Optimizing Your EMR—Making it More Efficient, More Accurate and More Relevant

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Disclosures

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Ownership/Interest/Partnership/Principal
Claret Medical; Ultraink Incorporated

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Nothing to disclose

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Nothing to disclose

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Nothing to disclose

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Disclosures

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Salary

ZOLL Medical Corporation

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Speaker's Bureau: Boston Scientific; The Medicines Company

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Nothing to disclose

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A little bit about us . . . What got us interested in this?

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How to make documentation a team sport . . . leveraging clinical staff to make your EMR work for you

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What do we do over and over and over again?

- Procedural documentation is ripe for the picking
  - Stress ECGs
  - Stress echocardiograms
  - Stress nuclear studies
  - Holter monitors
  - Event monitors
  - Device interrogations (e.g., pacemakers, ICDs, implantable loop recorders)
  - Tilt table tests

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Step 1: Establish governance and build consensus

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Step 2: Why reinvent the wheel?

Others have already set the standard. Follow their lead.

- Data standards exist for the:
  - American College of Cardiology
  - American Heart Association
  - American Society of Echocardiography
  - American Society of Nuclear Cardiology
  - Heart Rhythm Society

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Step 3: Define your data elements

Stress ECG (aka Exercise stress test)

Clinical Indication:
Current Medications:
Held Cardiac Medications (Duration):
Medications Administered During the Test:

Exercise Protocol:
Total Exercise Time:
Workload Achieved:
Baseline HR:
Baseline BP:
Peak HR:
Peak BP:
Estimated VO_2 max:
One Minute HR Recovery:

Symptoms:
Reason for Termination:

Resting ECG findings: Rhythm, conduction block, and ST/T wave abnormalities.

Peak Stress ECG findings: Ischemic changes, arrhythmias, and Duke treadmill score (if Bruce protocol).

Conclusion: Resting ECG, exercise capacity, hemodynamic response to exercise, heart rate response to exercise, ECG response to exercise, presence of arrhythmias, risk (based on Duke treadmill score, and comparison to prior studies.

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Step 4: Build your template

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Step 5: Define roles and responsibilities and train on them

- Physicians
- Nurses
- ECG techs
- Respiratory therapists
- Holter techs
- Nuclear techs
- Echo sonographers
- Device representatives
- Informaticists

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Step 6: Set up an audit process to assess compliance

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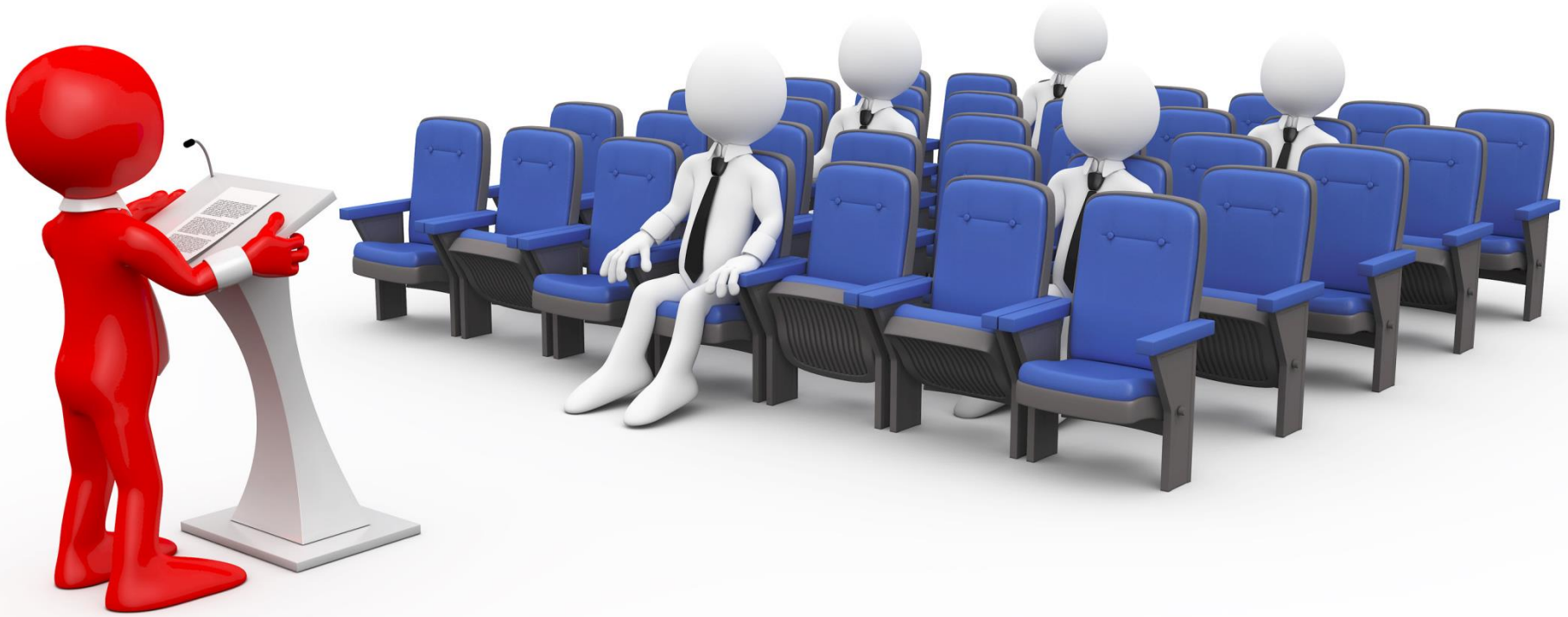
Demo



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Key Take Aways

- Work within your current governance structure to garner consensus about which procedures you'd like to template
- Follow national data standards
- Define your data elements
- Train based on roles and responsibilities
- Audit, audit, audit

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Questions

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How to document and keep your coders and compliance officers happy

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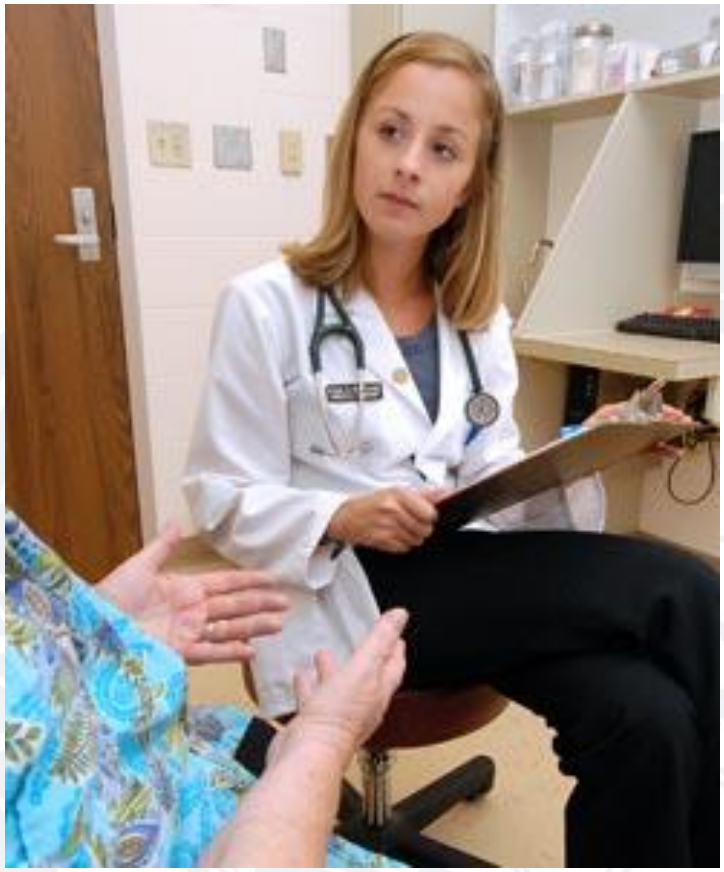
So, why do we write progress notes?

- First and foremost, it is a communication tool
  - It serves as the basis for planning patient care
  - It is the medium by which health care providers and other healthcare professionals connect with one another
  - It documents the care and services provided to the patient
  - It can be a legal aid in documenting the patient's wishes



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So, what's the other reason we write progress notes?

- It is essential for correct billing/reimbursement
  - Evaluation and Management (E & M) services
    - Outpatient and Inpatient
  - Current Procedural Technology codes (e.g., ECG)
    - Outpatient and Inpatient
  - Medicare Severity-Diagnostic related grouping (MS-DRGs)
    - Inpatient

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Types of Evaluation & Management Notes

Outpatient/Ambulatory:

- Established Level 1—99211
- Established Level 2—99212
- Established Level 3—99213
- Established Level 4—99214
- Established Level 5—99215
- New Level 1—99201
- New Level 2—99202
- New Level 3—99203
- New Level 4—99204
- New Level 5—99205

Inpatient:

- Established Level 1—99231
- Established Level 2—99232
- Established Level 3—99233
- New Level 1—99221
- New Level 2—99222
- New Level 3—99223

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Step 1: Understand what's expected of you

ESTABLISHED PATIENT (*based on 1997 guidelines*)

Level	History	Exam	Medical Decision-Making					
			#Diagnosis	Q	Amount of Data	Q	Risk	Q
Definitions/ Quantifiers **Established Pt meet or exceed 2 of 3 key components: History, Exam, Medical Decision Making**	**CC** = Chief Complaint **HPI** = History of Present Illness: location, quality, severity, duration, timing, context, modifying factors, assoc. sign/symptoms **ROS** = review of systems: Constitutional, Eyes, ENT, Respiratory, CV, GI, GU, MS, Integumentary, Neuro, Psych, Endocrine, Heme/Lymph, Allergic/Immunologic **PFSH** = Past, family or social history	Refer to 1997 exam guidelines	• 1 minimal problem • 1 stable or improved problem • Est problem (to examiner), worsening • New problem to examiner, no add'l workup planned • New problem to examiner, add'l workup planned	1 1 2 3 4	• Order/review of labs • Order/review of x-ray • Order/review other test • Decision to obtain records/or obtain Hx from someone other than the Pt • Review & summary of old records and/or obtaining Hx from someone other than the patient and/or discussion of case with another provider • Independent visualization of image, tracing or specimen	1 1 1 1 2 2	• One self-limited or minor problem • Two or more self-limited minor problems • One stable chronic illness • Acute uncomplicated illness/injury • One or more chronic illness w mild exacerbation, progression or side effects of Tx • 2 or more stable chronic illnesses • Undiagnosed new problem w systemic symptoms/uncertain outcome • Acute complicated illness/injury • One or more chronic illness w severe exacerbation, progression or side effects of Tx • Acute or chronic illnesses or injury that may pose a threat to life or bodily function • An abrupt change in neurologic status	1 2 2 2 3 3 3 3 4 4 4
Estab Pt **99211**	**Office or other outpatient visit for the evaluation and management of an established patient that may not require the presence of a physician. Usually the presenting problem is minimal. Typically, 5 minutes are spent with the patient. Documentation appropriate to the service performed is required.**							
99212	Chief Complaint 1-3 HPI	1-5 bullet points in 1 or more system	1 point		1 point		1 point	
10 minutes	***Prob. Focused Hx***	***Prob. Focused Exam***	***1 point in 2 of 3 columns = Straightforward Decision-Making***					
99213	Chief Complaint 1-3 HPI 1 system ROS	6-11 bullet points in at least 2 systems	2 points		2 points		2 points	
15 minutes	***Exp. Prob. Focused Hx***	***Exp. Prob. Focused Exam***	***2 points in 2 of 3 columns = Low Complexity Decision-Making***					
99214	Chief Complaint 4 ≥ HPI or Status 3 Chronic Cond 2-9 system ROS 1 element PFSH	12-17 bullet points in at least 2 systems Single System: Eye & Psych only : At least 9 bullet points	3 points		3 points		3 points	
25 minutes	***Detailed Hx***	***Detailed Exam***	***3 points in 2 of 3 columns = Moderate Decision-Making***					
99215	Chief Complaint 4 ≥ HPI or Status 3 Chronic Cond 10+ ROS 2-3 PFSH	Multi-system: minimum 18 bullet points ≥9 systems Single System: all required elements	4 points		4 points		4 points	
40 minutes	***Complete Hx***	***Complete Exam***	***4 points in 2 of 3 columns = High Complexity Decision-Making***					

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Step 2: Establish governance and build consensus

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Step 3: Understand the components

ESTABLISHED PATIENT (*based on 1997 guidelines)*

Level	History	Exam	Medical Decision-Making					
			#Diagnosis	Q	Amount of Data	Q	Risk	Q
Definitions/ Quantifiers **Established Pt meet or exceed 2 of 3 key components: History, Exam, Medical Decision Making**	**CC** = Chief Complaint **HPI** = History of Present Illness: location, quality, severity, duration, timing, context, modifying factors, assoc. sign/symptoms **ROS** = review of systems: Constitutional, Eyes, ENT, Respiratory, CV, GI, GU, MS, Integumentary, Neuro, Psych, Endocrine, Heme/Lymph, Allergic/Immunologic **PFSH** = Past, family or social history	Refer to 1997 exam guidelines	• 1 minimal problem • 1 stable or improved problem • Est problem (to examiner), worsening • New problem to examiner, no add'l workup planned • New problem to examiner, add'l workup planned	1 1 2 3 4	• Order/review of labs • Order/review of x-ray • Order/review other test • Decision to obtain records/or obtain Hx from someone other than the Pt • Review & summary of old records and/or obtaining Hx from someone other than the patient and/or discussion of case with another provider • Independent visualization of image, tracing or specimen	1 1 1 1 2 2	• One self-limited or minor problem • Two or more self-limited minor problems • One stable chronic illness • Acute uncomplicated illness/injury • One or more chronic illness w mild exacerbation, progression or side effects of Tx • 2 or more stable chronic illnesses • Undiagnosed new problem w systemic symptoms/uncertain outcome • Acute complicated illness/injury • One or more chronic illness w severe exacerbation, progression or side effects of Tx • Acute or chronic illnesses or injury that may pose a threat to life or bodily function • An abrupt change in neurologic status	1 2 2 2 3 3 3 3 4 4 4
Estab Pt **99211**	**Office or other outpatient visit for the evaluation and management of an established patient that may not require the presence of a physician. Usually the presenting problem is minimal. Typically, 5 minutes are spent with the patient. Documentation appropriate to the service performed is required.**							
99212 10 minutes	Chief Complaint 1-3 HPI ***Prob. Focused Hx***	1-5 bullet points in 1 or more system ***Prob. Focused Exam***	1 point		1 point		1 point	
			1 point in 2 of 3 columns = Straightforward Decision-Making					
99213 15 minutes	Chief Complaint 1-3 HPI 1 system ROS ***Exp. Prob. Focused Hx***	6-11 bullet points in at least 2 systems ***Exp. Prob. Focused Exam***	2 points		2 points		2 points	
			2 points in 2 of 3 columns = Low Complexity Decision-Making					
99214 25 minutes	Chief Complaint 4 ≥ HPI or Status 3 Chronic Cond 2-9 system ROS 1 element PFSH ***Detailed Hx***	12-17 bullet points in at least 2 systems Single System: Eye & Psych only : At least 9 bullet points ***Detailed Exam***	3 points		3 points		3 points	
			3 points in 2 of 3 columns = Moderate Decision-Making					
99215 40 minutes	Chief Complaint 4 ≥ HPI or Status 3 Chronic Cond 10+ ROS 2-3 PFSH ***Complete Hx***	Multi-system: minimum 18 bullet points ≥9 systems Single System: all required elements ***Complete Exam***	4 points		4 points		4 points	
			4 points in 2 of 3 columns = High Complexity Decision-Making					

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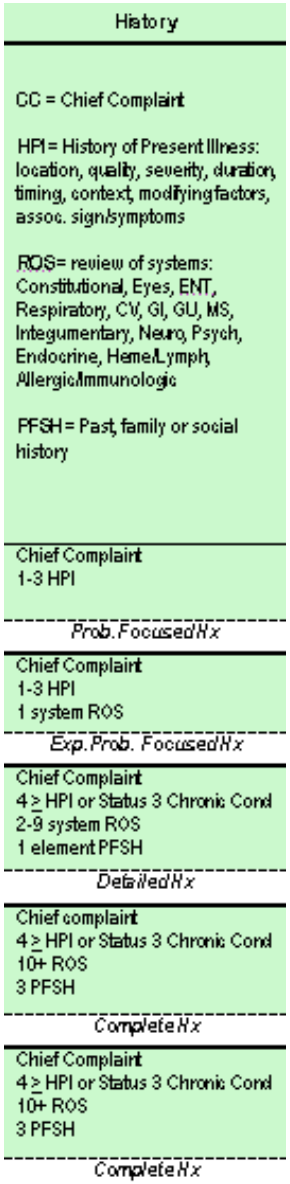
Step 4: Template what's templatable



- Chief complaint/Reason for visit
- History of present illness or chronic conditions
  - HPI—Up to at least 4 qualities

    OR
  - Chronic conditions—At least 3
- Review of systems
- Past history
  - Medical
  - Surgical
  - Social
  - Family

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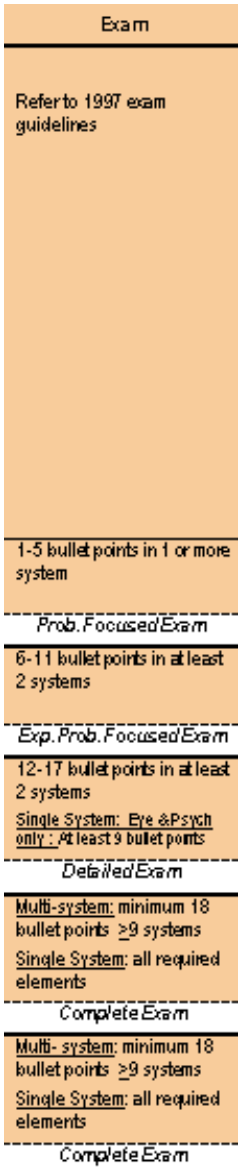
Step 4: Template what's templatable



- Based on the 1997 CMS Single System Cardiovascular Examination
  - Much preferred option to the General Multisystem Examination
  - Trust me, you don't want to be examining the Ears, Nose, Mouth, and Throat, Breasts, Lymphatics, and Genitourinary systems
- Complete vs. Focused
  - Need to decide what components are included in the focused exam

