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FIDSSA Quarterly

Newsletter of the Federation of Infectious Diseases Societies of Southern Africa

Contents

REGISTER NOW for the 7th FIDSSA conference, Cape Town

It's time to get your abstracts ready for the 7th biennial FIDSSA conference, which this year will take place at the new Century City Conference Centre in Cape Town between 7-9 November 2017. All details can be found at (**http://www.fidssa.co.za/Congress2017)** including registration and abstract submission details. **The abstract submission deadline of 31st July 2017 will NOT be extended**, so don't lose the opportunity to qualify for the R10,000 first prize for best oral presentation and R5000 for best poster.

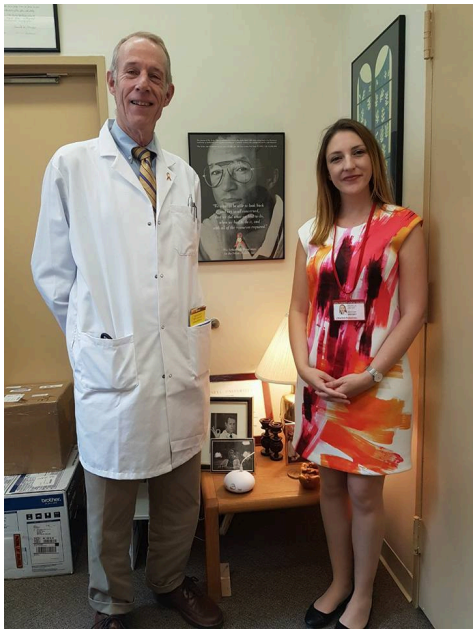
Arthur Ashe Observership Programme: Dr Michelle Venter

In 1968 Arthur Ashe gained global recognition as a formidable tennis player, winning the US Open, the Australian Open, and Wimbledon in seven short years. When he died of AIDS on February 6, 1993, due to a tainted blood transfusion he received following a coronary bypass surgery, an endowment was established with the aim of educating MDs from all over the world involved in the on-going care of HIV positive individuals. The Arthur Ashe Observership Programme in the Clinical Management of HIV Disease for International Healthcare Workers was launched in 1996.

The Programme is run in conjunction with the New York Presbyterian Hospital-Weill Cornell Medical College, which is in Manhattan in New York City. Annually, 8 successful applicants are paired, and the program runs over a 4-month period. Each pair of applicants stays for a month. The program is aimed specifically at physicians who practice HIV medicine in regions where access to such observational training is limited.

The month-long experience includes time spent in both inpatient and outpatient HIV units in Medicine and Paediatric departments in 4 of the 5 boroughs in New York city (Manhattan, Brooklyn, Queens and the Bronx). The outpatient HIV units are run as multi-disciplinary facilities, where patients have access to assigned doctors, social workers, dieticians, psychologists, psychiatrists and gynecologists. Each case is then discussed in a multidisciplinary session at the end of the clinic with all stakeholders present. As part of the program, time is set aside to sit in on each of the different aspects of care within this team.

The largest barriers to access within the HIV-positive population in New York city remain social issues (illicit drug use and access to housing being the largest barriers) and access to healthcare in terms of insurance. New York state is one of the few states in the USA that funds programmes to provide access to ARVs to undocumented and uninsured individuals. It is therefore not uncommon for patients to relocate to New York state to access the HIV program and drugs there.



The last vertically transmitted case of HIV in New York state was in 2013 and most of the Paediatric HIV clinics have subsequently closed. The remaining clinics assess HIV-exposed children and essentially provide routine care.

Access to, and rollout of, Hepatitis C medications are routine, and I was fortunate enough to sit in on numerous hepatology clinics where sustained virological response after 24 weeks was the norm.

In conclusion, although many of the differences within aspects of the care of HIV infected individuals revolve around funding and access to specific medications, social and sociopolitical issues remain paramount both in the United States and back home in South Africa in ensuring that HIV positive individuals receive the best possible care.

Dr H.M. Murray and myself at the end of the month-long Arthur-Ashe Observership Programme in New York in May of 2017

Welcome to the Team – Nicolette du Plessis

Reaching down the rabbit hole, extraordinary journeys into the human brain written by Dr Allan Ropper and BD Burrell is a must-read for medical professionals. The journey of a clinical neurologist and his patients are eloquently described on the pages. *"The practice of my craft, the clinical part of it, is the systematic, logical, deductive method that was in the past applicable to all branches of medicine, but now resides mainly in neurology."*

I believe Dr Ropper would reconsider this statement and include infectious diseases as a branch of medicine that relies on systematic, logical, deductive methods to diagnose and manage disease. Paediatric infectious diseases is even more complex with the addition of the growing, developing and changing physiology and anatomy of little humans. It is therefore no small feat to successfully complete the study of paediatric infectious diseases. Following the certificate exams in Durban, we are delighted to welcome three new members to the paediatric ID community.

