
TECHNICAL NOTES APPENDIX – SUMMER

Hospital Performance Report Summer Update

*INCLUDES PENNSYLVANIA INPATIENT HOSPITAL DISCHARGES FROM
July 1, 2005 through June 30, 2006*



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PREFACE

The *Technical Notes Appendix – Summer* in conjunction with the *Technical Notes* that accompanied the *FFY 2005 Hospital Performance Report* (HPR) provide important information regarding the analysis and development of the *Hospital Performance Report Summer Update* (July 1, 2005 through June 30, 2006 data).

The full *Technical Notes* describes the methodology of the analyses and outlines the development of the report format and presentation. The *Technical Notes Appendix – Summer* document includes tables that 1) describe the code-based conditions and DRGs in the report, 2) define readmissions for a complication or infection, 3) display statewide results, 4) categorize all cases readmitted for a complication or infection by specific reasons, 5) present cases that were excluded from analyses, 6) list hospitals excluded from the report, and 7) list valid discharge status codes. These tables contain information that is relevant to the current study period (i.e., Quarter 3, 2005 through Quarter 2, 2006).

Additional Information:

- ICD-9-CM codes and DRGs used in the *Hospital Performance Report Summer Update* are applicable to CMS Grouper Versions 22 and 23.
- Mortality ratings are not reported for code-based conditions or DRGs with low statewide mortality (i.e., less than ten mortalities, after exclusions). Additionally, mortality ratings for code-based conditions or DRGs with statewide mortalities of 10-29 are based on only one risk adjuster (i.e., *Atlas Outcomes*™ predicted probability of death).

- In Tables E1 & E2 (Statewide Exclusions from Analysis, by Measure), intermediary hospitalizations are subsequent admissions within 30 days for the same hospital and condition, with a mutually eligible readmission for complication or infection. Intermediary hospitalizations are excluded from the readmission analysis.
- Effective Q4, 2005, transfer out records are defined as discharge status 02, 43, 63 and 66. See Table G (Valid Discharge Status Codes) for descriptions of discharge status codes.
- For the readmissions analyses, same day readmissions include discharge status 01 and 06 only. See Table G (Valid Discharge Status Codes) for descriptions of discharge status codes.
- Patients transferred to acute care facilities (short-term, long-term, or federal hospital; discharge status codes—02, 43, 63, 66) are excluded from all analyses except the Transfer to Acute Care percent (reported for Heart Attack – Medical Management only).
- The *Hospital Performance Report Summer Update* utilizes *Atlas Outcomes*™ version 4.0 scoring algorithms.

Table A

**The 31 Code-Based Conditions and 19 DRGs in the
Hospital Performance Report – Summer Update**

The following table outlines the code-based conditions (the ICD-9-CM codes and DRGs used to define each) and the DRGs included in this report (inpatient discharges from July 1, 2005 through June 30, 2006). These codes and DRGs are applicable to CMS Grouper Versions 22 and 23. Additional exclusions (clinically complex cases) are identified as footnotes.

The 19 code-based diagnoses are:

Diagnoses¹	Principal Diagnosis Codes (ICD-9-CM)	DRGs
Abnormal Heartbeat	426.0, 426.10, 426.11, 426.12, 426.13, 426.2, 426.3, 426.4, 426.50, 426.51, 426.52, 426.53, 426.54, 426.6, 426.7, 426.81, 426.82 ³ , 426.89, 426.9, 427.0, 427.1, 427.2, 427.31, 427.32, 427.60, 427.61, 427.69, 427.81, 427.89, 427.9, 746.86, 785.0	116 ² , 117 ² , 118, 124, 125, 138, 139, 517 ² , 518, 527 ² , 552 ³ , 556 ³ , 558 ³
Blood Clot in Extremities	451.0, 451.11, 451.19, 451.2, 451.81, 451.82, 451.83, 451.84, 451.89, 451.9, 453.40, 453.41, 453.42, 453.8, 453.9	128,130,131
Blood Clot in Lung	415.11, 415.19	078
Chronic Obstructive Pulmonary Disease	491.20, 491.21, 491.22, 492.0, 492.8, 496, 506.4	088
Congestive Heart Failure (CHF)	398.91, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9	124, 127
Diabetes with Amputation	250.xy (x = 0-9, y = 0-3)	113, 114, 285
Diabetes – Medical Management	250.xy (x = 0-9, y = 0-3)	018, 019, 130, 131, 294, 295, 331, 332
Heart Attack – Medical Management	410.01, 410.11, 410.21, 410.31, 410.41, 410.51, 410.61, 410.71, 410.81, 410.91	121,122,123
Intestinal Obstruction	560.0, 560.2, 560.30, 560.31, 560.39, 560.81, 560.89, 560.9	180, 181
Kidney Failure	403.01, 403.11, 403.91, 404.02, 404.12, 404.92, 584.5, 584.6, 584.7, 584.8, 584.9, 585 ² , 585.1 ³ , 585.2 ³ , 585.3 ³ , 585.4 ³ , 585.5 ³ , 585.6 ³ , 585.9 ³ , 586	316
Kidney and Urinary Tract Infections	590.00, 590.01, 590.10, 590.11, 590.2, 590.3, 590.80, 590.9, 595.x (x = 0-3), 595.81, 595.89, 595.9, 599.0	320, 321
Pneumonia – Aspiration	507.0	079, 080
Pneumonia – Infectious	480.0, 480.1, 480.2, 480.3, 480.8, 480.9, 481, 482.0, 482.1, 482.2, 482.30, 482.31, 482.32, 482.39, 482.40, 482.41, 482.49, 482.81, 482.82, 482.83, 482.84, 482.89, 482.9, 483.0, 483.1, 483.8, 485, 486, 487.0	079, 080, 089, 090
Respiratory Failure with Mechanical Ventilation	506.1, 518.5, 518.81, 518.83, 518.84	475
Respiratory Failure without Mechanical Ventilation	506.1, 518.5, 518.81, 518.83, 518.84	087
Septicemia	038.0, 038.10, 038.11, 038.19, 038.2, 038.3, 038.40, 038.41, 038.42, 038.43, 038.44, 038.49, 038.8, 038.9, 995.90, 995.91, 995.92, 995.93, 995.94	416
Stomach and Intestinal Bleeding	456.0, 530.7, 530.82, 531.00, 531.01, 531.20, 531.21, 531.40, 531.41, 531.60, 531.61, 532.00, 532.01, 532.20, 532.21, 532.40, 532.41, 532.60, 532.61, 533.00, 533.01, 533.20, 533.21, 533.40, 533.41, 533.60, 533.61, 534.00, 534.01, 534.20, 534.21, 534.40, 534.41, 534.60, 534.61, 535.01, 535.11, 535.21, 535.31, 535.41, 535.51, 535.61, 537.83, 537.84, 562.02, 562.03, 562.12, 562.13, 569.3, 569.85, 578.9	174, 175
Stroke – Hemorrhagic	430, 431, 432.0, 432.1, 432.9	014
Stroke – Non-Hemorrhagic	433.01, 433.11, 433.21, 433.31, 433.81, 433.91, 434.01, 434.11, 434.91, 436	014, 015, 559 ³

¹Cases involving HIV Infection (ICD-9-CM code 042, in any position) were excluded from all code-based diagnoses and procedures.

²Invalid as of October 1, 2005.

³Valid as of October 1, 2005.

Table A continued

The 12 code-based procedures are:

Procedures¹	Principal Procedure Codes (ICD-9-CM)	DRGs
Abdominal Aortic Aneurysm Repair - Endovascular	39.71 With PDx of 441.4	110, 111
Abdominal Aortic Aneurysm Repair - Open	38.44, 38.64, 38.84 With PDx of 441.4	110, 111
Colorectal Procedures ²	45.71, 45.72, 45.73, 45.74, 45.75, 45.76, 45.79, 45.8, 45.92, 45.94, 46.03, 46.10, 46.11, 46.13, 46.42, 46.43, 46.52, 46.76, 46.94, 48.49, 48.5, 48.62, 48.63, 48.69, 48.75, 48.76, 70.72	146, 147, 148, 149
Gallbladder Removal - Laparoscopic	51.23, 51.24	195, 196, 493, 494
Gallbladder Removal - Open	51.21, 51.22	195, 196, 197, 198
Heart Attack - Angioplasty/Stent	00.66 ⁴ , 36.01 ³ , 36.02 ³ , 36.05 ³ , 36.06, 36.07 With PDx of 410.01, 410.11, 410.21, 410.31, 410.41, 410.51, 410.61, 410.71, 410.81, or 410.91	516 ³ , 526 ³ , 555 ⁴ , 557 ⁴
Hip Fracture - Surgical Repair	78.55, 79.15, 79.25, 79.35, 79.55, 81.51, 81.52 With PDx of 820.0x (x = 0–3,9), 820.1x (x = 0–3,9), 820.2x (x = 0–2), 820.3x (x = 0–2), 820.8, or 820.9	209 ³ , 210, 211, 544 ⁴
Hysterectomy - Abdominal	68.31, 68.39, 68.4, 68.6, 68.9	353, 354, 355, 357, 358, 359
Hysterectomy - Vaginal	68.51, 68.59, 68.7	353, 354, 355, 357, 358, 359
Prostatectomy - Radical	60.3, 60.4, 60.5, 60.62, 60.69	306, 307, 334, 335
Prostatectomy - Transurethral	60.21, 60.29	306, 307, 334, 335, 336, 337
Removal of Blockage of Neck Vessels	38.12	533, 534

The 19 DRGs reported are:

DRG	Common Names
001	Brain Surgery, complicated
075	Major Lung Operations
076	Miscellaneous Lung Procedures, complicated
096	Bronchitis and Asthma, complicated
097	Bronchitis and Asthma, uncomplicated
141	Hypotension and Fainting, complicated
143	Chest Pain
154	Stomach and Small Intestinal Operations, complicated
182	Stomach and Intestinal Infections and Disorders, complicated
183	Stomach and Intestinal Infections and Disorders, uncomplicated
188	Stomach and Intestinal Complications and Disorders
202	Cirrhosis and Alcoholic Hepatitis
203	Liver, Gallbladder or Pancreatic Cancer
204	Noncancerous Pancreatic Disorders
205	Liver Disease Except Cancer, Cirrhosis, Alcoholic Hepatitis, complicated
243	Medical Back Problems
415	Surgery for Infectious or Parasitic Disease
418	Infection after Surgery or Trauma
478 ³ , 553 ⁴ , 554 ⁴	Vascular Operations Except Heart, complicated

¹Cases involving HIV Infection (ICD-9-CM code 042, in any position) were excluded from all code-based diagnoses and procedures. In addition to the HIV Infection exclusions, cases involving abdominal trauma were excluded. Abdominal trauma was defined by the following ICD-9-CM codes: 863.0–864.19, 868.00–869.1, 879.2–879.9, 902.0–902.9, 908.1, 908.2, 908.4, 908.6, 908.9, 922.2, 935.2, 936, 937, 938, 947.3.

³Invalid as of October 1, 2005. ⁴Valid as of October 1, 2005.

TABLE B

ICD-9-CM Codes Used to Define Readmissions for Complications or Infections

Readmissions with one of the following ICD-9-CM codes listed as the principal diagnosis or principal procedure were included in this measure. These codes are applicable to CMS Grouper Versions 22 and 23.

ICD-9-CM Codes Diagnosis/Procedure			ICD-9-CM Codes Diagnosis/Procedure		
Procedure/Medical Care Related Events			Cardiac Complications		
54.61 (procedure)	998.7		410.01		410.61
909.3	998.83		410.11		410.71
995.4	998.89		410.21		410.81
995.86	998.9		410.31		410.91
995.89	999.2		410.41		997.1
998.0	999.4		410.51		
998.2	999.5				
998.31	999.6		Venous Thrombosis/Pulmonary Embolism		
998.32	999.7		415.11	451.81	453.8
998.4	999.8		415.19	453.40	997.2
998.6	999.9		451.11	453.41	999.1
			451.19	453.42	
Digestive System Complications			Hypo/Hypertension		
564.2	997.4		458.21		997.91
			458.29		
Pulmonary Compromise			Stroke/Anoxic Brain Damage		
31.1 (procedure)	518.5		348.1		433.81
31.21 (procedure)	518.81		430		433.91
31.29 (procedure)	518.82		431		434.01
512.1	518.84		432.0		434.11
514	997.3		432.1		434.91
518.4	998.81		432.9		436
			433.01		997.00
Hemorrhage			433.11		997.01
39.41 (procedure)	998.11		433.21		997.02
39.98 (procedure)	998.12		433.31		997.09
57.93 (procedure)	998.13				
Infection			Device, Implant or Graft Complications		
038.0	567.1	995.93	530.87	996.39	996.52
038.10	567.2 ¹	995.94	536.40	996.4 ¹	996.59
038.11	567.21 ²	996.60	536.42	996.40 ²	996.70
038.19	567.22 ²	996.61	536.49	996.41 ²	996.72
038.2	567.29 ²	996.62	569.60	996.42 ²	996.74
038.3	567.31 ²	996.64	569.62	996.43 ²	996.76
038.40	567.38 ²	996.65	569.69	996.44 ²	996.77
038.41	567.39 ²	996.66	996.04	996.45 ²	996.78
038.42	567.8 ¹	996.67	996.1	996.46 ²	996.79
038.43	567.81 ²	996.69	996.30	996.47 ²	
038.44	567.89 ²	998.51	996.31	996.49 ²	
038.49	567.9	998.59	Gastric/Intestinal Hemorrhage or Ulceration		
038.8	569.61	999.3	49.95 (procedure)		533.01
038.9	995.90		531.00		533.10
530.86	995.91		531.01		533.11
536.41	995.92		531.10		533.20
			531.11		533.21
			531.20		533.40
			531.21		533.41
			531.40		533.60
			531.41		533.61
Pneumonia (coded by causative organism)			531.60		534.00
481	482.81		531.61		534.01
482.0	482.82		532.00		534.10
482.1	482.83		532.01		534.11
482.2	482.84		532.10		534.20
482.30	482.89		532.11		534.21
482.31	482.9		532.20		534.40
482.32	483.0		532.21		534.41
482.39	483.1		532.40		534.60
482.40	483.8		532.41		534.61
482.41	485		532.60		537.84
482.49	486		532.61		578.9
			533.00		

¹Code invalid as of October 1, 2005.²Code valid as of October 1, 2005.

