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Patient and clinical relevant outcomes in Rheumatoid Arthritis; experience from daily practice

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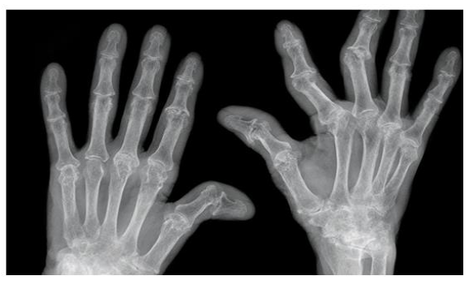
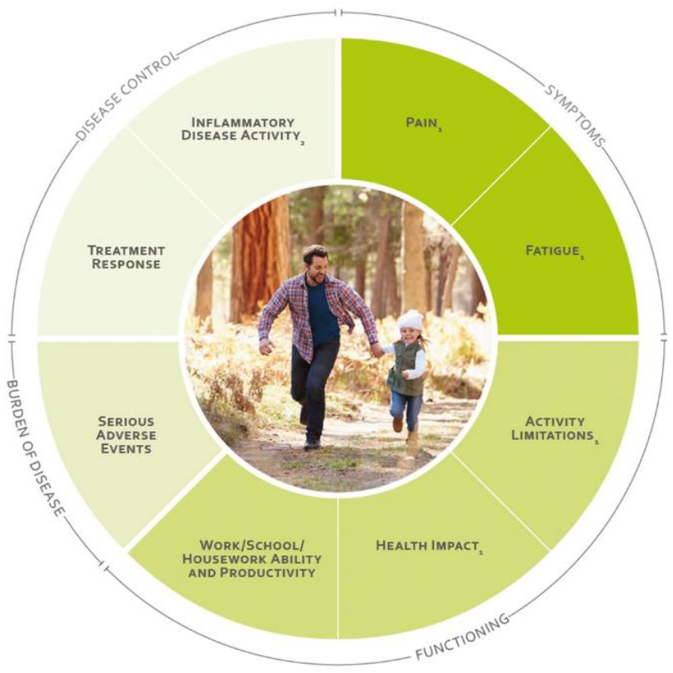
Background

Rheumatoid Arthritis (RA) is a chronic inflammatory disabling disease affecting joints.
Prevalence is 1% worldwide. In the Netherlands 70% experiences problems in daily activities.
Untreated RA leads to malformations, therefore rheumatology guidelines advise early, intensive and tight treatment to prevent joint damage, based on a Disease Activity Score (DAS).
PROs may facilitate both personalized and digital care, but there is a lack of real-life studies.



Aims

1. To quantify the frequency of RA patients that suffer from Patient Reported Outcome (PRO) domains in daily life.
2. To explore differences in PRO results stratified by disease activity level.



Methods

Population: Adult (18+) chronic RA patients, diagnosed (>6 months) by a rheumatologist.
Setting: Outpatient rheumatology clinic of the Maasstad Hospital.
Design: Real-life prospective cohort (2017- present, data used from 2019).
Outcomes: First set of PROs, based on ICHOM standard set for Inflammatory Arthritis:

- Pain → NRS
- Fatigue → FACIT-F
- Activity limitations → HAQ-DI
- Health impact → RAID & EQ-5D-VAS
- Work productivity → WPAI

Disease Activity Scores (DAS28CRP + or - 6 weeks from PROs)
Statistics: RA population PRO scores compared to literature normscores and Mann-Whitney U of PROs in low <3.2 vs high ≥ 3.2 DAS.

Results

Table 1. Patient Characteristics (n=597)

Sex [%female]	69.6	
Age (years) [mean, SD]	61.9	12.7
BMI (kg/m²) [mean, SD]	27.4	5.2
Disease duration (years) [median, IQR]	6.6	3.0-8.5
DAS28CRP [median, IQR]	2.4	1.8-3.2

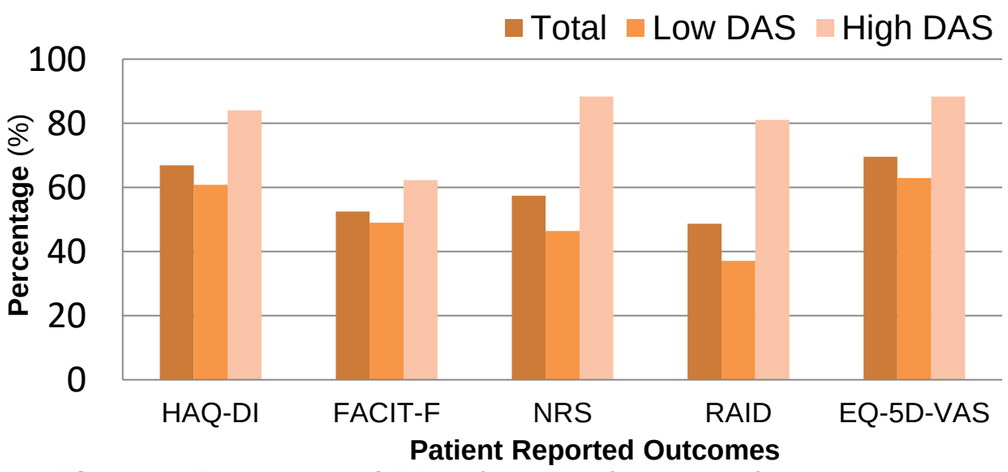


Figure 1. Percentage of RA patients scoring worse than normscores.** **Normscores from populations with comparable characteristics: HAQ-DI=0.3, FACIT-F=40.1, NRS=3.0, RAID=4.2, EQ-5D-VAS=71.5

Table 2. PROs [median, IQR] in low vs high disease activity scores

PROs (possible range)	Total n=597		Low DAS n=194		High DAS n=69	
HAQ-DI (0-3)*	0.6	(0.1-1.1)	0.5	(0.1-0.9)	1.1	(0.5-1.5)
FACIT-F (52-0)*	37.0	(27.0-44.0)	39.0	(30.0-44.0)	29.6	(21.5-39.5)
NRS (0-10)*	4.0	(2.0-7.0)	3.0	(1.0-6.0)	7.0	(5.0-8.0)
RAID (0-10)*	4.1	(1.9-5.9)	3.0	(1.6-5.2)	5.8	(4.9-6.8)
EQ-5D-VAS (100-0)*	71.5	(55.0-84.5)	75.0	(60.0-86.0)	64.0	(50.0-75.0)
WPAI work time missed (0-100)	0.0	(0.0-0.0)	0.0	(0.0-0.0)	0.0	(0.0-0.0)
WPAI impairment while working (0-100)*	30.0	(0.0-60.0)	20.0	(0.0-45.0)	60.0	(25.0-80.0
WPAI activity impairment (0-100)*	50.0	(20.0-70.0)	40.0	(10.0-60.0)	65.0	(50.0-75.0)
WPAI overall impairment (0-100)†	20.0	(0.0-50.0)	30.0	(0.0-60.0)	56.5	(10.0-70.0)

*: P≤0.001 †:P≤0.05 in low vs high DAS

Conclusions

- More than 50% of the RA patients suffer from one or more patient relevant domains.
- Patients with high DAS experience more difficulties than patients with low DAS.
- Despite of low disease activity, many patients still report limitations across health domains.

Recommendation

- Use the ICHOM set in daily practice complementary to standard parameters; many RA patients suffer from these domains irrespective of disease activity level.

Future research

We will perform longitudinal analyses of ICHOM PROs in clinical daily practice. Additionally, we will investigate their use as primary study outcome parameter along the ability to facilitate care at distance.