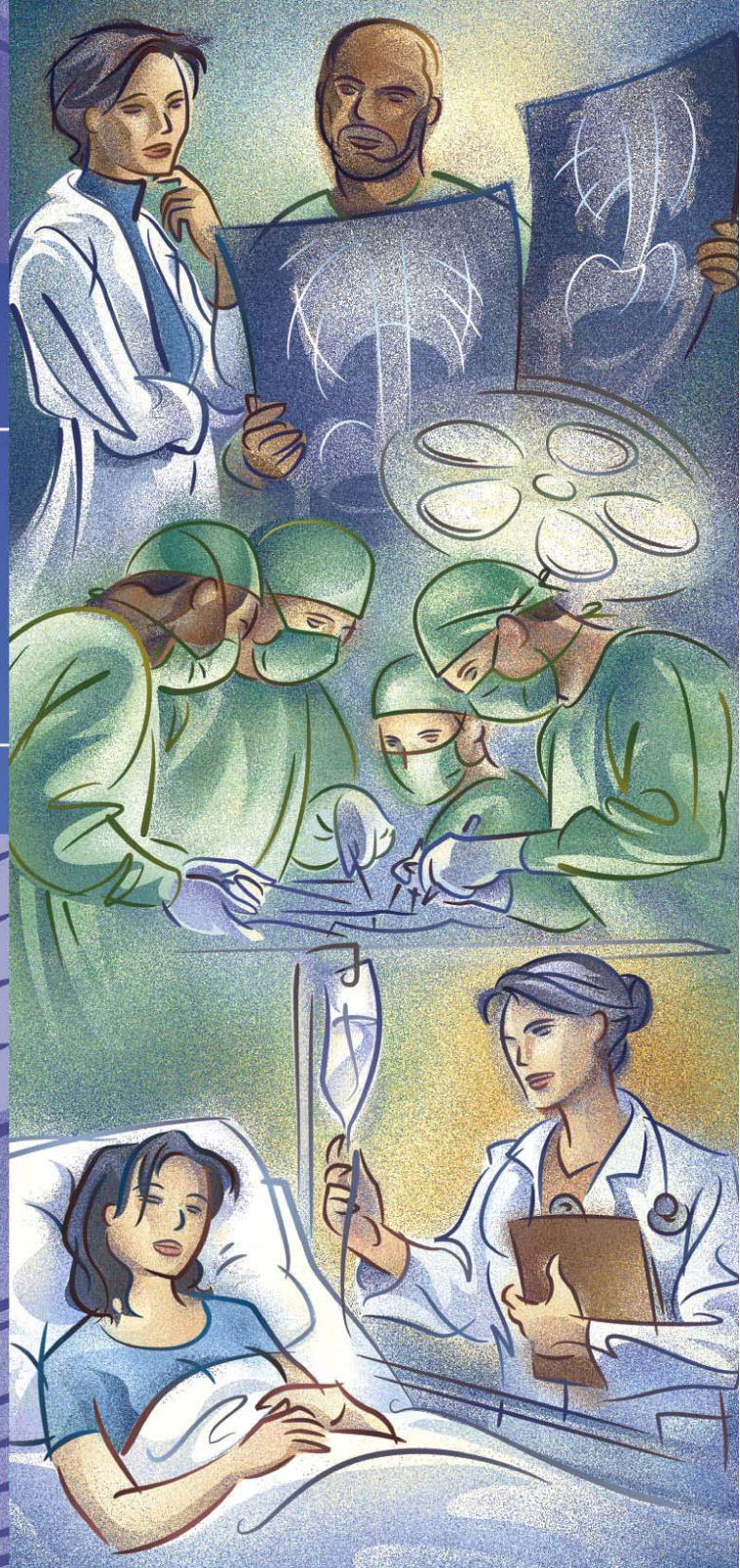




AHRQ QUALITY INDICATORS

Inpatient Quality Indicators

Technical Specifications



AHRQ Quality Indicators

Inpatient Quality Indicators:
Technical Specifications

Department of Health and Human Services
Agency for Healthcare Research and Quality
<http://www.qualityindicators.ahrq.gov>

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Inpatient Quality Indicator Definitions

For ICD-9-CM codes introduced after October 1995, the date of introduction is indicated after the code label. For example, "OCT96-" indicates the ICD-9-CM code was introduced in October 1996.

1.0 Provider-Level Indicators

1.1 Procedure Volume Indicators

Esophageal Resection Volume (IQI 1)	
Numerator:	
Discharges, age 18 years and older, with ICD-9-CM codes of 424, 4240-4242, 425, 4251-4256, 4258-4259, or 426, 4261-4269 in any procedure field.	
ICD-9-CM esophageal resection procedure codes:	
424 ESOPHAGECTOMY	4258 THORAC INTERPOSITION NEC
4240 ESOPHAGECTOMY NOS	4259 THORAC ESOPHAG ANAST NEC
4241 PARTIAL ESOPHAGECTOMY	426 STERN ESOPHAG ANAST
4242 TOTAL ESOPHAGECTOMY	4261 STERN ESOPHAGUESOPHAGOST
425 THORAC ESOPHAG ANAST	4262 STERN ESOPHAGOGASTROSTOM
4251 THORAC ESOPHAGUESOPHAGOS	4263 STERN SM BOWEL INTERPOS
4252 THORAC ESOPHAGOGASTROST	4264 STERN ESOPHAGOENTER NEC
4253 THORAC SM BOWEL INTERPOS	4265 STERN LG BOWEL INTERPOS
4254 THORAC ESOPHAGOENTER NEC	4266 STERN ESOPHAGOCOLOS NEC
4255 THORAC LG BOWEL INTERPOS	4268 STERN INTERPOSITION NEC
4256 THORAC ESOPHAGOCOLOS NEC	4269 STERN ESOPHAG ANAST NEC
Exclude cases:	
<ul style="list-style-type: none"> • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates) 	
Denominator:	
Not applicable.	

Pancreatic Resection Volume (IQI 2)

Numerator:

Discharges, age 18 years and older, with ICD-9-CM codes of 526 or 527 in any procedure field.

ICD-9-CM pancreatic resection procedure codes:

526 TOTAL PANCREATECTOMY
527 RAD PANCREATICODUODENECT

Exclude cases:

- MDC 14 (pregnancy, childbirth, and puerperium)
- MDC 15 (newborns and other neonates)

Denominator:

Not applicable.

Abdominal Aortic Aneurysm (AAA) Repair Volume (IQI 4)

Numerator:

Discharges, age 18 years and older, with ICD-9-CM codes of 3834, 3844, 3864 or 3971 in any procedure field with a diagnosis of AAA in any field.

ICD-9-CM AAA procedure codes:

3834 AORTA RESECTION & ANAST
3844 RESECT ABDM AORTA W REPL
3864 EXCISION OF AORTA
3971 ENDO IMPLANT OF GRAFT IN AORTA

ICD-9-CM AAA diagnosis codes:

4413 RUPT ABD AORTIC ANEURYSM
4414 ABDOM AORTIC ANEURYSM

Exclude cases:

- MDC 14 (pregnancy, childbirth, and puerperium)
- MDC 15 (newborns and other neonates)

Denominator:

Not applicable.

Coronary Artery Bypass Graft (CABG) Volume (IQI 5)

Numerator:

Discharges, age 18 years and older, with ICD-9-CM codes of 3610 through 3619 in any procedure field.

ICD-9-CM CABG procedure codes:

3610	AORTOCORONARY BYPASS NOS	3615	1 INT MAM-COR ART BYPASS
3611	AORTOCOR BYPAS-1 COR ART	3616	2 INT MAM-COR ART BYPASS
3612	AORTOCOR BYPAS-2 COR ART	3617	ABD-CORON ART BYPASS OCT96-
3613	AORTOCOR BYPAS-3 COR ART	3619	HRT REVAS BYPS ANAS NEC
3614	AORTCOR BYPAS-4+ COR ART		

Exclude cases:

- MDC 14 (pregnancy, childbirth, and puerperium)
- MDC 15 (newborns and other neonates)

Denominator:

Not applicable.

1.2 Related Volume and Mortality Indicators for Inpatient Procedures

Percutaneous Transluminal Coronary Angioplasty (PTCA) Volume (IQI 6)								
<p>Numerator:</p> <p>Discharges, age 18 years and older, with ICD-9-CM codes of 0066, 3601, 3602 or 3605 in any procedure field.</p> <p>ICD-9-CM PTCA procedure codes:</p> <table> <tr> <td>0066</td> <td>PERC TRANS CORO ANGIO OCT05-</td> </tr> <tr> <td>3601</td> <td>PTCA-1 VESSEL W/O AGENT</td> </tr> <tr> <td>3602</td> <td>PTCA-1 VESSEL WITH AGNT</td> </tr> <tr> <td>3605</td> <td>PTCA-MULTIPLE VESSEL</td> </tr> </table> <p>Exclude cases:</p> <ul style="list-style-type: none"> • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates) 	0066	PERC TRANS CORO ANGIO OCT05-	3601	PTCA-1 VESSEL W/O AGENT	3602	PTCA-1 VESSEL WITH AGNT	3605	PTCA-MULTIPLE VESSEL
0066	PERC TRANS CORO ANGIO OCT05-							
3601	PTCA-1 VESSEL W/O AGENT							
3602	PTCA-1 VESSEL WITH AGNT							
3605	PTCA-MULTIPLE VESSEL							
<p>Denominator:</p> <p>Not applicable.</p>								
PTCA Mortality Rate (IQI 30)								
<p>Numerator:</p> <p>Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.</p>								
<p>Denominator:</p> <p>Discharges, age 40 years and older, with ICD-9-CM codes of 0066, 3601, 3602 or 3605 in any procedure field.</p> <p>ICD-9-CM PTCA procedure codes:</p> <table> <tr> <td>0066</td> <td>PERC TRANS CORO ANGIO OCT05-</td> </tr> <tr> <td>3601</td> <td>PTCA-1 VESSEL W/O AGENT</td> </tr> <tr> <td>3602</td> <td>PTCA-1 VESSEL WITH AGNT</td> </tr> <tr> <td>3605</td> <td>PTCA-MULTIPLE VESSEL</td> </tr> </table> <p>Exclude cases:</p> <ul style="list-style-type: none"> • missing discharge disposition (DISP=missing) • transferring to another short-term hospital (DISP=2) • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates) 	0066	PERC TRANS CORO ANGIO OCT05-	3601	PTCA-1 VESSEL W/O AGENT	3602	PTCA-1 VESSEL WITH AGNT	3605	PTCA-MULTIPLE VESSEL
0066	PERC TRANS CORO ANGIO OCT05-							
3601	PTCA-1 VESSEL W/O AGENT							
3602	PTCA-1 VESSEL WITH AGNT							
3605	PTCA-MULTIPLE VESSEL							

Carotid Endarterectomy Volume (IQI 7)
<p>Numerator:</p> <p>Discharges, age 18years and older, with an ICD-9-CM code of 3812 in any procedure field.</p> <p>ICD-9-CM carotid endarterectomy procedure code:</p> <p>3812 HEAD & NECK ENDARTER NEC</p> <p>Exclude cases:</p> <ul style="list-style-type: none">• MDC 14 (pregnancy, childbirth, and puerperium)• MDC 15 (newborns and other neonates)
<p>Denominator:</p> <p>Not applicable.</p>
Carotid Endarterectomy Mortality Rate (IQI 31)
<p>Numerator:</p> <p>Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.</p>
<p>Denominator:</p> <p>Discharges, age 18 years and older, with an ICD-9-CM code of 3812 in any procedure field.</p> <p>ICD-9-CM carotid endarterectomy procedure code:</p> <p>3812 HEAD & NECK ENDARTER NEC</p> <p>Exclude cases:</p> <ul style="list-style-type: none">• missing discharge disposition (DISP=missing)• transferring to another short-term hospital (DISP=2)• MDC 14 (pregnancy, childbirth, and puerperium)• MDC 15 (newborns and other neonates)

