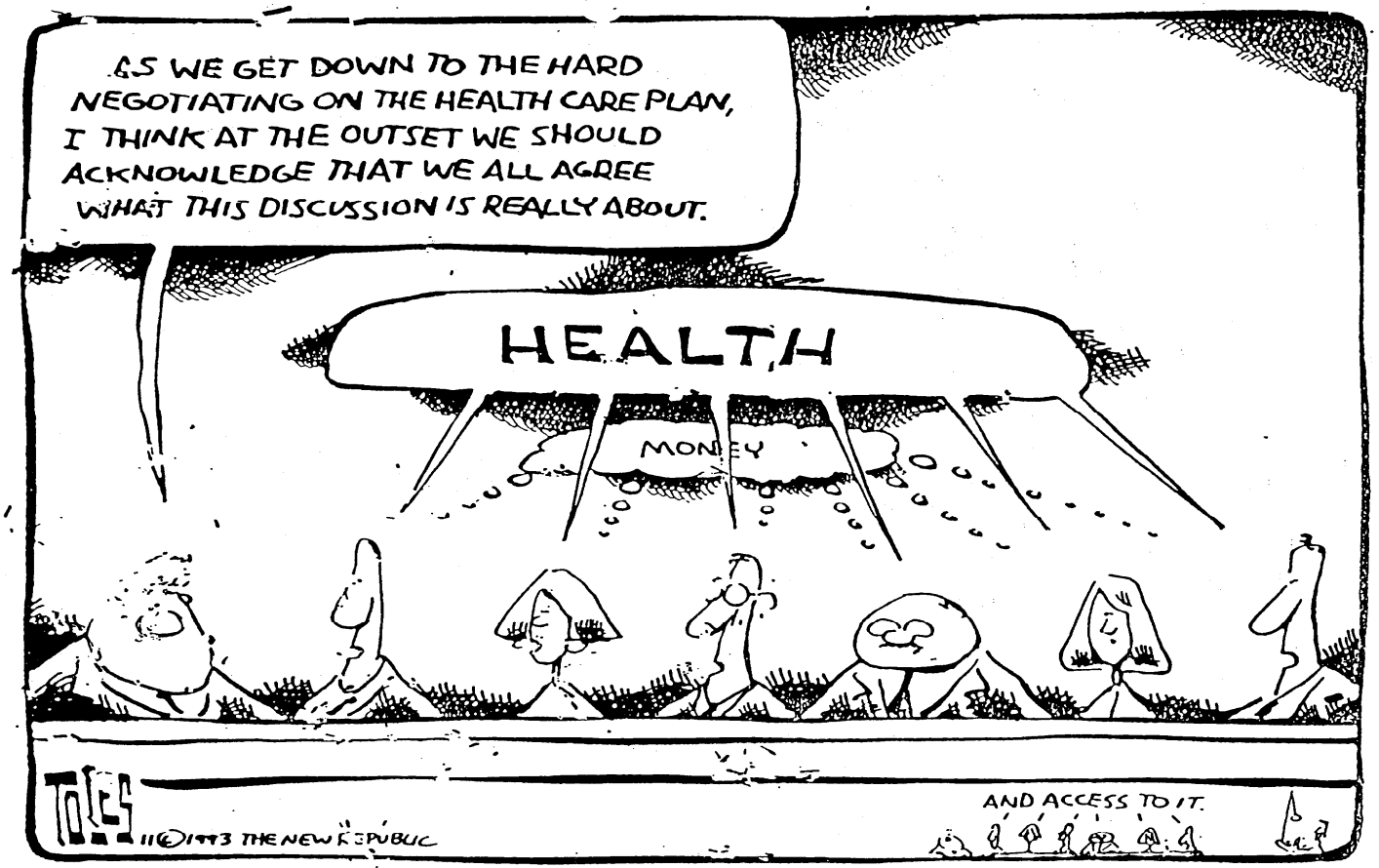
Payment Reform and Patient Safety: 'Never Events' and Beyond

AHIA Conference 2009

Foster Gesten, MD
Medical Director, Office of Health Insurance Programs
New York State Department of Health

Vision

- Payment to health care providers aligned with goals related to ….
  - Safety
  - Quality
  - Efficiency
- First, do no harm


AS WE GET DOWN TO THE HARD NEGOTIATING ON THE HEALTH CARE PLAN, I THINK AT THE OUTSET WE SHOULD ACKNOWLEDGE THAT WE ALL AGREE WHAT THIS DISCUSSION IS REALLY ABOUT.
HEALTH
MONEY
TOLES
©1993 THE NEW REPUBLIC
AND ACCESS TO IT.

