

## Improving patient data quality by integrating oncology practice and state cancer registry tumor staging information: Feasibility and future value

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**Background:** The transition in oncology to electronic charting offers the potential to improve the quality of patient care and value of observational research. Data fields that are more complete, have common standards, and are searchable are critical to help meet these goals. As a key data field, and proof-of-concept we studied the additional gain in recorded stage and agreement in cancer staging by adding 'missing' stage information into an oncology practice's electronic medical records (EMR) from a state cancer registry.

**Methods:** In this observational study, patient records were matched and compared between a practice-based (EMR) database (Georgia Cancer Specialists [GCS]) and a state cancer registry (Georgia Comprehensive Cancer Registry [GCCR]). Impact on recorded cancer stage following a merge of the EMR and registry data was assessed. Eligible patients had <sup>31</sup> visit to any GCS practice site during the study period (1/1/2005-12/31/2008) and had a diagnosis of a primary, malignant solid neoplasm (except brain or spine).

**Results:** The final sample included 38,248 patients from GCS files, with 13,486 matched to patients with a solid malignant tumor in the GCCR files. There were 3,424 (25%) patients without staging information prior to GCCR integration, which was reduced to 12% after GCCR integration - a relative gain of 52%. Differences between initial GCS stage and initial GCCR stage occurred in 45% of the sample, and varied by cancer type.

**Conclusions:** Adding information from external data sources can help create more complete patient records. The concept is feasible and has the potential to improve data quality. Patient data collected in different systems for different reasons will often be discordant.

### Biography:

Gregory Hess currently serves as EVP & Chief Medical Officer (CMO) at Symphony Health Solutions – formerly Chief of Clinical Informatics. He also practices clinically at the CVIM Clinic in West Chester and teaches at the Drexel University College of Medicine Philadelphia. His academic appointments include Senior Fellow at the University of Pennsylvania Leonard Davis Institute for Health Economics. He also serves as Chair of ASCO's CancerLinQ Data Advisory Committee.

Previously Dr. Hess was CMO, Global Health Economics & Outcomes Research and for the US Business at IMS Health, VP for Health Economics & Outcomes Research and Chief Medical Officer at SDI (acquired by IMS). Additional positions have included SVP of CareScience, Inc., worldwide VP and Managing Director of Market Economics for SmithKline Beecham Pharmaceuticals, and Director for clinical research at the Sandoz Research Institute. Before joining the private sector, Dr. Hess was a member of the Bush Sr. administration. In addition to a White House Fellowship, successive positions included various senior advisory roles, and serving with the President's Council on Competitiveness. Working as Liaison for FDA, EPA, and other Departments, his work focused on environmental issues, health affairs, health care delivery, and human health risk assessment.