Result of audit, **HCQI OA 1:** If a patient is diagnosed with symptomatic osteoarthritis (OA), then he or she should be assessed for pain**, functional ability, level of physical activity, body mass index (BMI), and labor force participation** at baseline or when new to a practice and yearly hereafter.

Pain and functional ability should also be assessed at 4 weeks after initiation/change of pharmacological/non pharmacological therapy (see HCQI 11 and 12)

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes		yes	yes	Yes/no	Yes/no	yes	yes
Data can be delivered	Yes*		yes	yes*		no	Yes/no	no (1)
Data source	Patient record Other		Patient record	Patient record, Survey		Patient record		patient record (2) survey (2)
How were the figures/values retrieved			Proper calculation			estimation		Selection (2) Proper calculation (2)
Well phrased	yes		yes	Difficult to answer because pain functional ability, etc are in question		Yes		yes
Important condition	yes		yes	yes		yes		yes
Data available in practice	yes		yes	yes		no		No (2)
Potential to facilitate/improving quality	yes		yes	yes		yes		yes
Influence unequal health care	yes		yes	No**		no		yes
Valid?	no		yes	Difficult to answer as the tool is not defined		yes		yes
Reproducible?	yes		yes	Tool?		yes		No (2)
Comments	*)Yearly is not		This indicator is very	**After discussion	Yes from a research	These data are	I would agree back	1.Labor force

	applicable in OA patients. We often see patients once for diagnosis and information. To assess them yearly would be making them sicker than they are. If it was added to the QI that the patients with moderate to severe OA, or patients with grade 3-4 should be assessed regularly it would have been easier to agree.		stringent : patients fulfilling the criterion are clearly optimally assessed, but quite a few patients without a positive QI are well assessed to. All the items have the same weight (pain, function, physical activity, BMI, labor force participation) which could be questionable.	we decided to answer this question with no in all HCQI (because the HCQI are not including specific topics regarding gender, sexual orientation, disability, ethnicity, religion, age or socioeconomic group). We think that treatment according to the HCQI improves health care in general therefore also for different groups in the community.	point of view. Our institution is not involved in OA treatment. Is it really good use of resources to see all OA once a year?	available except for labor force, formal BMI calculation and standardized pain assessment on VAS. Again, it is impossible to calculate the exact numbers due to time constraints.	pain functional limitation and BMI are assessed. Physical activity could be assessed in a subgroup of people requiring referral for exercise and physiotherapy. In primary care it would be aspirational to review individuals at four weeks. However pain may be possible. The indicator is applicable and some data may be available from routine primary care.	participation: just basic data (active, retired, medical retired; nothing about absenteeism, presenteeism 2. We are introducing now the electronic file for all patients. These data have no specific field in the electronic file but can be created on request. However, less than 20% of medical units have electronic files. In this units (and for the moment in our, too) the survey method is actually used for this indicator.

Result of audit, **HCQI OA 2:** If a patient with symptomatic OA is prescribed NSAID or aspirin then GI bleeding risk, CVD risks, and renal risks should be assessed

	Norway	NL	Italy	Austria	Sweden	Italy 2	UK	Romania
Applicable	Yes*		yes	yes	yes	yes	yes	yes
Data can be delivered	Yes*		yes	yes, number can be found in the paper patient record	yes	yes	yes	No (1)
Data source			Patient record	Patient record		Patient record		Patient record survey
How were the figures/values retrieved			Random			Proper calculation		Selection Proper calculation
Well phrased			yes	yes	yes	yes		yes
Important condition			yes	yes		yes		yes
Data available in practice			yes	yes	yes	yes		no
Potential to facilitate/improving quality			yes	yes	yes	yes		yes
Influence unequal health care			yes	no	yes	no		yes
Valid?			yes	yes	yes	yes		yes
Reproducible?			yes	yes	yes	yes		no
Comments	*Our multidisciplinary teams has gone through the		It is not clear whether denominator include new prescriptions of NSAIDs.		Yes from a research point of view. Our institution is not involved in OA treatment.	Again, it is impossible to calculate the exact numbers due to time constraints.	this indicator is applicable and data should be available.	Again, this data is not specifically mentioned in any file of in/outpatients. It can´t be

	documents and in a general sence agreed with them. They are applicable and can be counted; except from OA QI 1 where patients are to be assessed yearly...							collected from files and in the actual design, even in our new electronic files there is no place to mention this. However we could collect such information using survey method or designing a special place in the electronic form for this issue. However, adding more such “special places” will affect the time allocation for filling these files. It might be wise to rank the importance of every new item proposed for a new special field in these files in order to balance with the extra time consumed.

