**Impact of Poor Prognostic Factors on Treatment Decisions in Clinical Practice: Cohorts With Rheumatoid Arthritis: Findings From a US Observational Study**

**Introduction**
- The role of disease prognosis in patients with RA is dependent on several factors and varies significantly.
- Factors associated with a poor prognosis in patients with RA, which predict a more rapid and aggressive disease course, include, but are not limited to: laboratory results (high disease activity, joint counts), and radiographic findings (tnb occurrence of erosions).
- The presence of multiple poor prognostic factors in patients with moderate RA has been associated with increased risk of disease progression in both clinical trial and observational studies.
- While EULAR and previous ACR guidelines recommend more aggressive management for patients with RA with multiple poor prognostic factors, few ACR guidelines focus on the impact of poor prognosis on treatment decisions and outcomes.
- The Corrona RA registry is an independent, prospective, national, observational cohort in which patients with RA are followed systematically over time. The presence and number of poor prognostic factors were collected from patient charts.
- The rate of disease progression in patients with RA is dependent on several factors and varies significantly.
- The presence of multiple poor prognostic factors in patients with recent-onset RA has important implications for treatment decisions and outcomes.
- To evaluate treatment patterns and change in disease activity (change in CDAI and Boolean response), a subset of patients with recent-onset RA with complete data at baseline and 12-month follow-up were characterized at enrollment in terms of RA prognosis based on the 2008 ACR classification criteria.
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**Methods**
- **Data source**:
  - The Corrona RA registry is an independent, prospective, national, observational cohort in which treatment and outcomes data in patients with RA are collected and analyzed (Figure 1).
  - Patients recruited from 169 private and academic practice sites across 40 states in the US, with the guidance of the rheumatology.
  - Patients with missing information on any factor were excluded.

**Objective**
- To characterize a cohort of patients with RA by typical practice settings, based on the number of poor prognostic factors.
- To evaluate treatment patterns and change in disease activity (change in CDAI and Boolean response) in patients with a moderate number of poor prognostic factors in patients with RA with RA.
- To evaluate the impact of poor prognosis on change in CDAI.
- To evaluate the impact of poor prognosis on LDA/remission in patients with moderate/high disease activity.

**Study population**
- **Study design**:
  - Cross-sectional (baseline) versus longitudinal (follow-up) study.
- **Evaluation**
  - Treatment patterns and change in disease activity (change in CDAI and Boolean response).
  - Logistic regression models (unadjusted and adjusted for baseline CDAI) evaluated the impact of poor prognosis on biologic use by 12-month follow-up; OR=odds ratio; tsDMARD=targeted synthetic DMARD.
- **Statistical analyses**
  - Baseline characteristics of each subgroup were evaluated using descriptive statistics and chi-square tests. Logistic regression models unadjusted and adjusted for baseline CDAI evaluated the impact of poor prognosis on LDA/remission in patients with moderate/high disease activity.

**Results**
- **Patient disposition and baseline characteristics**
  - Overall, 1348 patients enrolled in the Corrona RA registry from January 2005 through December 2015 met the inclusion criteria.
  - 972 patients (72.6%) were categorized as having 0–1 poor prognostic factors.
  - Baseline demographic and clinical characteristics indicated that patients with a moderate number of poor prognostic factors had a larger degree of disease activity.

**Treatment acceleration from baseline to 12-month follow-up by number of poor prognostic factors**
- The rate of change in disease activity from enrollment to 12-month follow-up was highest in the group with 2+ poor prognostic factors and lowest in the group with 0–1 poor prognostic factors.

**Change in disease activity from baseline to 12-month follow-up by number of poor prognostic factors**
- The rate of change in disease activity from enrollment to 12-month follow-up was highest in the group with 2+ poor prognostic factors and lowest in the group with 0–1 poor prognostic factors.

**Conclusions**
- In the adjusted analyses, a greater number of poor prognostic factors was not associated with a greater likelihood of achieving LDA or remission at 12-month follow-up.
- The findings suggest that the presence of poor prognostic factors does not influence treatment decisions.
- The strategy varies, and the correlation between the number of poor prognostic factors and treatment decisions is not clear. Further studies are needed to clarify this relationship.

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**References**

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