

SEER Prostate PSA Data Quality Values and Interpretation Study

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Background: The 2014 SEER Training Needs Assessment for TNM Study had each participant abstract and code two or four prostate tumors, resulting in 1,534 responses for PSA values that were analyzed. The results showed that 40.8% of responses for PSA values disagreed with the preferred answer. Furthermore, 43% of those total errors were related to the implied decimal point. To ensure high quality data in SEER, all SEER registries were required to perform a review of PSA Lab Value and PSA Interpretation data elements for prostate cases diagnosed in 2012.

In order to verify the accuracy of CS SSF 1 PSA Value and CS SSF 2 PSA Interpretation coding and consolidation, all SEER registries were required to review these 2 data items for malignant prostate cases, diagnosed in 2012, excluding the following cases:

- Death Certificate only, Autopsy Only or Nursing home/Hospice Only

The audit goals were:

- a. Identify and describe the magnitude of the PSA coding errors in SEER cases diagnosed in 2012 for the recorded PSA values and PSA interpretation values.
- b. Based on the study results, determine a strategy to correct PSA errors in SEER data for all years of diagnosis from 2004 to 2013 (a combination of automated and manual processes).
- c. Develop new processes and procedures to help reduce PSA errors in the future.

Audit Results for CRGC:

Status	Number of Cases	Percentages
Correct	9237	87%
Not Coded	23	.22%
Decimal	145	1.36%

Rounding	427	4.00%
No Text	53	.50%
Other	769	7.47%
Total	10,654	

Summary: Contrary to what was found during the 2014 SEER Training Needs Assessment for TNM Study, the 2012 prostate cases reviewed from CRGC revealed a much lower percentage of errors with PSA decimal placement (1.36%). The issue of rounding PSA values was identified as more problematic with a 4.0% error. The category of "Other" includes, but is not limited to, cases in which the abstract only mentions an elevated PSA, with no values stated. This accounted for 7.47% of the cases reviewed.

CRGC had developed a PSA Coding Guideline document, to assist registrars in accurately recording PSA values. This document was distributed in April of this year. Here is the link to the document: <http://crgc-cancer.org/wp-content/uploads/2014/01/PSA-SSF1-CODING-Final-6-25-15.pdf>

Since this document was developed prior to the 2012 prostate PSA value review, we are evaluating the document to determine if any further enhancements need to be incorporated, based on our recent review.

Conclusion: the CRGC review of 10,456 prostate cases diagnosed in 2012 revealed a low percentage of cases with errors involving decimal placement in recording PSA values (1.36%). A higher percentage of cases had errors with rounding the PSA values (4.0%). Less than 1% of cases had no text documentation of a PSA value and an even smaller percentage did not code the PSA value (.22%). These results are a testament to the high quality work performed by the registrars of CRGC!

SEER will analyze the results of the data review from all its' registries, with the goal to develop better automated and manual mechanisms to correct PSA data for other diagnosis years and to develop better processes and procedures to help reduce PSA recording errors in the future .

In the meantime, CRGC will review the document it created earlier this year, "Prostate – CS Site Specific Factor 1 – PSA Lab Value Coding Guideline," to determine if further enhancements are required, based on our review of the 2012 cases.

Thank you to all CRGC registrars for your continued excellence in cancer reporting!