

## **CRYPTOCOCCAL MENINGITIS DASHBOARD**

## Of the 690,000 people who died of AIDS in 2019, at an average age of death of 35 years, over 100,000 probably died of cryptococcal meningitis.

With speedy diagnosis and treatment with combination amphotericin B and flucytosine, over 70% of these meningitis deaths could be avoided, and bring the death toll down from over 100,000 to ~30,000. About 75% of cases of cryptococcal meningitis occur in Africa. Before meningitis, the fungus *Cryptococcus* circulates in the blood and antigen is detectable; the delay between this phase and meningitis developing is usually ~3 weeks, in AIDS.

This dashboard shows how close sub-Saharan African countries are to implementing all key aspects of public health policy and clinical practice for minimizing deaths from cryptococcal meningitis.

GAFFI has been tracking antifungal drug availability by country for many years and this is <u>displayed online</u>.

GAFFI has also conducted a comprehensive survey of fungal disease diagnostics across Africa. Lumbar puncture, cryptococcal antigen, microscopy and fungal culture are all critical to high quality care of patients with suspected meningitis. Imaging of the brain with MR scans is helpful for differential diagnosis.

The WHO has <u>published guidelines</u> for cryptococcal meningitis for many years, the last in 2018. Adoption of these guidelines in each country is important for procurement and public health planning. We have tracked this adoption process as well.

In May 2021, a global strategy to End Cryptococcal Meningitis Deaths by 2030 was launched, with a comprehensive guide to good practice at all levels of the health system.

GAFFi is indebted to its Ambassadors and many others for providing data and context to this dashboard.



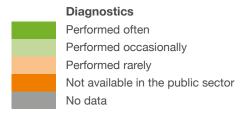
		4	South Africa	Rwarda	1intague	Botewara	Burking F 25°C	Mauritus	<sub>Marribia</sub>	Tartaria Republical
	Overall Country Score	10	9	8	7	7	7	7	7	
	Lumbar puncture									
tics	CSF microscopy/India Ink									
Diagnostics	Cryptococcal antigen									
Diag	Fungal culture									
	MRI brain scanning									
	Fluconazole									
ару	Amphotericin B	R	R	R	R	R	R	R	R	
Therapy	Liposomal amphotericin B									
	Flucytosine	R	R	R					R	
	Country CM guidelines (Year)	2016	2020	2016	2022	Unknown	Unknown	2019	2019	
no	Population (M)	59.3	12.9	14.8	2.4	21.4	1.4	2.7	62.1	
Population	AIDS/HIV prevalence (1000's)	7,800	220	1,300	370	97	14	210	1,700	
Рор	AIDS/HIV total (%)	13.2	1.7	8.8	15.4	0.5	1.0	7.8	2.7	







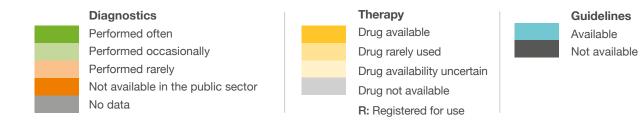
			Catedinate	Modambique	Mideria	Esmatirii	llganda (	Malawi	Burneti	Falling
	Overall Country Score	6	6	6	6	6	6	5	5	
	Lumbar puncture									
tics	CSF microscopy/India Ink									
Diagnosti	Cryptococcal antigen									
Diaç	Fungal culture									
	MRI brain scanning									
	Fluconazole									
ару	Amphotericin B	R	R	R	R	R	R	R	R	
Ther	Liposomal amphotericin B							R		
	Flucytosine				R		R			
	Country CM guidelines (Year)	Unknown	2014	2020	2022	2022	2022	Unknown	2018	
no	Population (M)	28.1	30.9	219.5	1.1	44.7	20.3	12.2	54.7	
Lumbar CSF mic Cryptoc Fungal c MRI bra Flucona Amphot Liposon Flucytos Country Populat AIDS/HI	AIDS/HIV prevalence (1000's)	380	2,100	1,700	200	1,400	990	83	1,400	
Рор	AIDS/HIV total (%)	1.4	6.8	0.8	18.0	3.1	4.9	0.7	2.6	



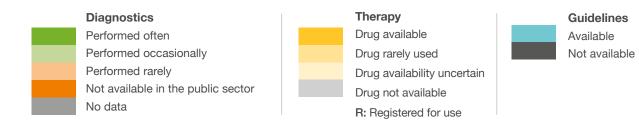




			1antia	sieraleone	Madadascat	Seregal	Barin	carteron		Cantral African
	Overall Country Score	5	4	4	3	3	3	3	3	
	Lumbar puncture									
tics	CSF microscopy/India Ink									
Diagnostics Cr Fu MI	Cryptococcal antigen									
Diaç	Fungal culture									
	MRI brain scanning									
	Fluconazole									
	Amphotericin B	R	R	R	R	R	R	R	R	
Therapy	Liposomal amphotericin B									
	Flucytosine							R		
	Country CM guidelines (Year)	2018	2020		Unknown	Unknown		2008		
no	Population (M)	19.1	6.8	27.5	16.1	13.3	28.5	110.9	5.4	
Population	AIDS/HIV prevalence (1000's)	1,500	80	42	39	75	500	620	88	
Рор	AIDS/HIV total (%)	7.9	1.2	0.2	0.2	0.6	1.8	0.6	1.6	



		Control trol	Congo di k	Eithea	Gantia	Cinaria	chad	Lasolino	Mali
Overall Country Score	3	3	3	3	3	3	3	3	3
Lumbar puncture									
CSF microscopy/India Ink									
CSF microscopy/India Ink Cryptococcal antigen Fungal culture									
Fungal culture									
MRI brain scanning									
Fluconazole									
Amphotericin B	R	R	R		R	R	Unknown	R	R
Amphotericin B  Liposomal amphotericin B									
Flucytosine					R				
Country CM guidelines (Year)	2017	2016			2019	Unknown	2016	2013	2014
Population (M)	105	5.4	6.1	2.2	32.4	17.4	2.2	20.1	4.1
AIDS/HIV prevalence (1000's)	510	110	13	27	350	110	280	110	8.5
Population (M)  AIDS/HIV prevalence (1000's)  AIDS/HIV total (%)	0.5	2.0	0.2	1.2	1.1	0.6	12.7	0.5	0.2



			Niget 😜	10 <sup>90</sup>	cator	Guinea	Wilder to	Runhard	Sonaliand	
	Overall Country Score	3	3	2	2	2	2	2		
	Lumbar puncture									
tics	CSF microscopy/India Ink									
Diagnostics	Cryptococcal antigen									
Diag	Fungal culture									
	MRI brain scanning									
	Fluconazole									
ару	Amphotericin B				R					
Therap	Liposomal amphotericin B							Not in Database		
	Flucytosine									
	Country CM guidelines (Year)	2009	2019	2014	2013	2014	2015	2015		
no	Population (M)	23.6	8.3	2.3	12.9	5.2	2.0	5.7		
Population	AIDS/HIV prevalence (1000's)	31	110	46	110	35	See Somalia	See Somalia		
Рор	AIDS/HIV total (%)	0.1	1.3	2.0	0.9	0.7	See Somalia	See Somalia		

