2022 NPCR UTAH SUCCESS STORY

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Utah Cancer Registry's Virtual Re-Abstraction Audit Identified Opportunities for Improving Data Quality and Enhancing Training Provided to Reporting Facilities

National Program of Cancer Registries
SUCCESS STORY

SUMMARY

Using remote access to electronic medical records, Utah Cancer Registry (UCR) conducted a re-abstraction audit on a sample of cases submitted by a local community hospital. We independently abstracted each case and identified discrepancies with the abstracts submitted by the facility. Through collaborative reconciliation of discrepancies, we identified concrete suggestions for improvement and opportunities for continuing education for the hospital's abstractor.

CHALLENGE

Central cancer registries must meet high standards for data quality and completeness.[1] As cancer reporting practices continue to evolve, it is even more important for central registries to conduct routine quality assessment. UCR performs numerous quality assurance activities but had not conducted a full re-abstraction audit in many years. In accordance with NPCR Program Standards[2] we aimed to conduct a re-abstraction audit to evaluate data quality and help hospitals identify areas for improvement.

SOLUTION

UCR's Quality Assurance Coordinators conducted a re-abstraction audit of 38 cases (Figure 1), representing a 10% sample of the 2019 cases submitted by a small community hospital. This hospital's abstracting is performed by a single health information coder who was trained by UCR CTRs in the basics of cancer case abstraction. We conducted the audit entirely virtually using remote access to the facility's electronic medical record (EMR). UCR abstracted the cases independent of information previously submitted by the hospital. We compared codes for 10 NPCR-required data items between the hospital's and UCR's abstracts to identify discrepancies.

The success of this project was highly dependent upon the collaboration of our partners in this effort, the facility's abstractor and her supervisor. After identifying discrepancies, UCR sent a list of cases to the facility for review. We collaborated with the abstractor to reconcile the discrepant codes and determine a final code to adopt. After completing reconciliation, UCR prepared a summary report for our partners at the facility. The abstractor and her supervisor will use the results of the audit to enhance their data quality.

RESULTS

All 38 cases abstracted had at least one discrepancy between the codes assigned by UCR and the hospital's abstractor. Nearly half of the discrepancies were differences in coding treatment items as "unknown" vs "not done" when there was no evidence of treatment. We considered this a minor issue that we did not further assess in our remaining analyses for the project. After excluding the discrepancies in unknown vs. not done treatment, 3 out of 4 cases exhibited a discrepancy. Table 1 outlines the frequency of discrepancies by data item. One in five cases had a discrepancy in the codes for Primary Site and Summary Stage 2018. Most of the discrepancies in Primary Site were only at the sub-site level, and thus were minor differences. We also noted several discrepancies in data items for treatment.

After identifying discrepancies, we sent a list of cases to the hospital abstractor for reconciliation. She reviewed our results and we collaborated to make a final code determination (Table 2). When discussing these discrepancies with the hospital abstractor during reconciliation, we determined that she likely had access to more accurate radiation and medical oncology information from outside records that UCR abstractors did not have access to when abstracting. In these instances, the final determination was to utilize the codes reported by the hospital abstractor. In most other instances, the codes suggested by UCR abstractors were adopted.

The re-abstraction audit was very useful in identifying areas of improvement. In our final report submitted to the facility, we made several key recommendations for the hospital abstractor to improve quality of coding in the future. For example, we clarified that the code "not done" is preferred over "unknown" in the case of early-stage cancers with no evidence of treatment. Additionally, we clarified that all available information be utilized regardless of the source location. We also recommended specific educational opportunities for enhancing coding knowledge, such as the SEER*Educate modules.

SUSTAINING SUCCESS

Conducting this re-abstraction audit was very useful. We were able to provide concrete suggestions for improvement to the facility. While the official audit is complete, our lessons learned have provided us with goals for the future. We learned that UCR can improve our training of reporting facility abstractors by making sure to pass along "generally accepted" registry practices in this training, such as reporting treatments done at other facilities if known to the reporting facility.

We also learned a great deal about conducting a re-abstraction audit. To sustain success in these initiatives in the future, we will be mindful to allow more time from initiation of the audit analysis to completion of final reconciliation. Having not performed this process in many years, we underestimated the amount of time needed to analyze and reconcile the data. We also learned it is important to review basic software edits on our re-abstracted data items before beginning comparisons to minimize errors. Our experience demonstrated some pros and cons of a completely virtual re-abstraction audit. While abstracting virtually was much more efficient, we encountered issues when UCR's abstractors were unable to view all outside source records that the hospital's abstractor had at her disposal when coding. Going forward, we will assess these possibilities at the outset to avoid overestimating discrepancies and requiring additional reconciliation.

