



MULTICENTER OSTEOARTHRITIS STUDY  
**ANNOTATED DATA COLLECTION FORMS**  
 152- AND 160-MONTH FOLLOW-UP DATASETS  
 March 2023

This document displays the MOST data collection forms annotated with the variable names and data values that are used for the instruments and measurements conducted at the 152- and 160-month time points.

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**ANALYST NOTES**

***Released Variables***

Released variables are displayed in bold blue font.

Example: **MOSTID**

***Variables Not Released***

Variables not released are displayed in gray font and lined out.

Example: ~~V8SDAT2~~

*Note: Where all the variables on a page are not released, the page is crossed out with an "X".*

***Calculated Variables***

The calculated variables (V8CALC) are displayed throughout the forms in bold blue font within a text box.

Example: **V8MCOMOR**

MOST ID: AANNNNN **MOSTID****COHORT**  
1=Original  
2=NewAcrostic: AAAA **ACROSTIC**Visit: **3** 8-month/152-month **4** 16-month/160-month **VISIT**Date interview completed: \_\_\_\_/\_\_\_\_/\_\_\_\_ \_ **TIDIFF**

Staff ID#: ANN

## MOST Interim Telephone Interview

Version 12/06/2016

Directions: Confirm that this is the correct participant. Ask their name, and confirm in the participant's chart that the name matches the MOST ID # and Acrostic at the top of this form.

"I would like to start by asking you about any problems with your knees during the past 30 days."

### Right knee

"First your right knee."

1. During the **past 30 days**, have you had any pain, aching, or stiffness in your right knee?

**PN30R****1** Yes (Go to Q#1a.)**0** No (Go to Q#2.)**8** Don't know/Refused (Go to Q#2.)

- 1a. During the **past 30 days**, have you had pain, aching, or stiffness in your right knee on most days? By 'most days,' we mean more than half the days of a month.

**KPN30R****1** Yes**0** No**8** Don't know**KNR**

### Left knee

"Now your left knee."

2. During the **past 30 days**, have you had any pain, aching, or stiffness in your left knee?

**PN30L****1** Yes (Go to Q#2a.)**0** No (Go to Q#3.)**8** Don't know/Refused (Go to Q#3.)

- 2a. During the **past 30 days**, have you had pain, aching, or stiffness in your left knee on most days? Again, by 'most days,' we mean more than half the days of a month.

**KPN30L****1** Yes**0** No**8** Don't know**KNL**



# MOST Interim Telephone Interview

## **Scoring for WOMAC<sup>®</sup> Likert 3.1**

MOST uses a modified version of the WOMAC<sup>®</sup> Likert 3.1 instrument. WOMAC<sup>®</sup> is a registered trademark (CDN No. TMA 545,986), Copyright 1996 Nicholas Bellamy, All Rights Reserved. This copyrighted instrument may not be displayed. Therefore collection of actual questions are not being displayed.

Please go to: <http://www.womac.org> for more information about the WOMAC<sup>®</sup> Likert 3.1.

## **WOMAC<sup>®</sup> subscales**

There are three WOMAC<sup>®</sup> subscales: pain, stiffness and disability. The time period covered by the subscales is the "past 30 days." Subscale scores are the sum of individual item scores for all items in the subscale.

### **Knee pain**

The individual items in the pain subscale are:

<u>Activity</u>	<u>Variable (right knee)</u>	<u>Variable (left knee)</u>
Walking	Q1KR	Q1KL
Up stairs	UPR	UPL
Down stairs	DOWNR	DOWNL
Stairs (calculated)	Q2KR	Q2KL
In bed	Q3KR	Q3KL
Sit or lie down	Q4KR	Q4KL
Standing	Q5KR	Q5KL

Each knee pain item is scored on a 5-point scale:

- 0 = None
- 1 = Mild
- 2 = Moderate
- 3 = Severe
- 4 = Extreme
- 5 = Don't do\*
- .M = Missing

\*The following variables have the 5 (don't do) scoring option: UPR, UPL, DOWNR, and DOWNL. "Don't do" is set to missing.

The pain subscale scores are calculated for the right and left knee separately. The pain subscale possible score range is 0-20.

