





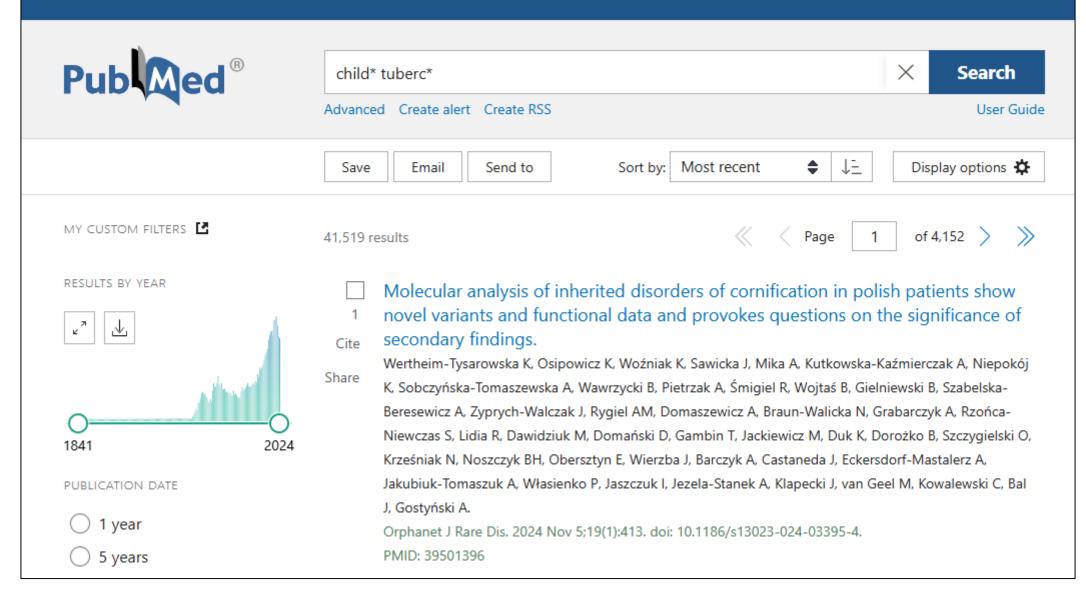


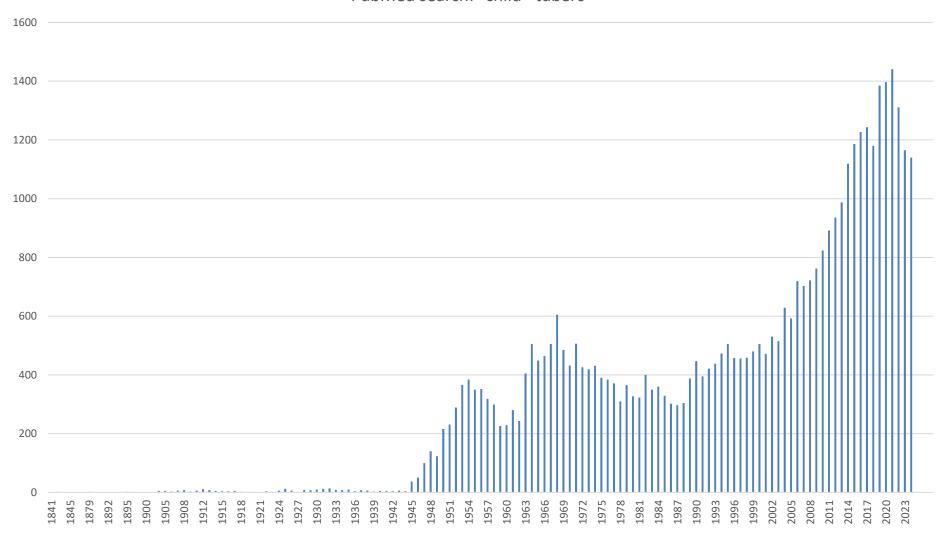
Overview of recent research papers in childhood tuberculosis