TABLE C1

Statewide Utilization and Outcome Data for Code-Based Conditions

Diagnoses						
Description	# of Cases ¹	% Mortality ²	Length of Stay ²	Readmissions		Average Charge ²
				% Any Reason ²	% Comp/Infec ²	
Abnormal Heartbeat	39,260	0.9	3.3	15.0	2.4	\$26,031
Blood Clot in Extremities	7,714	0.5	4.3	NR	NR	\$15,282
Blood Clot in Lung	6,175	2.5	5.5	NR	NR	\$25,568
Chronic Obstructive Pulmonary Disease	27,789	1.1	4.4	23.0	5.8	\$19,424
Congestive Heart Failure	53,479	3.0	4.9	26.7	4.5	\$23,670
Diabetes with Amputation	2,199	1.7	9.8	23.9	5.0	\$58,323
Diabetes - Medical Management	16,210	0.7	3.7	19.6	2.7	\$18,427
Heart Attack - Medical Management	12,817	12.0	5.5	NR	NR	\$31,030
Intestinal Obstruction	8,801	2.2	4.4	NR	NR	\$18,628
Kidney Failure	19,700	5.7	5.8	25.9	5.9	\$27,603
Kidney and Urinary Tract Infections	22,112	1.0	4.3	18.1	4.5	\$18,503
Pneumonia - Aspiration	8,554	10.7	6.8	24.7	8.1	\$30,149
Pneumonia - Infectious	41,266	2.8	5.1	17.8	6.1	\$21,802
Respiratory Failure with Mechanical Ventilation	6,717	29.1	9.7	27.3	11.7	\$70,136
Respiratory Failure without Mechanical Ventilation	7,270	13.5	6.4	26.0	12.6	\$27,359
Septicemia	21,394	18.5	7.2	NR	NR	\$32,871
Stomach and Intestinal Bleeding	21,192	2.0	4.3	16.3	4.8	\$21,752
Stroke - Hemorrhagic	3,718	27.9	6.3	19.3	9.5	\$39,862
Stroke - Non-Hemorrhagic	19,894	5.1	5.0	15.4	5.8	\$28,188

Procedures						
Abdominal Aortic Aneurysm Repair - Endovascular	1,421	NR	2.8	10.8	4.7	\$85,871
Abdominal Aortic Aneurysm Repair - Open	738	3.1	7.7	14.0	6.2	\$75,406
Colorectal Procedures	15,196	3.2	8.8	NR	NR	\$55,988
Gallbladder Removal - Laparoscopic	13,691	0.3	3.6	7.5	2.3	\$28,185
Gallbladder Removal - Open	2,709	1.8	6.7	10.2	4.0	\$45,573
Heart Attack - Angioplasty/Stent	12,135	1.3	3.9	NR	NR	\$67,776
Hip Fracture - Surgical Repair	13,325	1.9	6.0	14.5	6.1	\$37,205
Hysterectomy - Abdominal	16,499	0.1	2.8	NR	NR	\$22,087
Hysterectomy - Vaginal	7,234	NR	1.6	3.3	1.9	\$16,969
Prostatectomy - Radical	3,142	NR	2.8	NR	NR	\$32,413
Prostatectomy - Transurethral	4,016	NR	2.6	NR	NR	\$16,478
Removal of Blockage of Neck Vessels	5,401	0.2	2.3	9.3	2.4	\$24,394

¹Number of cases after mortality exclusions (LOS exclusions for conditions for which mortality is not reported).²All measures (Mortality, Length of Stay, Readmissions, and Average Charge) were calculated after specific exclusion criteria were met for each measure.

NR: Not Reported

TABLE C2
Statewide Utilization and Outcome Data for Diagnosis Related Groups (DRGs)

