Analysis of the therapeutic positioning of biological drugs in the treatment algorithm for rheumatic diseases

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Background

The current treatment for rheumatic diseases (RD) includes biological drugs like infliximab (IFX), adalimumab (ADM), etanercept (ETT), golimumab (GLM), rituximab (RTX), abatacept (ABT) and tocilizumab (TCZ).

The treatment algorithm (current clinical guidelines*) includes:

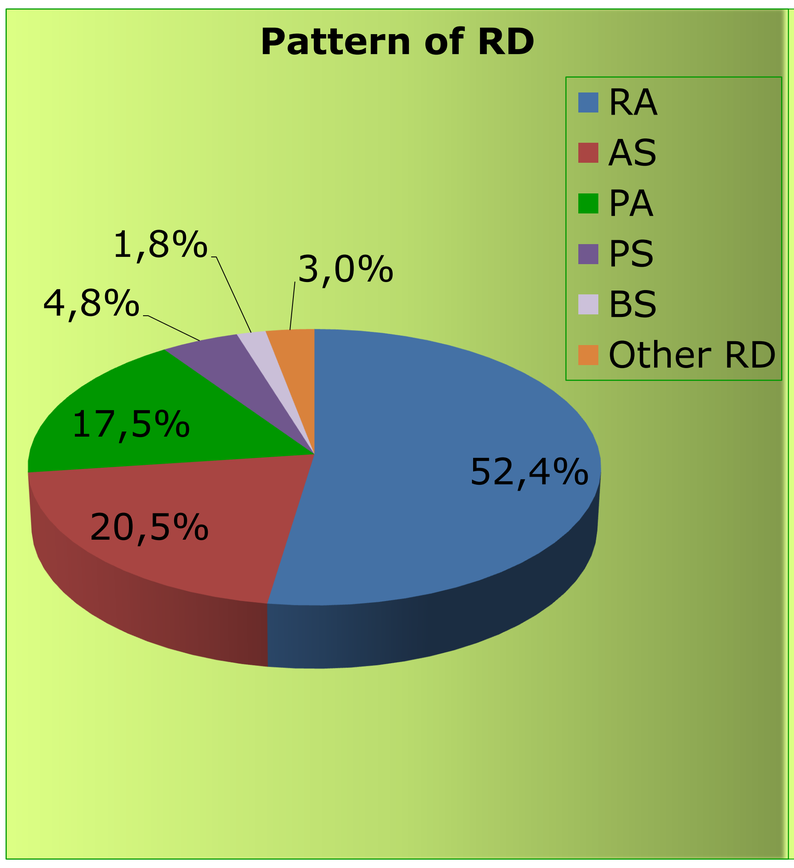
- **First-line drugs:** IFX, ADM, ETT and GLM
- **Second-line drugs:** RTX
- **Third-line drugs:** ABT and TCZ