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Physical Exam Requirements

Cardiovascular Examination

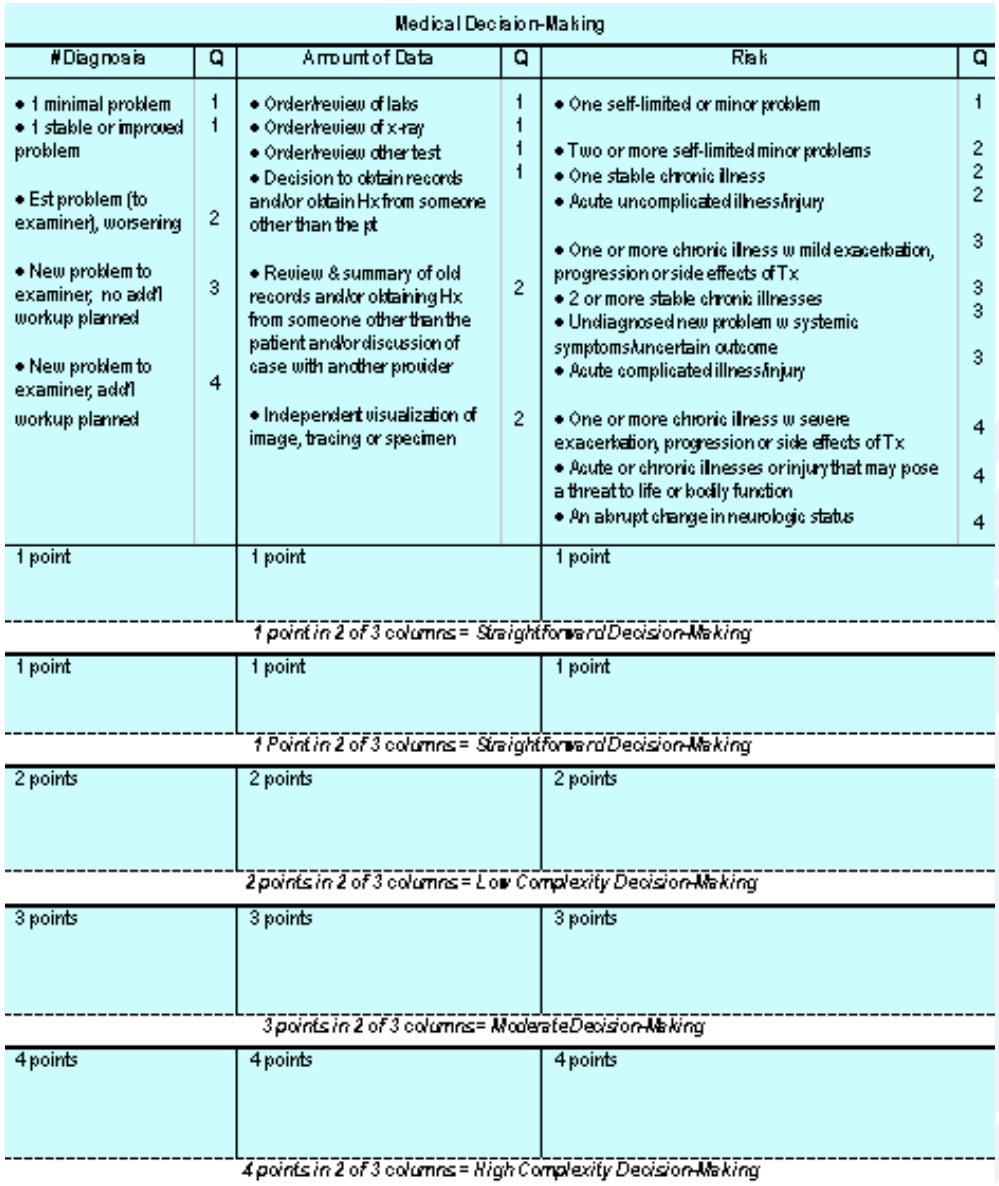
System/Body Area	Elements of Examination
Constitutional	Measurement of **any three of the following seven** vital signs: 1) sitting or standing blood pressure, 2) supine blood pressure, 3) pulse rate and regularity, 4) respiration, 5) temperature, 6) height, 7) weight (May be measured and recorded by ancillary staff) General appearance of patient (eg, development, nutrition, body habitus, deformities, attention to grooming)
Head and Face	
Eyes	Inspection of conjunctivae and lids (eg, xanthelasma)
Ears, Nose, Mouth and Throat	Inspection of teeth, gums and palate Inspection of oral mucosa with notation of presence of pallor or cyanosis
Neck	Examination of jugular veins (eg, distension; a, v or cannon a waves) Examination of thyroid (eg, enlargement, tenderness, mass)
Respiratory	Assessment of respiratory effort (eg, intercostal retractions, use of accessory muscles, diaphragmatic movement) Auscultation of lungs (eg, breath sounds, adventitious sounds, rubs)
Cardiovascular	Palpation of heart (eg, location, size and forcefulness of the point of maximal impact; thrills; lifts; palpable S3 or S4) Auscultation of heart including sounds, abnormal sounds and murmurs Measurement of blood pressure in two or more extremities when indicated (eg, aortic dissection, coarctation) Examination of: • Carotid arteries (eg, waveform, pulse amplitude, bruits, apical-carotid delay) • Abdominal aorta (eg, size, bruits) • Femoral arteries (eg, pulse amplitude, bruits) • Pedal pulses (eg, pulse amplitude) • Extremities for peripheral edema and/or varicosities

System/Body Area	Elements of Examination
Chest (Breasts)	
Gastrointestinal (Abdomen)	Examination of abdomen with notation of presence of masses or tenderness Examination of liver and spleen Obtain stool sample for occult blood from patients who are being considered for thrombolytic or anticoagulant therapy
Genitourinary (Abdomen)	
Lymphatic	
Musculoskeletal	Examination of the back with notation of kyphosis or scoliosis Examination of gait with notation of ability to undergo exercise testing and/or participation in exercise programs Assessment of muscle strength and tone (eg, flaccid, cog wheel, spastic) with notation of any atrophy and abnormal movements
Extremities	Inspection and palpation of digits and nails (eg, clubbing, cyanosis, inflammation, petechiae, ischemia, infections, Osler's nodes)
Skin	Inspection and/or palpation of skin and subcutaneous tissue (eg, stasis dermatitis, ulcers, scars, xanthomas)
Neurological/ Psychiatric	Brief assessment of mental status including • Orientation to time, place and person, • Mood and affect (eg, depression, anxiety, agitation)

Content and Documentation Requirements

Level of Exam	Perform and Document:
Problem Focused	**One to five** elements identified by a bullet.
Expanded Problem Focused	**At least six** elements identified by a bullet.
Detailed	**At least twelve** elements identified by a bullet.
Comprehensive	Perform **all** elements identified by a bullet; document every element in each box with a shaded border and at least one element in each box with an unshaded border.

Step 4: Template what's templatable



Medical Decision-Making					
# Diagnosis	Q	Amount of Data	Q	Risk	Q
• 1 minimal problem	1	• Order/review of labs	1	• One self-limited or minor problem	1
• 1 stable or improved problem	1	• Order/review of x-ray	1		
		• Order/review other test	1	• Two or more self-limited minor problems	2
		• Decision to obtain records and/or obtain Hx from someone other than the pt	1	• One stable chronic illness	2
• Est problem (to examiner), worsening	2			• Acute uncomplicated illness/injury	2
				• One or more chronic illness w mild exacerbation, progression or side effects of Tx	3
• New problem to examiner, no add'l workup planned	3	• Review & summary of old records and/or obtaining Hx from someone other than the patient and/or discussion of case with another provider	2	• 2 or more stable chronic illnesses	3
				• Undiagnosed new problem w systemic symptoms/uncertain outcome	3
• New problem to examiner, add'l workup planned	4			• Acute complicated illness/injury	3
		• Independent visualization of image, tracing or specimen	2	• One or more chronic illness w severe exacerbation, progression or side effects of Tx	4
				• Acute or chronic illnesses or injury that may pose a threat to life or bodily function	4
				• An abrupt change in neurologic status	4
1 point		1 point		1 point	
1 point in 2 of 3 columns = Straightforward Decision-Making					
1 point		1 point		1 point	
1 Point in 2 of 3 columns = Straightforward Decision-Making					
2 points		2 points		2 points	
2 points in 2 of 3 columns = Low Complexity Decision-Making					
3 points		3 points		3 points	
3 points in 2 of 3 columns = Moderate Decision-Making					
4 points		4 points		4 points	
4 points in 2 of 3 columns = High Complexity Decision-Making					

- Most difficult to template
  - Exception is "Amount of Data"
- Consider using problem-based or problem-oriented charting
- Avoid charting by exception

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Step 5: Don't chart/document by exception

- " . . . Normal conjunctivae."
- ". . . Normal oral mucosa."
- ". . . Normal muscle strength."
- ". . . Normal gait."
- ". . . Normal mood and affect."
- ". . . Alert and oriented to person, place, and time."

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Step 5: Set up an audit process to assess compliance

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Types of Evaluation & Management Notes

Outpatient/Ambulatory:
- Established Level 1—99211
- Established Level 2—99212
- Established Level 3—99213
- Established Level 4—99214
- Established Level 5—99215
- New Level 1—99201
- New Level 2—99202
- New Level 3—99203
- New Level 4—99204
- New Level 5—99205

Inpatient:
- Established Level 1—99231
- Established Level 2—99232
- Established Level 3—99233
- New Level 1—99221
- New Level 2—99222
- New Level 3—99223

Outpatient/Ambulatory:
- Established Level 1-4
- Established Level 5
- New Level 1-3
- New Level 4-5

Inpatient:
- Established Level 1-2
- Established Level 3
- New Level 1
- New Level 2-3

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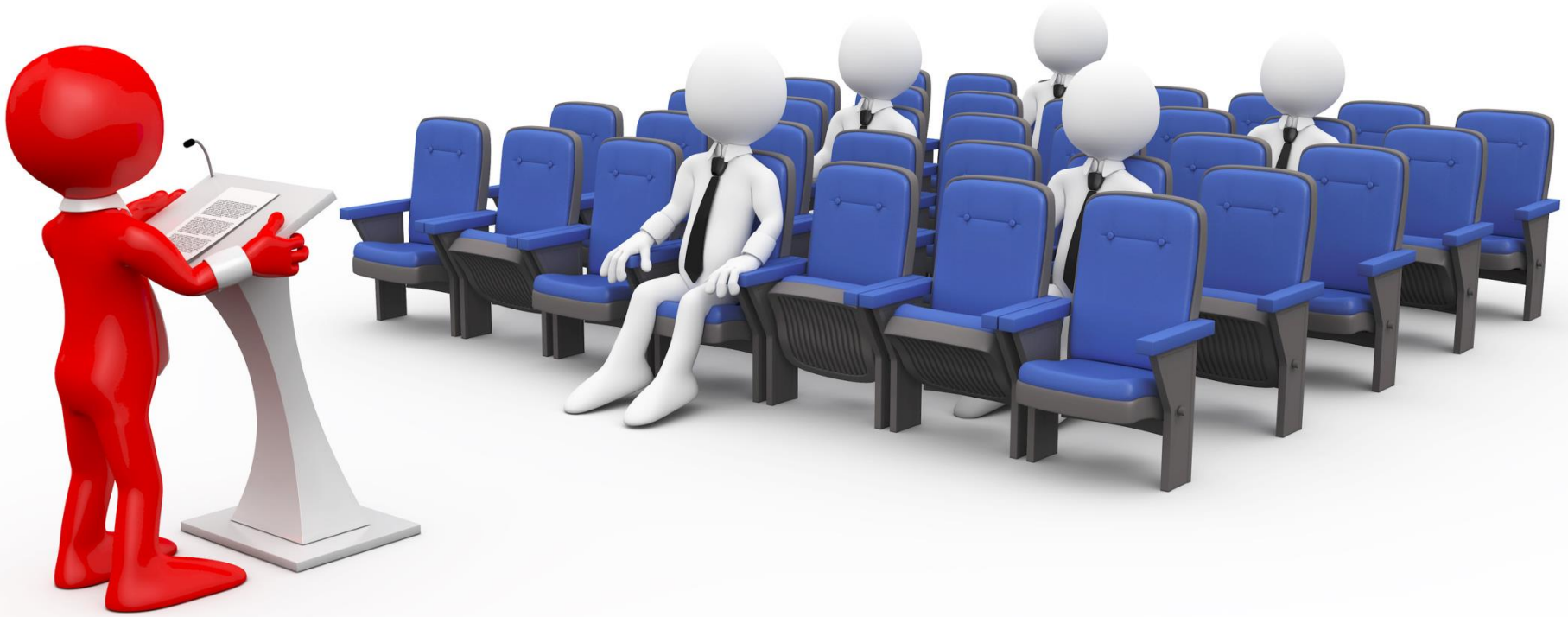
Demo



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Key Take Aways

- Review current coding requirements for E & M services
- Work within your current governance structure to garner consensus about note template content
- Template what's templatable
- Set up an audit process to assess compliance

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Questions

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Other efficiencies from the front line

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Tip 1: Crap process + Technology = Faster crap
Tip 1: Workflows, workflows

http://www.healthtechnica.com/blogsphere/2010/10/04/101-tips-to-make-your-emr-ehr-more-useful/, Accessed 11/28/14

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Tip 2: Invest heavily in training the trainers

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Tip 3: Education is a continuous process

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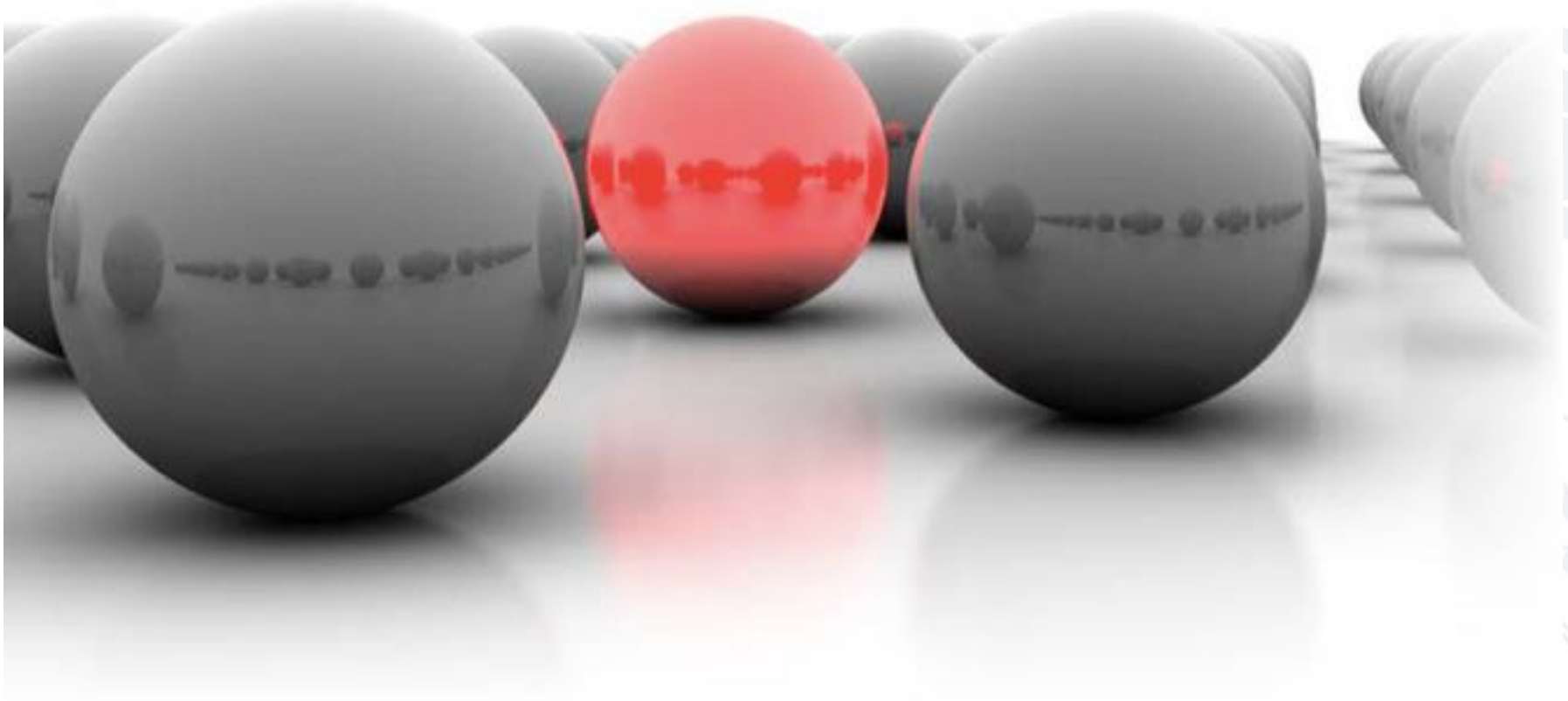
Tip 4: Standardize where at all possible



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Tip 5: Embrace Change—Plan, Do, Study, Act (PDSA)

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Tip 6: Fully utilize the computer within the exam room

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Tip 7: Use template formatting shortcuts

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Tip 8: Leverage your staff to help manage your in-box

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Tip 9: Embrace your patient portal

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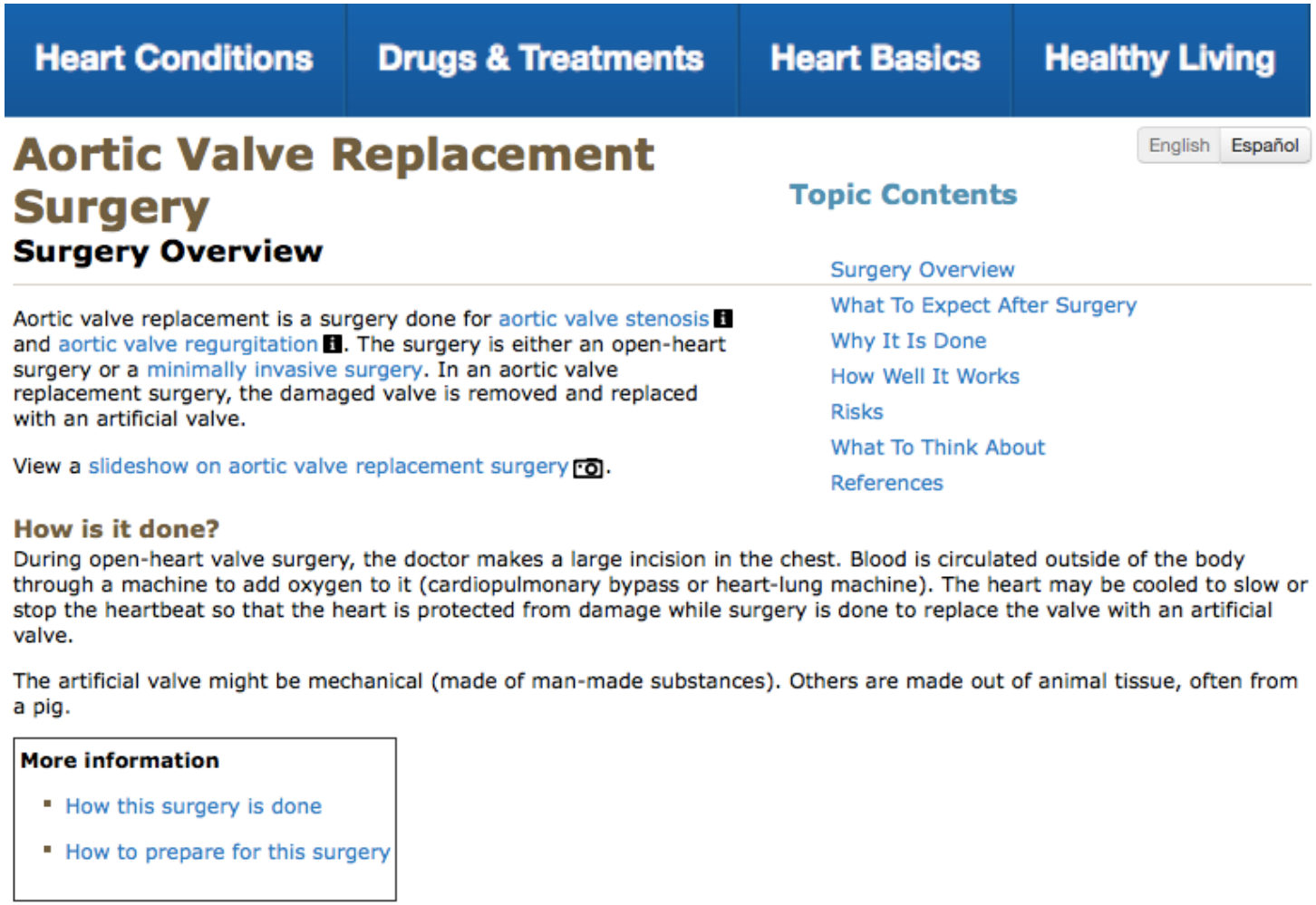
Tip 10: Standardize patient education



Heart Conditions | Drugs & Treatments | Heart Basics | Healthy Living

English | Español

Aortic Valve Replacement Surgery

Surgery Overview

Aortic valve replacement is a surgery done for aortic valve stenosis and aortic valve regurgitation. The surgery is either an open-heart surgery or a minimally invasive surgery. In an aortic valve replacement surgery, the damaged valve is removed and replaced with an artificial valve.

View a slideshow on aortic valve replacement surgery.

Topic Contents

- Surgery Overview
- What To Expect After Surgery
- Why It Is Done
- How Well It Works
- Risks
- What To Think About
- References

How is it done?

During open-heart valve surgery, the doctor makes a large incision in the chest. Blood is circulated outside of the body through a machine to add oxygen to it (cardiopulmonary bypass or heart-lung machine). The heart may be cooled to slow or stop the heartbeat so that the heart is protected from damage while surgery is done to replace the valve with an artificial valve.