DRG	Description	# of Cases ¹	% Mortality ²	Length of Stay ²	Readmissions		Average Charge ²
					% Any Reason ²	% Comp/Infec ²	
001	Brain Surgery, complicated	3,514	7.3	7.8	NR	NR	\$99,749
075	Major Lung Operations	5,951	3.5	7.8	NR	NR	\$67,645
076	Miscellaneous Lung Procedures, complicated	4,686	6.1	8.8	NR	NR	\$59,743
096	Bronchitis and Asthma, complicated	6,962	0.2	3.8	15.4	3.0	\$17,809
097	Bronchitis and Asthma, uncomplicated	6,190	NR	2.8	9.2	1.1	\$13,864
141	Hypotension and Fainting, complicated	13,310	0.3	3.1	13.3	2.4	\$18,539
143	Chest Pain	40,641	<0.1	1.6	10.0	1.3	\$15,247
154	Stomach and Small Intestinal Operations, complicated	3,186	6.9	10.7	NR	NR	\$88,833
182	Stomach and Intestinal Infections and Disorders, complicated	36,083	1.0	4.0	NR	NR	\$18,532
183	Stomach and Intestinal Infections and Disorders, uncomplicated	18,006	NR	2.5	NR	NR	\$14,565
188	Stomach and Intestinal Complications and Disorders	9,573	2.9	4.9	NR	NR	\$23,085
202	Cirrhosis and Alcoholic Hepatitis	4,055	7.3	5.5	33.8	3.9	\$32,001
203	Liver, Gallbladder or Pancreatic Cancer	3,463	11.8	5.7	NR	NR	\$31,718
204	Noncancerous Pancreatic Disorders	9,665	1.1	4.8	20.5	2.2	\$22,127
205	Liver Disease Except Cancer, Cirrhosis, Alcoholic Hepatitis, complicated	4,002	6.4	5.3	33.3	4.1	\$30,766
243	Medical Back Problems	12,280	0.6	3.8	16.9	2.7	\$17,448
415	Surgery for Infectious or Parasitic Disease	5,990	8.5	10.8	23.2	10.9	\$68,786
418	Infection after Surgery or Trauma	4,389	0.6	4.8	18.4	9.8	\$22,127
478 ³ , 553 ⁴ ,554 ⁴	Vascular Operations Except Heart, complicated	10,029	2.4	6.0	NR	NR	\$57,861

¹Number of cases after mortality exclusions (LOS exclusions for DRGs for which mortality is not reported).

²All measures (Mortality, Length of Stay, Readmissions, and Average Charge) were calculated after specific exclusion criteria were met for each measure.

³Invalid as of October 1, 2005.

⁴Valid as of October 1, 2005.

NR: Not Reported

TABLE D1

**Statewide Cases Readmitted for Complication or Infection, by Reason for Readmission
Code-Based Conditions**

Code-Based Condition	# of Cases Meeting Readmissions Criteria	Total # of Cases Readmitted for Complication or Infection	% of Cases Readmitted for Complication or Infection	REASON FOR READMISSION												
				Procedure/Medical Care Related Events	Digestive System Complications	Pulmonary Compromise	Hemorrhage	Infection	Pneumonia	Cardiac Complications	Venous Thrombosis/Pulmonary Embolism	Hypo/Hypertension	Stroke/Anoxic Brain Damage	Device, Implant or Graft Complications	Gastric/Intestinal Hemorrhage or Ulceration	
Diagnoses																
Abnormal Heartbeat	36,391	867	2.4	7	1	94	35	155	189	90	80	10	116	42	49	
Chronic Obstructive Pulmonary Disease	26,379	1,518	5.8	4	1	488	6	155	605	64	71	1	46	22	57	
Congestive Heart Failure	49,026	2,185	4.5	10	3	445	27	443	437	317	105	23	180	62	138	
Diabetes with Amputation	2,047	103	5.0	4	0	10	0	49	9	10	4	2	7	5	3	
Diabetes - Medical Management	15,314	418	2.7	3	0	45	0	135	71	56	29	1	41	11	26	
Kidney Failure	17,175	1,009	5.9	7	3	133	8	390	129	87	75	11	61	40	70	
Kidney and Urinary Tract Infections	20,800	929	4.5	3	7	87	12	373	151	51	85	4	75	34	50	
Pneumonia - Aspiration	6,956	563	8.1	2	1	125	1	179	145	24	22	0	21	27	23	
Pneumonia - Infectious	38,106	2,323	6.1	10	2	349	4	328	1,186	94	144	11	109	20	72	
Respiratory Failure with Mechanical Ventilation	4,240	495	11.7	3	1	280	0	86	69	14	15	3	11	6	12	
Respiratory Failure without Mechanical Ventilation	5,813	732	12.6	0	1	466	0	67	119	24	18	0	11	5	23	
Stomach and Intestinal Bleeding	19,795	949	4.8	13	9	72	24	148	98	53	74	1	58	24	375	
Stroke - Hemorrhagic	2,198	209	9.5	0	0	13	0	27	16	5	23	2	121	1	2	
Stroke - Non-Hemorrhagic	17,539	1,025	5.8	4	1	63	3	146	90	62	53	5	536	13	53	
Procedures																
Abdominal Aortic Aneurysm Repair - Endovascular	1,272	60	4.7	2	1	3	4	29	5	2	4	1	1	6	2	
Abdominal Aortic Aneurysm Repair - Open	665	41	6.2	4	8	2	6	8	3	1	2	2	1	1	3	
Gallbladder Removal - Laparoscopic	12,902	294	2.3	13	83	18	19	73	30	11	29	0	7	5	7	
Gallbladder Removal - Open	2,489	99	4.0	9	21	10	4	34	5	0	11	0	2	1	2	
Hip Fracture - Surgical Repair	12,466	760	6.1	9	7	60	21	222	123	47	59	1	40	110	56	
Hysterectomy - Vaginal	6,950	133	1.9	11	7	2	31	64	2	1	12	0	0	2	1	
Removal of Blockage of Neck Vessels	5,060	123	2.4	3	0	13	15	11	10	20	7	0	39	2	3	

Note: For some conditions, the sum of the readmissions for complication or infection may be higher than the total because some records had both a principal diagnosis and a principal procedure that met the criteria for being captured in this analysis. When this occurs, the record is shown in each readmission category; however, the record was counted only once in determining the percent of readmissions for complication or infection.

