

**Appendix 1.** Summary of the cohorts included within consensus study and potential OA variables identified within each

Cohort	Self reported clinician diagnosed	Self perceived OA	TJR	Knee x-ray	NHANES- type questions					WOMAC
					1	2	3	4	5	
OAI	✓		✓	✓		✓	✓			✓
MOST	✓		✓	✓	✓	✓	✓	✓		✓
SOF	✓		✓	✓					✓	✓
ROAD			✓	✓			✓			✓
Herts	✓		✓	✓	✓					
Johnston County	✓		✓	✓	✓					
TasOAC	✓		✓	✓						✓
Chingford	✓	✓ (hip only)	✓ (hip)	✓	✓	✓				
Framingham	✓			✓			✓			

**Appendix 2.** Wording variations of the binary NHANES-type pain questions found within the MILOS consortium cohorts

<b>NHANES-Type Questions</b>
“Pain, aching or stiffness in or around the knee most days” for at least 1 month of the past 12 months.
“ [Any] Pain, aching, stiffness in (left/right)knee in past 12 months?”
“Pain, aching, stiffness in (right/left) knee on most days for more than 1 month in the last 12 months?”
“Pain, aching, stiffness on most days in the last month?”
NHANES I questionnaire “Have you ever had pain in or around your knee on most days for at least a month?”
“(Left/Right) Knee pain lasting at least a month during last 12 months”
“Knee pain lasting at least one month in the current or previous year”
“Number of months with knee pain for each year in the past 12 years since baseline visit”
“Have you had pain in or around your (left/right) knee on most days in the last month?”
“On most days do you have pain, aching or stiffness in your KNEES?”
“Have you had pain on most days of the last month?”
“Have you ever had pain in your knees for more than one month?”
“Have you had (any) knee pain within the last month?”
“Did you have [any] (knee/hip, R/L) pain in the last month?” “If yes, on how many days (0-5, 5-15, 15+)”
“Ever pain lasting at least one month (in previous 2 years)”