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CIDS Newsletter

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CLINICAL INFECTIOUS DISEASES SOCIETY

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Editor's note

Dear CIDS members

CIDSCON is around the corner: please check the conference website www.cidscon2014.com for the final program agenda and other updates. The scientific committee has done a superb job in lining up some outstanding speakers to speak on topical issues, as you'll see in the newsletter's "Snippets from the literature" and "What's new and going around" sections. The Karnataka Medical Council has awarded 5 credit hours. Hopefully CIDSCON will give major international conferences like ID Week, ICAAC and ECCMID close competition in terms of academic content!

Request you all to mark your calendars for the General Body Meeting scheduled for 6.15 pm on 23rd August.

Please encourage your postgraduates (from any specialty) to take the Infectious Disease Prize Exam on 23rd August; handsome prizes are on offer for the top three candidates who score highest on multiple choice questions based on 40 ID case scenarios. Sorry, practicing physicians are not allowed to take the exam, but those interested can perhaps watch the questions from the back if the organizers permit!

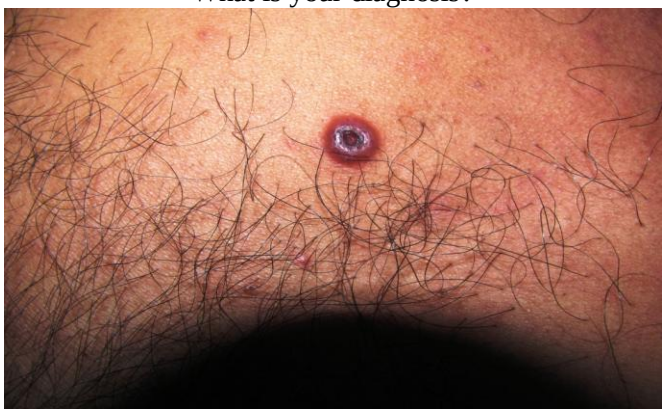
It is heartening to see our younger members contributing to this issue. Dr Abdul Ghafur has also offered to cover antimicrobial resistance issues. Editing the newsletter on a long term basis is a difficult task unless we get contributions from as many of you as possible! Request volunteers to cover ID issues in different parts of the country (South, North, East, West) or contributions for specific areas such as photo quiz, ID news or literature updates. Members are also welcome to forward papers they or colleagues have themselves published recently; this will be useful knowledge to all of us.

See you at CIDSCON, for 3 days of learning and networking!

Dr Ram Gopalakrishnan

Photo Quiz

A 35 year old HIV positive male presented with headache and vomiting. His CD4 count was 35.
A skin lesion was noted over the face.
What is your diagnosis?



News from the ID world

Antibiotic residues in chicken meat

(courtesy Dr A Murali)
http://www.cseindia.org/node/5487

Large-scale unregulated use of antibiotics in the poultry industry could be contributing to Indians developing resistance to antibiotics. In the biggest study done in India to test residues of antibiotics in chicken the Centre for Science and Environment (CSE) lab study found residues of antibiotics in 40 % of the samples of chicken that were tested. Samples were tested for oxytetracycline, chlortetracycline, and doxycycline (class tetracyclines), enrofloxacin and ciprofloxacin (class fluoroquinolones); and neomycin. Many essential and important antibiotics for humans are being used by the poultry industry. CSE researchers point out that antibiotics are frequently pumped into chicken during its life cycle of 35-42 days: they are occasionally given as a drug to treat infections, regularly mixed with feed to promote growth, and routinely administered to all birds for several days to prevent infections, even when there are no signs of it.
Urgent action on the part of the government to strictly regulate veterinary antibiotic usage is the need of the hour. EU, for instance, has banned the use of antibiotics as growth promoters many years ago and the US has initiated steps in this regard.

Antimicrobial resistance issues

(courtesy Dr Abdul Ghafur)
http://globalpublicsquare.blogs.cnn.com/2014/08/04/time-to-act-on-the-other-health-crisis/
http://www.vinnova.se/sv/Aktuellt--publicerat/Kalendarium/2014/140624-Antibiotic-resistance---A-ticking-time-bomb/

An article in CNN World on antimicrobial resistance "Time to act on the 'other' health crisis" comments on the role of the Chennai declaration leading to changes in Indian law aimed at ending the sale of over the counter antibiotics.
At the Euroscience Open Forum, Copenhagen 2014, there was a discussion on "Antibiotic resistance - a ticking time bomb". The session was held in parallel to another one by Nobel laureates on "origin of life and universe"; paradoxically "origin of life" and "end of civilization due to lack of antibiotics" were discussed simultaneously!
CIDSCON is packed with updates on antimicrobial resistance and stewardship with at least 4 sessions devoted to the topic, including the keynote lecture by Dr VM Katoch, Director General, ICMR on 23rd August.

