Leveraging Clinical Registries to Drive Quality and Value

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Disclosures

- Research
  - Boston Scientific
  - Medtronic
  - Janssen
- Speaker's Bureau
  - Bristol Myers Squibb
  - Pfizer

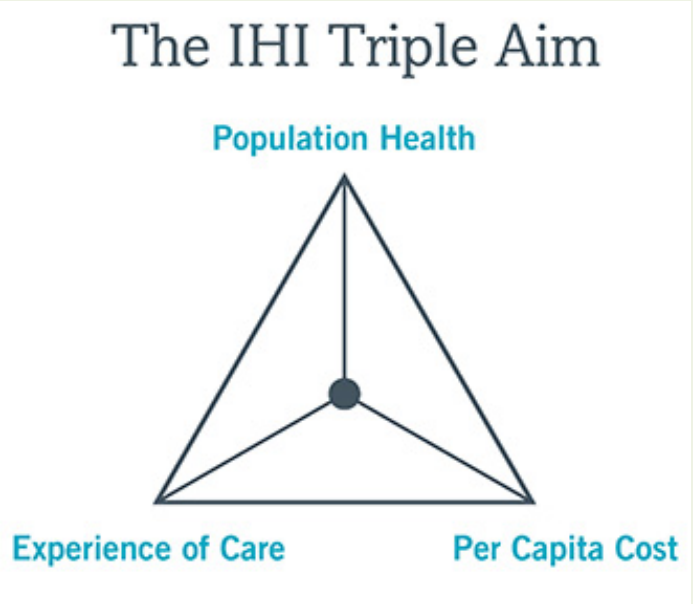
How do we define Quality and Value in Medicine?

- Value can be defined as "…health outcomes achieved per dollar spent."[1]
- "Value — neither an abstract ideal nor a code word for cost reduction — should define the framework for performance improvement in health care. Rigorous, disciplined measurement and improvement of value is the best way to drive system progress. Yet value in health care remains largely unmeasured and misunderstood."[2]
- In simple terms, value=quality/cost

[1]Porter ME, Teisberg EO. Redefining health care: creating value-based competition on results. Boston: Harvard Business School Press, 2006.
[2]Porter ME. What is value in health care? N Engl J Med 2010; 363:2477-2481. DOI:10.1056/NEJMp1011024

The Triple Aim

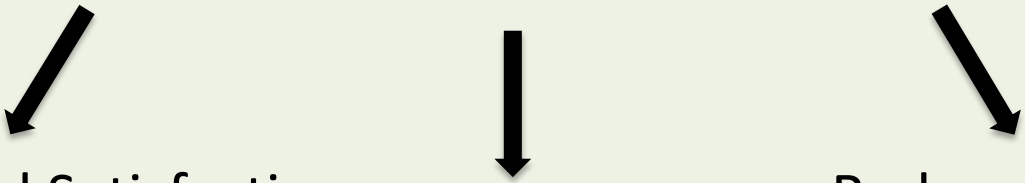
- Improving the patient experience of care (including quality and satisfaction)
- Improving health of populations
- Reducing the per capita cost of health



www.ihi.org

An Example
ED Activation of Cath Lab

- Door-to-balloon time ⇩ from 113 to 75 minutes
- Transfer time ⇩ from 147 to 85 minutes
- Infarct size ⇩(creatinine kinase)
- Hospital stays ⇩ by 2-3 days
- Cost ⇩ by over 30 percent