The artificial valve might be mechanical (made of man-made substances). Others are made out of animal tissue, often from a pig.

More information

- How this surgery is done
- How to prepare for this surgery

CardioSmart American College of Cardiology

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Key Take Aways

- Workflows, workflows, workflows
- Training is a never ending process
- Standardize where possible
- Template where possible
- Leverage your clinical staff where possible
- Embrance your patient portal

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Questions

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Structured Data Reporting in Cardiology – The CardioEncounters Project

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Chair, Cardiology Steering Board
Epic Medical Systems

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Personal Disclosures

- Jeffrey Westcott
  - None related to this topic

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CardioEncounters

- Project Goals & Challenges
- Demo
- The Process: Collaboration with Epic
- Lessons Learned & Vision
- The Future

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Project Goals

- Enhance culture within cardiology practice that data is important.
- Fix a problem at a local level and enhance the whole Epic community by sharing it with everybody else.
- Increase Participation in the PINNACLE Registry.
- Apply knowledge to other specialties.

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ACC Goals

- Improve care in chronic cardiovascular disease (CAD, HTN, afib/flutter, HF)
- Increase efficiency and effectiveness of clinical encounter documentation
- Facilitate participation in the PINNACLE Registry (→ MU Stage 2 menu objective)

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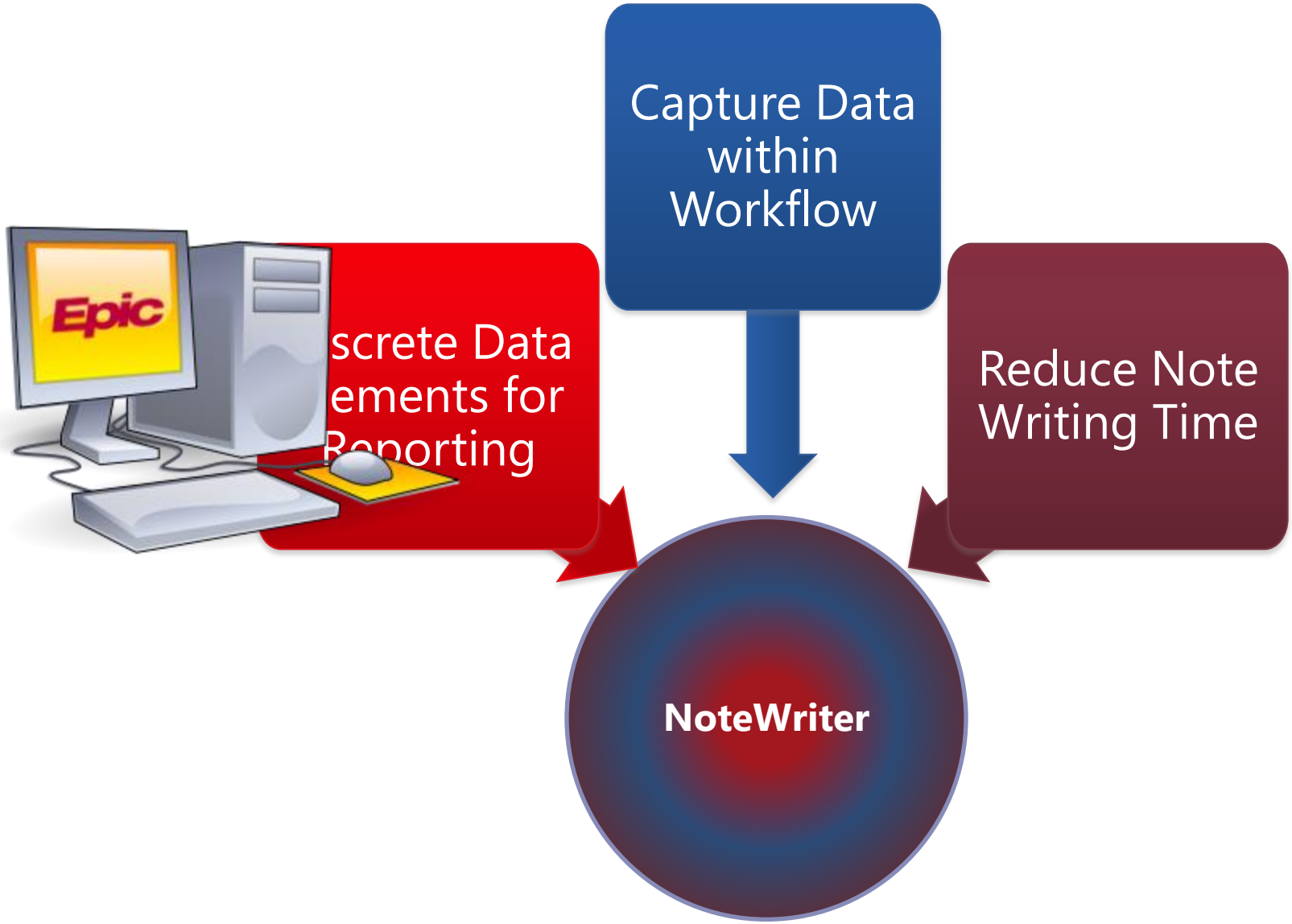
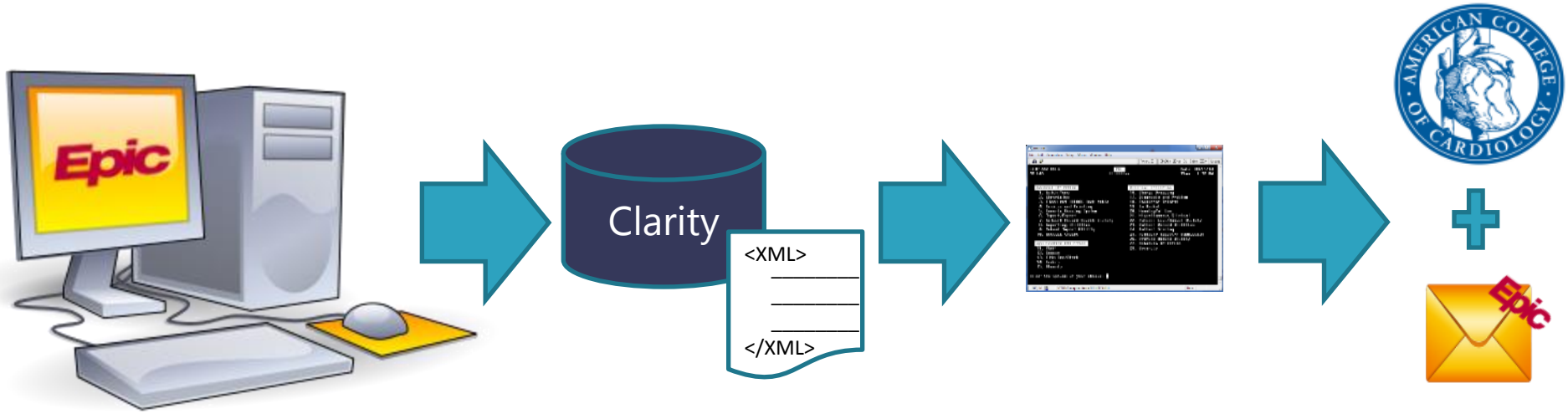
Data Collection & Submission



Data Collection & Submission



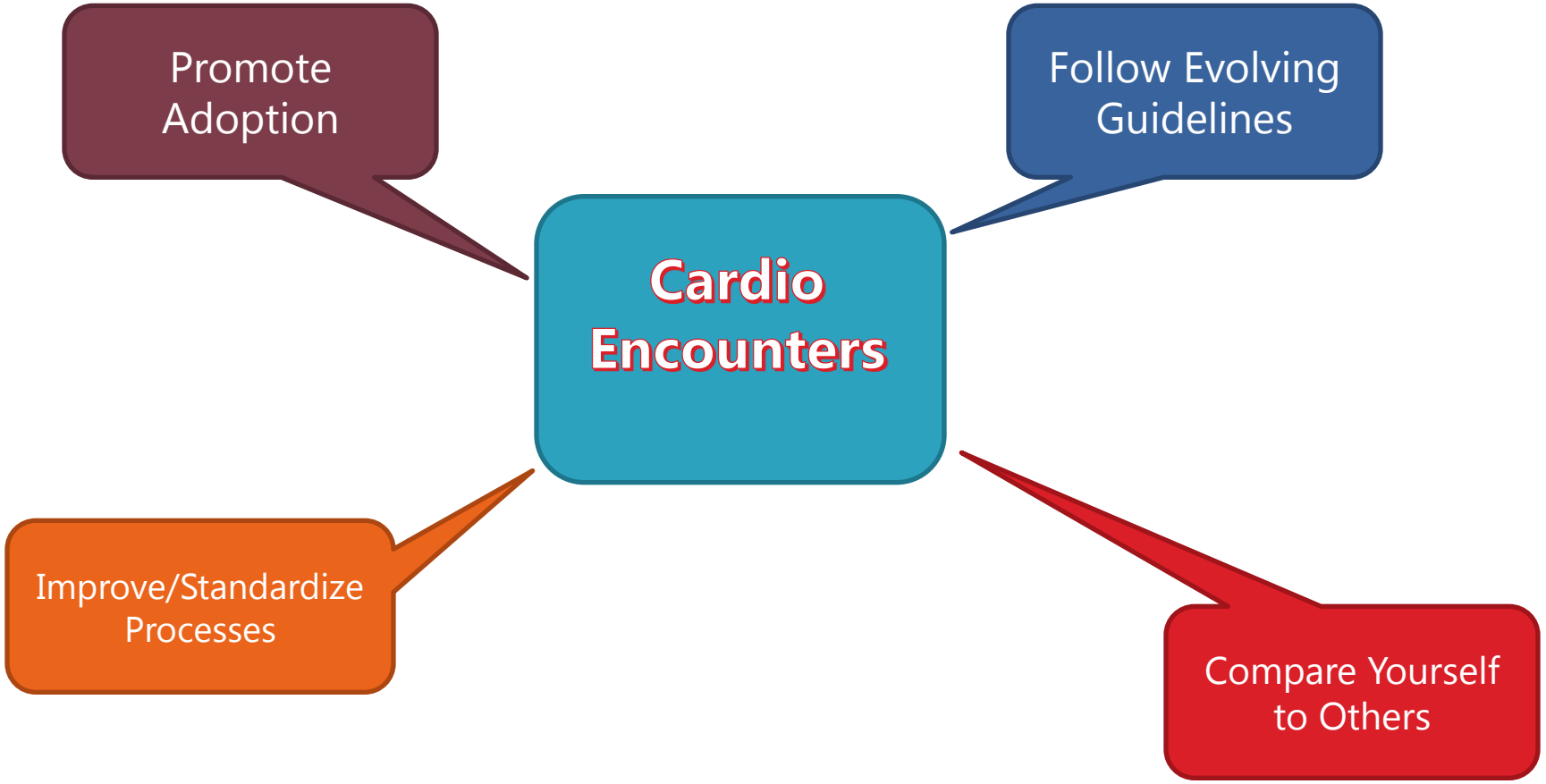
NoteWriter notes and other clinical workflows