Recent History of Medical Errors

- Harvard Medical Practice Study
  - Hospitalized patients in New York (1991): extrapolates to 100,000 deaths
- Colorado/Utah Study
  - Around 44,000 deaths
- Institute of Medicine (IOM) Report: To Err is Human (1999)
- Quality in Australian Health Care Study (1995)
  - Adverse events 10-17% of admissions
  - Preventable costs up to $1 billion

Recommendations from IOM

- Create national center for patient safety
- National mandatory reporting system
- Develop voluntary reporting efforts
- Extend peer review protections
- Performance standards focusing on safety for organizations and professionals
  - **Public and private purchasers should provide incentives to health care organizations to demonstrate continuous improvement in patient safety**
- FDA focus on safe use of drugs
- Health care organizations/professionals should make improved safety a ‘declared and serious aim’
- Organizations should implement proven medication safety practices

What Has Happened?

- **Private**
  - IHI 100,000 Lives Campaign
  - Computerized Order Entry
  - Electronic Health Records
- **Public/Private**: National Quality Forum and 28 Serious Adverse Events (SAEs) or 'Never Events' (2002 and updated 2006)
- **Federal Government** Payment Reform from Centers for Medicare and Medicaid or CMS (DRA 2005)
  - Hospital Acquired Conditions (HACs)
- **New York**
  - Reporting
    - NYPORTS
      - Mandatory but highly imperfect
    - Selected hospital acquired infections
  - Patient Safety Center
  - Hospital acquired infections

Table 13 - Summary of Hospital-Acquired Infection Data, New York State 2008

	Colon		Hip		Coronary Artery Bypass Chest		Coronary Artery Bypass Donor		Coronary ICU		Cardio thoracic ICU		Medical ICU		Medical Surgical ICU		Surgical ICU		Neurosurgical ICU		Pediatric ICU		Neonatal ICU			
Hospital	SSI/ procs	Adj. Rate	SSI/ procs	Adj. Rate	SSI/ procs	Adj. Rate	SSI/ procs	Adj. Rate	CLABSI/ CLDays	Rate	CLABSI/ CLDays	Rate	CLABSI/ CLDays	Rate	CLABSI/ CLDays	Rate	CLABSI/ CLDays	Rate	CLABSI/ CLDays	Rate	CLABSI/ CLDays	Rate	CLABSI/ CLDays	CLABSI Adj rate	UCABSI/ UCDays	UCABSI Adj rate
State Average	4.4		1.1		2.1		1.0		2.2		1.4		2.7		Teaching/Not 2.4/ 2.0		2.8		2.3		3.4		RPC/Lev3/Lev2-3 3.1 /2.2/ 5.6		RPC/Lev3/Lev2-3 2.3 /1.5/ 2.5	
St Lke memorial	NA	NA	2/ 20	8.9											1/ 208	2.8										
St Pat memorial	2/ 44	4.9	0/ 25	* 0.0											0/ 208	* 0.0										
Adirondack medical	NA	NA	1/ 66	<.3											2/ 595	3.4										
Albany medical	22/380	6.3	0/ 259	* 0.0	5/ 384	<.3	0/ 348	** 0.0	1/2<97	0.5	7/2882	2.4	5/332<	<.5			11/1448	2.5	0/ 520	* 0.0	12/1872	** 7.<	4/3852	<.3	1/<788	0.6
Albany memorial	5/ 84	6.7	3/ 139	2.2											1/ 797	<.3										
Alice hyde	0/ 27	* 0.0	1/ 40	<.9											0/ 149	* 0.0										
Arnot ogden	7/ 58	**<<.8	3/ 185	<.3	<1/ 154	** 5.7	2/ 144	1.1							5/3942	<.3							3/ 442	6.2	2/ 444	3.2
Auburn memorial	0/ 44	* 0.0	1/ 38	<.8											0/ 208	* 0.0										
Bellevue hospital	6/<10	4.8	1/ 42	<.2	9/ 158	** 4.8	2/ <57	1.5	8/<257	5.7	0/ 908	* 0.0	9/<9<0	4.7			5/2<58	2.3	3/ 574	5.3	0/ 51	* 0.0	4/ 553	7.<	2/ <8<	11.0
Benedictine hospital	0/ 81	* 0.0	NA	NA											3/<199	2.5										
Beth israel- kings	0/ 58	* 0.0	0/ 54	* 0.0											2/<758	<.<										
Beth israel- metrie	22/280	** 9.4	2/ 248	0.9	<2/ 3<4	3.5	8/ 288	** 2.9	0/ 887	* 0.0	3/<437	2.<	8/38<5	** 0.8			4/<405	2.8			0/ <57	* 0.0	3/ 282	<2.9	0/ <88	* 0.0
Bertrand chaffee	NA	NA																								
Bon Secours	1/ 32	3.<	NA	NA											2/ 538	3.7										
Bronx-Lebanon	0/ 52	* 0.0	0/ 29	* 0.0					0/ 285	* 0.0					8/3<82	<.9							0/ 405	* 0.0	NA	NA
Brookdale hospital	1/ 58	<.7	0/ 25	* 0.0					3/ 8<4	4.9			10/3<73	3.3			5/<590	3.<	1/ 639	<.8	2/ <22	<8.4	0/ <84	* 0.0	3/ 388	6.8
Brookhaven memorial	2/<44	<.3	3/ <25	<.9					8/<244	5.7			11/<19<	** 9.2			11/1829	** 6.0								
Brooklyn downtown	3/ 83	3.5	NA	NA									8/<<70	5.<			1/1295	0.8					<1<14	0.8	0/ 382	* 0.0
Brooks memorial	NA	NA	2/ 75	3.<											0/ 438	* 0.0										
Buffalo General	11/<53	7.0	7/ 544	<.2	22/ 42<	** 5.0	<5/ 382	** 3.8	2/ 8<0	3.3			8/2748	2.9			3/3806	** 0.8								
Canton-Potsdam	1/ 30	2.7	1/ 65	<.3											0/ 197	* 0.0										
Carthage Area	NA	NA																								
Catskill Regional	1/ 39	2.8	1/ 36	2.5											3/ 549	5.5										
Cayuga medical cntr	5/ 70	8.8	2/ 70	3.<											0/<184	* 0.0										
Champlain valley	10/ 90	**<<.2	0/ 89	* 0.0	2/ <25	<.<	1/ <30	0.8							4/2442	<.8										
Chenango memorial	NA	NA	1/ 27	4.2											1/ 274	3.8										
Clinton-Heppburn	1/ 20	3.7	NA	NA											0/ 382	* 0.0										
Clinton Springs	5/ 38	**<3.8	1/ 83	<.5											0/ 352	* 0.0										
Columbia memorial	1/ 59	<.7	1/ 48	<.3											3/ 69<	4.3										
Community General	2/<20	<.4	4/ 485	<.2											0/<2<5	* 0.0										