Indian Government expands vaccine coverage

On July 3rd the Government has decided to introduce rotavirus vaccine, rubella vaccine and IPV into India's Universal Immunisation Program (UIP), making the vaccines available to all children. In addition Japanese encephalitis vaccine will be introduced in 179 endemic districts across 9 states.
This will be a great boost to public health in India. Introducing conjugate pneumococcal and varicella vaccines may be the next step forward.

What's new and going around

Ebola Virus Disease Confirmed in a Traveler to Nigeria, Two U.S. Healthcare Workers in Liberia

(courtesy Dr Mitesh Suthar and Dr Ayesha Sunavala)
http://www.cdc.gov/ebola

The US CDC has issued a health alert after 3 confirmed cases of Ebola Virus Disease (EVD) were recently reported from Liberia. With over a thousand people infected and 672 deaths in West Africa since late March 2014, this is the largest documented outbreak of EVD and the first recorded in West Africa as per WHO data.

EVD is a severe, often fatal hemorrhagic fever with a case fatality rate of up to 90%. Although the outbreak may not pose an immediate threat to people in non-endemic areas, health officials are advised to suspect EVD in febrile persons who, within 3 weeks before onset of fever, have either:

1) Traveled in the specific local area of a country where EVD has recently occurred (Guinea, Liberia, and Sierra Leone)
2) Had direct unprotected contact with blood, other body fluids, secretions, or excretions of a person or animal with VHF
3) Had a possible exposure when working in a laboratory that handles hemorrhagic fever viruses.

Early diagnosis is difficult due to nonspecific symptoms. Various tests like antigen-capture ELISA testing, IgM ELISA, PCR and virus isolation can be used to diagnose within a few days of the onset of symptoms. Persons tested later in the course of the disease or after recovery can be tested for IgM and IgG antibodies; the disease can also be diagnosed retrospectively in deceased patients by using immuno-histochemistry testing, virus isolation, or PCR. Standard treatment is supportive care only.

The suspected patient should be isolated, strict infection control practices should be followed and public health professionals notified. Clinicians must promptly evaluate and treat patients for more common infections while awaiting confirmation of EVD.

Japanese encephalitis and acute encephalitis syndrome (Assam, West Bengal) (courtesy Dr Laxman Jessani)

www.promedmail.org

135 persons in North West Bengal and 305 persons in Assam have died of "encephalitis" in 2014. It is however unclear whether the patients had JEV or some other cause of encephalopathy.
Hopefully the government's plan to introduce JEV vaccine will prevent deaths from JEV next year, but a proper epidemiologic study to define the exact cause of encephalopathy is needed.

Suspected Chandipura virus in Central Gujarat

(courtesy Dr Senthur Nambi)
http://www.promedmail.org/

Eight children have died in Gujarat in July of suspected Chandipura virus infection. The virus has previously caused outbreaks in 2004 but it is intriguing how the diagnosis was made as samples sent to National Institure of Virology, Pune are yet to be reported on.
These cases are best labeled acute encephalitis syndrome till investigated. Dr Padmini Srikantiah from the US CDC will be updating us on encephalitis in India at CIDSCON.

Guideline watch

HIV treatment guidelines updated

(*JAMA* 2014 Jul 23/30; 312:410) ((*http://dx.doi.org/10.1001/jama.2014.8722*)

New guidelines from the International Antiviral Society recommend antiretroviral therapy for all HIV-infected patients, an expanded list of initial regimens, and less-frequent laboratory monitoring

Snippets from the literature

IPV the way forward

The Lancet, Early Online Publication, 11 July 2014
doi:10.1016/S0140-6736(14)60934-X

Investigators led by Dr Jacob John from Vellore carried out an open label, randomized controlled trial in 450 children aged 1—4 years from Chinnallapuram, Vellore, who were healthy, had not received IPV before, and had had their last dose of OPV at least 6 months before enrolment. Children were randomly assigned (1:1) to receive 0·5 mL IPV intramuscularly (containing 40, 8, and 32 D antigen units for serotypes 1, 2, and 3) or no vaccine. The primary outcome was the proportion of children shedding polio virus, 7 days after a challenge dose of serotype 1 and 3 bivalent OPV (bOPV). In the IPV group, 12% children shed serotype 1 poliovirus and 8% shed serotype 3 poliovirus compared with 19% and 26% in the no vaccine group (risk ratio 0·62, p=0·0375; 0·30, p<0·0001). The substantial boost in intestinal immunity conferred by a supplementary dose of IPV given to children younger than 5 years who had previously received OPV shows a potential role for this vaccine in immunization activities to accelerate eradication and prevent outbreaks of poliomyelitis.