1.3 Mortality Indicators for Inpatient Procedures

Esophageal Resection Mortality Rate (IQI 8)			
Numerator:			
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.			
Denominator:			
Discharges, age 18 years and older, with ICD-9-CM codes for esophageal resection in any procedure field <u>and</u> a diagnosis code of esophageal cancer in any field			
ICD-9-CM esophageal resection procedure code:			
424	ESOPHAGECTOMY	4258	THORAC INTERPOSITION NEC
4240	ESOPHAGECTOMY NOS	4259	THORAC ESOPHAG ANAST NEC
4241	PARTIAL ESOPHAGECTOMY	426	STERN ESOPHAG ANAST
4242	TOTAL ESOPHAGECTOMY	4261	STERN ESOPHAGOGASTROSTOM
425	THORAC ESOPHAG ANAST	4262	STERN ESOPHAGOGASTROSTOM
4251	THORAC ESOPHAGOGASTROSTOM	4263	STERN SM BOWEL INTERPOS
4252	THORAC ESOPHAGOGASTROSTOM	4264	STERN ESOPHAGOENTER NEC
4253	THORAC SM BOWEL INTERPOS	4265	STERN LG BOWEL INTERPOS
4254	THORAC ESOPHAGOENTER NEC	4266	STERN ESOPHAGOCOLOS NEC
4255	THORAC LG BOWEL INTERPOS	4268	STERN INTERPOSITION NEC
4256	THORAC ESOPHAGOCOLOS NEC	4269	STERN ESOPHAG ANAST NEC
ICD-9-CM esophageal cancer diagnosis codes:			
1500	MAL NEO CERVICAL ESOPHAG	1504	MAL NEO MIDDLE 3RD ESOPH
1501	MAL NEO THORACIC ESOPHAG	1505	MAL NEO LOWER 3RD ESOPH
1502	MAL NEO ABDOMIN ESOPHAG	1508	MAL NEO ESOPHAGUS NEC
1503	MAL NEO UPPER 3RD ESOPH	1509	MAL NEO ESOPHAGUS NOS
Exclude cases:			
<ul style="list-style-type: none"> • missing discharge disposition (DISP=missing) • transferring to another short-term hospital (DISP=2) • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates) 			

Pancreatic Resection Mortality Rate (IQI 9)			
Numerator:			
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.			
Denominator:			
Discharges, age 18 years and older, with ICD-9-CM codes of 526 or 527 in any procedure field <u>and</u> a diagnosis code of pancreatic cancer in any field.			
ICD-9-CM pancreatic resection procedure codes:			
526	TOTAL PANCREATECTOMY		
527	RAD PANCREATICODUODENECT		
ICD-9-CM pancreatic cancer diagnosis codes:			
1520	MALIGNANT NEOPL DUODENUM	1572	MAL NEO PANCREAS TAIL
1561	MAL NEO EXTRAHEPAT DUCTS	1573	MAL NEO PANCREATIC DUCT
1562	MAL NEO AMPULLA OF VATER	1574	MAL NEO ISLET LANGERHANS
1570	MAL NEO PANCREAS HEAD	1578	MALIG NEO PANCREAS NEC
1571	MAL NEO PANCREAS BODY	1579	MALIG NEO PANCREAS NOS
Exclude cases:			
<ul style="list-style-type: none"> • missing discharge disposition (DISP=missing) • transferring to another short-term hospital (DISP=2) • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates) 			

Abdominal Aortic Artery (AAA) Repair Mortality Rate (IQI 11)	
Numerator:	
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.	
Denominator:	
Discharges, age 18 years and older, with ICD-9-CM codes of 3834, 3844, 3864, or 3971 in any procedure field <u>and</u> a diagnosis of AAA in any field.	
ICD-9-CM AAA repair procedure codes:	
3834	AORTA RESECTION & ANAST
3844	RESECT ABDM AORTA W REPL
3864	EXCISION OF AORTA
3971	ENDO IMPLANT OF GRAFT IN AORTA
ICD-9-CM AAA diagnosis codes:	
4413	RUPT ABD AORTIC ANEURYSM
4414	ABDOM AORTIC ANEURYSM

Abdominal Aortic Artery (AAA) Repair Mortality Rate (IQI 11)

Exclude cases:

- missing discharge disposition (DISP=missing)
- transferring to another short-term hospital (DISP=2)
- MDC 14 (pregnancy, childbirth, and puerperium)
- MDC 15 (newborns and other neonates)

Coronary Artery Bypass Graft (CABG) Mortality Rate (IQI 12)

Numerator:

Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

Denominator:

Discharges, age 40 years and older, with ICD-9-CM codes of 3610 through 3619 in any procedure field.

ICD-9-CM CABG procedure codes:

3610	AORTOCORONARY BYPASS NOS	3615	1 INT MAM-COR ART BYPASS
3611	AORTOCOR BYPAS-1 COR ART	3616	2 INT MAM-COR ART BYPASS
3612	AORTOCOR BYPAS-2 COR ART	3617	ABD-CORON ART BYPASS OCT96-
3613	AORTOCOR BYPAS-3 COR ART	3619	HRT REVAS BYPS ANAS NEC
3614	AORTCOR BYPAS-4+ COR ART		

Exclude cases:

- missing discharge disposition (DISP=missing)
- transferring to another short-term hospital (DISP=2)
- MDC 14 (pregnancy, childbirth, and puerperium)
- MDC 15 (newborns and other neonates)

Craniotomy Mortality Rate (IQI 13)			
Numerator:			
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.			
Denominator:			
All discharges, age 18 years or older, with DRG code for craniotomy (DRG 001, 002, 528, 529, 530, and 543).			
Exclude cases:			
<ul style="list-style-type: none"> • with a principle diagnosis of head trauma • missing discharge disposition (DISP=missing) • transferring to another short-term hospital (DISP=2) 			
ICD-9-CM Head Trauma diagnosis codes:			
80000	CLOSED SKULL VAULT FX	80433	CL SKL W OTH FX-MOD COMA
80001	CL SKULL VLT FX W/O COMA	80434	CL SKL/OTH FX-PROLN COMA
80002	CL SKULL VLT FX-BRF COMA	80435	CL SKUL/OTH FX-DEEP COMA
80003	CL SKULL VLT FX-MOD COMA	80436	CL SKL W OTH FX-COMA NOS
80004	CL SKL VLT FX-PROLN COMA	80439	CL SKUL W OTH FX-CONCUSS
80005	CL SKUL VLT FX-DEEP COMA	80440	CL SKL/OTH FX/BR INJ NEC
80006	CL SKULL VLT FX-COMA NOS	80441	CL SKL W OTH FX W/O COMA
80009	CL SKL VLT FX-CONCUS NOS	80442	CL SKL W OTH FX-BRF COMA
80010	CL SKL VLT FX/CEREBR LAC	80443	CL SKL W OTH FX-MOD COMA
80011	CL SKULL VLT FX W/O COMA	80444	CL SKL/OTH FX-PROLN COMA
80012	CL SKULL VLT FX-BRF COMA	80445	CL SKUL/OTH FX-DEEP COMA
80013	CL SKULL VLT FX-MOD COMA	80446	CL SKL W OTH FX-COMA NOS
80014	CL SKL VLT FX-PROLN COMA	80449	CL SKUL W OTH FX-CONCUSS
80015	CL SKUL VLT FX-DEEP COMA	80450	OPN SKULL FX/OTH BONE FX
80016	CL SKULL VLT FX-COMA NOS	80451	OPN SKUL/OTH FX W/O COMA
80019	CL SKL VLT FX-CONCUS NOS	80452	OPN SKUL/OTH FX-BRF COMA
80020	CL SKL VLT FX/MENING HEM	80453	OPN SKUL/OTH FX-MOD COMA
80021	CL SKULL VLT FX W/O COMA	80454	OPN SKL/OTH FX-PROL COMA
80022	CL SKULL VLT FX-BRF COMA	80455	OPN SKL/OTH FX-DEEP COMA
80023	CL SKULL VLT FX-MOD COMA	80456	OPN SKUL/OTH FX-COMA NOS
80024	CL SKL VLT FX-PROLN COMA	80459	OPN SKULL/OTH FX-CONCUSS
80025	CL SKUL VLT FX-DEEP COMA	80460	OPN SKL/OTH FX/CEREB LAC
80026	CL SKULL VLT FX-COMA NOS	80461	OPN SKUL/OTH FX W/O COMA
80029	CL SKL VLT FX-CONCUS NOS	80462	OPN SKUL/OTH FX-BRF COMA
80030	CL SKULL VLT FX/HEM NEC	80463	OPN SKUL/OTH FX-MOD COMA
80031	CL SKULL VLT FX W/O COMA	80464	OPN SKL/OTH FX-PROL COMA
80032	CL SKULL VLT FX-BRF COMA	80465	OPN SKL/OTH FX-DEEP COMA
80033	CL SKULL VLT FX-MOD COMA	80466	OPN SKUL/OTH FX-COMA NOS
80034	CL SKL VLT FX-PROLN COMA	80469	OPN SKULL/OTH FX-CONCUSS
80035	CL SKUL VLT FX-DEEP COMA	80470	OPN SKL/OTH FX/MENIN HEM
80036	CL SKULL VLT FX-COMA NOS	80471	OPN SKUL/OTH FX W/O COMA
80039	CL SKL VLT FX-CONCUS NOS	80472	OPN SKUL/OTH FX-BRF COMA
80040	CL SKL VLT FX/BR INJ NEC	80473	OPN SKUL/OTH FX-MOD COMA
80041	CL SKULL VLT FX W/O COMA	80474	OPN SKL/OTH FX-PROL COMA
80042	CL SKULL VLT FX-BRF COMA	80475	OPN SKL/OTH FX-DEEP COMA

Craniotomy Mortality Rate (IQI 13)	
80043	CL SKULL VLT FX-MOD COMA
80044	CL SKL VLT FX-PROLN COMA
80045	CL SKUL VLT FX-DEEP COMA
80046	CL SKULL VLT FX-COMA NOS
80049	CL SKL VLT FX-CONCUS NOS
80050	OPN SKULL VAULT FRACTURE
80051	OPN SKUL VLT FX W/O COMA
80052	OPN SKUL VLT FX-BRF COMA
80053	OPN SKUL VLT FX-MOD COMA
80054	OPN SKL VLT FX-PROLN COM
80055	OPN SKL VLT FX-DEEP COMA
80056	OPN SKUL VLT FX-COMA NOS
80059	OP SKL VLT FX-CONCUS NOS
80060	OPN SKL VLT FX/CEREB LAC
80061	OPN SKUL VLT FX W/O COMA
80062	OPN SKUL VLT FX-BRF COMA
80063	OPN SKUL VLT FX-MOD COMA
80064	OPN SKL VLT FX-PROLN COM
80065	OPN SKL VLT FX-DEEP COMA
80066	OPN SKUL VLT FX-COMA NOS
80069	OP SKL VLT FX-CONCUS NOS
80070	OPN SKL VLT FX/MENIN HEM
80071	OPN SKUL VLT FX W/O COMA
80072	OPN SKUL VLT FX-BRF COMA
80073	OPN SKUL VLT FX-MOD COMA
80074	OPN SKL VLT FX-PROLN COM
80075	OPN SKL VLT FX-DEEP COMA
80076	OPN SKUL VLT FX-COMA NOS
80079	OP SKL VLT FX-CONCUS NOS
80080	OPN SKULL VLT FX/HEM NEC
80081	OPN SKUL VLT FX W/O COMA
80082	OPN SKUL VLT FX-BRF COMA
80083	OPN SKUL VLT FX-MOD COMA
80084	OPN SKL VLT FX-PROLN COM
80085	OPN SKL VLT FX-DEEP COMA
80086	OPN SKUL VLT FX-COMA NOS
80089	OP SKL VLT FX-CONCUS NOS
80090	OP SKL VLT FX/BR INJ NEC
80091	OPN SKUL VLT FX W/O COMA
80092	OPN SKUL VLT FX-BRF COMA
80093	OPN SKUL VLT FX-MOD COMA
80094	OPN SKL VLT FX-PROLN COM
80095	OP SKUL VLT FX-DEEP COMA
80096	OPN SKUL VLT FX-COMA NOS
80099	OP SKL VLT FX-CONCUS NOS
80100	CLOS SKULL BASE FRACTURE
80101	CL SKUL BASE FX W/O COMA
80102	CL SKUL BASE FX-BRF COMA
80103	CL SKUL BASE FX-MOD COMA
80104	CL SKL BASE FX-PROL COMA
80105	CL SKL BASE FX-DEEP COMA
80106	CL SKUL BASE FX-COMA NOS
80109	CL SKULL BASE FX-CONCUSS
80476	OPN SKUL/OTH FX-COMA NOS
80479	OPN SKULL/OTH FX-CONCUSS
80480	OPN SKL W OTH FX/HEM NEC
80481	OPN SKUL/OTH FX W/O COMA
80482	OPN SKUL/OTH FX-BRF COMA
80483	OPN SKUL/OTH FX-MOD COMA
80484	OPN SKL/OTH FX-PROL COMA
80485	OPN SKL/OTH FX-DEEP COMA
80486	OPN SKUL/OTH FX-COMA NOS
80489	OPN SKULL/OTH FX-CONCUSS
80490	OP SKL/OTH FX/BR INJ NEC
80491	OPN SKUL/OTH FX W/O COMA
80492	OPN SKUL/OTH FX-BRF COMA
80493	OPN SKUL/OTH FX-MOD COMA
80494	OPN SKL/OTH FX-PROL COMA
80495	OPN SKL/OTH FX-DEEP COMA
80496	OPN SKUL/OTH FX-COMA NOS
80499	OPN SKULL/OTH FX-CONCUSS
80500	FX CERVICAL VERT NOS-CL
80501	FX C1 VERTEBRA-CLOSED
80502	FX C2 VERTEBRA-CLOSED
80503	FX C3 VERTEBRA-CLOSED
80504	FX C4 VERTEBRA-CLOSED
80505	FX C5 VERTEBRA-CLOSED
80506	FX C6 VERTEBRA-CLOSED
80507	FX C7 VERTEBRA-CLOSED
80508	FX MULT CERVICAL VERT-CL
80510	FX CERVICAL VERT NOS-OPN
80511	FX C1 VERTEBRA-OPEN
80512	FX C2 VERTEBRA-OPEN
80513	FX C3 VERTEBRA-OPEN
80514	FX C4 VERTEBRA-OPEN
80515	FX C5 VERTEBRA-OPEN
80516	FX C6 VERTEBRA-OPEN
80517	FX C7 VERTEBRA-OPEN
80518	FX MLT CERVICAL VERT-OPN
80600	C1-C4 FX-CL/CORD INJ NOS
80601	C1-C4 FX-CL/COM CORD LES
80602	C1-C4 FX-CL/ANT CORD SYN
80603	C1-C4 FX-CL/CEN CORD SYN
80604	C1-C4 FX-CL/CORD INJ NEC
80605	C5-C7 FX-CL/CORD INJ NOS
80606	C5-C7 FX-CL/COM CORD LES
80607	C5-C7 FX-CL/ANT CORD SYN
80608	C5-C7 FX-CL/CEN CORD SYN
80609	C5-C7 FX-CL/CORD INJ NEC
80610	C1-C4 FX-OP/CORD INJ NOS
80611	C1-C4 FX-OP/COM CORD LES
80612	C1-C4 FX-OP/ANT CORD SYN
80613	C1-C4 FX-OP/CEN CORD SYN
80614	C1-C4 FX-OP/CORD INJ NEC
80615	C5-C7 FX-OP/CORD INJ NOS
80616	C5-C7 FX-OP/COM CORD LES