Result of audit, **HCQI OA 3:** If a patient with OA is overweight (as defined by a BMI $\geq$ 27), then he or she should receive verbal and written information on weight management and when needed be referred to a weight management program.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes		no	yes	no	no	yes	No (1)
Data can be delivered	yes		no	yes	yes	no	yes	yes
Data source				Patient record				survey
How were the figures/values retrieved								random
Well phrased			yes	Yes, we were thinking of changing "should receive" into "has received"		yes		yes
Important condition			yes	yes		yes		yes
Data available in practice			no	yes		no		no
Potential to facilitate/improving quality			yes			yes		yes
Influence unequal health care			yes	no		no		yes
Valid?			yes	yes		Yes		yes
Reproducible?			no	yes		yes		yes
Comments			Given that denominator is not available because of the lack of systematic collection of BMI, this indicator	In our practice all patients receive only verbal information	We do not have this type of patients. Does the question relate to symptomatic OA? Should be stated.	Only verbal but not written information is usually given to the patient by the rheumatologist with explanation of the clinical	The indicator is applicable and date could be available in primary care.	1. Such data are usually not mentioned in patients´ file. There are very limited number of specialists

			would be biased in our records, as rare reported BMI would be of patients referred to a weight management program. This indicator is conceptually downstream from the HCQI OA1.			improvement associated with weight loss.		that could deal with such patients and we don´t send them systematically to these specialists; we leave the final option to the patient-empiric diet, see the specialist, else… However data can be obtained from surveys.

Result of audit, **HCQI OA 4:** If a patient is newly diagnosed with symptomatic OA, then he or she should be educated by relevant health professionals about the natural history, treatment, and self management of the disease within 3 months. The education provided should be individually tailored.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes		yes	yes	no	yes	yes	No (1)
Data can be delivered	yes		yes	yes	no	yes		yes
Data source			Patient record	Patient record		Other: usual standard of care not necessarily reported in the patient's chart		survey
How were the figures/values retrieved			Random			estimation		random
Well phrased			yes	Yes- we were thinking of changing the word "should" (be educated by relevant health professionals) "is" (educated by relevant health professionals)	no	yes		No (2)
Important condition			yes	yes	yes	yes		yes
Data available in practice			yes	yes	no	no		No (1)
Potential to facilitate/improving quality			yes	yes		yes		yes
Influence unequal health care			yes	no		no		yes
Valid?			yes	yes		yes		yes
Reproducible?			yes	yes		yes		yes

Comments			If education administered from the treating physician is included, numerator is clearly underestimated. In this case I would suggest to emphasize the concept of "documentation" of the education. Differentiating new patients from newly diagnosed patients could be difficult and unreliable.		Three months from when? And could we really think that this could be delivered within three months from diagnosis Important, but this covers also indicator 3,5, 6,and 7. Better to have one high level question for all these?		Education should be offered at least once. It would be difficult to ascertain if the information has been recorded and whether it has been given orally or in written format.	1. Such information is not available in any file. We don´t believe it will have the chance to be included in a new design of a medical file. There is no enough time for such (person-to-person) education taking to account the small number of medical workers and the closed perspectives in the health sector. Some units use education leaflets and just several questions receive from the patients during the usual visit/consultation.

Result of audit, **HCQI OA 5:** If a patient is diagnosed with symptomatic OA then a referral to a physiotherapist for instruction in an individualized exercise program including advice for physical activity, range of motion-, muscle strengthening- and aerobic exercises should be provided within 3 months.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes		?	yes		no	yes	yes
Data can be delivered	yes		?	yes		no	yes	yes
Data source			Patient record	Patient record				Patient record
How were the figures/values retrieved			Random					Proper calculation
Well phrased			yes	yes		yes		yes
Important condition			yes	yes		yes		yes
Data available in practice			yes	yes		no		yes
Potential to facilitate/improving quality			yes	yes		yes		yes
Influence unequal health care			yes	no		no		yes
Valid?			yes	yes		yes		yes
Reproducible?			yes	yes		yes		yes
Comments			This indicator strongly depends on the case mix (knee, hands, hip) of OA	Not every patient with OA is referred to a PT	Important, but this is already part of indicator 4	There is no systematical referral to physiotherapists but advice on activity is given by rheumatologists during the visits.	Suggest provided at least once. The indicator is applicable and could be delivered.	Easy to estimate once the electronic files will be fully functional.

Result of audit, **HCQI OA 6:** If a patient with a diagnosis of symptomatic OA reports difficulties in ambulatory and/or non ambulatory activities of daily living the need for assistive devices, orthoses, and environmental adaptations should be assessed by a relevant health professional.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes		no	yes		no	yes	No (1)
Data can be delivered	yes		no	Yes		no		No (1)
Data source				Patient record				survey
How were the figures/values retrieved								random
Well phrased			yes	yes		yes		yes
Important condition			yes	yes		yes		yes
Data available in practice			no	yes		no		yes
Potential to facilitate/improving quality			yes	yes		yes		yes
Influence unequal health care			yes	no		no		yes
Valid?			yes	yes		yes		yes
Reproducible?			no	yes		yes		yes
Comments			Data for the denominator are not available, as they are not systematically collected. It is likely that better reporting occurs in patients		Important, but this is already part of indicator 4	No dedicated, expert health professional available in the rheumatology unit	the indicator is applicable but it could be difficult to capture referrals in primary care.	1. The activity of assessment and prescription of an assistive device is not done by rheumatologists. Once the patient is referred to a physiotherapist

			with prescription (differential misclassification), inflating quality of the indicator.					then all these activities are done in by this specialist. However there is not a clear description of the exact moment when such a patient should be referred to a physiotherapist.

