Update on significant recent research papers

Childhood Tuberculosis Sub-Group
27 October 2014
Results: 1 to 20 of 29215

1. High-Dose Rifampin with Moxifloxacin for Pulmonary Tuberculosis.


3. Alarming Levels of Drug-Resistant Tuberculosis in HIV-Infected Patients in Metropolitan Mumbai, India.

4. World health dilemmas. Orphan and rare diseases, orphan drugs and orphan patients.

5. Looking beyond the obvious: an unusual cause of iron deficiency anaemia.

Results by year

PMC Images search for tuberc* child*
Tuberculosis Publications Listed on Pubmed
Male genitalia of *Baconia gubbifer* group. A T8 of *Baconia tenipes* B S8 of *Baconia tenipes* C S8 of *Baconia tuberculifer* D S8 apical view of *Baconia tuberculifer* E T9 & T10 of *Baconia tuberculifer* F S8 of *Baconia globosa* G T9 & T10 of *Baconia globosa* H S9 of *Baconia tenipes* I S9 of *Baconia tuberculifer* J Aedeagus, dorsal view of *Baconia tenipes* K Aedeagus, lateral view of *Baconia tenipes* L Aedeagus, dorsal view of *Baconia tuberculifer* M Aedeagus, lateral view of *Baconia tuberculifer*. 
Results: 1 to 20 of 242002

   Calvopina M, Romero D, Castañeda B, Hashiguchi Y, Sugiyama H.
   Mem Inst Oswaldo Cruz. 2014 Oct 14;60[Epub ahead of print]
   PMID: 25338151 [PubMed - as supplied by publisher]
   Related citations

2. Rheumatoid Arthritis Increases the Risk of Nontuberculosis Mycobacterial Disease and Active Pulmonary Tuberculosis.
   Yeh JJ, Wang YC, Sung FC, Kao CH.
   PMID: 25337995 [PubMed - as supplied by publisher]
   Related citations

   Kärki T, Napoli C, Riccardo F, Fabiani M, Dente MG, Carballo M, Noori T, Decllich S.
   PMID: 25337945 [PubMed - as supplied by publisher]
   Related citations

   Warner DF, Mizrahi V.
   PMID: 25337754 [PubMed - as supplied by publisher]
   Related citations

5. High-Dose Rifampicine with Moxifloxacin for Pulmonary Tuberculosis.
   Jindani A, Harrison TS, Nunn AJ, Phillips FP, Churchyard GJ, Charalambous S, Hatherill M,
   Geldenhuys H, Mellinon HM, Zvobgo SP, Mungota S, Shah NA, Zizhou S, Magweta L, Shepherd J,
   Nyirenda S, van Dijk JH, Cloutling HE, Coleman D, Bateson AL, McHugh TD, Butcher PD, Mitchison DA, the RIFAPQUIN Trial Team.
   PMID: 25337749 [PubMed - as supplied by publisher]
   Related citations
Tuberculosis Publications Listed on Pubmed
My biases

- 746 studies identified on PubMed
- On review of title I selected 28 that I thought were pretty interesting
  - Based on my own clinical and research interests
  - Slightly biased towards clinical/epi studies
  - Slightly biased towards drug resistance
- Broadly divided into five categories
Findings

• Epidemiology/natural history
• Diagnostics
• Treatment
• Prevention
• Vaccines
Findings

• Epidemiology/natural history
• Diagnostics
• Treatment
• Prevention
• Vaccines
Incidence of multidrug-resistant tuberculosis disease in children: systematic review and global estimates

Risk for Tuberculosis in Child Contacts
Development and Validation of a Predictive Score

The association between the ratio of monocytes: lymphocytes at age 3 months and risk of tuberculosis (TB) in the first two years of life

National and International guidelines

Elettra Berti, Luisa Galli, Elisabetta Venturini, Maurizio de Martini, Elena Chiappini
Findings

- Epidemiology/natural history
- Diagnostics
- Treatment
- Prevention
- Vaccines
Assessment of the novel T-cell activation marker-tuberculosis assay for diagnosis of active tuberculosis in children: a prospective proof-of-concept study


Safety and efficacy of induced sputum in young children hospitalised with suspected pulmonary tuberculosis

N. S. Planting, G. L. Visser, M. P. Nicol, L. V. Visser

*Erasmus Medical Centre, Rotterdam, The Netherlands, Diseases and Molecular Medicine, University of Cape Town, Cape Town, South Africa

Diagnosis of TB and Host Immune Response in Children

Urine lipoarabinomannan testing for diagnosis of pulmonary tuberculosis in children

Mark P. Nicol, Veronica Allen, Lesley Workman, Wathiefa Issacs, Jacinta Munro, Vonni GhebreKristos, Heather J. Zar

Enhancing TB Case Detection: Experience in Offering Upfront Xpert MTB/RIF Testing to Pediatric Presumptive TB and DR TB Cases for Early Rapid Diagnosis of Drug Sensitive and Drug Resistant TB

Neeraj Raizada1, Kuldeep Singh Sachdeva2, Sreenivas Achuthan Nair3, Shubhangi Kulsange1, Radhey Shyam Gupta1, Rahul Thakur1, Malik Parmar3, Christen Gray1, Ranjani Ramachandran1, Bhavin Vadera1, Shobha Ekka1, Shikha Dhawan1, Ameet Babre1, Mayank Ghedia2, Umesh Alavadi1, Puneet Dewan1, Mini Khetrapal2, Ashwini Khanna2, Catharina Boehme1, Chinnambedu Nainarappan Paramasivan1