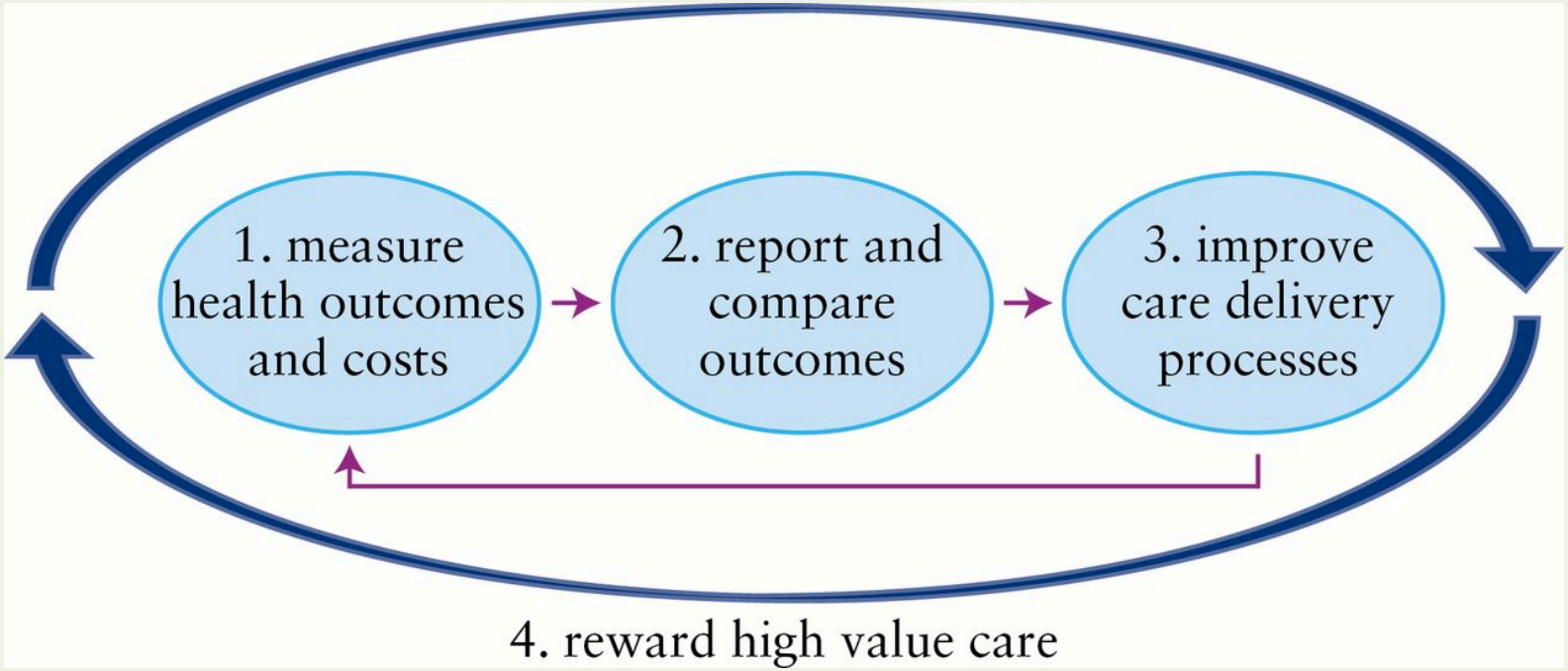
Improved Satisfaction

Improved Health

Reduced Cost

U. M. Khot et. Al. *Circulation. 2007; 116*

Steps to Improve Quality and Value



NCDR®
National Cardiovascular Data Registry

That was then...

Launched 1997

1 registry

Focused on quality patient care

This is now...

More than 2,500 hospitals and 1000 practices

Health plans and government regulator adoption

Industry uses for market research, clinical research, and to support best practice treatments

FDA uses NCDR data for post market assessment

This is our future...

One holistic registry

International expansion

Platform for clinical trials and CER

More post market assessment studies

Implement physician reports to support MOC and MOL

EHR Integration

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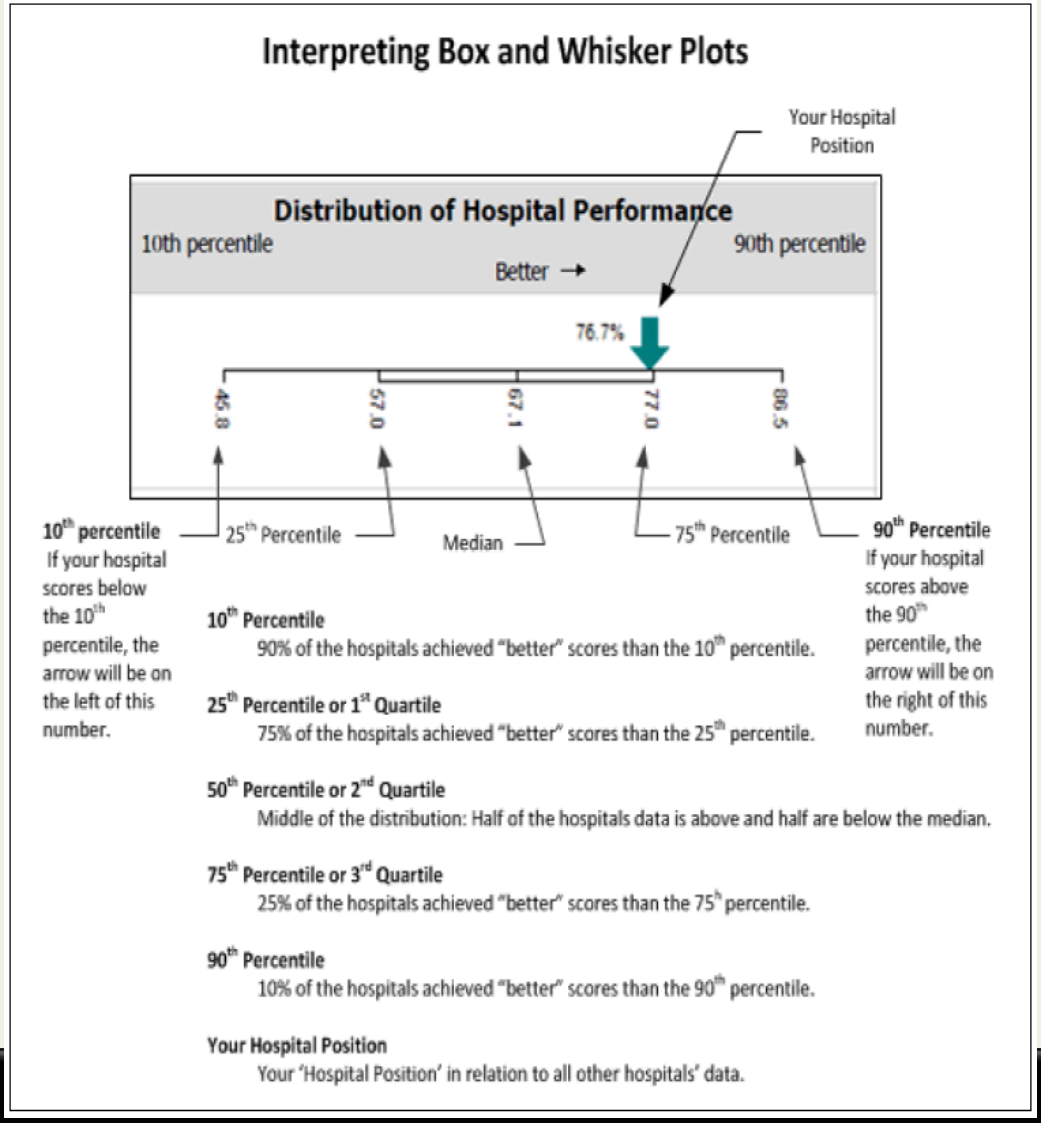
NCDR Registries

