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## Original article

# Incidence of tuberculosis among patients with rheumatoid arthritis using TNF blockers in Brazil: data from the Brazilian Registry of Biological Therapies in Rheumatic Diseases (Registro Brasileiro de Monitoração de Terapias Biológicas – BiobadaBrasil)

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## ABSTRACT

**Objectives:** To assess the incidence of tuberculosis and to screen for latent tuberculosis infection among Brazilians with rheumatoid arthritis using biologics in clinical practice.

**Patients and methods:** This cohort study used data from the Brazilian Registry of Biological Therapies in Rheumatic Diseases (Registro Brasileiro de Monitoração de Terapias Biológicas – BiobadaBrasil), from 01/2009 to 05/2013, encompassing 1552 treatments, including 415 with only synthetic disease-modifying anti-rheumatic drugs, 942 synthetic DMARDs combined with anti-tumor necrosis factor (etanercept, infliximab, adalimumab) and 195 synthetic DMARDs combined with other biologics (abatacept, rituximab and tocilizumab). The occurrence of tuberculosis and the drug exposure time were assessed, and screening for tuberculosis was performed. Statistical analysis: Unpaired t-test and Fisher's two-tailed test;  $p < 0.05$ .

**Results:** The exposure times were 981 patient-years in the controls, 1744 patient-years in the anti-TNF group (adalimumab = 676, infliximab = 547 and etanercept = 521 patient-years) and 336 patient-years in the other biologics group. The incidence rates of tuberculosis were 1.01/1000 patient-years in the controls and 2.87 patient-years among anti-TNF users (adalimumab = 4.43/1000 patient-years; etanercept = 1.92/1000 patient-years and infliximab = 1.82/1000 patient-years). No cases of tuberculosis occurred in the other biologics group. The mean drug exposure time until the occurrence of tuberculosis was 27(11) months for the anti-TNF group.

**Conclusions:** The incidence of tuberculosis was higher among users of synthetic DMARDs and anti-TNF than among users of synthetic DMARDs and synthetic DMARDs and non-anti-TNF biologics and also occurred later, suggesting infection during treatment and no screening failure.

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## Incidência de tuberculose em pacientes com artrite reumatoide em uso de bloqueadores do TNF no Brasil: dados do Registro Brasileiro de Monitoração de Terapias Biológicas BiobadaBrasil

## RESUMEN

### Palavras-chave:

Artrite reumatoide

Tuberculose

Biológicos

Brasil

Registro

**Objetivos:** Avaliar incidência de tuberculose e triagem para tuberculose latente em brasileiros com artrite reumatoide em uso de agentes biológicos na prática clínica.

**Pacientes e métodos:** Estudo de coorte com dados do Registro Brasileiro de Monitoração de Terapias Biológicas (BiobadaBrasil), de 01/2009 a 05/2013, abrangeu 1.552 tratamentos, 415 somente com drogas modificadoras do curso da doença (MMCDs) sintéticas, 942 MMCDs sintéticas em associação com anti-TNF (etanercepte, infliximabe, adalimumabe) e 195 MMCDs sintéticas em associação com outros biológicos (abatacepte, rituximabe e tocilizumabe).

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