Xpert MTB/RIF assay for diagnosis of pulmonary tuberculosis in children: A prospective, multi-centre evaluation

Klaus Reither1, Christina Manyama2, Petra Clowes2, Andrea Rachow2, Daniel Mapamba3, Andreas Steiner2, Amanda Ross1, Elnrethema Mfinanga3, Mohamed Sasamalo4, Martin Nsabuga5, Francesco Aloisi6, Daniela Cirillo6, Levan Jugheli1, Fred Lwilla5
Findings

• Epidemiology/natural history
• Diagnostics
• **Treatment**
• Prevention
• Vaccines
Treatment outcomes of childhood tuberculous meningitis: a systematic literature review

Silvia S Chiang

Intermittent versus daily therapy for treating tuberculosis in children (Review)

Bose A, Kalita S, Rose W, Tharyan P

Tuberculosis Immune Reconstitution Inflammatory Syndrome in Children Initiating Antiretroviral Therapy for HIV Infection: A Systematic Literature Review

Ruth Linklater, MD, MPH; Anthony J. Garcia-Prats, MD, MPH; Ruth K. Atieno, BA, RN; Shalini P. Suresh, MD, MPH; Christopher M. Bock, MD, MPH;†

Provisional CDC Guidelines for the Use and Safety Monitoring of Bedaquiline Fumarate (Sirturo) for the Treatment of Multidrug-Resistant Tuberculosis

Consilium assistance with extensively drug-resistant tuberculosis management in a child: case study of compassionate delamanid use
Findings

- Epidemiology/natural history
- Diagnostics
- Treatment
- Prevention
- Vaccines
Contact Investigation for Active Tuberculosis Among Child Contacts in Uganda

INT J TUBERC LUNG DIS 18(9):1057–1061
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http://dx.doi.org/10.5588/ijtld.14.0286

Safety and completion of a 4-month course of rifampicin for latent tuberculous infection in children


Preventive Therapy for Child Contacts of Multidrug-Resistant Tuberculosis: A Prospective Cohort Study

James A. Seddon,‡‡ Anneke C. Hesselink,† Heather Finlayson,‡§ Katherine Fielding,§ Helen Cox,‡ Jennifer Hughes,‡ Peter Godfrey-Faussett,‡ and H. Simon Schaaf‡‡

Concordance of Bacillus Calmette-Guerin with sputum smear in households of children with multidrug-resistant tuberculosis

Jonathan L. Zelner,‡‡‡ Megan B. Murray,‡‡ Dr. Mercedes C. Becerra,§§adx, Jerome Galea,§ Leonid Lecca,§ Roger Calderon,§ Rosa Yataco,¶ Carmen Contreras,¶ Zibiao Zhang,¶ Bryan T. Grenfell,‡‡ and Ted Cohen,§§

1 Department of Ecology and Evolutionary Biology, Princeton University, Princeton, New Jersey; 2 Fogarty International Center, National Institutes of Health, Bethesda, Maryland; 3 Department of Global Health and Social Medicine, Harvard Medical School, Boston, Massachusetts; 4 Department of Epidemiology, Harvard School of Public Health, Boston, Massachusetts; 5 Partners in Health, Boston, Massachusetts and Lima, Peru; and 6 Division of Global Health Equity, Brigham and Women’s Hospital, Boston, Massachusetts
Findings

• Epidemiology/natural history
• Diagnostics
• Treatment
• Prevention
• Vaccines
IMMUNOLOGICAL ASPECTS

Safety and immunogenicity of the M72/AS01 candidate tuberculosis vaccine when given as a booster to BCG in Gambian infants: An open-label randomized controlled trial

Olubukola T. Idoko a, *, 1, Olumuyiwa A. Owolabi a, *, 1, Patrick K. Owiafe a, Philippe Moris b, Aderonke Odutola a, Anne Bollaerts b, Ezra Ogundare a, Erik Jongert b, Marie-Ange Demoitié b, Opokua Ofori-Anyinam b, 2, Martin O. Ota a, c, 2

Causes of variation in BCG vaccine efficacy: Examining evidence from the BCG REVAC cluster randomized trial to explore the masking and the blocking hypothesis

PEDIATRICS

The novel tuberculosis vaccine, AERAS-402, is safe in healthy infants previously vaccinated with BCG, and induces dose-dependent CD4 and CD8T cell responses

Benjamin M.N. Kagina e, f, 1, Michele D. Tameris e, 1, Hennie Geldenhuys e, Mark Hatherill e, Brian Abel e, g, Gregory D. Hussey e, f, Thomas J. Scriba e, Hassan Mahomed e, h, Jerald C. Sadoff i, Willem A. Hanekom e, J, *, 018-402 Clinical Lab study team, Nazma Mansoor a, Jane Hughes a, Marwou de Kock a, Wendy Whatney a, Hadn Africa a, Colleen Krohn a, Ashley Veldsman a, Angelique Luabeya Kany Kany a, Macaya Douoguih b, Maria Grazia Pau b, Jenny Hendriks b, Bruce McClain c, Jacqueline Benko d, Margaret A. Snowden c, David A. Hokey c
Conclusions

• Exciting times for paediatric TB
• Lots of studies being published
• Lots more work to do...