- Hospital Registries (for in-patients)
  - ACTION Registry-GWTG
    - High risk STEMI/NSTEMI patients
  - Afib Ablation (coming soon)
  - CathPCI Registry
    - Diagnostic catheterization and PCI
  - ICD Registry
  - IMPACT Registry
    - Pediatric and adult congenital heart disease
  - LAAO Registry (coming soon)
    - LAA occlusion procedures
  - PVI Registry
    - -Peripheral arterial catheterization procedures including carotid stenting
  - STS/ACC TVT Registry
    - -Transcatheter valve procedures
- Out-patient Registries
  - Diabetes Collaborative Registry
  - PINNACLE
    - CAD, hypertension, heart failure and atrial fibrillation

The Box and Whisker Plots



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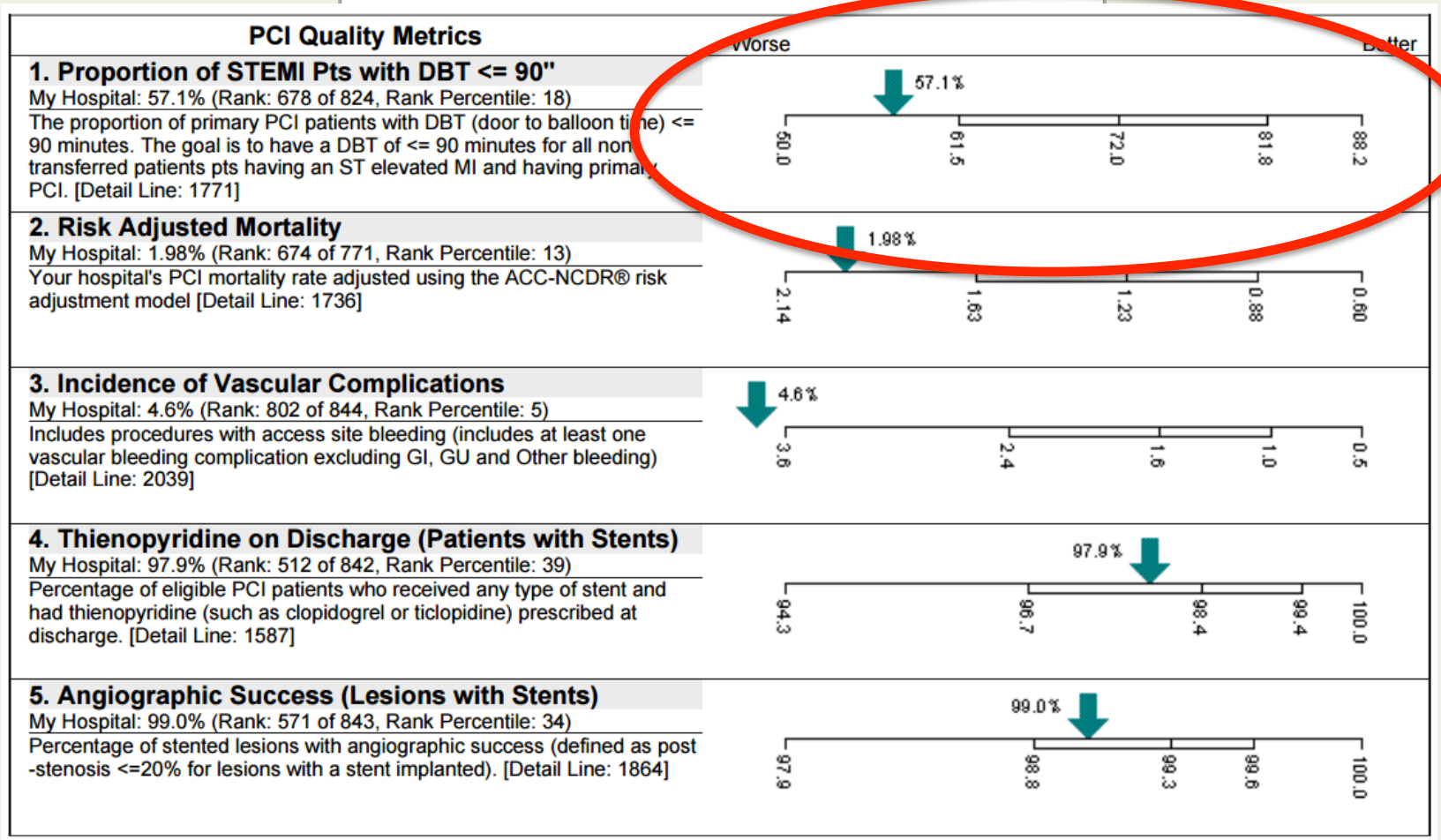
The History of D2B at IU Health Bloomington