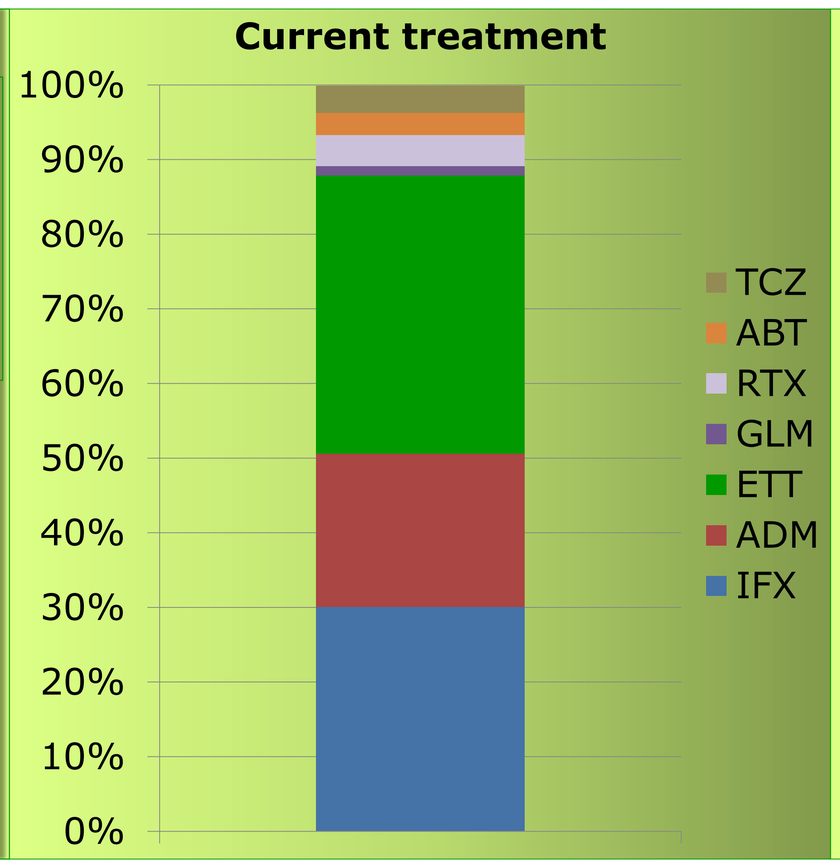
Purpose

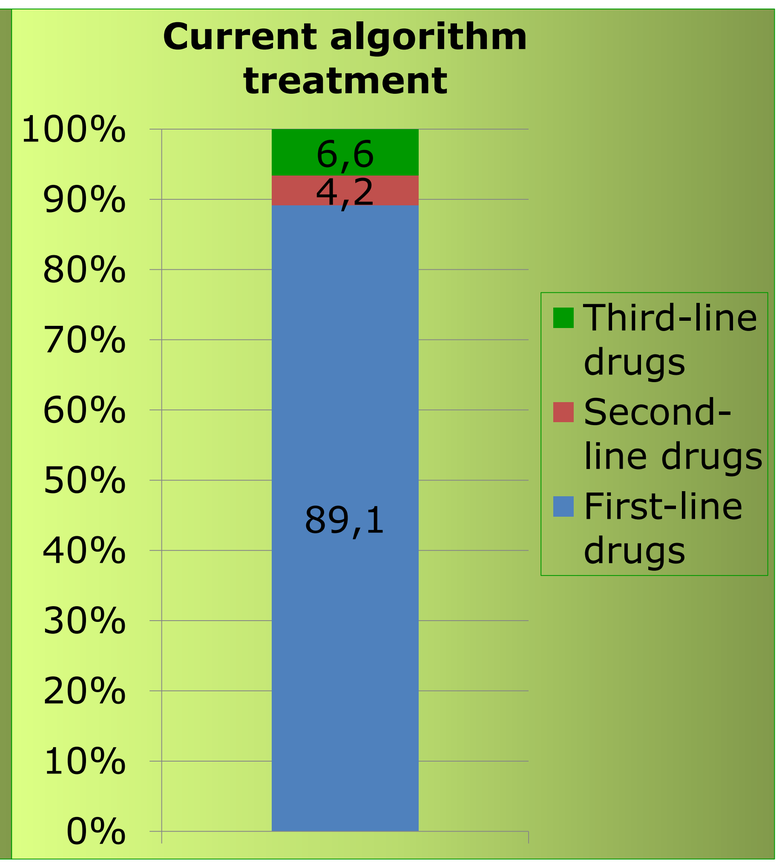
To describe the pattern of RD and analyze current and past biological drug treatments to evaluate how it matches with the expected algorithm, in a reference third level hospital.

Results

- **RD pattern:** 52.4% RA, 20.5% AS, 17.5% PA, 4.8% PS, 1.8% BS and 3% other RD
- **Current treatment:** 30.1% with IFX, 20.5% with ADM, 37.3% with ETT, 1.2% with GLM, 4.2% with RTX, 3% with ABT and 3.6% with TCZ







- **98.2%** of patients start with first-line drug
- **99.7%** of first-line drug treatments comply with the treatment algorithm
- **100%** of treatments with RTX and 76.9% of third-line treatment started before exhausting other therapeutic options
- **9.3%** of treatments do not comply with the treatment algorithm
- **4.3%** of treatments were off-label indications

Materials and methods

Design: Cross sectional (June 2011), retrospective, observational study, in a third level, reference hospital.

Study population: 166 patients (30% of complete population) with 257 drug-patient records.

Inclusion criteria: patients with RD like psoriatic arthritis (PA), rheumatoid arthritis (RA), ankylosing spondylitis (AS), psoriatic spondyloarthropathy (PS), Behçe syndrome (BS) and others, treated with biological drugs and being followed up in our center.

Information source: Patients followed up in the pharmacy outpatient settings, with available clinical records. Demographyc, clinical and therapeutics (RD biological drugs) data were collected.

Conclusions

- The current use of biological drugs for RD matches 90.7% in the expected treatment algorithm and 95.7% of treatments are used under labeled indications.
- The 98.2% of patients start treatment with a first line biological drug.