Crystal Report exported to XML

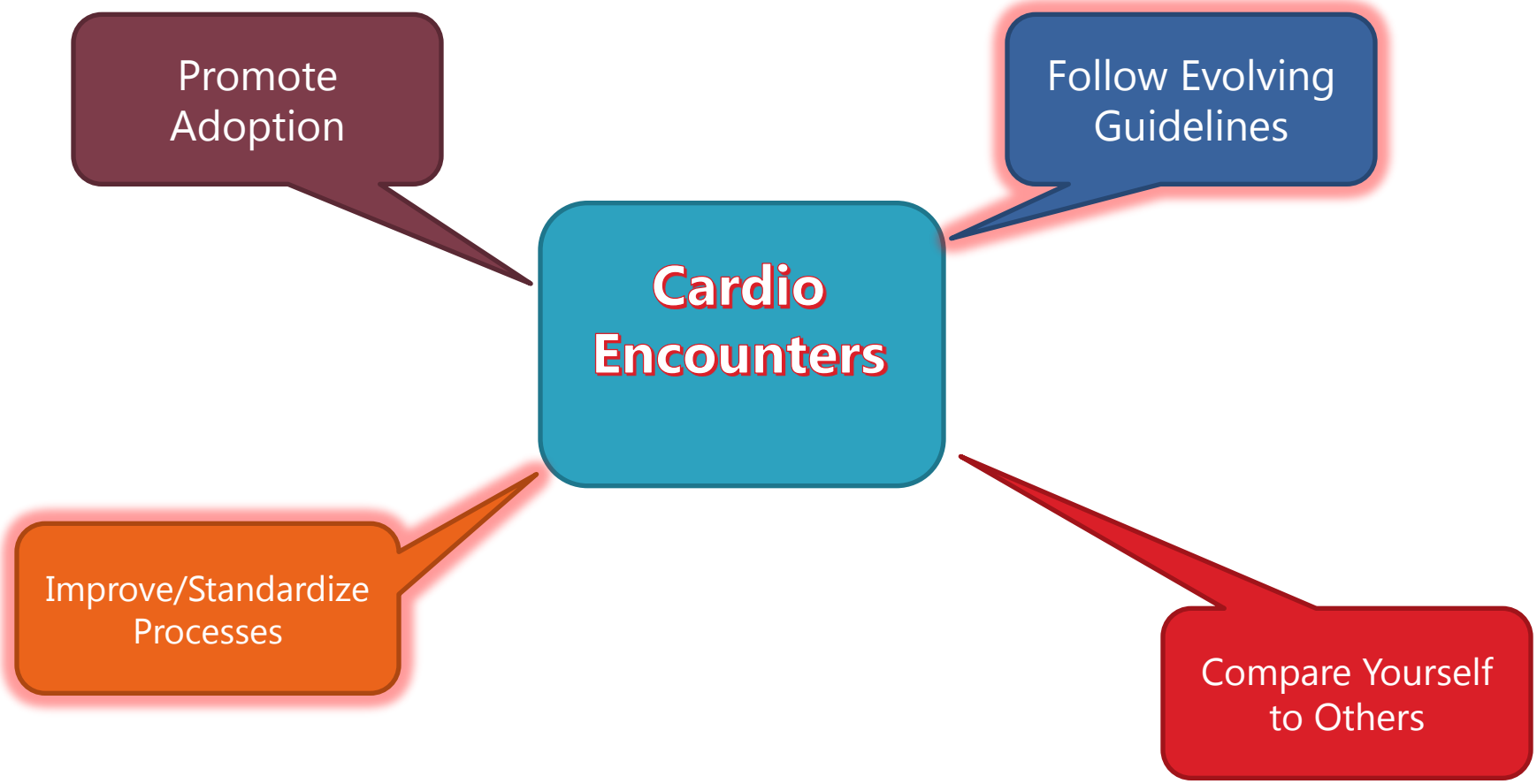
Administrative utility

Data to ACC & confirmation

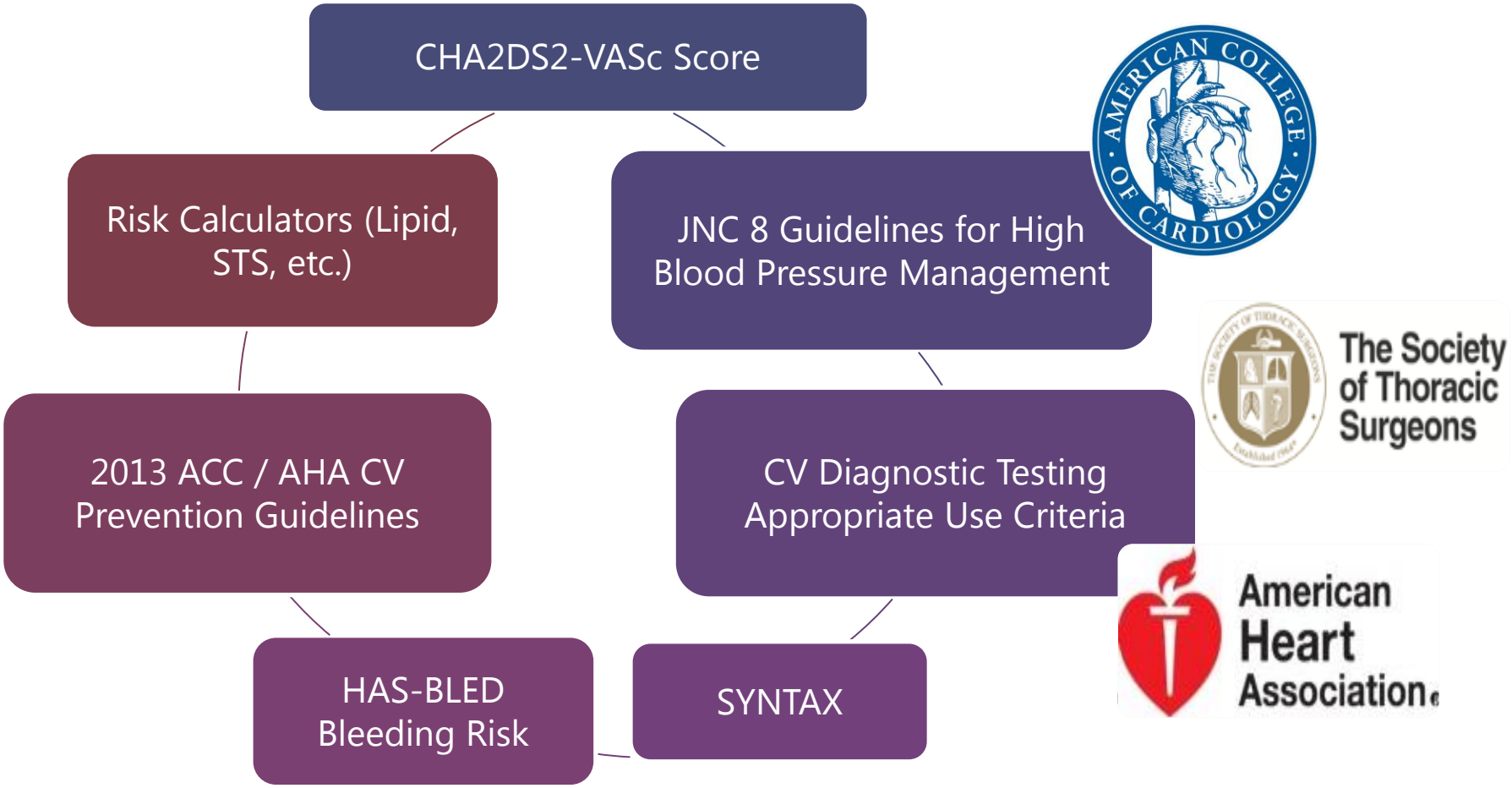
Project Challenges



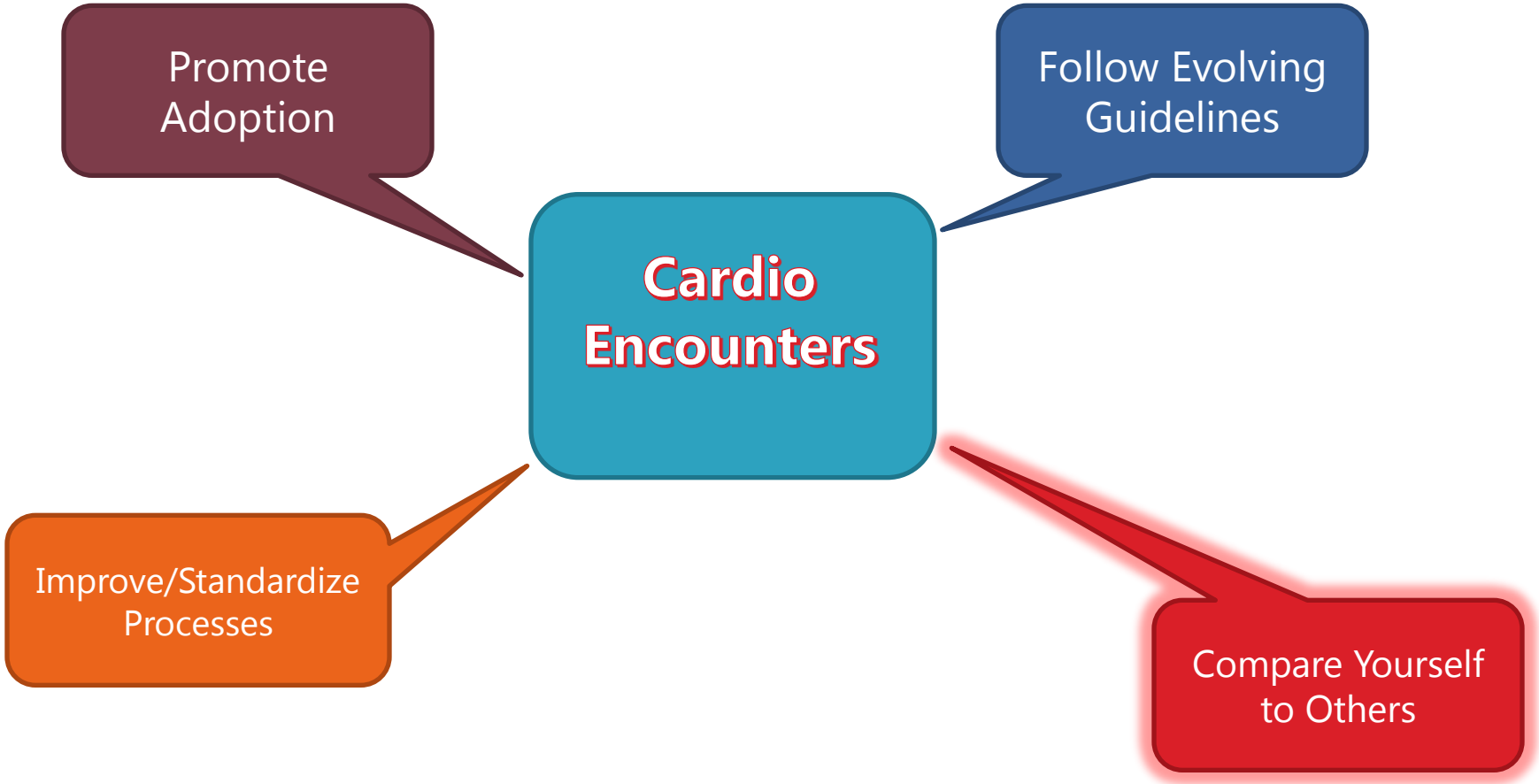
Project Challenges



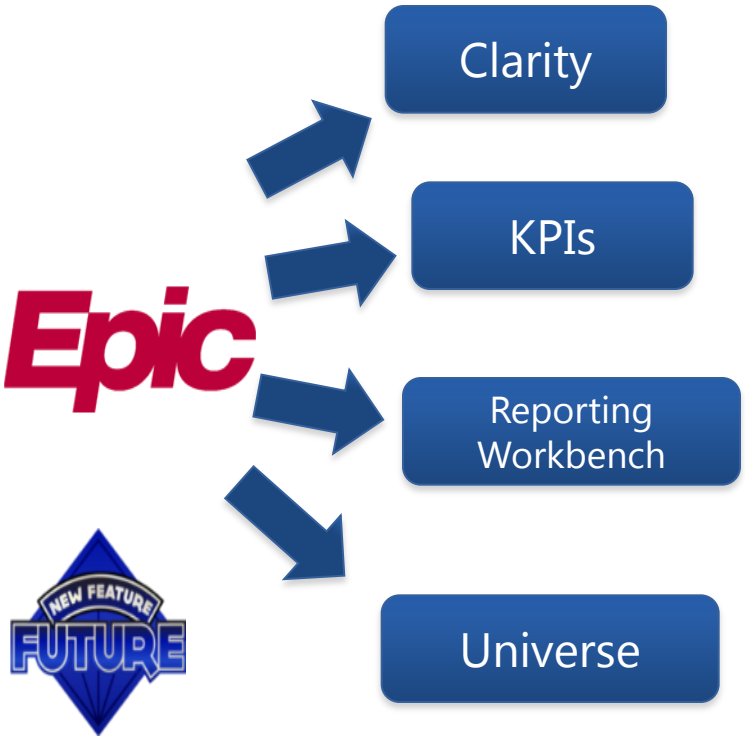
Follow Evolving Guidelines

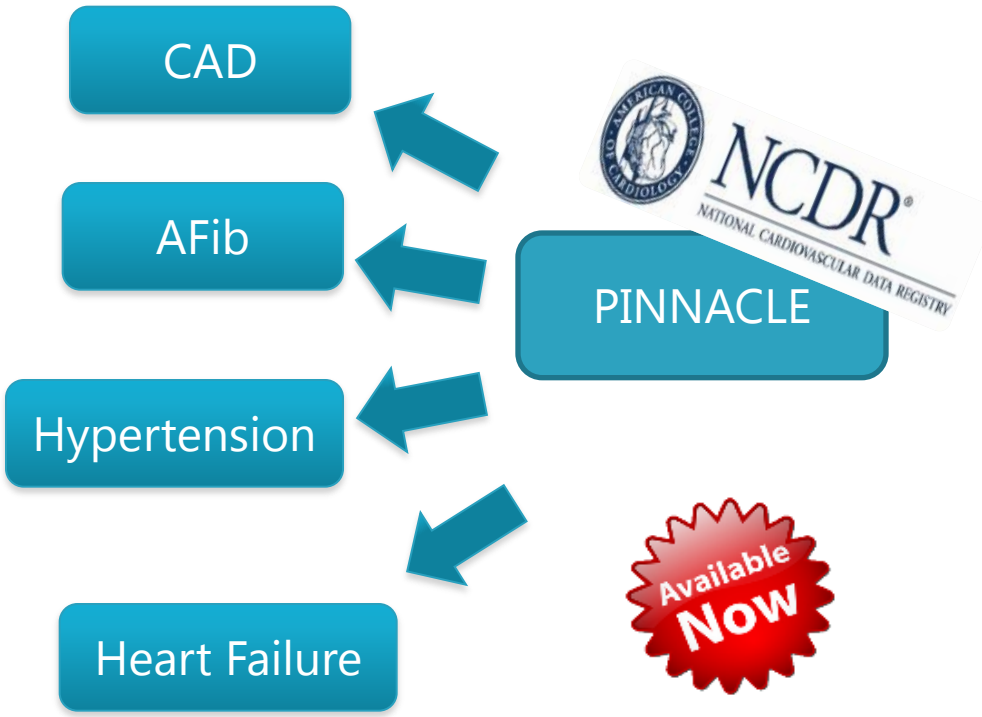


Project Challenges

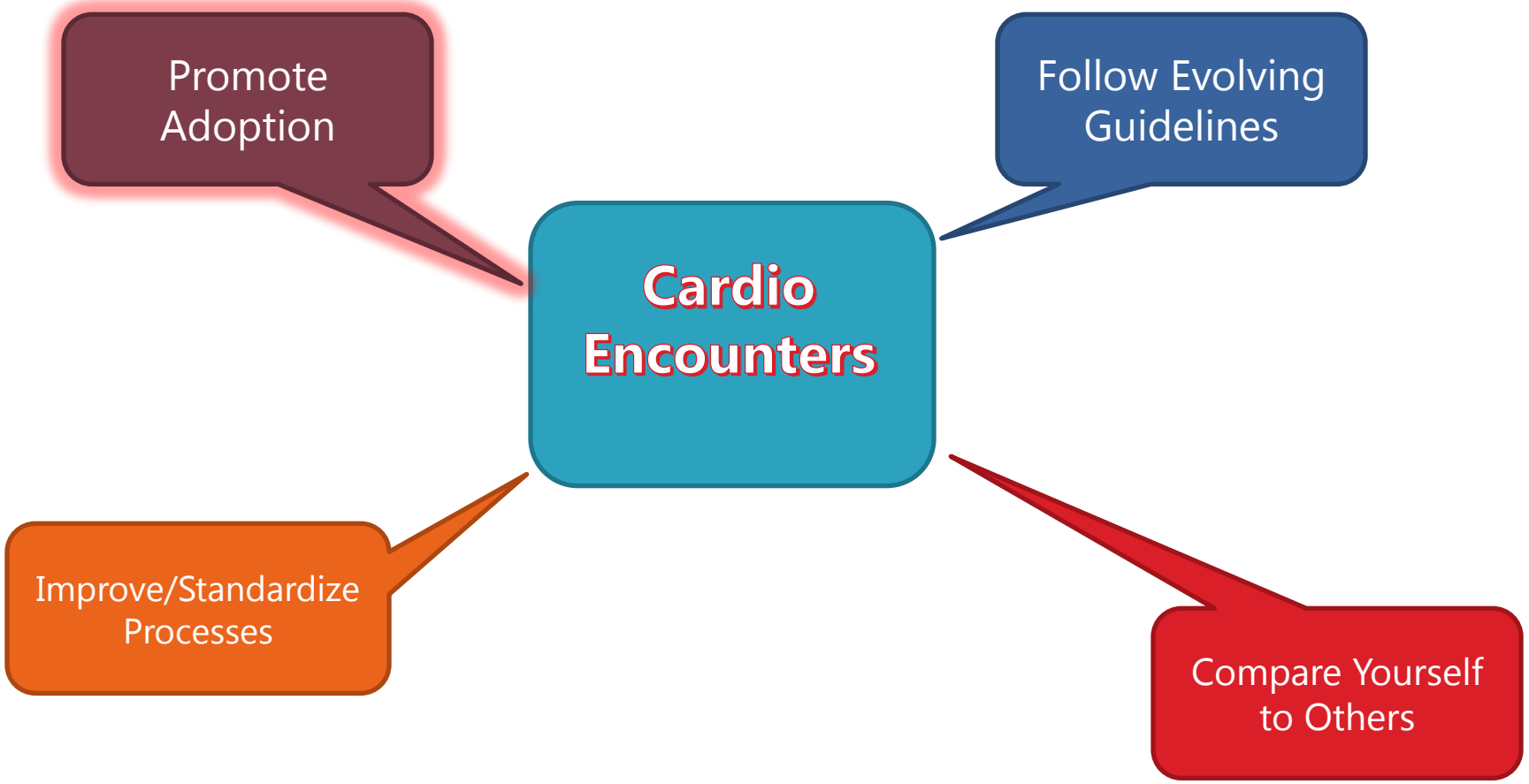


Compare Yourself to Others





Project Challenges



Promote Adoption

1

- ✓Guideline-based care
- ✓Standardize Processes
- ✓Comparison to peers

2

- ✓PINNACLE is a qualified registry for MU stage 2 reporting.

3

- ✓Swedish Medical Center Experience

NoteWriter

Copy Note | Copy Assessment & Plan

Assessment & Plan | ROS

CAD | HTN | Afib/flutter | HF | Lipids | AoV | MV | CP | Device

Assessment — Up To Date

CCS Angina Class — Delete all data

- (•) no angina
- ( ) CCS class I - angina only during strenuous or prolonged physical activity
- ( ) CCS class II - angina only during vigorous physical activity
- ( ) CCS class III - angina with activities of daily living
- ( ) CCS class IV - angina with minimal activity, or at rest

Onset of new or stable angina in the past 12 months? Yes | No

Is there stable angina? Yes | No — **Date of onset**

Is there unstable angina? Yes | No — **Date of onset**

Prior cardiac events - enter the approximate date of the last event

Approximate date		☐ Myocardial infarction
Approximate date		☐ CABG
Approximate date	9/18/13	☑ PCI - DES
Approximate date		☐ PCI - BMS
Approximate date		☐ PCI - POBA

Current anti-platelet therapy

aspirin 81 mg | aspirin 325 mg | prasugrel 10 mg | ticagrelor 90 mg
aspirin 162 mg | plavix 75 mg | prasugrel 5 mg

MI, valve surgery, heart transplant, CABG, PCI or new stable angina diagnosis in the last 12 months? Yes | No

If so, has the patient been referred to cardiac rehabilitation?

patient has been referred | no referral for medical reason | completed program
already participating | no referral for system reason

Comments including cardiac rehabilitation issues

Insert SmartText

Edit Note

New Note

Assessment & Plan | ROS | Bookmark

Arial 11 B U A Insert SmartText

Swedish Heart & Vascular Clinic

Outpatient Evaluation on 3/16/2014

Patient: **Joe Cardiology** DOB: **12/17/1968**

PCP: Smith, John A

Reason for Visit

Chief Complaint

Patient presents with

- RECHECK
  - *CAD, lipid status and atrial fibrilation*

Coronary Artery Disease

Assessment

- The patient has no angina
- There is a new diagnosis of stable angina in the past 12 months

Plan

- Continue the current program
- Coronary artery disease was discussed in detail with the patient
- 12 months of dual antiplatelet therapy is indicated post drug eluting stent
- Lifestyle modifications discussed include adhering to a heart healthy diet, maintenance of a healthy weight, regular exercise and medication compliance
- A stress echocardiogram will be scheduled at the next visit
- Next planned office visit is in six months

Subjective - Objective

- There has been a previous stent procedure utilizing drug eluting stents on 9/18/2013
- Current antiplatelet therapy includes aspirin 81 mg and plavix 75 mg
- He remains stable since his September procedure without angina. He is exercising regularly.

Atrial Fibrillation and Atrial Flutter

Assessment

- The patient has paroxysmal atrial fibrillation
- This is non-valvular in etiology
- The patient's CHADS2 score is 2
- The yearly stroke risk with a CHADS2 score of 2 is 1.27% on warfarin and 2.5% not on warfarin
- Patient is not on warfarin for medical reason (see comments below)
- Patient is already on dual antiplatelet therapy with recent DES and would be at excessive risk for bleeding on triple therapy. Reassess when off plavix.

Sign at close encounter — Accept | Cancel

Assessment & Plan | ROS

CAD | HTN | Afib/flutter | HF | Lipids | AoV | MV | CP | Device

Assessment — Up To Date

CCS Angina Class — Delete all data

- (•) **no angina**
- ( ) CCS class I - angina only during strenuous or prolonged physical activity
- ( ) CCS class II - angina only during vigorous physical activity
- ( ) CCS class III - angina with activities of daily living
- ( ) CCS class IV - angina with minimal activity, or at rest

Onset of new or stable angina in the past 12 months? Yes | No

Is there stable angina? Yes | No — **Date of onset**

Is there unstable angina? Yes | No — **Date of onset**

Prior cardiac events - enter the approximate date of the last event

Approximate date		☐ Myocardial infarction
Approximate date		☐ CABG
Approximate date	9/18/13	☑ **PCI - DES**
Approximate date		☐ PCI - BMS
Approximate date		☐ PCI - POBA

Current anti-platelet therapy

aspirin 81 mg | aspirin 325 mg | prasugrel 10 mg | ticagrelor 90 mg
aspirin 162 mg | plavix 75 mg | prasugrel 5 mg

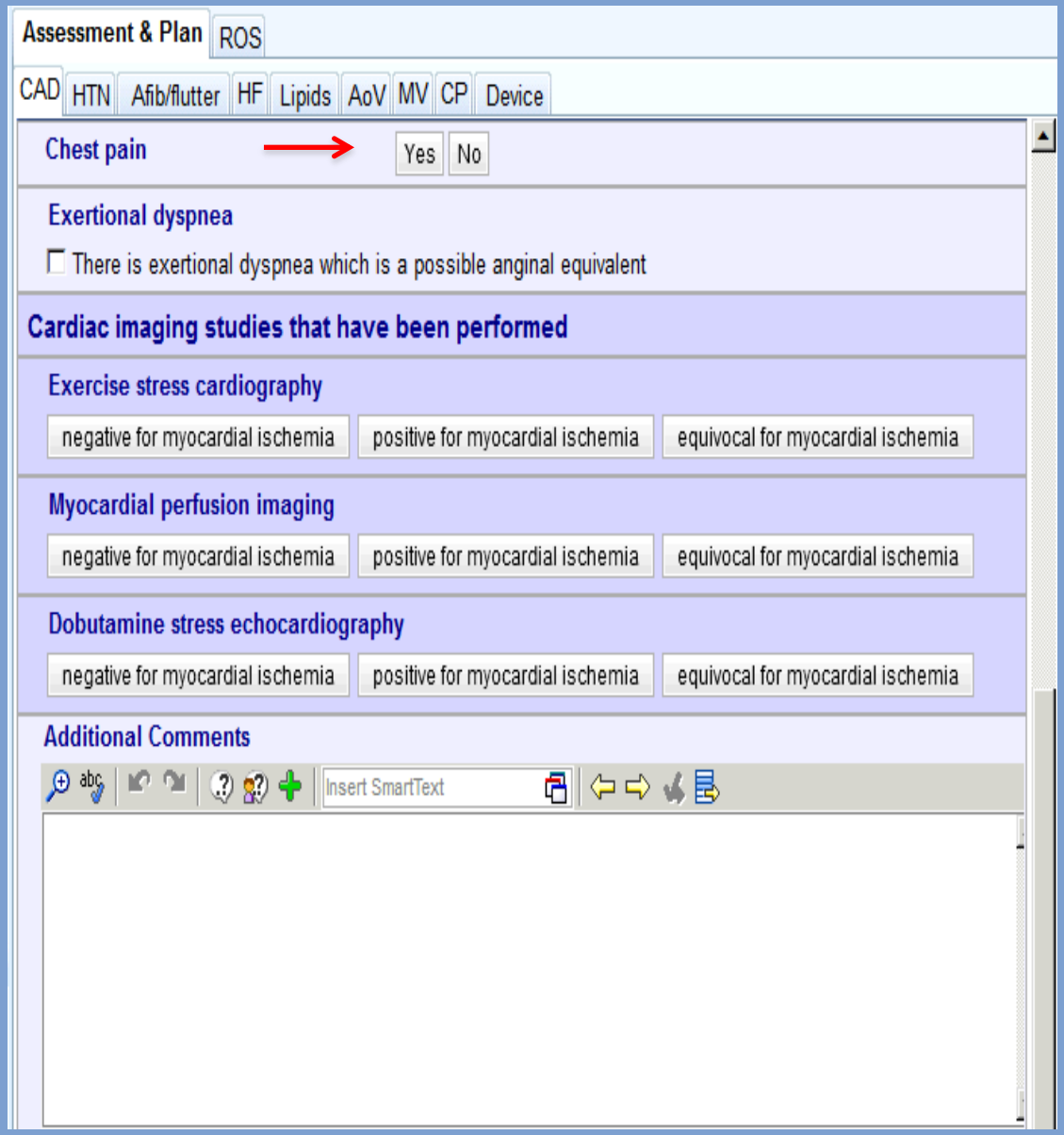
MI, valve surgery, heart transplant, CABG, PCI or new stable angina diagnosis in the last 12 months? Yes | No

