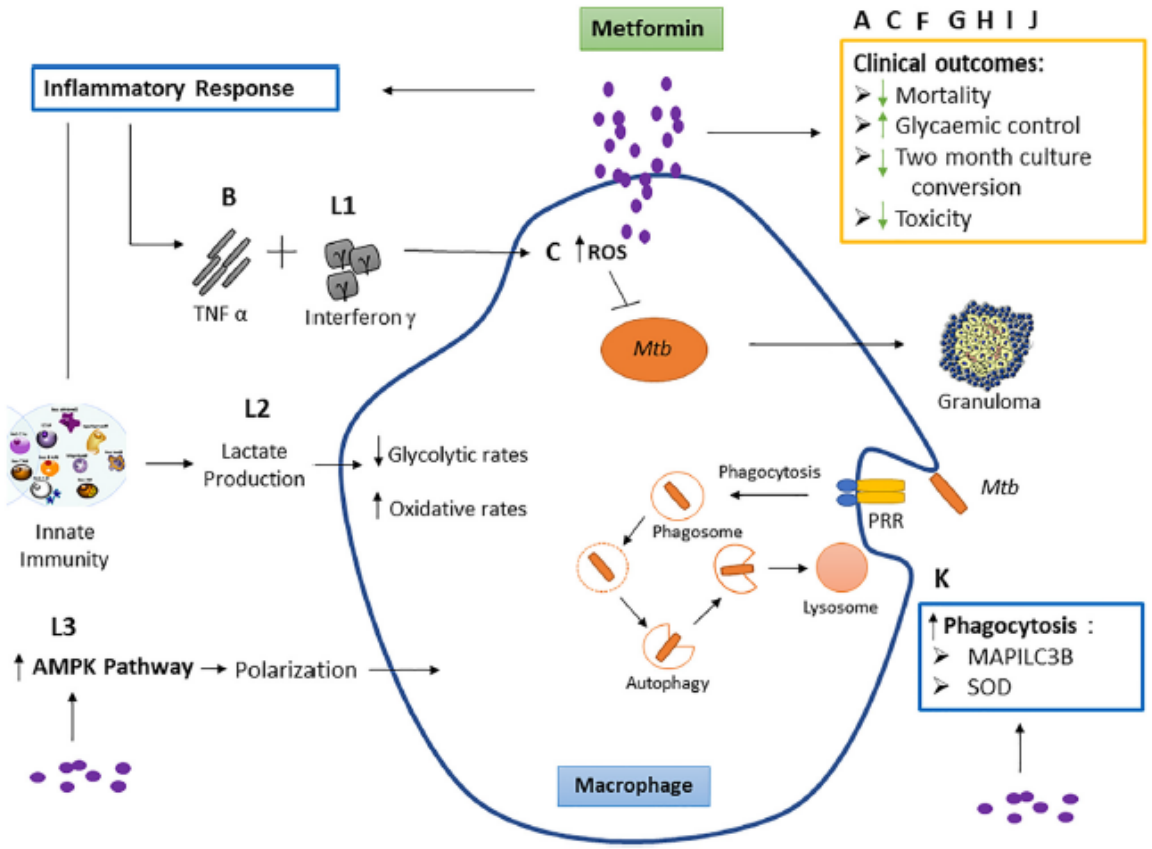
Metformin

Should we be giving it to all our TB patients?