PCI Quality Metrics

Worse — Better

1. Proportion of STEMI Pts with DBT <= 90"

My Hospital: 57.1% (Rank: 678 of 824, Rank Percentile: 18)

The proportion of primary PCI patients with DBT (door to balloon time) <= 90 minutes. The goal is to have a DBT of <= 90 minutes for all non transferred patients pts having an ST elevated MI and having primary PCI. [Detail Line: 1771]

57.1% | 50.0 | 61.5 | 72.0 | 81.8 | 88.2

2. Risk Adjusted Mortality

My Hospital: 1.98% (Rank: 674 of 771, Rank Percentile: 13)

Your hospital's PCI mortality rate adjusted using the ACC-NCDR® risk adjustment model [Detail Line: 1736]

1.98% | 2.14 | 1.63 | 1.23 | 0.88 | 0.60

3. Incidence of Vascular Complications

My Hospital: 4.6% (Rank: 802 of 844, Rank Percentile: 5)

Includes procedures with access site bleeding (includes at least one vascular bleeding complication excluding GI, GU and Other bleeding) [Detail Line: 2039]

4.6% | 3.6 | 2.4 | 1.6 | 1.0 | 0.5

4. Thienopyridine on Discharge (Patients with Stents)

My Hospital: 97.9% (Rank: 512 of 842, Rank Percentile: 39)

Percentage of eligible PCI patients who received any type of stent and had thienopyridine (such as clopidogrel or ticlopidine) prescribed at discharge. [Detail Line: 1587]

97.9% | 94.3 | 96.7 | 98.4 | 99.4 | 100.0

5. Angiographic Success (Lesions with Stents)

My Hospital: 99.0% (Rank: 571 of 843, Rank Percentile: 34)

Percentage of stented lesions with angiographic success (defined as post -stenosis <=20% for lesions with a stent implanted). [Detail Line: 1864]

99.0% | 97.9 | 98.8 | 99.3 | 99.6 | 100.0

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How Did We Improve Our Quality?

- The team came together to review and compare the data, and improve the process
- Physicians can rarely do this on their own
  - EMS
    - Transmission of ECGs to the ED from the field
  - ED physicians and staff
    - Empowered to activate STEMI alert
  - Interventional cardiologists
    - Primary caregivers to all STEMI patients
  - Cath lab staff
    - Received feedback on all STEMIs
  - Quality review specialists
    - Reviewed data at monthly meetings
  - Coders
    - -Educated on correct coding

Picture of AMI Mtg Attendees

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Indiana University Health

STEMI Heroes

Date	9/15/2015
ED Arrival Time	07:14
EKG Time	
STEMI Alert	
Cardiac Cath Lab Arriva	
MD Arrival	
Start time	
Sheath Access	
Balloon	

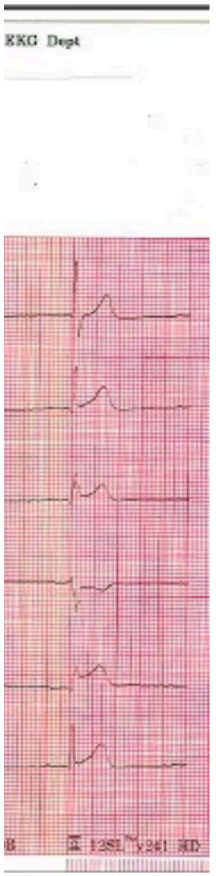
STEMI 9/15/15

Jacobs Young, Elizabeth M [EJacobs3@IUHealth.org]