TABLE D2

Statewide Cases Readmitted for Complication or Infection, by Reason for Readmission DRGs

DRG	# of Cases Meeting Readmissions Criteria	Total # of Cases Readmitted for Complication or Infection	% of Cases Readmitted for Complication or Infection	REASON FOR READMISSION												
				Procedure/Medical Care Related Events	Digestive System Complications	Pulmonary Compromise	Hemorrhage	Infection	Pneumonia	Cardiac Complications	Venous Thrombosis/ Pulmonary Embolism	Hypo/Hypertension	Stroke/Anoxic Brain Damage	Device, Implant or Graft Complications	Gastric/Intestinal Hemorrhage or Ulceration	
096	Bronchitis and Asthma, complicated	6,693	198	3.0	1	1	27	0	40	81	7	19	1	12	1	9
097	Bronchitis and Asthma, uncomplicated	5,972	66	1.1	0	0	14	0	8	27	0	14	0	0	0	3
141	Hypotension and Fainting, complicated	12,619	308	2.4	4	1	23	4	66	62	29	32	8	44	13	22
143	Chest Pain	38,520	487	1.3	2	3	38	7	71	112	93	64	9	33	29	30
202	Cirrhosis and Alcoholic Hepatitis	3,397	131	3.9	3	1	12	1	56	16	2	6	0	6	5	23
204	Noncancerous Pancreatic Disorders	9,000	200	2.2	4	11	14	5	83	21	11	19	1	7	12	12
205	Liver Disease Except Cancer, Cirrhosis and Alcoholic Hepatitis, complicated	3,313	136	4.1	2	5	15	5	66	8	3	11	0	9	4	8
243	Medical Back Problems	11,459	307	2.7	4	0	18	3	83	67	23	40	3	32	12	22
415	Surgery for Infectious or Parasitic Disease	4,989	544	10.9	28	5	22	12	354	34	9	31	1	14	24	14
418	Infection After Surgery or Trauma	3,982	389	9.8	19	9	13	9	268	6	6	22	0	9	24	5

Note: For some DRGs, the sum of the readmissions for complication or infection may be higher than the total because some records had both a principal diagnosis and a principal procedure that met the criteria for being captured in this analysis. When this occurs, the record is shown in each readmission category; however, the record was counted only once in determining the percent of readmissions for complication or infection.

TABLE E1

**Statewide Exclusions from Analyses, by Measure
Code-Based Conditions**

The exclusions are listed in the order in which they were removed from the reference database.

	Mortality		Length of Stay		Length of Stay Outliers: Short and Long		Readmissions: Any Reason and Complication or Infection		Average Charge		Transfer to Acute Care ⁵	
	#	%	#	%	#	%	#	%	#	%	#	%
Total Cases Before Exclusions	451,462	100.0	467,569	100.0	375,517	100.0	351,744	100.0	467,569	100.0	16,949	100.0
Exclusions:												
<i>Records with errors</i>	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<i>Duplicate records</i>	36	<0.1	38	<0.1	32	<0.1	29	<0.1	38	<0.1	2	<0.1
<i>Missing or invalid discharge status</i>	48	<0.1	48	<0.1	40	<0.1	40	<0.1	48	<0.1	0	0.0
<i>Non-adult (< 18) or invalid age</i>	3,080	0.7	3,080	0.7	2,534	0.7	2,567	0.7	3,080	0.7	3	<0.1
<i>Patients with HIV Infection¹</i>	492	0.1	493	0.1	355	0.1	430	0.1	493	0.1	10	0.1
<i>Patients with abdominal trauma²</i>	68	<0.1	68	<0.1	NA	NA	NA	NA	68	<0.1	NA	NA
<i>Patients who left against medical advice</i>	3,236	0.7	3,240	0.7	2,958	0.8	2,717	0.8	3,240	0.7	136	0.8
<i>Patients transferred to GAC facilities</i>	14,169	3.1	14,194	3.0	13,029	3.5	8,453	2.4	14,194	3.0	NA	NA
<i>Patients who died</i>	NA	NA	18,672	4.0	16,552	4.4	12,001	3.4	NA	NA	1,566	9.2
<i>Missing Atlas Outcomes™ data³</i>	4,378	1.0	4,002	0.9	3,149	0.8	3,184	0.9	NA	NA	NA	NA
<i>Invalid length of stay</i>	NA	NA	0	0.0	0	0.0	0	0.0	NA	NA	NA	NA
<i>Length of stay outliers</i>	NA	NA	3,793	0.8	NA	NA	2,876	0.8	NA	NA	NA	NA
<i>Non-Pennsylvania residents</i>	NA	NA	NA	NA	NA	NA	9,151	2.6	NA	NA	NA	NA
<i>Patients discharged to hospice</i>	NA	NA	NA	NA	NA	NA	3,968	1.1	NA	NA	NA	NA
<i>Missing or inconsistent patient identifiers⁴</i>	NA	NA	NA	NA	NA	NA	1,961	0.6	NA	NA	NA	NA
<i>Admit, discharge, readmission date discrepancies</i>	NA	NA	NA	NA	NA	NA	498	0.1	NA	NA	NA	NA
<i>Invalid charges</i>	NA	NA	NA	NA	NA	NA	NA	NA	171	<0.1	NA	NA
<i>Charge outliers</i>	NA	NA	NA	NA	NA	NA	NA	NA	9,906	2.1	NA	NA
<i>No reference data</i>	NA	NA	NA	NA	NA	NA	NA	NA	1,092	0.2	NA	NA
<i>Intermediary Hospitalization</i>	NA	NA	NA	NA	NA	NA	286	0.1	0	0.0	NA	NA
Total Exclusions	25,507	5.6	47,628	10.2	38,649	10.3	48,161	13.7	32,330	6.9	1,717	10.1
Total Cases in Analysis	425,955	94.4	419,941	89.8	336,868	89.7	303,583	86.3	435,239	93.1	15,232	89.9

