Quality and Safety

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Quality and Safety

What does it mean?

Objectives:

1. What is quality and safety in medical care
2. What is a High Reliable Organization
3. Help me to understand why everyone is bugging me for quality today

Disclosures

- I have no disclosures to report or conflict of interest

"Good ideas are not adopted automatically. They must be driven into practice with courageous impatience. Once implemented they can be easily overturned or subverted through apathy or lack of follow-up, so a continuous effort is required."

Admiral Hyman G. Rickover
1900-1986

Crossing the Chasm

- This report from the IOM got the ball rolling on quality of care in medicine
- An urgent call for change to close quality gap
- Recommended a redesign of the medical system
- Started to set performance expectations for the 21st century

Core Principles

- Safety: avoid injuries to patients
- Facts: Unintended surgical injuries such as retention of foreign body, wrong patient wrong site surgery, falls with injury, suicides, delay in treatment, op/post op complications, medication errors

Core Principles

- Effective care: practice based on “best practice”, refrain from services not beneficial to the patient
- In other words not providing care that is futile or even harmful

Core Principles

- Patient-centered: care that is respectful of and responsive to patient preferences, needs and values
- Patient values should guide clinical care

Core Principles

- Timely: avoid harmful delays
- Efficient: avoid waste and unnecessary tests and procedures
- Equitable: avoid variation in care because of gender, ethnicity, location and socioeconomic status

Significant Events at US Nuclear Plants

Significant Events per Plant

Annual Industry Average, Fiscal Year 1988-2013

Significant Events are those events that the NRC staff identifies for the Performance Indicator Program as meeting one or more of the following criteria:

- A Yellow or Red Reactor Oversight Process (ROP) finding or performance indicator
- An event with a Conditional Core Damage Probability (CCDP) or increase in core damage probability (ΔCDP) of 1x10-5 or higher
- An Abnormal Occurrence as defined by Management Directive 8.1, "Abnormal Occurrence Reporting Procedure"
- An event rated two or higher on the International Nuclear Event Scale