Fikile Mabena

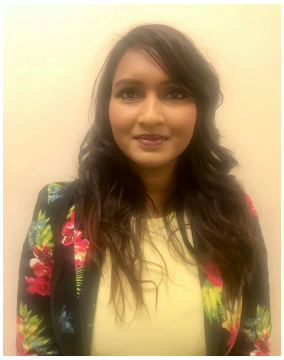
Fikile obtained her MBChB degree from the University of Pretoria in 2002. After completing her internship and community service at Livingstone and Mamelodi hospitals respectively, she worked as a medical officer in the South African National Defence Force (SANDF) and was deployed to Bujumbura Burundi in 2005. She worked as a Radiology registrar at the University of Pretoria for a year in 2006 before finally deciding to work in Paediatrics.

At the BIG SHOES FOUNDATION and ECHO (Enhancing Children's HIV Outcomes) she started working in paediatric HIV and TB from 2007 through to 2010, obtaining a Dip HIV Man from the Colleges of Medicine of South Africa (CMSA) in 2009.

She did her paediatrics registrar training at the University of the Witwatersrand (Wits) from 2011 and was accepted as a paediatrician in 2014 by the CMSA. In 2015 she graduated from Wits with a MMed (Paed) degree, a DTM&H in 2016 and in 2017 obtained the Cert Paed ID from the CMSA, having trained through Wits at Rahima Moosa Mother and Child hospital. Fikile is excited to now be working as a paediatrician and infectious diseases specialist at Chris Hani Baragwanath Academic hospital in Soweto. She looks forward to a life of service, learning, teaching and pleasant surprises in Paeds ID. She thinks of herself as a fun person and hopes her husband, children, family and friends will agree that this is true... most of the time anyway.

Ashendri Pillay

Dr Ashendri Pillay is a Paediatric Infectious Diseases Specialist in the Department of Paediatrics and Child Health at King Edward VIII Hospital affiliated to the Nelson R Mandela School of Medicine, University of KwaZulu-Natal.



Dr Pillay qualified with her MBBCH at the University of Witwatersrand in 2005. Thereafter she served her internship in Port Shepstone Regional Hospital followed by a year of community service in Mpumalanga. She completed her 4 years training fellowship in paediatrics in 2013. After serving as a paediatrician at Stanger Regional Hospital, Dr Pillay started her paediatric infectious diseases training at King Edward VIII Hospital. During her training, she managed the Paediatric Infectious Diseases Unit, an inpatient ward that admitted neonatal & paediatric patients with complicated HIV, TB and host of other infectious diseases. The unit also offered support & consultation to primary, regional & tertiary healthcare facilities in KwaZulu-Natal.

She is currently employed at King Edward VIII Hospital and is a member of the institutions' IPC committee, her research interests include medical management of abdominal TB and drug-drug interactions between antituberculosis and antiretroviral therapy in paediatrics.

Juli Switala

Dr Juli Switala qualified at WITS, but actually "learned everything that mattered at Bara". She did my internship at Kalafong (Nicolette was one of her registrars…!:)), Community Service at Rob Ferreira in Nelspruit, spent some MO time in Mpumumalaga and then the pull of the mountain brought her to Cape Town where she did her Paediatric speciality. After a mixed bag of locums, parking tickets and costume changes in 2015 she started working for Doctors Without Borders - a life changing experience. Juli worked in a neonatal unit in Afghanistan and in a paediatric hospital in wild Sierra Leone ("the extent and severity of malaria that I saw was the reason I decided to specialise in Infectious Diseases.") Half way through her mission, Ebola hit the country and she ended up working at an ebola treatment centre for a few months.

She completed her ID training at Red Cross Children's Hospital, and will soon start a position with the Human Sciences Research Council, looking at TB prevalence. Her future plan is to return to MSF or similar organisation, ideally on MDR TB, or refugee project…but sometimes the universe has other plans.

Juli maintain (relative) sanity by long distance running and watching bands.

Pathology and Research Development Congress - PathReD

The second Pathology and Research Development Congress, PathReD was jointly hosted by the NHLS and Federation of South African Societies of Pathology (FSASP). The theme of this year's congress was "Driving innovation and laboratory excellence". The microbiology and virology track was well attended. A spectrum of interesting topics was presented and discussed.