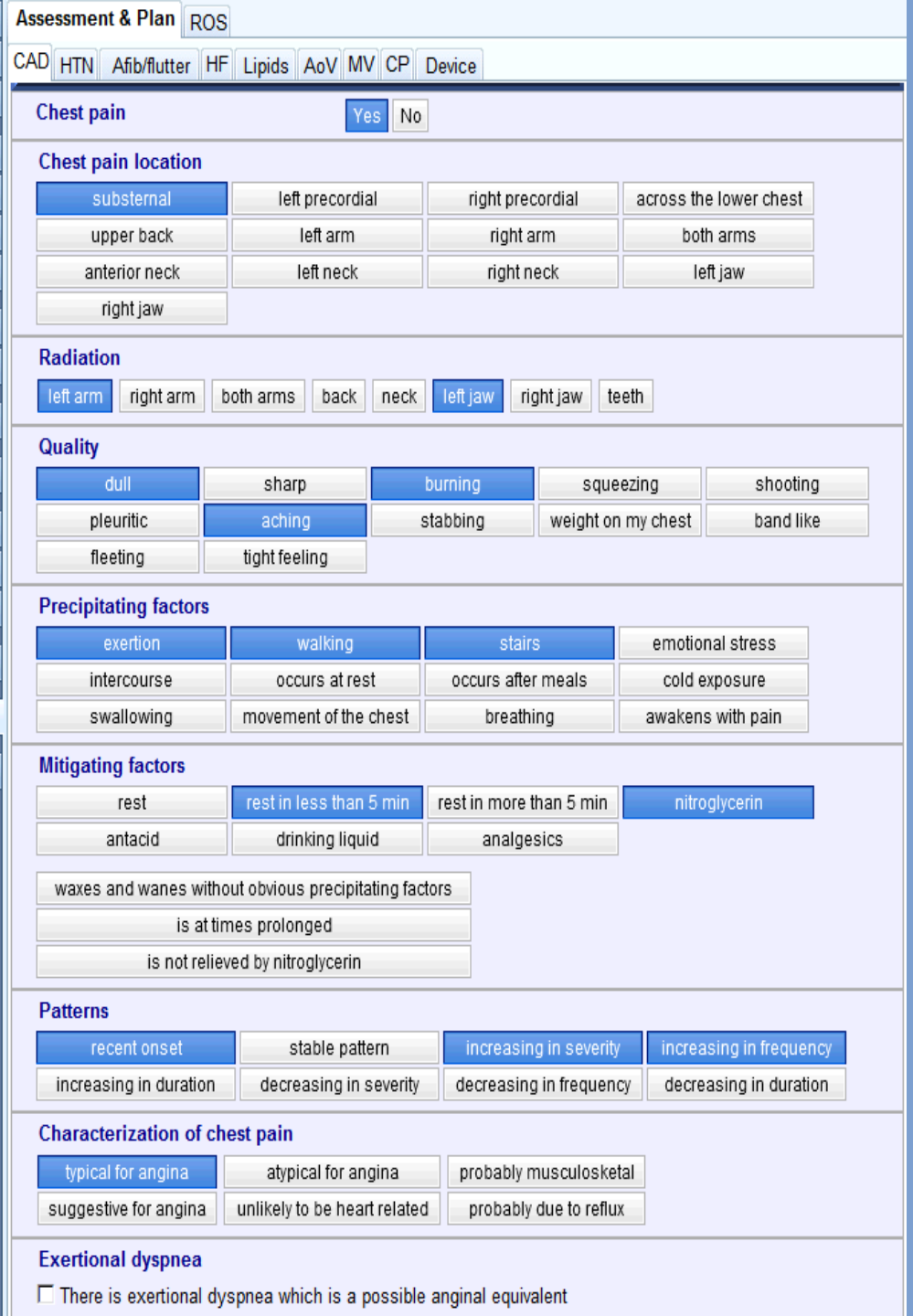
If so, has the patient been referred to cardiac rehabilitation?

patient has been referred | no referral for medical reason | completed program
already participating | no referral for system reason

Comments including cardiac rehabilitation issues

Insert SmartText


Assessment & Plan
ROS
CAD
HTN
Afib/flutter
HF
Lipids
AoV
MV
CP
Device
Chest pain
Yes
No
Exertional dyspnea
There is exertional dyspnea which is a possible anginal equivalent
Cardiac imaging studies that have been performed
Exercise stress cardiography
negative for myocardial ischemia
positive for myocardial ischemia
equivocal for myocardial ischemia
Myocardial perfusion imaging
negative for myocardial ischemia
positive for myocardial ischemia
equivocal for myocardial ischemia
Dobutamine stress echocardiography
negative for myocardial ischemia
positive for myocardial ischemia
equivocal for myocardial ischemia
Additional Comments
Insert SmartText



Text Generation

Coronary Artery Disease

Assessment

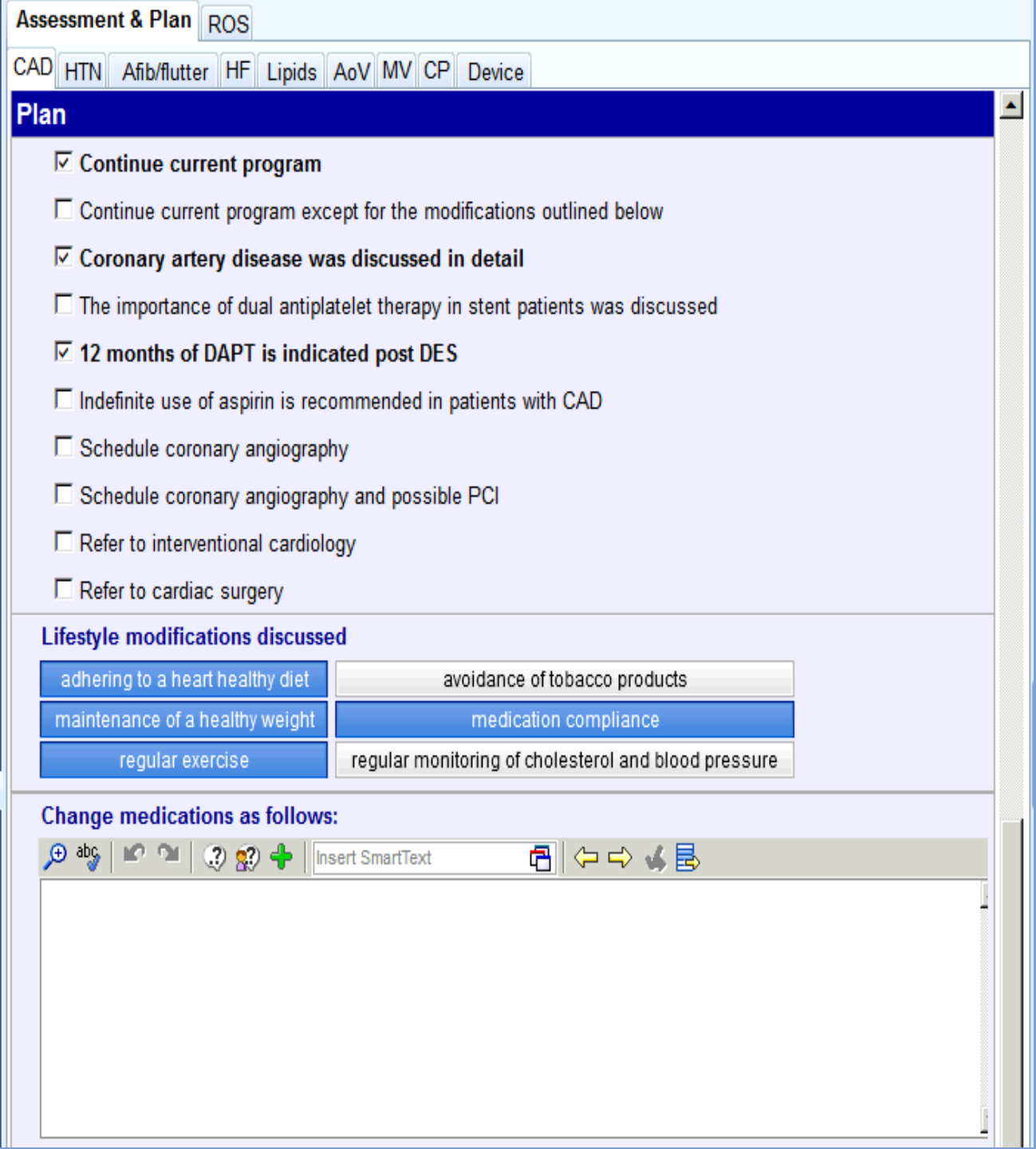
- The patient has no angina
- The patient's chest pain is typical for angina
- There is a new diagnosis of stable angina in the past 12 months

Plan

- Continue the current program
- Coronary artery disease was discussed in detail with the patient
- 12 months of dual antiplatelet therapy is indicated post drug eluting stent
- Lifestyle modifications discussed include adhering to a heart healthy diet, maintenance of a healthy weight, regular exercise and medication compliance
- A stress echocardiogram will be scheduled at the next visit
- Next planned office visit is in six months

Subjective - Objective

- The patient has had recent symptoms of chest pain. The location of the patient's chest pain is substernal. There is radiation to left arm and left jaw. The quality of the pain is dull, aching and burning. The pain is precipitated by exertion, walking and stairs. The pain is relieved by rest in less than 5 min and nitroglycerin. The chest pain is recent onset, increasing in severity and increasing in frequency.
- There has been a previous stent procedure utilizing drug eluting stents on 9/18/2013
- Current antiplatelet therapy includes aspirin 81 mg and plavix 75 mg
- He remains stable since his September procedure without angina. He is exercising regularly.


Assessment & Plan
ROS
CAD
HTN
Afib/flutter
HF
Lipids
AoV
MV
CP
Device
Plan
Continue current program
Continue current program except for the modifications outlined below
Coronary artery disease was discussed in detail
The importance of dual antiplatelet therapy in stent patients was discussed
12 months of DAPT is indicated post DES
Indefinite use of aspirin is recommended in patients with CAD
Schedule coronary angiography
Schedule coronary angiography and possible PCI
Refer to interventional cardiology
Refer to cardiac surgery
Lifestyle modifications discussed
adhering to a heart healthy diet
avoidance of tobacco products
maintenance of a healthy weight
medication compliance
regular exercise
regular monitoring of cholesterol and blood pressure
Change medications as follows:
Insert SmartText

Schedule stress echo

today	ASAP	in a few weeks	in 6 months	in 1 year
in 2 years	at the next visit	before the next visit		

Schedule nuclear stress test

today	ASAP	in a few weeks	in 6 months	in 1 year
in 2 years	at the next visit	before the next visit		

Schedule dobutamine stress echo

today	ASAP	in a few weeks	in 6 months	in 1 year
in 2 years	at the next visit	before the next visit		

Schedule ETT

today	ASAP	in a few weeks	in 6 months	in 1 year
in 2 years	at the next visit	before the next visit		

Next office visit

one week	two weeks	three weeks	one month	three months	six months	one year

Additional comments and plans

Insert SmartText

Subjective - Objective

Insert SmartText

He remains stable since his September stent procedure without angina. He is exercising regularly.

Copy Note | Copy Assessment & Plan

Assessment & Plan | ROS

CAD | HTN | Afib/flutter | HF | Lipids | AoV | MV | CP | Device

Assessment

Delete all data

Classification of atrial fibrillation / flutter

- atrial fibrillation - initial episode
- permanent atrial fibrillation
- persistent atrial flutter
- **paroxysmal atrial fibrillation**
- atrial flutter - initial episode
- permanent atrial flutter
- persistent atrial fibrillation
- paroxysmal atrial flutter

Type

- **non-valvular**
- valvular

Transient / reversible causes

- cardiac surgery in the past three months
- pregnancy
- hyperthyroidism
- pneumonia
- pericarditis

Other causes of atrial fibrillation or flutter

Insert SmartText

CHADS2 Calculator | CHADS2 VASc Calculator | HAS-BLED Calculator

CHADS2 Calculator

Close Calculator

Heart failure or EF < 35%	Yes
Hypertension	**Yes**
Age 75 or greater	Yes
Diabetes mellitus	**Yes**
Stroke, TIA or systemic emboli	Yes

CHADS2 Score: 2 | Calculate Score | Clear Values

Yearly stroke risk with CHADS2 score of 2 is 1.27% on warfarin and 2.5% not on warfarin

Anti-thrombotic therapy

Warfarin: Yes | **No**

New Note

Assessment & Plan | ROS | Bookmark

Arial | 11 | Insert SmartText

Atrial Fibrillation and Atrial Flutter

Assessment

- The patient has paroxysmal atrial fibrillation
- This is non-valvular in etiology
- The patient's CHADS2 score is 2
- The yearly stroke risk with a CHADS2 score of 2 is 1.27% on warfarin and 2.5% not on warfarin
- Patient is not on warfarin for medical reason (see comments below)
- Patient is already on dual antiplatelet therapy with recent DES and would be at excessive risk for bleeding on triple therapy. Reassess when off plavix.
- The patient's current rhythm is normal sinus rhythm

Plan

- Attempt to maintain sinus rhythm
- Atrial fibrillation discussed with patient, goals of anticoagulation therapy discussed with the patient, continue current program and notify us for increased frequency or duration of afib episodes
- Aspirin + clopidogrel will be continued for anticoagulation, bleeding issues discussed
- Beta blocker will be continued for rhythm control
- Next planned office visit is in six months

Subjective - Objective

- The average number of days between episodes of atrial fibrillation is 90 days
- The average duration of atrial fibrillation episodes is < 48 hours

Hyperlipidemia

Assessment

- Statin therapy is indicated in this patient. The category that best applies to this patient is: adults with clinical atherosclerotic cardiovascular disease
- The patient is tolerating high intensity statin therapy

Plan

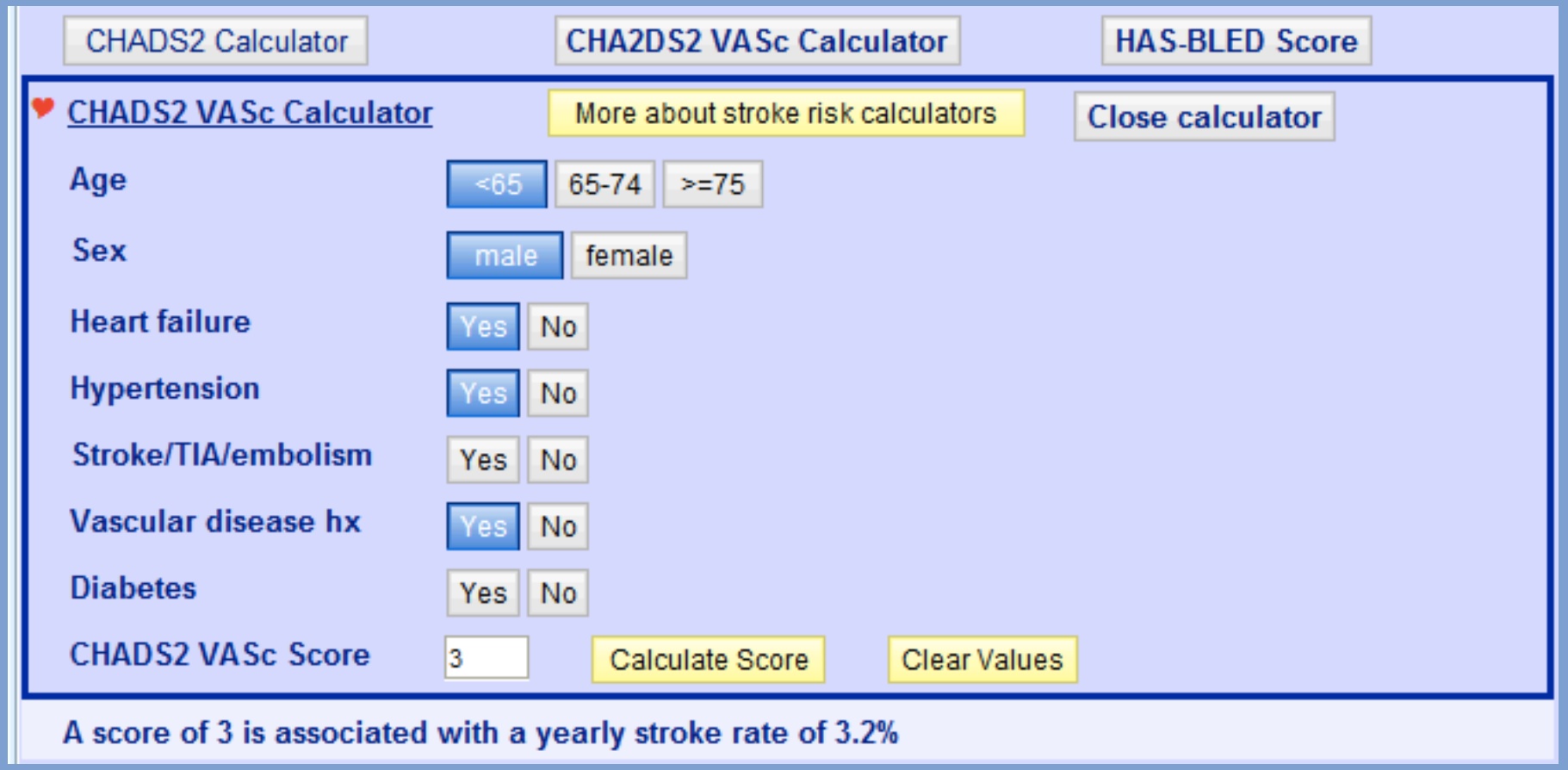
- Continue current therapy
- Goals of therapy were discussed with the patient today
- Lifestyle management was discussed with the patient today including adhering to a healthy diet, regular exercise, avoidance of tobacco products and maintenance of a healthy weight
- Obtain a fasting lipid panel in 6 months
- Discussion today included medication compliance, weight management, low cholesterol diet, daily physical activity and lipid lowering medications

Follow Up Visit - Interval History

Joe Cardiology is a 45 y.o. male being seen in follow up. He continues to do well after his stent procedure without angina. He is tolerating his medications well and is compliant. See comments above.

Medications

Current Outpatient Prescriptions


CHADS2 Calculator
CHA2DS2 VASc Calculator
HAS-BLED Score
CHADS2 VASc Calculator
More about stroke risk calculators
Close calculator
Age
<65
65-74
>=75
Sex
male
female
Heart failure
Yes
No
Hypertension
Yes
No
Stroke/TIA/embolism
Yes
No
Vascular disease hx
Yes
No
Diabetes
Yes
No
CHADS2 VASc Score
3
Calculate Score
Clear Values
A score of 3 is associated with a yearly stroke rate of 3.2%

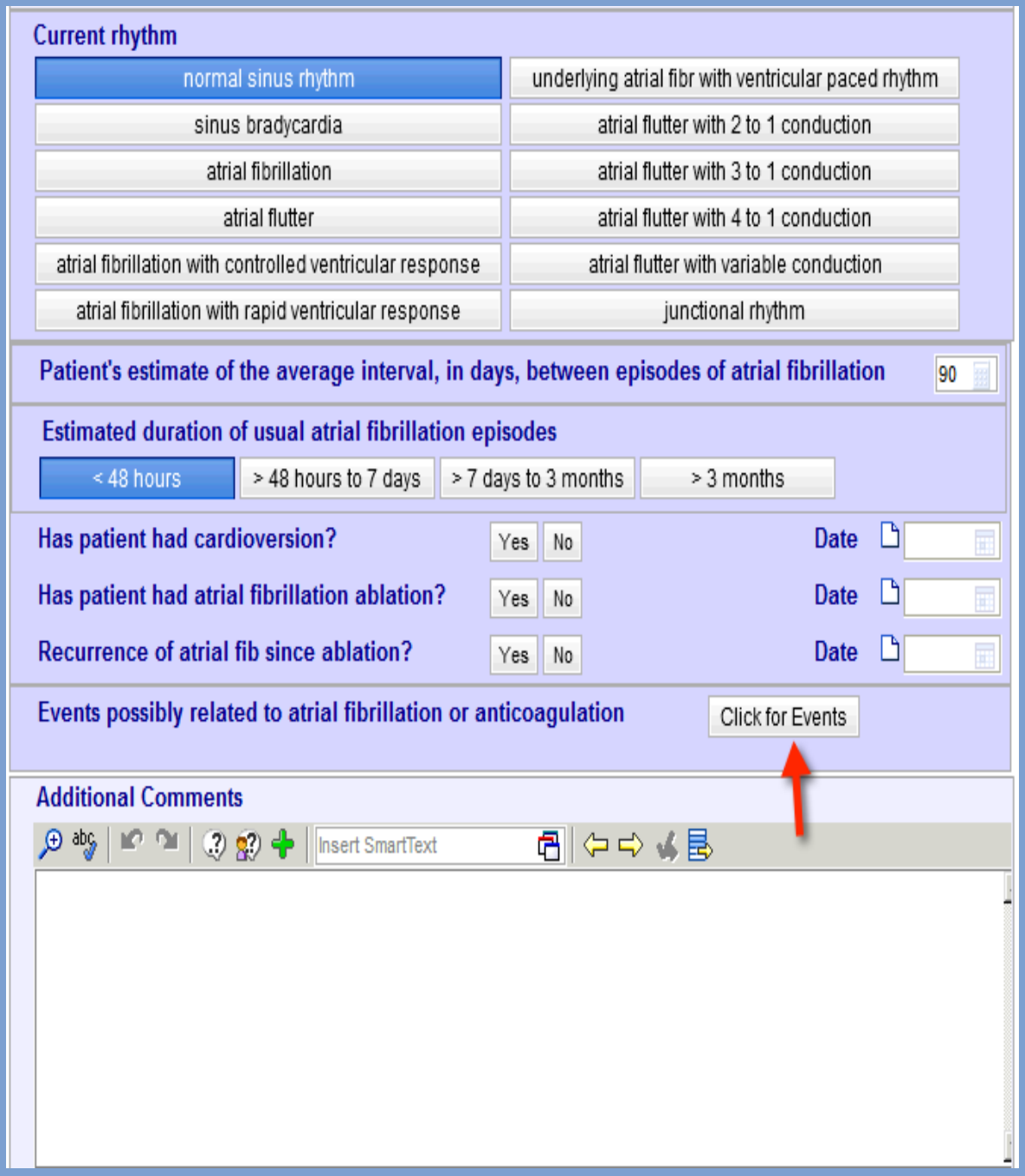
Anti-thrombotic therapy

Warfarin	Yes / No	
		patient is not on warfarin for medical reason
		patient is not on warfarin for patient reason
(See comment below)		patient is not on warfarin for system reason
Dabigatran	Yes / No	
Rivaroxaban	Yes / No	
Apixaban	Yes / No	
Aspirin	Yes / No	

Issues concerning anticoagulation

Insert SmartText

Patient is already on dual antiplatelet therapy with recent DES and would be at excessive risk for bleeding on triple therapy. Reassess when off plavix.