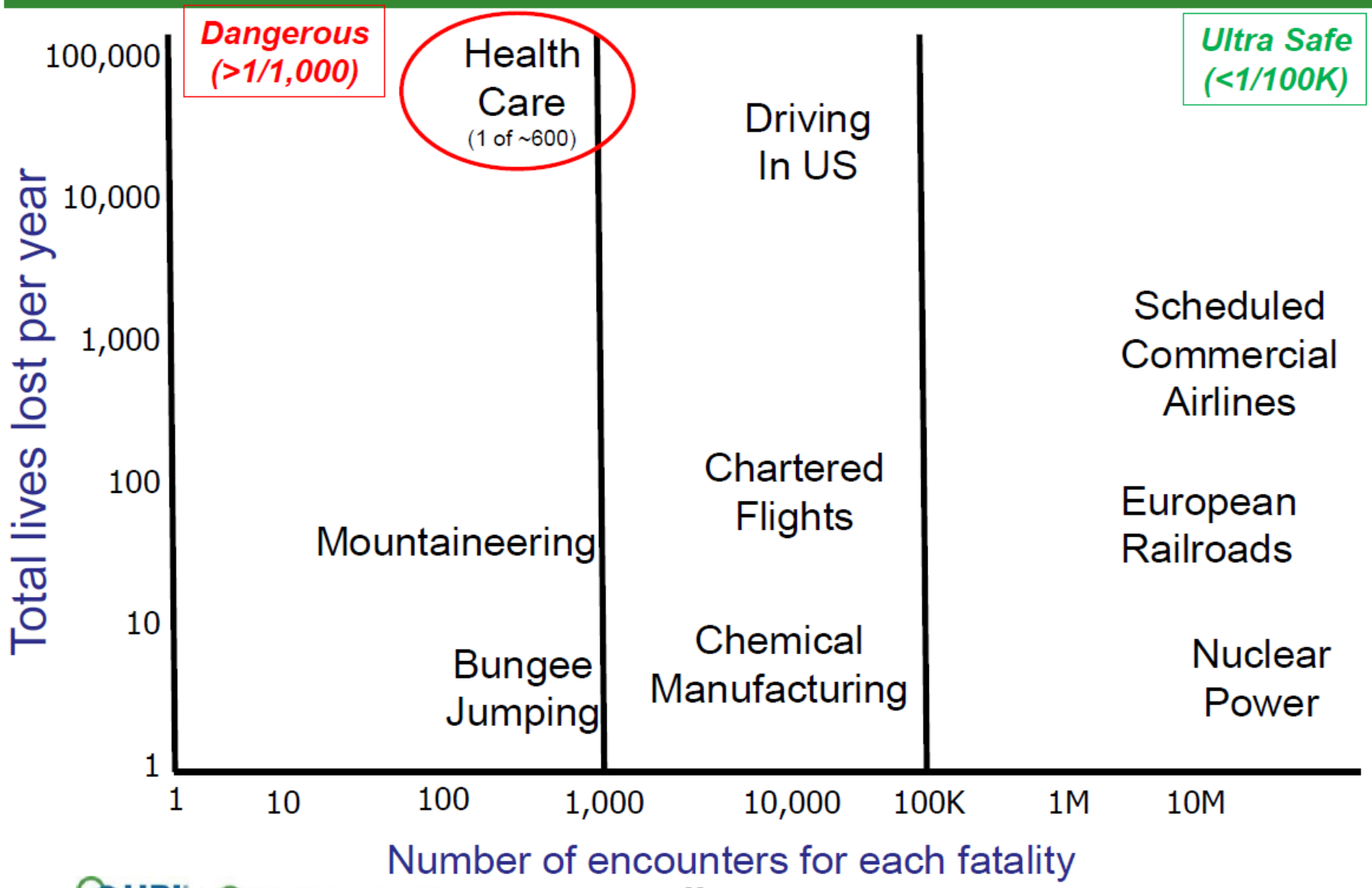
NEI

Source: NRC Information Digest, 2088 is the earliest year data is available
Updated: 5/15

nuclear. clean air energy

- 6,200 cumulative years of nuclear reactor operations involving 526 nuclear reactor cores
- 127 million miles submerged (265 round trips to moon)
- Zero radiological/reactor incidents over 50 years
- *Operated by 20 year olds*

How Safe Is Healthcare?



Health Care

Harm, Harm, Harm, Harm, Harm, harm

- Wrong site surgery example
- Wrong medication example
- Wrong person example
- Wrong pipes carrying O2
- Wrong blood transfusion
- HAI: CLABS, CAUTI, C.diff

Top 10 Patient Safety Event Types

Based on 1,613 events from 72 hospitals in HPI *Compare* CCA database

23.6%	Delay in Diagnosis or Treatment (CM8)
21.3%	Medication Event (CM1)
15.2%	Other Care Management (CM10)
10.2%	Fall (EE3)
7.4%	Other Procedural (PR6)
4.2%	Retained Foreign Object (PR4)
2.2%	Wrong Site Surgery (PR1)
2.2%	Wrong Patient Surgery (PR2)
1.2%	Suicide or Attempt (PP3)
1.1%	Grade 3 or 4 Pressure Ulcer (CM7)

To be Human is to fail

- To be human is to fail, even the best of us still have failures in health care
- Always a risk/benefit ratio
- Need to create an environment to lower the risks
- High Reliability creates a culture to minimize errors
- Improve process and create systems to avoid harm

