

Focusing SNOMED CT for Primary Care

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Acknowledgements

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Current State of Primary Care

- ▶ Care plans are being created but data needs to be captured
- ▶ Providers have an opportunity to prioritize care plan elements
- ▶ Primary care clinicians want a true solution to streamline quality
(using one standard)
- ▶ SNOMED CT is the answer to optimal documentation for structured data capturing

Presentation Outline

- ▶ Primary Care and Accountable Care Organizations
- ▶ Creation of Custom Templates
- ▶ Current Point of Care and Population Health Analytics
- ▶ Examples of Patient Care Plans
 - ▶ 2020 Updates on Studies for Extremities and Behavioral Health

Custom Templates as Short Term Solution

- ▶ Tailor to Providers Needs
 - ▶ Quality Measures
 - ▶ Patient Care Plans
- ▶ Modify templates to match clinical guidelines and standards
- ▶ Provided a streamlined solution for insurance reporting

Tracking Measures for Medicare Patients

▶ Procedures

- ▶ Mammogram (completed, benign, negative)
- ▶ Colonoscopy (completed, normal, abnormal)
- ▶ Diabetic Eye Exam (no retinopathy, retinopathy by severity)

Colonoscopy completed	Y
Colonoscopy abnormal	adenocarcinoma
Colonoscopy	Colonoscopy abnormal 313172000
FOB screen	SNOMED, 2014.2
Fecal occu	73761001
Fecal occu	SNOMED,

Tracking Measures for Commercial Insurance

Some Similarities with Medicare (except):

- ▶ Care of Older Adults
 - ▶ Activities of daily living- creation of custom template to match answers (dependent or independent assistance)
- ▶ Use of SNOMED detailed coding to provide a complete functional assessment: (i.e. grooming- independent (704437004) or dependent on assistance (704440004))

	08/17/16	
Independent bathing		
Requires bathing assistance	Y	
Independent grooming		
Unable to groom self	Y	
Able to feed self		
Unable to feed self		
Able to dress self		
Difficulty dressing		
Unable to dress		
Independent walking		
Difficulty walking		
Dependent for walking	Y	
Transfers independently		
Difficulty transferring		
Dependent for transferring	Y	
Able to use toilet	Dependent for transferring 714916007 SNOMED,	
Difficulty using toilet		
Unable to use toilet		

Clinical elements
 custom template
 The software came from
 Lytec MD (software
 founded by McKesson
 and now owned by
 eMDs)

Point of Care Analytics

- ▶ Created quality measures template in electronic health record (EHR)
- ▶ Able to Display:
 - ▶ Labs
 - ▶ Procedure findings
 - ▶ Provider **education counseling** for patients
 - ▶ Insulin administration education counseling
 - ▶ Glucose and blood pressure monitoring education counseling

Population Health Analytics

- ▶ Query the practice by primary insurance
 - ▶ Medicare patients
 - ▶ Medicare replacement plans (i.e. Humana Medicare Advantage)
- ▶ Query the practice by disease
 - ▶ Congestive heart failure patients
 - ▶ Diabetic patients
 - ▶ Hemoglobin A1C less than 9 percent
 - ▶ Eye exam screening

Patient Care Plans

- ▶ Medications
- ▶ Referrals
- ▶ Lab Tests
- ▶ Procedures
- ▶ Health Education Counseling

Congestive Heart Failure Care Plan

- ▶ Echocardiogram- track ejection fraction percentages
- ▶ Medications tracked to SNOMED CT codes
 - ▶ Cardio-selective beta blockers
 - ▶ i.e. Bisoprolol, Carvedilol, Metoprolol Succinate
- ▶ New York Heart Association CHF Class
 - Echo abnormal: 169241000
 - Echo normal: 169240004
- ▶ The combination of the ejection fraction tracking and medication adherence helps to **reduce repeated hospital visits**

LVEF 40 and above normal			
LVEF under 40 abnormal			25 %

Chronic Obstructive Pulmonary Disease Care Plan

- ▶ Spirometry Testing (pre and post rescue inhaler)
 - ▶ Forced expiratory volume- forced air volume after one second
 - ▶ Forced vital capacity- amount of air exhaled after one deep breath
 - ▶ FEV1/FVC- size of air lungs exhaled in one second

- ▶ Classify COPD Severity
 - ▶ Mild, Moderate, Severe, End Stage

Pre rescue inhaler	Post rescue inhaler
FEV1 % pre	FEV1 % post
FVC % pre	FVC % post
FEV1/FVC % pre	FEV1/FVC % post

- ▶ Tracking the Spirometry Percentages: **reduces excess emergency room and hospital visits**

Chronic Obstructive Pulmonary Disease Care Plan

- ▶ COPD Assessment Test (CAT) Score

	1/1/2018
COPD Assessment Test Score: 446660005	32

- ▶ Medical Research Council (MRC) Breathlessness Scale
 - ▶ i.e. patient has MRC Breathlessness grade 4 (finding): 391125004
- ▶ Education for self management of respiratory health: 427625003

	08/02/17
FEV1/FVC Ratio Pre	93 %
FEV1 Pre	87 %
FVC Pre	94 %
FEV1/FVC Ratio Post	
FEV1 Post	
FVC Post	
Spirometry completed	

