Enhancing Radiotherapy Treatment Data Among Prostate Cases Diagnosed From 2008 to 2011 in Puerto Rico

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BACKGROUND

• For many years the Puerto Rico Central Cancer Registry (PRCCR) has experienced difficulties with collecting cancer treatment data since most are administered in non-hospital facilities.
• One of the measures that the PRCCR took to improve data quality was the Claims Project, which was designed in order to identify potential missing cases and to recover missing data. As part of this project, an agreement was made with the Government Health Insurance Administration (ASES) and with private insurance companies to obtain their cancer related claims. This software was developed by the PRCCR as a case finding tool to import, match and analyze the data.
• Currently we have approximately 30 millions of cancer related claims that cover years 2008-2012. Claims database covered almost 50% of Puerto Rico population.
• In the past, research has been done with the same program and has been effective as shown last year at NAACCR conference with an oral presentation Enhancing Leukemia Report in Puerto Rico. In this Project claims helped recover a 22.2% of leukemia incident cases.
• Prostate cancer diagnosis and treatments, such as hormone and radiotherapy, are not performed at a specialized cancer center or hospital. With the availability of the Claims database some of the possible missing radiotherapy treatments data of prostate cancer cases could be identified.

PURPOSE

• To evaluate the effectiveness of Claims database for the recovery of radiotherapy treatment data in prostate cancer cases diagnosed from 2008 to 2011 in Puerto Rico.

METHODS

• A probabilistic match of the claims and the PRCCR Database was conducted using LinkPlus software to classify the patients as match and non-match. Non-matched cases were assumed to be new potential cases. Non-hospital facilities, hospitals, or physicians were contacted to confirm the diagnosis and treatment data for the new potential cases in order to improve completeness. New abstracts were included in the PRCCR database.
• Matched cases were analyzed to identify those patients in the database with radiation treatment variables already collected. Cases with blank radiation data fields were updated with the claim’s information. Variables such as date, modality, physicians, and facilities providing treatment were improved. The PRCCR registars could contact the physicians or hospitals if doubts with claims information arise.
• The match results were imported into a SQL Server table and linked to Claims and PRCCR database. The results were categorized and summarized.

RESULTS

• 70 new prostate cancer cases were recovered between 2008-2011 using Claims. The median age at diagnosis of these cases was 68.5 years.
• For the years of 2008-2011, a total of 33% new radiotherapy treatment data were recovered. This represents a 12% of all prostate cases with radiotherapy in the PRCCR database.
• Of the Health Regions in Puerto Rico, Bayamón has a 33% radiotherapy cases recovered; being the health region with the most recovered cases.
• The greatest distribution of radiotherapy recovered was from Non-Hospital facilities.
• Of the confirmed cases in the PRCCR database, 74% of the radiotherapy dates were validated using Claims.

DISCUSSION

The Claims database was an effective source to recover prostate cancer cases and radiotherapy treatment data that were performed at non-hospital facilities. It is also an effective tool for quality control. Given the effectiveness of this approach we are now:
• Recovering new cases and missing data in years after 2008
• Maintaining and increasing the number of insurance companies providing the PRCCR access to their claims data.
• Maintaining and increasing the number of physicians, specialized cancer centers and hospitals contacted in order to improve completeness

DISCLAIMER

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