Administrative Data for Quality Assessment and Improvement

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What are Administrative Data?

Data collected routinely from

- Administering healthcare delivery process
- Health insurance plan enrollments
- Reimbursement of services

... They originate in healthcare organizations, health insurance companies, public administration ...
What is Quality in Healthcare?

No single answer ...

- Outcomes – maximizing clinical results for a patient
- Engagement – quality of interaction between providers and patients
- Satisfaction – of patients and payers
- Efficiency – how efficiently is healthcare delivered
- Safety – avoiding unintended consequences (e.g. medical errors)
- Utilization – underuse, overuse and misuse of medical services

... 

- Standard indicators, reports and public benchmarking have been created for all of the above ...

Indicators of Healthcare Quality and Patient Safety

- National Quality Forum has endorsed 629 quality measures
- More than a half are based on administrative claims or management data.
- More than a third are planned for internal quality improvement (not public reporting or benchmarking with other healthcare organizations)

Should Administrative Data be Used for Quality Assessment?

YES!

- Readily available
- Inexpensive
- Usually already in digital form
Should Administrative Data be Used for Quality Assessment?

**NO**

- Not intended for use in quality assessment
- Lack relevant clinical information (e.g. for computing evidence based indicators or accounting for case-mix and other confounders)
- Aggregation/grouping/coding often designed to optimize reimbursement
- Some research shows that quality measures based on administrative data differ from those based on clinical health data
- Issues with data quality (ranging from missing data, coding and input errors, duplication of patient records to fraud)
Electronic Health Record (EHR) and Quality

- EHR is not a new technology, but its adoption has been very slow
- EHR promises to make available structured health data from various sources however ...

- In 2013 USA Centers for Medicare and Medicaid Services issued “Request for Information on hospital and vendor readiness to submit accurate and complete quality data by way of EHR systems”
- CHIME* commented that hospitals were not ready

* College of Healthcare Information Management Executives
CHIME* Issues with EHR and Quality

- Workflow and technology implications of EHR not fully understood
- Sources of data used by abstractors are not structured
- Not possible to extract all the data needed to create accurate quality metrics
- Need for harmonization of clinical quality measurement

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Where do we stand in Croatia?

- Croatian national indicators monitored by the Agency for Quality and Accreditation in Health Care and Social Welfare are mostly based on administrative data.
- Reporting issues:
  - Compliance
    (indicators based on data from nursing documentation are reported by the largest number of hospitals)
  - Data quality
    (inconsistency of diagnoses in individual data, discrepancies in distribution of denominator by age groups etc.)
  - Small denominators and/or numerators in some hospitals lead to wide confidence intervals and rule out standardization.
Back to Square One ...

- Administrative data may well be our best (only?) choice
- There are issues with data quality (accuracy and validity, reliability, completeness, timeliness, accessibility)
- Limitations of administrative data must be recognized and accounted for if they are used for benchmarking or payment by performance

BUT

- It is better to use a crude measurement than none at all
Recommendations

• If administrative data are to be used for quality assessment and improvement we need to
  ▪ Improve data quality management
  ▪ Use evidence based indicators (do not invent the wheel!)
  ▪ Standardize (assess need for stratification and standardize quality measures based on gender, age and comorbidities, beware Simpson’s paradox, do not compare apples and pears)
  ▪ Report confidence limits (along with point estimates) to recognize variation due to inherent randomness in patient population and other factors influencing the quality measures
Thank you!

Questions?