Craniotomy Mortality Rate (IQI 13)			
80110	CL SKL BASE FX/CEREB LAC	80617	C5-C7 FX-OP/ANT CORD SYN
80111	CL SKUL BASE FX W/O COMA	80618	C5-C7 FX-OP/CEN CORD SYN
80112	CL SKUL BASE FX-BRF COMA	80619	C5-C7 FX-OP/CORD INJ NEC
80113	CL SKUL BASE FX-MOD COMA	8500	CONCUSSION W/O COMA
80114	CL SKL BASE FX-PROL COMA	8501	CONCUSSION-BRIEF COMA
80115	CL SKL BASE FX-DEEP COMA	85011	CONCUS-BRIEF COMA <31 MN
80116	CL SKUL BASE FX-COMA NOS	85012	CONCUS-BRF COMA 31-59 MN
80119	CL SKULL BASE FX-CONCUSS	8502	CONCUSSION-MODERATE COMA
80120	CL SKL BASE FX/MENIN HEM	8503	CONCUSSION-PROLONG COMA
80121	CL SKUL BASE FX W/O COMA	8504	CONCUSSION-DEEP COMA
80122	CL SKUL BASE FX/BRF COMA	8505	CONCUSSION W COMA NOS
80123	CL SKUL BASE FX-MOD COMA	8509	CONCUSSION NOS
80124	CL SKL BASE FX-PROL COMA	85100	CEREBRAL CORTX CONTUSION
80125	CL SKL BASE FX-DEEP COMA	85101	CORTEX CONTUSION-NO COMA
80126	CL SKUL BASE FX-COMA NOS	85102	CORTEX CONTUS-BRIEF COMA
80129	CL SKULL BASE FX-CONCUSS	85103	CORTEX CONTUS-MOD COMA
80130	CL SKULL BASE FX/HEM NEC	85104	CORTX CONTUS-PROLNG COMA
80131	CL SKUL BASE FX W/O COMA	85105	CORTEX CONTUS-DEEP COMA
80132	CL SKUL BASE FX-BRF COMA	85106	CORTEX CONTUS-COMA NOS
80133	CL SKUL BASE FX-MOD COMA	85109	CORTEX CONTUS-CONCUS NOS
80134	CL SKL BASE FX-PROL COMA	85110	CORTEX CONTUSION/OPN WND
80135	CL SKL BASE FX-DEEP COMA	85111	OPN CORTX CONTUS-NO COMA
80136	CL SKUL BASE FX-COMA NOS	85112	OPN CORT CONTUS-BRF COMA
80139	CL SKULL BASE FX-CONCUSS	85113	OPN CORT CONTUS-MOD COMA
80140	CL SK BASE FX/BR INJ NEC	85114	OPN CORT CONTU-PROL COMA
80141	CL SKUL BASE FX W/O COMA	85115	OPN CORT CONTU-DEEP COMA
80142	CL SKUL BASE FX-BRF COMA	85116	OPN CORT CONTUS-COMA NOS
80143	CL SKUL BASE FX-MOD COMA	85119	OPN CORTX CONTUS-CONCUSS
80144	CL SKL BASE FX-PROL COMA	85120	CEREBRAL CORTEX LACERAT
80145	CL SKL BASE FX-DEEP COMA	85121	CORTEX LACERAT W/O COMA
80146	CL SKUL BASE FX-COMA NOS	85122	CORTEX LACERA-BRIEF COMA
80149	CL SKULL BASE FX-CONCUSS	85123	CORTEX LACERAT-MOD COMA
80150	OPEN SKULL BASE FRACTURE	85124	CORTEX LACERAT-PROL COMA
80151	OPN SKL BASE FX W/O COMA	85125	CORTEX LACERAT-DEEP COMA
80152	OPN SKL BASE FX-BRF COMA	85126	CORTEX LACERAT-COMA NOS
80153	OPN SKL BASE FX-MOD COMA	85129	CORTEX LACERAT-CONCUSS
80154	OP SKL BASE FX-PROL COMA	85130	CORTEX LACER W OPN WOUND
80155	OP SKL BASE FX-DEEP COMA	85131	OPN CORTEX LACER-NO COMA
80156	OPN SKL BASE FX-COMA NOS	85132	OPN CORTX LAC-BRIEF COMA
80159	OPN SKUL BASE FX-CONCUSS	85133	OPN CORTX LACER-MOD COMA
80160	OP SKL BASE FX/CEREB LAC	85134	OPN CORTX LAC-PROLN COMA
80161	OPN SKL BASE FX W/O COMA	85135	OPN CORTEX LAC-DEEP COMA
80162	OPN SKL BASE FX-BRF COMA	85136	OPN CORTX LACER-COMA NOS
80163	OPN SKL BASE FX-MOD COMA	85139	OPN CORTX LACER-CONCUSS
80164	OP SKL BASE FX-PROL COMA	85140	CEREBEL/BRAIN STM CONTUS
80165	OP SKL BASE FX-DEEP COMA	85141	CEREBELL CONTUS W/O COMA
80166	OPN SKL BASE FX-COMA NOS	85142	CEREBELL CONTUS-BRF COMA
80169	OPN SKUL BASE FX-CONCUSS	85143	CEREBELL CONTUS-MOD COMA
80170	OP SKL BASE FX/MENIN HEM	85144	CEREBEL CONTUS-PROL COMA
80171	OPN SKL BASE FX W/O COMA	85145	CEREBEL CONTUS-DEEP COMA
80172	OPN SKL BASE FX-BRF COMA	85146	CEREBELL CONTUS-COMA NOS
80173	OPN SKL BASE FX-MOD COMA	85149	CEREBELL CONTUS-CONCUSS
80174	OP SKL BASE FX-PROL COMA	85150	CEREBEL CONTUS W OPN WND

Craniotomy Mortality Rate (IQI 13)			
80175	OP SKL BASE FX-DEEP COMA	85151	OPN CEREBE CONT W/O COMA
80176	OPN SKL BASE FX-COMA NOS	85152	OPN CEREBE CONT-BRF COMA
80179	OPN SKUL BASE FX-CONCUSS	85153	OPN CEREBE CONT-MOD COMA
80180	OPN SKUL BASE FX/HEM NEC	85154	OPN CEREBE CONT-PROL COM
80181	OPN SKL BASE FX W/O COMA	85155	OPN CEREBE CONT-DEEP COM
80182	OPN SKL BASE FX-BRF COMA	85156	OPN CEREBE CONT-COMA NOS
80183	OPN SKL BASE FX-MOD COMA	85159	OPN CEREBEL CONT-CONCUSS
80184	OP SKL BASE FX-PROL COMA	85160	CEREBEL/BRAIN STEM LACER
80185	OP SKL BASE FX-DEEP COMA	85161	CEREBEL LACERAT W/O COMA
80186	OPN SKL BASE FX-COMA NOS	85162	CEREBEL LACER-BRIEF COMA
80189	OPN SKUL BASE FX-CONCUSS	85163	CEREBEL LACERAT-MOD COMA
80190	OP SK BASE FX/BR INJ NEC	85164	CEREBEL LACER-PROLN COMA
80191	OP SKUL BASE FX W/O COMA	85165	CEREBELL LACER-DEEP COMA
80192	OPN SKL BASE FX-BRF COMA	85166	CEREBEL LACERAT-COMA NOS
80193	OPN SKL BASE FX-MOD COMA	85169	CEREBEL LACER-CONCUSSION
80194	OP SKL BASE FX-PROL COMA	85170	CEREBEL LACER W OPEN WND
80195	OP SKL BASE FX-DEEP COMA	85171	OPN CEREBEL LAC W/O COMA
80196	OPN SKL BASE FX-COMA NOS	85172	OPN CEREBEL LAC-BRF COMA
80199	OPN SKUL BASE FX-CONCUSS	85173	OPN CEREBEL LAC-MOD COMA
8020	NASAL BONE FX-CLOSED	85174	OPN CEREBE LAC-PROL COMA
8021	NASAL BONE FX-OPEN	85175	OPN CEREBE LAC-DEEP COMA
80220	MANDIBLE FX NOS-CLOSED	85176	OPN CEREBEL LAC-COMA NOS
80221	FX CONDYL PROC MANDIB-CL	85179	OPN CEREBELL LAC-CONCUSS
80222	SUBCONDYLAR FX MANDIB-CL	85180	BRAIN LACERATION NEC
80223	FX CORON PROC MANDIB-CL	85181	BRAIN LACER NEC W/O COMA
80224	FX RAMUS NOS-CLOSED	85182	BRAIN LAC NEC-BRIEF COMA
80225	FX ANGLE OF JAW-CLOSED	85183	BRAIN LACER NEC-MOD COMA
80226	FX SYMPHY MANDIB BODY-CL	85184	BRAIN LAC NEC-PROLN COMA
80227	FX ALVEOLAR BORD MAND-CL	85185	BRAIN LAC NEC-DEEP COMA
80228	FX MANDIBLE BODY NEC-CL	85186	BRAIN LACER NEC-COMA NOS
80229	MULT FX MANDIBLE-CLOSED	85189	BRAIN LACER NEC-CONCUSS
80230	MANDIBLE FX NOS-OPEN	85190	BRAIN LAC NEC W OPEN WND
80231	FX CONDYL PROC MAND-OPEN	85191	OPN BRAIN LACER W/O COMA
80232	SUBCONDYL FX MANDIB-OPEN	85192	OPN BRAIN LAC-BRIEF COMA
80233	FX CORON PROC MANDIB-OPN	85193	OPN BRAIN LACER-MOD COMA
80234	FX RAMUS NOS-OPEN	85194	OPN BRAIN LAC-PROLN COMA
80235	FX ANGLE OF JAW-OPEN	85195	OPEN BRAIN LAC-DEEP COMA
80236	FX SYMPHY MANDIB BDY-OPN	85196	OPN BRAIN LACER-COMA NOS
80237	FX ALV BORD MAND BDY-OPN	85199	OPEN BRAIN LACER-CONCUSS
80238	FX MANDIBLE BODY NEC-OPN	85200	TRAUM SUBARACHNOID HEM
80239	MULT FX MANDIBLE-OPEN	85201	SUBARACHNOID HEM-NO COMA
8024	FX MALAR/MAXILLARY-CLOSE	85202	SUBARACH HEM-BRIEF COMA
8025	FX MALAR/MAXILLARY-OPEN	85203	SUBARACH HEM-MOD COMA
8026	FX ORBITAL FLOOR-CLOSED	85204	SUBARACH HEM-PROLNG COMA
8027	FX ORBITAL FLOOR-OPEN	85205	SUBARACH HEM-DEEP COMA
8028	FX FACIAL BONE NEC-CLOSE	85206	SUBARACH HEM-COMA NOS
8029	FX FACIAL BONE NEC-OPEN	85209	SUBARACH HEM-CONCUSSION
80300	CLOSE SKULL FRACTURE NEC	85210	SUBARACH HEM W OPN WOUND
80301	CL SKULL FX NEC W/O COMA	85211	OPN SUBARACH HEM-NO COMA
80302	CL SKULL FX NEC-BRF COMA	85212	OP SUBARACH HEM-BRF COMA
80303	CL SKULL FX NEC-MOD COMA	85213	OP SUBARACH HEM-MOD COMA
80304	CL SKL FX NEC-PROLN COMA	85214	OP SUBARACH HEM-PROL COM
80305	CL SKUL FX NEC-DEEP COMA	85215	OP SUBARACH HEM-DEEP COM

