

~ *Bugs Life* ~
Infectious News

ISS INFEKSIESIEKTES SENTRUM CID CENTRE FOR INFECTIOUS DISEASES



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 CID, Faculty of Health Sciences, Tygerberg, Stellenbosch University

Staff News



Congratulations!

Prof Jean Nachege, MD, PhD, the Director of the CID is in the news again! He has been elected as member of the Delta Omega Honorary Society in Public Health at the Johns Hopkins Bloomberg School of Public Health.

Announcements:

- Earning CPD points by identifying TB!
- CID Contributes to TB Text book
- Influenza Seminar – Unity in Complexity

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- **TB Publications**
 - TB Diagnostics: Prof Rob Warren *et. al.*
 - Global Burden of TB: Prof Peter Donald and Prof Paul van Helden
 - Diarylquinoline MC207 for MDR-TB: Dr Andreas Diacon *et. al.*

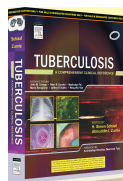
Earning CPD Points by identifying TB!

On 20 April the CID was honoured by the visit of Prof Jill Murray (jill.murray@nioh.nhls.ac.za), Head of the Pathology Division of the National Institute for Occupational Health of Wits and Prof Michelle Wong (Michelle.Wong@wits.ac.za) Head of the Respiratory Unit, Chris Hani Baragwanath Hospital, Wits. They presented a workshop on Process Based Performance Review (PBPR), which has been established as one of the most effective ways of developing successful practice habits.

Recent research in the mining industry reviewed the autopsy findings and medical records of miners who died during 1999. It was found that clinicians failed to diagnose Pulmonary Tuberculosis (PTB) in 44%, incorrectly ascribe PTB as the cause of death in 29%, and correctly ascribed PTB as the cause of death in 27% of cases who either had TB on autopsy or were diagnosed as having TB during life. A crucial step in initiating performance review is feedback to clinicians, which the autopsy examination of the lungs provides. Structured flow sheets, which enable a review of medical records together with the autopsy findings, provide an efficient mechanism for constructive evaluation of clinical actions. A single sheet has been designed, and is provided together with summaries of critical topics detailing why, when and how to perform essential investigations. Links have been provided in the flow chart to lead the reviewer to the relevant summaries of critical topics as well as more detailed guidance and information about any missed opportunities for diagnosis. The completion of the flow sheet has been accredited for CPD points! *And where do I find the flow sheet?* www.mmoa.org.za

CID Members Contribute to TB Text book

The Book "Tuberculosis: A comprehensive clinical reference" edited by Schaaf & Zumla was published recently. Prof Simon Schaaf pointed out that "A number of the CID people have contributed to the book for which I am very grateful". There were 25 people involved from our Faculty: Nulda Beyers, Robert Gie, Ben Marais, Anneke Hesselting, Simon Schaaf, Peter Donald, Sharon Kling, Pierre Goussard, Johan Schoeman, Etienne Nel, Jean Nachege, Juanita Bezuidenhout, Colleen Wright, Johann Schneider, Paul v Helden, Chris McEvoy, Rob Warren, Francois Jordaan, Gert Vlok, Martin Storm, Matthys Botha, H van der Merwe, Donald Enarson, Madhu Pai (last two honorary profs SU) Helmuth Reuter, Elvis Iruken.



There are two editions of the book with exact same contents published by Saunders, Elsevier. The Europe/USA version is hard cover, but better quality paper and costs about 3 times that of the Indian edition which is also hard cover and still good quality paper R650-R700 and is available in South Africa. The book can be ordered through Jackie Strydom from Medbookseller in Durbanville e-mail: jackie@medbookseller.co.za and telephone 021-9751970/083-3038500.

Influenza Seminar -Unity in Complexity. CPD: 6 level 1 points

Wednesday, 24th June 2009 STIAS, Stellenbosch, 8h30 – 17:30

On 11 June 2009, the Director General of WHO, Dr Margret Chan announced the 2009 influenza pandemic level 6! It is the first influenza pandemic in 41 Years. Nearly 30 000 confirmed cases has been reported in 74 countries. This is only part of the picture because many countries do not have good surveillance and testing procedures in place. Are we ready for the influx of many sport enthusiasts to South Africa from over the world? In addition, the first case of the H1N1 influenza in South Africa has been confirmed on 18 June 2009.