Immune Effects of Metformin



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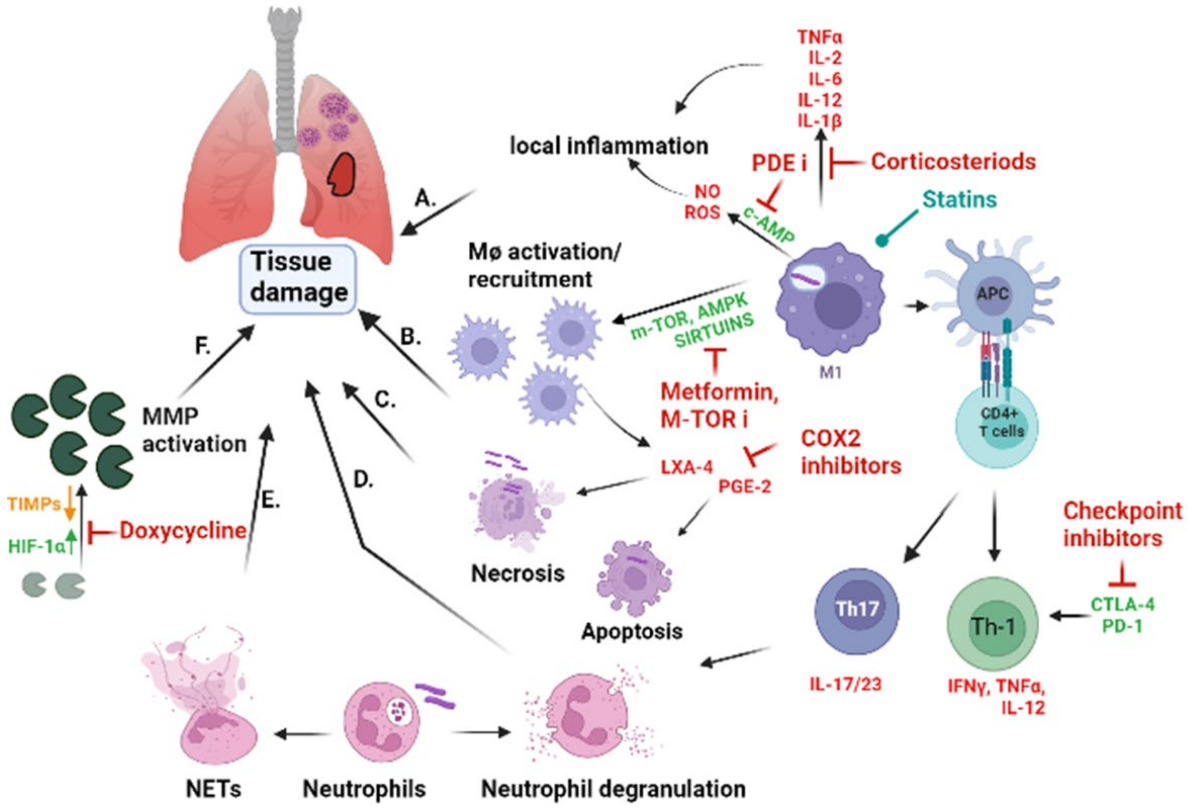