Craniotomy Mortality Rate (IQI 13)			
80306	CL SKULL FX NEC-COMA NOS	85216	OP SUBARACH HEM-COMA NOS
80309	CL SKULL FX NEC-CONCUSS	85219	OPN SUBARACH HEM-CONCUSS
80310	CL SKL FX NEC/CEREBR LAC	85220	TRAUMATIC SUBDURAL HEM
80311	CL SKULL FX NEC W/O COMA	85221	SUBDURAL HEM W/O COMA
80312	CL SKULL FX NEC-BRF COMA	85222	SUBDURAL HEM-BRIEF COMA
80313	CL SKULL FX NEC-MOD COMA	85223	SUBDURAL HEMORR-MOD COMA
80314	CL SKL FX NEC-PROLN COMA	85224	SUBDURAL HEM-PROLNG COMA
80315	CL SKUL FX NEC-DEEP COMA	85225	SUBDURAL HEM-DEEP COMA
80316	CL SKULL FX NEC-COMA NOS	85226	SUBDURAL HEMORR-COMA NOS
80319	CL SKULL FX NEC-CONCUSS	85229	SUBDURAL HEM-CONCUSSION
80320	CL SKL FX NEC/MENING HEM	85230	SUBDURAL HEM W OPN WOUND
80321	CL SKULL FX NEC W/O COMA	85231	OPEN SUBDUR HEM W/O COMA
80322	CL SKULL FX NEC-BRF COMA	85232	OPN SUBDUR HEM-BRF COMA
80323	CL SKULL FX NEC-MOD COMA	85233	OPN SUBDUR HEM-MOD COMA
80324	CL SKL FX NEC-PROLN COMA	85234	OPN SUBDUR HEM-PROL COMA
80325	CL SKUL FX NEC-DEEP COMA	85235	OPN SUBDUR HEM-DEEP COMA
80326	CL SKULL FX NEC-COMA NOS	85236	OPN SUBDUR HEM-COMA NOS
80329	CL SKULL FX NEC-CONCUSS	85239	OPN SUBDUR HEM-CONCUSS
80330	CL SKULL FX NEC/HEM NEC	85240	TRAUMATIC EXTRADURAL HEM
80331	CL SKULL FX NEC W/O COMA	85241	EXTRADURAL HEM W/O COMA
80332	CL SKULL FX NEC-BRF COMA	85242	EXTRADUR HEM-BRIEF COMA
80333	CL SKULL FX NEC-MOD COMA	85243	EXTRADURAL HEM-MOD COMA
80334	CL SKL FX NEC-PROLN COMA	85244	EXTRADUR HEM-PROLN COMA
80335	CL SKUL FX NEC-DEEP COMA	85245	EXTRADURAL HEM-DEEP COMA
80336	CL SKULL FX NEC-COMA NOS	85246	EXTRADURAL HEM-COMA NOS
80339	CL SKULL FX NEC-CONCUSS	85249	EXTADURAL HEM-CONCUSS
80340	CL SKL FX NEC/BR INJ NEC	85250	EXTRADURAL HEM W OPN WND
80341	CL SKULL FX NEC W/O COMA	85251	EXTRADURAL HEMOR-NO COMA
80342	CL SKULL FX NEC-BRF COMA	85252	EXTRADUR HEM-BRIEF COMA
80343	CL SKULL FX NEC-MOD COMA	85253	EXTRADURAL HEM-MOD COMA
80344	CL SKL FX NEC-PROLN COMA	85254	EXTRADUR HEM-PROLN COMA
80345	CL SKUL FX NEC-DEEP COMA	85255	EXTRADUR HEM-DEEP COMA
80346	CL SKULL FX NEC-COMA NOS	85256	EXTRADURAL HEM-COMA NOS
80349	CL SKULL FX NEC-CONCUSS	85259	EXTRADURAL HEM-CONCUSS
80350	OPEN SKULL FRACTURE NEC	85300	TRAUMATIC BRAIN HEM NEC
80351	OPN SKUL FX NEC W/O COMA	85301	BRAIN HEM NEC W/O COMA
80352	OPN SKUL FX NEC-BRF COMA	85302	BRAIN HEM NEC-BRIEF COMA
80353	OPN SKUL FX NEC-MOD COMA	85303	BRAIN HEM NEC-MOD COMA
80354	OPN SKL FX NEC-PROL COMA	85304	BRAIN HEM NEC-PROLN COMA
80355	OPN SKL FX NEC-DEEP COMA	85305	BRAIN HEM NEC-DEEP COMA
80356	OPN SKUL FX NEC-COMA NOS	85306	BRAIN HEM NEC-COMA NOS
80359	OPN SKULL FX NEC-CONCUSS	85309	BRAIN HEM NEC-CONCUSSION
80360	OPN SKL FX NEC/CEREB LAC	85310	BRAIN HEM NEC W OPN WND
80361	OPN SKUL FX NEC W/O COMA	85311	BRAIN HEM OPN W/O COMA
80362	OPN SKUL FX NEC-BRF COMA	85312	BRAIN HEM OPN-BRF COMA
80363	OPN SKUL FX NEC-MOD COMA	85313	BRAIN HEM OPEN-MOD COMA
80364	OPN SKL FX NEC-PROLN COM	85314	BRAIN HEM OPN-PROLN COMA
80365	OPN SKL FX NEC-DEEP COMA	85315	BRAIN HEM OPEN-DEEP COMA
80366	OPN SKUL FX NEC-COMA NOS	85316	BRAIN HEM OPEN-COMA NOS
80369	OPN SKULL FX NEC-CONCUSS	85319	BRAIN HEM OPN-CONCUSSION
80370	OPN SKL FX NEC/MENIN HEM	85400	BRAIN INJURY NEC
80371	OPN SKUL FX NEC W/O COMA	85401	BRAIN INJURY NEC-NO COMA
80372	OPN SKUL FX NEC-BRF COMA	85402	BRAIN INJ NEC-BRIEF COMA

Craniotomy Mortality Rate (IQI 13)			
80373	OPN SKUL FX NEC-MOD COMA	85403	BRAIN INJ NEC-MOD COMA
80374	OPN SKL FX NEC-PROL COMA	85404	BRAIN INJ NEC-PROLN COMA
80375	OPN SKL FX NEC-DEEP COMA	85405	BRAIN INJ NEC-DEEP COMA
80376	OPN SKUL FX NEC-COMA NOS	85406	BRAIN INJ NEC-COMA NOS
80379	OPN SKULL FX NEC-CONCUSS	85409	BRAIN INJ NEC-CONCUSSION
80380	OPN SKULL FX NEC/HEM NEC	85410	BRAIN INJURY W OPN WND
80381	OPN SKUL FX NEC W/O COMA	85411	OPN BRAIN INJ W/O COMA
80382	OPN SKUL FX NEC-BRF COMA	85412	OPN BRAIN INJ-BRIEF COMA
80383	OPN SKUL FX NEC-MOD COMA	85413	OPN BRAIN INJ-MOD COMA
80384	OPN SKL FX NEC-PROL COMA	85414	OPN BRAIN INJ-PROLN COMA
80385	OPN SKL FX NEC-DEEP COMA	85415	OPN BRAIN INJ-DEEP COMA
80386	OPN SKUL FX NEC-COMA NOS	85416	OPEN BRAIN INJ-COMA NOS
80389	OPN SKULL FX NEC-CONCUSS	85419	OPN BRAIN INJ-CONCUSSION
80390	OP SKL FX NEC/BR INJ NEC	9500	OPTIC NERVE INJURY
80391	OPN SKUL FX NEC W/O COMA	9501	INJURY TO OPTIC CHIASM
80392	OPN SKUL FX NEC-BRF COMA	9502	INJURY TO OPTIC PATHWAYS
80393	OPN SKUL FX NEC-MOD COMA	9503	INJURY TO VISUAL CORTEX
80394	OPN SKL FX NEC-PROL COMA	9509	INJ OPTIC NERV/PATH NOS
80395	OPN SKL FX NEC-DEEP COMA	9510	INJURY OCULOMOTOR NERVE
80396	OPN SKUL FX NEC-COMA NOS	9511	INJURY TROCHLEAR NERVE
80399	OPN SKULL FX NEC-CONCUSS	9512	INJURY TRIGEMINAL NERVE
80400	CL SKUL FX W OTH BONE FX	9513	INJURY ABDUCENS NERVE
80401	CL SKL W OTH FX W/O COMA	9514	INJURY TO FACIAL NERVE
80402	CL SKL W OTH FX-BRF COMA	9515	INJURY TO ACOUSTIC NERVE
80403	CL SKL W OTH FX-MOD COMA	9516	INJURY ACCESSORY NERVE
80404	CL SKL/OTH FX-PROLN COMA	9517	INJURY HYPOGLOSSAL NERVE
80405	CL SKUL/OTH FX-DEEP COMA	9518	INJURY CRANIAL NERVE NEC
80406	CL SKL W OTH FX-COMA NOS	9519	INJURY CRANIAL NERVE NOS
80409	CL SKUL W OTH FX-CONCUSS	95200	C1-C4 SPIN CORD INJ NOS
80410	CL SK W OTH FX/CEREB LAC	95201	COMPLETE LES CORD/C1-C4
80411	CL SKL W OTH FX W/O COMA	95202	ANTERIOR CORD SYND/C1-C4
80412	CL SKL W OTH FX-BRF COMA	95203	CENTRAL CORD SYND/C1-C4
80413	CL SKL W OTH FX-MOD COMA	95204	C1-C4 SPIN CORD INJ NEC
80414	CL SKL/OTH FX-PROLN COMA	95205	C5-C7 SPIN CORD INJ NOS
80415	CL SKUL/OTH FX-DEEP COMA	95206	COMPLETE LES CORD/C5-C7
80416	CL SKL W OTH FX-COMA NOS	95207	ANTERIOR CORD SYND/C5-C7
80419	CL SKUL W OTH FX-CONCUSS	95208	CENTRAL CORD SYND/C5-C7
80420	CL SKL/OTH FX/MENING HEM	95209	C5-C7 SPIN CORD INJ NEC
80421	CL SKL W OTH FX W/O COMA	95210	T1-T6 SPIN CORD INJ NOS
80422	CL SKL W OTH FX-BRF COMA	95211	COMPLETE LES CORD/T1-T6
80423	CL SKL W OTH FX-MOD COMA	95212	ANTERIOR CORD SYND/T1-T6
80424	CL SKL/OTH FX-PROLN COMA	95213	CENTRAL CORD SYND/T1-T6
80425	CL SKUL/OTH FX-DEEP COMA	95214	T1-T6 SPIN CORD INJ NEC
80426	CL SKL W OTH FX-COMA NOS	95215	T7-T12 SPIN CORD INJ NOS
80429	CL SKUL W OTH FX-CONCUSS	95216	COMPLETE LES CORD/T7-T12
80430	CL SKUL W OTH FX/HEM NEC	95217	ANTERIOR CORD SYN/T7-T12
80431	CL SKL W OTH FX W/O COMA	95218	CENTRAL CORD SYN/T7-T12
80432	CL SKL W OTH FX-BRF COMA	95219	T7-T12 SPIN CORD INJ NEC