Hearteningly, the Government of India has decided to include IPV in the UIP. Don't miss the lecture by Dr Jacob John on this subject at CIDSCON.

Invasive pneumococcal disease associated with high case fatality in India

Journal of Clinical Epidemiology 66 (2013) 36-43

This prospective surveillance of IPD in patients older than 18 years in seven large academic teaching hospitals in India from 1993 to 2008 showed that pneumococcal disease is very much a problem in India.

Meningitis (34.3%) and pneumonia (33.9%) were the most common clinical conditions associated with IPD. Case fatality for IPD in patients older than 60 years was nearly 26% overall. The most common STG was serotype 1, which accounted for 22.9% of all isolates. Penicillin resistance was low at 2.7% overall. Intermediate resistance was noted in 2.5-6.7% of the adult isolates from 1996 to 2003. Resistance to co-trimoxazole was noted to be high and increasing in the study period from 42.9% in 1993 to 85.2% in 2008. The 23-valent pneumococcal polysaccharide vaccine covered 83.3% of the STGs for patients > 60 years.

Luckily India does not have a major problem with penicillin resistance in pneumococci. The time has come to offer either the conjugate or the polysaccharide pneumococcal vaccine to the elderly or adults with co-morbidities; Dr V Ramasubramanian's lecture on adult immunization at CIDSCON will have more for the Indian clinician.

Spiroindolone KAE609 for Falciparum and Vivax Malaria

(courtesy Dr A Murali)
(N Engl J Med2014 Jul 31; 371:411.
(http://dx.doi.org/10.1056/NEJMoa1314981)
(N Engl J Med 2014; 371:403-410 July 31, 2014
DOI: 10.1056/NEJMoa1315860)

This phase 2, open-label study at three centers in Thailand assessed the antimalarial efficacy, safety, and adverse-event profile of KAE609, at a dose of 30 mg per day for 3 days, in two sequential cohorts of adults with uncomplicated *P. vivax* malaria (10 patients) or *P. falciparum* malaria. KAE609 cleared parasitemia rapidly in adults with both *P. vivax* and *P. falciparum*.

An accompanying study describes emerging artemisinin resistance in Southeast Asia.
With a sub-optimal malaria vaccine that is yet to be rolled out, new and effective anti-malarials are urgently needed. Learn more on severe malaria at Dr Shyam Sundar's lecture at CIDSCON.

What's the best treatment for neurocysticercosis?

(courtesy Dr Vasanth Nagvekar)
Lancet Infect Dis 2014;14:687-95

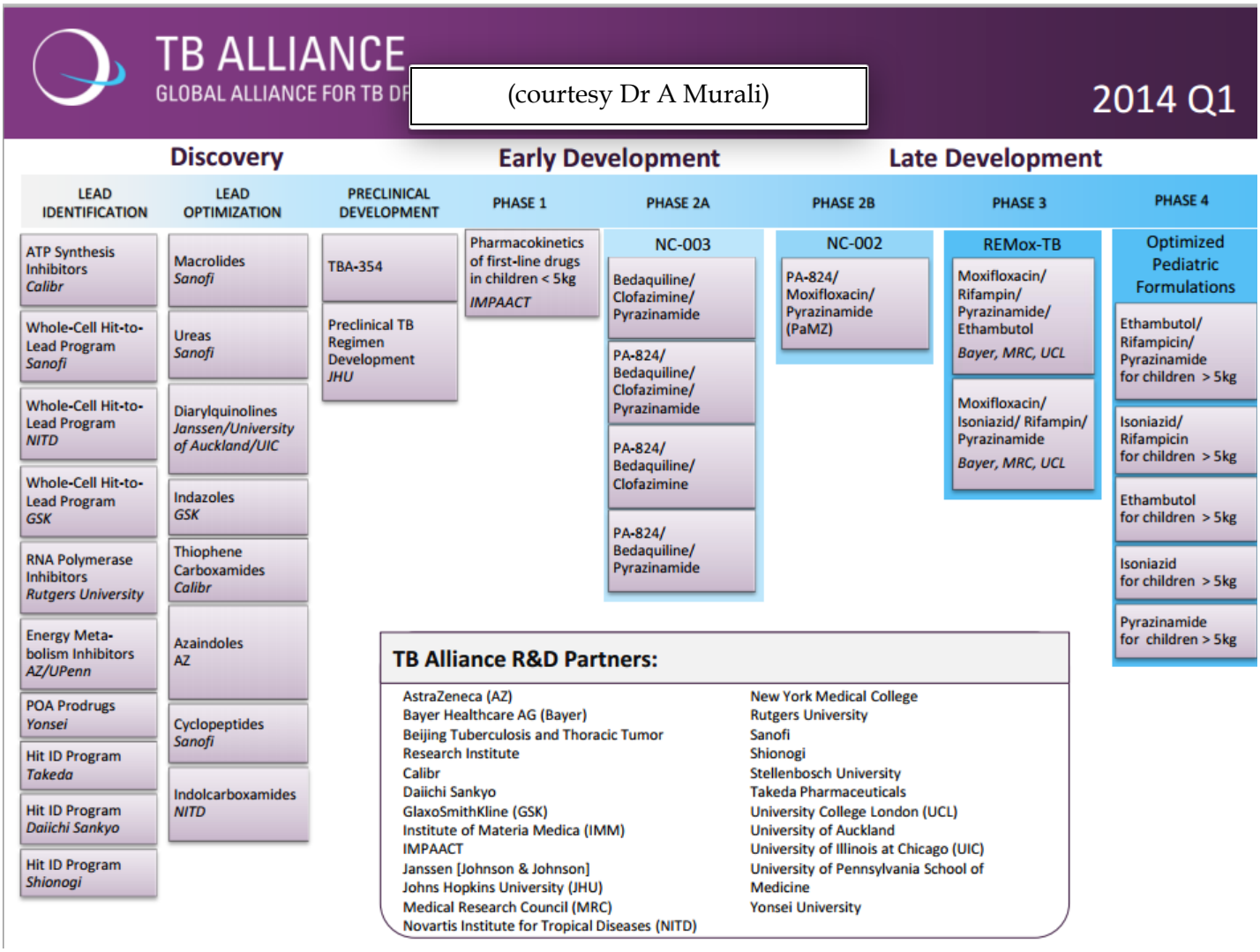
This randomized double blind controlled trial showed that combined albendazole (15 mg/kg) plus praziquantel—and increased albendazole (22.5 mg/kg) (although to a less degree)—kills more cysts than does standard-dose albendazole. A pharmacokinetic interaction whereby drug levels of albendazole are increased by praziquantel is thought to be responsible for increased cysticidal activity.