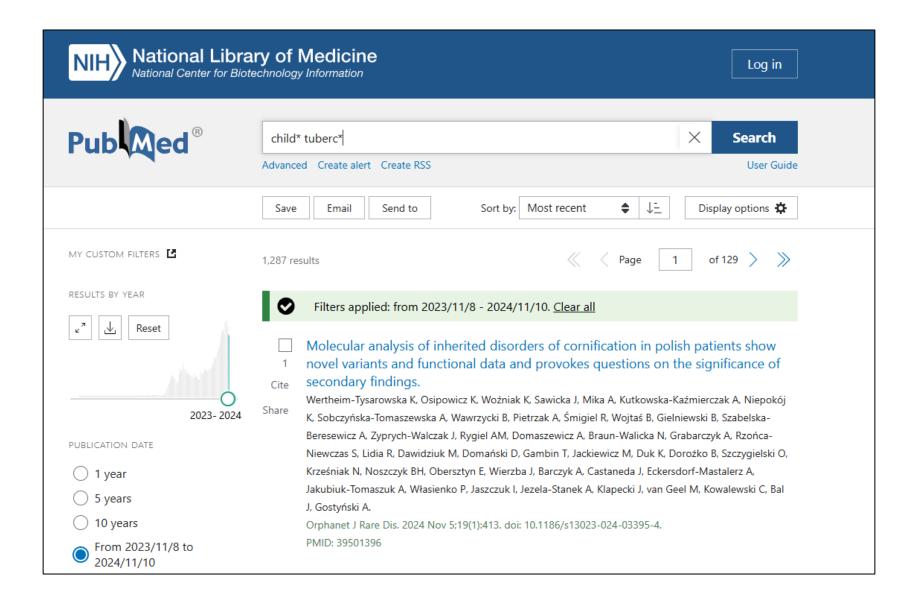
Child and Adolescent Tuberculosis Working Group
11th November 2024

James Seddon
Professor of Global Child Health, Imperial College London
Consultant in Paediatric Infectious Diseases, St. Mary's Hospital
Professor, Stellenbosch University









My biases

- 1287 studies identified on PubMed
- On review of title selected 106 that I thought looked interesting
- No narrative reviews or case reports
- Only given 15 minutes this year!!
- Review of abstracts brought down to 21
- PLEASE forgive me if I have not included your paper!!!
- PLEASE forgive me if I do a terrible job of summarising your work in <1 minute!



"A WORLD WITHOUT BIAS IS TOO HARD. WOULD YOU SETTLE FOR WORLD PEACE?"

CaP TB

PLOS GLOBAL PUBLIC HEALTH

RESEARCH ARTICLE

Improving TB detection among children in routine clinical care through intensified case finding in facility-based child health entry points and decentralized management:

A before-and-after study in Nine Sub-Saharan African Countries

Jean-François Lemaire 1º, Jennifer Cohn², Shirin Kakayeva³, Boris Tchounga⁴, Patricia Fassinou Ekouévi⁵, Vicky Kambaji Ilunga⁶, Donald Ochieng Yara⁷, Samson Lanje⁶, Yusuf Bhamu⁶, Leo Haule¹⁰, Mary Namubiru¹¹, Tichaona Nyamundaya¹², Maude Berset¹, Mikhael de Souza¹, Rhoderick Machekano³, Martina Casenghi 1º *, the CaP-TB Study teamⁿ

Effectiveness of a community-based approach for the investigation and management of children with household tuberculosis contact in Cameroon and Uganda: a cluster-randomised trial

Maryline Bonnet, Anca Vasiliu, Boris K Tchounga, Benjamin Cuer, Katherine Fielding, Bob Ssekyanzi, Boris Tchakounte Youngui, Jennifer Cohn, Peter J Dodd, Georges Tiendrebeogo, Patrice Tchendjou, Leonie Simo, Richard F Okello, Albert Kuate Kuate, Stavia Turyahabwe, Daniel Atwine, Stephen M Graham, Martina Casenghi, CONTACT study group*

Epidemiology, case finding and biology

Am. J. Trop. Med. Hyg., 110(6), 2024, pp. 1253–1260 doi:10.4269/ajtmh.23-0038 Copyright © 2024 The author(s)

Mycobacterium tuberculosis Infection in School Contacts of Tuberculosis Cases: A Systematic Review and Meta-Analysis

Wenjin Wang,^{1,2†} Aohan Liu,^{3†} Xinjie Liu,^{4†} Nannan You,⁵ Zhan Wang,¹ Cheng Chen,¹ Limei Zhu,¹ Leonardo Martinez,⁶ Wei Lu.^{1*} and Qiao Liu^{1*}

Indian Journal of Pediatrics (August 2024) 91(8):773–780 https://doi.org/10.1007/s12098-023-04723-5

ORIGINAL ARTICLE



Pulmonary Tuberculosis in Severely Malnourished Children Admitted to Nutrition Rehabilitation Centers: A Multicenter Study

