

# FIDSSA Quarterly

Newsletter of the  
Federation of Infectious  
Diseases Societies of  
Southern Africa



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## *Candida auris*: the new superbug on the block

**SASCM** reports urgent need for local guidelines to manage infection caused by *Candida auris* in South African hospitals

*Candida auris* has recently emerged across the globe as a cause of invasive human infections with a crude mortality ranging from 33% to 72%. Over a thousand patients have had *C. auris* cultured from diagnostic specimens at public and private laboratories in South Africa, with most cases at hospitals in Johannesburg & Pretoria. A large proportion of these isolates were from normally-sterile site specimens (blood and central venous catheters (CVC). Wound sepsis and otitis have also been described.

Patients usually acquire the infection after hospitalization and possible risk factors may include diabetes mellitus, recent

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surgery and CVCs or urinary catheters *in situ*. It is postulated that *C. auris* might spread from colonized or infected patients or their immediate environment (into which the organism is shed) to other patients via the hands of healthcare workers or on fomites.

Of great concern is that this organism is usually resistant to fluconazole, which is the first-line antifungal agent used in many centres. Furthermore, recent global data indicate that more than 40% of isolates are resistant to two or more major classes of antifungals.

Unfortunately, the laboratory identification of *C. auris* is difficult employing routine methods. Using the API systems (bioMérieux, France), *C. auris* may be misidentified as *Rhodotorula glutinis*, with Auxacolor (Bio-Rad, USA) as *Saccharomyces cerevisiae* and with VITEK-2 YST and VITEK Mass Spectrometry (MS) systems (bioMérieux, France) as *Candida haemulonii*, *Candida sake* and *Candida famata*. A software upgrade for VITEK MS is immediately available which would alleviate the problem and the VITEK-2 YST database is expected to be upgraded early next year. MALDI Biotyper system (Bruker Corporation, USA) or molecular methods reliably identify this organism.

Although breakpoints have not been established for *C. auris*, antifungal susceptibility testing should be performed on clinically significant isolates to guide patient therapy. Echinocandins may be used as empiric therapy with amphotericin B as an alternative agent in the public-sector, until full susceptibility results are available.

Infection prevention and control measures include isolation or cohorting of patients, standard contact precautions and environmental decontamination with a chlorine-releasing solution.

*C. auris* is likely to be a major pathogen causing infections in all hospitals. Clinical, laboratory and infection prevention and control consensus guidelines for SA hospitals are urgently needed with the involvement of major stakeholders from NICD, SASCM, ICSSA, private and public hospitals, private and NHLS laboratories, and ICU physicians. SASCM will endorse the speedy development and implementation of these guidelines over the coming months.



We conclude this year with increased concerns on the spread of multi-drug resistant organisms in hospitals with one of the unexpected and the latest concern being *Candida auris*.

Infection Prevention and Control recommendations are:

Appropriate infection prevention and control measures:

- Bare-below-the-elbows policy must be enforced for all healthcare personnel
- Scrupulous hand hygiene
- Standard precautions
- Isolation of all patients colonized or infected with *C. auris* in a single room with en suite facilities wherever possible

- Use of contact precautions (gloves and aprons) if risk of soiling with blood/body fluids.
- Brief visitors about the importance of hand hygiene & the use of protective aprons is advised
- A hypochlorite solution should be used for disinfection of the environment, at a strength of 1000 ppm available chlorine (i.e. higher than that routinely used) – both for routine terminal cleaning and disinfection.
- Terminal cleaning of the bed space must be performed after the patient has left, preferably using hydrogen peroxide vapour where feasible.
- Particular attention must be paid to cleaning of multiple-use equipment (e.g. BP cuffs, thermometers, computers/equipment on wheels, ultrasound machines) from the bed space of patients with *C. auris*.
- If the patient needs to go to theatre or radiology etc., they should be scheduled last on the list for the day and the environment cleaned as described above (i.e. using hypochlorite solution at a strength of 1000 ppm available chlorine).
- Waste and linen disposal procedures as routine for other multidrug-resistant organisms.
- Alerting wards /other hospitals on transfer of a patient with *C. auris*.
- *C. auris* colonisation is difficult to eradicate and patients can remain colonized for prolonged periods, so may continue to pose a risk for transmission.