Significant Harm

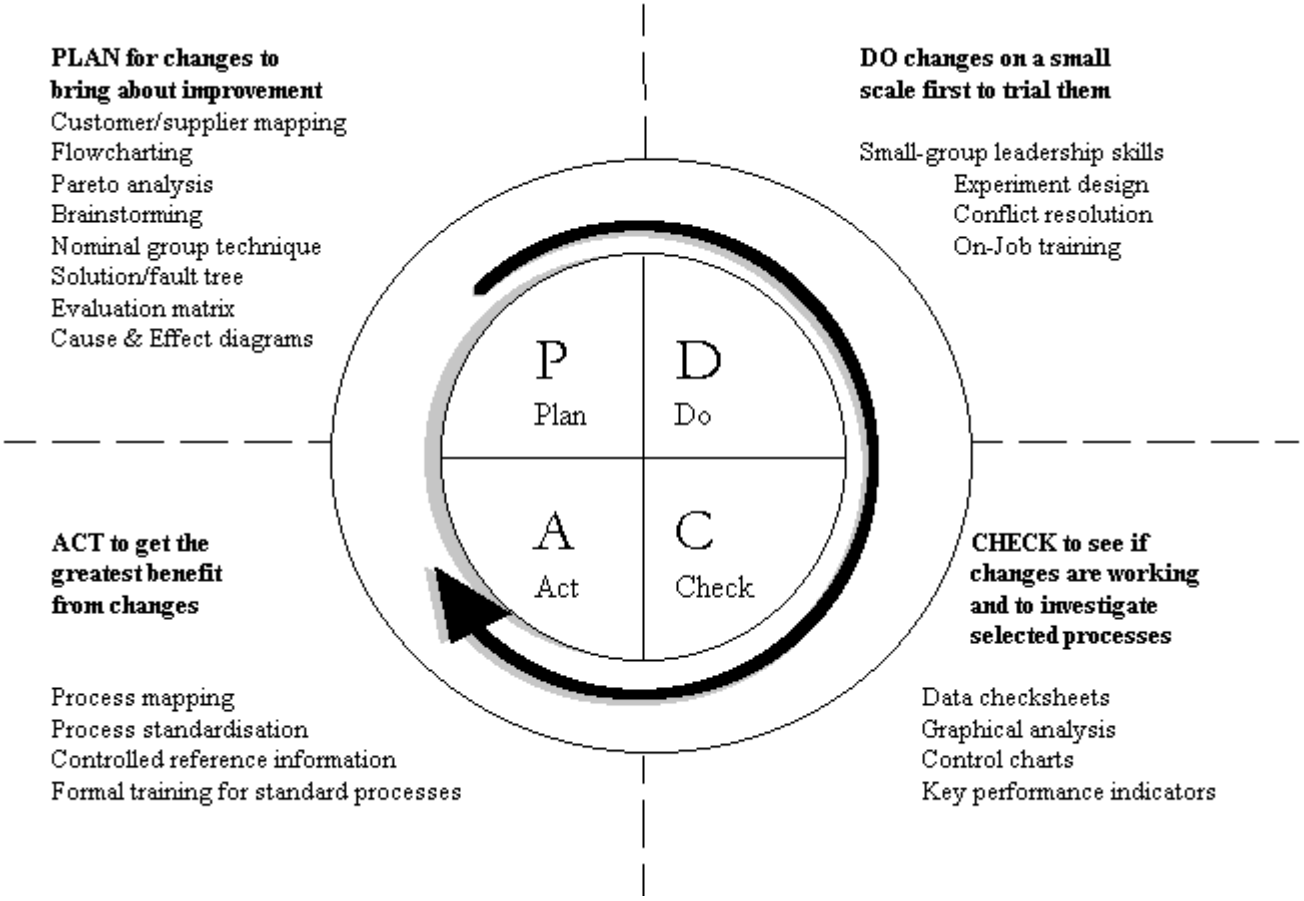
- When you look at quality measures required for reporting it is because we have failed to monitor our profession and processes
- Sanitizing hands
- Improperly gowning and gloving in isolation rooms
- DVT prevention
- Lines, Lines, Lines

Quality Improvement

- Self reflection: Do you look at your data in aggregate. This is the missed opportunity for improvement.
- Miss the forest for the trees
- Evidence based medicine

Quality Improvement

- Look at systems of care and measure the gaps
- Many gaps in care are systematic and not related to human error per se
- Near Misses
- Root Cause Analysis


PLAN for changes to bring about improvement
Customer/supplier mapping
Flowcharting
Pareto analysis
Brainstorming
Nominal group technique
Solution/fault tree
Evaluation matrix
Cause & Effect diagrams
DO changes on a small scale first to trial them
Small-group leadership skills
Experiment design
Conflict resolution
On-Job training
P
Plan
D
Do
A
Act
C
Check
ACT to get the greatest benefit from changes
Process mapping
Process standardisation
Controlled reference information
Formal training for standard processes
CHECK to see if changes are working and to investigate selected processes
Data checksheets
Graphical analysis
Control charts
Key performance indicators

