



















| Preventing Drug Resistance in<br>TB |  |  |   |  |
|-------------------------------------|--|--|---|--|
|                                     | Cavity   |  |   |  |
|                                     | 10*9 organisms   |  |   |  |
|                                     | 10*3 R-INH     RIF kills R-INH of IO*2 R-RIF       10*2 R-RIF     INH kills R-RIF of INH kills R-RIF of IO*2 |  | RIF kills R-INH organisms CURE! INH kills R-RIF organisms |  |
| Texas<br>Children's<br>Hospital     |  |  | R-INH: 10*-6<br>R-RIF: 10*-7<br>R-INH+RIF: 10*-13         |  |
| BCCM<br>Baylor College of Medicine  |  |  |   |  |

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 Preventing Drug Resistance in LB

 Granulomas
 Granulomas

 10\*4-5
 Granulomas

 10\*4-5
 granisms

 ? any R-INH
 ? cure

 ? any R-RIF
 ? Cure

 Image: Image



- The burden of organisms is likely much lower than in adults, but this has never been measured – is it closer to TB disease in adults, or closer to TB infection?
- And when does TB infection turn into TB disease: Symptoms? Chest X-ray findings? Burden of organisms?



Much of what we see on the chest X-ray – and likely some of the symptoms - comes from the immunological response to the organism, not the burden of organisms















## Question

If the patient did not fit the SHINE criteria for 4-month therapy **at diagnosis**, but symptoms and radiographic findings have resolved at 4 months of therapy, can we stop the treatment?



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