In conclusion, this audit was very informative for UCR, and we believe it will result in improved data quality. Our primary goal in sustaining success is to continue conducting periodic audits of this nature across various reporting facilities. We also plan to re-assess the data quality submitted by this reporting facility to determine if the tips provided have resolved some errors that were identified in the audit.

STORY QUOTE

"Thank you for the audit and the feedback. I appreciate the time and effort in letting us know how [abstractor] is doing and of course knowing she is satisfactorily completing her abstracts. I'm sure she will be referencing [the feedback] so she can see in detail the areas where she can improve." – Health Information Director of Reporting Facility and Supervisor of the Abstractor

REGISTRY CONTACT INFORMATION

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Tables and Figures

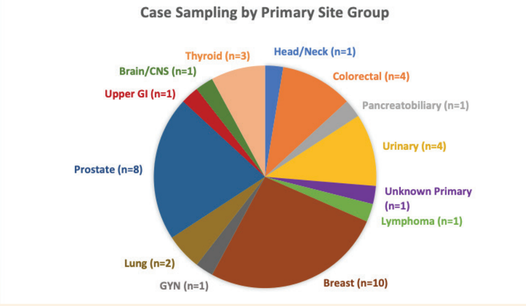

Figure 1. 2019 cancer cases selected for re-abstraction audit, by SEER site recode group

TABLE 1. INITIAL DIFFERENCES IN SELECTED DATA ITEMS SENT FOR RECONCILIATION BETWEEN HOSPITAL ABSTRACTS AND UTAH CANCER REGISTRY RE-ABSTRACTS, FOR 38 NPCR-REPORTABLE CASES FROM DIAGNOSIS YEAR 2019

Abbreviated data item name and NAACCR identification number	Number of discrepancies sent for reconciliation (n)	Proportion of cases with this discrepancy (%)
Cancer Identification Items		
Primary Site (#400)	8	21.1
> Sub-site (CXX.) difference	3	7.9
Laterality (#410)	1	2.6
Histologic Type (#522)	4	10.5
Staging Item		
Summary Stage 2018 (#764)	8	21.1
Treatment Items		
Surgery of Primary Site (#670)	7	18.4
Date Radiation (#1210)	6	15.8
Phase I Radiation Modality (#1506)	4	10.5
Chemotherapy (#700)	5	13.2
Hormone (#710)	6	15.8
BRM/Immunotherapy (#720)	2	5.3

TABLE 2. FINAL OUTCOMES BY DATA ITEM AFTER RECONCILIATION OF CODE DISCREPANCIES BETWEEN HOSPITAL ABSTRACTS AND UTAH CANCER REGISTRY RE-ABSTRACTS

		UCR codes adopted after reconciliation consensus		Hospital codes adopted after reconciliation consensus	
Abbreviated data item name and NAACCR identification number	Total number of discrepancies	(n)	(%)	(n)	(%)
Primary Site (#400)	8	7	87.5	1	12.5
Laterality (#410)	1	0	0.0	1	100.0
Histologic Type (#522)	5	4	100.0	0	0.0
Summary Stage 2018 (#764)	8	8	100.0	0	0.0
Surgery of Primary Site (#670)	7	5	71.4	2	28.6
Date Radiation (#1210)[1]	6	2	33.3	3	50.0
Phase I Radiation Modality (#1506)	4	2	50.0	2	50.0
Chemotherapy (#700)	5	4	80.0	1	20.0
Hormone (#710)	6	5	83.3	1	16.7
BRM/Immunotherapy (#720)	2	2	100.0	0	0.0

[1]The one remaining discrepancy in the Date Radiation category was due to a slightly different start date than either the hospital or UCR had coded.

REFERENCES

1. National Program of Cancer Registries. NPCR Standards. Centers for Disease Control and Prevention, 2022. Accessed 12 October 2022. https://www.cdc.gov/cancer/npcr/standards.htm
2. National Program of Cancer Registries. National Program of Cancer Registries Program Standards, 2017-2022. Centers for Disease Control and Prevention, 2017. Accessed 12 October 2022. https://stacks.cdc.gov/view/cdc/45068

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