Current rhythm
normal sinus rhythm
underlying atrial fibr with ventricular paced rhythm
sinus bradycardia
atrial flutter with 2 to 1 conduction
atrial fibrillation
atrial flutter with 3 to 1 conduction
atrial flutter
atrial flutter with 4 to 1 conduction
atrial fibrillation with controlled ventricular response
atrial flutter with variable conduction
atrial fibrillation with rapid ventricular response
junctional rhythm
Patient's estimate of the average interval, in days, between episodes of atrial fibrillation
90
Estimated duration of usual atrial fibrillation episodes
< 48 hours
> 48 hours to 7 days
> 7 days to 3 months
> 3 months
Has patient had cardioversion?
Yes
No
Date
Has patient had atrial fibrillation ablation?
Yes
No
Date
Recurrence of atrial fib since ablation?
Yes
No
Date
Events possibly related to atrial fibrillation or anticoagulation
Click for Events
Additional Comments
Insert SmartText

Events possibly related to atrial fibrillation or anticoagulation Click for Events

systemic embolism	Yes	No	Date	
major hemorrhage, non-intracranial, location unknown	Yes	No	Date	
intracranial hemorrhage	Yes	No	Date	5/16/12
minor hemorrhage	Yes	No	Date	
major hemorrhage, non-intracranial, intra-articular	Yes	No	Date	
major hemorrhage, non-intracranial, intra-ocular	Yes	No	Date	
major hemorrhage, non-intracranial, intra-spinal	Yes	No	Date	
major hemorrhage, non-intracranial, pericardial	Yes	No	Date	
major hemorrhage, retroperitoneal / intra-abdominal	Yes	No	Date	
transient ischemic attack	Yes	No	Date	
ischemic stroke	Yes	No	Date	
hemorrhagic stroke	Yes	No	Date	5/16/12

Intracranial hemorrhage as defined as bleeding into or around the brain potentially caused by one of the following: Hemorrhagic conversion of a primary ischemic stroke, subarachnoid hemorrhage, intracerebral hemorrhage. If the patient also has loss of brain function, also indicate that the patient has had a hemorrhagic stroke.

Hemorrhagic stroke is defined as bleeding into or around the brain that results in transient or permanent neurologic deficit.

Assessment & Plan | ROS

CAD | HTN | Afib/flutter | HF | Lipids | AoV | MV | CP | Device

Rhythm Management Strategy

- attempt to maintain sinus rhythm
- continue in atrial fibrillation with rate control
- refer for possible atrial fibrillation ablation
- refer for possible atrial fllutter ablation
- schedule cardioversion
- schedule cardioversion with TEE
- schedule atrial fibrillation ablation
- schedule atrial flutter ablation

Instructions

- atrial fibrillation discussed with patient
- notify us if any bleeding issues
- continue current program
- goals of anticoagulation therapy discussed with the patient
- the importance of careful monitoring of warfarin was stressed
- notify us for increased frequency or duration of afib episodes

Continue the following anticoagulants

aspirin | warfarin | dabigatran | rivaroxaban | apixaban | aspirin + clopidogrel

Start on the following anticoagulants

aspirin | warfarin | dabigatran | rivaroxaban | apixaban | aspirin + clopidogrel

Continue the following antiarrhythmics

amiodarone | beta blocker | diltiazem | dofetilide | dronadarone | flecainide | propafenone | sotalol | verapamil

Start the following antiarrhythmics

amiodarone | beta blocker | diltiazem | dofetilide | dronadarone | flecainide | propafenone | sotalol | verapamil

Current rate control medications include

beta blocker | diltiazem | verapamil | digoxin

Start on the following rate control medications

beta blocker | diltiazem | verapamil | digoxin

Studies ordered this encounter include

- echocardiogram
- stress echo
- 24 hr holter
- 48 hr holter
- cardiac event monitor
- ECAT recorder
- BMP
- CMP
- thyroid function study
- TSH
- liver function study
- chest XR PA and lateral
- pulmonary function studies with diffusing capacity

Next office visit

one week | two weeks | three weeks | one month | three months | six months | one year

Assessment & Plan | ROS

CAD | HTN | Afib/flutter | HF | Lipids | AoV | MV | CP | Device

Assessment

Up to Date

Delete all data

10 year risk - men | 10 year risk - women

Four Statin Benefit Groups - 2013 ACC/AHA Blood Cholesterol Guidelines

- adults with clinical atherosclerotic cardiovascular disease
- low-density lipoprotein cholesterol (LDL-C) >190 mg/dl
- individuals 40-75 yo with diabetes, and LDL-C 70-189 mg/dl without clinical ASCVD
- no ASCVD or diabetes, 40-75 yo, LDL-C 70-189 mg/dl, 10-year ASCVD risk of 7.5% or higher

Recommended therapy for patients with clinical ASCVD

- high intensity statin therapy
- moderate intensity statin therapy if not a candidate for high intensity statin therapy
- moderate intensity statin therapy if age >75

The patient's estimated 10 year risk for a first ASCVD event is

LDL goal for patients being managed with goal based therapy

LDL goal is 70 mg/dl or less | LDL goal is 100 mg/dl or less | LDL goal is 130 mg/dl or less

HDL goal for patients being managed with goal based therapy

HDL goal is >40 mg/dl | HDL goal is >50 mg/dl

Current lipid status

is at goal on current medications	is exercising regularly
is close to goal on current medications	is on maximal statin therapy
is not at goal presently	does not tolerate statins due to side effects
is being followed by primary care	does not have recent lipid values for review
is observing a low fat diet	is tolerating high intensity statin therapy
is not observing a low fat diet	is not tolerating high intensity statin therapy
could benefit from weight reduction	is tolerating moderate intensity statin therapy
could benefit from regular exercise	is not tolerating moderate intensity statin therapy

Comments

Insert SmartText

Assessment & Plan | ROS | Bookmark

Arial | 11 | B U A | Insert SmartText

Hyperlipidemia

Assessment

- Statin therapy is indicated in this patient. The category that best applies to this patient is: adults with clinical atherosclerotic cardiovascular disease
- In this patient with ASCVD the treatment recommendation is high intensity statin therapy
- The patient is tolerating high intensity statin therapy

Plan

- Continue current therapy
- Goals of therapy were discussed with the patient today
- Lifestyle management was discussed with the patient today including adhering to a healthy diet, regular exercise, avoidance of tobacco products and maintenance of a healthy weight
- Obtain a fasting lipid panel in 6 months
- Discussion today included medication compliance, weight management, low cholesterol diet, daily physical activity and lipid lowering medications

Follow Up Visit - Interval History

Joe Cardiology is a 45 y.o. male being seen in follow up. He continues to do well after his stent procedure without angina. He is tolerating his medications well and is compliant. See comments above.

Medications

Current Outpatient Prescriptions

Medication	Sig
• clopidogrel (PLAVIX) 75 mg Oral Tab	Take 1 Tab by mouth every day.
• aspirin 81 mg Oral Chew tab	Take 1 Tab by mouth every day.
• Atorvastatin (LIPITOR) 80 mg Oral Tab	Take 1 Tab by mouth every day.
• metoprolol XL (TOPROL XL) 50 mg Oral SR 24Hr Tab	Take 1 Tab by mouth every day.
• lisinopril (AKA PRINIVIL) 10 mg Oral Tab	Take 1 Tab by mouth every day.

Review of Systems

Review of Systems
Constitutional: Negative.
HENT: Negative.
Eyes: Negative.
Respiratory: Negative for cough and shortness of breath.
Cardiovascular: Positive for palpitations and leg swelling. Negative for chest pain, orthopnea, claudication and PND.
Gastrointestinal: Negative.
Genitourinary: Negative.
Musculoskeletal: Positive for back pain.
Skin: Negative.

CAD | HTN | Afib/flutter | HF | Lipids | AoV | MV | CP | Device

Plan

- [x] **Continue current therapy**
- [x] **Goals of therapy discussed with the patient today**
- [x] **Lifestyle modification discussed**
- [ ] Weight management care plan discussed
- [ ] Increase statin dose (see medication list)
- [ ] Decrease statin dose (see medication list)
- [ ] Stop statin for one month to see if myalgias resolve
- [ ] Change statin being prescribed (see medication list)
- [ ] Add sustained release niacin (see medication list)
- [ ] Add a fibrate (see medication list)
- [ ] Add ezetimibe (see medication list)
- [ ] Add coenzyme Q10 to treat or prevent myalgias
- [ ] Follow up with primary care for lipid management

Obtain a fasting lipid panel

today	in three months	through the primary care provider
next week	**in 6 months**	recent results will be obtained from primary care
in one month	at the time of the next appointment	patient will forward recent results
in two months		

Other labs

advanced lipid panel | TSH | CRP | CK | liver panel

Patient instructions

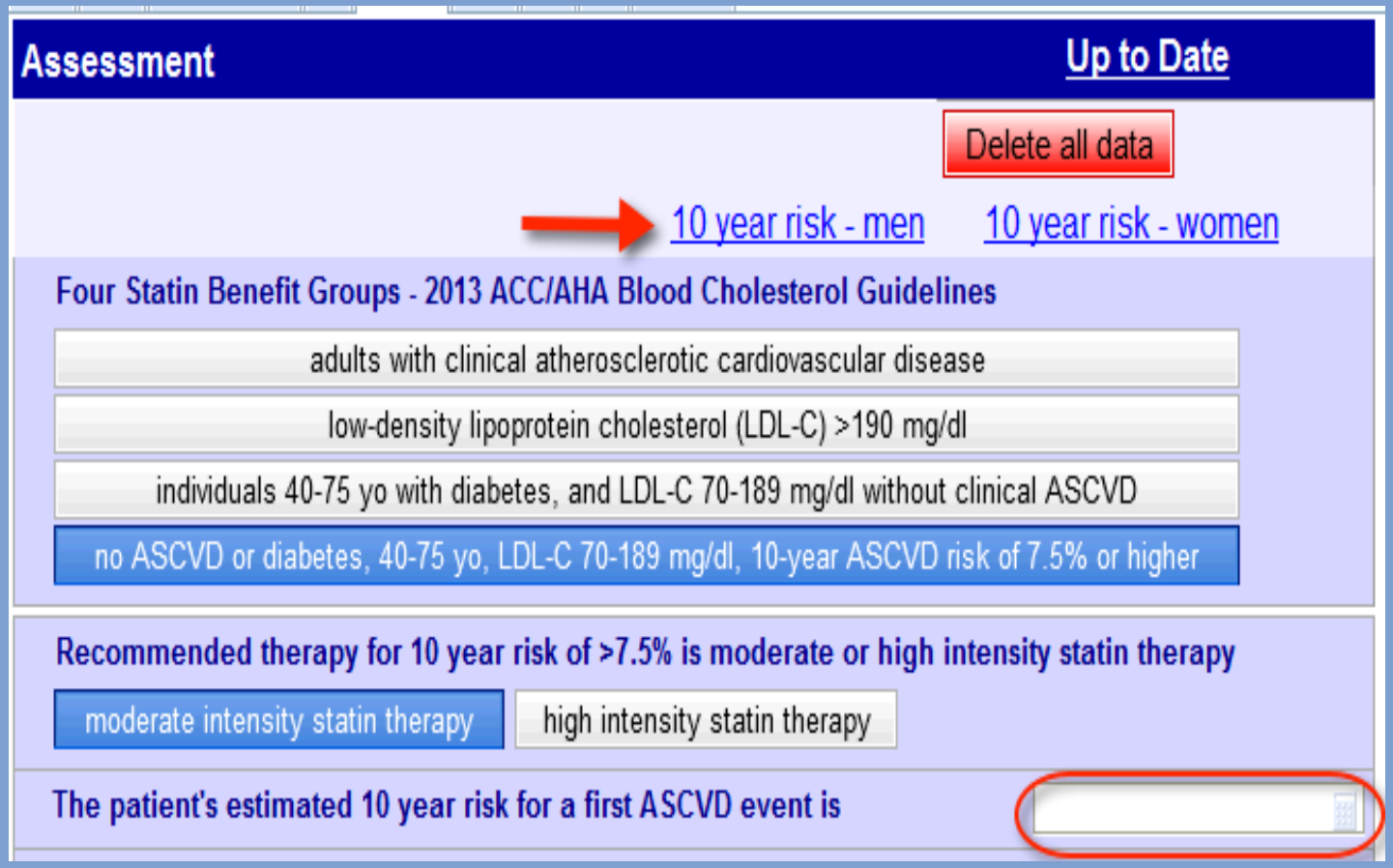
medication compliance	**low cholesterol diet**	**daily physical activity**
weight management	increased plant sterols and stanols	**lipid lowering medications**
reduced saturated fat diet	increased dietary viscous fiber	goals of therapy

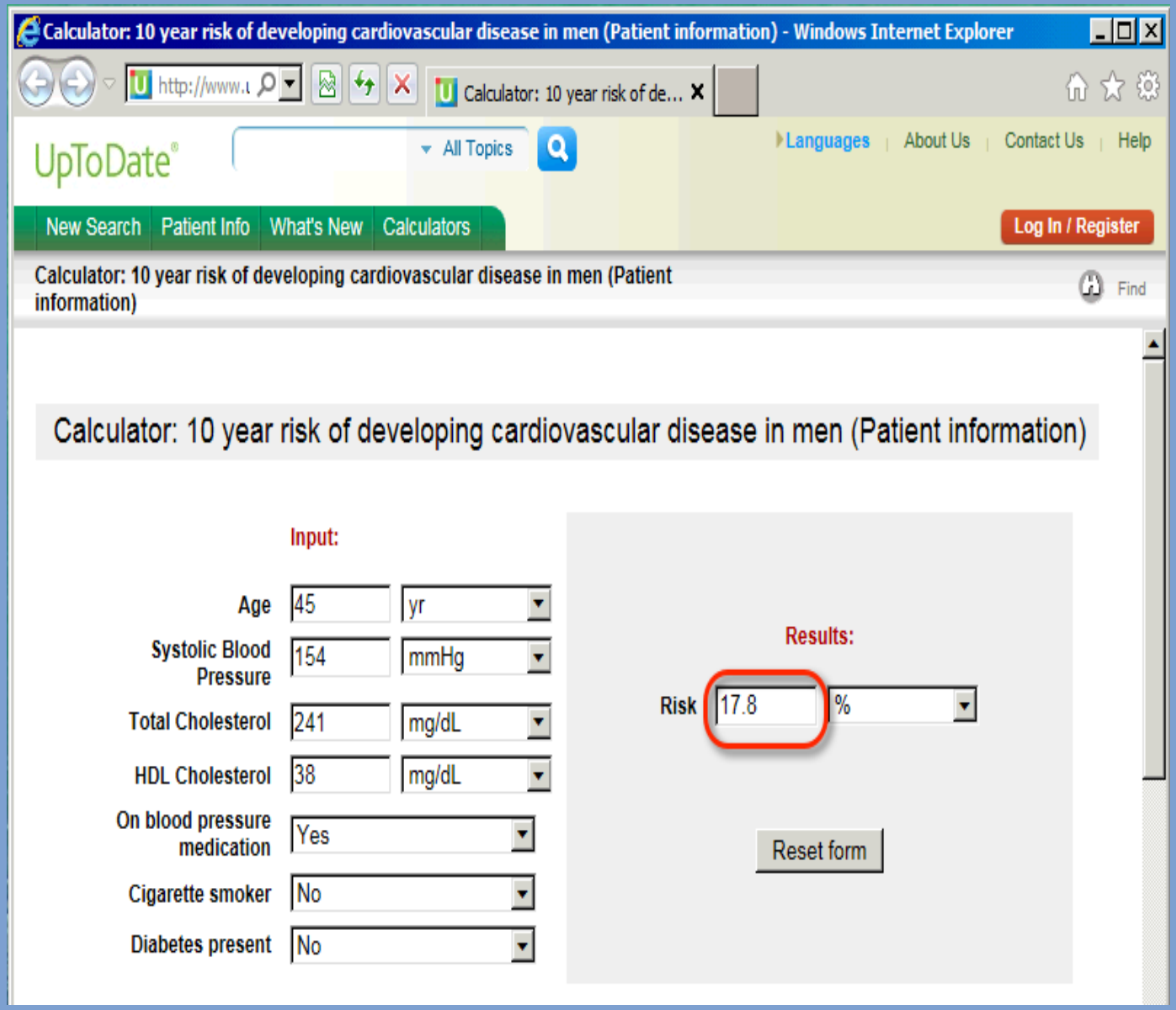
Next office visit

one week | two weeks | three weeks | one month | three months | six months | one year

Changes in medications / comments

Insert SmartText


Assessment
Up to Date
Delete all data
10 year risk - men
10 year risk - women
Four Statin Benefit Groups - 2013 ACC/AHA Blood Cholesterol Guidelines
adults with clinical atherosclerotic cardiovascular disease
low-density lipoprotein cholesterol (LDL-C) >190 mg/dl
individuals 40-75 yo with diabetes, and LDL-C 70-189 mg/dl without clinical ASCVD
no ASCVD or diabetes, 40-75 yo, LDL-C 70-189 mg/dl, 10-year ASCVD risk of 7.5% or higher
Recommended therapy for 10 year risk of >7.5% is moderate or high intensity statin therapy
moderate intensity statin therapy
high intensity statin therapy
The patient's estimated 10 year risk for a first ASCVD event is


Calculator: 10 year risk of developing cardiovascular disease in men (Patient information) - Windows Internet Explorer
Calculator: 10 year risk of de...
UpToDate
All Topics
Languages
About Us
Contact Us
Help
New Search
Patient Info
What's New
Calculators
Log In / Register
Calculator: 10 year risk of developing cardiovascular disease in men (Patient information)
Find
Calculator: 10 year risk of developing cardiovascular disease in men (Patient information)
Input:
Age 45 yr
Systolic Blood Pressure 154 mmHg
Total Cholesterol 241 mg/dL
HDL Cholesterol 38 mg/dL
On blood pressure medication Yes
Cigarette smoker No
Diabetes present No
Results:
Risk 17.8 %
Reset form

Swedish Heart & Vascular Clinic

Outpatient Evaluation on 10/30/2014

Patient: **Joe Cardiology** DOB: **12/17/1968**

PCP: Roper, Embra A

Reason for Visit

Chief Complaint

- Recheck of the following problems:

  CAD, hyperlipidemia, atrial fibrillation and device check

Coronary Artery Disease

Assessment

• CCS angina class: III - angina with activities of daily living

• There is dyspnea on exertion which may be an anginal equivalent

• The patient has stable angina

• Patient has experienced a recurrence of chest pain. He was in the emergency department last Saturday with negative enzymes and electrocardiograms and is referred back for additional evaluation. He has been stable in the interim.

