



# T18: What is the best method of assessment of response (clinical/ serological/ radiological) to conservative treatment in spinal tuberculosis?





Pieter Moll and Nuffield Chair of Orthopaedic Surgery: University of Cape Town Head: Division of Orthopaedic Surgery

Groote Schuur Hospital • Red Cross Children's Hospital • UCT Private Academic Hospital





## T18 panel



Prof Gaurav Raj Dhakal



Prof Robert Dunn (liaison)



Dr S Rajasekaran



Prof Ian Vlok





## Why is this topic Important

Active spinal tuberculosis, as a communicable disease, is both a risk to the patient as well as their community.

Conservative management is over months with potential serious medication side effects.

Failure of disease control requires escalation to surgical intervention.

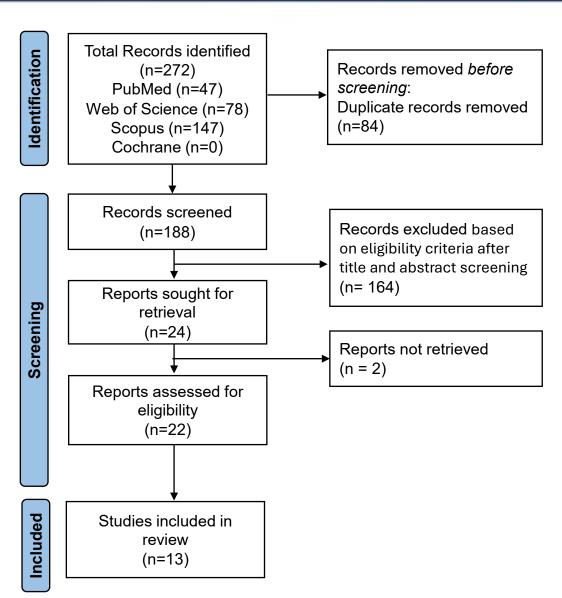
Therefore, it is important to continually assess the (positive) effect of anti-TB medication





## Literature review process rayyan.ai









## Findings from Literature

Although most authors referred to clinical, blood and radiological parameters at variable time periods there was <u>little explanation as to how they were interpreted</u>.

They were not assessed as to sensitivity or specificity or compared.





## Findings from Literature

<u>Clinical parameters used:</u> resolution of presenting symptoms of pain

weight gain

return of appetite





## Findings from Literature

Singh et al presented the improvement of these factors over time in their 50 patients.

**Presentation:** all severe back pain 50% constitutional symptoms

3 months 10%

6 months 42% had moderate/ severe pain 5%

24% moderate at 9 months.

**12 months** 88% reported mild or no pain





### Findings from Literature

ESR normalised by 12 months

X-rays confirmed sclerosis and ankylosis in 75% by 9 months

MRI can confirm resolution of abscess and reduced bone oedema.

PET SUVmax correlates with disease control

Technicium-ciprofloxacin in small cohort promising

Promising research in genomic response







What is the best method of assessment of response (clinical/ serological/ radiological) to conservative treatment in spinal tuberculosis?





#### **Recommendation:**

Based on available data the assessment of response is based on a multifactorial approach utilising clinical features (pain, weight gain and appetite), sequential x-rays (excluding progression of kyphosis) and if available, MRI imaging.

FDG PET CT has shown value in the research environment, and there is interesting work in peripheral blood biomarkers and genomics.







Agree – 84.1%, Disagree – 6.8%, Abstain – 9.1% (Strong Consensus)