Resultat av audit, **HCQI OA 7: All** professionals managing patients with OA at a primary health care centre should have continuous access to education on important preventive and therapeutic strategies in the management of OA.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable			yes	yes	no	yes	yes	yes
Access to education coniniously?			yes	yes		yes		No (1)
Well phrased			yes	yes	yes	yes		No (2)
Important condition			yes	yes	yes	yes		yes
Potential to facilitate/improving quality			yes	yes	yes	yes		yes
Influence unequal health care			yes	no	yes	no		yes
Valid?			yes	yes	yes	yes		yes
Comments							the indicator is applicable.	1.As in every other European country, in Romania, all health workers have to “earn” their Annual Education Credits. However the system does not guarantee a systematic refresh of EVERY medical topic; a doctor could earn his credits simply by attending

								several (niche) scientific meetings – no systematic ASSESMENT of the entire spectrum of medical knowledge is done. In addition the education offer is very unbalanced in terms of availability, quality and shape. 2.We believe that not just the access should be assessed but also the regular ASSESMENT.

Result of audit, **HCQI OA 8:** If a patient has a diagnosis of symptomatic OA and has failed to respond to pharmacological and non pharmacological therapy then the patient should be referred to an orthopedic surgeon.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes		no	yes		yes	yes	yes
Data can be delivered	yes		no	yes		yes	? (difficult)	yes
Data source				Number can be retrieved from paper patient record		Patient record		Patient record
How were the figures/values retrieved						estimation		Proper calculation
Well phrased			yes	yes	no	yes		yes
Important condition			yes	yes		yes		yes
Data available in practice			no	yes		yes		yes
Potential to facilitate/improving quality			yes	no		no		yes
Influence unequal health care			yes	no		no		yes
Valid?			yes	yes		yes		yes
Reproducible?			no	yes		no		yes
Comments			Due to not systematic collection of clinimetric data (HCQI 1) this indicator is not measureable.		Phrasing problems and what is intended? Failed to respond? Radiographic changes? Why to a surgeon if not	Too much variability in orthpaedic surgeons availibility	The indicator is applicable. It might be difficult to identify non-response to treatment in	Normally mentioned in all in/outpatients' files

			This underlines the concept that unmeasurable QI is a measure of poor QoC.		anything they can do with surgery?		primary care records.	

Result of audit, **HCQI OA 9:** If a patient is diagnosed with OA and has been referred to an orthopedic surgeon, then the waiting time from first referral should not exceed X weeks (X: depending on the recommendations within each country)

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes		no	no		no	yes	No (1)
Data can be delivered	yes		no	no		no	yes	No (2)
Data source								survey
How were the figures/values retrieved								estimation
Well phrased			yes	yes	yes	yes		yes
Important condition			yes	yes		yes		yes
Data available in practice			no	yes	yes			yes
Potential to facilitate/improving quality			yes	yes	yes	yes		yes
Influence unequal health care			yes	no	yes	no		yes
Valid?			yes	yes	yes	yes		yes
Reproducible?			yes	yes	yes	yes		yes
Comments			The flows of information are not retrievable at practice level neither for numerator nor for denominator. Numerator: this	No country recommendations		No guidelines available in Italy to our knowledge	the indicator is applicable and could be delivered in primary care for linked data	1&2 Our unit does not have an orthopedic service included or a preferred joint cooperation with such a

			information is not linked between different practices, even though it could be gathered using administrative data. Identifying the referral to other hospitals is even more difficult. Denominator: this information is not reliably collected and very difficult to extract. A specific survey on a sample of patients should be done.					service. Is not possible to collect such data from available sources but only form returned patients (survey). In the future, the introduction of several private insurance houses will make this even more difficult – each patient will go to the designed orthopedic services (selected by the insurance house and not by the rheumatologist).

Result of audit, **HCQI OA 10:** If a patient is diagnosed with symptomatic OA and has functional limitation then an improvement of his/her functional ability by 20% on a patient reported outcome measure (VAS) should be reached within 4 weeks after initiation/change of pharmacological/non pharmacological treatment.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes		no			no	Yes?	No (1)
Data can be delivered	yes		no			no	no	no
Data source								survey
How were the figures/values retrieved								selection
Well phrased			yes	yes		yes		yes
Important condition			yes	Yes		yes		yes
Data available in practice			no	yes				no
Potential to facilitate/improving quality			yes	Yes		yes		yes
Influence unequal health care			yes	No		no		yes
Valid?			yes	Yes		yes		yes
Reproducible?			yes	yes		yes		yes
Comments			This indicator is downstream from HCQI OA1. In our records function is not	OA patients have no visit after 4 weeks but HAQ is performed at each visit	We have problem with the 20% on a VAS scale. The evidence?	Waiting time for OA visits exceed 4 weeks.	the standard primary care record uses a mild/ moderate/ severe	1. This assessment is not properly done in our unit for daily cases

			reliably assessed.				category so it would be difficult to capture numerical ratings in medical records.	but for clinical research. Could be included in the paper or electronic file but some lobby is needed.