Stretch target achieved | Target achieved | Target not achieved

Measure	Period Actual†	Period Target	YTD Actual†	YTD Target	Freq	
QUALITY - PATIENT SAFETY						
Core Measures - IMM-2 Influenza	--	100.00%	100.00%	100.00%	M	
Core Measures - PC-01 Perinatal Elective Delivery	0.00%	0.00%	0.00%	0.00%	M	
Discharge Orders Written by 12pm - Inpatient	60.02%	50.00%	58.53%	50.00%	M	
Hand Hygiene Compliance	91%	92%	91%	92%	M	
Readmissions - All Cause 30-Day Medicare FFS Only	14.91%	15.38%	14.46%	15.38%	M	
Readmissions - AMI 30-Day Medicare FFS Only	0.00%	20.41%	17.39%	20.41%	M	
Readmissions - COPD 30-Day Medicare FFS Only	23.26%	20.00%	20.88%	20.00%	M	
Readmissions - HF 30-Day Medicare FFS Only	21.28%	20.27%	14.37%	20.27%	M	
Readmissions - PN 30-Day Medicare FFS Only	7.14%	13.63%	11.97%	13.63%	M	
Readmissions - Sepsis 30-Day Medicare FFS Only	17.24%	18.92%	18.56%	18.92%	M	
Readmissions - STK 30-Day Medicare FFS Only	0.00%	7.84%	10.07%	7.84%	M	
Readmissions - TH/TK 30-Day Medicare FFS Only	5.46%	2.85%	2.42%	2.85%	M	
Mortality Ratio - AMI (Observed/Expected)	0.67	1.00	0.50	1.00	M	
Mortality Ratio - COPD (Observed/Expected)	0.00	1.00	0.89	1.00	M	
Mortality Ratio - HF (Observed/Expected)	0.30	1.00	0.50	1.00	M	
Mortality Ratio - PN (Observed/Expected)	0.00	1.00	0.33	1.00	M	
Mortality Ratio - Sepsis (Observed/Expected)	0.51	1.00	0.76	1.00	M	
Mortality Ratio - Stroke (Observed/Expected)	0.87	1.00	0.93	1.00	M	

Patient Falls (NJDOH Reportable)	1.00	0.42	8.00	2.94	M	
Hospital-Acquired Infections - SSI Colon	0.0%	3.0%	3.8%	3.0%	M	
Hospital-Acquired Infections - SSI Hysterectomy	0.0%	2.4%	1.7%	2.4%	M	
Infection Rate (Hospital Onset) - C.difficile	0.97	4.50	2.72	4.50	M	
Infection Rate (Hospital Onset) - MRSA	0.00	0.11	0.16	0.11	M	
Infections (Hospital Onset) - CAUTI Critical Care	3.86	0.90	2.05	0.90	M	
Infections (Hospital Onset) - CAUTI Med/Surg	0.00	0.80	1.07	0.80	M	
Infections (Hospital Onset) - CLABSI Critical Care	0.00	1.00	1.93	1.00	M	
Infections (Hospital Onset) - CLABSI Med/Surg	0.00	0.00	0.63	0.00	M	
PSI - 12 Pulmonary Embolism/Post-Op DVT	5.62	6.90	3.56	6.90	M	
PSI - 12 Pulmonary Embolism/Post-Op DVT w/Neuro Exclusion	5.90	5.81	2.89	5.81	M	
PSI - 15 Accidental Puncture or Laceration	0.00	0.80	1.86	0.80	M	
SERVICE - PATIENT EXPERIENCE						
Ambulatory Surgery Standard Overall	95.9	94.0	94.8	94.0	M	
Emergency Department Overall	86.5	88.4	87.6	88.4	M	
HCAHPS - Overall Rating of Hospital	69.4	67.5	68.1	67.5	M	

Kennedy Health Home Page

Balanced Scorecard Highlights

	YTD	Target
Hand Hygiene Compliance	91%	92%
Infections (Hospital Onset) - CAUTI Critical Care	2.05	0.9
Infection Rate (Hospital Onset) - C.difficile	2.72	4.5
Ambulatory Surgery Standard Overall	94.8	94
Emergency Department Overall	87.6	88.4
HCAHPS - Overall Rating of Hospital	68.1	67.5

View Full Scorecard >

Days without a patient fall with injury at Kennedy: 34

Current ED Wait Times

Cherry Hill

9 mins

Stratford

8 mins

Washington Township

10 mins

Calculation Notes

- Wait times are calculated based on number of minutes elapsed from Arrival to Provider for patients arriving within the last two hours.
- Various factors influence ED wait times. The above figures are not a guarantee, but represent average wait times based on recent activity.

