

A patient reported-outcomes referral tool to identify patients with rheumatoid arthritis and facilitate early referral from primary care to rheumatology

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BACKGROUND

- **Early referral** to rheumatology of patients with arthritis is recommended for an early diagnosis and treatment of rheumatoid arthritis (RA) during the **window of opportunity**.
- However, the insidious onset, non-specific symptoms early in the disease, and the lack of confidence to diagnose RA are challenges for primary care physicians (PCPs) to adequate referral.

OBJECTIVE

To evaluate a referral tool based on **patient reported outcomes** (PROs), easily completed by patients, to guide PCPs and support referral of patients with suspected RA

METHODS

An **Early Arthritis Clinic** (EAC) with direct access for PCPs has been established from January 2022.

Referral criteria: >2 swollen joints, duration of symptoms <2 years, and no previous rheumatology diagnosis.

Patients complete two questionnaires on a tablet:

- A referral form based on PROs including affected joints, symmetry, morning stiffness in minutes, age and family history of RA
- A multidimensional health assessment questionnaire (MDHAQ).

A descriptive analysis by diagnostic group is presented in table 1.

Receiver operating characteristic (ROC) analysis were performed to evaluate the ability of the referral form to discriminate RA

RESULTS

From 328 patients referred to our EAC up to November 2023, only 70 (21%) fulfilled the inclusion criteria: 23 (33%) with undifferentiated arthritis (UA), 24 (34%) with RA, 17 (24%) with spondyloarthritis (SpA) including psoriatic arthritis, and 6 (9%) with other diagnosis.

Table 1: Patients characteristics by diagnosis

	UA N=23	RA N=24	SpA N=17	Other N=6
Age, mean (SD)	44.7 (10.7)	57.3 (17.2)	50.1 (7.8)	53.5 (9.1)
Female	18 (78)	20 (83)	7 (41)	4 (67)
RF positive	12 (53)	15 (64)	2 (14)	2 (33)
ACPA positive	3 (13)	18 (73)	0	0
ESR, mean (SD)	15.3 (13.3)	27.8 (16.7)	29.4 (24.2)	18.3 (14.7)
CRP, mean (SD)	0.5 (0.3)	2.1 (1.1)	1.7 (1.1)	0.4 (0.2)
PATGL, mean (SD)	4.4 (2.7)	4.9 (2.5)	6.4 (2.7)	5.2 (1.9)
DOCGL, mean (SD)	1.9 (1.5)	2.5 (1.9)	2.7 (1.8)	1 (0.7)
DAS28-CRP	1.9 (0.6)	2.7 (0.8)	2.0 (0.7)	1.7 (0.4)
CDAI	7.5 (6.2)	12.6 (9.7)	6.9 (6.3)	6.6 (4.3)
RAPID3	9.9 (6.5)	11.5 (7.6)	15.7 (5.2)	10.0 (4.4)
Referral Score	13.6 (10.8)	16.2 (10.1)	10.0 (7.5)	11.1 (9.6)

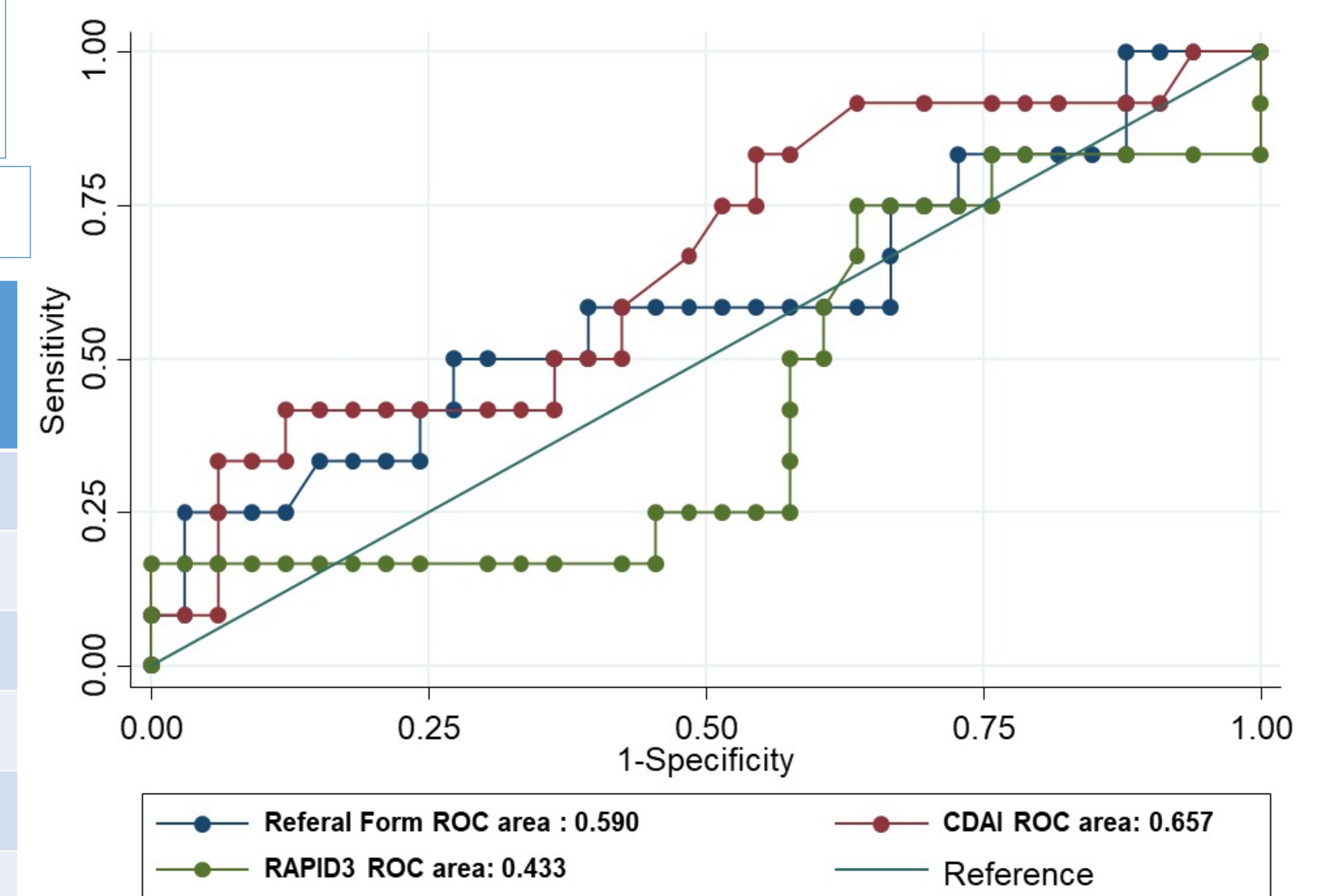
CONCLUSIONS

Our results show **poor adequacy of referral** with only 21% patients fulfilling criteria to be evaluated.

Our **PROMs-referral** tool is easily completed by patients on a tablet, discriminate patients with RA, and may be useful for PCPs for an early referral of patients with suspected RA.

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Figure 1: ROC curves comparison for the referral form, RAPID3 and CDAI



- The ability to discriminate between RA and other diagnosis was comparable for the referral score based on PROs (AUC: 0.59 95% CI (0.43-0.75) versus CDAI (AUC: 0.65 95%CI (0.47-0.74) which require a physician's global assessment of disease activity, both performed better than RPAID3 (Figure 1)
- For referral form/score based on PROs, the **cut-off of 18** presented the best combination of sensibility 43%, specificity 89% and likelihood ratio for a positive test 3.8.