Sent: Tuesday, September 15, 2015 2:37 PM

To: Brown, Jessica M [JBrown28@IUHealth.org]; Bryan, Jessica Lynne [jbryan@IUHealth.org]; Caudill, Gwendolyn M [gcaudill@IUHealth.org]; Elliott-Felton, Julia F [jelliottfelt@IUHealth.org]; Englert, Danielle [DEnglert@IUHealth.org]; Hatcher, Tara [THatcher@IUHealth.org]; Hickok, 'Benny' Richard E [RHickok@IUHealth.org]; Hobson, Penny L [PHobson@IUHealth.org]; Hoy, Jill C [JHoy2@IUHealth.org]; Jacobs Young, Elizabeth M [EJacobs3@IUHealth.org]; Lemons, Casey L [CLemons@bloomingtonhospital.org]; Monnier, Megan E [MMonnier@bloomingtonhospital.org]; Spicer, Kathryn R [kspicer1@IUHealth.org]; Sturgeon, Betty K [BSturgeon1@IUHealth.org]; Uland, Kari B [KUland@IUHealth.org]; Walls, Jordann Leigh [JLWalls@bloomingtonhospital.org]; Wieligman, Patti [PWieligman@IUHealth.org]; Adams DO, Robert T [RAdams1@IUHealth.org]; Amber Chinn [axevans@stvincent.org]; Balaguras, Jean M [JBalaguras@IUHealth.org]; Bellamy, Linda [LBellamy@IUHealth.org]; Bill Turpen RN [wturpen@monroehospital.com]; Bob Page [lead2noclue@mac.com]; Breeden, Pamela [pbreeden@IUHealth.org]; Davis, Brenda R [bdavis14@IUHealth.org]; Brian Bomar [bbomar@careambulance.com]; Brian McCrate clinical Pharm. [bmccrate@iuhealth.org]; C. Jessee [cjessee@iuhealth.org]; Carter, Susan [SCarter@IUHealth.org]; Clark, Charlene [CClark@IUHealth.org]; Cook, Holly C [hcook@IUHealth.org]; Cris Lunsford [clunsford@ocems.net]; Crouch, Jason [JCrouch4@IUHealth.org]; Beachy DO, David [dave@clearstreams.net]; David Doane [david.doane@co.greene.in.us]; David Polley [dpolley@crh.org]; Dina Wood RN [dwood@monroehospital.com]; Don Smith Care Ambulance [donsmith@careambulance.com]; Dr Raza [steph@havcmd.com]; Dr.Hall [Dhall14@iuhealth.org]; Eisenhut Jr MD, Richard J [REisenhut@bloomingtonhospital.org]; Etter, Jason [JEtter1@IUHealth.org]; Evans, J. Chris [JEvans15@IUHealth.org]; Fields, Derek B. [DFields5@IUHealth.org]; Fons, Mark [mark.fons@gmail.com]; Geyer, Susan L [SGeyer@bloomingtonhospital.org]; Grupenhoff, Marcy L [MGrupenhoff@IUHealth.org]; Hamm, Krystal M [KHamm2@IUHealth.org]; Hanania, Raja [RHanania1@IUHealth.org]; Harris, Michael D [MHarris11@IUHealth.org]; Hawkins, Sara R [SHawkins2@IUHealth.org]; Helms, Tricia [THelms@IUHealth.org]; Horn, LeAnne [MHorn@IUHealth.org]; Jeanette Hammerstein, MD [jhammerstein@monroehospital.com]; Jim Frasure [jim@frasurefam.com]; Hill, Reva J [RHill5@IUHealth.org]; John Gott [gottjohn@air-evac.com]; Jones, Maudie J. [MJones2@IUHealth.org]; Jones, Venus D [vjones5@IUHealth.org]; Joshua Davis [davis.josh@seals-ambulance.com]; Kay, June E. [JKay1@IUHealth.org]; Kelly Mazzier-Devitt [Kelly.Mazzier-Devitt@TheMedCo.com]; Fahr, Kenneth J [KFahr@bloomingtonhospital.org]; Kern, Kammi D [KKern3@IUHealth.org]; Kim Adams (Monroe Hosp) [kadams@monroehospital.com]; Kinder, Connie [CKinder1@IUHealth.org]; King, Jason M [jking@IUHealth.org]; Olsen, Kristen P [kolsen@IUHealth.org]; Kurtis Cummings BHAS EMS [kcummings1@iuhealth.org]; Ladonna Stroud RN Paoli ED [lstroud3@iuhealth.org]; Lea Ann Camp [lea.camp@mygcgh.org]; Max Peters Lawrence Co,Perry Township VFD [petersfm47462@yahoo.com]; Mullis, Kelly D [KMullis@IUHealth.org]; Owen, Michael P [MOwen2@IUHealth.org]; Pam Underwood Seals Ambulance [underwood.pamela@seals-ambulance.com]; Paula Armas [parmas@careambulance.com]; Pavich, Emily M [epavich@IUHealth.org]; Reynolds, Chad [creynolds1@IUHealth.org]; Ridge, Michele A. [MRidge@IUHealth.org]; Ryan Bertram [bertram.ryan@seals-ambulance.com]; Sarah Tieman MD [satieman@iu.edu]; Sargent, J. Scott [JSargent1@IUHealth.org]; Sayers, Jennifer A [JSayers@IUHealth.org]; Schwartz, Patrick [pbschwar@iupui.edu]; Slone, Teresa J [TSlone1@IUHealth.org]; Sperring MD, Sally [SSperring@bloomingtonhospital.org]; Stackhouse, Rebecca J [RStackhouse@IUHealth.org]; Stacy Fiscus [stacy.fiscus@air-evac.com]; Steve Waldridge [swaldridge1@iuhealth.org]; Tim Hale [tim.hale@mygcgh.org]; Travis Keating [tkeating@iuhealth.org]; Troy Gaither [troy.gaither@mygcgh.org]; Vickie Nelson RN Paoli ED [vnelson2@IUhealth.org]; Wallace, Sandra J [SWallace1@IUHealth.org]; Watters MD, Andrew Kyle [awatters1@IUHealth.org]; Watts, Wylene S [WWatts1@IUHealth.org]; Webb, Nichole [nwebb2@iuhealth.org]; Wilcher, Amy [awilcher1@IUHealth.org]; Williams, Lindsey R [LWilliams2@IUHealth.org]; Zachary Shaw [zshaw1@iuhealth.org]; Blemker, M.D.David; Shenoy, M.D. Mohan; Ferguson, M.D. Andrew; Fix, M.D. James; Heumann, M.D. Gregory; Frey, P.A. Julie; Petersen, M.D. Jennifer; Rink, M.D. Lawrence; Strobel, M.D. John; Sutliff, M.D. Gregory; Williams, M.D. Eric; Zamani, Atiq; Zawacki, M.D. Kevin