*Color key: **Blue: significantly lower than state average ^^Red: significantly higher than state average Grey: not statistically different from state average *: Zero infections, not statistically significant*
NA: Fewer than 20 procedures or 50 line days reported Blank: No procedures or ICUs at hospital

NYPORTS REPORTING – 2008

NYPORTS CODE	DESCRIPTION	#	%	2007
402	New deep vein thrombosis (DVT)	5741	47.5	5586
401	New pulmonary embolism (PE)	2526	20.9	2413
751	Falls resulting in x-ray proven fractures, subdural or epidural hematoma, cerebral contusion, traumatic subarachnoid hemorrhage and or internal trauma (e.g., hepatic or splenic injury)	1059	8.8	1023
915	Unexpected death (including delay in treatment, admission or omission of care, including neonate ≥ 28 weeks and ≥ 1000 grams and no life threatening anomalies)	788	6.5	776
604	Acute myocardial infarction (AMI)	609	5.0	675
902	Specific patient transfers from Diagnostic & Treatment Center to Hospital-for D&TC use only	494	4.1	413
901	Other serious occurrence warranting DOH notification	400	3.3	413
918	Impairment of limb or organ (including delay in treatment, admission or omission of care)	247	2.0	298
937	Malfunction of equipment during treatment or diagnosis or a defective product which has a potential for adversely affecting patient or hospital personnel or results in a retained foreign body	170	1.4	285
933	Termination any services vital t the continued safe operation of the hospital or to the health and safety of its patients and staff	151	1.2	166
913	Unintentionally retained foreign body	151	1.2	128
912	Incorrect procedure or treatment-invasive	94	0.8	108
701	Burns (2nd or 3rd degree burns occurring during inpatient or outpatient service encounters)	89	0.7	87
916	Cardiac and or respiratory arrest requiring ACLS intervention (including delay in treatment, admission or omission of care)	89	0.7	112
932	External disaster outside the control of hospital staff that which effects hospital operation	85	0.7	104
935	Hospital fire or other internal disaster disrupting care or causing harm to patients or staff	65	0.5	59
914	Misadministration of radiation or radioactive materials	43	0.4	39
917	Loss of limb or organ (including delay in treatment, admission or omission of care)	40	0.3	48
911	Wrong patient; wrong surgical site procedure	21	0.2	21
963	Rape of patient	11	0.1	8
922	Suicide, and attempted suicide related to an inpatient hospitalization, with serious injury	9	0.1	10
109	Medication error that resulted in near death event	9	0.1	11
110	Medication error that resulted in patient death	8	0.1	12
923	Elopement from hospital resulting in death or serious injury	7	0.1	5
108	Medication error that resulted in permanent patient harm	5		7
934	Poisoning occurring within the hospital (water, air, food)	3		2
938	Malfunction of equipment during treatment or a defective product resulting in death or injury	3		5
921	Crime resulting in death or injury	0		1
931	Strike by hospital staff	0		2
961	Infant abduction	0		0
962	Infant discharged with wrong family	0		0
	TOTAL:	12,093		12,082

In Australia…

- Richardson and McKie (2008): Options to decrease adverse events
  - Error learning and Mandatory Disclosure
  - Hospital Accreditation and Audit
  - IT
  - Public Disclosure
  - Hospital Regulation
  - Physician focused efforts
  - System level reform
    - Financial incentives are ‘important missed opportunity’

Definition of ‘Never Event’ (National Quality Forum)

- Of concern to public and healthcare providers
- Clearly identifiable and measurable
- Feasible to include in reporting system
- Of a nature such that the risk of occurrence is significantly influenced by the policies and procedures of healthcare facility …..and….