<u>Score</u>	<u>Variable (right knee)</u>	<u>Variable (left knee)</u>
Pain subscale scores	WOPNKR	WOPNKL



**Disability**

The individual items in the disability subscale are:

<u>Activity</u>	<u>Variable (either knee)</u>
Down stairs	<b>Q8K</b>
Up stairs	<b>Q9K</b>
Stand from sitting	<b>Q10K</b>
Standing	<b>Q11K</b>
Bending	<b>Q12K</b>
Walking	<b>Q13K</b>
In car/out of car	<b>Q14K</b>
Shopping	<b>Q15K</b>
Socks on	<b>Q16K</b>
Get out of bed	<b>Q17K</b>
Socks off	<b>Q18K</b>
Lying down	<b>Q19K</b>
Bathing	<b>Q20K</b>
Sitting	<b>Q21K</b>
On/off toilet	<b>Q22K</b>
Heavy chores	<b>Q23K</b>
Light chores	<b>Q24K</b>

The disability subscale possible score range is 0-68.

<u>Score</u>	<u>Variable (either knee)</u>
Disability subscale scores	<b>WOPASK</b>

Each disability item is scored for difficulty with the same scale used for pain and stiffness (see previous page).

**Score calculations**

An individual response of:

- 5 = Don't do
- .M = Missing

For any item is treated as missing data.

Modified WOMAC Osteoarthritis Index Likert Version 3.1 (1996). Subscales are for knee pain, physical function, and degree of difficulty (when physically active). In addition to asking about degree of physical difficulty going up stairs and going down stairs, in MOST we also ask separate knee pain questions regarding going up stairs and going down stairs. The stair climbing calculation was based on the highest response value of the two questions. If there is one missing answer and one non-missing answer for the stair climbing questions, the non-missing answer is used. Subsets of the questions have a "don't do" response option. If the participant chose the "don't do" response, the score for that question was set to missing when computing WOMAC scores. Participant responses are all based on the past 30 days.

The WOMAC knee calculated variable and subscales were calculated based on code from Jingbo Niu at Boston University (Framingham Study).

The method used to handle missing values (ie., participant fails to/refuses to complete all questions) is consistent with the suggestion from the WOMAC User's Guide (Nicholas Bellamy) for how missings should be treated: "If >= two pain, both stiffness, or >= four physical function items are omitted, the patient's response is regarded as invalid and the deficient subscale(s) should not be used in analysis. Where one pain, or 1-3 physical function items are missing, we suggest substituting the average value for the subscale in lieu of the missing item value(s). This method is similar to that employed for other indices (e.g., SF-36)."

**Other joint pain**

“Still focusing on your experience in the past 30 days, the following questions are about pain, aching or stiffness in joints other than your knees.”

6. During the **past 30 days**, have you had pain, aching or stiffness on most days in any joints other than your knees, including your back and neck? **J PAIN**  
 1 Yes (Go to Q#6a.)  
 0 No (Go to Q#7.)  
 8 Don't know/Refused (Go to Q#7.)

“I am going to ask about specific joints. Please tell me if you have had pain on the right, left, both sides, or neither side.”

During the **past 30 days**, have you had pain, aching or stiffness on most days in ... *(Interviewer note: If yes, ask whether the pain was on the right, left or both sides.)*

6a. Either hip? **HIP30**

1 right 2 left 3 both 4 neither

HIPR  HIPL

6b. Either ankle? **ANKL30**

1 right 2 left 3 both 4 neither

ANKLR  ANKLL

6c. Either foot? **FEET30**

1 right 2 left 3 both 4 neither

FOOTR  FOOTL

6d. Either shoulder? **SHDR30**

1 right 2 left 3 both 4 neither

SHDRR  SHDRL

6e. Either elbow? **ELB30**

1 right 2 left 3 both 4 neither

ELBR  ELBL

6f. Either wrist? **WRST30**

1 right 2 left 3 both 4 neither

WRSTR  WRSTL

6g. Either hand? **HAND30**

1 right 2 left 3 both 4 neither

HANDR  HANDL

During the **past 30 days**, have you had pain, aching or stiffness on most days in your ...