Attachments: 0915 RL 407236173 Private ~1.pdf (563 KB) [Open as Web Page]



This is a 86 yr old gentleman that began experiencing chest pain at 06:00. He arrived to IUH Bloomington ED at 07:14 by private vehicle. EKG was done at 07:19. STEMI page went out at 07:25.

Patient arrived to the cath lab at 07:32. Right femoral access was obtained at 07:39. Angiography revealed acutely occluded right coronary artery. Vessel was ballooned at 07:45. Vessel was later stented. Patient was transferred to CVR in stable condition at 08:40.

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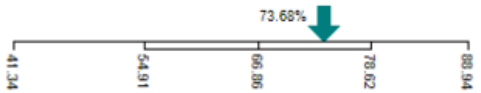
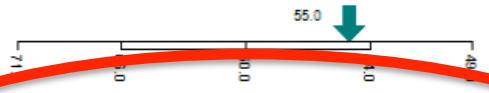
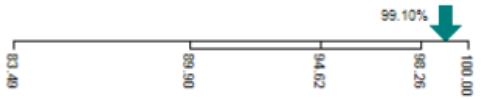
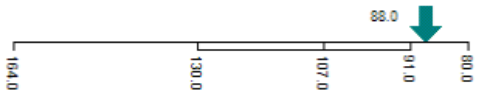
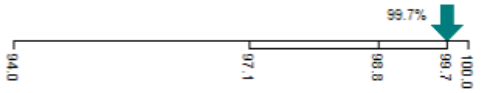
Section II: Quality Metrics – to support self assessment and quality improvement at the provider, hospital, and/or health care system level.

	PCI Process Metrics	Distribution of Hospital Performance (10th percentile – 90th percentile; Better →)
2	**Proportion of elective PCIs with prior positive stress or imaging study** My Hospital: 73.68% | US Hospitals 50th Pctl: 66.86% | US Hospitals 90th Pctl: 88.94% Proportion of elective PCI procedures (excluding patients with ACS) with an antecedent stress or imaging study with a positive result (suggestive of ischemia) or with a fractional flow reserve value of <=0.8 during the PCI procedure [Detail Line:1513]	
3	**Median time to immediate PCI for STEMI patients (in minutes)** My Hospital: 55 | US Hospitals 50th Pctl: 60 | US Hospitals 90th Pctl: 49 Your hospital's median time from hospital arrival to immediate PCI for STEMI patients in minutes. Exclusions: Patients transferred in from another acute care facility; Reasons for delay does not equal none. [Detail Line:1502]	
4	**Proportion of STEMI patients receiving immediate PCI w/in 90'** My Hospital: 99.10% | US Hospitals 50th Pctl: 94.62% | US Hospitals 90th Pctl: 100.00% Proportion of STEMI patients with a time from your hospital arrival (or subsequent ECG if ST elevation first noted on subsequent ECG) to immediate PCI <=90'. Exclusions: Patients transferred in from another acute care facility; Reasons for delay does not equal none. [Detail Line:1503]	
5	**Median time from ED arrival at STEMI transferring facility to ED arrival at STEMI receiving facility among transferred patients.** My Hospital: 69 | US Hospitals 50th Pctl: 73 | US Hospitals 90th Pctl: 48 Your hospital's median time from arrival at transferring facility to ED arrival at STEMI receiving facility among transferred patients. [Detail Line:1505]	
6	**Median time from ED arrival at STEMI transferring facility to immediate PCI at STEMI receiving facility among transferred patients (in minutes)** My Hospital: 88 | US Hospitals 50th Pctl: 107 | US Hospitals 90th Pctl: 80 Your hospital's median time from arrival at referring facility to immediate PCI at STEMI receiving facility among transferred patients. Exclusions: Reasons for delay does not equal none. [Detail Line:1506]	
7	**Median fluoro time (in minutes)** My Hospital: 10 | US Hospitals 50th Pctl: 10 | US Hospitals 90th Pctl: 7 Inclusion criteria: PCI of one vessel/lesion. Exclusion criteria: Prior CABG, or "other" procedure during the same lab visit; PCI of >1 vessel/lesion. [Detail Line:1633]	
8	**Proportion of patients with aspirin prescribed at discharge** My Hospital: 99.7% | US Hospitals 50th Pctl: 98.8% | US Hospitals 90th Pctl: 100.0% Proportion of patients (without a documented contraindication) with aspirin prescribed at discharge. [Detail Line:1997]	
9	**Proportion of patients with a P2Y12 inhibitor prescribed at discharge** My Hospital: 99.7% | US Hospitals 50th Pctl: 99.6% | US Hospitals 90th Pctl: 100.0% Proportion of patients (without a documented contraindication) with a stent implanted that had a thienopyridine/P2Y12 inhibitor prescribed at discharge. [Detail Line:2006]	

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Documentation

- In many cases, a hospital's or physician's quality is fine, but documentation is poor.
- Develop and use tools to improve documentation.