The programme kicked off with Dr Eugene Elliot discussing automation in the clinical microbiology laboratory, with a focus on the "why and how". She stressed the need to focus on the benefits for the patient rather than the costs. The objectives of automation include improvements in workflow, turnaround times and efficiencies. Amongst the many benefits of automation mentioned, was standardization and consistent quality independent of the volume of work.

Dr Charlotte Sriruttan discussed the advances in fungal diagnostics. The focus is on non-culture based methodologies. She cited the cryptococcal antigen detection assays that have "revolutionised" the diagnosis of cryptococcal disease.

In her presentation on the epidemiology of carbapenem-resistant *Enterobacteriaceae* at a tertiary hospital in Johannesburg, Dr Teena Thomas compared the predictive values of phenotypic screening tests to genotypic methods. The Modified Hodge test showed poor specificity for the presence of carbapenemases in her data set. This test is not recommended by EUCAST.

Dr Novel Chegou in his presentation on the diagnosis of TB disease said that "the future is bright" with regards to the diagnostic pipeline. Dr Chegou and colleagues have identified a seven-biomarker signature in host serum for the diagnosis of TB disease.

There were two presentations on the gut microbiome. Mrs Kristien Nel van Zyl discussed dysbiosis caused by antibiotics with reference to the gut microbiome. Dr Jody Rusch spoke about the non-communicable disorders associated with changes in the gut microbiome.

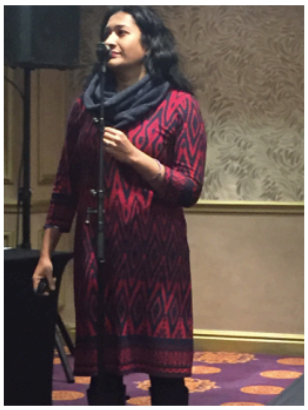
Prof Nelesh Govender discussed the need to reduce AIDS-related deaths by tackling cryptococcal meningitis (CM). In-hospital CM mortality remains high despite amphotericin-based induction therapy. Earlier diagnosis through reflex cryptococcal antigen screening should reduce CM mortality.

Prof Francois Venter's talk was titled "HIV test and treat". Dr Yesholata Mahabeer commented that Prof Venter's presentation was "upbeat and positive". Prof Venter spoke of the dramatic increase in life expectancy seen in South Africa as a consequence of the anti-retroviral (ARV) roll-out. The integrase-inhibitor group of drugs have a good resistance barrier and have been remarkably effective. The next generation ARVs will include injectable and implantable combination drugs.

Mr Uwe Schoen from the Mobile Clinics company called the same-day-initiation of HIV treatment on mobile health clinics the equivalent of the "iPhone mobile revolution". He presented data showing that 42% of patients seen at these mobile health clinics were initiated on ARVs on the same day as HIV infection diagnosis.

Dr Tongai Maponga in his presentation on Hepatitis E virus (HEV), stressed the importance of addressing HEV in the fight to eliminate viral hepatitis. HEV is the leading cause of acute viral hepatitis in the developing world. In South Africa HEV is endemic.

The microbiology programme concluded with the EUCAST implementation workshop facilitated by Prof Olga Perovic, Dr Yesholata Mahabeer, Dr Norma Bosman and Mrs Crystal Viljoen. The decision to change to EUCAST countrywide was taken by the South African Society of Clinical Microbiology (SASCM) in May 2015. The workshop addressed the benefits of the change to EUCAST, the practical aspects of implementation, as well as, the impact on real-time reporting and surveillance.

From left to right: Delegates enjoying a Saturday morning EUCAST workshop; Dr Teena Thomas, Dr Charlotte Sriruttan, and Dr Tongai Maponga

SAASP
SOUTH AFRICAN ANTIBIOTIC STEWARDSHIP PROGRAMME

Antimicrobial Stewardship Activities in Gauteng

This May, a team composed of pulmonologists, critical care physicians, infectious diseases physicians, microbiologists and infection control experts at Charlotte Maxeke Academic Hospital hosted an enthusiastic and interested group of doctors and pharmacists on their 2nd National Training Centre Antimicrobial Stewardship "Train-the-Trainer" course.

The participants included clinicians, clinical managers and pharmacists from Kwa-Zulu Natal, Free State, Mpumalanga North-West Province, and Gauteng. The course, which was shortened from 5 to 3 ½ days, included lectures, practical clinical and microbiological cases and rounds in various different ICUs.