Definition

- Unambiguous
- Usually preventable
- Serious
- And..
  - Adverse and/or
  - Indicative of a problem in a healthcare facility's safety systems and/or
  - Important for public credibility or public accountability

National Quality Forum

- **Surgery on wrong body part**
- **Surgery on wrong patient**
- **Wrong surgical procedure**
- **Retention of foreign object**
- Intra-post operative death in ASA Class I patient
- **Contaminated drugs/devices/biologics**
- **Device functioning other than intended**
- **Intravascular air embolism**
- Infant discharged to wrong person
- Patient disappearance
- Suicide or attempted
- **Medication error**
- **Incompatible blood**
- Maternal death/disability in low risk pregnancy
- Death/disability associated with hypoglycemia
- Failure to identify/treat hyperbilirubinemia
- Stage 3 or 4 pressure ulcers
- Death/disability with spinal manipulation
- Artificial insemination with wrong sperm or egg
- **Electric shock**
- **Wrong gas or contamination**
- **Burn**
- Fall
- **Death/disability with restraints or bedrails**
- Impersonation
- Abduction
- Sexual assault
- Physical assault

Hospital Acquired Conditions (10 Categories)

- **Retained foreign object after surgery**
- **Air embolism**
- **Blood incompatibility**
- Stage III and IV pressure ulcers
- Falls and trauma
- Poor glycemic control
- Catheter associated UTI
- Vascular catheter associated infection
- Surgical site infections
  - CABG
  - Bariatric
  - Orthopedic
- DVT/PE

The Impact

- Modeling on California data (on 6 conditions) showed
  - Present in .11% of Medicare discharges
    - Only 3 percent of these affected by policy
    - Payment reductions small (extrapolated to only $1.1 million nationwide)
- CMS Response
  - Too early to evaluate
  - Ripple effect to states and private insurers
  - Underestimates power of small financial disincentives to change behavior
  - Broader context of quality and safety initiatives including improvement, public reporting, value based purchasing

The Landscape

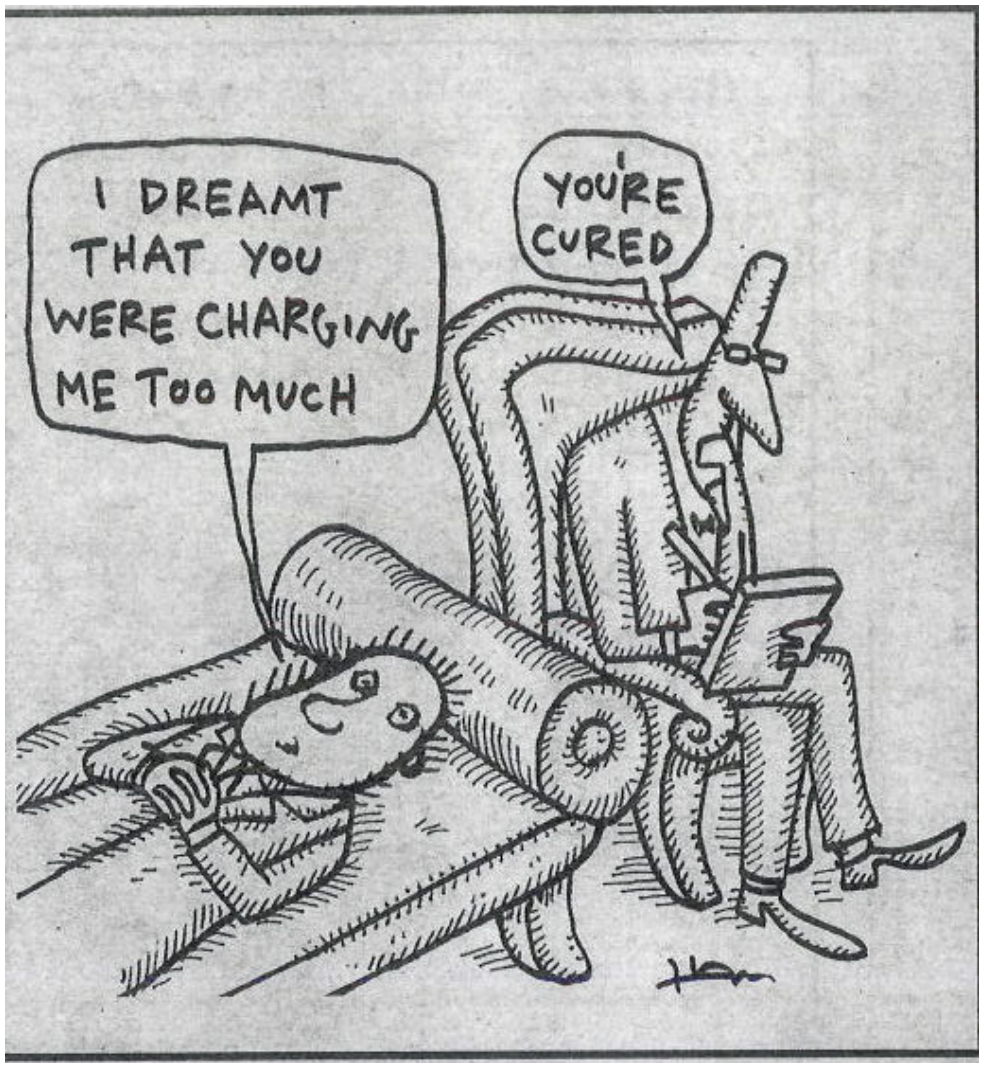
- We have in New York..
  - Mandatory reporting with required ‘plans of correction’
  - Some public reporting
  - ‘Global’ payment (DRG)
  - Voluntary improvement efforts
  - Large (but slow) investments in HIT, computerized order entry