6h. Neck? **NECK**

1 yes 0 no

\_WSPA  
 \_WSPB  
 \_WSPC

6i. Lower back? **LB**

1 yes 0 no

\_LBP

6j. Middle or upper back? **MUB**

1 yes 0 no

### **Constant knee pain – Right**

“The next questions are about knee pain again, but this time please answer based on your experience in just the past 7 days. People have told us that they experience different kinds of pain (including aching, stiffness, or discomfort) in their knee. I would like to ask you about any ‘constant pain’ (pain you have all the time) separately from any pain that you may experience less often, that is, ‘pain that comes and goes.’ First your right knee.”

7. In the past 7 days, have you had constant pain (pain that you have all the time) in or around your right knee? **CKCP7R**
- 1** Yes (Go to Q#7a.)
  - 0** No (Go to Q#8.)
  - 8** Don't know/Refused (Go to Q#8.)

- 7a. In the past 7 days, how intense has your constant pain in your right knee been? **INCP7R**
- 0** Not at all
  - 1** Mildly
  - 2** Moderately
  - 3** Severely
  - 4** Extremely
  - 8** Don't know
  - 7** Refused

### **Intermittent knee pain – Right**

8. In the past 7 days, have you had intermittent pain (pain that comes and goes) in or around your right knee? **INTP7R**
- 1** Yes (Go to Q#8a.)
  - 0** No (Go to Q#9.)
  - 8** Don't know/Refused (Go to Q#9.)

- 8a. In the past 7 days, how frequently has this pain that comes and goes in your right knee occurred? **FRQP7R**
- 1** Rarely
  - 2** Sometimes
  - 3** Often
  - 4** Very often
  - 8** Don't know
  - 7** Refused

**Constant knee pain – Left**

“Now for your left knee. I'm going to ask you about any ‘constant pain’ (pain you have all the time) separately from any pain that you may experience less often, that is, ‘pain that comes and goes”.

9. In the past 7 days, have you had constant pain (pain that you have all the time) in or around your left knee? **CKCP7L**

1 Yes (Go to Q#9a.)

0 No (Go to Q#10.)

8 Don't know/Refused (Go to Q#10.)

9a. In the past 7 days, how intense has your constant pain in your left knee been? **INCP7L**

0 Not at all

1 Mildly

2 Moderately

3 Severely

4 Extremely

8 Don't know

7 Refused

**Intermittent knee pain – Left**

10. In the past 7 days, have you had intermittent pain (pain that comes and goes) in or around your left knee? **INTP7L**

1 Yes (Go to Q#10a.)

0 No (Go to Q#11.)

8 Don't Know/Refused (go to Q#11.)

10a. In the past 7 days, how frequently has this pain that comes and goes in your left knee occurred? **FRQP7L**

1 Rarely

2 Sometimes

3 Often

4 Very often

8 Don't know

7 Refused

### **Knee buckling**

“For the next questions, please answer for the time period since we last spoke with you in <insert month and year>.”

We are interested in knee buckling or your knee ‘giving way’. Sometimes you may feel as if your knee is going to buckle or give way but it doesn't actually do so. That does not count.”

**11.** Since we last spoke with you in <insert month and year> has either of your knees buckled or given way at least once? **KBUCK**

- 1** Yes (Go to Q#11a.)
- 0** No (Go to Q#12.)
- 8** Don't know/Refused (Go to Q#12.)

**11a.** Which knee buckled or gave way at least once? **KBS**

- 1** Right knee
- 2** Left knee
- 3** Both knees
- 8** Don't know which knee

**11b.** Counting all times and both knees, how many times have your knees buckled? If you are unsure, make your best guess. **KBTOT**

- 1** 1 time
- 2** 2 to 5 times
- 3** 6 to 10 times
- 4** 11 to 24 times
- 5** More than 24 times
- 8** Don't know

**11c.** As a result of knee buckling or giving way, did you fall and land on the floor or ground?

**FALL**

- 1** Yes
- 0** No
- 8** Don't know

**12.** Because of concern about buckling or ‘giving way’ in your knees, have you changed or limited your usual activities in any way? **LMBUCK**

- 1** Yes
- 0** No (Go to Q#13.)
- 8** Don't know/Refused (Go to Q#13.)



