

The 411 on 988

April Fritz, RHIT, CTR

I remember the good old days (a couple of months ago) in Collaborative Stage (CS) version 1, when 8 or 88 or 888 in a field meant “Not Applicable”. Like 9s for “Unknown”, 8s were a kind of flag that indicated that the field didn’t apply for a particular primary site, such as CS Lymph Nodes and CS Tumor Size in the lymphoma schema, or that a field wasn’t used, such as site-specific factor (SSF) 6 for colon. A universal code for Not Applicable is a great thing so long as there are only a few code choices—it cuts down a little on what a registrar has to keep active on his/her mental desktop. But when it gets in the middle of a range of values, it can cause problems. For example, if a researcher were looking at the PSA value field, could he/she tell whether 888s mean Not Applicable or a value of 88.8 without knowing the code definitions?

Now it’s 2010 and we have version 2 of the Collaborative Stage Data Collection System (CSv2). Inflation has hit not only the name of the coding system, but also the value for several of the Not Applicable codes. There are reasons for both. When people call it Collaborative Staging, those unfamiliar with registries (like many physicians) think there’s a new staging system in town that supersedes Summary Stage and TNM. The new name indicates that it is collaborative and a stage-data-collection-system.

Also, code 88 is now 98, and 888 is now 988. The change in the Not Applicable codes was a necessary revision to meet several needs. One principal reason was to standardize codes to the greatest extent possible. There are so many schemas to understand (not to *memorize*) that having standardized codes helps both coders and analysts recognize patterns in the structure of the codes. Second, as mentioned above, sometimes a “concept” code—in other words a code has a meaning (like “Stated as T_, NOS”) other than a numeric value—is in the middle of a range of coded values. For example, take an SSF that measures depth of invasion in hundredths of millimeters. The first digit is whole millimeters, followed by an implied decimal point and two more digits measuring the hundredths of millimeters. In this situation, 888 would mean 8.88 millimeters. When there is a concept code in a numeric range, it is difficult to do calculations such as average depth of invasion, since the code does not represent a true value. Third, to accommodate the changes between the TNM 6th and 7th editions of the AJCC Cancer Staging Manual, some CSv1 codes had to be made obsolete and new codes added in CSv2. More code numbers had to be available at the high end of the code range. So in CSv2, the Not Applicable codes and others with meanings other than numbers were moved as far up the code range as possible. Almost all now start with 98_ or 99_ in a 3-digit field.

Also, as part of the CSv2 inflation, there are more meanings to the new code 988 than simply Not Applicable. Some are very subtle or only used once or twice in CSv2. Others are more common and discussed below.

Field not ever defined

When you look at the schemas that you can access from <http://www.cancerstaging.org/cstage/schema.html>, the index or front page of each schema lists all the data fields and SSFs so that you can see which fields are coded for the site. Any SSFs that are not defined are listed with a code 988 right on that first screen. The same is true of SSFs 1–6 when they are not used in CSv1 or CSv2. For example, lung now uses two SSFs, but SSFs 3–25 are coded as 988, Not Applicable (not ever defined).

Field not used for this site

For a primary site like malignant lymphoma or leukemia (or any of the hematopoietic diseases), only a few CS fields contribute to the derived TNM values. Other fields are therefore Not Applicable and are coded as 9, 98, 99, or 988, depending on the field. For example, tumor size is not meaningful for lymphoma staging, so it is always coded 988. CS Lymph Nodes is always coded 988 because it is Not Applicable.

This site is not staged in schemas where a 9 is listed for all the Eval fields; this means that AJCC staging is Not Applicable for the whole schema. Usually these are the “other” schemas where information is collected in the extension, nodes, and metastases fields but AJCC doesn’t include the ICD-O-3 codes as primary sites for staging.

Not used in this version

In some of the data fields where there used to be a code 888, you may see something like this for part of the codes (you may not see them because your registry software has the ability to hide “obsolete” codes):

888	OBSOLETE DATA CONVERTED V0200 See code 987 Not applicable; no lymph node involvement
987	OBSOLETE DATA CONVERTED AND RETAINED V0200 Data converted from code 888 Not applicable; no lymph node involvement
988	Not applicable: Information not collected for this case
999	OBSOLETE DATA RETAINED V0200 Unknown if regional lymph node(s) involved, not stated Regional lymph nodes cannot be assessed Not documented in patient record

This part of the code structure is from TongueBase SSF2 Extracapsular Extension, Lymph Nodes of Head and Neck. In CS version 1, this field captured both clinical and pathologic information about tumor extension through the capsule of regional lymph nodes, and 888 was a valid code with a specific meaning—Not Applicable: no lymph node involvement. In CSv2, information about extracapsular extension

is captured in separate clinical (SSF8) and pathologic (SSF9) fields. SSF2 has been made obsolete in CSv2, but the data coded for CS version 1 cases have been retained for research purposes. What happened in the conversion from version 1 is that any case coded as 888 (no lymph node involvement) in version 1 has been recoded (converted) to 987 and retains the same meaning in CSv2. For 2010 diagnoses and forward, the instructions above the code table say to always code this field as 988, Not Applicable: information not collected for this case.