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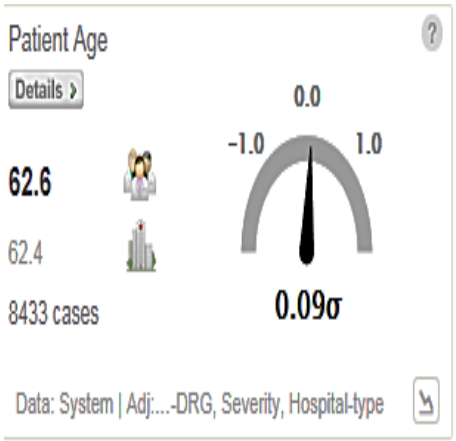
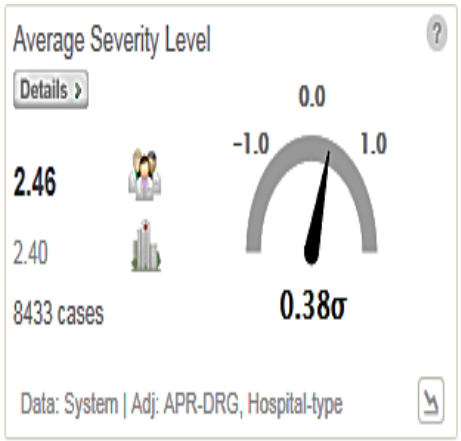
Regulatory Burden

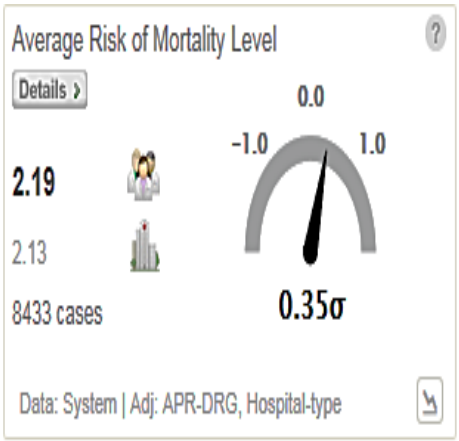
- Increased regulatory burden in your days to achieve quality
- 21% of physicians total work hours are spent in non-clinical paperwork
- I am very sympathetic to what is required of you today but it is where we are at in 2017

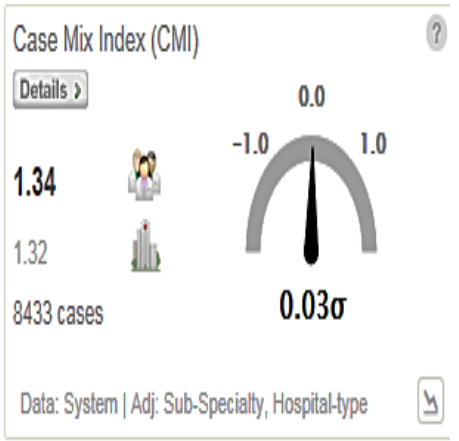
OPPE

General Internal Medicine(Aggregate)
Attending Role
Compared to System
January-July, 2017





