

**SEER*DMS Record Linkages Demonstration
Teleconference Summary
February 5, 2021
1:30 to 2:30 p.m. EST**

Representatives from NCI, IMS, SCG and 18 cancer registries participated in a SEER*DMS Record Linkages Demonstration webinar on February 5, 2021. Participants included:

REGISTRIES

Alaska	NCI: Peggy Adamo, Lois Dickie, Betsy Hsu, Marina Matatova, Serban Negoita
California Central	
Connecticut	
Detroit	IMS: Suzanne Adams, Linda Coyle, Philip Crider, Fabian Depry, Michael Depry, Chuck May, Nicki Schussler
Georgia	
Hawaii	
Idaho	Nielsen Norman Group: Page Laubheimer
Iowa	
Kentucky	Registry Partners: Jennifer Ballard
Los Angeles	
Louisiana	SCG: Kathryn Brown-Huamani, rapporteur
Massachusetts	
Minnesota	Westat: Stephanie Fears
New Jersey	
New Mexico	
New York	
Seattle	
Utah	

Action Items

- Linda Coyle agreed to post the link to the recording of this webinar to all registries in a Squish issue.
- Marina Matatova requested that all participants provide feedback on the new interface. As registries use this new interface, they should communicate any problems to IMS and NCI because that information will help inform the next round of SEER*DMS usability testing.
- Marina also asked that participants disseminate the recording of this webinar to all CTRs at their registry so that they can view the new screen interface.
- Linda and Suzanne agreed to post a PDF file describing how the new interface works on the SEER*DMS portal and in a Squish issue.
- Linda reminded participants who want changes to their workflow to send a Squish issue to IMS.

SEER*DMS Usability

Page Laubheimer

Linda and Page Laubheimer of Nielsen Norman Group (NNG) described the usability project to evaluate the record linkage interface used by certified tumor registrars (CTR) to review source records (e.g., abstracts, pathology reports, other types of records) to determine whether they represent a new case (CTC) or are associated with an existing CTC. Page explained that the goal of the usability testing and

resulting changes to SEER*DMS is to make the data management system easier to use and more efficient without substantially changing the way the system works.

Linda noted that the usability testing of SEER*DMS was a collaboration between NCI SEER, IMS, Nielsen Norman Group, and Westat. Marina and Linda thanked the Utah registry for participating in two rounds of usability testing, especially during COVID, when all testing was done virtually.

Next Steps

Usability testing was performed successfully at three registries and IMS and NNG now will reach out to additional registries for the second round of usability testing.

Usability testing for the Patient Set Editor in general and Record Linkages specifically, is not complete. IMS still plans to review usability upgrades. At some point, usability testing will focus on consolidation in general and examine all parts of the Patient Set Editor; minor revisions might be made to portions of the SEER*DMS interface that already have been upgraded. Feedback from the registries will be considered when the Patient Set Editor is reviewed as a whole.

Marina asked for feedback on this demo and noted that NCI, IMS, and NNG will consider the best SEER*DMS target for the next usability test that is most likely to improve registry work.

New SEER*DMS Interface

Linda Coyle

The new Record Linkages popup interface was released on February 5, 2021. The new interface replaces the Diagnosis Info popup. The Record Linkages popup can be used by all registries for acceptance testing. SEER*DMS will attempt to perform every step in the record linkage process automatically, but a manual review might be requested based on the rules, which may be registry specific.

The magic wand is back in the interface. Once users enter a patient set in SEER*DMS, they will see the wand in the toolbar. The magic wand allows IMS to release changes to the interface while allowing the user to gradually transition from the old to the new interface. When users enter the patient set, they will see the new interface but can use the magic wand to go back to the old interface for a time. This tool also allows users to compare the old and new interfaces and make some adjustments to the interface. The magic wand only is available in the Patient Set Editor.

Linda delivered a demonstration (demo) of the new SEER*DMS interface for linking records. She noted that synthetic data was used in the demo to avoid the display of personally identifiable information, so some of the data might not make sense. Linda began by demonstrating a consolidation task. She pointed out that, in the new interface, everything that was available in the Information popup now is shown on the righthand side of the screen. Linda also noted that as the user selects a new row in the table, the text shown in the Information panel changes to align with the selected record. Another useful feature is the Action column, which allows the user to act on decisions based on the information shown in the righthand panel via drop down (e.g., link to an existing CTC, create a new CTC, etc.). An Unapplied Changes row also appears when the user is working on making changes but has not yet applied them. In addition, the Patient Editor screen shows pathology reports that have not been linked to a CTC (but are linked at the Patient Level) because pathology reports do not need to be linked to a CTC immediately.

Next Steps

Next steps include switching the default to the new Records Linkage interface, compiling feedback from users, resolving any issues, and then removing the old interface once all problems have been resolved and registry staff have adjusted to the new interface. If registries have any trouble or concerns regarding the new interface, IMS can work with them.

Discussion

A participant indicated that images associated with records did not seem to appear in the new interface. Linda responded that records with linked images will be accommodated by the new interface. The screen will show that an image is associated with a record and users will be able to open the image in a PDF and/or some other format. Users also can open each record in the full editor if they wish.

A participant asked if it was possible to make the width of the panel collapsible so that users can customize the working field according to their preferences. Linda responded that this action is not possible because of the technical difficulty of creating such functionality.

Another participant asked if users could edit an incorrectly coded pathology report or NAACCR abstract in the Record Linkage screen. Linda explained that the user would need to leave that screen and recode the record separately. Users cannot edit records directly from the Record Linkage screen but, by clicking on Open Full Record in the upper righthand corner of the Information panel, the user can open the full record in the Editor and correct it there.

A participant noted that, at the New Mexico registry, two new NAACCR records had been received and were mixed in with the other records. These records were not all appearing at the top of the new interface screen and were not in numerical order. Linda suggested submitting a Squish issue about this problem and IMS will investigate.

Linda explained that Solid Tumor rules are used to automatically match new records to CTCs or create a new CTC if no existing ones match, but they may not be auto-linked depending on registry rules. Some registries prefer the option of a manual review for hematopoietic disease records. IMS can work with registries to resolve issues resulting from the workflow.

Participants generally responded positively to the new interface and indicated that presenting the information in the righthand panel was preferable to having to click on an icon to obtain that information.

Before and After Comparisons

Linda Coyle

Functionality in the new interface is the same as the old one, but the look and feel have changed to improve the user experience. Processes performed by the Dx Info are similar in the Record Linkages interface. The processes for creating a new CTC, supporting text, and the Solid Tumor and MP/H rules used by the automated CTC matching task are easier to understand and see in the new interface.

Discussion

In response to a question, Linda clarified that the abstract and pathology report CTC linkage decisions are not always made manually. Participants would like examples of how automatic decisions are made.

A participant from the Georgia Cancer Registry indicated that it was helpful to be able to see the text panel to the right instead of clicking on the information icon.

The New York registry team works with many HL7s, often examining multiple HL7s that link to a CTC or PAT. The new interface will help facilitate that work.