FEV1/FVC Ratio Post
407603001
SNOMED,

Vascular Screening

- ▶ Ankle Brachial Index screening to rule out Peripheral Vascular Disease
- ▶ Ankle brachial index (observable entity): 446841001
- ▶ Left dorsalis pedis ankle brachial index (procedure) :401222009
- ▶ Right dorsalis pedis ankle brachial index (procedure) :401223004

Neuropathy Screening

- ▶ Sensory nerve conduction study done to rule out Neuropathies (Polyneuropathy or Autonomic Neuropathy)
 - ▶ Sensory nerve conduction (observable entity):
278223003
 - ▶ Sensory nerve conduction study (procedure):
252745008

Behavioral Health

- ▶ Depression
 - ▶ Patient health questionnaire 9
 - ▶ Major depressive disorder specific to SNOMED CT
 - ▶ Moderately Severe
 - ▶ Minimal Depression
- ▶ Seen by social worker (finding)
- ▶ Referral to psychiatrist (procedure)

Behavioral Health

▶ Anxiety

- ▶ Assessment using generalized anxiety disorder 7 item score (procedure)
- ▶ Generalized anxiety disorder 7 item score (observable entity)
- ▶ Assessment using generalized anxiety disorder 7 item scale declined (situation)

▶ Bipolar Disorder

- ▶ Mood Disorder Questionnaire assessment scale (MDQ)
- ▶ Mood Disorder Questionnaire Score

Improved Outcomes: Financial Reimbursement

- ▶ Dr. Guillermo Rocha was ranked #1 in quality care in medicine for the San Antonio clinics in RGV ACO in 2015, 2017 and 2019
- ▶ Dr. Rocha was a recipient of the Humana Gold STAR rating for **high** and **improved performance** in patient quality care measures

Improved Outcomes: Medical Risk Score

Diagnose patients **more accurately** with SNOMED CT terms that are not in ICD-10

- ▶ Stable Angina
- ▶ Dependence on continuous positive airway pressure (CPAP) ventilation
- ▶ Bare Metal and Drug Coated Cardiac Stent
- ▶ Clinically Significant Macular Edema
- ▶ Diverticulosis of Sigmoid Colon

Authored Content After Learning SNOMED CT

- ▶ Adverse reaction caused by Atorvastatin
- ▶ Wong-Baker FACES pain assessment scale
- ▶ Referral to cardiologist refused (721111001)
- ▶ Referral to respiratory physician declined by subject (726698006)

Wong-Baker FACES® Pain Rating Scale



0

No
Hurt



2

Hurts
Little Bit



4

Hurts
Little More



6

Hurts
Even More



8

Hurts
Whole Lot



10

Hurts
Worst

Authored Content After Learning SNOMED CT

- ▶ PHQ-9 score (depression score)
- ▶ Minimal depression (719512004)
- ▶ Moderately severe depression (720455008)

	Previous year	Current year
PHQ-9 Score (720433000)	18	3
Major Depression Disorder (severity)	Moderately Severe Major Depression	Minimal Major Depression

Authored Content After Learning SNOMED CT

- ▶ US Edition Examples:
- ▶ Assessment using Montreal Cognitive Assessment (MOCA)
- ▶ Chronic care management minutes (71981009)

Month 1	Month 2
Chronic Care Management (CCM) minutes	CCM minutes
60	90

Authored Content After Learning SNOMED CT

Apply to Behavioral Health:

- ▶ Opioid Risk Tool
- ▶ Mood disorder questionnaire

Apply to insulin pumps and glucose meters:

- ▶ Basal insulin infusion rate
- ▶ Bolus insulin infusion rate

Authored Content while involved in Diabetes CRG

- ▶ Centrally involved macular edema due to diabetes mellitus (disorder): 871778008
- ▶ Non centrally involved macular edema due to diabetes mellitus (disorder): 871781003

SNOMED CT social distancing content to be published for the next US release

- ▶ Performs social distancing (finding)
- ▶ Education about social distancing (procedure)
- ▶ Subject advised to avoid crowds (situation)
- ▶ Subject advised to avoid foreign travel (situation)

Benefits of SNOMED CT for the Healthcare Industry

- ▶ Most accurate clinical terminology to track events across databases
 - ▶ History of surgeries
 - ▶ Radiology findings
- ▶ SNOMED CT terms were created by doctors, for all patients

Future of SNOMED CT for Providers

- ▶ More software will import SNOMED CT release files into databases
 - ▶ Query by quality measures

- ▶ Continue structured data with SNOMED CT codes behind options below:

- ▶ Check boxes
- ▶ Radio buttons



Spirometry completed



Blood pressure monitoring education



Abnormal mammogram:
168749009



Normal mammogram:
168750009

Summary- SNOMED CT Focus on Primary Care

- ▶ Track care plan elements closer to “real time”
- ▶ Link SNOMED CT codes to dates of service
- ▶ Analyze point of care and population health for disease prevention and screenings, and care plans
- ▶ Updates on Behavioral Health and COVID-19 screening future concepts
- ▶ Author content via a national request web based system

Questions or Comments?

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