CAPTURING PATIENT VALUE IN AN ECONOMIC EVALUATION

MAASSTAD ZIEKENHUIS een santeon ziekenhuis

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Introduction

In conventional economic evaluations the focus with respect to the examination of the health-related quality of life is predominantly on generic outcomes such as EQ-5D and SF-36 measures. However, from a value-based healthcare perspective this view limits the received patient value as these health outcomes are calculated on a more generic population basis. To fully embrace the patient perspective, the scores on the Patient Reported Outcome Measures (PROMs) of Rheumatoid Arthritis (RA) patients will be employed in an economic evaluation. For this purpose the intervention telemonitoring is used to examine a PROMs-based versus classical cost-effectiveness analysis.

Methods

VS

- Real-life retrospective cohort (N=772) from 2020-2021
- Decision analytic tree: disease activity score (DAS28CRP) as cut-off point (>2.6)
- Societal perspective: healthcare and non healthcare costs and effects
- Time horizon: 1 year
- Transformation: HAQ-DI and RAID ➔ EQ-5D

Results

Table 1. Patient characteristics

		Face-to-face consultation (N=386)	E-consultation (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. PROM scores per consultation type

Consultation type	Disease activity status	Probability	HAQ-DI (mean, SD)	RAID (mean, SD)	EQ-5D (mean, SD)
Face-to-face	Remission	0.59	0.60 (0.6)	3.13 (2.3)	0.77 (0.19)
	Inflammation	0.41	1.10 (0.7)	4.32 (2.2)	0.66 (0.26)
Electronic	Remission	0.55	0.56 (0.6)	2.64 (2.2)	0.79 (0.18)
	Inflammation	0.45	1.03 (0.7)	4.62 (2.1)	0.66 (0.24)

HAQ-DI: Health Assessment Questionnaire - Disability Index (range 0-3)
RAID: Rheumatoid Arthritis Impact of Disease (range 0-10)

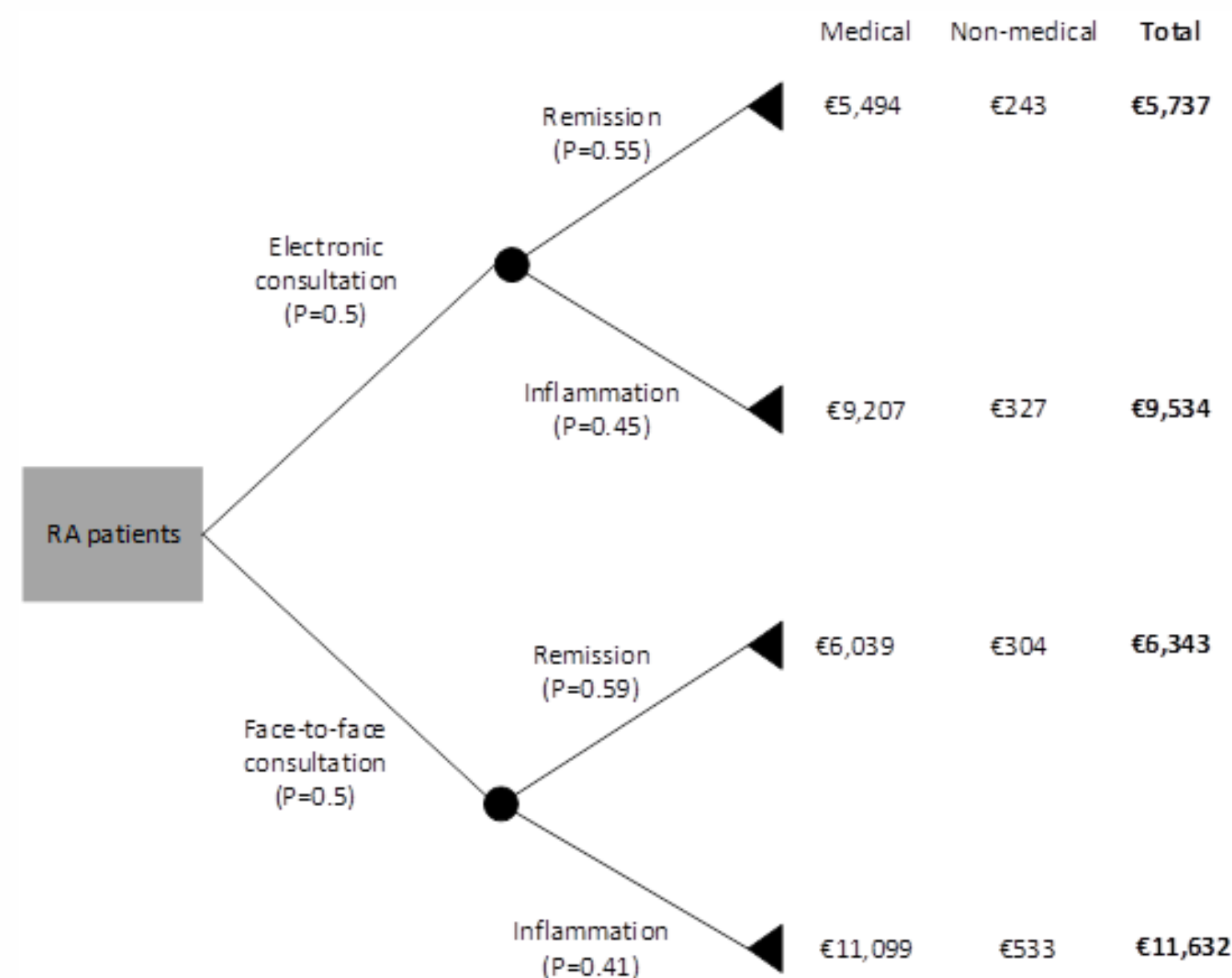Table 3. Incremental cost-effectiveness ratios

	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

A higher score on the questionnaires is worse; therefore the effect is reversed

Figure 1. Costs and probabilities per branch

	Medical	Non-medical	Total

Electronic consultation (P=0.5)
- Remission (P=0.55): €5,494 | €243 | €5,737
- Inflammation (P=0.45): €9,207 | €327 | €9,534

Face-to-face consultation (P=0.5)
- Remission (P=0.59): €6,039 | €304 | €6,343
- Inflammation (P=0.41): €11,099 | €533 | €11,632

RA patients

Conclusion

- Converting PROMs to a conventional outcome measure, resulted in similar outcomes with respect to the Incremental Cost Effectiveness Ratio
- PROMs are a good substitution for the traditional indirect measure (EQ-5D) in an economic evaluation
- Electronic consultations are a cost saving intervention for Rheumatoid Arthritis patients

Discussion

- RAID ICER deviates from the EQ-5D and HAQ-DI
- Transforming the HAQ-DI and RAID into EQ-5D values is limited to the study population
- Response time between PROMs questionnaire and measure point is in ~40% longer than the adviced 6 months
- Future research: perform the study in other diseases and with other PROMs

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