



LIFE Worldwide: Leading International Fungal Education



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News roundup

Histoplasmosis competes with TB as top killer of Latin American AIDS patients

Both acquired through the lungs, TB and histoplasmosis are both potentially fatal in advanced HIV disease. Antoine Adenis and colleagues from INSERM and Centre Hospitalier de Cayenne (French Guiana) have modeled the annual incidence of symptomatic HIV-associated histoplasmosis throughout central and South America: they estimated 6,710–15,657 cases led to 671–9,394 deaths during 2012. This compares with 5,062 deaths related to TB. The number of deaths from histoplasmosis was greater or similar to deaths from tuberculosis in five countries: Argentina, Belize, Costa Rica, El Salvador, and French Guiana.

- Read the paper: [Adenis et al \(2018\) Lancet Infect Dis. S1473-3099\(18\)30354-2](#) (and [appendices](#))
- Read commentary: [Pasqualotto et al \(2018\) Lancet Infect Dis. pii: S1473-3099\(18\)30373-6](#)

138 million suffer from recurrent vulvovaginal candidiasis, Lancet review reveals

Vulvovaginal candidiasis (VVC) infection – caused by overgrowth of *Candida* yeast – causes itching, irritation, discharge, soreness and damage to the skin. For many women it is a taboo subject, even though around 138 million women are affected, according to a Lancet review published by scientists at the University of Manchester.

“Thrush is often thought of as an embarrassing problem woman should accept, rather than a medical problem which needs to be dealt with.”

PREVALENCE: 75% of women develop thrush at least once in their lifetime and over 6% of women suffer from recurrent episodes. Chinese, Indian and U.S. women are the world’s most numerous sufferers of thrush at 29.1 million, 23.6 million and 9 million respectively, they find. Ghana, Saudi Arabia and Yemen, are the countries where the condition is the least prevalent. And 1.2 million women in the UK suffer from the condition.

RISK FACTORS: Thrush is a risk associated with menopausal women aged 55 and over, and women taking hormone replacement therapy and antibiotics.

- View [full press release](#), plus [global map](#) and [data table](#) for prevalence of VVC
- Read the paper: [Global burden of recurrent vulvovaginal candidiasis: a systematic review. Lancet infect Dis](#)

Is it TB or a fungal lung infection? New life saving guidelines released today

Up to 20% of TB diagnoses based on clinical signs alone are incorrect. A common missed diagnosis is fungal lung infection, particularly chronic pulmonary aspergillosis (CPA). [GAFFI](#) recently convened an expert international panel to develop a workable definition of CPA for resource-constrained countries where a CT scan may not be available. The criteria they drew up are as follows.

1 - Symptoms for 3 months or longer (haemoptysis and/or persistent cough, and/or weight loss) (other symptoms are common, but not required, notably fatigue, chest pain, breathlessness and sputum production)

AND

2 - Radiological features (progressive cavitation on chest imaging AND/OR intracavitary fungal ball AND/OR pleural thickening or pericavitary fibrosis or infiltrates all adjacent to cavities)

AND

3 - Microbiological evidence of Aspergillus infection (positive Aspergillus-specific IgG and/or sputum microscopy showing hyphae consistent with Aspergillus and/or Aspergillus growth on 2 or more sputum or other respiratory samples)

In addition the panel noted that TB and non-tuberculous mycobacterial infection should be ruled out with smear, GeneXpert and/or mycobacterial culture. It is possible for mycobacterial infection and CPA to be present concurrently, and further testing is required.

► Read the article: [Denning et al \(2018\) CPA case definition for LMICs](#)

Diagnostic tip: CD42b IHC stain for *Histoplasma*

There are currently no antibodies specific for *Histoplasma*, which makes diagnosis challenging.

While performing immunohistopathology on a biopsy of bone marrow infected with histoplasmosis, Ku and colleagues noticed that *H. capsulatum* expresses a cell surface marker called CD42b (glycoprotein Ib), which is normally used to identify megakaryocytes and the platelets they produce. Further characterisation is needed to show whether this antibody is suitable for development into new diagnostics.

► Find out more: [Ku et al \(2018\) Use of CD42b immunohistochemical stain for the detection of Histoplasma](#)

Section in the spotlight: Mycetoma

LIFE Worldwide has recently added a new section about mycetoma, adapted from the GAFFI factsheet on the subject. Mycetoma occurs when fungi or actinobacteria are implanted under the skin, for example when an outdoor worker treads on a thorn. Diagnosis is challenging because it can be caused by a wide variety of different organisms, which require different culture conditions. The degree of disability and disfigurement can be very high, and the response to treatment is often poor, leading to prolonged illness and complications such as sepsis or bone involvement. The [WHO has recently pledged](#) to support initiatives towards developing better diagnostics and medications for this condition, which was added to the WHO's list of neglected tropical diseases last year.

► [Go there now](#)

Courses and conferences

Antimicrobial Stewardship Research Workshop. 14-15 Nov (registration until 14 Nov). Maryland, USA. [Website](#).

Histoplasmosis in the Americas and the Caribbean, 2nd Meeting. 22-24 March. Manaus, Brazil. [Contact by email](#) or [complete this form](#).

Fungal Pathogen Genomics workshop. 7-12 May 2019 (application deadline 7 Feb). Cambridge, UK. [Website](#)

7th Global Network Forum on Infection and Immunity Fungal Infectious Diseases. 30 Nov-1 Dec. Chiba University, Japan. [Website](#).

Immunology of Fungal Infections (GRS). 12-13 Jan 2019. Texas, USA. [Website](#).

Resazolenet meeting on azole resistance in a One Health Perspective. 22-23 Jan 2019 (registration deadline 1 Dec). Oslo, Norway. [Website](#).

6th International Conference on Mycetoma. 15-17 Feb 2019. Khartoum, Sudan. [Website](#).

Or take our Moodle-based online course on fungal histology and microscopy at [Microfungi.net](#)

Featured LIFE video

Amphotericin B

Our [YouTube channel](#) now has over 30 free video lectures, with accompanying slide sets, podcasts and suggested reading available to download from the [LIFE website](#). Watch a lecture on amphotericin B by Dr Pippa Newton.

[Watch it now](#)

Really important review

Paediatric CRS

Chronic rhinosinusitis (CRS) is highly prevalent but the presence of multiple endotypes means diagnosis is challenging, especially in children who have anatomical differences to adults. This review covers the subtypes, differential diagnosis, underlying causes and management of paediatric CRS.

[Heath et al \(2018\)](#)

New book

Colour Atlas of Mycology

By Gordon Love and Julie Ribes. Based on 16 years' worth of proficiency testing results, this field guide addresses the morphological variations and contaminants that can confound or distract mycologists. Covers 111 species, verified by DNA sequencing. Costs \$180 (\$144 for CAP members)

[Buy it now](#)



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