Result of audit, **HCQI OA 11:** If a patient is diagnosed with symptomatic osteoarthritis then his/her pain level should be reduced by 20% on a patient reported outcome measure (VAS) within 4 weeks after initiation/change of pharmacological/non pharmacological treatment.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes		yes			no	no	no
Data can be delivered	yes		yes			no	no	no
Data source			Patient record					survey
How were the figures/values retrieved								estimation
Well phrased			yes	yes		yes		yes
Important condition			yes	yes		yes		yes
Data available in practice			No	yes		no		no
Potential to facilitate/improving quality			yes	yes		yes		yes
Influence unequal health care			yes	no		no		yes
Valid?			yes	yes		yes		yes
Reproducible?			yes	yes		yes		yes
Comments			Prospective data on Pain NRS are increasingly available, because of an early parallel initiative of Quality of Care. In the near	Patients are not seen after 4 weeks but VAS pain is performed at each visit	We see problems with both 20% and 4 weeks. The evidence?	See item 10	this would be very difficult to ascertain in primary care.	1. This assessment is not properly done in our unit for daily cases but for clinical research. Could

			future longitudinal data will be available for OA. Again, it depends on HCQI OA1, as it requires both clinimetric evaluation and short term f-up visit.					be included in the paper or electronic file but some lobby is needed.

Result of audit, **HCQI OA 12:** If an individual of working age is diagnosed with symptomatic OA, then he/she should be able/enabled to participate in the labor market.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes		yes	yes		yes	yes	No (1)
Data can be delivered	yes		yes	no		no	?	yes
Data source			survey	patient record				Patient record
How were the figures/values retrieved								Proper calculation
Well phrased			yes	yes		yes		No (2)
Important condition			yes	yes		yes		yes
Data available in practice			no			no		yes
Potential to facilitate/improving quality			yes	yes		yes		yes
Influence unequal health care			yes	no		no		yes
Valid?			yes	yes		yes		yes
Reproducible?			yes	yes		yes		yes
Comments			Unfortunately, no systematic collection of these data is available. A survey ad hoc could easily provide data on this.	Patients are not asked if he/she is able to participate in the labor market at each clinical visit	Of no use if there is no strategy for how to get them back to work. The result could be dependent on variation due to social security, labor market, definition of OA.	This information is currently not reported but could easily be introduced	This indicator is applicable. How this could be captured in primary care records is unclear.	1. Romanian rheumatologists do not have any competences in the final decision regarding the ability to work or the medical

								retirement. We can collect data regarding the working status of our patients from the existing files. 2. It is not very clear: this item is more likely a desiderate.

Result of audit, **HCQI RA 1**: If a patient presents with suspected rheumatoid arthritis (RA) then he/she should be referred to and seen by a specialist (preferably a rheumatologist) for confirmation of diagnosis within 6 weeks after the onset of symptoms.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	Yes*	yes	yes	yes	yes	no		no
Data can be delivered	Yes*	yes	yes	yes	yes	yes		no
Data source		patient record	register	register-database		record		
How were the figures/values retrieved		estimation	Proper calculation			Proper calculation		
Well phrased		yes	yes	yes	yes	yes		yes
Important condition		yes	yes	yes	yes	yes		yes
Data available in practice		yes	yes	yes	yes	yes		Yes (2)
Potential to facilitate/improving quality		yes	yes	yes	yes	yes		yes
Influence unequal health care		yes	yes	no	yes	no		yes
Valid?		yes	yes	yes	no	yes		yes
Reproducible?		yes	yes	yes	no	yes		yes
Comments	*Our multidisciplinary teams has gone through the documents and in a general sence agreed with them. They are	The numerator/denominator of this HCQI will be very low because of various steps in the process: - patient delay			If the purpose is to measure delay from the first contact to specialist care then the measure could fail since it asks for 6 weeks	This approach is not standardized but depends on the referring GP. The unequalities are only few in our system and we are used to		1 & 2 Poor communication between GP and specialists. Suspected cases sent to rheumatologists

	appliccable and can be counted; except fro m OA QI 1 where patients are to be assessed yearly...	-primary care physician delay -time/ delay for first visit to out patient clinic after mailing/calling for an appointment. For improving this HCQI is needed: -Improving awareness in the general population for joint/musculoskeletal problems -Improving awareness/better education on this subject in the primary care -Improving organization of the outpatient clinic of rheumatology practice/department			from onset of symptoms, which could be months before the visit.	see the patients and have them referred regardless of sex, race etc. Therefore our answer to this question is no for all indicators.		receive a proper documentation that mention the exact date when such a referral is recommended. However this exact date is not captured in our unit's files.

