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Oaks

S-L Normand

What are
claims data?

Are claims
data useful?

Ascertainment
issues

Summary

BILLING CLAIMS DATA

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What? Demographic, insurance coverage, charge, and diagnostic/procedural information generated from an encounter with the health care system to process **payment**

- Diagnoses & procedural information related to the health encounter using International Classification of Diseases, 9th Clinical Modification (ICD-9-CM) codes (ICD-10 codes effective October 2015) for **hospital-based** services
- HCPCS (Healthcare Common Procedure Coding System) codes for **outpatient** services
 - Current Procedural Terminology (CPT) codes developed and maintained by the AMA to describe services and procedures for which they bill
 - Products, supplies, and services excluded from the CPT codes (ambulance services and durable medical equipment)
- **Vital status** information



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Therapeutic Information

- Identifies prescriptions **filled**
 - Dose, days supplied, mode of administration
- Includes drugs that are **billable**

For whom? Information available for:

- Beneficiaries or enrollees
 - Private or Health Plan billing claims includes information related to the benefits under each beneficiary's particular policy
- Health care users
 - Hospital billing claims, pharmacy claims, laboratory claims, emergency department encounters



STRENGTHS/LIMITATIONS

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STRENGTHS

- Population-based
- **Real-world** population of patients and medical providers
- Examine safety and effectiveness in:
 - **Off-label** populations
 - **Elderly**
- Linkable to other data sources

LIMITATIONS

- Clinical detail lacking
- Often no lab or test results
- Time lag
- Sensitivity, specificity, accuracy of codes
- Coding inconsistencies
- Identification of manufacturer specific **devices** excluded



LIKE AN OIL SLICK: A MILE WIDE AND AN INCH DEEP

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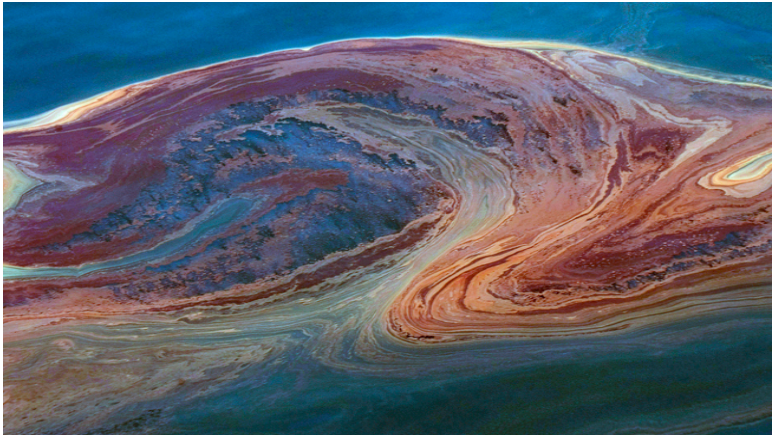
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EXPOSURE & ENDPOINTS

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Exposure

- Outpatient drugs available if covered by health plan
- In-hospital drugs typically not included in claims data
- Safety analysis uses what was filled and not what was taken

Endpoint

- Acute myocardial infarction, death, stroke in-hospital diagnoses good for hospital admission
 - Cause of death difficult (could link to NDI but reliability of cause is questionable)
 - Details sometimes lacking and cannot identify specific endpoints such as TVR



RECOMMENDATIONS

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- Population-based focus on claims data is desirable
- Some clinical detail can be sufficiently characterized from claims information
- Best use of claims data is when **linked** to clinical registry or electronic medical record data

Thank You

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