



Letter to the Editor

Validation of the French version of the Compliance Questionnaire for Rheumatology (CQR-5), a self-reporting questionnaire specific to patients with chronic inflammatory rheumatic disease



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Chronic inflammatory rheumatic diseases (CIRD) are chronic diseases in which patient involvement is essential. Several studies [1–4] found great variability in adherence to treatment, ranging from 30% to 80%, so adherence must be regularly measured with tools that can be used in daily clinical practice. To evaluate adherence to treatments of patients with CIRD, the British Society of Rheumatology validated the Compliance Questionnaire for Rheumatology with 5 questions (CQR5); a free questionnaire not validated in French and formulated so that the patient can express agreement with each item according to a 4-level Likert scale [5,6].

The main objective of the current study was to validate the French version of the CQR5.

The observational single-center study involved patients with CIRD treated with subcutaneous biologic disease-modifying antirheumatic drugs (bDMARDs) for at least 3 months. Patients were invited to complete the CQR5 online twice at a 7-day interval. The CQR5 score ranged from 1, “definitely don’t agree,” to 4, “definitely agree”; patients with high scores were considered to have high adherence [5] (Fig. 1). Adherence was measured by using the medication possession ratio (MPR) over 6 months (July 2020 to January 2021) by a call to the patient’s pre-declared community pharmacy; an MPR > 80% was considered “high adherence”. The validity of the French CQR5 was assessed by Cronbach α coefficient, by the 7-day test-retest method, and by comparison to the MPR with the Mathews correlation coefficient. To avoid bias due to disease activity, the Routine Assessment of Patient Index Data

Table 1

Patient characteristics (n = 92).

Women	52 (56.5%)
Age, mean (SD)	47.5 (13.6)
Disease, n (%)	
Rheumatoid arthritis	22 (23.9%)
Axial spondyloarthritis	69 (75.0%)
Juvenile arthritis	1 (1.1%)
bDMARD or anti-JAK treatment	
Anti-TNF	72 (78.3%)
Anti-IL6	4 (4.3%)
Anti-CTLA4	4 (4.3%)
Anti-IL23	3 (3.3%)
Anti-JAK	1 (1.1%)
Anti-IL17	8 (8.7%)
RAPID3 (baseline), mean (SD)	8.7 (5.7)
RAPID3 (baseline)	
Remission (0–3)	17 (18.5%)
Low severity (3.1–6)	21 (22.8%)
Moderate severity (6.1–12.0)	27 (29.3%)
High severity (12.1–30)	27 (29.3%)

bDMARD: biologic disease-modifying antirheumatic drug; JAK: Janus kinase inhibitor.

3 (RAPID-3) self-reporting questionnaire was measured twice at a 7-day interval.

Overall, 92 patients were included (mean [SD] age 47.5 [13.6] years; 56.5% female) (Fig. S1) [See the supplementary material associated with this article online]. Patients had spondyloarthritis (75%), rheumatoid arthritis (23.9%) or juvenile arthritis (1.1%); 78.3% of patients were receiving anti-TNF- α monoclonal antibodies (Table 1). According to the French CQR5, 81.5% of patients showed high adherence, and according to the MPR, 79% showed high adherence (Table S1). With the MPR used as a gold standard, the sensitivity and specificity of the CQR5 was 85% and 32%, respectively (Mathews correlation coefficient: 0.17). The internal consistency of the French CQR5 was reliable (Cronbach α 0.74; 95% CI 0.66–0.83); the instrument was one-dimensional and reproducible (kappa coefficient 0.85; 95% CI 0.51–0.98) (Table S2).

The percentage of adherence found is consistent with that found for bDMARDs in the literature [7]. In our study, the proportion of high adherence was higher according to the French CQR5 than the MPR. However, the French CQR5 specificity seemed to be lower. In daily practice, patients can space their injections on medical agreement in accordance with the 2021 EULAR guidelines on self-management strategies [8]. These patients will be considered low adherent according to the MPR but high adherent by the French CQR5. These patients exactly meet the WHO definition of adherence [9] and adapt their treatment according to the recommendations of a healthcare provider.

Pour chacun des items suivants, entourez la proposition qui correspond le mieux à votre degré d'accord.

1. Je prends mes anti-rhumatismaux car cela m'aide à avoir moins de problèmes.



2. Je ne m'avise surtout pas d'oublier de prendre mes médicaments contre les rhumatismes.



3. Mes médicaments sont toujours rangés au même endroit, ainsi cela m'empêche de les oublier.



4. Je prends mes médicaments car je fais totalement confiance à mon rhumatologue.



5. Je suis à la lettre ce que me disent les médecins.



Fig. 1. The French Compliance Questionnaire for Rheumatology with 5 items.

The French CQR5 is a validated tool in clinical practice to assess adherence to bDMARDs in patients with CIRD. Further studies are required to confirm these results.

Disclosure of interest

The authors declare that they have no competing interest.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at [doi:10.1016/j.jbspin.2022.105449](https://doi.org/10.1016/j.jbspin.2022.105449).

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