Manjula Singh 1 · Bhavna Dhingra 2 · Bipra Bishnu 3 · Dhruvendra Pandey 4 · Praveen K. Anand 5 · Sarika Gupta 6 · Vidyanand Ravi Das 7 · Nitin Dhochak 8 · S. K. Kabra 8 · NRC Group

RESEARCH Open Access

The socioeconomic burden of pediatric tuberculosis and role of child-sensitive social protection



Kinari Shah^{1,2†}, Jascent Nakafeero^{3†}, Jillian L. Kadota^{1,2}, Peter Wambi³, Gertrude Nanyonga³, Emma Kiconco³, Atwiine Deus³, Moorine P. Sekadde⁴, Mary G. Nabukenya-Mudiope⁵, Hellen Aanyu-Tukamuhebwa³, Ezekiel Mupere⁶, Swomitra Mohanty⁷, Adithya Cattamanchi^{1,2,8}, Eric Wobudeya³, Priya B. Shete^{1,2} and Devan Jaganath^{1,2,9*}

Clinical Imaging 105 (2024) 110024



Contents lists available at ScienceDirect

Clinical Imaging





Pediatric Radiology



Frequency of abnormal findings on chest radiograph after positive PPD in children and adolescents in an urban setting in the United States

Monica Miranda-Schaeubinger ^{a,*}, Hermon Miliard Derbew ^a, Alexandra Ramirez ^a, Maretta Smith ^a, Mohammad Jalloul ^a, Savvas Andronikou ^{a,b}, Hansel J. Otero ^{a,b}

^a Department of Radiology, Children's Hospital of Philadelphia, 3401 Civic Center Blvd, Philadelphia, PA, 19104, USA

^b University of Pennsylvania, Perelman School of Medicine, Philadelphia, PA, USA

Received: 24 May 2024

Accepted: 1 September 2024

DOI: 10.1002/ppul.27253

ORIGINAL ARTICLE



Assessment of lower respiratory tract microbiota associated with pulmonary tuberculosis in children

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Xuemei Yang MM<sup>1</sup> | Weiwei Jiao PhD<sup>1</sup> | Xi Zeng MM<sup>1</sup> | Jie Yu PhD<sup>1</sup> | Jing Xiao PhD<sup>1</sup> | Tingting Jiang MM<sup>2</sup> | He Tang MM<sup>2</sup> | Jing Bi MM<sup>2</sup> | Yiyi Chen PhD<sup>1</sup> | Xiaoxue Li PhD<sup>1</sup> | Wanning Chen MM<sup>1</sup> | Yu Chen MM<sup>3</sup> | Adong Shen MM<sup>1,4</sup> | Lin Sun PhD<sup>1</sup> |
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Diagnostics

Tuberculosis 149 (2024) 102566



Contents lists available at ScienceDirect

Tuberculosis

journal homepage: www.elsevier.com/locate/tube





Exhaled breath analysis: A promising triage test for tuberculosis in young children

Else M. Bijker ^{a,b}, Jonathan P. Smith ^{c,d}, Walter Mchembere ^e, Kimberly D. McCarthy ^f, Henny Oord ^g, Jan-Willem Gerritsen ^g, Eleanor S. Click ^c, Kevin Cain ^c, Rinn Song ^{a,h,i,*}

Agizew et al. BMC Infectious Diseases (2024) 24:401 https://doi.org/10.1186/s12879-024-09313-0 **BMC Infectious Diseases**

RESEARCH Open Access

Increased tuberculosis case detection in Tanzanian children and adults using African giant pouched rats

Tefera B. Agizew^{1,2*}, Joseph Soka¹, Cynthia D. Fast^{1,2}, Stephen Mwimanzi¹, Gilbert Mwesiga¹, Nashon Edward¹, Marygiven Stephen¹, Reheme Kondo¹, Robert Burny³, Christophe Cox^{1,2} and Negussie Beyene^{1,2,4}







Xpert-Ultra Assay in Stool and Urine Samples to Improve Tuberculosis Diagnosis in Children: The Médecins Sans Frontières Experience in Guinea-Bissau and South Sudan