Result of audit, **HCQI RA 2:** If a patient is newly diagnosed with RA, then, he or she should have a scheduled visit to relevant health professionals for education about the natural history, treatment, and self management of the disease within 3 months

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes	yes	yes	yes	yes	no		Yes (1)
Data can be delivered	yes	yes	yes	yes	yes	no		No (2)
Data source		register	patient record	Register-database				survey
How were the figures/values retrieved		estimation	proper calculation	estimation				estimation
Well phrased		yes	yes	yes	yes	yes		yes
Important condition		yes	yes	yes	yes	yes		yes
Data available in practice		yes	yes	yes	yes	no		no
Potential to facilitate/improving quality		yes	yes	yes	yes	yes		yes
Influence unequal health care		yes	yes	no	yes	Yes (?)		yes
Valid?		yes	yes	yes	yes	yes		yes
Reproducible?		yes	yes	yes	yes	yes		ues
Comments		All appointments/visits to specialists and other health care providers are planned/scheduled and documented in a central agenda	Education by treating rheumatologist during clinical assessment is not gathered. Even if it was included, the results would be unreliable			There is not such figure in our institution. These informations are usually given by the rheumatologist at time of diagnosis. However this kind		1&2. Extremely time consuming. Such education is usually delivered by medical leaflets and augmented by short discussion during the regular visit.

			because rare of selective reporting.			of information is not documented in the patients´ charts.		Not a proper education unit available. Not mentioned in the files.

Result of audit, **HCQI RA 3:** Rheumatology practices should provide standardized information (written or website) on how a patient can contact the practice for urgent consultations (in case of flares/worsening of the disease, serious side effects)

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes	yes	yes	yes	yes	yes		no
Is standardized information provided in your practice	yes	no	yes	yes	no	yes		no
Well phrased		yes	yes	yes	no	yes		yes
Important condition		yes	yes	yes	yes	yes		yes
Potential to facilitate/improving quality		yes	yes	yes	yes	yes		yes
Influence unequal health care		no	yes	no	no	yes (?)		yes
Valid?			yes	yes	yes	yes		yes

Comments		When a patient comes to our patient clinic he/she receives information (oral and written) and telephone number At this moment the information on the internet site of the hospital provides only names of the rheumatologists and telephone number of the hospital and how make appointment with doctors and nurses.		Each patient receives a card with telephone number. Telephone visit: There is always one MD available at the telephone to talk with the patient directly	What is meant by "standardized"? par site? Per country? In Europe? Unsure if non-educated or elderly people will benefit, depending on how information is presented.			Usual practice is that such patients have access to the phone number of rheumatology unit or directly the phone number of the rheumatologist.

Result of audit, **HCQI RA 4:**

a) If a patient is diagnosed with RA and remission (DAS 28 <2.6) **is not attained** then a follow up visit should be scheduled by a rheumatologist within 3 months.

b) If a patient is diagnosed with RA and the target of low disease activity/persistent remission **is attained** then a rheumatologist or a specialized nurse in rheumatology should schedule follow up visits at least once a year.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes	yes	yes	yes	yes	yes		yes
Data can be delivered	yes	yes	yes	yes	yes	yes		yes
Data source		patient record	register patient record	Register-database		Patient record		Patient record
How were the figures/values retrieved		estimation	estimation	estimation		Proper calculation (potentially)		Proper calculation
Well phrased		yes	yes	yes	no	yes		yes
Important condition		yes	yes	yes	yes	yes		yes
Data available in practice		yes	yes	yes	yes	yes		yes
Potential to facilitate/improving quality		yes	yes	yes	yes	yes		yes
Influence unequal health care		yes	yes	no	yes	no		yes
Valid?		yes	yes	yes	yes	yes		yes
Reproducible?		yes	no	yes	yes	yes		yes
Comments		In fact there are 2	RA patients in my		Problem that it is			

		items: 4A) patients not in remission seen within 3 months And 4B) patients in remission seen within one year Both parameters are influenced by preferences by the patient: Several patients are satisfied by the improvement (even if the improvement doesn´t mean remission) Several patients prefer a longer interval between visits	institution follow 3 different pathways: general-early arthritis clinic-biologics clinic. I calculate follow-up visits for general using visits effectively attended. For EAC and BIO visits are fixed, so I computed time of the scheduled visit rather than the effectively attended visit. I could recalculate this indicator more accurately by linking two electronic flows of information. Further, in RA and BIO remission is defined according to DAS 28, while GEN according to treating physician.		two indicators in one.			

Result of audit, **HCQI RA 5:** If a patient is diagnosed with RA and has failed to respond to pharmacological and non pharmacological therapy then the patient should be assessed by an orthopedic surgeon within 3 months if there are joint damage/soft tissue problems that may be solved by surgery.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes	yes	no	yes	yes	yes		yes
Data can be delivered	yes	no	no	yes	yes	yes		no
Data source		patient record		Patient record		Patient record		survey
How were the figures/values retrieved		estimation		estimation		random		estimation
Well phrased		yes	yes	yes	no	yes		No (1)
Important condition		yes	yes	yes	yes	yes		yes
Data available in practice		no	no	yes	yes	yes		yes
Potential to facilitate/improving quality		no	yes	yes	yes	yes		yes
Influence unequal health care		no	yes	no	yes	no		yes
Valid?		No answer	yes	yes	Depending on phrasing, see below	yes		yes
Reproducible?		no		yes	no	yes		yes
Comments		I think that in many situations it is very difficult to determine if a joint problem in a RA patient can be solved by surgery. First if there is OA	The flows of information are not retrievable at practice level neither for numerator nor for denominator. Numerator: this		Why only those who have failed to respond to treatment? Orthopedic problems could arise also in those not responding to			1. Commune practice varies widely. There is not a clear definition of " joint damage/soft tissue problems that may be