Hip Replacement Mortality Rate (IQI 14)			
Numerator:			
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.			
Denominator:			
All discharges, age 18 years and older, with a procedure code of partial or full hip replacement in any field.			
ICD-9-CM hip replacement procedure codes:			
8151	TOTAL HIP REPLACEMENT	0071	REV HIP REPL-ACETAB COMP OCT05-
8152	PARTIAL HIP REPLACEMENT	0072	REV HIP REPL-FEM COMP OCT05-
8153	REVISE HIP REPLACEMENT	0073	REV HIP REPL-LINER/HEAD OCT05-
0070	REV HIP REPL-ACETAB/FEM OCT05-		
Include only discharges with uncomplicated cases: diagnosis codes for osteoarthritis of hip in any field.			
ICD-9-CM osteoarthritis diagnosis codes:			
71500	GENL OSTEOARTHROSIS NOS	71595	OSTEOARTHROS NOS-PELVIS
71509	GENL OSTEOARTHROSIS MULT	71598	OSTEOARTHRO NOS-OTH SITE
71510	LOC PRIM OSTEOART-UNSPEC	71650	POLYARTHROSIS NOS-UNSPEC
71515	LOC PRIM OSTEOART-PELVIS	71655	POLYARTHROSIS NOS-PELVIS
71518	LOC PRIM OSTEOARTHROS NEC	71658	POLYARTHROSIS NOS-OTH SITE
71520	LOC 2ND OSTEOARTHROS UNSPEC	71659	POLYARTHROSIS NOS-MULT
71525	LOC 2ND OSTEOARTHROS PELVIS	71660	MONOARTHROSIS NOS-UNSPEC
71528	LOC 2ND OSTEOARTHROS NEC	71665	MONOARTHROSIS NOS-PELVIS
71530	LOC OSTEOARTHROS NOS-UNSPEC	71668	MONOARTHROSIS NOS-OTH SITE
71535	LOC OSTEOARTHROS NOS-PELVIS	71690	ARTHROPATHY NOS-UNSPEC
71538	LOC OSTEOARTHROS NOS-SITE NEC	71695	ARTHROPATHY NOS-PELVIS
71580	OSTEOARTHROSIS-MULT SITE	71698	ARTHROPATHY NOS-OTH SITE
71589	OSTEOARTHROSIS-MULT SITE	71699	ARTHROPATHY NOS-MULT
71590	OSTEOARTHROS NOS-UNSPEC		
Exclude cases:			
<ul style="list-style-type: none"> • missing discharge disposition (DISP=missing) • transferring to another short-term hospital (DISP=2) • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates) 			

1.4 Mortality Indicators for Inpatient Medical Conditions

Acute Myocardial Infarction (AMI) Mortality Rate (IQI 15)	
Numerator:	
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.	
Denominator:	
All discharges, age 18 years and older, with a principal diagnosis code of AMI.	
ICD-9-CM AMI diagnosis codes:	
41001 AMI ANTEROLATERAL, INIT	41051 AMI LATERAL NEC, INITIAL
41011 AMI ANTERIOR WALL, INIT	41061 TRUE POST INFARCT, INIT
41021 AMI INFEROLATERAL, INIT	41071 SUBENDO INFARCT, INITIAL
41031 AMI INFEROPOST, INITIAL	41081 AMI NEC, INITIAL
41041 AMI INFERIOR WALL, INIT	41091 AMI NOS, INITIAL
Exclude cases:	
<ul style="list-style-type: none"> • missing discharge disposition (DISP=missing) • transferring to another short-term hospital (DISP=2) 	

Acute Myocardial Infarction (AMI) Mortality Rate, Without Transfer Cases (IQI 32)	
Numerator:	
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.	
Denominator:	
All discharges, age 18 years and older, with a principal diagnosis code of AMI.	
ICD-9-CM AMI diagnosis codes:	
41001 AMI ANTEROLATERAL, INIT	41051 AMI LATERAL NEC, INITIAL
41011 AMI ANTERIOR WALL, INIT	41061 TRUE POST INFARCT, INIT
41021 AMI INFEROLATERAL, INIT	41071 SUBENDO INFARCT, INITIAL
41031 AMI INFEROPOST, INITIAL	41081 AMI NEC, INITIAL
41041 AMI INFERIOR WALL, INIT	41091 AMI NOS, INITIAL
Exclude cases:	
<ul style="list-style-type: none"> • missing discharge disposition (DISP=missing) • transferring to another short-term hospital (DISP=2) • missing admission source (SID ASOURCE=missing) • transferring from another short-term hospital (SID ASOURCE=2) 	

Congestive Heart Failure (CHF) Mortality Rate (IQI 16)	
Numerator:	
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.	
Denominator:	
All discharges, age 18 years and older, with principal diagnosis code of CHF.	
ICD-9-CM CHF diagnosis codes:	
39891 RHEUMATIC HEART FAILURE	42821 AC SYSTOLIC HRT FAILURE OCT02-
40201 MAL HYPERT HRT DIS W CHF	42822 CHR SYSTOLIC HRT FAILURE OCT02-
40211 BENIGN HYP HRT DIS W CHF	42823 AC ON CHR SYST HRT FAIL OCT02-
40291 HYPERTEN HEART DIS W CHF	4289 HEART FAILURE NOS
40401 MAL HYPER HRT/REN W CHF	42830 DIASTOLIC HRT FAILURE NOS OCT02-
40403 MAL HYP HRT/REN W CHF&RF	42831 AC DIASTOLIC HRT FAILURE OCT02-
40411 BEN HYPER HRT/REN W CHF	42832 CHR DIASTOLIC HRT FAIL OCT02-
40413 BEN HYP HRT/REN W CHF&RF	42833 AC ON CHR DIAST HRT FAIL OCT02-
40491 HYPER HRT/REN NOS W CHF	42840 SYST/DIAST HRT FAIL NOS OCT02-
40493 HYP HT/REN NOS W CHF&RF	42841 AC SYST/DIASTOL HRT FAIL OCT02-
4280 CONGESTIVE HEART FAILURE	42842 CHR SYST/DIASTL HRT FAIL OCT02-
4281 LEFT HEART FAILURE	42843 AC/CHR SYST/DIA HRT FAIL OCT02-
42820 SYSTOLIC HEART FAILURE NOS OCT02-	
Exclude cases:	
<ul style="list-style-type: none"> • missing discharge disposition (DISP=missing) • transferring to another short-term hospital (DISP=2) • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates) 	

Acute Stroke Mortality Rate (IQI 17)	
Numerator:	
Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.	
Denominator:	
All discharges, age 18 years and older, with principal diagnosis code for stroke	
ICD-9-CM stroke diagnosis codes:	
430 SUBARACHNOID HEMORRHAGE	43331 MULT PRECER OCCL W/ INFRCT
431 INTRACEREBRAL HEMORRHAGE	43381 PRECER OCCL NEC W/ INFRCT
4320 NONTRAUM EXTRADURAL HEM	43391 PRECER OCCL NOS W/ INFRCT
4321 SUBDURAL HEMORRHAGE	43401 CERE THROMBOSIS W/ INFRCT
4329 INTRACRANIAL HEMORR NOS	43411 CERE EMBOLISM W/ INFRCT
43301 BASI ART OCCL W/ INFARCT	43491 CEREB OCCL NOS W/ INFRCT
43311 CAROTD OCCL W/ INFRCT	436 CVA*
43321 VERTB ART OCCL W/ INFRCT	
*Only for discharges before September 30, 2004 (FY2004). Does not apply to discharges on or after October 1, 2004 (FY2005).	

Acute Stroke Mortality Rate (IQI 17)

Exclude cases:

- missing discharge disposition (DISP=missing)
- transferring to another short-term hospital (DISP=2)
- MDC 14 (pregnancy, childbirth, and puerperium)
- MDC 15 (newborns and other neonates)

Gastrointestinal Hemorrhage Mortality Rate (IQI 18)

Numerator:

Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.

Denominator:

All discharges, age 18 years and older, with principal diagnosis code for gastrointestinal hemorrhage.

ICD-9-CM gastrointestinal hemorrhage diagnosis codes:

4560	ESOPH VARICES W HEM	53400	AC MARGINAL ULCER W HEM
5307	GASTROESOPH LACER W HEM	53401	AC MARGIN ULC W HEM-OBST
53021	ULCER ESOPHAGUS W BLEED OCT03-	53420	AC MARGIN ULC W HEM/PERF
53082	ESOPHAGEAL HEMORRHAGE	53421	AC MARG ULC HEM/PERF-OBS
53100	AC STOMACH ULCER W HEM	53440	CHR MARGINAL ULCER W HEM
53101	AC STOMAC ULC W HEM-OBST	53441	CHR MARGIN ULC W HEM-OBS
53120	AC STOMAC ULC W HEM/PERF	53460	CHR MARGIN ULC HEM/PERF
53121	AC STOM ULC HEM/PERF-OBS	53461	CHR MARG ULC HEM/PERF-OB
53140	CHR STOMACH ULC W HEM	53501	ACUTE GASTRITIS W HMRHG
53141	CHR STOM ULC W HEM-OBSTR	53511	ATRPH GASTRITIS W HMRHG
53160	CHR STOMACH ULC HEM/PERF	53521	GSTR MCSL HYPRT W HMRG
53161	CHR STOM ULC HEM/PERF-OB	53531	ALCHL GSTRITIS W HMRHG
53200	AC DUODENAL ULCER W HEM	53541	OTH SPF GASTRT W HMRHG
53201	AC DUODEN ULC W HEM-OBST	53551	GSTR/DDNTS NOS W HMRHG
53220	AC DUODEN ULC W HEM/PERF	53561	DUODENITIS W HMRHG
53221	AC DUOD ULC HEM/PERF-OBS	53783	ANGIO STM/ DUDN W HMRHG
53240	CHR DUODEN ULCER W HEM	53784	DIEULAFOY LES,STOM&DUOD OCT02-
53241	CHR DUODEN ULC HEM-OBSTR	56202	DVRTCLO SML INT W HMRHG
53260	CHR DUODEN ULC HEM/PERF	56203	DVRTCLI SML INT W HMRHG
53261	CHR DUOD ULC HEM/PERF-OB	56212	DVRTCLO COLON W HMRHG
53300	AC PEPTIC ULCER W HEMORR	56213	DVRTCLI COLON W HMRHG
53301	AC PEPTIC ULC W HEM-OBST	5693	RECTAL & ANAL HEMORRHAGE
53320	AC PEPTIC ULC W HEM/PERF	56985	ANGIO INTES W HMRHG
53321	AC PEPT ULC HEM/PERF-OBS	56986	DIEULAFOY LES, INTESTINE OCT02-
53340	CHR PEPTIC ULCER W HEM	5780	HEMATEMESIS
53341	CHR PEPTIC ULC W HEM-OBS	5781	BLOOD IN STOOL
53360	CHR PEPT ULC W HEM/PERF	5789	GASTROINTEST HEMORR NOS
53361	CHR PEPT ULC HEM/PERF-OB		

Exclude cases:

- missing discharge disposition (DISP=missing)
- transferring to another short-term hospital (DISP=2)

Gastrointestinal Hemorrhage Mortality Rate (IQI 18)
<ul style="list-style-type: none"> • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates)