* Clinical Guidelines are based in NICE

Evaluation of the reasons for switching biological drug treatment in rheumatic diseases

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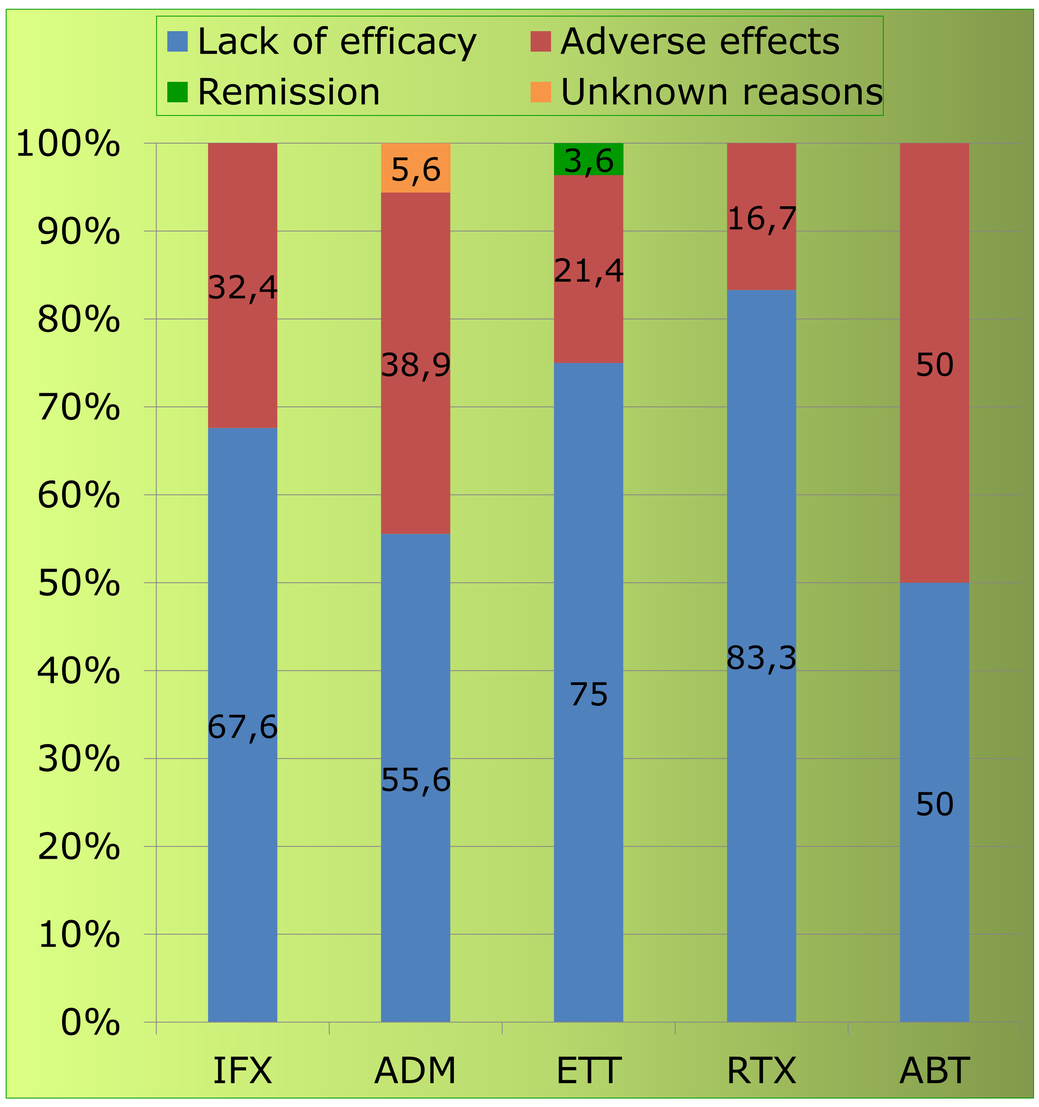
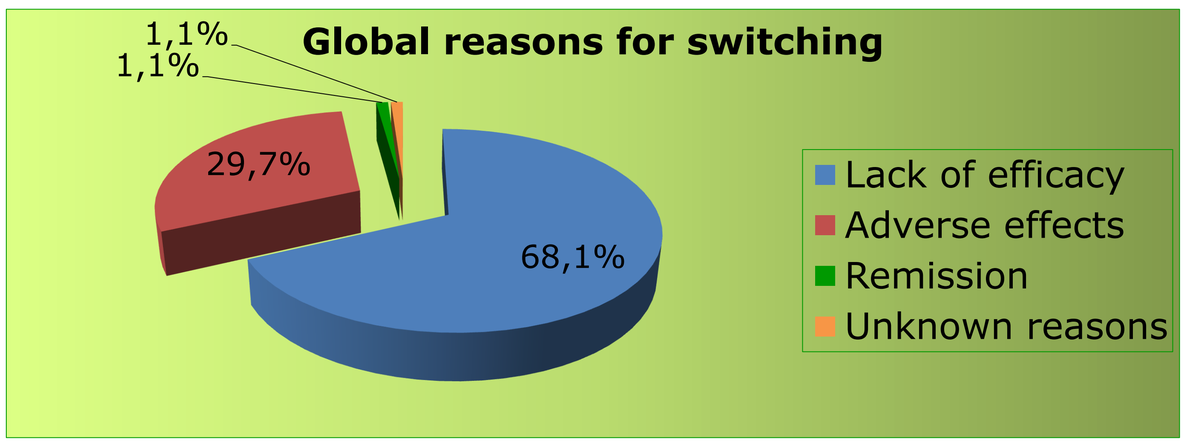
Purpose