Professor Guy Richards and Dr Olga Perovic emphasized the global dangers of antibiotic resistance and strategies employed in South Africa to combat increasing resistance and inappropriate prescribing. Dr Jacqui Venturas highlighted SAASP's prescribing guidelines and the importance of good infection prevention and control. Professor Adriano Duse gave an

overview of hospital-acquired infections (HAI) and Dr Teena Thomas explained the methods for performing an effective HAI outbreak investigation.

The participants particularly enjoyed the microbiology plate round and discussion. Dr Trusha Nana and Dr Vindana Chibabhai showed the group bacterial culture plates and describing the different ways of identifying organisms, antimicrobial susceptibility including the principles MALDI-TOF mass spectrometry, and the effect of it's use on the stewardship programme. The group discussed several laboratory reports with regards to common resistance mechanisms and interpretation in a clinical context.

We hope our contribution to the programme goes some way to instilling in today's prescriber the principles of optimising antibiotic use.

The 2nd National Training Centre antibiotic stewardship course at Groote Schuur Hospital will take place 10-13 July, and will welcome teams from hospitals in the Northern Cape, building on the successful 1st course for the Eastern Cape.

Baragwanath Antimicrobial Stewardship Programme

In closely related news, Dr Kim Pieton reports on progress from Chris Hani Baragwanath Academic Hospital. The Baragwanath Antimicrobial Stewardship Program is proud to be starting it's 6th month of being fully operational!

Dr Nazlee Samodien, Consultant Microbiologist leads the multidisciplinary team with surgical, ICU gynaecology, and paediatric representatives. Weekly rounds have highlighted the desperate need for such a program.

Depending on the unit having rounds that day, the team will either focus on one sick patient with complicated microbiological and antibiotic decisions, with the entire team providing input, or a typical bed-to-bed type ward round in uncomplicated patients with focus on need, duration, de-escalation, IV-to-oral and lines out type decisions. Other rounds focus on pure antibiotic teaching for junior and nursing staff, as well as medical students, with the aim of improving knowledge and understanding of commonly prescribed drugs.

Regular meetings to discuss out of stock medication, Section 21 drug use and non-EDL items are arranged when necessary and are useful in providing feedback to heads of department and management. We are often able to trouble shoot and arrange for urgent buy-outs in unusual cases.

The ward doctors have expressed their appreciation for the teaching, guidance and help during these rounds and all feel that it is of benefit. The need for good antibiotic prescribing practices has become crucial and we hope that these rounds will benefit our patients immensely.

Dr Samodien will be collecting data from the neonatal ICU for her MMED in AMS. She aims to, amongst others, measure whether the program has resulted in shorter length of stay, shorter courses of antibiotics (also fewer prescribed), as well as better clinical outcomes (mortality and microbiological clearance). We hope to be able to present this feedback to participating units to encourage and motivate them to keep the program going and improving!

Highlights from the CISTM 2017

Albie de Frey, Salim Parker, Lee Baker, Gerard Flaherty

The 15th conference of the International Society of Travel Medicine (ISTM) was held in the beautiful, vibrant city of Barcelona in May this year. It also commemorated the 25th anniversary of the ISTM, looking back and celebrating achievements to date.

It was a very large conference with about 1500 delegates, and there were a number of breakaway workshops and symposia sessions to accommodate the many different interesting topics – from the ABC of malaria to the diagnosis of Zika! A number of plenaries addressed important issues in today's world health; namely Human Migration – Challenges and Opportunities, Antimicrobial Resistance, Zika Virus and Public Health Emergencies and Global Security. Here are a few snippets from the conference.

Migrant health:

Some startling statistics were mentioned with regards to the number of displaced people; such as 65.3 million people being forcibly displaced due to persecution, violence, conflict and human rights violation in 2015! The ECDC determined in their risk assessment that newly arrived migrants and refugees do not represent a threat to Europe with respect to communicable diseases, but that the risk is increased to the refugees themselves due to overcrowding at reception facilities, resulting in poor sanitation and poor hygiene.

Antimicrobial resistance

A plenary session addressed the International response to antimicrobial resistance and implications for travellers. Marc Mendelson discussed the Global Action Plan on antimicrobial resistance that has five main actions – Awareness and Education, Surveillance, Stewardship, Infection prevention and Research and Development. He also highlighted the role that animals play in the spread of resistance 'from the farm to the table.' Improved hand hygiene, better sanitation and clean water and increasing vaccine coverage, all contribute to less antibiotic use. Of great interest is the development of alternative products to tackle infections – immune stimulation, phage therapy, lysins, probiotics, antibodies and peptides!