Last month we interviewed the new Chair of the Gauteng Infection Control Society (GICS) and reported back on their plans going forward. This quarter we interviewed Yolanda van Zyl, Chairperson of the Western Cape Society.

“We have had a successful year with the support of my team, including Vida Morris (treasurer) and Michelle Osborne (Secretary). We kicked off with our first meeting on the 25th February at the Red Cross Hospital with the theme: “Outbreak management and reporting”. Speakers included Professor Mehtar and Doctor Dramowski, who spoke to us about the management of outbreaks. RN B Rhode (Melomed) and RN V Morris (Groote Schuur Hospital) also shared their experiences with outbreaks at their institutions.

On the 26<sup>th</sup> May we held our second meeting at Ampath Laboratories with the topic “IPC Challenges in ICU”. Dr W Kleintjies from Tygerberg Hospital and Dr J Van Wyk from Ampath shared their knowledge on the subject.

Then, on the 25<sup>th</sup> August we had our third meeting at Karl Bremer Hospital with the topic: “Infection Control in Emergency Services (EMS) and Air Mercy Services (AMS)”. We had speakers from public and private ambulance services. We were very enlightened regarding the challenges that they have and how they try to maintain IPC principles. We were all ready to go and offer them our services in training and support when we realized how fortunate we are all working in structured healthcare facilities compared to being out there, “on the road”.

Our final meeting took place on 22<sup>nd</sup> November and the meeting was dedicated to the annual AGM and feedback from the ICAN conference. The society partially sponsored (conference fees) three WCIS members to attend the ICAN conference from the 25-28 September 2016 in Johannesburg”.

### SAPA 2016 Fathima Naby, Paediatric ID specialist, KZN

The biennial South African Paediatric Association and South African Association of Paediatric surgeons (SAPA/SAAPS) conference was hosted in the coastal city of eThekweni (Durban) from the 1-4 September 2016. The program constituted of an array of multi-disciplinary scientific workshops on the 31 August 2016, which was well attended.



“Infection Prevention and Control (IPC) and Antibiotic Stewardship” was the title of the Southern African Paediatric Infectious Disease Society (SASPID) workshop with the three sessions chaired by Prof Nicolette du Plessis, Dr Melissa Lawler and Dr Mo Archary.

Prof du Plessis set the stage, by opening the session with an interactive case discussion. Dr Angela Dramowski (Stellenbosch) presented a South African perspective on Health-care associated infections with a practical guideline for clinicians to investigate and manage HAI in busy paediatric units such as ICU/NICUs. Paediatric data show an increase in multidrug-resistant HAIs, emphasizing the importance of implementing and maintaining IPC practices in paediatric services. A microbiologist perspective on strategies to prevent MDR organism spread and decreasing antimicrobial resistance in HAIs was presented by local KZN experts Prof Moodley and Dr C Govind.

Part of IPC practice is appropriate and prompt outbreak investigation and management. An approach to a patient with suspected HAI (Dr Fathima Naby, Pietermaritzburg), practical outbreak investigation (Dr Angela Dramowski) and ethics of outbreak reporting (Prof Nicolette du Plessis) were covered in this session. The final session highlighted important factors when deciding about the duration of antibiotic therapy (Dr Ute Hallbauer) and utilizing therapeutic drug monitoring in Paediatric practice. Dr Ramsamy, a microbiologist from Prince Mshiyeni Hospital put into perspective the role of the microbiology laboratory in HAI. Prof Nicolette du Plessis and Dr Melissa Lawler addressed the challenges in paediatric antimicrobial stewardship and put a proposal forward of where to start with antibiotic stewardship in the South African context.

### Thoughts about 2016...(Nicolette du Plessis)

SASPID would like to welcome all newly qualified paediatric ID specialist in 2016 and wish all current fellows the best of luck with their studies. We are encouraged by the increasing paediatric ID expertise in SA.

