Feasibility and Utility of Processing Pathology Reports in eMaRC Plus: Pilot Study Conducted by a Graduate Research Assistant (GRA)

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Background: Prior to initiation of this pilot project, MCR's eMaRC Plus database was the final destination for electronic pathology reports at MCR-ARC. Data that could potentially identify new cancer cases or improve the quality of cases reported by another source was received but not used due to lack of resources. **Purpose:** To assess the staff resources and processes required to identify and capture unreported 2013 melanoma cases or improve the quality of existing reported cases.

Methods

1. We identified 2013 melanoma path reports stored in eMaRC.
2. A CTR (QA staff member) checked each case for reportability and made quality corrections to eMaRC auto-coding of cases vs. text.
3. Reportable cases were exported from eMaRC and compared to cases in our incidence database (CRS Plus) using Link Plus.
4. The GRA used the multiple primary/histology rules matrix as a guideline to assess true and possible matches.
5. The GRA decisions were reviewed by a CTR (operations manager) who assessed possible matches using text from both eMaRC and CRS cases.
6. Yield of new cases or new information, time spent and barriers encountered were recorded at each step of the process.

Results

After performing linkage, 138 uncertain matched cases yielded 98 true matches, of which 20 had new information on previously reported cases, and 40 false matches. The false matches and remaining non-matches will yield > 200 newly-identified cases.

Conclusion/Implications

The process used was labor intensive and data received on new cases did not seem complete enough to send directly to the CRS database. Time spent to identify cases that yielded only more specific details may not be cost-effective. Additional effort will be required to obtain a full abstract on newly-identified cases and update cases already in the database. Further research is needed to improve overall efficiency and discover a process which is viable for registry staff.

eMaRC Observations

- Path report format can limit the data-mining capabilities of eMaRC, such as when clinical history is not clearly separated from the final diagnosis.
- Path reports often lack useful patient identifiers e.g., SSN and address.

Linkage Tips

- Patient matching should consider possible nicknames.
- Manual review of tumor linkage must consider: lack of accurate laterality documentation in the path report; path report inclusion of laterality for unpaired sites; site codes C44.2-C44.4 not accurately captured (e.g., pre-auricular lesions); diagnosis dates within a month of each other did not prove to be new tumors; histology codes in path reports that were less specific than in the CRS database were matches.

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