THE AUTHORS REPLY

Thank you for the opportunity to respond to the comments (1) on our recently published paper (2) that defined and compared algorithms for ascertaining nonmelanoma skin cancer (NMSC) using the administrative data from a large health-care provider and its affiliated health maintenance organization. As noted by Stang (1), NMSC studies generally use International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), codes 173.0–173.9 (“other malignant neoplasm of the skin”) to ascertain NMSC, with the conceptual goal of identifying cases of cutaneous keratinocyte malignant neoplasms, consisting chiefly of basal cell carcinoma and squamous cell carcinoma (3). The need for validated claims-based methods to ascertain NMSC is of especial importance in the United States as basal cell carcinoma and squamous cell carcinoma, along with cervical carcinoma in situ, are the only malignancies excluded from the National Cancer Institute’s Surveillance, Epidemiology, and End Results (SEER) program.

Our paper (2) did not seek to estimate disease burden or to investigate skin cancers tracked routinely by cancer registries or in the SEER program, many of which may also have better descriptive codes, such as melanoma (ICD-9-CM code 172), cutaneous lymphomas (ICD-9-CM codes 202.1 and 202.2 and International Classification of Diseases, Tenth Revision (ICD-10), codes C84.0 and C84.1), Kaposi’s sarcoma of the skin (ICD-9-CM code 176.0), malignant neoplasm of the genitourinary organs (ICD-9-CM codes 179–189, including malignant neoplasm of the uterus, cervix uteri, placenta, ovary and other uterine adnexa, other, and unspecified female genital organs (ICD-9-CM code 184), prostate, testis, penis, and other male genital organs (ICD-9-CM code 187), bladder, and kidney), and malignant neoplasms of the vermillion lip (ICD-9-CM codes 180.0, 140.1, and 140.9). The purpose of our investigation was to facilitate the investigation of keratinocyte carcinomas, by defining and comparing algorithms for identifying NMSC using a computerized administrative claims-based data set. With regard to the concerns that exclusion of genital skin cancers and cutaneous lymphoma may have greatly impacted positive predictive value, we refer to our Tables 4 and 5 (Noncase Reason), “Malignancy other than melanoma with its own unique ICD-9-CM code (including mycosis fungoides, vulvar intraepithelial neoplasia, angiosarcoma)” (2, pp. 126 and 127), which demonstrates only a handful of such cases.

Skin cancer is diagnosed primarily in the outpatient setting, and hence our investigation examined the outpatient encounter database. To clarify, there were no inpatient cases identified in this outpatient data set. In response to Stang’s questioning of inpatient cases (1), examination of inpatient health maintenance organization discharge data from 2007 revealed 17 patients who had ICD-9-CM diagnostic code 173, of whom none recorded ICD-9-CM code 173 as the primary diagnosis. Furthermore, all 17 cases were ascertained prior to the inpatient admission by our algorithm from the outpatient encounter data. No new cases were identified in inpatient discharge claims data. Current Procedural Terminology codes are not available in the inpatient discharge information.

Thank you again for allowing us the opportunity to respond and to clarify the purpose and application of our investigation.

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REFERENCES


Melody J. Eide1,2, Richard Krajenta2, Dayna Johnson2, Jordan J. Long2, Gordon Jacobsen2, Maryam M. Asgari3, Henry W. Lim1, and Christine C. Johnson2

1 Department of Dermatology, Henry Ford Hospital, Detroit, MI 48202
2 Department of Biostatistics and Research Epidemiology, Henry Ford Hospital, Detroit, MI 48202
3 Division of Research, Kaiser Permanente Northern California, Oakland, CA 94612

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