Paediatric IPC and antimicrobial stewardship are important focus areas that the executive members have identified and will support in the future. This focus area will also be at the African Society of Paediatric Infectious Diseases (AfSPID) meetings.

SASPID members continue to be authorities in the fields of HIV management of newborns, HIV in adolescence, new TB drugs and treatment duration and vaccine-preventable diseases.





## STDSSA Report on Bacterial vaginosis

Contribution: Rudzani Mathebula: FELTP Resident Student- STI Unit –NICD

Bacterial vaginosis (BV) is a vaginal infection that occurs when there is overgrowth of anaerobic related organisms such as *Gardnerella vaginalis*, *Atopobium* spp, *Prevotella* spp, *Mycoplasma* spp and *Mobiluncus* spp in the vagina.<sup>1</sup> The overgrowth of these organisms replaces lactobacilli and increases the pH of the vagina.<sup>2</sup> Risk factors that are associated with BV include young age, multiple sex partners, a new sexual partner, perfumed soaps, douching, smoking and IUD as contraceptive.<sup>3</sup> Approximately 50% of women who present with BV are asymptomatic and therefore do not show any symptoms of the infection.<sup>4</sup> The other half with symptoms of BV presents with increased discharge and a fishy odor.<sup>1</sup>

BV is curable with syndromic management however, it often develops into a recurrent disease.<sup>3</sup> Trial studies conducted on the effectiveness of metronidazole report a cure rate of 80% to 90% in the first month, and recurrence rates of 30% at 3 months and 50% at 12 months.<sup>1,3</sup> It is assumed that recurrent infection of BV occurs towards menstruation where the vaginal PH level is high and oestrogen is low.<sup>3</sup> Recurrent infection of BV is associated with serious risks which may include preterm labour, sexually transmitted infections (STIs) such as gonorrhoea or chlamydia, human immunodeficiency virus (HIV) and pelvic inflammatory disease (PID).<sup>4,5</sup> A cohort study conducted in Uganda found recurrent episodes of BV at 58% after treatment with metronidazole which suggest prolonged period of infectiousness which increase susceptibility to STIs and HIV.<sup>5</sup>

The management of recurrent BV is difficult because the aetiology and transmission of the disease is poorly unknown.<sup>2,3,4</sup> Furthermore, there is no optimal management strategy exclusive for recurrent BV. Even treatment of a sexual partner demonstrated no benefit in the reduction of recurrent infection among women.<sup>2</sup> The South African treatment guidelines of STI advocate the use of a single dose of metronidazole however doesn't provide treatment option for recurrent BV. Some studies suggest a simultaneous treatment of probiotic together with metronidazole gel to be effective in the management of recurrent BV compared to just metronidazole alone.<sup>6</sup> However, further clinical trials into the usefulness of this approach are needed. In the meantime, behavioural change and proper health education about STIs should be encouraged at health facilities to ensure women understand the risks and how to prevent further complications. Focused efforts are required to improve the management of BV to prevent STIs and HIV in South Africa.

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## SASTM News

### Travel Health Africa: the boiling point?

SASTM was the proud host of the 7<sup>th</sup> Regional Conference of the International Society of Travel medicine held at the Boardwalk, Port Elizabeth in September. National and international delegates were privileged to attend outstanding presentations given by local and international speakers. Not only were infectious diseases discussed but other topics covered included the traveller with disabilities, the traveller with end-stage disease, the caveats of travel insurance, toward rabies elimination in Africa and the “Third Culture Kid”.

Professor Michael Muehlenbein from the United States convened an excellent symposium on One Health which is the first time that such a topic has been included in a SASTM Congress. Such was the interest that a One Health Special Interest Group has been formed within SASTM.

It was an exhilarating and inspirational meeting of 250 colleagues.