Hip Fracture Mortality Rate (IQI 19)																																				
<p>Numerator:</p> <p>Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.</p>																																				
<p>Denominator:</p> <p>All discharges, age 65 years and older, with principal diagnosis code for hip fracture.</p> <p>ICD-9-CM hip fracture diagnosis codes:</p> <table border="0"> <tbody> <tr> <td>82000</td> <td>FX FEMUR INTRCAPS NOS-CL</td> <td>82019</td> <td>FX FEMUR INTRCAP NEC-OPN</td> </tr> <tr> <td>82001</td> <td>FX UP FEMUR EPIPHY-CLOS</td> <td>82020</td> <td>TROCHANTERIC FX NOS-CLOS</td> </tr> <tr> <td>82002</td> <td>FX FEMUR, MIDCERVIC-CLOS</td> <td>82021</td> <td>INTERTROCHANTERIC FX-CL</td> </tr> <tr> <td>82003</td> <td>FX BASE FEMORAL NCK-CLOS</td> <td>82022</td> <td>SUBTROCHANTERIC FX-CLOSE</td> </tr> <tr> <td>82009</td> <td>FX FEMUR INTRCAPS NEC-CL</td> <td>82030</td> <td>TROCHANTERIC FX NOS-OPEN</td> </tr> <tr> <td>82010</td> <td>FX FEMUR INTRCAP NOS-OPN</td> <td>82031</td> <td>INTERTROCHANTERIC FX-OPN</td> </tr> <tr> <td>82011</td> <td>FX UP FEMUR EPIPHY-OPEN</td> <td>82032</td> <td>SUBTROCHANTERIC FX-OPEN</td> </tr> <tr> <td>82012</td> <td>FX FEMUR, MIDCERVIC-OPEN</td> <td>8208</td> <td>FX NECK OF FEMUR NOS-CL</td> </tr> <tr> <td>82013</td> <td>FX BASE FEMORAL NCK-OPEN</td> <td>8209</td> <td>FX NECK OF FEMUR NOS-OPN</td> </tr> </tbody> </table> <p>Exclude cases:</p> <ul style="list-style-type: none"> • missing discharge disposition (DISP=missing) • transferring to another short-term hospital (DISP=2) • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates) 	82000	FX FEMUR INTRCAPS NOS-CL	82019	FX FEMUR INTRCAP NEC-OPN	82001	FX UP FEMUR EPIPHY-CLOS	82020	TROCHANTERIC FX NOS-CLOS	82002	FX FEMUR, MIDCERVIC-CLOS	82021	INTERTROCHANTERIC FX-CL	82003	FX BASE FEMORAL NCK-CLOS	82022	SUBTROCHANTERIC FX-CLOSE	82009	FX FEMUR INTRCAPS NEC-CL	82030	TROCHANTERIC FX NOS-OPEN	82010	FX FEMUR INTRCAP NOS-OPN	82031	INTERTROCHANTERIC FX-OPN	82011	FX UP FEMUR EPIPHY-OPEN	82032	SUBTROCHANTERIC FX-OPEN	82012	FX FEMUR, MIDCERVIC-OPEN	8208	FX NECK OF FEMUR NOS-CL	82013	FX BASE FEMORAL NCK-OPEN	8209	FX NECK OF FEMUR NOS-OPN
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Pneumonia Mortality Rate (IQI 20)																												
<p>Numerator:</p> <p>Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.</p>																												
<p>Denominator:</p> <p>All discharges, age 18 years and older, with a principal diagnosis code of pneumonia.</p> <p>ICD-9-CM pneumonia diagnosis codes:</p> <table border="0"> <tbody> <tr> <td>00322</td> <td>SALMONELLA PNEUMONIA</td> <td>4831</td> <td>CHLAMYDIA PNEUMONIA OCT96-</td> </tr> <tr> <td>0212</td> <td>PULMONARY TULAREMIA</td> <td>4838</td> <td>OTH SPEC ORG PNEUMONIA</td> </tr> <tr> <td>0391</td> <td>PULMONARY ACTINOMYCOSIS</td> <td>4841</td> <td>PNEUM W CYTOMEG INCL DIS</td> </tr> <tr> <td>0521</td> <td>VARICELLA PNEUMONITIS</td> <td>4829</td> <td>BACTERIAL PNEUMONIA NOS</td> </tr> <tr> <td>0551</td> <td>POSTMEASLES PNEUMONIA</td> <td>4830</td> <td>MYCOPLASMA PNEUMONIA</td> </tr> <tr> <td>0730</td> <td>ORNITHOSIS PNEUMONIA</td> <td>4843</td> <td>PNEUMONIA IN WHOOP COUGH</td> </tr> <tr> <td>1124</td> <td>CANDIDIASIS OF LUNG</td> <td>4845</td> <td>PNEUMONIA IN ANTHRAX</td> </tr> </tbody> </table>	00322	SALMONELLA PNEUMONIA	4831	CHLAMYDIA PNEUMONIA OCT96-	0212	PULMONARY TULAREMIA	4838	OTH SPEC ORG PNEUMONIA	0391	PULMONARY ACTINOMYCOSIS	4841	PNEUM W CYTOMEG INCL DIS	0521	VARICELLA PNEUMONITIS	4829	BACTERIAL PNEUMONIA NOS	0551	POSTMEASLES PNEUMONIA	4830	MYCOPLASMA PNEUMONIA	0730	ORNITHOSIS PNEUMONIA	4843	PNEUMONIA IN WHOOP COUGH	1124	CANDIDIASIS OF LUNG	4845	PNEUMONIA IN ANTHRAX
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Pneumonia Mortality Rate (IQI 20)			
1140	PRIMARY COCCIDIOIDOMYCOS	4846	PNEUM IN ASPERGILLOSIS
1144	CHRONIC PULMONCOCCIDIOIDOMYCOSIS	4847	PNEUM IN OTH SYS MYCOSES
1145	UNSPEC PULMON COCCIDIOIDOMYCOSIS	4848	PNEUM IN INFECT DIS NEC
11505	HISTOPLASM CAPS PNEUMON	485	BRONCOPNEUMONIA ORG NOS
11515	HISTOPLASM DUB PNEUMONIA	486	PNEUMONIA, ORGANISM NOS
11595	HISTOPLASMOSIS PNEUMONIA	48230	STREP PNEUMONIA UNSPEC
1304	TOXOPLASMA PNEUMONITIS	48231	GRP A STREP PNEUMONIA
1363	PNEUMOCYSTOSIS	48232	GRP B STREP PNEUMONIA
4800	ADENOVIRAL PNEUMONIA	48239	OTH STREP PNEUMONIA
4801	RESP SYNCYT VIRAL PNEUM	48240	STAPH PNEUMONIA UNSP OCT98-
4802	PARINFLUENZA VIRAL PNEUM	48241	STAPH AUREUS PNEUMON OCT98-
4803	PNEUMONIA DUE TO SARS OCT03-	48249	STAPH PNEUMON OTH OCT98-
4808	VIRAL PNEUMONIA NEC	48281	ANAEROBIC PNEUMONIA
4809	VIRAL PNEUMONIA NOS	48282	E COLI PNEUMONIA
481	PNEUMOCOCCAL PNEUMONIA	48283	OTH GRAM NEG PNEUMONIA
4820	K. PNEUMONIAE PNEUMONIA	48284	LEGIONNAIRES DX OCT97-
4821	PSEUDOMONAL PNEUMONIA	48289	BACT PNEUMONIA NEC
4822	H.INFLUENZAE PNEUMONIA	4870	INFLUENZA WITH PNEUMONIA
4824	STAPHYLOCOCCAL PNEUMONIA		
Exclude cases:			
<ul style="list-style-type: none"> • missing discharge disposition (DISP=missing) • transferring to another short-term hospital (DISP=2) • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates) 			

1.5 Procedure Utilization Indicators

Cesarean Delivery Rate (IQI 21)			
Numerator:			
Number of Cesarean deliveries, identified by DRG, or by ICD-9-CM procedure codes if they are reported without a 7491 hysterotomy procedure, among cases meeting the inclusion and exclusion rules for the denominator.			
Cesarean delivery DRGs:			
370	CESAREAN SECTION W CC	371	CESAREAN SECTION W/O CC
ICD-9-CM Cesarean delivery procedure codes:			
740	CLASSICAL C-SECTION	744	CESAREAN SECTION NEC
741	LOW CERVICAL C-SECTION	7499	CESAREAN SECTION NOS
742	EXTRAPERITONEAL C-SECT		
Exclude:			
ICD-9-CM procedure codes:			
7491	HYSTEROTOMY TO TERMIN PG		
Denominator:			
All deliveries.			
All delivery DRGs:			
370	CESAREAN SECTION W CC	373	VAG DELIVERY W/O COMPL
371	CESAREAN SECTION W/O CC	374	VAG DELIV W STERIL OR DC
372	VAGINAL DELIVERY W COMPL	375	VAG DELIV W OTH OR PROC
Exclude cases:			
<ul style="list-style-type: none"> • abnormal presentation, preterm, fetal death, multiple gestation diagnosis codes • breech procedure codes 			
See Appendix A: Problem Deliveries			
Control-click (Word) or click (PDF) to view the Appendix. Links are provided to return to the IQI Detailed Definition.			

Primary Cesarean Delivery Rate (IQI 33)

Numerator:

Number of Cesarean deliveries, identified by DRG, or by ICD-9-CM procedure codes if they are reported without a 7491 hysterotomy procedure, among cases meeting the inclusion and exclusion rules for the denominator.

Cesarean delivery DRGs:

370 CESAREAN SECTION W CC
371 CESAREAN SECTION W/O CC

ICD-9-CM Cesarean delivery procedure codes:

740	CLASSICAL C-SECTION	744	CESAREAN SECTION NEC
741	LOW CERVICAL C-SECTION	7499	CESAREAN SECTION NOS
742	EXTRAPERITONEAL C-SECT		

Exclude:

ICD-9-CM procedure codes:

7491 HYSTEROTOMY TO TERMIN PG

Denominator:

All deliveries.

All delivery DRGs:

370	CESAREAN SECTION W CC	373	VAG DELIVERY W/O COMPL
371	CESAREAN SECTION W/O CC	374	VAG DELIV W STERIL OR DC
372	VAGINAL DELIVERY W COMPL	375	VAG DELIV W OTH OR PROC

Exclude cases:

- abnormal presentation, preterm delivery, fetal death, multiple gestation diagnosis codes
- breech procedure codes
- previous Cesarean delivery diagnosis in any diagnosis field

See [Appendix A: Problem Deliveries](#)

Control-click (Word) or click (PDF) to view the Appendix. Links are provided to return to the IQI Detailed Definition.

ICD-9-CM previous cesarean delivery diagnosis codes:

65420 PREV C-SECT NOS-UNSPEC
65421 PREV C-SECT NOS-DELIVER
65423 PREV C-SECT NOS-ANTEPART

Vaginal Birth after Cesarean Delivery Rate, Uncomplicated (IQI 22)

Numerator:

Number of vaginal births in women among cases meeting the inclusion and exclusion rules for the denominator.

Vaginal delivery DRGs:

372	VAGINAL DELIVERY W/ CC
373	VAGINAL DELIVERY W/O CC
374	VAGINAL DELIVERY W/ STERILIZATION OR D&C
375	VAGINAL DELIVERY W/ OTHER O.R. PROCEDURE

Denominator:

All deliveries with a previous cesarean delivery diagnosis in any diagnosis field.

All delivery DRGs:

370	CESAREAN SECTION W CC	373	VAG DELIVERY W/O COMPL
371	CESAREAN SECTION W/O CC	374	VAG DELIV W STERIL OR DC
372	VAGINAL DELIVERY W COMPL	375	VAG DELIV W OTH OR PROC

ICD-9-CM previous cesarean delivery diagnosis codes:

65420	PREV C-SECT NOS-UNSPEC
65421	PREV C-SECT NOS-DELIVER
65423	PREV C-SECT NOS-ANTEPART

Exclude cases:

- abnormal presentation, preterm delivery, fetal death, multiple gestation diagnosis codes
- breech procedure codes.

See [Appendix A: Problem Deliveries](#)

Control-click (Word) or click (PDF) to view the Appendix. Links are provided to return to the IQI Detailed Definition.

Vaginal Birth after Cesarean (VBAC) Delivery, All (IQI 34)

Numerator:

Number of vaginal births in women among cases meeting the inclusion and exclusion rules for the denominator.

Vaginal delivery DRGs:

372	VAGINAL DELIVERY W/ CC
373	VAGINAL DELIVERY W/O CC
374	VAGINAL DELIVERY W/ STERILIZATION OR D&C
375	VAGINAL DELIVERY W/ OTHER O.R. PROCEDURE

Denominator:

All deliveries with a previous cesarean delivery diagnosis in any diagnosis field.

Vaginal Birth after Cesarean (VBAC) Delivery, All (IQI 34)

All delivery DRGs:

370	CESAREAN SECTION W CC	373	VAG DELIVERY W/O COMPL
371	CESAREAN SECTION W/O CC	374	VAG DELIV W STERIL OR DC
372	VAGINAL DELIVERY W COMPL	375	VAG DELIV W OTH OR PROC

ICD-9-CM previous Cesarean delivery diagnosis codes:

65420	PREV C-SECT NOS-UNSPEC
65421	PREV C-SECT NOS-DELIVER
65423	PREV C-SECT NOS-ANTEPART

Laparoscopic Cholecystectomy Rate (IQI 23)

Numerator:

Number of laparoscopic cholecystectomies (any procedure field) among cases meeting the inclusion and exclusion rules for the denominator.

ICD-9-CM laparoscopic cholecystectomy procedure code:

5123	LAPAROSCOPIC CHOLE
------	--------------------

Denominator:

All discharges, age 18 years and older, with cholecystectomy in any procedure field.

ICD-9-CM cholecystectomy procedure codes:

5122	CHOLECYSTECTOMY
5123	LAPAROSCOPIC CHOLE

Include:

Only discharges with uncomplicated cases: cholecystitis and/or cholelithiasis in any diagnosis field.

ICD-9-CM uncomplicated cholecystitis and/or cholelithiasis diagnosis codes:

57400	CHOLELITH W AC CHOLECYS	5750	ACUTE CHOLECYSTITIS
57401	CHOLELITH/ AC GB INF-OBST	5751	CHOLECYSTITIS NEC OCT96-
57410	CHOLELITH W CHOLECYS NEC	57510	CHOLECYSTITIS NOS OCT96-
57411	CHOLELITH/GB INF NEC-OBS	57511	CHRON CHOLECYSTITIS OCT96-
57420	CHOLELITHIASIS NOS	57512	AC/CHR CHOLECYSTITIS OCT96-
57421	CHOLELITHIAS NOS W OBSTR		

Exclude cases:

- MDC 14 (pregnancy, childbirth, and puerperium)
- MDC 15 (newborns and other neonates)

Incidental Appendectomy in the Elderly Rate (IQI 24)

Numerator:

Number of incidental appendectomies (any procedure field) among cases meeting the inclusion and exclusion rules for the denominator.

ICD-9-CM incidental appendectomy procedure codes:

471 INCIDENTAL APPENDECTOMY OCT96-
 4711 LAPAROSCOPIC INCID APPEND OCT96-
 4719 OTH INCID APPEND OCT96-

Denominator:

All discharges, age 65 years and older, with intra-abdominal procedure.