		acetaminophen (?) or NASAID can be given (and not DMARDS or biological Second if there is active arthritis there is still ??? if surgical intervention such as synovectomy ?? a consecutive intervention such as immobilization is useful Furthermore it is very difficult to collect data, because almost all patient records should be evaluated and objective criteria are not available.	information is not linked between different practices, even though it could be gathered using administrative data. Identifying the referral to other hospitals is even more difficult. Denominator: this information is not reliably collected and very difficult to extract. A specific survey on a sample of patients should be done.		treatment Hard to say what problems could be solved by surgery			solved by surgery". Better to introduce surgery consultation in the normal evaluation package of ANY RA patient.

Result of audit, **HCQI RA 6:** If a patient is diagnosed with RA, then a rheumatologist and/or relevant health professionals from the multidisciplinary team should assess and document the following variables: a measure of **disease activity** such as composite scores like DAS 28 or any of its variants CDAI or S-DAI, **structural damage** (using the best available method, e.g. x-ray, MRI, ultrasound), **functional status**, (e.g.HAQ), and **participation in the labor force**. The assessment and documentation should occur at baseline and thereafter at appropriate time intervals

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes	yes	yes	yes	yes	yes		yes
Data can be delivered	yes	no	yes	yes	yes	yes		yes
Data source		patient record	register	Register-database		Patient record		Patient record
How were the figures/values retrieved		estimation	proper calculation	Proper calculation		Proper calculation		Proper calculation
Well phrased		yes	yes	yes	yes	yes		yes
Important condition		yes	yes	yes	yes	yes		yes
Data available in practice		yes apart from functional status	no	yes	yes	yes		yes
Potential to facilitate/improving quality		yes	yes	yes	yes	yes		yes
Influence unequal health care		No see remark 2	yes	no	yes	no		yes
Valid?		No answer	yes	yes	yes	yes		yes
Reproducible?		No answer	no	yes	yes	yes		yes
Comments		In our clinic we measure disease activity ((DAS 28, patient in a study DAS) almost every 3 or 4 months, structural damage	Inclusion of participation in the labor market makes this indicator unbalanced for data collection in	Participation in the labor force is not assessed and documented at each clinical visit- Could the labor be an extra		Yes for all except labor force. Disease activity and HAQ are evaluated regularly, radiography		Normal current practice in our unit but not in all Romanian units.

		once a year, but HAQ functional status is not determined Information on participation in labor force is collected. There is a problem to determine functional satus in patients who don´t speak or understand English language (or language in specific country)	our registers or clinical records. This indicator imply a similar weight for every item (DAS, HAQ, X-ray and labor force participation) which could be questionable. Computing this indicator without labor force participation is higher than 90%. It indicates that it is a missing item in our assessment, so that our quality turns out to be poor. In brief I feel that this indicator is very stringent patients fulfilling the criterion are clearly well assessed, but quite a few patients without a positive QI are well assessed too. Due to lack of systematic assessment of labor force participation longitudinal evaluation is not available in our setting.	question??		and/or MR at baseline and less frequently during follow up		

Result of audit, **HCQI RA 7:** If a patient is newly diagnosed with RA then a treatment plan should be developed and documented and a realistic target should be identified by the rheumatologist and/or relevant health professionals and the patient at baseline. Treatment outcome should be evaluated regularly and treatment plan and target should be revised as needed.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes	no	yes	yes	no	yes		yes
Data can be delivered	yes	no	yes	yes	no	yes		yes
Data source		no answer	patient record		-			Patient record
How were the figures/values retrieved		no answer	random	Proper calculation	-	Patient record		Proper calculation
Well phrased		yes	yes	yes		Proper calculation		yes
Important condition		yes	yes	yes		yes		yes
Data available in practice		no	yes	yes		yes		yes
Potential to facilitate/improving quality		no	yes			yes		yes
Influence unequal health care		no	yes	no		no		yes
Valid?		no	yes	yes		yes		yes
Reproducible?		no	yes	yes		yes		yes
Comments		The answer to the question is depending on what is ment with treatment plan and realistic target. We do document	In our clinical records therapeutic plan and target are systematically not reported, though I well know that treatment		How detailed should a "treatment plan" be? Need to define what is meant. Described in SOC!			Treatment target is usually not related to Patient reported outcomes but to "doctors' scores". The definition of

		therapy, specific laboratory monitoring and treatment monitoring and hope that parameters for disease activity will improve, and if not we increase the dose of medication or switch therapy within 2-3 months. We don´t have exact schedules for an individual patient.	strategy and target are systematically applied and shared with patients. Rather than a negative result it strengthens the utility of HCQIs.					target should be more patient centered.