Seminars in Immunology 65 (2023) 101672

Journal of
Clinical Medicine

MDPI

Article

Metformin Decreases Risk of Tuberculosis Infection in Type 2 Diabetes Patients

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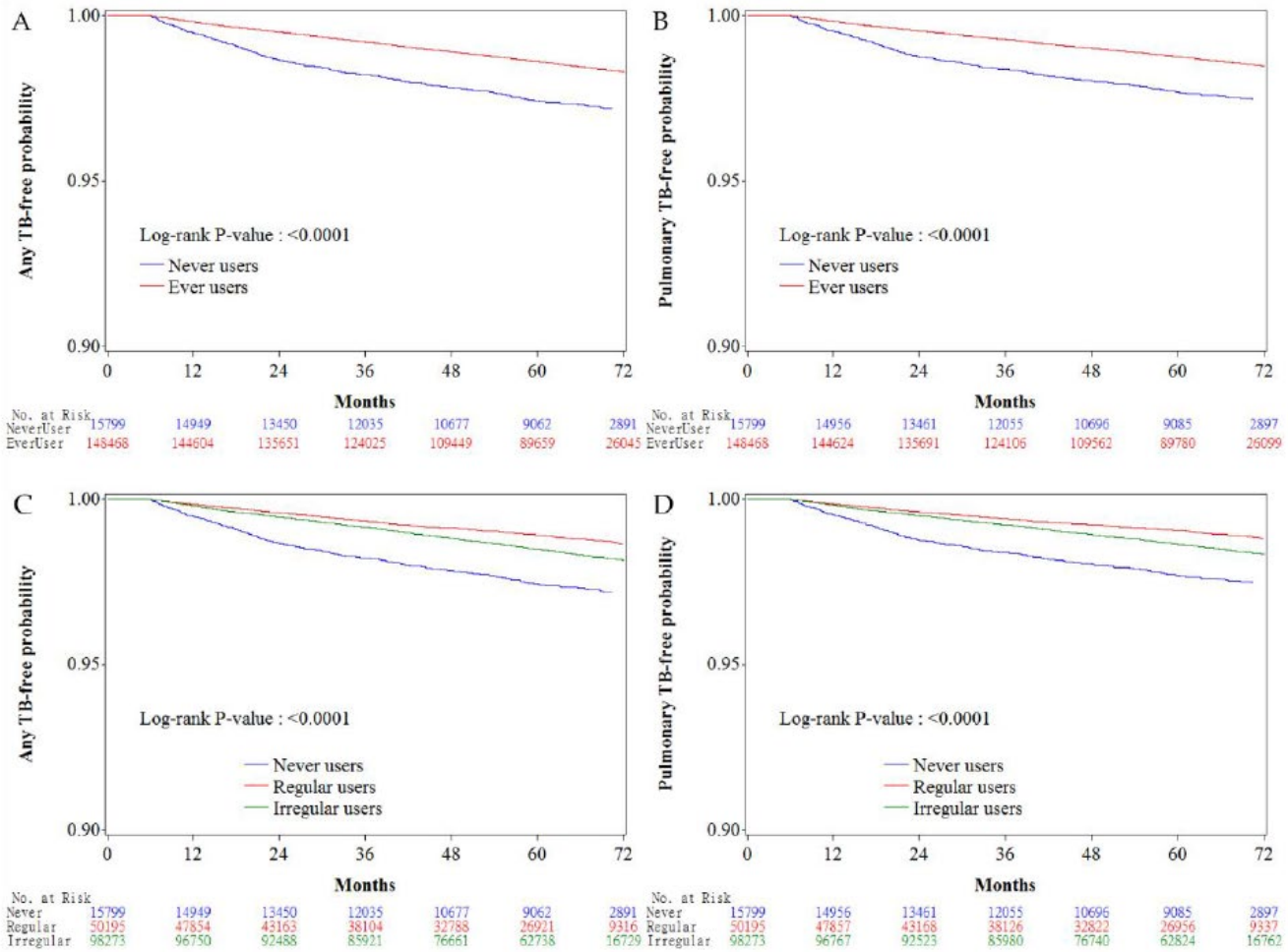

Yu et al. BMC Infectious Diseases (2019) 19:859
https://doi.org/10.1186/s12879-019-4548-4

BMC Infectious Diseases

RESEARCH ARTICLE Open Access

Impact of metformin on the risk and treatment outcomes of tuberculosis in diabetics: a systematic review

Xinyu Yu[1†], Ling Li[2†], Liangtao Xia[1], Xin Feng[1], Fan Chen[3], Shiyi Cao[3*] and Xiang Wei[1,4,5,6*]

- Retrospective review of databases through March 2019
- 12 observational studies, 6980 cases
- Results
  - Metformin prescription decreased risk of TB among diabetics (TBI to TB disease)
  - Metformin prescription was not related to lower risk of TB infection
  - Metformin medication during treatment for TB disease reduced mortality
  - Metformin use resulted in higher probability of smear conversion at 2 months
  - Relapse was not reduced by metformin prescription

Clinical Infectious Diseases

MAJOR ARTICLE

Randomized Trial of Metformin With Anti-Tuberculosis Drugs for Early Sputum Conversion in Adults With Pulmonary Tuberculosis

Chandrasekaran Padmapriydarsini,[1] Megha Mamulwar,[2,a] Anant Mohan,[3,a] Prema Shanmugam,[1] N. S. Gomathy,[1] Aarti Mane,[2] Urvashi B. Singh,[3] Nathella Pavankumar,[1] Abhijeet Kadam,[2] Hemanth Kumar,[1] Chandra Suresh,[1] Devaraju Reddy,[1] Poornaganga Devi,[1] P. M. Ramesh,[4] Lakshmanan Sekar,[1] Shaheed Jawahar,[5] R. K. Shandil,[5] Manjula Singh,[6] Jaykumar Menon,[5] Randeep Guleria[3]; and the METRIF Team

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- 322 patients randomized 1:1 to RIPE vs. RIPE + metformin for 8 weeks
- All patients (not just diabetic)
- Results
  - Addition of metformin to ATT for 8 weeks did not hasten sputum conversion
  - Metformin did diminish excess inflammation, reduced lung tissue damage (seen as faster clearance on X-ray)