Prostate SSF4

If you hadn't heard, when you get to your prostate cancer cases diagnosed on or after January 1, 2010, you can code SSF4 Prostate Apex Involvement as 988, Not Applicable: information not collected for this case. Collection of information about tumor extension to the prostate apex has been discontinued effective with 2010 diagnoses. *Keep in mind that if you're still working on your 2009 cases, SSF4 must be coded with values other than 000-080, 988, or 999.* If you use 988 for a pre-2010 diagnosis, it may generate an error when the TNM values are derived. The notes in CSv2 say that this SSF should be coded when apex involvement is CLEARLY (emphasis as shown in CSv2) documented in the patient record; otherwise, if apex involvement is ambiguous or unknown, code 550 should be used.

The new SSFs

All of the US standards setters have issued their lists of SSFs that are required to be completed. Many are necessary for deriving the T, N, M or Stage Group. Others are valuable pieces of information that researchers are clamoring for or are being collected prospectively for future research. Some may have been collected by registrars in text or user-defined fields, such as HER2, and they now have a 'home' in CSv2. Some, in my opinion, are pie-in-the-sky wish lists of information of clinical interest but very rarely documented. Fortunately, many of these are not required by any of the standards setters and there is a 988 code available to indicate the SSF is not collected.

Not Applicable: information not collected for this case

Take for example, breast SSF10: HER2 FISH Lab Value. There are actually at least 3 HER2 tests that can be captured in the SSFs for breast. These are the code choices for this field:

100-986	Ratio of 1.00 to 9.86 (enter exact ratio to two decimal places)
987	Ratio of 9.87 or greater
988	Not applicable: information not collected for this case
997	Test ordered, results not in chart
998	Test not done (test was not ordered and was not performed)
999	Unknown or no information; not documented in patient record

This field is required by the Commission on Cancer (CoC), the SEER Program, and the National Program of Cancer Registries. Usually, the patient has a HER2 immunohistochemistry (IHC) test, with the results recorded in SSFs 8 and 9. If the IHC test provides a definite result, that's all the HER2 testing that is needed. If the IHC results are equivocal, the physician or pathologist may order a FISH test, and if the FISH test is equivocal, may order a CISH test. In this example, if the FISH test was done and resulted in a value between 1.00 and 9.86, code the exact value in SSF10. If the ratio was 9.87 or greater, you have to use a 'concept' code, in this case 987, which means ratio is 9.87 or greater. Code 997 is used when you don't have results from a test that was ordered. Code 998 is used when there is a statement in the record that the test was not ordered or performed, and code 999 is when you don't have any information about the test.

But what happens if the FISH test isn't necessary because the IHC gave the clinicians the answers they needed? Then the FISH is not done and CSv2 has a code 998 (Test not done) to explain this.

The newest meaning: 'My registry is not collecting this SSF'

Finally, one more example: brain SSF2, Proliferative Index Ki-67. This field is not required by any of the standards setters. It is an indicator of the rate of cell division of the tumor, somewhat like the mitotic rate is for other primaries. But it is probably not of major research interest except in facilities with an active neurosurgery/neuro-oncology program. Smaller facilities will probably never see this test ordered. So if your cancer committee is not interested in collecting Ki-67 data, you can use 988 in the field to mean Not Applicable information not collected for this code. It's not unknown (999)—you know for sure that the information simply isn't in the medical record to be collected.

It's likely that the learning curve will be significant for CSv2, but most registrars survived learning CSv1 and have even come to like it. Understanding when the Not Applicable codes can and can't be used will smooth the way as users and later researchers navigate through CSv2 into the future of clinically relevant registry data.

If you want to know more about the finer points and meanings of code 988 and its kin, please review the *Implementation Guide for Registries and Vendors* developed by Elaine Collins, CTR and Alan Houser for CSv2. The most current version of this document as of writing this article is January 20, 2010, and is available at <http://www.cancer-staging.org/cstage>.

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April Fritz, RHIT, CTR, is CEO of A.Fritz and Associates in Reno, NV. The opinions in this column are hers. She can be reached for comments and feedback at april@afritz.org.