also hope to save other sites from having to spend as much time doing the initial analysis work that KPNC did. **Conclusions:** For KPNC, pulling chemotherapy infusion data was eye-opening. The complexity of the data was significant, particularly linking the data from the initial “planned” treatments to orders, episodes, flowsheets, dispensing, mixing the medications, and finally to what is administered. Often times treatment plans were changed along the way due to chemotherapy reaction or toxicity, and linking the data back to the original plan was therefore complicated. We will review what we learned in this process with other users, so that they may benefit from KPNC’s experience.

Keywords: Chemotherapy Data; Infusion Data

doi:10.3121/cmr.2013.1176.a4-3

A4-4:

Visualizing VDW Lab Results Data: Why You Should, and How You Can - Easily!

Roy Pardee¹

¹Group Health

Background/Aims: One of the most difficult tasks facing the VDW lab results file implementer is figuring out which records from local lab data should be included in their VDW file, and which should be left out. These decisions frequently hinge on neat points of clinical science that are often outside the expertise of the programmer. We will describe a set of graphics that implementers can use to shed light on these decisions, useful during implementation, and afterwards as indication of data quality and even as documentation. **Methods:** SAS’ new Statistical Graphics procedures allow unprecedented control and ease of use in the creation of descriptive graphs and charts. The ODS Graphics Designer utility, paired with the SGDESIGN procedure make it easy to create a single image composed of multiple different graphs, each of which can use its own dataset. These tools allowed us to create something of a “data report card” for each VDW test_type, depicting: (1) number of result records over time; (2) number of result values that are numeric vs. character, stratified by the local lab codes used; (3) distributions of numeric result values, by unit; (4) number of numeric result values, by unit and local lab code; (5) values of character results by local lab code. The report card is produced by a standard VDW program available from the author, which can be run at any VDW lab results-implementing site with access to SAS version 9.2 or greater. **Results:** The graphics produced by this program allow both implementers and end-users to evaluate at a glance, how cohesive the data from various different local codes are, how much data there is, how it waxes and wanes over time, whether the values are of the expected types, and whether units and character values are within valid values. Being able to depict all of this disparate information in a single, compact display allows users to glean insights that, for example, viewing series of larger graphs separately would not afford. **Conclusions:** The author has found this program an extremely useful tool in implementing VDW labs by quickly pinpointing misclassified local codes. Other sites surely will also.

Keywords: Graphics; Laboratory; SAS

doi:10.3121/cmr.2013.1176.a4-4

PS3-10:

Patient of Two Professions: Medicine and Dentistry

Sheryl Kane¹; Amy Butani¹; Richard Paskach¹; Paul Jorgenson¹; D. Brad Rindal¹; William Rush¹

¹HealthPartners

Background/Aims: The literature in both medicine and dentistry has increasingly focused on conditions relevant to both professions. However, research addressing these conditions is limited by the scope of available data, the size of their samples, and data sets that can be combined. The aim of this project is to create a Dental VDW using data from the three HMORN members that have both medical and dental data (i.e., Kaiser Permanente Northwest, Marshfield, and HealthPartners Institute). **Methods:** A team of investigators and VDW programmers was formed. Initial meetings, aimed at coming up with a common design that would accommodate the dental data from all three sites, were held. Each site has a different electronic dental record system and different ways of coding diagnoses and identifying risk.

The project has the further challenge that it was being built in anticipation of future projects and so does not have any project related funding. **Results:** Twelve content areas were identified. Of those, four of the tables have been designed and are having test data loaded into them. In order to simplify these early steps they are designed based on the VDW medical model. The existing ‘Demographics’ table will accommodate both medical and dental patients. ‘Dental Utilization’ will hold data common to all the procedures within an encounter and is very similar to the comparable VDW table. Where dental data starts to diverge from medical is the ‘Dental Diagnosis and Procedures’ table. This is because each dental procedure is related to a specific tooth and surface and can have its own diagnosis code. The ‘Provider’ table is similar to the medical VDW but with different provider specialties. **Conclusions:** The HMORN is working to create a Dental VDW within an existing Medical VDW that will support efforts to conduct research that crosses the divide that currently exists between medical and dental research. It will be a multi-directional system, allowing medical data within dental studies and dental data within medical studies.

Keywords: VDW; Medical VDW; Dental VDW

doi:10.3121/cmr.2013.1176.ps3-10

PS3-11:

Beyond General Equivalency Mappings (GEMs): Understanding the Implications of ICD 10 in Research

Rick Riordan¹

¹Kaiser Permanente Northern California

Background/Aims: With the implementation of ICD 10 CM and ICD 10 PCS less than two years away, there are still unanswered questions as to how research teams will effectively translate or use ICD 10 codes in research. Approximately 84% of the ICD 10 codes have only approximate matches with 10% having multiple matches and only 5% have exact one-to-one matches between ICD 9 and ICD 10. With the number of codes increasing five-fold, this offers additional opportunities and risks when pulling data. **Methods:** Besides looking at the General Equivalency Mappings and other tools that are used to translate ICD 9 codes to ICD 10 codes, we will examine some common research areas where only approximate matches between ICD 9 and ICD 10 exist. We will also discuss how the finer level of detail that ICD 10 gives allows research teams to pinpoint exactly what type of asthma, Crohn’s disease, and diabetic retinopathy they wish to study without including some of the other cases that do not meet their research criteria. **Results:** There are significant ambiguities and irregularity in several common areas such as diabetes, mental health, asthma, and gastroenterology due to approximate, multiple, or combination matches. Even in the case of exact matches such as an old myocardial infarction where there is an exact match, the definition of when a myocardial infarction becomes “old” is different. **Conclusions:** ICD 10 offers a finer level of detail and a higher level of specificity, thereby allowing research teams to be more targeted when pulling data. On the other hand, research teams need to exercise caution when using GEMs and other tools to translate ICD 9 codes into ICD 10 codes and vice versa, especially if they are looking at data that overlaps the implementation date of October 1, 2014.

Keywords: ICD 10; Code; Coding

doi:10.3121/cmr.2013.1176.ps3-11

PS3-12:

VDW Dashboards to Assure the Quality and Stability of Monthly Updates: The Heart and Vascular Health (HVH) Study Experience

Dustin Key¹; Gene Hart¹; Nicholas Smith²; Susan Heckbert²; James Floyd²; Kerri Wiggins²; Bruce Psaty²

¹Group Health; ²University of Washington

Background/Aims: Since the 1980s, the HVH study, run at Group Health (GH) and University of Washington, has used computerized billing and hospital-discharge data to identify potential cases of myocardial infarction (MI). Recently, HVH adopted the local implementation of the VDW as a replacement for the legacy system. Monthly dashboards that compare the yields and subjects identified by the two systems were enacted to monitor the transition and assure comparable ascertainment over time. **Methods:**