Result of audit, **HCQI RA 8:** If a patient is diagnosed with RA then review of comorbidities, adverse events and risk factors related to pharmacological therapy should be performed at least yearly

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes	yes	yes	yes	yes	yes		yes
Data can be delivered	yes	yes	yes	yes	yes	yes		yes
Data source		Register (registry for complication will be introduced), Patient record.	patient record	Patient record		Patient record		survey
How were the figures/values retrieved		estimation	random	estimation		Proper calculation		estimation
Well phrased		no	yes	yes	yes	yes		yes
Important condition		yes	yes	yes	yes	yes		yes
Data available in practice		yes	yes	yes	yes	yes		No (1)
Potential to facilitate/improving quality		yes	yes	yes	yes	yes		yes
Influence unequal health care		no	yes	no	yes	no		yes
Valid?		yes	yes	yes	yes	yes		yes
Reproducible?		yes	yes	yes	yes	yes		yes
Comments		Well phrased: maybe to many different elements in one question- on the other hand	In our clinical records a formal review of comorbidities or side effect is not		The feasibility of this is depending on how often you have decided to see the patients. Is			1. Usually done AND SPECIFICALLY MENTIONED IN THEIR FILES for all patients receiving

		not all elements are necessary Influence on health care. Not understanding language may interfere with outcome	reported. Rather than a negative result it strengthens the utility of HCQIs to improve QoC.		it really necessary to see a well treated patient once a year or should they be asked to contact when problem arise.			biologics; usually done but NOT SPECIFICALLY MENTIONED IN THEIR FILES for the rest of the patients.

Result of audit, **HCQI RA 9:** If a patient is diagnosed with RA and therapy with a biologic disease-modifying antirheumatic drug (DMARD) is prescribed then a tuberculosis screening should be performed and results interpreted before therapy start.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes	yes	yes	yes	yes	yes		yes
Data can be delivered	yes	yes	yes	yes	yes	yes		Yes (1)
Data source		register patient record	patient record	Patient record		Patient record		Patient record
How were the figures/values retrieved		estimation	proper calculation	Proper calculation		Proper calculation		Proper calculation
Well phrased		yes	yes	yes	yes	yes		yes
Important condition		yes	yes	yes	yes	yes		yes
Data available in practice		yes	yes	yes	yes	yes		Yes (1)
Potential to facilitate/improving quality		yes	yes	yes	yes	yes		yes
Influence unequal health care		no	yes	no	yes	no		yes
Valid?		yes	yes	yes	yes	yes		yes
Reproducible?		yes	yes	yes	yes	yes		yes
Comments		TB-screening is a must in all patients who start on a biological, at least TNF-blocker				This procedure is requested by law before therapy in Italy		TB screening is mandatory for ALL PATIENTS that receive biologics.

Resultat av audit, **HCQI RA 10:** A rheumatologist should intensify* medication when disease activity is moderate or high and time to response on treatment is fulfilled in a RA patient.

*Adding or a switch to another disease-modifying antirheumatic drug, increasing disease-modifying antirheumatic drug dose, adding corticosteroids (injections) or increasing the dose of corticosteroids.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes	yes	yes	yes	no	yes		yes
Data can be delivered	yes	yes	yes	yes	no	yes		No (1)
Data source		patient record	patient record	Register, database, patient record		Patient record		survey
How were the figures/values retrieved		estimation	random	estimation		Proper calculation		estimation
Well phrased		yes	yes	yes	no	yes		No (2)
Important condition		yes	yes	yes		yes		yes
Data available in practice		yes	yes	yes		yes		no
Potential to facilitate/improvin g quality		yes	yes	no		yes		yes
Influence unequal health care		yes	yes	no		no		yes
Valid?		yes	yes	yes		yes		yes
Reproducible?		yes	yes	yes		yes		yes
Comment		100% will not be reached because some patients are satisfied with a	This indicator is highly influenced by the case mix of patients (long	Numerator/denomi -nator = aprox.75-80%-if not switched the reason is	Depends on how disease activity is measured. If measured by DAS	Data are again available in the patients´ charts but cannot be retrieved		1 &2 Usually done but not exactly after the necessary maximum

		certain amount/ at least some improvement and don´t want to intensify or change treatment	standing replasing remitting on conventional DMARDs, Biologics, Early disease) Stratifying for this categories, stratum specific estimates show significant heterogeneity.	documented in the patient record	as suggested then there could be a risk (according to new knowledge)that treatment is changed or intensified although inflammation is under control. Perhaps focus on inflammatory parameters instead?	at this moment due to time constraints		acceptable time to response to the treatment is reached. Very frequent the patients delay their re-evaluations and thus this "maximum acceptable time to response" is overpassed. Some data can be collected but here we have to deal with patient adherence not with a problem of medical system.

