SEER*DMS Auto-Consolidation and Validation Work Group
Meeting Summary
July 19, 2022
3:00 to 4:00 p.m. EDT

Representatives from the NCI, IMS, the Scientific Consulting Group, Inc. (SCG), and 12 cancer registries participated in the SEER*DMS Auto-Consolidation and Validation Work Group (WG) call on July 19, 2022. Participants included:

REGISTRIES:

Alaska
California Central
Cherokee Nation
Idaho (Regina Eck, WG co-chair)
Iowa (Bobbi Matt, WG co-chair)
Kentucky
Louisiana
Massachusetts
Minnesota
New Jersey
Seattle
Utah

NCI: Peggy Adamo, Lois Dickie, Marina Matatova, Jennifer Ruhl

IMS: Suzanne Adams, Linda Coyle, Fabian Depry, Nicki Schussler, Jennifer Stevens

SCG: Carolyn Fisher, rapporteur

Action Items

Participants agreed to the following action items:

- Registry representatives should review and provide comments on the proposed 2022–2023 Goals and Objectives within 2 to 4 weeks (See Squish issue #10962).
- IMS will follow-up with registries regarding specific auto-consolidation quality control checks and reports and share findings with NCI.
- The NCI will discuss the development of edits for examining the maximum number of positive sentinel lymph nodes (LNs) during the next Data Quality Team (DQT) meeting.
- Registry staff should review the revised auto-consolidation logic for sentinel LNs Positive and Examined pairs and provide comments in Squish issue #10354.
- Registry staff should review their information from the data searches for the extent of disease (EOD) primary tumor and EOD nodes regarding the proposed auto-consolidation logic for the liver.

Revisiting Goals and Objectives

Bobbi presented the proposed, revised WG 2022–2023 Goals and Objectives and explained that these were last updated in 2020. She asked the WG members, especially the new SEER*DMS registry representatives, to review and provide input on any revisions.

Suzanne noted that Table 1 has been updated to reflect all the fields currently in SEER*DMS that have auto-consolidation rules or fields that are being worked on. This update includes all fields added after lymphovascular invasion (LVI) in the prior version of this Table. The Table denotes fields under development and those that are upcoming.

Marina requested that registry representatives share details about their quality control (QC) processes and the algorithms used. She emphasized that NCI would like to know about the registry quality checks and reports generated.

IMS will collect the feedback on the new goals and objectives. Bobbi suggested that this information be compiled and shared in 2 to 4 weeks.

IMS Updates

Site-Specific Data Items (SSDIs): Prostate-Specific Antigen (PSA) Auto-Consolidation Logic

Since the last meeting, the WG Administrative team, including Suzanne, Bobbi, and Jennifer Ruhl, reviewed, discussed, and finalized the PSA laboratory value coding logic, which now is in development at IMS. The updated logic is posted in Squish #10344. This PSA logic is expected to provide a framework for coding of other SSDIs.

LVI Logic: Neoadjuvant Therapy Coding 9 Versus 0 Conflict

The *SEER Program Coding and Staging Manual 2022* (or Manual) instructs to code LVI as 9 if neoadjuvant therapy was given and as 0 if not given (see Squish issue #10464). The field Neoadjuvant Therapy #1632 will be used for 2021+ cases to determine whether neoadjuvant therapy was given. For pre-2021 cases, the sequence fields will be used. This logic will be optional. Registries may either:

- default to 0 for all 0 vs 9 conflicts (they will not take neoadjuvant therapy into account)
- check whether neoadjuvant therapy was given, and default to 0 if neoadjuvant therapy status is unknown
- check whether neoadjuvant therapy was given, and manually review if neoadjuvant therapy status is unknown

Laterality

IMS will be fine tuning the laterality logic to accept a known value over a code 9 (see Squish issue #10926). Several registries have requested this change to the logic.

Ongoing Data Items

Sentinel Lymph Nodes (LNs) Positive and Examined Pairs: Priority for Auto-Consolidation

Suzanne reminded the WG that the logic for SLN Positive and Examined is focused on conflicts between pairs of codes instead of between individual codes. The aim is to keep together positive and examined values for a given record. Suzanne discussed the priority (high to low) auto-consolidation logic and the combinations, all of which can be accessed in Squish issue #10354. Manual reviews are proposed for some code combination conflicts. After the last meeting, Bobbi and Suzanne reviewed and reordered the draft logic and considered the scenarios for manual reviews, simplifying the process as much as possible. Once the full WG has the opportunity to review the revised logic, IMS will write SQL code to examine actual cases.

Discussion

The logic outlined below is PRELIMINARY and is subject to change.
Suzanne and Bobbi pointed out the scenarios for manual review to discuss and gain a consensus.

1. **Positive 01-90 and Examined 01-90: Known Nodes Examined, Known Positives.** A disagreement exists regarding whether to perform the manual review when both records have known values for Nodes Positive and Nodes Examined, but either the # positives don't match or the # examined don't match, or both. Suzanne asked the group whether they would prefer to take the higher value or manually review in this situation for both fields. The assumption is that each record is correct on its own merit.