Medicaid is a large payer….

- Payment incentives/disincentives
- Response to the federal initiative
  - And to taxpayers
- Approach budget constraints using more ‘surgical’ approach
- Address cost and quality/safety

New York Medicaid

- Insures 4.5 million low income individuals/families with comprehensive benefit package
  - Delivered through both fee-for-service and full risk health plans
  - Annual budget ~ 46 billion
    - Represents ~ 30% of state budget
    - ~ 28% of health care spending in state


I DREAMT THAT YOU WERE CHARGING ME TOO MUCH
YOU'RE CURED

Value Based Purchasing Initiatives

- Selective contracting
  - Breast cancer surgery
  - Bariatric surgery
- Pay for Performance
  - Medicaid health plans
  - Provider/hospital demonstrations
- Never Events

Our Approach

- Review NQF and CMS lists
- Include stakeholders in discussion
  - Hospitals, physicians, associations
- Start modest and evolve
  - Build consensus if possible
- Establish requirement for ‘present on admission’ field for each diagnosis on claims
- (Respect) hospital acquired infection reporting
- Potentially Preventable Complications/Readmissions

Immediate Challenges

- What is preventable?
  - Which list and why?
- Definitional
  - What is ‘serious disability’?
  - ICD9 codes
- Hospital capture of events
- Legal exposure
- Payment adjustment in setting of DRGs
- Readmissions for ‘repair’
  - Same hospital
  - Different hospital
- Include physician payments? Outpatient?
- Hospitals negative response to federal (CMS) approach

Program Features

- 13 total events
  - 3 can be ‘administratively’ adjusted
  - 10 require manual review
- Program is similar for fee for service and health plans
- Audit necessary
- Inpatient claim adjustments only

NYS Medicaid SAEs

- Retained surgical instrument
- Air embolism
- Blood incompatibility
- Wrong person surgery
- Wrong part surgery
- Wrong surgical procedure
- Medication error
- Contaminated drugs/devices/biologics
- Malfunction of device
- Electric shock
- Wrong gas
- Burn
- Injury from restraints

Timeline

- Hospitals required to submit claims with valid ‘present on admission’ (POA) fields as of July 2008
  - If invalid, rejected
  - Audit
- Policy of payment adjustment for 3 events began October 2008
  - Object left in surgery
  - Air embolism
  - Blood incompatibility
- As of September 2009……ZERO Events
- Policy for other ten (10) events began November 2009
  - Begins January 2010 for health plans

Limitations

- Effort/resources involved in ‘not paying’
  - Chart reviews
  - Audit
    - Includes POA validation
  - Manual payment adjustment
- Limited number of events
- Minimal cost impact compared to what many believe is ‘true cost’ of errors and avoidable complications
- Risk adjustment

What Else?

- Potentially Preventable Readmissions
- Potentially Preventable Complications
- Bundled Payments

Readmissions

- Potentially preventable readmission (PPR) is a readmission to the hospital after an initial admission that is clinically related to the initial admission and might have been prevented by appropriate care during the initial admission, improved hospital discharge planning, or proper outpatient care

Readmissions: Medicaid

- In 2007, over 46,000 initial admissions followed within 30 days by at least one PPR
  - Overall rate 9.38%
  - Most frequent conditions at initial admission
    - Alcohol/drug use
    - Mental diseases/disorders
    - Diseases/disorders of circulatory, respiratory, digestive systems
  - Total associated costs estimated at over $800 million

Readmissions

- Use APR-DRGs (risk adjusted)
- Clinically driven decision rules and exclusions
  - Major malignancy, trauma, obstetrical
  - Develop actual vs. expected rate for each hospital
  - For 2005, actual ranged from 0% to 17.74%
  - Most between 2-6%
- Adjust payment prospectively
  - Many options for operationalizing

Potentially Preventable Complications (PPCs)