¹This exclusion is only applicable to the code-based conditions.

²This exclusion is only applicable to the Colorectal Procedures study population.

³Either Missing MQPredDeath or MQPredLOS, depending on which one is used as a risk adjustor (MQPredDeath was used for mortality; MQPredLOS was used for Length of Stay, Length of Stay Outliers, Readmissions for Any Reason and Readmissions for Complication or Infection).

⁴Social Security Number, Date of Birth, Sex

⁵This measure is reported only for Heart Attack – Medical Management

NA: Not Applicable

TABLE E2

Statewide Exclusions from Analyses, by Measure
DRGs

The exclusions are listed in the order in which they were removed from the reference database.

	Mortality		Length of Stay		Length of Stay Outliers: Short and Long		Readmissions: Any Reason and Complication or Infection		Average Charge	
	#	%	#	%	#	%	#	%	#	%
Total Cases Before Exclusions	188,871	100.0	214,094	100.0	77,513	100.0	115,527	100.0	214,094	100.0
Exclusions:										
<i>Records with errors</i>	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<i>Duplicate records</i>	21	<0.1	23	<0.1	9	<0.1	14	<0.1	23	<0.1
<i>Missing or invalid discharge status</i>	25	<0.1	26	<0.1	9	<0.1	20	<0.1	26	<0.1
<i>Non-adult (< 18) or invalid age</i>	1,525	0.8	1,525	0.7	548	0.7	1,102	1.0	1,525	0.7
<i>Patients who left against medical advice</i>	2,960	1.6	3,414	1.6	1,989	2.6	2,492	2.2	3,414	1.6
<i>Patients transferred to GAC</i>	4,648	2.5	4,760	2.2	2,140	2.8	3,186	2.8	4,760	2.2
<i>Patients who died</i>	NA	NA	3,669	1.7	501	0.6	1,371	1.2	NA	NA
<i>Missing Atlas Outcomes™ data¹</i>	1,913	1.0	2,081	1.0	744	1.0	1,143	1.0	NA	NA
<i>Invalid length of stay</i>	NA	NA	0	0.0	0	0.0	0	0.0	NA	NA
<i>Length of stay outliers</i>	NA	NA	1,733	0.8	NA	NA	933	0.8	NA	NA
<i>Non-Pennsylvania residents</i>	NA	NA	NA	NA	NA	NA	3,697	3.2	NA	NA
<i>Patients discharged to hospice</i>	NA	NA	NA	NA	NA	NA	381	0.3	NA	NA
<i>Missing or inconsistent patient identifiers²</i>	NA	NA	NA	NA	NA	NA	1,075	0.9	NA	NA
<i>Admit, discharge, readmission date discrepancies</i>	NA	NA	NA	NA	NA	NA	128	0.1	NA	NA
<i>Invalid charges</i>	NA	NA	NA	NA	NA	NA	NA	NA	80	<0.1
<i>Charge outliers</i>	NA	NA	NA	NA	NA	NA	NA	NA	4,373	2.0
<i>No reference data</i>	NA	NA	NA	NA	NA	NA	NA	NA	0	0.0
<i>Intermediary Hospitalization</i>	NA	NA	NA	NA	NA	NA	41	<0.1	0	0.0
Total Exclusions	11,092	5.9	17,231	8.0	5,940	7.7	15,583	13.5	14,201	6.6
Total Cases in Analysis	177,779	94.1	196,863	92.0	71,573	92.3	99,944	86.5	199,893	93.4

¹ Either Missing MQPredDeath or MQPredLOS, depending on which one is used as a risk adjustor (MQPredDeath was used for mortality; MQPredLOS was used for Length of Stay, Length of Stay Outliers, Readmissions for Any Reason and Readmissions for Complication or Infection).

