

Patient Reported Measures: On the Ground Collection, Implementation, and Clinical Workflows

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Conflicts

- There are no conflicts of interest associated with this presentation

Outline

- Background and need
- Acceptability of PROs
- Quality of Life as exemplar
- Two case examples
- Discussion

COVID-19 Pandemic Response with EHR and Patient Reported Measurement for Risk Stratification, Triage and Clinical Pathways

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Introduction

- Due to the spread of COVID-19 triage efforts prioritize patients with greatest symptomatic severity
- Limited capacity to address needs of other vulnerable populations – those with chronic and comorbid conditions.
- Overburden systems of care, these vulnerable patients may be missed.
- Project focus implement a risk stratification system to identify patients with high vulnerability for poorer health outcomes.

Methods

- Generate a random sample of 250 Medicaid patients, EHR, claims and clinical note data.
- Eligibility for inclusion in the random sampling will be all patients over 18 years of age with at least two primary care visits within the last two calendar years.
- 3 sets of data will be used to build the risk stratification system and validate the model relative to a gold standard quality of life measure.

Conclusion

- Clinical Partners have a high degree of interest in risk stratification to identify high needs patients.
- Practices are willing to share EHR data to improve workflows and outcomes
- Practices are willing to commit staff time to use the collected data for clinical decision making

Results

This is a work in progress, accomplishments so far:

- Three clinical partners agreed to work with the ASU research team
- Resolved all issues around conduct of the project
- Data points have identified to be extracted from claims and EHR.
- Developed method for collection of QoL data from subset of patient for this pilot.
- Evaluate correspondence between the claims, EHR and QoL models.
- If effective, generate clinical pathways to potentially

before and after the pandemic

Patient Reported Measures of Psychosocial Issues and Health Behavior

- A growing consensus has emerged about patient reported outcome measures as an important tool in the evaluation of **services** (Gibbons et al. 2016)
- For Electronic Health Records to meet full potential they must include patient reported information about health behavior, preferences and psychosocial functioning (Glasgow et al. 2012)

Acceptability of Patient Reported Outcomes (PROs)

- PROs are acceptable in reconstruction surgery (Ng et al. 2019)
- Cancer patients and clinicians report discussing a PRO summary was useful acceptable and feasible (Stover et al. 2015)
- A palliative-specific PRO is feasible and acceptable to both patients with CHF and nurse led disease management (Kane et al. 2017)
- There is a paucity of evaluation of PROs (Haywood et al. 2014)

But Is It Useful?

- Potential benefits of PROs in routine clinical practice include supporting diagnostic decision making, risk stratification, goal setting and communication (Evidence Base 2020)
- Primary care patients perceive that PROs foster communications about issues. They prompt clinical actions, visual displays assist interpretation and shared understanding
- Long is bad
- Will complete if they are valued, prioritized, and used (Talib et al, 2018)

Challenges and Key Issues in PROs

- Patient engagement
- Clinicians see value
- Integration into health records (Gibbons et al.2016)

- Primary care practices can implement health behavior and mental health patient completed assessments, but using such data for counseling requires effort
- Practices need support to sustain such assessment (Krist et al. 2014)

What to Measure??

- Disease specific
- Generic
- Both?

Quality of Life is an interesting focus

- Most Important outcome to patients
- Best predictor of clinical, economic and social consequences of health and disease
- Can be measured in 1-2 minutes

QoL Measures Predict

- Treatment response (Bernstein et al. 2002)
- Future health (Lupon et al. 2013)
- Cost of health care (Fleishman et al. 2006)
- Work productivity (Sun et al. 2011)
- Return to work (Haukenes et al. 2014)
- Mortality (Chamberlain et al. 2013)

In Pursuit of the Holy Grail- Clinically Useful Research Measurement

- Patients with Poor QoL have the worst medical outcomes and the highest cost
- Is not routinely collected in most settings- certainly not in Primary Care
- We need an efficient, low-cost way of identifying risk to support early intervention while providing high value care
- Real time risk stratification
- Easily integrated into workflow
- Quantifies outcomes and cost

Quality of Life – Q GEN

Your Health and Well-Being

1. Overall, how would you rate your health?
2. How easy or hard is it for you to do your usual physical activities (such as walking or climbing stairs)?
3. In the past 4 weeks, how much did pain limit your everyday activities or your quality of life?
4. In the past 4 weeks, did your physical health make it easy or hard for you to make the effort you needed to do your daily activities (at work or at home)?
5. How often during the past 4 weeks were you discouraged by your health problems?
6. In the past 4 weeks, has your health made it easy or hard for you to have a social life?
7. In the past 4 weeks, on average, did you feel tired or energetic most of the time?
8. How happy and satisfied have you been with your life during the past 4 weeks?
9. In the past 4 weeks, was it easy or hard to do your usual work, school or other daily activities because of how you felt emotionally?
10. In the past 4 weeks, did your health make it easy or hard for you to do your daily work or activities, both at home and away from home?

Very easy

Easy

Hard

Very hard

Unable to do

• Each question rated on a 5 point scale. Also available in Spanish.

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7-item Quality of Life Disease Impact Scale (QDIS[®]-7) for [CONDITION]

- In the past 4 weeks, how much did your [CONDITION] limit your everyday activities or your quality of life?

Not at all	A little	Some	A lot	Extremely
▼	▼	▼	▼	▼
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

- In the past 4 weeks, how often...

...did your [CONDITION] limit your usual physical activities?

...did your [CONDITION] make you worn out or too tired to work or do daily activities?

...did your [CONDITION] limit your usual social activities with family, friends, or others close to you?

...did you feel frustrated or fed up because of your [CONDITION]?

Never Rarely Sometimes Often Very often

...did you have difficulty doing work or other daily activities because of your [CONDITION]?

...did your [CONDITION] make you worry about your health or future health problems?

QDIS 15- Chronic Condition Checklist

Chronic Conditions and How They Affect You

Have you ever been told by a doctor or health professional that you had any of the following conditions?

Hypertension or high blood pressure

Angina pectoris or coronary artery disease

Congestive Heart Failure

A myocardial infarction or heart attack

Other heart conditions, such as problems with heart valves or the rhythm of your heartbeat

A stroke

Emphysema, or asthma, or COPD

Crohn's Disease, Ulcerative colitis or inflammatory bowel disease

Arthritis of the hip or knee

Arthritis of hand or wrist

Osteoporosis, sometimes called thin or brittle bones

Sciatica (pain or numbness that travel down your leg to below your knees)

Diabetes, high blood sugar, sugar in the urine

Depression

Any cancer



Patient and Health System Benefit

- Patient
 - Improved function
 - Better clinical outcomes
 - Early precrisis access to care
 - Lowered cost

Health System Benefit

Chronic condition and comorbidity focus

Rapid risk stratification

Greater efficiency and coordination

Reduced hospitalization and ER use

Recent examples

Arizona COVID Pilot
Colorado QoI workflow project



Discussion

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