Patient Baseline Characteristics

1. ☐ Cardiac arrest/sustained VT/VF (secondary prevention)
2. ☐ Ischemic cardiomyopathy ☐ Non-ischemic cardiomyopathy
3. ☐ EF _____ % measured by: ☐ echo ☐ nuclear ☐ angiography on ____/____/____.
4. ☐ NYHA Heart Failure Class: ☐ I ☐ II ☐ III ☐ IV
5. ☐ ECG ☐ LBBB ☐ RBBB ☐ IVCD ☐ Paced
   ☐ QRS duration _____ ms measured on ____/____/____.
6. ☐ Patient is on guideline-directed medical therapy (GDMT).
   - ☐ ACEI or Contraindicated due to hypotension/CKD/intolerance or allergy
   - ☐ ARB or Contraindicated due to hypotension/CKD/intolerance or allergy
   - ☐ β-blocker or Contraindicated due to hypotension/intolerance or allergy
   - ☐ Aldosterone inhibitor or Contraindicated due to hypotension/ hyperkalemia/intolerance or allergy
7. ☐ Documented prior MI greater than 40 days
   - ☐ Pathologic Q waves on ECG
   - ☐ Imaging evidence of a region of loss of viable myocardium that is thinned and fails to contract
   - ☐ Pathological findings of a healed or healing MI

Medicare / CMS Guidelines for Empiric ICD

Secondary Prevention Indications

1. ☐ Documented episode of cardiac arrest due to ventricular fibrillation (VF), not due to a transient or reversible cause.
2. ☐ Documented sustained ventricular tachyarrhythmia (VT), either spontaneous or induced by an electrophysiology (EP) study, not associated with an acute myocardial infarction (MI) and not due to a transient or reversible cause.

Primary Prevention Indications

1. ☐ Documented familial or inherited conditions with a high risk of life-threatening VT, such as long QT syndrome or hypertrophic cardiomyopathy.
2. ☐ Coronary artery disease with a documented prior MI, a measured left ventricular ejection fraction (LVEF) ≤ 35%, and inducible, sustained VT or VF at EP study. (The MI must have occurred more than 4 weeks prior to defibrillator insertion. The EP test must be performed more than 4 weeks after the qualifying MI.)
3. ☐ Documented prior MI and a measured LVEF ≤ 30% (includes NYHA class I, II, or III).
4. ☐ Patients with ischemic dilated cardiomyopathy (IDCM), documented prior MI, NYHA Class II and III heart failure, and measured LVEF ≤ 35%.
5. ☐ Patients with non-ischemic dilated cardiomyopathy (NIDCM) > 3 months, NYHA Class II and III heart failure, and measured LVEF ≤ 35%.

Patient-Last Name, First Name, Middle Initial ☐ M ☐ F Age

Admission Number Date Birth Date

Physician Name

Patient Identification Medical Record Number

Indiana University Health
Bloomington, Indiana

Cardiovascular Services
ICD IMPLANT DOCUMENTATION

CRT Indications

1. ☐ LVEF ≤ 35%, NSR, LBBB with QRSd ≥ 150 ms, NYHA class II, III, or ambulatory class IV on GDMT. (class I)
2. ☐ LVEF ≤ 35%, NSR, LBBB with QRSd 120-149 ms, NYHA class II, III, or ambulatory class IV on GDMT. (class IIa)
3. ☐ LVEF ≤ 35%, NSR, non-LBBB with QRSd ≥ 150 ms, NYHA class III, or ambulatory class IV on GDMT. (class IIa)
4. ☐ LVEF ≤ 35%, permanent atrial fibrillation on GDMT if a) the patient requires ventricular pacing or otherwise meets CRT criteria and b) AV nodal ablation or pharmacologic rate control will allow near 100% ventricular pacing with CRT. (class IIa)
5. ☐ LVEF ≤ 35% on GDMT, and are undergoing new or replacement device placement with anticipated requirement for significant (> 40%) ventricular pacing. (class IIa)
6. ☐ LVEF ≤ 30%, ischemic etiology of heart failure, NSR, LBBB with QRSd ≥ 150 ms, NYHA class I on GDMT. (class IIb)
7. ☐ LVEF ≤ 35%, NSR, non-LBBB with QRSd ≥ 120-149 ms, NYHA class III, or ambulatory class IV on GDMT. (class IIb)
8. ☐ LVEF ≤ 35%, NSR, non-LBBB with QRSd ≥ 150 ms, NYHA class II on GDMT. (class IIb)

Exclusions/Contraindications for ICD Implant

1. ☐ New York Heart Association (NYHA) classification IV heart failure
2. ☐ Cardiogenic shock or symptomatic hypotension while in a stable baseline rhythm.
3. ☐ Coronary artery bypass graft (CABG) or percutaneous trans-luminal coronary angioplasty (PTCA) within past 3 months.
4. ☐ MI within past 40 days.
5. ☐ Clinical symptoms or findings that would make them a candidate for coronary revascularization.
6. ☐ Any disease, other than cardiac disease (e.g., cancer, uremia, liver failure), associated with a likelihood of survival less than 1 year.
7. ☐ Unable to give informed consent.
8. ☐ Irreversible brain damage from preexisting cerebral disease.

