

Ensuring Meaningful Collaboration with Private Sector Data and Analytic Partners

Brookings Active Surveillance Implementation Council Meeting
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Our Local Journey To Enhanced Patient Safety



**Raw clinical
data**



RPDR

- **Aggregates and normalizes** data from hospitals and clinics
- **Searches and retrieves** those data

- >10 years of Partners investment
- Warehouse of in & outpatient clinical data
- >3.1 million Partners patients
- >830 million diagnoses, medications, procedures, laboratories, & physical findings coupled to demographic & visit data
- Authorized use by faculty status
- Clinicians can construct complex queries; Datasets delivered to PIs after IRB approval
- Datasets can be created for Quality & Safety analyses
- Patient privacy is critical

Pharmacovigilance efforts to date

- **Internal R&D** to evaluate signal detection for known events (e.g., Vioxx and Avandia)
- **eHealth Initiative - Connecting for Drug Safety Collaboration** (demonstrate utility of clinical data to surface drug-AE associations: statins-liver toxicity; warfarin-hemorrhage)
- **Observational Medical Outcomes Partnership (FNIH)**

The Tell-Tale Heart: Population-Based Surveillance Reveals an Association of Rofecoxib and Celecoxib with Myocardial Infarction

John S. Brownstein^{1,2,3*}, Margarita Sordo^{1,4}, Isaac S. Kohane^{1,3,5,6}, Kenneth D. Mandl^{1,2,3,5}

Identification of Patients With Diabetes From the Text of Physician Notes in the Electronic Medical Record

Alexander Teichgraber, MD^{1,2}
Isaac S. Kohane, MD, PhD²
Mehmet L. Pendergrass, MD, PhD¹

word roots, or groups of words (word tags) that potentially indicated the presence of a diagnosis of diabetes. These included two terms naming diabetes

Calculating the Benefits of a Research Patient Data Repository

Ruth Nalichowski MBA, Diane Keogh, Henry C. Chueh MD, MS,
and Shawn N. Murphy, MD, Ph.D.

Massachusetts General Hospital and Partners Healthcare Inc. Boston, MA

Brownstein J.S., Murphy S.N., Goldfine A.B., Grant R.W., Sordo M., Gainer V., Colecchi J., Dubey A., Nathan D.M., Glaser J.P., Kohane I.S. Real-time surveillance of cardiovascular risk associated with diabetic medications from electronic medical records. Tech Report 2009

eHEALTH INITIATIVE
Connecting for Drug Safety

FOUNDATION
FOR THE
National Institutes of Health

**OBSERVATIONAL
MEDICAL
OUTCOMES
PARTNERSHIP**

A Plea

- Not just another regulatory hurdle
- Everyone on the same side of the table:
 - FDA uses early warning signs for public safety
 - Pharma learns who drug is good for and who not
 - Patients understand that their safety is being vigilantly managed
- Everyone:
 - Gains better understanding and respect for the risk associated with new drugs
 - Aligned in minimizing risk and providing the highest standard of care