² Social Security Number, Date of Birth, Sex

NA: Not Applicable

TABLE F

Hospitals Not Reported in the *Hospital Performance Report – Summer Update*

The study population for the *Hospital Performance Report – Summer Update* included useable discharge records from all GAC/SGAC Pennsylvania facilities required to abstract clinical data (Atlas) in the reported time period. During the study period there were 179 facilities in Pennsylvania.

<u>Hospital Name</u>	<u>Reason for Not Reporting</u>
Facilities currently in operation that submitted incomplete data¹:	
<u>Central and Northeastern Pennsylvania</u>	
<i>Bloomsburg</i>	<i>Missing Atlas severity scores = 40.2%</i>
<i>Bucktail</i>	<i>Missing Atlas severity scores = 10.9%</i>
<u>Southeastern Pennsylvania</u>	
<i>Warminster</i>	<i>Missing Atlas severity scores = 19.7%</i>
Facilities that closed:	
<u>Central and Northeastern Pennsylvania</u>	
<i>Hazleton St Joseph</i>	<i>Closed facility—effective 09/15/05</i>
<i>Philipsburg</i>	<i>Closed facility—effective 04/13/06</i>
<u>Western Pennsylvania</u>	
<i>Tara Hospital at Brownsville (Formerly Brownsville General)</i>	<i>Closed facility—effective 01/08/06</i>
<i>Monsour</i>	<i>Closed facility—effective 03/17/06</i>
Other facilities not reported:	
<u>Southeastern Pennsylvania</u>	
<i>Barix Clinics/PA</i>	<i>Facility required to abstract Atlas data beginning 1/1/06- not enough data for analysis</i>
<i>Children’s Hospital Philadelphia</i>	<i>Children’s hospital²</i>
<i>St. Christopher’s Children’s</i>	<i>Children’s hospital²</i>
<i>Temple University Children’s</i>	<i>Children’s hospital²</i>
<u>Central and Northeastern Pennsylvania</u>	
<i>Geisinger Wilkes-Bare</i>	<i>Under new ownership-effective 12/01/05. Previous owner granted exemption from reporting Atlas data for fourth quarter 2005.</i>
<u>Western Pennsylvania</u>	
<i>Children’s Hospital Pittsburgh</i>	<i>Children’s hospital²</i>
<i>Edgewood</i>	<i>Specialized hospital – number of records available for analysis in HPR was negligible³</i>
<i>UPMC Lee Regional</i>	<i>Merged w/ Conemaugh Valley – effective 08/01/05</i>
<i>UPMC Passavant Cranberry</i>	<i>Merged w/UPMC Passavant – effective 07/01/05</i>

¹Noncompliant hospitals with $\geq 10\%$ missing *Atlas Outcomes*[™] severity scores (based on all records for which severity scores are required to be reported) or facilities that submitted incomplete UB data for one or more quarters.

²Pediatric cases were excluded from the *Hospital Performance Report – Summer Update* study populations. Therefore, data for children’s hospitals were not reported. Adult discharges from pediatric hospitals were retained in the statewide dataset.

³Discharges relevant to the HPR were retained in the statewide dataset.

TABLE G

Valid Discharge Status Codes

Code	Description
01	Discharged to home or self-care (routine discharge)
02	Discharged/transferred to another short-term general hospital for inpatient care
03	Discharged/transferred to a skilled nursing facility (SNF) with Medicare certification
04	Discharged/transferred to an intermediate care facility (ICF)
05*	Discharged/transferred to another type of institution not defined elsewhere in this code list
06*	Discharged/transferred to home under care of organized Home Health Service Organization in anticipation of covered skilled care
07	Left against medical advice (AMA) or discontinued care
20	Expired
43	Discharged/Transferred to a Federal health care facility
50	Discharged to Hospice—home
51	Discharged to Hospice—medical facility
61	Discharged/transferred to hospital-based Medicare approved swing bed
62	Discharged/transferred to an inpatient rehabilitation facility including rehabilitation distinct part units of a hospital
63	Discharged/transferred to a Medicare certified long term care hospital (LTCH)
64	Discharged/transferred to a nursing facility certified under Medicaid but not certified under Medicare
65	Discharged/transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital
66*	Discharged/transferred to a Critical Access Hospital

* Code description modified or valid effective Q4, 2005