Neurocysticercosis is common in India and this study should clarify the best approach for treatment. Don't miss Dr Clinton White's talk on the topic at CIDSCON.

Good outcomes in MDR-TB

(courtesy Dr Neha Gupta)
J Assoc Physic India 2014;62:567-570

This retrospective analysis studied 52 patients who were treated at a private medical center for MDR-TB, using a regimen based on DST of the patient's isolate, rather than a standard protocol. Outcomes were good (clinical and radiologic cure in 94%).
The study supports rollout of use of DST and molecular methods for resistance, in treating MDR-TB both in public and private settings. You can learn more on MDR-TB from Dr Zarir Udwadia at CIDSCON.



Tuberculosis in liver transplant recipients: as low as high prevalence countries?

(courtesy Dr Vidya Devarajan, Dr Abdul Ghafur K)
Liver Transplantation 2014;20(8):960-6
http://onlinelibrary.wiley.com/doi/10.1002/lt.23903/abstract

This study from South India describes the prevalence of TB in liver transplant recipients from a high-prevalence area. The overall prevalence of TB in LTRs was comparable to the prevalence of TB in LTRs from low-prevalence countries (5/214 or 2.3%). TB developed variably after transplantation [median = 72 days]. The presentation was mostly extra pulmonary and/or disseminated (80%). Post–liver transplant TB was associated with a high mortality rate.
Other centers in India that perform liver or kidney transplants see a lot of TB. Further studies are clearly warranted.

Upcoming conferences and meetings

38th National Conference of the Indian Association of Medical Microbiologists (MICROCON 2014)
15th - 19th October 2014 at Birla Auditorium
Jaipur, Rajasthan, India.
http://www.microcon2014.com

Transplant Infectious Disease Conference
6-8 November, Vellore
Contact Dr Priscilla Rupali (prisci@cmcvellore.ac.in)

7th World Workshop on Oral Health and Disease in AIDS.
6-9, Nov 2014, Hyderabad
info@ww7india.com, ww7india@gmail.com

First Conference of Fungal Infection Study Forum (FISF) and Mycology Master Class
Kolkata 14-16 Nov 2014
http://www.fisftrust.com

Antimicrobial Stewardship Course, New Delhi,
(endorsed by CIDS) Nov 27-28th
Pre-conference workshop of IAMM Delhi chapter annual conference in November, conducted by BSAC (British Society of Antimicrobial Chemotherapy) GARP and Delhi Chapter of Indian Association of Medical Microbiology

Answer to photo quiz

Diagnosis: Disseminated cryptococcal disease with meningitis and cutaneous cryptococcomas. The cutaneous lesions mimic molluscum contagiosum.

CSF India ink stain is shown.