Description of Three New Data Elements for Survival with Active Followup

Note: This document describes three of seven survival variables which were designed to facilitate a common approach to survival analysis by NAACCR registries. For the November 2013 submission, these seven data elements will be in the state requestor part of the NAACCR record since the fields are approved, but not yet in the NAACCR record layout. It is anticipated that they will be in the record for the November 2015 submission.

SURV-MOS ACTIVE FOLLOWUP

<table>
<thead>
<tr>
<th>Alternate Name</th>
<th>Item #</th>
<th>Length</th>
<th>Source of Standard</th>
<th>Column #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>NAACCR</td>
<td>2593-2596</td>
</tr>
</tbody>
</table>

**Description**

The survival interval in months is calculated using the month, day, and year of the Surv-Date DX Recode [no NAACCR number yet] and the month, day, and year of the Surv-Date Active Followup [no NAACCR number yet]. The survival interval is calculated by a program available from your standard setter or NAACCR.

Example of a case diagnosed in 2011 and submitted in 2013.
Date of submission: 11/1/2013
Date of diagnosis: 9/15/2011
Date of last contact: 10/17/2011
Vital status: Alive
Study cutoff date: 12/31/2011
10/17/2011 would be used as the date of last contact for the survival calculation. The survival time would be 1 month.

**Rationale**

Accurate survival estimates are crucial for monitoring trends in population-based cancer survival and assessing the effectiveness of healthcare delivery to cancer patients. With the aim of obtaining the most precise estimates of survival, it is necessary to use complete dates (month, day, and year components) in the calculation of the survival interval. The survival interval in months is calculated using complete dates, and the algorithm imputes missing components of dates when they are not available in central registry records. Additional information about the algorithm and what specific values are assigned in given missing date situations are available here: [http://seer.cancer.gov/survivaltime/](http://seer.cancer.gov/survivaltime/).

**Codes**

A value of 9999 is for missing and matches the Surv- Flag Active Followup value of 9 or blank. Leading zeros will be used when needed to left fill the field.

**Calculation**

Survival months = FLOOR((endpoint – date of diagnosis) / days in a month)

The FLOOR function always rounds down, e.g., FLOOR(1.68) = 1. Days in a month is assigned to 365.24/12.
SURV-FLAG ACTIVE FOLLOWUP

<table>
<thead>
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<th>Source of Standard</th>
<th>Column #</th>
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</thead>
<tbody>
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<td>1</td>
<td>1</td>
<td>NAACCR</td>
<td>2597-2597</td>
</tr>
</tbody>
</table>

**Description**
This flag is generated by the program that creates Surv-Mos Active Followup [no NAACCR number yet] and describes how complete the date information is that was used to calculate survival months. This item is one of seven survival variables designed to facilitate a common approach to survival analysis by NAACCR registries.

**Rationale**
The flag will enable analysts to easily select a subset of cases.

**Codes:**
0  Complete dates are available and there are 0 days of survival (i.e., date last contact = date of diagnosis)
1  Complete dates are available and there are more than 0 days of survival (i.e. date last contact > date diagnosis)
2  Incomplete dates are available and there could be zero days of follow-up (i.e., known components are equal, e.g. 99/99/2006 and 10/02/2006)
3  Incomplete dates are available and there cannot be zero days of follow-up (i.e., any difference in known date components, e.g. 02/99/2006 and 03/99/2006)
8  Not calculated because a Death Certificate Only or Autopsy Only case
9  Unknown
Blank  Not coded
**Description**

The Surv-Date Active Followup is defined as the earlier of the Date of Last Contact [1750] and a study cutoff date. The study cut-off date is a pre-determined date based on the year of data submission and is set in the survival program used to derive the seven survival variables. If the Date of Last Contact [1750] is earlier than the study cut-off date and either the day or month is unknown or not available, the values are imputed by the survival program. The survival program is available from your standard setter or NAACCR.

**Example 1**

Date of Last Contact: 11/20/2011  
Study Cut-off Date: 12/31/2011  
Surv-Date Active Followup: 11/20/2011  
Note: The date of last contact is earlier than the study cut-off date, and the date of last contact is complete, so the date of last contact is used in Surv-Date Active Followup.

**Example 2**

Date of Last Contact: 11/99/2011  
Study Cut-off Date: 12/31/2011  
Surv-Date Active Followup: 11/15/2011  
Note: Rationale is to take mid-point of possible values. For Nov (30 days) it would be floor((1+30)/2) = 15.

**Rationale**

The Surv-Date Active Followup is needed to be able to recalculate survival months if a different study cut-off date is used and provides flexibility to recalculate survival without needing to rerun the survival program on the original data.

**Codes**

Valid 8 digit dates. If Date of Last Contact is blank, Surv-Date Active Followup will also be blank.

**Calculation**

Additional information about the survival algorithm and what specific values are assigned in given missing date situations are available here: [http://seer.cancer.gov/survivaltime/](http://seer.cancer.gov/survivaltime/).