Appendix

Table A1: Details of studies reporting drug susceptibility/resistance of *C. neoformans*

Author	Year	Study design		Study period	Country	Level of care	Population description	Number of patients	Number of isolates	Samples collected from
Andrade-Silva et al. [45]	2013	LSS	SC	1998-2010	Brazil	Tertiary	AIDS patients	95	95	CSF Blood Urine Skin lesions
Bariao et al. [95]	2020	LSS	SC	2012-2017	Brazil	Tertiary	Patients who were hospitalised	72	72	Blood CSF
Bertout et al. [58]	2012	PCS	SC	Unclear	Cameroon	Unclear	HIV-positive patients with cryptococcal meningitis with no systemic treatment	23	114	CSF
Chen et al. [47]	2015	LSS	SC	Jan 2001 to Dec 2012	Taiwan	Tertiary	Patients with invasive cryptococcosis	93	89	CSF Blood
Chen et al. [46]	2018	LSS	MC	Jan 2016 - Nov 2017	China	Unclear	Patients hospitalized in Jiangxi hospitals	86	86	CSF Blood Hydrothorax Marrow
Chowdhary et al. [96]	2011	LSS	MC	2002-2009	India	Unclear	HIV patients	160	160	CSF Blood Sputum Urine Endotracheal secretion
Cogliati et al. [97]	2018	LSS	MC	1997-1999 2010-2016 2000-2009	Italy	Unclear	HIV+/- patients, 80% was HIV+	302	302	CSF Blood
Córdoba et al. [51]	2016	LSS	MC	2000-2014	Argentina	Tertiary	AIDS-associated CM patients	707	707	Unclear

de Oliveira et al. [98]	2017	LSS	MC	Unclear	Brazil	Unclear	Cryptococcosis patients attended medical centres located in the Midwest and Southeast regions of Brazil	83	58	CSF Blood
Espinel-Ingroff et al. [56]	2012	LSS & ECV determination	MC	Unclear	Europe United States Argentina Australia Brazil Canada Cuba India Mexico South Africa	Unspecified	Unclear	Unclear	6092	Various clinical isolates from patients' samples
Espinel-Ingroff et al [60]	2012	LSS & ECV determination	MC	Unclear	Europe United States Australia Brazil Canada India South Africa	Unclear	Unclear	Unclear	3590	Unclear
Espinel-Ingroff et al. [61]	2015	LSS & ECV determination	MC	Unclear	Unclear	Unclear	Unclear	Unclear	1308	Unclear
Fan et al. [57]	2016	LSS	MC	Aug 2009 - July 2014	China	Tertiary	Patients (one strain per patient) from the CHIF-NET study, a laboratory-based, national multicentre surveillance programme	305	305	CSF Blood Others
Gonzalez et al. [100]	2016	LSS	MC	Oct 1995 to Oct 2011	Mexico	Tertiary	Most of the isolates derived from patients had as a main risk factor an HIV-positive infection.	156	153	Unclear

Govender et al. [101]	2011	PBS	MC	March 2002 - Feb 2008 2002-2003 2007-2008	South Africa	Tertiary	Patients who had been diagnosed with the first episode of laboratory-confirmed cryptococcosis	1033 out of 8439 incident cryptococcosis met the selection criteria	487	CSF Blood Other
Tewari et al. [49]	2012	LSS	MC	Unclear	India	Tertiary	12 HIV+ patients 50 HIV- patients	62	62	CSF tracheal aspirate blood sputum
Gutch et al. [50]	2015	LSS	MC	Unclear	India	Unclear	HIV+ patients	9	58	Blood Urine Sputum CSF Environmental samples (n=54)
Hagen et al. [52]	2016	LSS	SC	1973-2013	Denmark	Tertiary	Unclear	Unclear	108	Unclear
Herkert et al. [53]	2018	LSS	MC	1987-2015	Brazil	Tertiary	HIV+ patients	197	219	Unclear
Hurtado et al. [70]	2019	AS	MC	Nov 2013 - Mar 2015	Brazil	Tertiary	284 deceased patients Cause of death assigned to a cryptococcal infection	284	8	CSF Blood
Kassi et al [66]	2016	LSS	MC	May 2012 - Sept 2014	Ivory Coast	Tertiary	Patients with HIV positive, and none of them received a systemic antifungal treatment	61	363	CSF
Mahabeer et al. [102]	2014	LSS	SC	Aug 2009 - March 2011	South Africa	Tertiary	Patients who were 18 years or older who had a positive cryptococcal antigen test on CSF were included in the	128	113	CSF