Laura Moretó-Planas, 1,2,0 Raman Mahajan, Lazro Fidelle Nyikayo, Yoanis Bedpinj Peter Ajack, Buai Tut Chol, Eltigani Osman, Mitchell Sangma, 6 Apal Tobi, Jonathan Gallo, Evelize Biague, Ramiro Gonçalves, Mercè Rocaspana, Cándida Medina, Miguel Camará, Laurence Flevaud, Lisa C. Ruby, 11,12 Sabine Bélard, 11,12 María José Sagrado, 1 Israel Molina, 13 and Augusto E. Llosa 1

> IJTLD OPEN 1(10):437-442 © 2024 The Authors http://dx.doi.org/10.5588/ijtldopen.24.0334

Stool Xpert® MTB/RIF Ultra for TB diagnosis in children: experience from a national scale-up programme

- S. Kabir, S. Choudhury, T. Rahman, S.M.M. Rahman, M.K.M. Uddin, A. Nashra, A. Hossain, S. Naher, K.M.S. Towhid, L. Shahrin, A. Ahmed, P. Daru, J. Hoffmann, S. Banu

RaPaed

Sequential and parallel testing for microbiological confirmation of tuberculosis disease in children in five low-income and middle-income countries: a secondary analysis of the RaPaed-TB study

Laura Olbrich*, Zoe Franckling-Smith*, Leyla Larsson, Issa Sabi, Nyanda Elias Ntinginya, Celso Khosa, Denise Banze, Marriott Nliwasa, Elizabeth Lucy Corbett, Robina Semphere, Valsan Philip Verghese, Joy Sarojini Michael, Marilyn Mary Ninan, Elmar Saathoff, Timothy Daniel McHugh, Alia Razid, Stephen Michael Graham, Rinn Song, Pamela Nabeta, Andre Trollip, Mark Patrick Nicol, Michael Hoelscher, Christof Geldmacher, Norbert Heinrich†, Heather Joy Zar†, on behalf of the RaPaed-AIDA-TB consortium‡

Diagnostic accuracy of a three-gene Mycobacterium tuberculosis host response cartridge using fingerstick blood for childhood tuberculosis: a multicentre prospective study in low-income and middle-income countries

Laura Olbrich*, Valsan P Verghese*, Zoe Franckling-Smith, Issa Sabi, Nyanda E Ntinginya, Alfred Mfinanga, Denise Banze, Sofia Viegas, Celso Khosa, Robina Semphere, Marriott Nliwasa, Timothy D McHugh, Leyla Larsson, Alia Razid, Rinn Song, Elizabeth L Corbett, Pamela Nabeta, Andre Trollip, Stephen M Graham, Michael Hoelscher, Christof Geldmacher, Heather J Zar, Joy Sarojini Michael*, Norbert Heinrich*, on behalf of the RaPaed-TB consortium†

TB-Speed

Effect of decentralising childhood tuberculosis diagnosis to primary health centre versus district hospital levels on disease detection in children from six high tuberculosis incidence countries: an operational research, pre-post intervention study

Eric Wobudeya, ** Mastula Nanfuka, Minh Huyen Ton Nu Nguyet, Jean-Voisin Taguebue, Raoul Moh, Guillaume Breton, Celso Khosa, Laurence Borand, Juliet Mwanga-Amumpaire, Ayeshatu Mustapha, Sylvie Kwedi Nolna, Eric Komena, Jacob Ross Mugisha, Naome Natukunda, Bunnet Dim, Agathe de Lauzanne, Saniata Cumbe, Eric Balestre, Julien Poublan, Manon Lounnas, Eden Ngu, Basant Joshi, Pierre-Yves Norval, Etienne Leroy Terquiem, Stavia Turyahabwe, Lynda Foray, Souleymane Sidibé, Kuate Kuate Albert, Ivan Manhiça, Moorine Sekadde, Anne Detjen, Sabine Verkuijl, Tan Eang Mao, Joanna Orne-Gliemann, Maryline Bonnet, and Olivier Marcy, for the TB-Speed Decentralisation study group

Development of tuberculosis treatment decision algorithms in children below 5 years hospitalised with severe acute malnutrition in Zambia and Uganda: a prospective diagnostic cohort study



Chishala Chabala, a,b,* Clémentine Roucher, Minh Huyen Ton Nu Nguyet, Esther Babirekere, Muleya Inambao, Gerald Businge, Chifunda Kapula, Perfect Shankalala, Bwendo Nduna, Veronica Mulenga, Stephen Graham, Eric Wobudeya, Maryline Bonnet, and Olivier Marcy, for the TB-Speed SAM study group