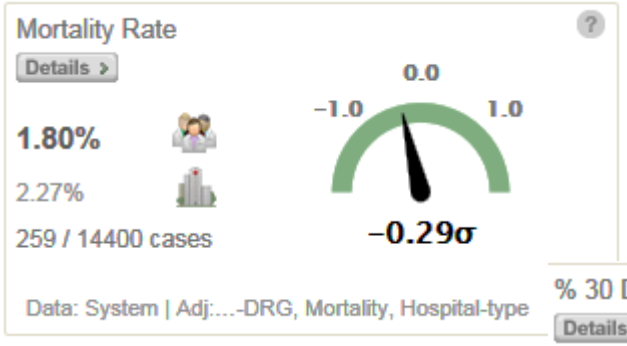


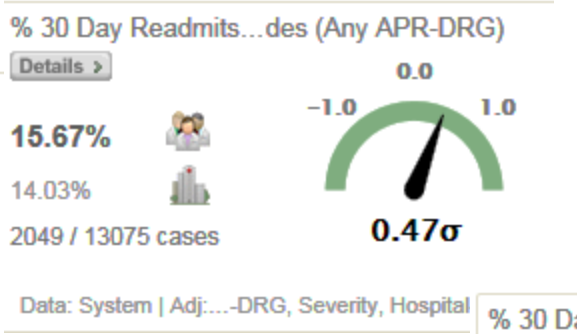


Crimson

- Is a risk adjusted data base that captures severity of illness and risk of mortality (comorbidities)
- Can run by Aggregate of by Individual Practitioner
- Takes the claims based patient data from documentation to capture metrics
- Documentation is critical to accuracy and validity of physician outcomes

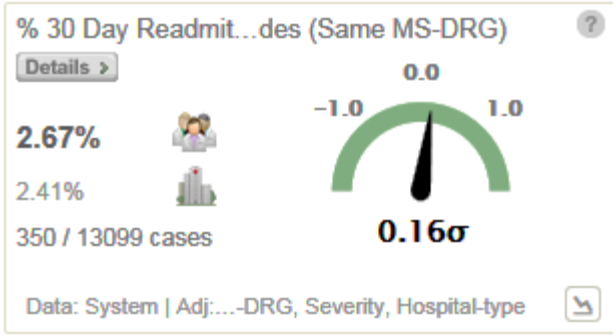
General Internal Medicine
Attending Role
Quality Metrics