Rabies

Rabies, an invariably fatal disease, was discussed in detail during the conference. A GeoSentinel analysis revealed that, of those travellers who presented with rabies exposure, only 24% had pre-travel advice. The majority did not have any pre-travel vaccinations. Also of concern was that those who had a category III bite which required rabies immune globulin, very few actually received it or presented in the timeframe to receive it. In addition, most only received one post-exposure vaccine in the country of exposure instead of the required series. The need for timely and proper pre-travel advice was again emphasized.

Fractional doses

As with some other vaccines such as yellow fever vaccine, shortages of rabies vaccines are encountered and this was looked at as well as different ways of tackling the issue. The efficacy of the fractional dosing was debated as well as its duration of efficacy.

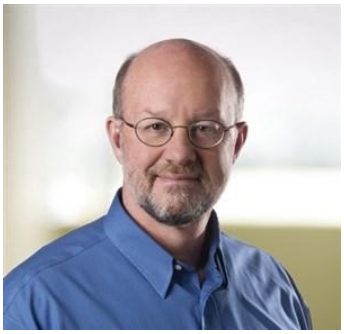
Rabies vaccination was done intradermally in a fractional dose in a group of Belgian soldiers due to a shortage of the vaccine. A series of three is normally administered. The investigators found a more than 99% seroconversion rate after two doses and a 100% rate after three doses. This, as well as other studies such as the one which showed that priming with one rabies dose was adequate to induce an anamnestic antibody response to rabies post exposure prophylaxis one year later, indicates that much more studies are needed to fully ascertain the balance between efficacy, number of injections and cost.

The fractional dose of yellow fever vaccine (0.1 ml intradermally instead of the usual 0.5ml IMI) is considered effective for one year only as opposed to the lifelong immunity conferred by the standard dose. It is intended to be used as part of an

exceptional response when there is a large outbreak and a shortage of vaccine. This fractional dose is not intended for international travel and the recipients do not get a yellow fever certificate

Travellers diarrhoea

Guidelines for the treatment and prevention of travellers diarrhoea – a graded expert panel report, was presented at the conference. Antimicrobial prophylaxis should not be routinely recommended for prevention of travellers diarrhoea and neither should antibiotic treatment be recommended for patients with mild travellers diarrhoea. The full guidelines can be accessed from the journal: JTM, 2017, Vol 24, Suppl 1, S57–S74doi: 10.1093/jtm/tax026



Inaugural Alan Magill Memorial Lecture

One of the bittersweet moments of the conference was the Alan Magill memorial lecture given by Sir Richard Feachem. Alan had a distinguished career as a world-leading malariologist, ID physician, and Travel Medicine expert. At the time of his death in 2015, Alan was Director of Malaria Programs at the Bill and Melinda Gates Foundation. He served as President of the ISTM and the ASTM&H.

Sir Richard's anecdotes and description of Alan were familiar to all those who knew him personally and Alan's total commitment to the elimination of malaria will be sorely missed.

The next ISTM Conference will take place in two years' time in Washington DC in the USA. Trump willing…

I C S S A
INFECTION CONTROL SOCIETY OF SOUTHERN AFRICA

Society News

Last year we interviewed the Chairs of the Gauteng Infection Control Society (GICS) and the Western Cape Society and reported back on their society plans for 2017. This quarter we interviewed Patria du Plooy (Chair and Infection Prevention and Control Specialist in the Border-Kei region). Patria and her colleagues have been lobbying for some time to get an Infection Prevention and Control Society started in their region and finally their efforts are paying off.

"We have been wanting to get a regional society off the ground for a while now but some of the difficulties encountered with our attempt to be 'all inclusive', have been; making contact with the correct person/s in each facility and then to get everyone together in one room.
We soon realised that the best would be to start off small and so, we had our first meeting at the beginning of 2017 and a second meeting in June this year. We are at the point now, where we have appointed a Vice Chair (Wendy Harris) and Secretary (Thembela Lungu) and we are proud to announce our first formal workshop titled: 'Surveillance and notification of notifiable diseases' which will be held on the 18th August 2017.

Well done to Patria and her team and wishing you every success!

Infection Prevention and Control Guidelines for GP rooms

In line with a request from SAASP, a working group has been established and members are tasked to draft a guideline for Infection Prevention and Control in the GP setting. Co-opted members are: Michelle Osborne, Patria du Plooy, Margareth Clements (together with the ICSSA exco Joy Cleghorn, Lesley Devenish and Yolanda van Zyl).

FIDSSA Conference

We are really excited about the conference programme and in particular, the IPC specific agenda.
Infection Prevention and Control Specialists, Nurses and Practitioners are encouraged to attend what promises to be an extremely worthwhile conference.