							study. All patients were naive to antifungal therapy and combination antiretroviral therapy at enrolment			
Mahabeer et al. [103]	2014	LSS	MC	Aug 2009 - March 2011	South Africa	Tertiary	HIV-infected patients (18 years or older) experiencing their first episode of CM	128	113	CSF
Mdodo et al. [35]	2011	LSS	MC	Aug 2008 - Mar 2009	Kenya	Tertiary	HIV positive patients from Kenyatta National Hospital and Mbagathi District Hospital in Nairobi Kenya	67	67	CSF
Naicker et al. [104]	2020	PCS	MC	2007-2008 Jan 2017 - Mar 2017	South Africa	Unclear	Patients with the first episode of culture-confirmed cryptococcal disease at 37 South African hospitals	2007-2008 (n = 249) 2017 (n = 204)	2007-2008 (n = 249) 2017 (n = 204)	CSF Blood Other
Nascimento et al. [105]	2017	LSS	SC	2000 - 2011	Brazil	Tertiary	Patients with CM	61	87	CSF
Nishikawa et al. [106]	2019	LSS	MC	1995-2006	Brazil	Tertiary	Patients from the Amazon region in northern Brazil	62	62	Unclear
Pan et al. [54]	2012	LSS	MC	Unclear	China Japan India Indonesia Thailand Kuwait Qatar	Tertiary	HIV-infected patients HIV negative patients Or unknown HIV patients	426	426	Unclear
Pfaller et al. [107]	2011	LSS	MC	1996 - 2008	Isolates obtained from the ARTEMIS and SENTRY	Unclear	Patients from 61 medical centres in 23 countries in the ARTEMIS (178 isolates) and SENTRY	285 (first collection) 986 (second collection)	285 (first collection) 986 (second collection)	Unspecified clinical isolates

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Prakash et al. [55]	2020	LSS	MC	2001 - 2014	India	Unclear	Patients from six hospitals in Delhi, Uttar Pradesh, Chandigarh, Himachal Pradesh, Kerala and Manipal representing states of north India, north-east, north-west and south India.	296	523	Unclear
Rakotoarivelo et al. [37]	2020	CSS	MC	Nov 2014 - Dec 2016	Madagascar	Tertiary	Consecutive HIV-infected adults presenting with CD4cellcounts ≤200/µl	129	13	CSF
Selb et al. [59]	2019	LSS	MC	2011-2017	Germany	Tertiary	Patients with cryptococcosis diagnosed in Germany	133	133	Unclear
Smith et al. [48]	2015	LSS	MC	2010 - 2014	Uganda	Tertiary	HIV infected and was presenting with his or her first episode of cryptococcal meningitis.	198	198	CSF

AS = Autopsy study; CSS = Cross sectional study; LSS = Lab surveillance study; MC = Multi-centre; PBS = Population-based surveillance; PCS = Prospective cohort study; RSC = Retrospective cohort study; SC = Single centre

Table A2: Studies reporting drug susceptibility/resistance of *C. gattii*

Author	Publication year	Study design		Study period	Country	Level of care	Population description	Number of isolates	Samples collected from
Espinel-Ingroff et al. [56]	2012	RCS	MC	Collection period not specified	15 to 24 laboratories (Europe, United States, Argentina, Australia, Brazil, Canada, Cuba, India, Mexico, and South Africa)	Tertiary	Patients with *C. gattii* infections	705 to 975	Various sites, from participating laboratories
Espinel-Ingroff et al. [60]	2012	RCS	MC	Collection period not specified	8 to 16 laboratories in Europe, the United States, Australia, Brazil, Canada, India, and South Africa	Tertiary	Patients with *C. gattii* infections	853 to 985	Various sites, from participating laboratories
Espinel-Ingroff et al. [61]	2015	RCS	MC	Collection period not specified	United States, India, Mexico, Netherlands	Tertiary	Patients with *C. gattii* infections	406	Various sites, from participating laboratories
Firacative et al. [63]	2016	RCS	MC	Collection period not specified	Australia (n = 1), Colombia (n = 37), Guatemala (n = 1), Mexico (n = 14), New Zealand (n = 1), Paraguay (n = 1), United States (n = 66) Venezuela (n = 1)	Unknown	Patients with *C. gattii* infections	122 (56 clinical)	Various sites, from participating laboratories
Lee et al. [64]	2019	RCS	MC	2008-2017	Australia	Unknown	Patients with cryptococcal infections	55	Various sites, from mycology collection
Lockhart et al. [62]	2012	RCS	MC	Collection period unknown (collection library)	United States Pacific Northwest (PNW), Other US regions, Botswana, South Africa, Australia, India	Unknown	Patients with *C. gattii* infections	298	Various sites, from participating laboratories

MC = Multi-centre; RCS = Retrospective cohort study

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