- Harmful events (accidental laceration during a procedure) or negative outcomes (hospital acquired pneumonia) that may result from the process of care and treatment rather than from a natural progression of an underlying illness
- Requires
  - Present on admission indicator
  - Clinical input
  - Method for risk adjustment
  - Exclusions
    - Newborns, major trauma, organ transplants, major/metastatic malignancy, cardiac arrest, HIV

PPC Assumptions

- Not all complications are preventable
- Patients receiving poor quality care will be more likely to have complication
- Hospitals providing poorer quality care will have higher rates of complications
- Patient's risk of complication related to both reason for admission and severity of illness on admission

PPC Organization

- Organized into 8 groups of 64 PPCs
  - Derived from ICD-9 diagnosis codes (1450 of 13,367)
  - Based on similarities in clinical presentation and impact
  - Groups are mutually exclusive

Examples

- Extreme complications
  - Shock
  - Acute pulmonary edema/respiratory failure
  - Ventricular fibrillation/cardiac arrest
- Cardiovascular-respiratory
  - CVA
  - Pneumonia
  - Pulmonary embolism
  - Congestive heart failure
  - Acute myocardial infarction
- Gastrointestinal complications
  - Major GI complications with transfusion or bleeding
  - Major liver complications
- Perioperative complications
  - Post-op wound infection
  - Reopening of surgical site
  - Post-op hemorrhage
  - Post-op foreign body

PPC Approach

- Use discharge or claims data to identify inpatient complications
- Adjust for ‘risk’ of complications
  - Reason for admission
  - Severity of illness
- Calculate expected complication rates
- Evaluate actual/expected rates
- Adjust rates prospectively

PPC Use

- New York
  - Non public reporting of selected major PPCs since 2005 for quality improvement purposes
- Maryland
  - PPCs used in payment adjustment to hospitals (all payer) starting July 2009

Sample Report 1 – Statewide overall PPC rates

Report 1

Overall Rates of Major Potentially Preventable Complications (PPCs)

State X using Statewide Norm

For Discharges in the Year Beginning January 1, 2006 and Ending December 31, 2006

State X Compared to Statewide Norm

Category	Discharges		Discharges with One or More Major PPCs		Major PPC Rate/1,000		%	Significance
	Total	At Risk for PPC	Actual	Expected	Observed	Expected	Difference	Level
Total	78,108	61,234	2,286	2,264	43.86	37.33	6.53	
Medical	45,686	31,450	1,045	807	33.23	25.66	29.50	*
Surgical	22,370	19,753	1,148	1,077	58.12	54.52	6.60	
Obstetrical	10,052	10,031	93	380	9.27	37.88	-75.52	***

Sample Report 3 – Major PPC rates across all service lines

Report 3
Rates of Major PPCs by Major PPC Group Across All Service Lines
State X Compared to Statewide Norm
For Discharges with One or More Major PPCs
For Discharges In the Year Beginning January 1, 2006 and Ending December 31, 2006

	Major PPC	Discharges At Risk for PPC	Discharges with Major PPC Total Cases		Major PPC Rate/1,000		%	Significance Level
			Actual	Expected		Expected	Difference	
Discharges with One or More Major PPCs								
01	STROKE & INTRACRANIAL HEMORRHAGE	53,991	101	83.8	1.87	1.55	20.48	
02	EXTREME CNS COMPLICATIONS	50,510	28	16.4	0.55	0.32	71.03	*
03	ACUTE PULMONARY EDEMA AND RESPIRATORY FAILURE WITH MECHANICAL VENTILATION	52,133	115	122.1	2.21	2.34	-5.83	
04	PNEUMONIA & OTHER LUNG INFECTIONS	46,025	00	0.0	0.00	0.00	.00	
05	ASPIRATION PNEUMONIA	50,452	118	88.5	2.34	1.75	33.32	*
06	PULMONARY EMBOLISM	54,565	66	73.2	1.21	1.34	-9.89	
07	SHOCK	53,709	74	59.2	1.38	1.10	25.08	
08	CONGESTIVE HEART FAILURE	48,451	262	142.7	5.41	2.95	83.56	*
09	ACUTE MYOCARDIAL INFARCT	53,658	195	154.4	3.63	2.88	26.28	*
10	VENTRICULAR FIBRILLATION/CARDIAC ARREST	55,251	157	147.4	2.84	2.67	6.54	
11	PERIPHERAL VASCULAR COMPLICATIONS EXCEPT VENOUS THROMBOSIS	55,004	26	31.0	0.47	0.56	-16.17	
12	VENOUS THROMBOSIS	54,775	157	183.1	2.87	3.34	-14.24	
13	MAJOR GASTROINTESTINAL COMPLICATIONS WITH TRANSFUSION OR SIGNIFICANT BLEEDING	52,448	21	27.3	0.40	0.52	-23.00	
14	MAJOR LIVER COMPLICATIONS	54,741	37	28.9	0.68	0.53	28.11	
15	CLOSTRIDIUM DIFFICILE COLITIS	55,251	00	0.0	0.00	0.00	.00	
16	URINARY TRACT INFECTION	56,225	792	648.5	14.09	11.53	22.13	*
17	RENAL FAILURE WITH DIALYSIS	52,075	34	35.2	0.65	0.68	-3.50	
18	POST-HEMORRH & OTHER ACUTE ANEMIA WITH TRANSFUSION	42,107	95	86.0	2.26	2.04	10.47	
19	DECUBITUS ULCER	58,560	00	0.0	0.00	0.00	.00	
20	SEPTICEMIA & SEVERE INFECTIONS	53,113	00	0.0	0.00	0.00	.00	
21	POST-OP WOUND INFECTION & DEEP WOUND DISRUPTION WITH PROCEDURE	22,478	4	3.0	0.18	0.13	33.33	
22	REOPENING SURGICAL SITE	21,214	18	18.0	0.85	0.85	0.00	
23	POST-OP HEMORRHAGE & HEMATOMA WITH HEM CNTRL PROC OR I&D PROC	22,147	26	24.0	1.17	1.08	8.33	
24	ACCIDENTAL PUNCTURE/LACERATION DURING INVASIVE PROCEDURE	25,710	182	157.0	7.08	6.11	15.92	
25	POST-PROCEDURE FOREIGN BODIES	22,161	4	2.0	0.18	0.09	100.11	
26	ENCEPHALOPATHY	51,669	22	16.1	0.43	0.31	36.69	
27	IATROGENIC PNEUMOTHRAX	49,648	26	25.1	0.52	0.51	3.52	

