



MULTICENTER OSTEOARTHRITIS STUDY

SPECIAL MISSING VALUE CODES

SAS allows for stratification of missing values. The following special missing values have been assigned to MOST datasets.

.D Don't Know

The value is missing because the participant did not know the answer.

.E Excluded

The value is missing because the knee was excluded for reasons of x-ray quality assurance determination, such as TKR, missing patella, or osteonecrosis – OA and knee pain symptoms status not reported.

.M Missing

The value is missing because the data was not collected.

.N Not Applicable

The value is missing because the question is not applicable to the participant.

.Q Not Required

The value is missing because the question is not required due to exemption established by the response to a parent question (=P in publicly released datasets).

.P Not Expected

The value is missing because the question is not required due to exemption established by the response to a parent question (=Q in MOST datasets used internally).

.R Refused

The value is missing because the participant refused the exam or refused to answer the question.

.T Don't Do

The value is missing because the participant doesn't do the activity referenced in the question – specific to the WOMAC and KOOS measures, where participants are asked to rate the severity of knee pain experienced while doing particular activities, such as running or squatting.

.U Unscorable

The value is missing because the reader was unable to score the radiographic feature or view for a technical reason, such as image quality.

.V Exempt (Visit, Exam, or Questionnaire Not Required)

The value is missing because the participant did not complete the visit, exam, or questionnaire for any reason.

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.W Lost to Follow-up

The value is missing because the participant is lost to follow-up.

.X X-ray Not Read

The value is missing because the x-ray was not read for any reason other than eligibility exclusion.

.Z Status Not Determined

The value is missing because the status was not determined for any reason other than eligibility exclusion.

General Strategies for Using Special Missing Values

In SAS, when using special missing values in logical expressions, the missing value is no longer only equal to '.'

For sorting purposes, the greatest of special missing values is '.Z' and the smallest is '._'. SAS does not distinguish between lowercase and uppercase letters for special missing values.

To express a value equal to missing, the code is written as:

`<=.Z` or `le .Z`

To express a value not equal to missing, the code is written as:

`>.Z` or `gt .Z`

EXAMPLE: The following statement will print the ID for all participants who have a missing value for the variable V0HTFT:

```
proc print;
  where V0HTFT le .Z;
  var MOSTID;
run;
```