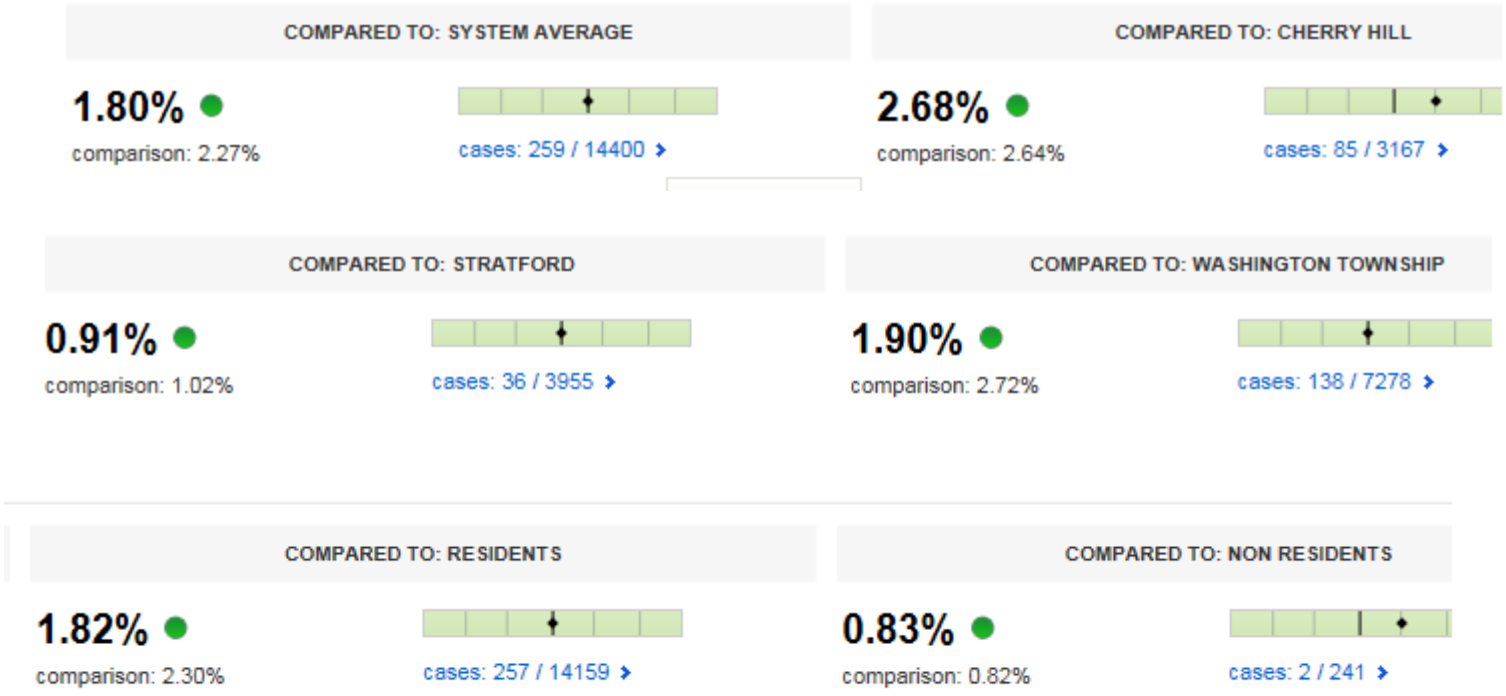


30 day readmission for any reason

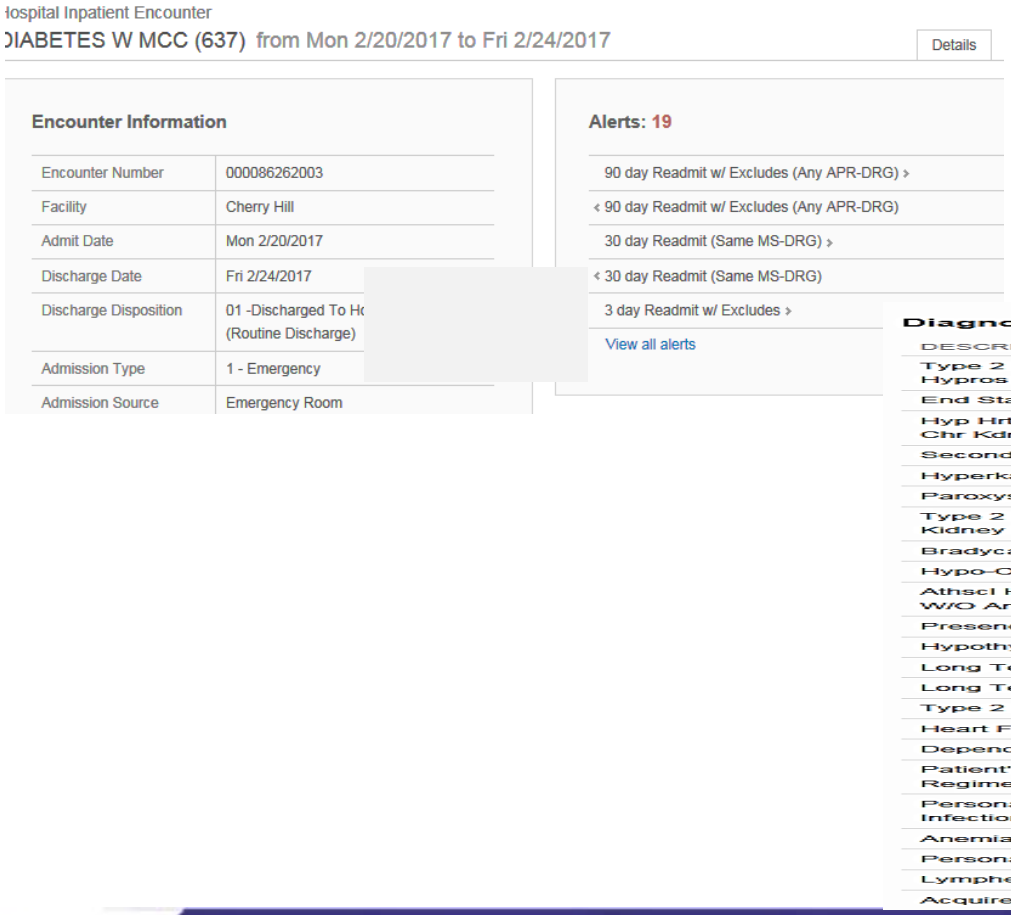
30 day readmission for same diagnosis



Compare by System, Campus, and include Resident Level Detail



Claims Level Patient Detail
By Encounter
Including POA



lospital Inpatient Encounter

)IABETES W MCC (637) from Mon 2/20/2017 to Fri 2/24/2017

Details

Encounter Information

Encounter Number	000086262003
Facility	Cherry Hill
Admit Date	Mon 2/20/2017
Discharge Date	Fri 2/24/2017
Discharge Disposition	01 -Discharged To Hc (Routine Discharge)
Admission Type	1 - Emergency
Admission Source	Emergency Room

Alerts: 19

- 90 day Readmit w/ Excludes (Any APR-DRG) ›
- ‹ 90 day Readmit w/ Excludes (Any APR-DRG)
- 30 day Readmit (Same MS-DRG) ›
- ‹ 30 day Readmit (Same MS-DRG)
- 3 day Readmit w/ Excludes ›

View all alerts

Diagnosis Codes (ICD-10)

DESCRIPTION	CODE	POA
Type 2 Diab W Hyprosm W/O Nonket Hyprgly-Hypros Coma (nkhhc)	E11.00	Y
End Stage Renal Disease	N18.6	Y
Hyp Hrt & Chr Kdny Dis W Hrt Fail And W Stg 5 Chr Kdny/Esrd	I13.2	Y
Secondary Hyperparathyroidism Of Renal Origin	N25.81	Y
Hyperkalemia	E87.5	Y
Paroxysmal Atrial Fibrillation	I48.0	Y
Type 2 Diabetes Mellitus W Diabetic Chronic Kidney Disease	E11.22	Y
Bradycardia, Unspecified	R00.1	Y
Hypo-Osmolality And Hyponatremia	E87.1	N
Athscl Heart Disease Of Native Coronary Artery W/O Ang Pctrs	I25.10	Y
Presence Of Aortocoronary Bypass Graft	Z95.1	-
Hypothyroidism, Unspecified	E03.9	Y
Long Term (current) Use Of Anticoagulants	Z79.01	-
Long Term (current) Use Of Insulin	Z79.4	-
Type 2 Diabetes Mellitus With Hyperglycemia	E11.65	Y
Heart Failure, Unspecified	I50.9	Y