Sample Report 2 – Service Line PPC rates

Report 2
Rates of Major PPCs by Service Line
State X Compared to Statewide Norm
For Discharges with One or More Major PPCs
For Discharges in the Year Beginning January 1, 2006 and Ending December 31, 2006

No.	Service Line	Discharges At Risk for PPC	Discharges with One or More Major PPC		One or More Major PPC Rate/1,000		% Difference	Significance Level
			Actual	Expected		Expected		
001	NEUROSURGERY	759	57	78.1	75.09	102.92	-27.03	
002	NEUROLOGY	2,621	99	70.4	37.77	26.86	40.60	*
003	CARDIAC SURGERY	1,393	159	132.9	114.35	114.23	0.08	
004	THORACIC SURGERY	179	13	15.4	72.62	86.55	-16.09	
005	VASCULAR SURGERY	645	72	97.6	111.62	151.37	-26.25	***
006	INFECTIOUS DISEASES	1,304	71	72.4	54.44	55.57	-2.02	
007	OPTHALMOLOGY	110	2	0.0	18.18	0.00	0.00	
008	OTOLARYNGOLOGY	601	15	7.6	24.95	12.78	95.21	*
009	PLASTIC SURGERY	111	1	2.0	9.00	18.49	-51.28	
010	PULMONARY MEDICINE	4,271	143	143.9	33.48	33.71	-0.69	
011	ONCOLOGY	255	2	5.0	7.84	19.90	-60.58	
012	CARDIOLOGY	4,537	161	145.6	35.48	32.09	10.56	
013	GENERAL SURGERY	4,270	270	270.6	63.23	63.38	-0.23	
014	GASTROENTEROLOGY	4,189	137	117.8	32.70	28.13	16.25	
015	ORAL SURGERY	44	1	0.3	22.72	8.01	183.44	
016	ORTHOPEDICS	6,625	319	301.9	48.15	45.57	5.65	
017	RHEUMATOLOGY	338	15	7.8	44.37	23.14	91.70	*
018	DERMATOLOGY	258	7	7.6	27.13	29.57	-8.27	
019	GYNECOLOGY	1,894	69	49.0	36.43	25.89	40.67	*
020	ENDOCRINOLOGY	1,159	36	40.0	31.06	34.51	-10.01	
021	UROLOGY	1,873	69	61.7	36.83	32.95	11.78	
022	NEPHROLOGY	1,396	62	76.1	44.41	54.57	-18.62	
023	OBSTETRICS	10,031	493	337.6	49.14	33.66	45.99	*
025	NEONATALOGY	1,066	0	0.0	0.00	0.00	0.00	
026	NEWBORN	0	0	0.0	0.00	0.00	0.00	
027	HEMATOLOGY	599	12	14.6	20.03	24.47	-18.16	
028	PSYCHIATRY	3,558	30	21.6	8.43	6.08	38.64	
029	SUBSTANCE ABUSE	656	7	7.4	10.67	11.30	-5.60	
030	ADVERSE EFFECTS	538	26	9.9	48.32	18.51	160.94	*
031	BURNS	72	0	1.8	0.00	25.00	-100.00	
032	REHABILITATION	958	141	92.7	147.18	96.76	52.09	*
033	SIGNS & SYMPTOMS	142	4	2.2	28.16	15.51	81.55	
034	OTHER	1,432	68	57.5	47.48	40.20	18.12	
035	CARDIOLOGY-INVASIVE	3,408	126	128.3	36.97	37.66	-1.83	
Total:		61,234	2,686	2,398.0	43.86	39.17	11.97	*