The CID and The Livestock Health and Production Group are hosting a seminar with the objective to *provide scientific information in order to stimulate a trans-disciplinary understanding regarding the complexity of the human-animal-environment interface of influenza in the context of the one world, one health, one medicine approach.*

Contact cdevries@sun.ac.za or MaresaF@elsenburg.com for more information.

Cost: R600 including Lunch, Teas and snacks

Would you like to contribute to an Infectious Diseases Textbook?

Prof Jean Nachege, Prof Mark Cotton, Dr Helena Rabie and Dr Jantjie Taljaard are planning to publish an Infectious diseases text book. The CID invites faculty members to submit cases of Infectious Diseases in the Western Cape to be evaluated for this Case Study Book on ID. It can be retrospective and prospective cases. Prof Mark Cotton and Prof Jean Nachege will coordinate this project. Please contact Prof Jean Nachege via email: jnachege@sun.ac.za

TB Diagnostics – The relevance of pharmacogenetics

Prof Rob Warren, member of CID and his co-workers reported in *Tuberculosis 89 (2009) 199-202*, that rapid molecular methods may provide information concerning both the level of resistance and cross-resistance to other anti-TB drugs that is important for optimal clinical management. Specific mutations detected by the Hain GenoType®MTBDRplus test (approved by WHO for rapid TB diagnosis and drug resistance testing) could assist in decision making for treating patients with INH mono-resistant TB, MDR-TB or XDR-TB with high isoniazid (INH). Mutations in the inhA gene or promotor region generally confer a low level INH resistance that can be overcome by high dose INH. The same mutations also confer resistance to ethionamide indicating little benefit from its inclusion in second line treatment regimens in such cases. This finding has high clinical relevance. Screening for inhA promotor mutations will allow targeted high dose INH treatment, which may positively impact on transmission of drug-resistant TB, reduce adverse events and improve patient outcome. It will also identify the subgroup of patients whom ethionamide should not be considered as a second line drug.

Global Burden of TB – Combating Drug Resistance

Prof Peter Donald and Prof Paul van Helden asked the question in *The New England Journal of Medicine 360(23):2393-2395* whether the figures in 13th annual TB report of the WHO represent the turn of the TB tide. The report provides reason for cautious optimism: In 2007, an estimated 289,000 new cases of MDR TB were reported and in 2008, 55 countries reported cases of XDR TB. It is highly unlikely that the Millennium Development Goal of halving TB prevalence and TB related mortality by 2015 will be met in African and European regions. Once MDR TB has developed, there is little to stop the rapid acquisition of resistance to the remaining agents. Further progression to pre-XDR and XDR TB becomes only a question of time and transmission of MDR and XDR TB occurs particularly in communities with high incidence of HIV infection. The failure to contain MDR and XDR TB reflects the inability to diagnose the problem quickly enough to prevent transmission while continuing to prescribe ineffective standardized regimens. Turning the TB tide requires functional health services, financial and political commitment!

The Diarylquinoline TMC207 for Multidrug-Resistant TB

Dr Andreas Diacon and co-workers reported in *The New England Journal of Medicine 360(23):2397-2405* on clinical trials with TMC207, which inhibits mycobacterial ATP synthase and offers a new mechanism for anti-TB action. The clinical activity of TMC207 validates ATP synthase as a viable target for treatment of TB. During a two-stage, phase 2, controlled trial, 47 patients diagnosed with MDR pulmonary TB were randomly assigned to receive TMC207 or placebo. TMC207, in combination with a five-drug second-line regimen, had an acceptable side-effect profile, reduced the time to sputum-culture conversion in patients with newly smear-positive MDR TB and significantly increased the portion of patients with negative sputum cultures after 8 weeks.

The CID congratulates all contributors to these excellent publications!