Plan

• CAD was discussed in detail
• Lifestyle modifications discussed include adhering to a heart healthy diet, avoidance of tobacco products, maintenance of a healthy weight and regular exercise

• Schedule coronary angiography and possible PCI

Subjective / Objective

• PCI with DES (LAD 3.0x24 promus) on 7/24/2013
• Current antiplatelet therapy includes aspirin 81 mg and clopidogrel 75 mg

• The patient has had recent symptoms of chest pain.

Atrial Fibrillation and Atrial Flutter

Assessment

- The patient has paroxysmal atrial fibrillation
- This is non-valvular in etiology
- The patient's CHA2DS2 VASc score is 3 (yearly stroke risk 3.2% off warfarin)
- Patient is not on warfarin for medical reasons
- This patient has been on dual antiplatelet therapy post stent procedure. The addition of warfarin would unnecessarily increase his bleeding risk. Reassess after DAPT complete.
- The patient's current rhythm is sinus rhythm

Plan

- Rhythm management strategy: attempt to maintain sinus rhythm
- Patient education and instructions: atrial fibrillation discussed with patient and notify us of bleeding issues

Hyperlipidemia

Assessment

- Statin therapy is indicated: adult with clinical atherosclerotic cardiovascular disease
- In this patient with ASCVD the treatment recommendation is high intensity statin therapy
- The patient is being followed by primary care and is tolerating high intensity statin therapy

Plan

- Discussion today included weight management and low cholesterol diet

Aortic Valve Disease

Assessment

- The patient has severe aortic stenosis

Plan

- Schedule cardiac catheterization
- Arrange for surgical consultation

Subjective / Objective

- Symptoms include fatigue, dyspnea on exertion and chest pain
- Echo results from 10/30/2014

Aortic jet velocity: 4.6 m/sec

Peak gradient: 72 mmHg

Mean gradient: 45 mmHg

Aortic valve area: 0.7 cm2

Device Management

Assessment

- Indication for pacemaker implantation - sinus node dysfunction
- The current underlying rhythm is normal sinus rhythm
- Current pacing mode is DDDR
- The patient is not pacemaker dependent
- Normal pacemaker function, normal lead status, adequate remaining battery life and no significant arrhythmias

Plan

- Next pacemaker check is in 6 months

Device Interrogation

- Date of interrogation is 10/30/2014
- RV lead

Ventricular threshold 1 volts

Ventricular pulse width 0.4 ms

- Battery

Estimated battery longevity 6 years

- Device and lead detail

Generator: Boston Scientific, model S603

Follow Up Visit - Interval History

Joe Cardiology is a 46 y.o. male being seen in follow up. See comments above. HIs aortic stenosis is now severe and we will arrange for cardiac catheterization and surgical consultation

Medications

Current Outpatient Prescriptions

Medication	Sig
• metFORMIN (GLUCOPHAGE) 500 mg Oral Tab	Take 2 Tabs by mouth twice a day
• clopidogrel (PLAVIX) 75 mg Oral Tab	Take 1 Tab by mouth every day.
• aspirin 81 mg Oral Chew tab	Take 1 Tab by mouth every day.
• Atorvastatin (LIPITOR) 80 mg Oral Tab	Take 1 Tab by mouth every day.
• metoprolol XL (TOPROL XL) 50 mg Oral SR 24Hr Tab	Take 1 Tab by mouth every day.
• lisinopril (AKA PRINIVIL) 10 mg Oral Tab	Take 1 Tab by mouth every day.

Review of Systems

Review of Systems

Constitutional: Positive for fatigue.

HENT: Negative.

Eyes: Negative.

Respiratory: Positive for shortness of breath. Negative for cough.

Cardiovascular: Positive for chest pain and dyspnea on exertion. Negative for palpitations, orthopnea, claudication, leg swelling and PND.

Gastrointestinal: Negative.

Genitourinary: Negative.

Musculoskeletal: Negative.

Skin: Negative.

Neurological: Negative.

Endo/Heme/Allergies: Negative.

Psychiatric/Behavioral: Negative.

Problem List

Patient Active Problem List

Diagnosis	Date Noted
• Aortic stenosis	12/28/2014
• Diabetes mellitus (HCC)	03/23/2014
• CAD (coronary artery disease)	01/05/2014
• Essential hypertension	01/05/2014
• Hyperlipidemia	01/05/2014
• Paroxysmal atrial fibrillation (HCC)	01/05/2014

Physical Examination

Vitals: 130/60 RA, 178 lbs

General: Pleasant male in no acute distress

HEENT: pupils equal, no xanthelasmas, normal thyroid, referred murmur to both carotids, delayed carotid upstrokes.

Lungs: clear to percussion and auscultation; no wheezes, rales or rhonchi

Cardiovascular: grade 3/6 sem at the base radiating to the neck, no click, rub or gallop, regular rate and rhythm, no jugular venous distension

Abdomen: not examined

Extremities: distal pulses are intact, there is no edema

Musculoskeletal: No gross deformities.

Neuro: No gross focal abnormalities.

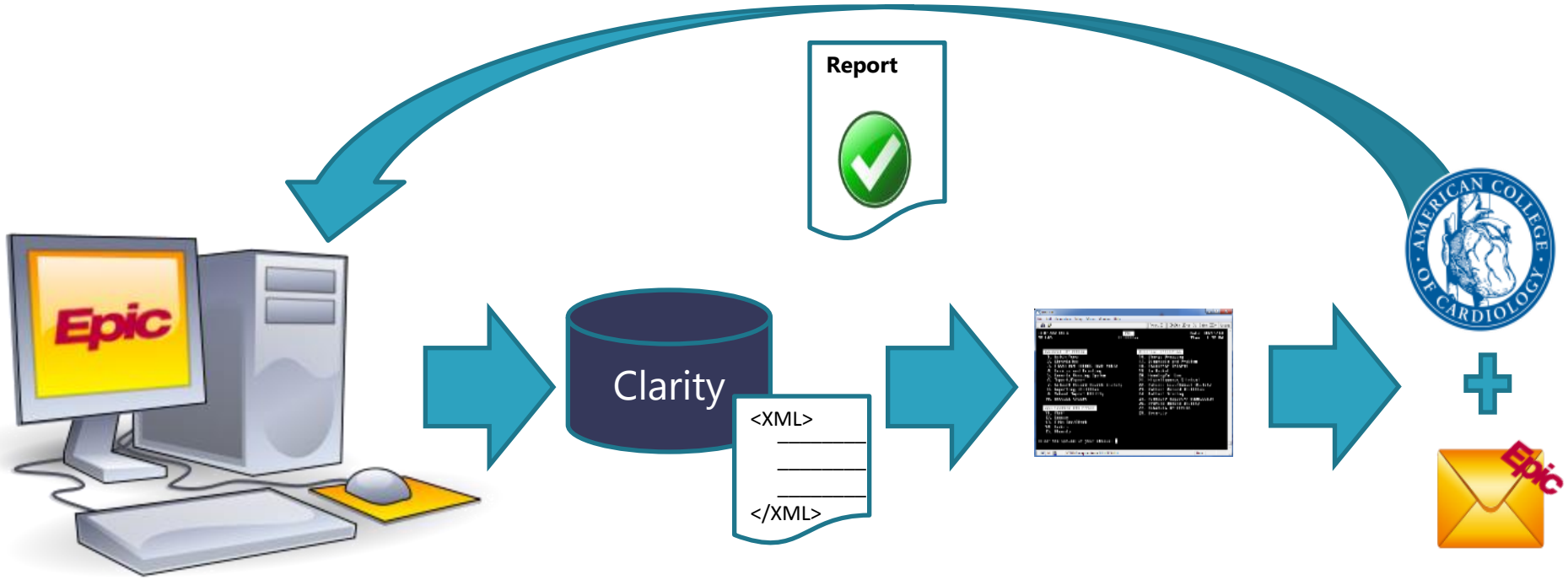
Psych: Affect is normal.

Roger Jeffrey Westcott, MD

08:14; 12/28/2014

cc: Roper, Embra A

Data Submission (2012 & 2014)



NoteWriter notes and other clinical workflows

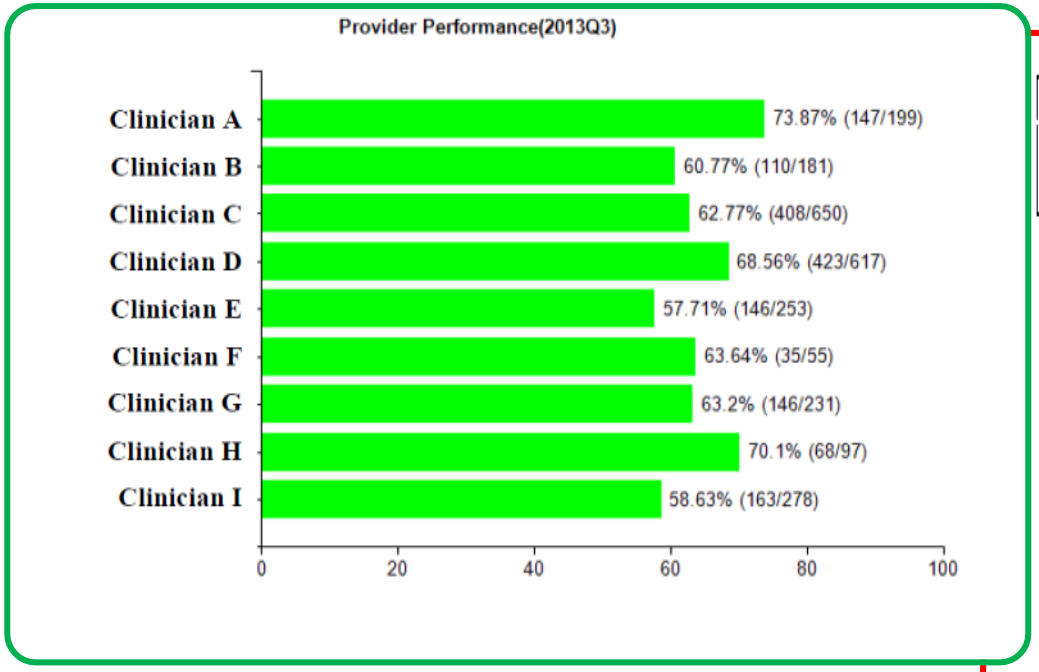
Crystal Report exported to XML

Administrative utility

Data to ACC & confirmation

Performance Reports to Participants

- Quarterly and monthly performance reports
- Performance rates provided at practice, office location, and individual provider levels
- Online dashboard



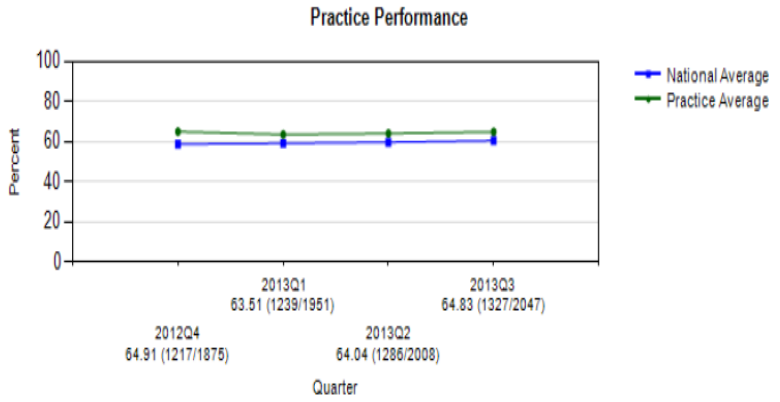
Performance Reports to Participants

2013Q3

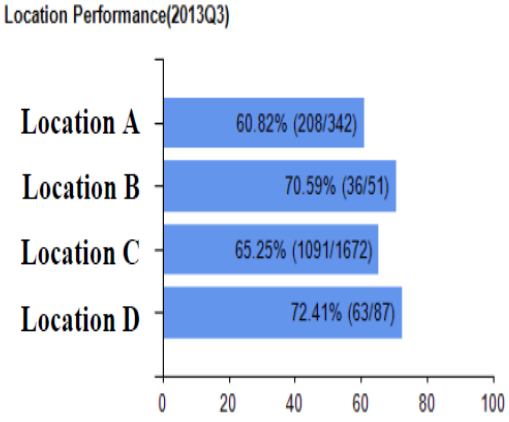
PINN-161 Chronic Anticoagulation Therapy

Prescription of warfarin or another oral anticoagulant drug that is FDA approved for the prevention of thromboembolism for all patients with nonvalvular AF or atrial flutter at high risk for thromboembolism*, according to CHADS2 risk stratification

View Measure Scorecard

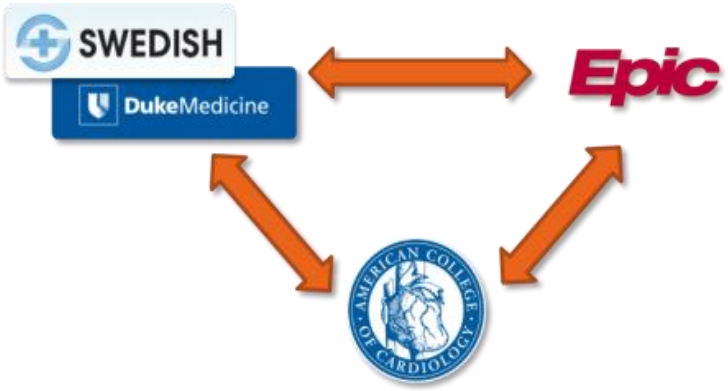


Quarter	Practice Average	National Average
2012Q4	64.91 (1217/1875)	58.65 (136513/232745)
2013Q1	63.51 (1239/1951)	59.07 (142800/241729)
2013Q2	64.04 (1286/2008)	59.62 (146822/246277)
2013Q3	64.83 (1327/2047)	60.39 (147094/243574)



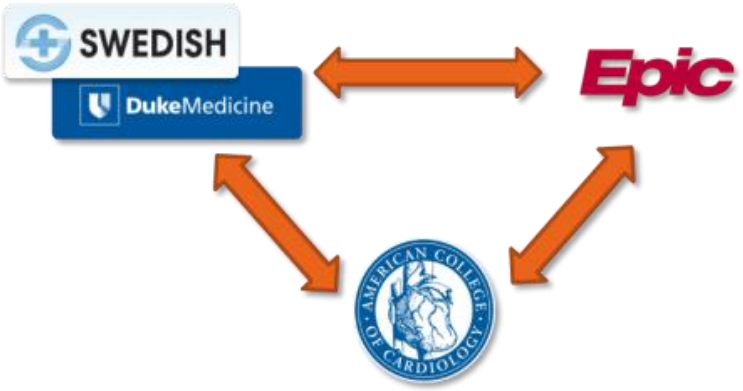
Forms in Epic 2012 – 2014 - 2015

Collaboration



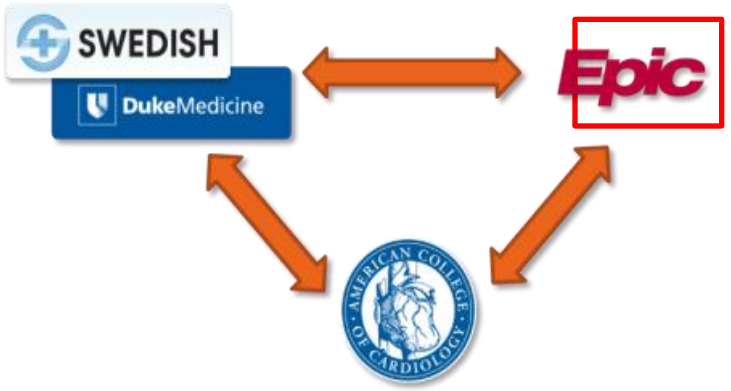
- Buy in: Society and professional members have agreed the project has national importance.
- Guidance: Voice of ACC helped filter out conflicting development direction suggestions.
- Commitment: ACC leadership works closely with Cupid R&D and acts as liaison for other members.

Collaboration



- Buy in: Individual organizations see benefit in the collaboration experience: you help shape the product.
- Guidance: End users volunteer their time and resources to provide input on an ad-hoc basis.
- Commitment: End users are ready to get their hands dirty with some development and testing if needed!

Collaboration



- Buy in: Project is recognized as strategically significant and appropriate resources are assigned at the right time in the release cycle.
- Guidance: Epic facilitates on-site meetings, webcasts, testing sessions, and remote system access (i.e. Mural environment).
- Commitment: Set project milestones and deliverables for each stage.

The Potential

- The use of APSO format in EHR's is transformative
- Tight integration of workflow (people!) with documentation is the way forward
- Multiple beneficial impacts: individual care, population health, lowered costs

