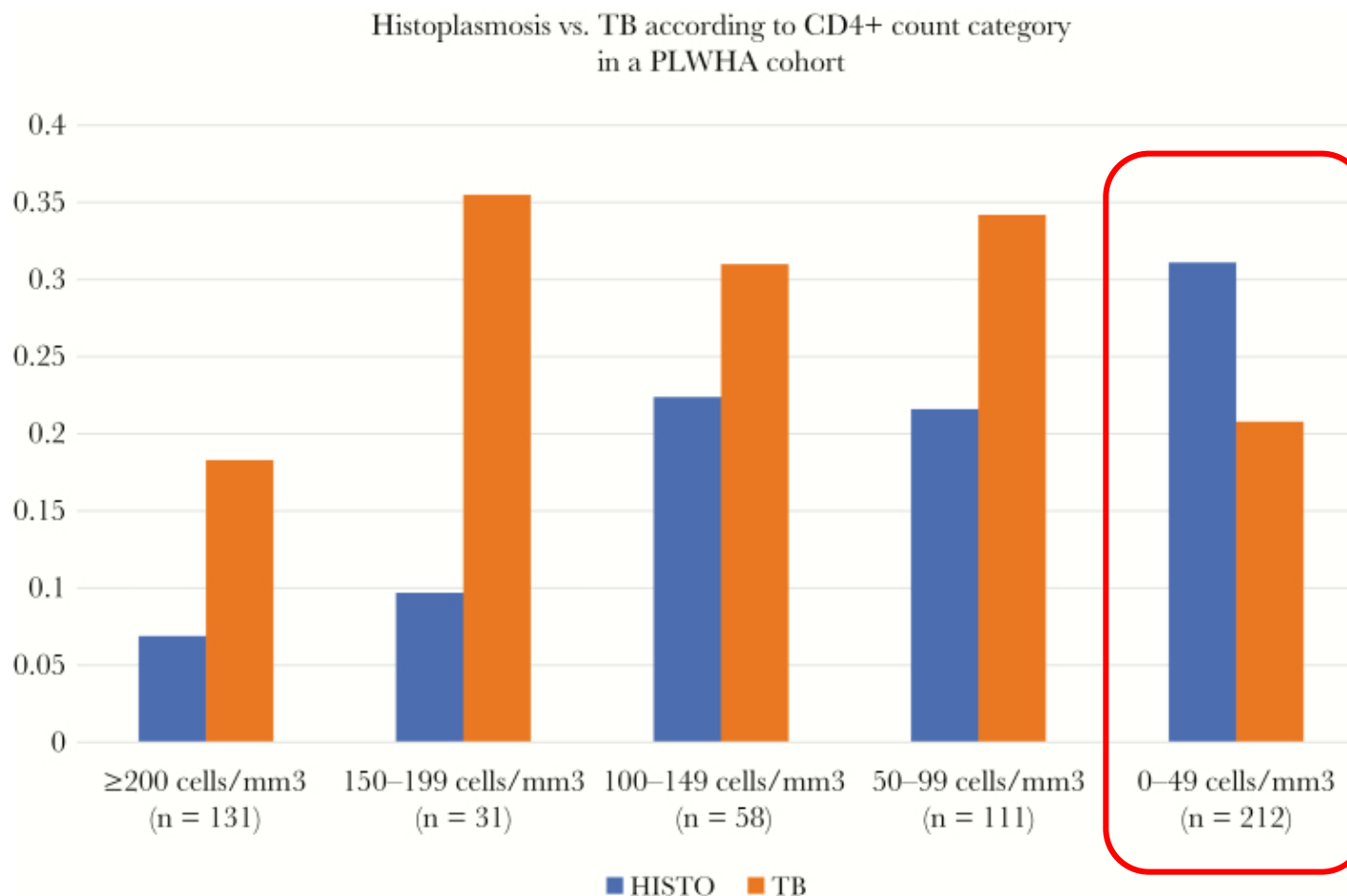
Falci DR, Monteiro AA, Braz Caurio CF, et al. Histoplasmosis, An Underdiagnosed Disease Affecting People Living With HIV/AIDS in Brazil: Results of a Multicenter Prospective Cohort Study Using Both Classical Mycology Tests and *Histoplasma* Urine Antigen Detection. *Open Forum Infect Dis*. 2019;6(4):ofz073. Published 2019 Apr 13. doi:10.1093/ofid/ofz073

Histoplasmosis: a disease with unspecific presentation



Archive: Dr Marineide Melo, Porto Alegre, Brazil

Histoplasmosis vs TB in Advanced HIV in Brazil



Falci DR, Monteiro AA, Braz Caurio CF, et al. Histoplasmosis, An Underdiagnosed Disease Affecting People Living With HIV/AIDS in Brazil: Results of a Multicenter Prospective Cohort Study Using Both Classical Mycology Tests and *Histoplasma* Urine Antigen Detection. *Open Forum Infect Dis.* 2019;6(4):ofz073. Published 2019 Apr 13. doi:10.1093/ofid/ofz073

Histoplasmosis: hard to diagnose

Actual
burden?