Intra-abdominal procedure DRGs:

146	RECTAL RESECTION W CC	195	CHOLE W/ CDE W/ CC
147	RECTAL RESECTION W/O CC	196	CHOLE W/ CDE W/O CC
148	MAJ BOWEL PROC W CC	197	CHOLE W/ CC
149	MAJ BOWEL PROC W/O CC	198	CHOLE W/O CC
150	PERITONEAL ADHES W CC	201	OTH BILIARY/PANC PROC
151	PERITONEAL ADHES W/O CC	354	UTER PROC MALIG W/ CC
152	MIN BOWEL PROC W CC	355	UTER PROC MALIG W/O CC
153	MIN BOWEL PROC W/O CC	356	FEMALE REPROD RECONSTR
154	UGI PROC AGE >17 W CC	357	UTER PROC OVARIAN MALIG
155	UGI PROC AGE >17 W/O CC	358	UTER PROC NONMALIG W/ CC
170	OTH GI OR PROC W CC	359	UTER PROC NONMALI W/O CC
171	OTH GI OR PROC W/O CC	365	OTH FEMAL REPROD PROC
191	PANC LVR SHNT PRC W CC	567	STOMACH, ESOPHAGEAL & DUODENAL PROC AGE > 17 W CC W MAJOR GI DX OCT06-
192	PANC LVR SHNT PRC W/O CC	568	STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES PROC AGE > 17 W CC W/O MAJOR GI DX OCT06-
193	BILIARY PROC W/ CC	569	MAJOR SMALL & LARGE BOWEL PROCEDURES W CC W MAJOR GI DX OCT06-
194	BILIARY PROC W/O CC	570	MAJOR SMALL & LARGE BOWEL PROCEDURES W CC W/O MAJOR GI DX OCT06-

Exclude cases:

- MDC 14 (pregnancy, childbirth, and puerperium)
- MDC 15 (newborns and other neonates)

Bilateral Cardiac Catheterization Rate (IQI 25)

Numerator:

Number of simultaneous right and left heart catheterizations (in any procedure field) among cases meeting the inclusion and exclusion rules for the denominator.

ICD-9-CM procedure code:

3723 RT/LEFT HEART CARD CATH

Bilateral Cardiac Catheterization Rate (IQI 25)

Exclude cases:

- with valid indications for right-sided catheterization in any diagnosis field

ICD-9-CM indications for right-sided catheterization diagnosis codes:

3910	ACUTE RHEUMATIC PERICARD	4150	ACUTE COR PULMONALE
3911	ACUTE RHEUMATIC ENDOCARD	4151	PULM EMBOLISM/INFARCT-
3912	AC RHEUMATIC MYOCARDITIS	41511	IATROGENIC PULMON. EMBOLISM
3918	AC RHEUMAT HRT DIS NEC	41512	SEPTIC PULMONARY EMBOLISM
3919	AC RHEUMAT HRT DIS NOS	41519	OTHER PULMON EMBOLISM
3920	RHEUM CHOREA W HRT INVOL	4160	PRIM PULM HYPERTENSION
3929	RHEUMATIC CHOREA NOS	4161	KYPHOSCOLIOTIC HEART DIS
393	CHR RHEUMATIC PERICARD	4168	CHR PULMON HEART DIS NEC
3940	MITRAL STENOSIS	4169	CHR PULMON HEART DIS NOS
3941	RHEUMATIC MITRAL INSUFF	4170	ARTERIOVEN FISTU PUL VES
3942	MITRAL STENOSIS W INSUFF	4171	PULMON ARTERY ANEURYSM
3949	MITRAL VALVE DIS NEC/NOS	4178	PULMON CIRCULAT DIS NEC
3960	MITRAL/AORTIC STENOSIS	4179	PULMON CIRCULAT DIS NOS
3961	MITRAL STENOS/AORT INSUF	4242	NONRHEUM TRICUSP VAL DIS
3962	MITRAL INSUF/AORT STENOS	4243	PULMONARY VALVE DISORDER
3963	MITRAL/AORTIC VAL INSUFF	7450	COMMON TRUNCUS
3968	MITR/AORTIC MULT INVOLV	74510	COMPL TRANSPOS GREAT VES
3969	MITRAL/AORTIC V DIS NOS	74511	DOUBLE OUTLET RT VENTRIC
3970	TRICUSPID VALVE DISEASE	74512	CORRECT TRANSPOS GRT VES
3971	RHEUM PULMON VALVE DIS	74519	TRANSPOS GREAT VESS NEC
3979	RHEUM ENDOCARDITIS NOS	7452	TETRALOGY OF FALLOT
3980	RHEUMATIC MYOCARDITIS	7453	COMMON VENTRICLE
39890	RHEUMATIC HEART DIS NOS	7454	VENTRICULAR SEPT DEFECT
39891	RHEUMATIC HEART FAILURE	7455	SECUNDUM ATRIAL SEPT DEF
39899	RHEUMATIC HEART DIS NEC	74560	ENDOCARD CUSHION DEF NOS
40200	MAL HYPERTEN HRT DIS NOS	74561	OSTIUM PRIMUM DEFECT
40201	MAL HYPERTEN HRT DIS W CHF	74569	ENDOCARD CUSHION DEF NEC
40210	BEN HYPERTEN HRT DIS NOS	7457	COR BILOCULARE
40211	BENIGN HYP HRT DIS W CHF	7458	SEPTAL CLOSURE ANOM NEC
40290	HYPERTENSIVE HRT DIS NOS	7459	SEPTAL CLOSURE ANOM NOS
40291	HYPERTEN HEART DIS W CHF	74600	PULMONARY VALVE ANOM NOS
40400	MAL HY HT/REN W/O HF/RF	74601	CONG PULMON VALV ATRESIA
40401	MAL HYPER HRT/REN W HF	74602	CONG PULMON VALVE STENOS
40402	MAL HY HT/REN W REN FAIL	74609	PULMONARY VALVE ANOM NEC
40403	MAL HYP HRT/REN W HF/RF	7461	CONG TRICUSP ATRES/STEN
40410	BEN HY HT/REN W/O HF/RF	7462	EBSTEIN'S ANOMALY
40411	BEN HYPER HRT/REN W HF	7463	CONG AORTA VALV STENOSIS
40412	BEN HY HT/REN W REN FAIL	7464	CONG AORTA VALV INSUFFIC
40413	BEN HYP HRT/REN W HF/RF	7465	CONGEN MITRAL STENOSIS
40490	HY HT/REN NOS W/O HF/RF	7466	CONG MITRAL INSUFFICIENC
40491	HYP HRT/REN NOS W HF	7467	HYOPLAS LEFT HEART SYND
40492	HY HT/REN NOS W REN FAIL	74681	CONG SUBAORTIC STENOSIS
74684	OBSTRUCT HEART ANOM NEC	74682	COR TRIARIATUM
74685	CORONARY ARTERY ANOMALY	74683	INFUNDIB PULMON STENOSIS
74686	CONGENITAL HEART BLOCK	74741	TOT ANOM PULM VEN CONNEC
74687	MALPOSITION OF HEART	74742	PART ANOM PULM VEN CONN
74689	CONG HEART ANOMALY NEC	74749	GREAT VEIN ANOMALY NEC
7469	CONG HEART ANOMALY NOS	7475	UMBILICAL ARTERY ABSENCE
7470	PATENT DUCTUS ARTERIOSUS	74760	UNSP PRPHERL VASC ANOMAL

Bilateral Cardiac Catheterization Rate (IQI 25)			
74710	COARCTATION OF AORTA	74761	GSTRONTEST VESL ANOMALY
74711	INTERRUPT OF AORTIC ARCH	74762	RENAL VESSEL ANOMALY
74720	CONG ANOM OF AORTA NOS	74763	UPR LIMB VESSEL ANOMALY
74721	ANOMALIES OF AORTIC ARCH	74764	LWR LIMB VESSEL ANOMALY
74722	AORTIC ATRESIA/STENOSIS	74769	OTH SPCF PRPH VSCL ANOML
74729	CONG ANOM OF AORTA NEC	74781	CEREBROVASCULAR ANOMALY
7473	PULMONARY ARTERY ANOM	74782	SPINAL VESSEL ANOMALY
74740	GREAT VEIN ANOMALY NOS	74783	PERSISTENT FETAL CIRC OCT02-
40493	HYP HRT/REN NOS W HF/RF	74789	CIRCULATORY ANOMALY NEC
		7479	CIRCULATORY ANOMALY NOS
Denominator:			
All discharges, age 18 years and older, with heart catheterization in any procedure field.			
ICD-9-CM heart catheterization procedure codes:			
3722	LEFT HEART CARDIAC CATH		
3723	RT/LEFT HEART CARD CATH		
Include:			
Only coronary artery disease.			
ICD-9-CM coronary artery disease diagnosis codes:			
41000	AMI ANTEROLATERAL, UNSPEC	41082	AMI NEC, SUBSEQUENT
41001	AMI ANTEROLATERAL, INIT	41090	AMI NOS, UNSPECIFIED
41002	AMI ANTEROLATERAL, SUBSEQ	41091	AMI NOS, INITIAL
41010	AMI ANTERIOR WALL, UNSPEC	41092	AMI NOS, SUBSEQUENT
41011	AMI ANTERIOR WALL, INIT	4110	POST MI SYNDROME
41012	AMI ANTERIOR WALL, SUBSEQ	4111	INTERMED CORONARY SYND
41020	AMI INFEROLATERAL, UNSPEC	41181	CORONARY OCCLSN W/O MI
41021	AMI INFEROLATERAL, INIT	41189	AC ISCHEMIC HRT DIS NEC
41022	AMI INFEROLATERAL, SUBSEQ	412	OLD MYOCARDIAL INFARCT
41030	AMI INFEROPOST, UNSPEC	4130	ANGINA DECUBITUS
41031	AMI INFEROPOST, INITIAL	4131	PRINZMETAL ANGINA
41032	AMI INFEROPOST, SUBSEQ	4139	ANGINA PECTORIS NEC/NOS
41040	AMI INFERIOR WALL, UNSPEC	4140	COR ATHEROSCLEROSIS OCT94-
41041	AMI INFERIOR WALL, INIT	41400	COR ATH UNSP VSL NTV/GFT OCT94-
41042	AMI INFERIOR WALL, SUBSEQ	41401	CRNRY ATHRSCL NATVE VSSL OCT94-
41050	AMI LATERAL NEC, UNSPEC	41402	CRN ATH ATLG VN BPS GRFT OCT94-
41051	AMI LATERAL NEC, INITIAL	41403	CRN ATH NONATLG BLG GRFT OCT94-
41052	AMI LATERAL NEC, SUBSEQ	41404	COR ATH ARTRY BYPAS GRFT OCT96-
41060	TRUE POST INFARCT, UNSPEC	41405	COR ATH BYPASS GRAFT NOS OCT96-
41061	TRUE POST INFARCT, INIT	41406	COR ATH NATV ART TP HRT OCT02-
41062	TRUE POST INFARCT, SUBSEQ	41407	COR ATH BPS GRAFT TP HRT OCT03-
41070	SUBENDO INFARCT, UNSPEC	41410	ANEURYSM, HEART (WALL)
41071	SUBENDO INFARCT, INITIAL	41411	CORONARY VESSEL ANEURYSM
41072	SUBENDO INFARCT, SUBSEQ	41412	DISSECTION COR ARTERY OCT02-
41080	AMI NEC, UNSPECIFIED	41419	ANEURYSM OF HEART NEC
41081	AMI NEC, INITIAL	4148	CHR ISCHEMIC HRT DIS NEC
		4149	CHR ISCHEMIC HRT DIS NOS
Exclude cases:			
<ul style="list-style-type: none"> • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates) 			

Bilateral Cardiac Catheterization Rate (IQI 25)

2.0 Area-Level Indicators

Coronary Artery Bypass Graft (CABG) Area Rate (IQI 26)			
Numerator:			
Number of CABGs in any procedure field.			
All discharges age 40 years and older.			
ICD-9-CM CABG procedure codes:			
3610	AORTOCORONARY BYPASS NOS	3615	1 INT MAM-COR ART BYPASS
3611	AORTOCOR BYPAS-1 COR ART	3616	2 INT MAM-COR ART BYPASS
3612	AORTOCOR BYPAS-2 COR ART	3617	ABD-CORON ART BYPASS OCT96-
3613	AORTOCOR BYPAS-3 COR ART	3619	HRT REVAS BYPS ANAS NEC
3614	AORTCOR BYPAS-4+ COR ART		
Exclude cases:			
<ul style="list-style-type: none"> • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates) 			
Denominator:			
Population in Metro Area or county, age 40 years and older.			

Percutaneous Transluminal Coronary Angioplasty (PTCA) Area Rate (IQI 27)	
Numerator:	
Discharges, age 40 years and older, with ICD-9-CM codes of 0066, 3601, 3602 or 3605 in any procedure field.	
ICD-9-CM PTCA procedure codes:	
0066	PERC TRANS CORO ANGIO OCT05-
3601	PTCA-1 VESSEL W/O AGENT
3602	PTCA-1 VESSEL WITH AGNT
3605	PTCA-MULTIPLE VESSEL
Exclude cases:	
<ul style="list-style-type: none"> • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates) 	
Denominator:	
Population in Metro Area or county, age 40 years and older.	