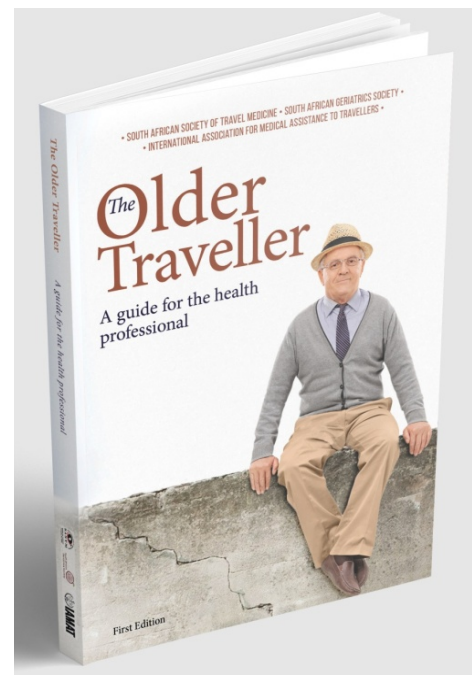
### The Older Traveller – a guide for the health professional

*Eighty is the new sixty! People are ageing more successfully and remain physically and mentally active for longer.*

SASTM, in collaboration with the South African Geriatric Society (SAGS) and the International Association for Medical Assistance to Travellers (IAMAT [www.iamat.org](http://www.iamat.org)) has recently published “The Older Traveller – a guide for the health professional”.

This Guide provides clinicians advice on health issues encountered by older travellers and practical information on how to counsel older persons for travel. Chapters include the physiology of ageing, prescribing for the elderly, immunosenescence, venous thrombo-embolism, yellow fever vaccination in the elderly, chronic disease and the older traveler, travelling with dementia, and more.

For further information and to order a copy, visit [www.sastm.org.za](http://www.sastm.org.za)





### **Strengthening Health Systems & capacity to diagnose and manage TB and ART Failure – experience from KZN**

The advanced clinical care (ACC) programme has established 5 toll-free helplines were established to facilitate timely up referrals for complex TB and HIV patients and provide specialist clinical support and advice to health facilities. The purpose of the toll-free helplines is to strengthen referral pathways and enhance directed mentorship and support for clinical decision making. The helplines provide assistance with immediate advice for the diagnosis and management of complicated HIV-TB cases as well as facilitate

timeous referral of patients to the most appropriate referral site by bridging the communication gap between specialists and primary care and district level healthcare providers.

The MDR TB booking line, is the most popular and busiest of the helplines. This helpline reduced waiting times for referral to King Dinuzulu Hospital from 6 weeks to 7 days. Additionally, there has been significant uptake of the newly introduced Adult Infectious Diseases Helpline

The number of decentralized treatment sites for drug resistance(DR) TB services increased from four to 19 sites in KZN. This was completed through a program of activities that included mentorship outreach support by expert DR TB treatment doctors, implementation of a toll free health care worker helpline, a clinic booking line, clinician and nurse mentorship and support, multidisciplinary training of all health care workers managing DR TB and HIV co-infection at decentralized and satellite sites.

ACC Trainings are CPD (continuing professional development) accredited by the University of KwaZulu-Natal and serves as an incentive for HCWs to attend trainings. A total of 423 Doctors, 200 Pharmacists, 365 Nurses, 33 Program Managers and 39 other staff categories received Advanced Clinical Care training in HIV and TB Drug Resistance and Complex HIV disease management.

Health systems strengthening to improve viral load suppression rates and triage of patients with complicated patients is ongoing with the aim was to improve timeous detection and access to second and third line ART in the province.

In other news from KZN: Dr Jade Mogam berry has relocated to Ngwelazana as of the 1 November 2016. She has joined Dr Thandi Manzini (infectious diseases specialist physician). This will enable further development of an Internal Medicine and infectious diseases services in Northern Kwazulu Natal.

Finally, **CONGRATULATIONS** to **Dr Arifa Parker** of Tygerberg Hospital, who passed Cert ID(SA)Phys and becomes South Africa's newest ID Specialist!



# fidssa

federation of infectious diseases  
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## AND FINALLY

The end of another year, gives time to pause and say thank you to all the contributors to our FIDSSA Quarterly newsletter. It is wonderful to hear more voices than before, and we would like to encourage all members to be active in the federation and its societies so as to share the workload and to gain fresh opinions and perspectives.

We wish you and your families a very happy festive season ahead and hope that you get some R&R so that 2017 will be a bumper year for you all!

The FIDSSA Team