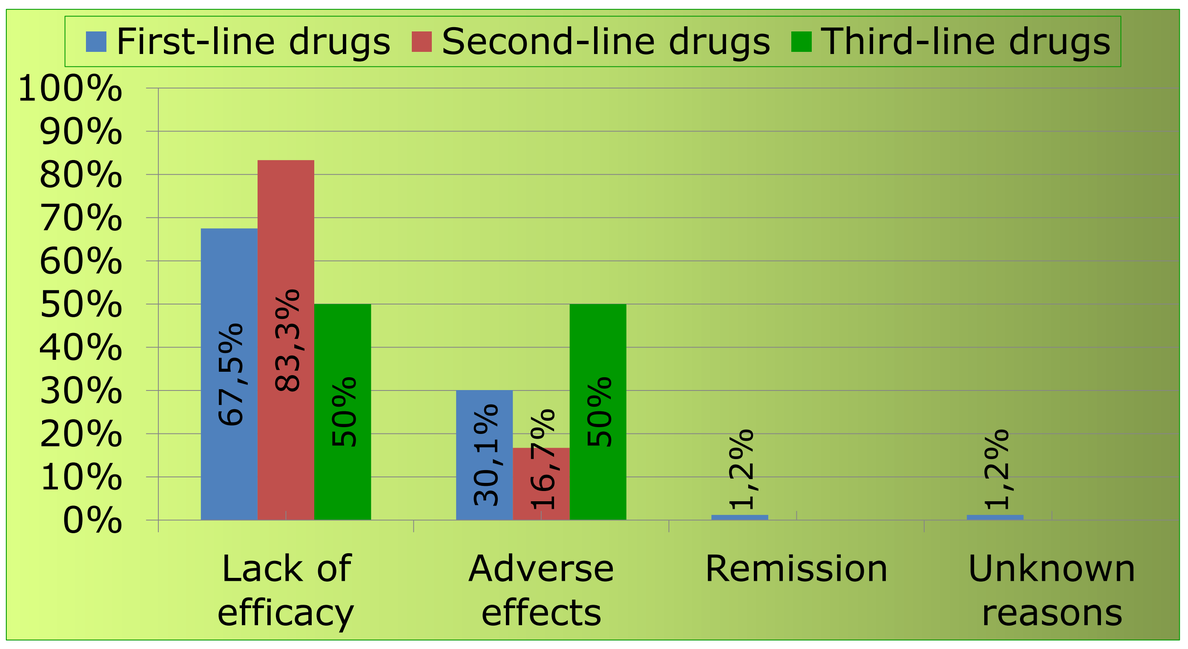
To analyze the incidence and evaluate the reasons for switching biological drugs in a RD population as well as the reasons for each biological drug separately.

Results

- **35%** (97/257) of biological drug treatments have been switched for any reason
- **Reasons for switching** are as follows: **68.1%** was due to **lack of efficacy**, **29.7%** was due to **adverse effects**, **1.1%** was due to **remission** and **1.1%** was due to **unknown reasons**







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Information source: Patients followed up in the pharmacy outpatient settings, with available clinical records. Demographyc, clinical and therapeutics (RD biological drugs) data were collected. Indication, treatment history with biological drugs and reasons for switching were collected and analyzed

Conclusions

- **The main reason for switching biological drugs in RD is the lack of efficacy**, 68.1%; while the appearance of adverse effects represents 29.7%.
- The switching reasons for each biological drug show a different pattern, nevertheless more than half of changes were due to lack of efficacy in treatments with IFX, ADM, ETT and RTX.

* Clinical Guidelines are based in NICE