The Iowa registry editors favored the option of a manual review if the positives are different. The Seattle registry agreed with the Iowa registry editors.

Jennifer Ruhl has observed high numbers of positive sentinel LNs, such as 15, 20, or 25, which are above the typical 5 to 7. She asked what would be considered what number should trigger a review. The Manual states that the number of sentinel LNs positives cannot be higher than the number of regional LNs positive. Some registry representatives suggested that high numbers of positive sentinel LNs always should trigger a manual review. Unusual values can be checked against the pathology report, which would provide more accurate information.

Jennifer Ruhl confirmed that a SEER*Edit is in place to ensure that the sentinel LNs positives are equal to or less than the positive regional LNs. Suzanne suggested creating QC tasks to check cases that have high numbers of SLN positive or examined. SEER*Edits allows for tumor size restrictions and could accommodate similar limitations for the LNs. Bobbi suggested including the stipulation that if the positive sentinel LN is greater than 10, perform a manual review.

Linda asked if participants preferred for IMS to implement a SEER*Edit that editors can override if positive sentinel LNs are greater than 10. Bobbi suggested proposing this option to the Quality Improvement Experts (QIE) group for discussion. Peggy agreed to add developing edits for examining the maximum number of positive sentinel LNs to the agenda for the next internal NCI DQT meeting.

2. **Positive 01-90 and Examined 01–90 (Breast Only).** If there is a positive = 01–90 on one record and positive = 97 on another, then perform a manual review.

If an abstract indicates that the sentinel LN and the resection were performed at the same time, then the code should be 97. A manual review would be required to make sure the 97 is an accurate code for Breast. Separate date fields for every procedure do not exist.

Participants noted that the College of American Pathologists (CAP) Protocol for melanoma captures both the number of positive sentinel and regional LNs, thus the same code (97) is used in two different ways. According to the Seattle registry representative, the code 97 is used for Breast regardless because the number of sentinel LNs and positive Examined usually are known.

3. **Positive 97 and Examined 01–90: Known number of Examined, unknown number of nodes positive.** If the number of nodes examined is different, it is proposed to take the higher value.

The Utah registry representative agreed that selecting the higher number of Examined should be the option because those do not affect staging.

4. **Positive 01-90 and Examined 98: Positive 97 and any other Positive value.** Perform a manual review (except for 99).

5. **Positive 95 and Examined 95: Positive Aspiration.** Perform a manual review vs the following combinations:
    a. **Positive 00 and Examined 01-90**
    b. **Positive 00 and Examined 98**

6. **Positive 00 and Examined 01-90. Nodes Examined, all nodes positive**. Perform a manual review vs the following combinations:
    a. **Positive 97 and Examined 98**
    b. **Positive 99 and Examined 01-90**

7. **Positive 99 and Examined 01-90. Nodes Examined, all nodes negative**. If # Examined is different, then take the highest # Examined.

8. **Positive 00 and Examined 01-90.** If # Examined is different, then take the highest # Examined.
    a. Perform a manual review vs the following combinations:
        i. **Positive 97 and Examined 98**
        ii. **Positive 00 and Examined 98**

Bobbi requested that the registry representatives to review this revised logic and proposed manual reviews.

EOD Proposed Auto-Consolidation Logic: Liver

During the January 2022 meeting, the WG discussed how to assign records into priority groups (1–4) for setting the CTC value. Categories include Class of Case, CoC-accredited flags, or Surgery of Primary Site. Since the last update, Bobbi, Linda, and Suzanne have been working on this logic and have determined that this prioritization could potentially be different for each registry. The aim is to develop a base logic that registries can adapt to their own needs. This information can be accessed in Squish #10343.

Suzanne explained that IMS developed data searches for EOD Primary Tumor and EOD Nodes that show the cases in a respective registry's database based on a CTC value and not what the logic would choose. The purpose of the data searches is to determine the reasons why the editors select a different value than what is recommended in the *EOD Consolidation Manual* (Manual). No data search was created for EOD Mets because all conflicts will be reviewed. Bobbi added that the data searches are limited to cases with more than one abstract linked to the CTC.

Discussion

Participants asked about logic that is correct but disagrees with the Manual. Bobbi explained the importance of text to support the logic, which affects an editor's selection.

Suzanne clarified that the logic in the Manual would only be applied when there are multiple records with the same priority group. Bobbi asked that registries to review their data searches and provide feedback.

XXX.2 and XXX.3 SSDI codes

Bobbi asked whether the XXX.2 and XXX.3 values will be added to other SSDI Lab Value fields. Jennifer Ruhl replied that the reason they had added the codes to PSA lab Value is because they did away with PSA Lab Value interpretation (it was previously captured in a Site-Specific Factor). Other SSDIs containing laboratory values have associated interpretation fields, so they do not need the XXX.2 and XXX.3 codes.

Upcoming SEER*DMS Meetings

The next Auto-Consolidation and Validation WG call is scheduled for October 4, 2022.