CAPTURING PATIENT VALUE IN AN ECONOMIC EVALUATION

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Background and aim

From a value-based healthcare perspective, conventional economic evaluations are limited to generic outcomes and therefore less prone to embrace the full spectrum of patient relevant domains. To fully integrate the patient perspective, scores on Patient Reported Outcome Measures (PROMs) of Rheumatoid Arthritis (RA) patients are applied in an economic evaluation. For this purpose, telemonitoring is used to examine a PROMs-based versus classical cost-effectiveness analysis.

Methods

Real-life retrospective cohort of RA patients in Maasstad hospital Rotterdam (2020-2021)

Decision analytical tree: one year time horizon from a societal perspective

HAQ-DI and RAID scores converted into EQ-5D scores via linear regression

Elelectronic consultations versus face-to-face consultations

Health states: disease activity score (DAS28CRP) as cut-off point for inflammation (>2.6) or remission (≤2.6)

Incremental cost-effectiveness ratios and sensitivity analyses (Monte Carlo simulation)

Results

Table 1. Descriptives statistics

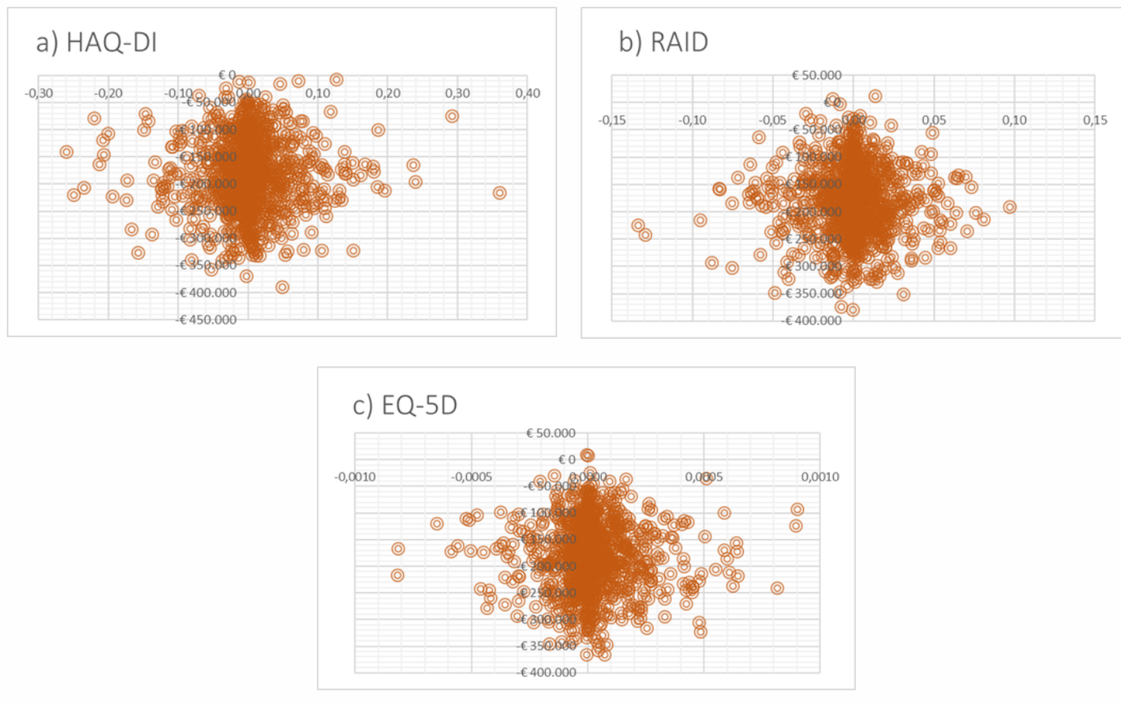
	(N=386)	(N=386)
Female (N,%)	277 (71.8)	262 (67.9)
Age (mean, SD)	60.5 (11.9)	59.5 (13.0)
Disease duration (mean, SD)	9.2 (4.6)	8.8 (4.6)
Disease activity (mean, SD)	2.6 (1.0)	2.4 (1.0)
Multi-morbidities (N, %)		
0	92 (23.8)	105 (27.2)
1-5	219 (56.8)	219 (56.7)
6-10	61 (15.8)	52 (13.7)
>10	14 (3.6)	10 (2.6)

Table 2. Incremental cost-effectiveness ratios

	Costs	HAQ-DI (QALYs)	RAID (QALYs)	QALYs
E-consultations	€2,874,021	298 (285)	1363 (285)	285
Face-to-face consultations	€3,285,435	311 (282)	1397 (272)	283
Increment	- €411,414	- 13 (2.5)	- 34 (1.8)	2.6
ICER		**- €31,816 (- €163,159)**	**- €12,265 (- €223,002)**	**- €161,491**

HAQ-DI: Health Assessment Questionnaire - Disability Index (range 0-3);
RAID: Rheumatoid Arthritis Impact of Disease (range 0-10)
Higher scores on HAQ-DI and RAID indicate decreased outcomes; therefore the effect is reversed

Figure 1. Cost-effectiveness planes



- E-consultations are a cost saving intervention in RA (i.e. - €1,066 per patient)
- Differences in effects are minor in terms of HAQ-DI and RAID scores
- Sensitivity analyses illustrate that the data are consistent with a true cost-effectiveness ratio (SE) falling below the acceptability curve

Conclusion

- PROMs are a good substitution for the traditional indirect measure (EQ-5D) in an economic evaluation
- Converting PROMs to a conventional outcome measure, resulted in similar outcomes with respect to the ICERs

Discussion

- RAID ICER deviates from the EQ-5D and HAQ-DI due to the scale and RA specific questions
- Response time between PROMs questionnaire and measure point is in ~40% longer than the advised 6 months

Future research:

- Validating the transformed HAQ-DI and RAID values in a larger sample
- Conducting the analysis in other disease areas and within other PROMs

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