**Falls**

“The next questions are about falls since we spoke to you in *<insert month and year>*.”

**13.** Have you fallen and landed on the floor, ground, or stairs? Include any falls due to knee buckling. (Do NOT include being knocked down by a moving person or vehicle, falling off of a bicycle or while playing a sport, or falling from a height like off a ladder.) **FALLG**

- 1** Yes (Go to Q#13a.)
- 0** No (Go to Q#14.)
- 8** Don't know/Refused (Go to Q#14.)

**13a.** How many times have you fallen? **FALLT**  
If you are unsure, please make your best guess.

- 1** One
- 2** Two or three
- 3** Four or five
- 4** Six or more
- 8** Don't know

**13b.** Were you injured as a result of a fall? **FALLIN**

- 1** Yes (Go to Q#13bi.)
- 0** No (Go to Q#14.)
- 8** Don't know (Go to Q#14.)

**13bi.** Please indicate what type of injury.

- Fracture **FALLFX** 1yes 0no
- Sprained or dislocated joint (wrist, knee, ankle, etc.) **FALLSP** 1yes 0no
- Pulled or torn muscle, tendon, or ligament **FALLPU** 1yes 0no
- Head injury or concussion **FHEAD** 1yes 0no
- Other injury **FALLOT** 1yes 0no

**13bii.** Did you receive treatment from a doctor for any of these injuries?

**FALLD**

- 1** Yes
- 0** No
- 8** Don't know

**13biii.** Did you limit your usual activities for more than a day because of an injury from a fall? **FALLL**

- 1** Yes
- 0** No
- 8** Don't know

### **Knee injury**

“The next two questions are about knee injuries since we spoke to you in <*insert month and year*>.”

14. Have you injured your right knee badly enough to limit your ability to walk for at least two days? **LAR**
- 1 Yes
  - 0 No
  - 8 Don't know/Refused

15. Have you injured your left knee badly enough to limit your ability to walk for at least two days? **LAL**
- 1 Yes
  - 0 No
  - 8 Don't know/Refused

### **Knee surgery – Right knee**

“The next questions are about knee surgeries since we spoke to you in <*insert month and year*>.”

“First your right knee”

16. Did you have any surgery in your right knee? **SURGR**
- 1 Yes (Go to Q#16a.)
  - 0 No (Go to Q#17.)
  - 8 Don't know/Refused (Go to Q#17.)

- 16a. Did you have a right knee replacement, where all or part of the joint was replaced?

Yes (*Interviewer note: Please complete the Event Notification Form and mark **Right Knee Replacement.***)

No  
Don't know

- 16b. Did you have another kind of surgery in your right knee?
- Yes
  - No
  - Don't know

**Knee surgery – Left knee**

“Now your left knee.”

17. Did you have any surgery in your left knee? **SURGL**

- 1** Yes (Go to Q#17a.)
- 0** No (Go to Q#18.)
- 8** Don't know/Refused (Go to Q#18.)

17a. Did you have a left knee replacement, where all or part of the joint was replaced?

Yes (*Interviewer note: Please complete the Event Notification Form and mark **Left Knee Replacement**.*)

- No
- Don't know

17b. Did you have another kind of surgery in your left knee?

- Yes
- No
- Don't know

**Hip surgery**

“Now I'm going to ask about hip surgeries since we spoke to you in *<insert month and year>*.”

18. Did you have a right hip replacement, where all or part of the joint was replaced? ~~THRR~~  
Yes (*Interviewer note: Please complete the Event Notification Form and mark **Right Hip Replacement**.*)

- No
- Don't know/Refused

19. Did you have a left hip replacement, where all or part of the joint was replaced? ~~THRL~~  
Yes (*Interviewer note: Please complete the Event Notification Form and mark **Left Hip Replacement**.*)

- No
- Don't know/Refused

**Hospitalizations**

20. Since we spoke to you in *<insert month and year>* have you been hospitalized overnight?

- HOSP**
- 1** Yes (Go to Q#20a.)
- 0** No
- 8** Don't know/Refused

20a. How many total days since *<insert month and year>* were you in the hospital? \_\_\_\_\_ **HOSPDAY**

**NOTE: use value 29 for days reported 30 or more**

**THANK YOU**