Dependence On Renal Dialysis	Z99.2	-
Patient's Other Noncompliance With Medication Regimen	Z91.14	-
Personal History Of Methicillin Resis Staph Infection	Z86.14	-
Anemia In Chronic Kidney Disease	D63.1	Y
Personal History Of Nicotine Dependence	Z87.891	-
Lymphedema, Not Elsewhere Classified	I89.0	Y
Acquired Absence Of Other Right Toe(s)	Z89.421	-

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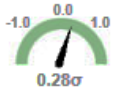
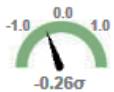
Practitioner for OPPE Example

Jul 2016 - Dec 2016

OPPE

Patient Care

MEASURE		RESULT	COMPARISON	CASES	ADJUSTMENTS
% 30 Day Readmits w/ Excludes (Any APR-DRG)		15.58%	14.26%	24 / 154	Data: System | Adj: APR-DRG, Severity, Hospital-type
% Complications of Care		0.60%	0.94%	1 / 167	Data: System | Adj: APR-DRG, Severity, Hospital-type
Mortality Rate		1.20%	2.49%	2 / 167	Data: System | Adj: APR-DRG, Mortality, Hospital-type
Mortality Observed/Expected Ratio		0.39	NA	2 / 166	Data: National Average | Adj: APR-DRG, Mortality, Hospital-type

OPPE

- Individual Profile run and reviewed every six months

Metrics :

0.0-0.5 displayed as **green**

0.5-1.0 displayed as **yellow**

>1.0 displayed as **red**

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Conclusion

- There is no priority higher than patient safety. If there is a conflict between safe practice and speed, efficiency or volume, then safety wins-hands down. James Anderson Cincinnati Children's Hospital
- Always do what is right for the patient then everything that follows will be for the right reason

Awards, Certifications & Accolades

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Thank You