

Online Supplementary Table 3: Description of the assessment of the EULAR and ACR criteria in HOSTAS, MUST and Phase 1 data set

	HOSTAS	MUST	Phase 1 dataset
ACR criteria (traditional format: Criterion 1 plus 3 or 4 of criteria 2-5).			
1. Hand pain, aching or stiffness on most days previous month	Hand pain on most days previous month	Hand pain, aching or stiffness on most days previous month*	Pain or stiffness on most days the previous 6 weeks in at least one hand joint (including MCP joints)*
2. Hard tissue enlargement of two or more of 10 selected joints	Hard tissue enlargement of two or more of 10 selected joints #	Hard tissue enlargement of two or more of 10 selected joints (yes/no)	Hard tissue enlargement of two or more of 10 selected joints #
3. Hard tissue enlargement of two or more DIP joints	Hard tissue enlargement of two or more DIP joints #	Hard tissue enlargement of two or more DIP joints (yes/no)	Hard tissue enlargement of two or more DIP joints #
4. Fewer than three swollen MCP joints	Fewer than three swollen MCP joints #	Fewer than three swollen MCP joints (yes/no)	Fewer than three swollen MCP joints #
5. Deformity of at least 1 of 10 selected joints	Deformity of at least 1 of 10 selected joints #	Deformity of at least 1 of 10 selected joints (yes/no)	Malalignment (>15° in IP joints or squaring of thumb base) of at least 1 of 10 selected joints #
EULAR criteria			
1. Pain, aching or stiffness in at least one target joint on most days previous 6 weeks	Hand pain on most days previous month, AND Pain and/or stiffness in at least one target joint	Hand pain, aching or stiffness on most days previous month	Pain or stiffness on most days the previous 6 weeks in at least one target joint
2. Age	Difference in years between date of examination and birth	Difference in years between date of examination and birth	Difference in years between date of examination and birth
3. Morning stiffness in target joints	Morning stiffness in general (None, less than 30 minutes, 30 minutes or longer)	Not available	Morning stiffness duration in finger joints and thumb base joints subsequently divided into none, 1-30 minutes and >30 minutes †
4. Osteophytes in target joints	Number of target joints with osteophytes ‡	Number of target joints with osteophytes ‡	Number of target joints with osteophytes ‡
5. JSN in target joints	Number of target joints with JSN ‡	Number of target joints with JSN ‡	Number of target joints with JSN ‡
6. Symptom-structure concordance	Osteophytes or JSN in at least 50% of target joints with pain or stiffness	Osteophytes or JSN in at least 50% of target joints with joint tenderness	Osteophytes or JSN in at least 50% of target joints with pain or stiffness on most days previous 6 weeks

MCP=metacarpophalangeal; DIP=distal interphalangeal; IP=interphalangeal; JSN=joint space narrowing.* In the Phase 1 data set, the physician's opinion about the likelihood of hand OA as cause of the complaints would be affected by available information about other diseases and conditions leading to hand pain. In order to not bias our results towards a higher specificity of the EULAR criteria, we did not take information about other diseases into account when applying the EULAR criteria. The same approach was used in MUST in order to have comparable results. Hence, we tested the two criteria sets in similar target populations based on hand symptoms. # Affected joints by clinical examination were marked on hand diagrams. † Separate questions for interphalangeal joints and thumb base joints. If the duration of morning stiffness was different in interphalangeal and thumb base joints, the longest duration was used in analyses. ‡ Assessment of osteophytes and JSN according to the OARSI atlas in individual hand joints by trained reader. A score of at least 1 on a 0-3 scale was required to be defined as a joint with osteophyte or JSN.