Reducing Overuse of Nonspecific Tumor Registry Codes Through Data Visualization

Maria Leuchert RHIT, CTR, Aung Oakkar, MBA, MHA, Brinda Somasundaram, MS, Thomas Whiting, MA, MPA, Monica Ter-Minassian, ScD
Mid-Atlantic Permanente Research Institute, Mid-Atlantic Permanente Medical Group, Rockville MD

Background

- Tumor registry data quality is dependent on detailed cancer data variables and the use of accurate and specific codes.
- The overall quality of this data is often not visualized in real time.
- Kaiser Permanente Mid-Atlantic States (KPMAS) has created data visualization dashboards that provide immediate quality feedback and easily detect overused values for non-specific tumor registry abstract variables including code categories: Unknown (99), Not Applicable (88) or Not Otherwise Specified (NOS).

Purpose of the Project

- This analysis aims to improve completeness and accuracy of tumor registry data quality through data visualization.

Methods

- An initial assessment of tumor registry data quality was performed in 2016 and assessed for changes in missing/unknown and not otherwise specified codes (e.g. 99, 88, NOS) for: Date of Initial Diagnosis, Behavior, Morphology, Grade, Class of Case, Vital Status, Summary Stage 2000 and AJCC stage Group.

Results

- KPMAS tumor registry included:
  - 17,706 total cases in 2016
  - 24,237 total cases in 2018 (post data visualization)
- Review of bi-monthly interactive Tableau® dashboards showed a steady decrease in missing/unknown as well as unspecified codes being used.

Conclusion

- KPMAS tumor registry was able to reduce the missing/unknown/not otherwise specified codes from the database by visualizing the status of data variable in real time.
- The visualization will be expanded to include treatment information variables and can be adapted by other tumor registries.