Resultat av audit, **HCQI RA 11:** If a patient is newly diagnosed with RA then a referral to a relevant health professional for instruction on an individualized exercise program including advice for physical activity, range of motion-, muscle strengthening- and aerobic exercises should be provided within 3 months.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes	yes	yes	yes		no		yes
Data can be delivered	yes	yes	yes	yes		no		yes
Data source		patient record	patient record	Patient record				Patient record
How were the figures/values retrieved		estimation	random	estimation				Proper calculation
Well phrased		yes	yes	yes		yes		yes
Important condition		yes	yes	yes		yes		yes
Data available in practice		yes	yes	yes		no		yes
Potential to facilitate/improving quality		yes	yes	yes		yes		yes
Influence unequal health care		yes	yes	no		no		yes
Valid?		yes	no	yes		yes		yes
Reproducible?		yes	yes	yes		yes		yes
Comments			Looking at clinical record I realize that referral to a relevant health professional was not done for preventive purposes but for a specific problem.	Patients newly diagnosed with a disease duration of e.g. 5 years are referred immediately. Patients newly diagnosed with an early RA are not	This is important, but the question is partly asked in HCQI RA 2	There is no availability of a specific professional figure to assess this necessity		Not an usual practice, some lobby should be done to include this referral in the commune practice; patient education needed, too.

			In our records 0.14 even overestimates the effective QoC.	referred immediately always- excessive demand?				

Result of audit, **HCQI RA 12:** If a patient is diagnosed with RA and reports difficulties in ambulatory and/or non ambulatory activities of daily living then the need of assistive devices, appropriate orthoses and environmental adaptations should be assessed by a relevant health professional within 3 months.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes	yes	no	yes		no		no
Data can be delivered	yes	yes	no	yes		no		no
Data source		patient record		Patient record				survey
How were the figures/values retrieved		estimation		estimation				estimation
Well phrased		yes	yes	yes		yes		yes
Important condition		yes	yes	yes		yes		yes
Data available in practice		yes	no	yes		no		no
Potential to facilitate/improving quality		yes	yes	yes		yes		yes
Influence unequal health care		yes ?	yes	no		no		yes
Valid?		yes	yes	yes		yes		yes
Reproducible?		yes		yes		yes		yes
Comments		All patients with arthritis are seen by /see a health professional when they present themselves at the outpatient	Data for the denominator is not available, as they are not systematically collected. A further		This is important, but the question is partly asked in HCQI RA 2	There is no relevant health professional for this task at our institution. Patients are occasionally		1. The activity of assessment and prescription of an assistive device is not done by rheumatologists. Once the patient

		department, if necessary -an occupational therapist, - orthoses - special shoes are organized (This may interfere with data collection)	specification (e.g. HAQ cut offs) might increase the validity of classification for the denominator.			instructed by the rheumatologist for orthoses but not for environmental adaption		is referred to a physiotherapist then all these activities are done in by this specialist. However there is not a clear description of the exact moment when such a patient should be referred to a physiotherapist.

Result of audit, **HCQI RA 13:** A rheumatology practice should have the facilities to at least annually calculate and record (electronically or on paper) composite scores like DAS 28 or any of its variants CDAI or SDAI, for all patients with RA.

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes	yes	yes	yes	yes	yes		yes
Facilities to calculate….	yes	yes	yes	yes	yes	yes		yes
Well phrased		yes	yes	yes	yes	yes		yes
Important condition		yes	yes	yes	yes	yes		yes
Potential to facilitate/improving quality		yes	yes	yes	yes	yes		yes
Influence unequal health care		yes?	yes	no	yes	no		yes
Valid?		yes	yes	yes	yes	yes		yes
Comments		This HCQI is a basic condition for several earlier discussed HCQI such as HCQI 6,7,10,14						yes

Result of audit, **HCQI RA 14:** If a patient is diagnosed with RA and has a DAS28 score higher than 5.1 at diagnosis then the DAS28 should be 3.2 or lower 6 months after treatment has started.

(If other composite scores than DAS28 (e.g. CDAI or SDAI) are used the limits for high/low disease activity should be adjusted based on the actual measures that is being used.)

	Norway	**NL**	**Italy**	**Austria**	**Sweden**	**Italy 2**	**UK**	**Romania**
Applicable	yes	yes	yes	yes	no	yes		yes
Data can be delivered	yes	yes	yes	yes		yes		yes
Data source		patient record	register	Register, database		Patient record		Patient record
How were the figures/values retrieved		estimation	proper calculation	estimation		Proper calculation		Proper calculation
Well phrased		yes	yes/no	yes		yes		yes
Important condition		yes	yes	yes		yes		yes
Data available in practice		yes	yes	yes		yes		yes
Potential to facilitate/improving quality		yes	yes	yes		yes		yes
Influence unequal health care		?	yes	no		no		yes
Valid?		yes	yes	yes		yes		yes
Reproducible?		yes	yes	yes		yes		yes
Comments		Some of the patients do not want to change	The starting time to calculate this indicator is not		Please se HCQI RA 10, and DAS 28 as criteria. Due to	Again it is not possible to extract these figures from		Normal current practice.

		therapy, afraid of side-effects and have accepted their life/activities	clear (last 12, 18 months…)		the problem with using the DAS 28 as criteria.	the charts dur to limited time		