Forms in the Future

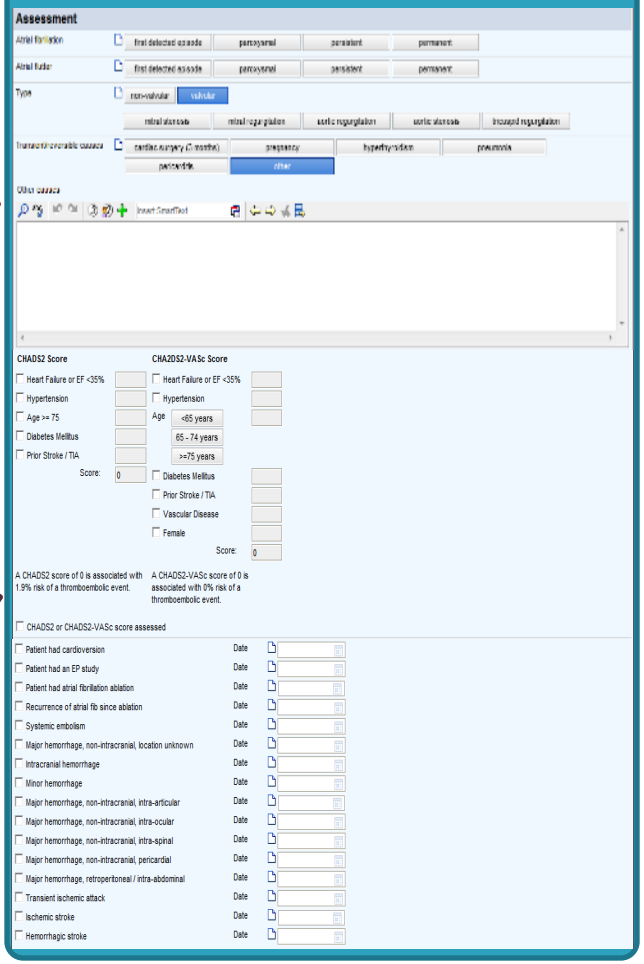
Problem List

Sync

Medications

Sync

Atrial Fibrillation



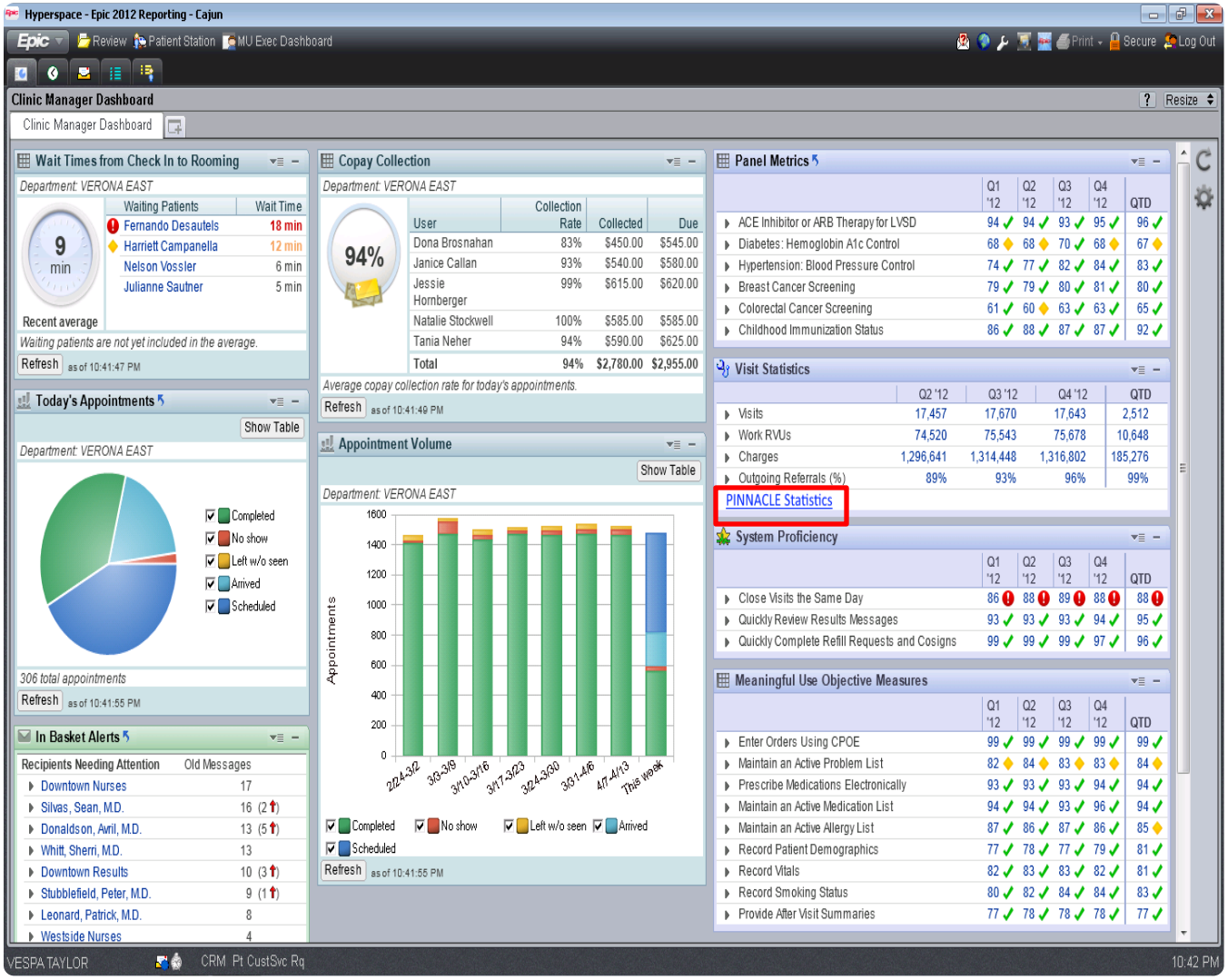
Sync

History

Sync

Patient Instructions

Pinnacle Dashboards within Epic



Epic

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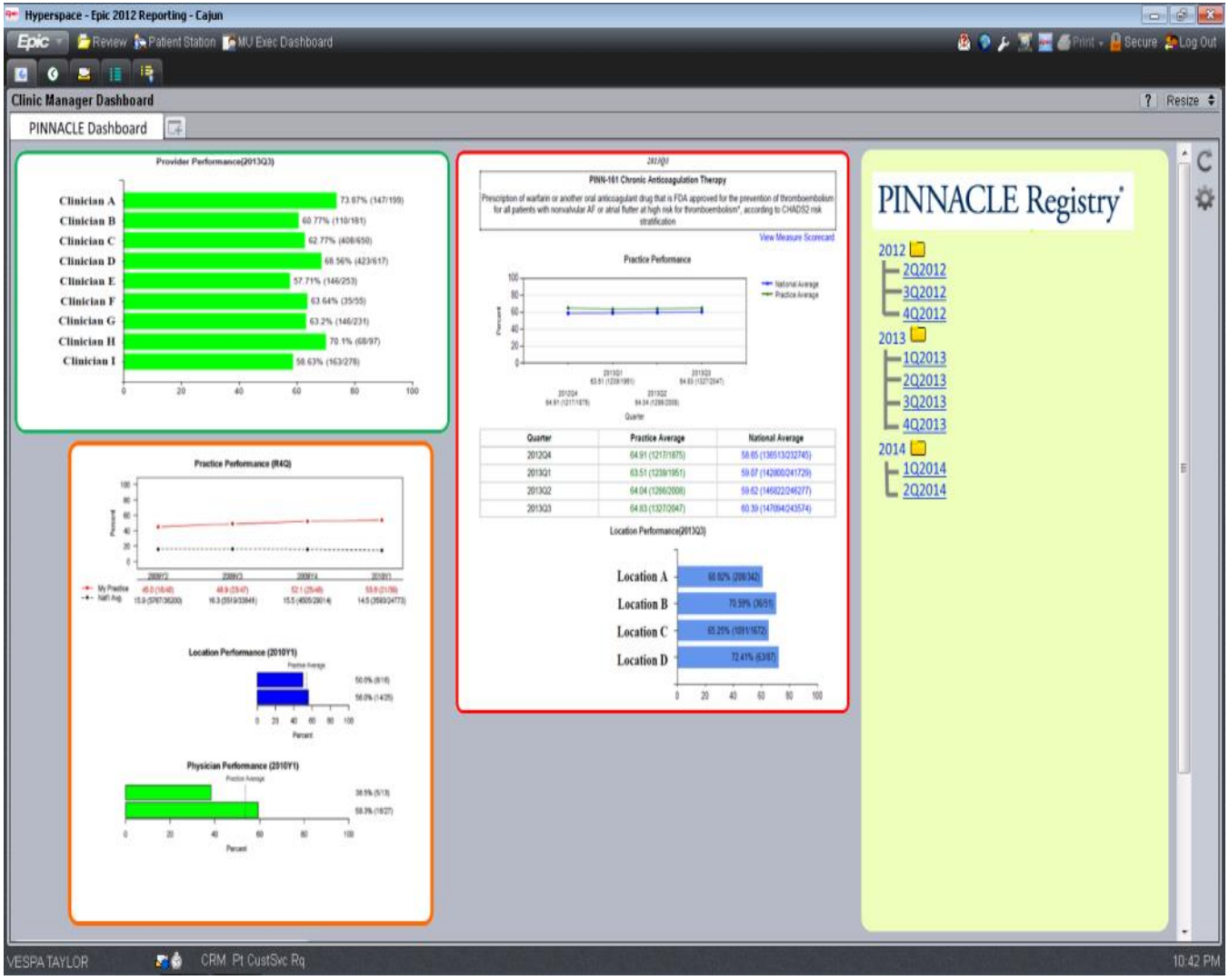
NEW FEATURE FUTURE

Pinnacle Dashboards within Epic



Epic

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NEW FEATURE FUTURE

Lessons learned

- This is a culture change that requires strong leadership
- Not all cardiology groups are ready for this
- Develop an implementation plan
- Teach MA's and RN's to operate at the top of their license
- Use of a shared note improves workgroup efficiency and competency.

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Common EMR/EHR Documentation Pitfalls

Nicole Knight, LPN, CPC, CCS-P

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Personal Disclosures

- None

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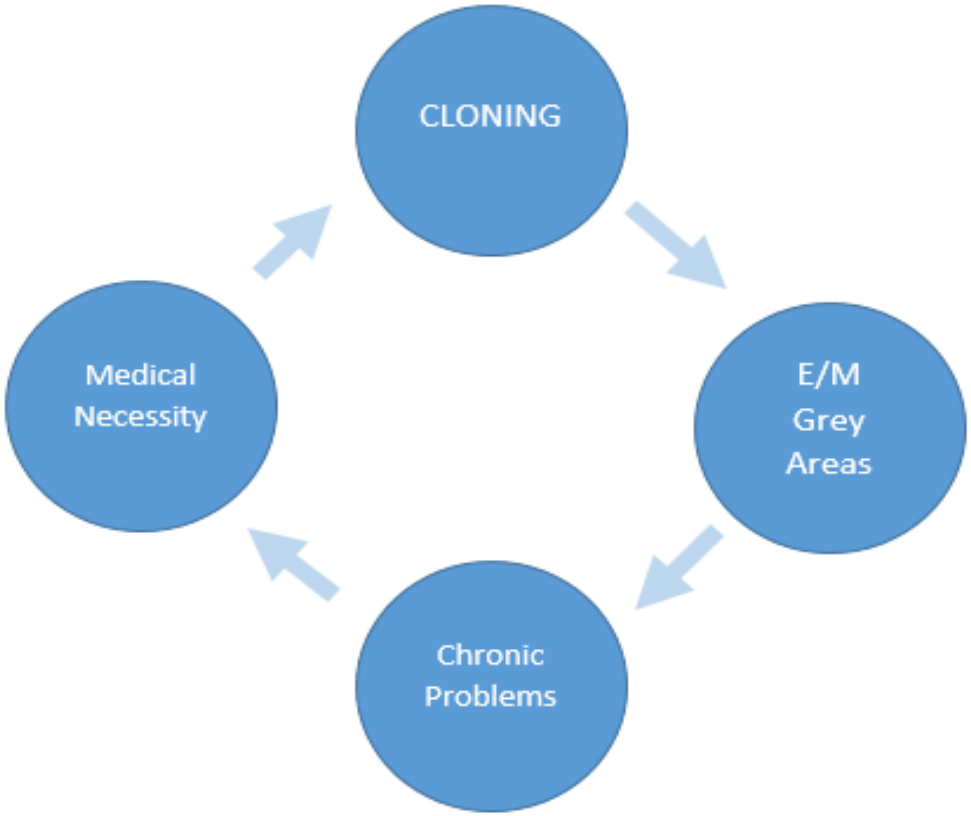
EHR Problem Areas



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CLONING

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What does Cloning Mean?

- Copying and pasting the patient information in an Electronic Medical Record (EMR) from one date of service to another for the same patient.
- Documentation is also considered “cloned” when the medical documentation is exactly the same for different patients as may be documented through the use of templates.
- Cloned notes can make it difficult to distinguish notes from one date of service to another and may result in falsification of the medical record since the cloned note may not pertain to the visit to which it was copied.

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Cloned notes can be used appropriately if…

- The documentation is applicable to the date of service;
- The chief complaint should carry through to the exam and history and should support the decisions made for medical necessity.
- Providers should always document the history of the present illness based on the patient's conversation at that visit.
- Providers can copy the review of systems categories that are relevant to that day's visit but should not copy the entire review of system documentation from a previous visit unless it is applicable.
- Providers can copy past medical, family and social history from a previous visit if it is reviewed with the patient and is relevant to that day's visit.

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OIG on Cloning

- When doctors, nurses, or other clinicians copy-paste information but fail to update it or ensure accuracy, inaccurate information may enter the patient's medical record and inappropriate charges may be billed to patients and third-party health care payers. Furthermore, inappropriate copy-pasting could facilitate attempts to inflate claims and duplicate or create fraudulent claims.
- Over documentation is the practice of inserting false or irrelevant documentation to create the appearance of support for billing higher level services. Some EHR technologies auto-populate fields when using templates built into the system. Other systems generate extensive documentation on the basis of a single click of a checkbox, which if not appropriately edited by the provider may be inaccurate. Such features can produce information suggesting the practitioner performed more comprehensive services than were actually rendered.

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Develop Policy and Procedures

- To address inappropriate use of these tools to minimize non-compliance. Common documentation risks that can result from cloning features include:
  - Vital signs that never change from visit to visit
  - Information “copied and pasted” from a different patient’s record
  - Documentation from another provider including their attestation statement
  - Identical verbiage used repeatedly for all patients seen by a provider for a specific timeframe with little or no modification regardless of the nature of the presenting problem or intensity of the service; at times, such verbiage includes contradictory indications (i.e., use of pronoun “he” instead of “she,” indication that patient has no pain when the documentation includes a record of pain)
- Providers must recognize that every patient is unique and must ensure that the health service provided is documented distinctly from all others.

- Example of cloning

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TEMPLATES

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Using Templates

- Template notes can
  - Save time ?
  - Allow physicians to accurately document and improve quality of care while quickly determining the proper E/M code for the work performed
  - If a template is not compliant or not user friendly to the physician, can be cumbersome and time consuming
- Templates have some definite advantages
  - Note-taking can be faster ?
  - Prepopulated template serves as a reminder to ask pertinent questions
  - Facilitate coding and prevent up coding and down coding ?
  - Standardize data collection
  - Help ensure adequate documentation
  - Reduce or avoid dictation costs
  - Can embody evidence-based guidelines and decision-support tools

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Disadvantages of Templates

- You many need a variety of different templates for different encounters
- They sometimes do not accommodate multiple complaints or enough detail.
- Increase the size of your medical record
- If the note is handwritten- Caution must be used to ensure legibility

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Other Potential Risks Areas

- Free Text
  - Advantages: Preserves the narrative component of the medical record. Each visit appears different because the clinician created it specifically for the individual patient.
  - Disadvantages: Typing and/or dictation must be done for each patient by a clinician who would rather be seeing patients than typing. This typing, dictating or filling out templates can be onerous to the provider.
- Tracking of user's changes, deletions or modification to a specific subsystem
- Lack of policies and procedures related to coding and documentation related to EHR and retention policies

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EMR/EHR CALCULATORS

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What about my EMR level of service calculator?

- Many EHR systems are set up by software companies and not auditors or coders, and can create problems with documentation requirements.
- EHRs can help coding accuracy, but providers need to have basic E&M knowledge in order to make informed decisions of EHRs that could lead to false elevations of coding levels

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EMR Code Calculators

- Example-95 examination guidelines:
- The difference between an expanded problem focused and detailed examination is the word “detail.”
- What is the interpretation of “detail?” No one, including Medicare can give us a definition of detail to distinguish the difference between EPF and detailed exam.
- How does your EHR system define detail to make that decision?

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Continued - Calculators

- Does the provider “free text”- This does not calculate
- Is all documentation flowing through to the printed page?
- Does EMR correctly calculate based on E/M category?
- Established patients only require 2 of 3 key elements – MDM overarching criteria
- Systems are set up to list all the patient’s chronic problems. Some are also set up to count all the chronic problems in MDM.
- Counting a chronic problem that is not relevant or addressed in that day's encounter could give a higher level of MDM.

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Tips for Using EMR Calculators

- Audit E/M code selection. Providers should be sure to compare the EMR's E/M code recommendations to verify that EMR generated codes do not routinely represent different (higher or lower) levels of service.
- Review your notes to ensure that they are personalized, clinically accurate, clinically relevant, clinically useful, and complete. Sign notes only after they are reviewed.
- Invest time in customizing EHR templates to make them specific to your practice and to reflect your most common clinical encounters. Providers should also be aware of automatic macros and consider how, when and where they occur.
- Beware of the possibilities for inaccurate Information when using the following EHR tools;
    - Point and click
    - Copy/paste
    - Default entries
    - Dropdown menus
- Review notes for incorrect or inconsistent information, such as: ◦Discrepancies between HPI, ROS, and/or A/P - Documentation and signatures

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MEDICAL DECISION MAKING (MDM

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CMS Guidance - Medical Necessity

"Medical necessity of a service is the overarching criterion for payment in addition to the individual requirements of a CPT® code. It would not be medically necessary or appropriate to bill a higher level of evaluation and management service when a lower level of service is warranted. The amount of documentation should not be the primary influence upon which a specific level of service is billed. Documentation should support the level of service reported. The service should be documented during, or as soon as possible after it is provided in order to maintain an accurate medical record."

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Medical Decision Making - MDM

- Involves
  1. The presenting problem
  2. Amount and/or complexity of data to be reviewed
  3. Risk

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Demonstrating Medical Necessity in E/M Services

- Document all diagnoses that are managed during the visit
- For each established diagnosis, specify if the patient's condition is stable, improved, worsening, etc.
- Make sure the rationale for ordering diagnostic tests is either documented or easily inferred
- Clearly describe management of the patient, (i.e., prescription drugs, over the counter medication, surgery, etc.)

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Tips for documentation MDM

- Document any decision to obtain old records or decision to obtain additional history from the family, caretaker, or other source to supplement that obtained from the patient
- Also document relevant findings from the review of old records, and/or the receipt of additional history from the family, caretaker, or other source to supplement that obtained from the patient.
- The results of discussion of laboratory, radiology, or other diagnostic tests with the physician who performed or interpreted the study are documented.
- The direct visualization and independent interpretation of an image, tracing, or specimen previously or subsequently interpreted by another physician are documented.

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Tips for documentation MDM

- Comorbidities/underlying diseases or other factors that increase the complexity of medical decision-making by increasing the risk of complications, morbidity, and/or mortality are documented.
- If a surgical or invasive diagnostic procedure is ordered, planned, or scheduled at the time of the E/M encounter, the type of procedure, egg, laparoscopy, are documented.
- If a surgical or invasive diagnostic procedure is performed at the time of the E/M encounter, the specific procedure is documented.
- The referral for or decision to perform a surgical or invasive diagnostic procedure on an urgent basis are documented or implied.

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SCRIBES

Why ask the question?

- The volume of work associated with documentation and order entry has increased with the introduction of electronic health records, quality monitoring initiatives, and increasingly complex billing regulations.
- Tasks that took a few seconds in the pre–electronic health record world can take several minutes in the electronic world.
- Visit notes have become lengthy documents, formatted on a billing template, complicating rather than facilitating the work of finding key information.

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Scribe's role

- Is to document in the medical record a physician's visit with the patient.
- In a hospital setting, a scribe makes rounds with the physician and documents the visit.
- Scribing is not a billable service and is not always straightforward.

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Protocols Necessary

- If your hospital or office uses scribes, establish a protocol that clearly outlines scribes to not render any opinions and to provide an accurate transcription of physicians' comments.
- Medicare pays for medically necessary and reasonable services, and expects the person receiving payment to deliver services and create the record.
- The scribe should only write what the physician dictates and does, acting independently there is no payment for this activity.

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Attestation Statements

- Scribe
  - "Entered by_____,acting as scribe for Dr. _____."
    - Signature, Date, Time
- Physician
  - "The documentation recorded by the scribe accurately reflects the service I personally performed and the decisions made by me."
    - Signature, Date, Time

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Joint Commission Guidelines

- 2011, they did not endorse nor prohibit the use of scribes but does give the following guidelines:
  - Verbal orders may neither be given to, nor by, scribes (different than pending)
  - Signing (including name/title) and dating of all entries into the medical record required by both the physician and the scribe.
  - Scribing must be clearly outlined. Orientation and training must be given specific to the organization and the role.
  - Competency assessment and performance evaluations should be performed
  - Scribes must meet all information management, HIPAA, HITECH, confidentiality, and patient right standards.

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What about Meaningful Use Requirements?

- As of January 2013, only credentialed medical assistants have been permitted to enter medication, radiology, and laboratory orders into the EHR to count toward meeting the Meaningful Use thresholds under the Medicare and Medicaid EHR Incentive programs.

- According to Meaningful Use 2 core measure 1, any licensed healthcare professionals can enter orders into the medical record for purposes of including the order in the numerator for the objective of computerized physician order entry (CPOE).

- The order must be entered by someone who could exercise clinical judgment in the event that the entry generates any alerts about possible interactions or other clinical decision support aids. This necessitates having the CPOE occur when the order first becomes part of the patient's medical record, and before any action can be taken on the order.

- The Centers for Medicare and Medicaid Services (CMS) did not specify any particular credentialing agency for medical assistants, but did say that the credentialing would have to be obtained from an organization other than the employing agency.

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What about Meaningful Use Requirements?

- Certification of medical scribes does not satisfy concerns about whether scribes should be allowed to use computerized order entry as part of the meaningful-use program for electronic health records.
- The growing medical scribe industry has yet to come together on a single broadly accepted training and certification process, though industry leaders say they will eventually do so.
- In response to comments about who is qualified to use computerized physician order entry, or CPOE—a Stage 2 requirement under the American Recovery and Reinvestment Act's EHR incentive program—federal rule writers said CPOE users should not be medical scribes, partly because “as there is no licensing or credentialing of scribes, there is no guarantee of their qualifications.”

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Potential Cost of a Scribe

- Example 1 – Unlicensed Healthcare Professional
  - $15-$20/hour with 35% for benefits
  - $42,120-$56,160
- Example 2 – Certified Medical Assistant
  - $13-$17/hour with 35% for benefits
  - $36,504 - $47,736

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Summary

- Scribes are a good addition when they:
  - Know the rules
  - Know your standard work
  - Know your culture/environment
  - Know your finances
- Next Steps – Develop your program
  - Include: Operations, Finance, Revenue Cycle, Compliance

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Key Take Away

- Audit your EMR documentation
  - Medical Necessity (EMR Calculators)
  - Cloning (Templates)
  - Severity of diagnosis (Quality incentives, ICD-10, etc.)

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