Patient-Last Name, First Name, Middle Initial ☐ M ☐ F Age

Admission Number Date Birth Date

Physician Name

Patient Identification Medical Record Number Physician Signature Date Time

PINNACLE/EHR

Risk-adjusted…

- Many measures (mortality and morbidity) are risk-adjusted.
- For this reason, it is vital that risks are documented.
- Accurate characterization of the patient's acuity of illness and co-morbidities is important, but time-consuming.

Bloomington Hospital

Cardiovascular Services

Cardiac Documentation

*Disclaimer: This form is not intended to be an all-inclusive diagnosis list. If the patient has a diagnosis not on this list, please document the diagnosis in **"Other"** category section on this form or in the other chart documentation.*

X if yes	Diagnosis	Specify (Fill in the blank or place an X beside the appropriate information)	POA (Y = yes, N = no, U = Unable to determine
CARDIAC			
_	STEMI	**Site** Anterior _ Inferior _ Lateral _ Other _	Y _ N _ U _
_	NSTEMI		Y _ N _ U _
	Occurrence:	STEMI Initial _ **or** Subsequent _ : Within 4 weeks _ Within 8 weeks _ NSTEMI Initial _ **or** Subsequent _ : Within 4 weeks _ Within 8 weeks _	
_	Unstable Angina		Y _ N _ U _
_	Cardiogenic Shock		Y _ N _ U _
_	Stent Stenosis	Progression of CAD _ **or** Complication of cardiac stent _	Y _ N _ U _
_	Valvular Heart Disease	Specify valve and disorder: _	Y _ N _ U _
_	Atrial Fibrillation	Rate Controlled _ **or** RVR _	Y _ N _ U _
_	Other Dysrhythmia	Specify: _	Y _ N _ U _
_	Heart Failure	EF _ % Acute _ **or** Chronic _ **or** Acute on Chronic _ **AND** Systolic _ **or** Diastolic _ **or** Systolic/Diastolic _ NYHA Heart Failure Class: I _ II _ III _ IV _ Contraindication to ACEI/ARB if EF < 40% _	Y _ N _ U _
_	Cardiomyopathy	Due to: HTN _ **or** HF _ **or** Ischemia _ **or** Valvular _ **or** Other: _	Y _ N _ U _
_	H/O PCI	Specify vessels: LAD _ Diagonal _ LCx _ OM _ RCA _ PDA _ Ramus _ Other: _	Y _ N _ U _
_	H/O CABG	Specify vessels: LAD _ Diagonal _ LCx _ OM _ RCA _ PDA _ Other: _	Y _ N _ U _
_	H/O Cardiac Device	Specify Type: Pacemaker _ ICD _ **and** Single _ Dual _ CRT _	Y _ N _ U _

RENAL/HYDRATION		
_ ERSD		Y _ N _ U _
_ CKD	Stage I _ **or** II _ **or** III _ **or** IV _ **or** V _ Cause: _	Y _ N _ U _
_ Acute Renal Failure	Cause: _	Y _ N _ U _
_ Dehydration		Y _ N _ U _
_ Fluid Overload	Due to HF _ Other: _	Y _ N _ U _
_ Urinary Tract Infection	Organism: _	Y _ N _ U _
VASCULAR		
_ Peripheral Artery Disease	Arteriosclerotic _ **or** Other: _	Y _ N _ U _
_ Hypertension	Benign _ **or** Malignant/Accelerated _ **or** Chronic _	Y _ N _ U _
PULMONARY		
_ COPD	Exacerbation/Acute _ **or** Without Exacerbation _	Y _ N _ U _
_ Pneumonia	Specify Type: _	Y _ N _ U _
_ Chronic Respiratory Failure	End Stage Lung Disease _ Home Oxygen Use _	Y _ N _ U _
_ Acute Respiratory Failure		Y _ N _ U _
_ Pleural Effusion	Associated with HF _ **or** Malignant _ **or** Acute on Chronic _ **AND** Cardiogenic _ **or** Post-op Complication _ **or** Other: _	Y _ N _ U _
_ Pulmonary Edema	Acute _ **or** Chronic _ **or** Acute on Chronic _ **AND** Cardiogenic _ **or** Post-op Complication _ **or** Other: _	Y _ N _ U _
ENDOCRINE/NUTRITIONAL/DIGESTIVE		
_ Diabetes	Type I _ **or** Type II _ **AND** Controlled _ **or** Uncontrolled _ Specify Diabetic Complication: Retinopathy _ Neuropathy _ Nephropathy _ PAD _	Y _ N _ U _
_ Hypokalemia		Y _ N _ U _
_ Hyperkalemia		Y _ N _ U _
_ Hyponatremia		Y _ N _ U _
_ Hypernatremia		Y _ N _ U _
_ Hypothyroidism	Specify Cause: _	Y _ N _ U _