Collaborating in implementing a standard set of outcomes benefits patients with rheumatoid arthritis and accelerates innovation: lessons learned from Dutch Santeon hospitals.

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Background

Santeon members St. Antonius Hospital, Medisch Spectrum Twente and Maasstad Hospital collaborate in improving outcomes for patients with rheumatoid arthritis (RA) as part of the Together Better Program.

Guidelines advise to target on low disease activity score (DAS), the ICHOM standard set showed that patient's targets are different than DAS. Therefore we aimed to get transparency in all relevant ICHOM outcomes and to improve on these domains.

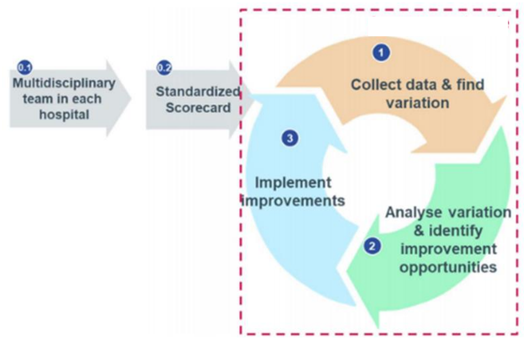
Method

1. Definition of a common set of outcome measures and casemix variables, based on the ICHOM standard: the **score card** (fig. 1).
2. Implementation of the **Santeon improvement cycle** (fig. 2)
3. Implementation of **improvement teams** (central and local).
4. **Patient participation** is guaranteed by having patients as members of the local improvement teams.

Figure 1: scorecard

OUTCOME	Patients in remission or with a low disease activity
	Disease activity per patient
	% patients experiencing adverse events
	PROM pain
	PROM fatigue
	PROM activity limitations
	PROM health impact
	PROM Work/ housework ability and productivity
COST	Use of DMARDs(conventional and biological)
	Outpatient visits per patient per year
	Diagnostic activities per patient per year
PROCESS	Total days from referral to first consultation with a rheumatologist
	Total days from the first consultation with a rheumatologist to start treatment csDMARD
	% patients with an appointments with the specialised nurse
	Total amount of disease activity score measurements per patient per year

Figure 2: Santeon improvement cycle



Results

After 3 years of collaborating we have 6 benchmarks available and we have analyzed outcomes of almost 900 new patients and 4.500 chronic patients over period 2016-2020.

Our lessons learned:

1. Improve clinical outcome and diagnoses registrations (e.g. SES; fig 3).
2. Outcomes are influenced by casemix (fig 4).
3. PROMS implementation accelerated when educating and focusing on implementation together.
4. Cost drivers (like medication) should be related to outcomes to evaluate differences in benchmarks.
5. Differences in cost-drivers are based on lack of international 'organization' protocols.

Figure 3: Social economical status (SES) for chronic patients (2020)

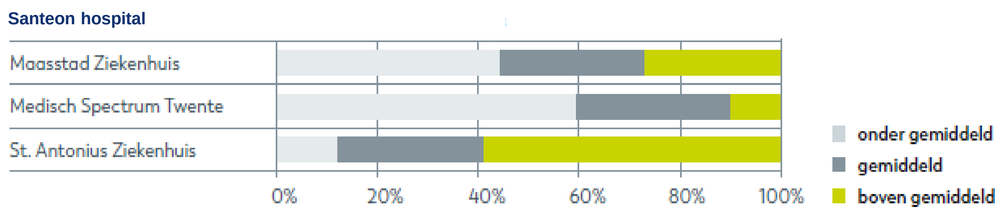
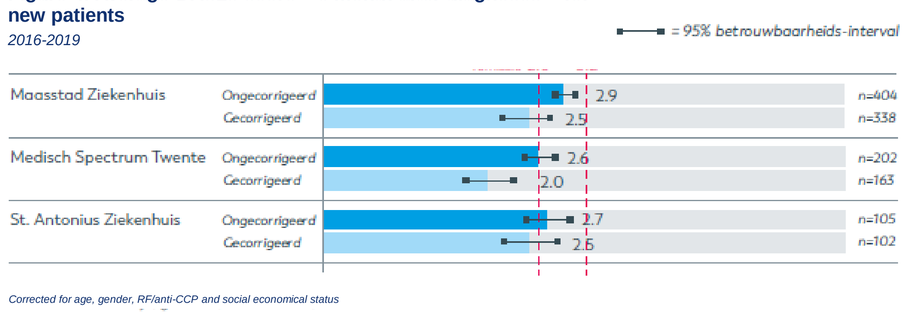


Figure 4: Average DAS28 score – 6 month after diagnoses – for new patients

2016-2019



Corrected for age, gender, RF/anti-CCP and social economical status

Conclusion

After 3 years we find that it is possible to benchmark on ICHOM outcomes between centers. By implementing the Santeon improvement teams we catalyzed the multicenter insights and improvements on outcome and cost. We demonstrate that together we achieve more to transform to personalized care.

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