Lack of
diagnostic
capacity

“Burden of mycoses reflects distribution of mycologists”

Urine Antigen

Near point-of-care

Shorter turnaround time

More rapid treatment initiation



Treatment

Amphotericin B

- L-AmB: cost is a barrier

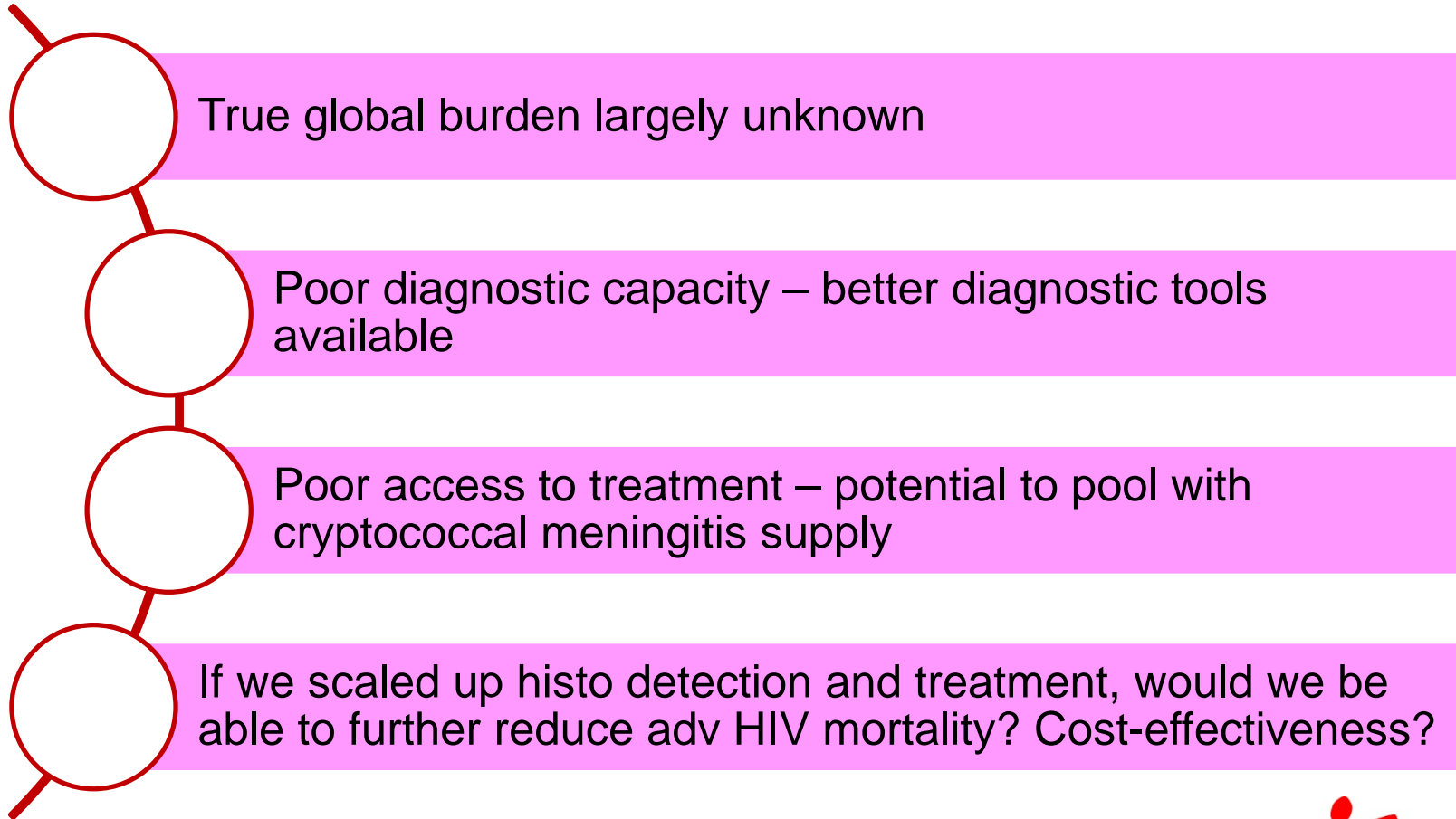
Itraconazole

- Not widely available
- Interaction with Rifampicin

Ongoing trial (ClinicalTrials.gov ID NCT04059770)

- Single-dose L-AmB
- L-AmB day 1 and day 3
- L-AmB x 14 days

Histoplasmosis in advanced HIV



Thank you

antonio.flores@joburg.msf.org