Pharmacokinetics

Clinical Infectious Diseases

MAJOR ARTICLE







Linezolid Pharmacokinetic-Anemia Modeling in Children With Rifampicin-Resistant Tuberculosis

Jordan T. Brooks,^{1,0} Belén P. Solans,^{2,3,0} Agathe Béranger,^{2,3,4,0} H. Simon Schaaf,^{5,0} Louvina van der Laan,^{5,6,0} Sangeeta Sharma,⁷ Jennifer Furin,⁸ Heather R. Draper, Anneke C. Hesseling, Anthony J. Garcia-Prats, 5,9,a,0 and Radojka M. Savic^{2,3,a}

Clinical Infectious Diseases

MAJOR ARTICLE







Twice-Daily Dosing of Dolutegravir in Infants on Rifampicin Treatment: A Pharmacokinetic Substudy of the EMPIRICAL Trial

Tom G. Jacobs, 1,a,0 Vivian Mumbiro, 2,a Uneisse Cassia, Kevin Zimba, Damalie Nalwanga, Alvaro Ballesteros, Sara Domínguez-Rodríguez, 6,0 Alfredo Tagarro, ^{6,7,8,©} Lola Madrid, ^{6,9} Constantine Mutata, ² Moses Chitsamatanga, ² Mutsa Bwakura-Dangarembizi, ² Alfeu Passanduca, ³ W. Chris Buck, ^{3,10} Bwendo Nduna, ¹¹ Chishala Chabala, ^{4,12,13} Elizabeth Najjingo, ¹⁴ Victor Musiime, ^{5,15} Cinta Moraleda, ^{6,16} Angela Colbers, ^{1,©} Hilda A. Mujuru, ^{2,b} Pablo Rojo, ^{6,16,17,b} and David M. Burger^{1,b}; on Behalf of the EMPIRICAL Clinical Trial Group

MDR-TB

Efficacy and safety of the all-oral bedaquilinecontaining regimen as treatment for pediatric multidrug/rifampicin-resistant tuberculosis: a multicenter, retrospective, cohort study

Wen-Wen Sun, Ming Yang, Xiao-Hong Chen, Li-Chao Fan, Hao-Yu Wu, Shao-Jun Zhang, Yu Chen & Lin Fan

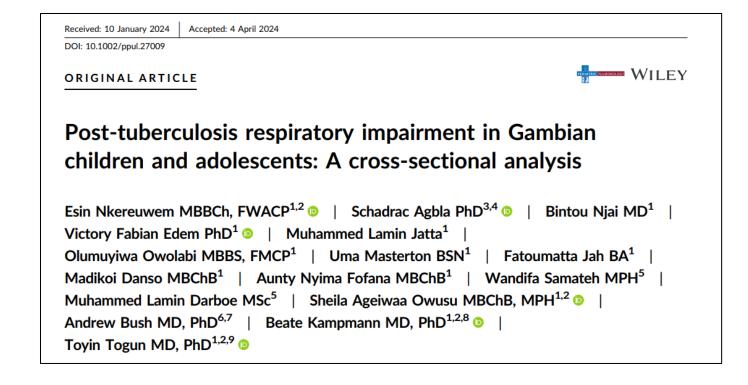
Short oral treatment regimens for rifampicin-resistant tuberculosis are safe and effective for young children: results from a field-based, non-randomised clinical trial from Kandahar, Afghanistan

Anita Mesic^{1,2}, Ine Decuyper ⁰², Sadiqqullah Ishaq³, Taiba Azizi³, Fazal Hadi Ziamal⁴, Shirbaz Amiri³, Kees Keus¹, Moe Thandar Pyae³, Khan Mohammed Mangal⁵, Hashim Khan Amirzada⁵, Assadullah Rasooli⁵, Mohammad Reza Aloudal⁶, Mohammad Zaher Daldar⁵ and Tom Decroo ⁰²

Post-TB

Impaired lung function in adolescents with pulmonary tuberculosis during treatment and following treatment completion

Marieke M. van der Zalm,^{a,*} Vita W. Jongen,^{a,b} Ruan Swanepoel,^c Klassina Zimri,^a Brian Allwood,^d Megan Palmer,^a Rory Dunbar,^a Pierre Goussard,^e H Simon Schaaf,^a Anneke C. Hesseling,^a and James A. Seddon^{a,f}



Conclusions

- Number of publications increasing, many of high quality
- Year of publications from large, well-funded studies (RaPaed, CaP-TB, TB-Speed)
- But also lots of other studies
- Good geographical variation