Sample Report 4 – Major PPC rates for specific Service Line

Report 4

Rates of Major PPCs by Major PPC Group for Service Line 02 Neurology

State X Compared to Statewide Norm

For Discharges with One or More Major PPCs

For Discharges In the Year Beginning January 1, 2006 and Ending December 31, 2006

	Major PPC	Discharges At Risk for PPC	Discharges with Major PPC Total Cases		Major PPC Rate/1,000		%	Significance Level
			Actual	Expected		Expected	Difference	
Discharges with One or More Major PPCs								
01	STROKE & INTRACRANIAL HEMORRHAGE	1,450	2	4.0	1.38	2.76	-50.00	
02	EXTREME CNS COMPLICATIONS	1,148	0	0.0	0.00	0.00	0.00	
03	ACUTE PULMONARY EDEMA AND RESPIRATORY FAILURE WITH MECHANICAL VENTILATION	2,106	0	0.0	0.00	0.00	0.00	
04	PNEUMONIA & OTHER LUNG INFECTIONS	1,962	0	0.0	0.00	0.00	0.00	
05	ASPIRATION PNEUMONIA	1,419	15	10.0	10.57	7.05	50.00	
06	PULMONARY EMBOLISM	2,288	1	1.0	0.44	0.44	0.00	
07	SHOCK	2,276	0	1.0	0.00	0.44	-100.00	
08	CONGESTIVE HEART FAILURE	2,110	6	10.0	2.84	4.74	-40.00	
09	ACUTE MYOCARDIAL INFARCT	2,285	9	6.0	3.94	2.63	50.00	
10	VENTRICULAR FIBRILLATION/CARDIAC ARREST	2,293	5	5.0	2.18	2.18	0.00	
11	PERIPHERAL VASCULAR COMPLICATIONS EXCEPT VENOUS THROMBOSIS	2,291	0	1.0	0.00	0.44	-100.00	
12	VENOUS THROMBOSIS	2,288	4	5.0	1.75	2.19	-20.00	
13	MAJOR GASTROINTESTINAL COMPLICATIONS WITH TRANSFUSION OR SIGNIFICANT BLEEDING	2,273	0	0.0	0.00	0.00	0.00	
14	MAJOR LIVER COMPLICATIONS	2,284	2	1.0	0.88	0.44	100.02	
15	CLOSTRIDIUM DIFFICILE COLITIS	2,293	0	0.0	0.00	0.00	0.00	
16	URINARY TRACT INFECTION	2,432	61	33.1	25.08	13.61	84.25	*
17	RENAL FAILURE WITH DIALYSIS	2,212	1	0.0	0.45	0.00	0.00	
18	POST-HEMORRH & OTHER ACUTE ANEMIA WITH TRANSFUSION	2,239	2	0.0	0.89	0.00	0.00	
19	DECUBITUS ULCER	2,572	0	0.0	0.00	0.00	0.00	
20	SEPTICEMIA & SEVERE INFECTIONS	2,238	0	0.0	0.00	0.00	0.00	
21	POST-OP WOUND INFECTION & DEEP WOUND DISRUPTION WITH PROCEDURE	0	0	0.0	0.00	0.00	0.00	
22	REOPENING SURGICAL SITE	0	0	0.0	0.00	0.00	0.00	
23	POST-OP HEMORRHAGE & HEMATOMA WITH HEM CNTRL PROC OR I&D PROC	0	0	0.0	0.00	0.00	0.00	
24	ACCIDENTAL PUNCTURE/LACERATION DURING INVASIVE PROCEDURE	178	0	0.0	0.00	0.00	0.00	
25	POST-PROCEDURE FOREIGN BODIES	0	0	0.0	0.00	0.00	0.00	
26	ENCEPHALOPATHY	1,867	0	0.0	0.00	0.00	0.00	
27	IATROGENIC PNEUMOTHRAX	2,286	0	1.0	0.00	0.44	-100.00	

Bundled Payments

- Interesting conversations but no one has any answers to date as to how to approach
- Geisinger Clinic defect-free ‘guarantee’ for cardiac surgery

Summary: Richardson and McKie probably got it right…..

- Multiple approaches are best
  - Error learning and Mandatory Disclosure
  - Hospital Accreditation and Audit
  - IT
  - Public Disclosure
  - Hospital Regulation
  - Physician focused efforts
  - System level reform
    - Financial incentives are ‘important missed opportunity’

Conclusion

- Payment adjustments can/should be part of the toolbox to promote safety
  - Carrots and sticks would be best
- To date, direct impact on savings small – direct impact on quality/safety unknown
  - Sentinel effects?
- Broader approach, looking at risk adjusted complications, readmissions, may have larger impact
- Hospitals need data, motivation, ‘know how’, and leadership

Contact Information:

fcg01@health.state.ny.us