

THE LANCET

Infectious Diseases

Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: Lakoh S, Kamudumuli PS, Penney ROS, et al. Diagnostic capacity for invasive fungal infections in advanced HIV disease in Africa: a continent-wide survey. *Lancet Infect Dis* 2022; published online Dec 21. [https://doi.org/10.1016/S1473-3099\(22\)00656-9](https://doi.org/10.1016/S1473-3099(22)00656-9).

Supplementary Appendix

Lakoh S et al. **Diagnostic capacity for invasive fungal infections in advanced HIV disease in Africa: a continent-wide survey**

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Table S1: Diagnostic tests and procedures surveyed and presented

Clinical procedures	Radiology	Mycology tests
Lumbar puncture	MRI scan	Direct microscopy of CSF (India Ink) * Fungal culture * Cryptococcal antigen test (CrAg) * <i>Histoplasma</i> antigen test * <i>Pneumocystis</i> PCR test * CD4 count (criteria and assay) *
* On the EDL (WHO Model List of Essential In Vitro Diagnostics) [25]		

Questionnaire administered

GLOBAL ACCESS TO DIAGNOSTICS FOR FUNGAL INFECTIONS



A questionnaire for Global Action for Fungal Infections (GAFFI)

This questionnaire seeks to learn about the different levels of access to both diagnostics and treatments for fungal infections for populations across the world, with the aim of building a comparative dataset and a publicly available interactive map.

If you have any queries or require more information, please contact Richard Penney at rpenney@gaffi.org

PART 1 - RESPONDENT

Country	
Date	
Name(s)	
Email address	
Role	
Which area does this response cover? (i.e. whole country, region, city or single facility?)	
- Name of facility and location (if applicable)	
Do you have a Biosafety Level 3 Lab in your country? (for work involving microbes which can cause serious and potentially lethal disease, e.g. TB, <i>Histoplasma capsulatum</i> , <i>Coccidioides immitis</i>)	
- If yes, do you have protocol for handling pathogenic fungi?	



PART 2 – WHO-RECOMMENDED ESSENTIAL DIAGNOSTICS

Classifications of access:

1. Not available anywhere,
2. Private centres,
3. Specialist/university centres,
4. District hospitals, or
5. Community health centres.

Classifications of regularity of treatment:

- A. Diagnostic is performed often,
- B. Diagnostic is performed occasionally, or
- C. Diagnostic is performed rarely.

Classifications of payment (list any that apply)

- W. Patient pays,
- X. Insurance pays,
- Y. Government/health service pays, or
- Z. A charity/foundation pays.

Instructions for table:

- Type a '#' into each box that applies to show where and how regularly each type of treatment is performed.
- If treatments are not performed often, please use the comments section to explain why (e.g. lack of equipment, broken equipment, lack of trained personnel, etc.)



WHO-RECOMMENDED ESSENTIAL DIAGNOSTIC	Where is the test done (1-5), and how often (A-C)? (#)												Who pays? (W-Z) List all that apply	Comments, including any reasons that treatments are not performed regularly	
	1 <i>Not at all</i>	2 <i>Private centres</i>			3 <i>Specialist/university centres</i>			4 <i>District hospitals</i>			5 <i>Community health centres</i>				
	-	A	B	C	A	B	C	A	B	C	A	B			C
Direct microscopy	CSF (India Ink)														
	Skin, hair & nails														
	Other (eg. urine, BAL, vaginal samples)														
	Blood culture														
	Histopathology (fungal stains)														
	Fungal culture														
	Cryptococcal antigen (CrAg)														
	<i>Histoplasma</i> antigen														
	<i>Aspergillus</i> antigen														
	<i>Aspergillus</i> antibody														
	<i>Pneumocystis</i> PCR														



PART 3 – CD4 COUNTS

(Type a “#” next to the answer that applies)

A. (i) Do you do CD4 counts on:	
1. Nearly all HIV patients	Yes #
2. Only new patients	No #
3. Only those with high viral load	No #
4. Those who are ill and /or admitted to hospital	Yes #
5. Almost never/never.	No #
A. (ii) Has the pattern changed recently?	

B. If you do CD4 counts, which assay:	
1. FACS analysis on site	Currently CD4 are not analysed in our country, only viral load is done
2. FACS analysis at centralised locations	CD4 are not analysed in our country, only viral load is done
3. Visitech CD4 350	CD4 are not analysed in our country, only viral load is done
4. Visitech 200	CD4 are not analysed in our country, only viral load is done



PART 4 – ESSENTIAL CLINICAL PROCEDURES

Classifications of access:

1. Not available anywhere,
2. Private centres,
3. Specialist/university centres,
4. District hospitals, or
5. Community health centres.

Classifications of regularity of treatment:

- A. Procedure is performed often,
- B. Procedure is performed occasionally, or
- C. Procedure is performed rarely.

Classifications of payment (list any that apply)

- W. Patient pays,
- X. Insurance pays,
- Y. Government/health service pays, or
- Z. A charity/foundation pays.

Instructions for table:

- Type a '#' into each box that applies to show where and how regularly each type of procedure is performed.
- If procedures are not performed often, please use the comments section to explain why (e.g. lack of equipment, broken equipment, lack of trained personnel, etc.)



ESSENTIAL CLINICAL PROCEDURE	Where is the procedure done (1-5), & how often (A-C)? (#)												Who pays? (W-Z) List all that apply	Comments (including any reasons that procedures are not performed regularly)	
	1 <i>Not at all</i>	2 <i>Private centres</i>			3 <i>Specialist/university centres</i>			4 <i>District hospitals</i>			5 <i>Community health centres</i>				
	-	A	B	C	A	B	C	A	B	C	A	B			C
Chest X-ray															
CT scan															
MRI scan															
Radiologist routinely reporting															
Bronchoscopy															
Spirometry															
Corneal scraping (only done by ophthalmologists)															
Lumbar puncture															
Skin Biopsy															



PART 5 – COSTS OF DIAGNOSTICS/PROCEDURES

CLINICAL PROCEDURE	APPROX COST (USD)
CXR + radiologist reporting fee	
CT + radiologist reporting fee	
MRI + radiologist reporting fee	
Skin biopsy procedure	
Bronchoscopy	
Spirometry	
Histopathology	
Blood culture	
direct microscopy	
CD4	

CLINICAL PROCEDURE	APPROX COST (USD)	



PART 6 – PLEASE COMMENT ON ANY OTHER FUNGAL DIAGNOSTICS YOU USE

PART 7 – ANY OTHER COMMENTS