Hysterectomy Area Rate (IQI 28)

Numerator:

Number of hysterectomies in any procedure field.

All discharges of females age 18 years and older.

ICD-9-CM hysterectomy procedure codes:

683	SUBTOT ABD HYSTERECTOMY	6859	OTH VAG HYS OCT96-
6831	LAP SCERVIC HYSTERECTOMY OCT03-	686	RADICAL ABD HYSTERECTOMY
6839	OTH SUBTOT ABD HYSTERECT OCT03-	6861	LAP RADICAL ABDOMNL HYST OCT06-
684	TOTAL ABD HYSTERECTOMY	6869	RADICAL ABD HYST NEC/NOS OCT06-
6841	LAP TOTAL ABDOMINAL HYST OCT06-	6871	LAP RADICAL VAGINAL HYST OCT06-
6849	TOTAL ABD HYST NEC/NOS OCT06-	6879	RADICAL VAG HYST NEC/NOS OCT06-
685	VAGINAL HYSTERECTOMY OCT96-	687	RADICAL VAG HYSTERECTOMY
6851	LAPAR ASSIST VAG HYS OCT96-	689	HYSTERECTOMY NEC/NOS

Exclude cases:

- with genital cancer or pelvic or lower abdominal trauma in any diagnosis field
- MDC 14 (pregnancy, childbirth, and puerperium)
- MDC 15 (newborns and other neonates)

ICD-9-CM female genital cancer diagnosis codes:

179	MALIG NEOPL UTERUS NOS	1841	MAL NEO LABIA MAJORA
1800	MALIG NEO ENDOCERVIX	1842	MAL NEO LABIA MINORA
1801	MALIG NEO EXOCERVIX	1843	MALIGN NEOPL CLITORIS
1808	MALIG NEO CERVIX NEC	1844	MALIGN NEOPL VULVA NOS
1809	MAL NEO CERVIX UTERI NOS	1848	MAL NEO FEMALE GENIT NEC
181	MALIGNANT NEOPL PLACENTA	1849	MAL NEO FEMALE GENIT NOS
1820	MALIG NEO CORPUS UTERI	2331	CA IN SITU CERVIX UTERI
1821	MAL NEO UTERINE ISTHMUS	2332	CA IN SITU UTERUS NEC
1828	MAL NEO BODY UTERUS NEC	2333	CA IN SITU FEM GEN NEC
1830	MALIGN NEOPL OVARY	23330	CA IN SITU FEM GEN NOS
1832	MAL NEO FALLOPIAN TUBE	23331	CARCINOMA IN SITU VAGINA
1833	MAL NEO BROAD LIGAMENT	23332	CARCINOMA IN SITU VULVA
1834	MALIG NEO PARAMETRIUM	23339	CA IN SITU FEM GEN NEC
1835	MAL NEO ROUND LIGAMENT	2360	UNCERT BEHAV NEO UTERUS
1838	MAL NEO ADNEXA NEC	2361	UNC BEHAV NEO PLACENTA
1839	MAL NEO ADNEXA NOS	2362	UNC BEHAV NEO OVARY
1840	MALIGN NEOPL VAGINA	2363	UNC BEHAV NEO FEMALE NEC

ICD-9-CM pelvic or lower abdominal trauma diagnosis codes:

8674	UTERUS INJURY-CLOSED	86819	INTRA-ABDOM INJ NEC-OPEN
8675	UTERUS INJURY-OPEN	8690	INTERNAL INJ NOS-CLOSED
8676	PELVIC ORGAN INJ NEC-CL	8691	INTERNAL INJURY NOS-OPEN
8677	PELVIC ORGAN INJ NEC-OPN	8796	OPEN WOUND OF TRUNK NEC
8678	PELVIC ORGAN INJ NOS-CL	8797	OPEN WND TRUNK NEC-COMPL
8679	PELVIC ORGAN INJ NOS-OPN	8798	OPEN WOUND SITE NOS
86800	INTRA-ABDOM INJ NOS-CLOS	8799	OPN WOUND SITE NOS-COMPL
86803	PERITONEUM INJURY-CLOSED	9060	LT EFF OPN WND HEAD/TRNK
86804	RETROPERITONEUM INJ-CL	9081	LATE EFF INT INJ ABDOMEN
86809	INTRA-ABDOM INJ NEC-CLOS	9082	LATE EFF INT INJURY NEC
86810	INTRA-ABDOM INJ NOS-OPEN	9391	FOREIGN BODY UTERUS

Hysterectomy Area Rate (IQI 28)			
86813	PERITONEUM INJURY-OPEN	9474	BURN OF VAGINA & UTERUS
86814	RETROPERITONEUM INJ-OPEN		
Denominator:			
Female population in Metro Area or county, age 18 years and older.			

Laminectomy or Spinal Fusion Area Rate (IQI 29)			
Numerator:			
Number of laminectomies or spinal fusions in any procedure field.			
All discharges age 18 years and older.			
ICD-9-CM laminectomy or spinal fusion procedure codes:			
0302	REOPEN LAMINECTOMY SITE	8130	SPINAL REFUSION NOS OCT01-
0309	SPINAL CANAL EXPLOR NEC	8131	REFUSION OF ATLAS-AXIS OCT01-
8050	EXC/DEST INTVRT DISC NOS	8132	REFUSION OF OTH CERV ANT OCT01-
8051	EXCISION INTERVERT DISC	8133	REFUS OF OTH CERV POST OCT01-
8059	OTH EXC/DEST INTVRT DISC	8134	REFUSION OF DORSAL ANT OCT01-
8100	SPINAL FUSION NOS	8135	REFUSION OF DORSAL POST OCT01-
8101	ATLAS-AXIS FUSION	8136	REFUSION OF LUMBAR ANT OCT01-
8102	OTH CERV FUSION, ANTER	8137	REFUSION OF LUMBAR LAT OCT01-
8103	OTH CERV FUSION, POSTER	8138	REFUSION OF LUMBAR POST OCT01-
8104	DORSAL FUSION, ANTERIOR	8139	REFUSION OF SPINE NEC OCT01-
8105	DORSAL FUSION, POSTERIOR	8161	360 SPINAL FUSION OCT02-
8106	LUMBAR FUSION, ANTERIOR	8162	FUS/REFUS 2-3 VERTEBRAE OCT03-
8107	LUMBAR FUSION, LATERAL	8163	FUS/REFUS 4-8 VERTEBRAE OCT03-
8108	LUMBAR FUSION, POSTERIOR	8164	FUS/REFUS 9 VERTEBRAE OCT03-
8109	REFUSION OF SPINE	8451	INS SPINAL FUSION DEVICE OCT02-
Exclude cases:			
<ul style="list-style-type: none"> • MDC 14 (pregnancy, childbirth, and puerperium) • MDC 15 (newborns and other neonates) 			
Denominator:			
Population in Metro Area or county, age 18 years and older.			

Appendix A: Problem Deliveries

These codes are used by the following IQIs:

IQI	How Used
Cesarean Delivery Rate (IQI 21) - Page 21	Denominator exclusion - Page 21
Primary Cesarean Delivery Rate (IQI 33) - Page 22	Denominator exclusion - Page 22
Vaginal Birth after Cesarean Delivery Rate, Uncomplicated (IQI 22) - Page 23	Denominator exclusion - Page 23

In the table above, control-click (Word) or click (PDF) the **IQI** name to go to the start of that detailed definition. Click the link in the **How Used** column to go to where the cancer codes are referenced within the IQI detailed definition.

ICD-9-CM abnormal presentation, preterm, fetal death and multiple gestation diagnosis codes:

64420	EARLY ONSET DELIV-UNSPEC	65221	BREECH PRESENTAT-DELIVER
64421	EARLY ONSET DELIVERY-DEL	65223	BREECH PRESENT-ANTEPART
65100	TWIN PREGNANCY-UNSPEC	65230	TRANSV/OBLIQ LIE-UNSPEC
65101	TWIN PREGNANCY-DELIVERED	65231	TRANSVER/OBLIQ LIE-DELIV
65103	TWIN PREGNANCY-ANTEPART	65233	TRANSV/OBLIQ LIE-ANTEPAR
65110	TRIPLET PREGNANCY-UNSPEC	65240	FACE/BROW PRESENT-UNSPEC
65111	TRIPLET PREGNANCY-DELIV	65241	FACE/BROW PRESENT-DELIV
65113	TRIPLET PREG-ANTEPARTUM	65243	FACE/BROW PRES-ANTEPART
65120	QUADRUPLET PREG-UNSPEC	65260	MULT GEST MALPRES-UNSP
65121	QUADRUPLET PREG-DELIVER	65261	MULT GEST MALPRES-DELIV
65123	QUADRUPLET PREG-ANTEPART	65263	MULT GES MALPRES-ANTEPAR
65130	TWINS W FETAL LOSS-UNSP	65640	INTRAUTERINE DEATH-UNSP
65131	TWINS W FETAL LOSS-DEL	65641	INTRAUTER DEATH-DELIVER
65133	TWINS W FETAL LOSS-ANTE	65643	INTRAUTER DEATH-ANTEPART
65140	TRIPLETS W FET LOSS-UNSP	66050	LOCKED TWINS-UNSPECIFIED
65141	TRIPLETS W FET LOSS-DEL	66051	LOCKED TWINS-DELIVERED
65143	TRIPLETS W FET LOSS-ANTE	66053	LOCKED TWINS-ANTEPARTUM
65150	QUADS W FETAL LOSS-UNSP	66230	DELAY DEL 2ND TWIN-UNSP
65151	QUADS W FETAL LOSS-DEL	66231	DELAY DEL 2ND TWIN-DELIV
65153	QUADS W FETAL LOSS-ANTE	66233	DELAY DEL 2 TWIN-ANTEPAR
65160	MULT GES W FET LOSS-UNSP	66960	BREECH EXTR NOS-UNSPEC
65161	MULT GES W FET LOSS-DEL	66961	BREECH EXTR NOS-DELIVER
65163	MULT GES W FET LOSS-ANTE	7615	MULT PREGNANCY AFF NB
65180	MULTI GESTAT NEC-UNSPEC	V271	DELIVER-SINGLE STILLBORN
65181	MULTI GESTAT NEC-DELIVER	V272	DELIVER-TWINS, BOTH LIVE
65183	MULTI GEST NEC-ANTEPART	V273	DEL-TWINS, 1 NB, 1 SB
65190	MULTI GESTAT NOS-UNSPEC	V274	DELIVER-TWINS, BOTH SB
65191	MULT GESTATION NOS-DELIV	V275	DEL-MULT BIRTH, ALL LIVE
65193	MULTI GEST NOS-ANTEPART	V276	DEL-MULT BRTH, SOME LIVE
65220	BREECH PRESENTAT-UNSPEC	V277	DEL-MULT BIRTH, ALL SB

ICD-9-CM breech procedure codes

7251	PART BRCH EXTRAC W FORCP	7253	TOT BRCH EXTRAC W FORCEP
7252	PART BREECH EXTRACT NEC	7254	TOT BREECH EXTRAC NEC

Appendix B: Links

The following links may be helpful to users of the AHRQ Inpatient Quality Indicators.

Inpatient Quality Indicators Version 3.2 Documents and Software

Available at http://www.qualityindicators.ahrq.gov/iqi_download.htm

Title	Description
<i>Guide to Inpatient Quality Indicators</i>	Describes how the IQIs were developed and provides detailed evidence for each indicator.
<i>Inpatient Quality Indicators Technical Specifications</i>	Provides detailed definitions of each IQI, including all ICD-9-CM and DRG codes that are included in or excluded from the numerator and denominator. Note that exclusions from the denominator are automatically applied to the numerator.
<i>IQI Covariates used in Risk Adjustment</i>	Tables for each IQI provide the stratification and coefficients used to calculate the risk-adjusted rate for each strata.
<i>Inpatient Quality Indicators Comparative Data</i>	This document provides the average volume, provider rate, and population rate, as appropriate, for each indicator.
<i>SAS® IQI Software Documentation</i>	This software documentation provides detailed instructions on how to use the SAS ® version of the IQI software including data preparation, calculation of the IQI rates, and interpretation of output.
<i>Change Log to IQI Documents and Software</i>	The Change Log document provides a cumulative summary of all changes to the IQI software, software documentation, and other documents made since the release of version 2.1 of the software in March 2003. Changes to indicator specifications that were not a result of new ICD-9-CM and DRG codes, are also described in the Change Log.
<i>Fiscal year 2008 Coding Changes</i>	This document summarizes the changes to the indicator definitions resulting from FY 2008 changes to ICD-9-CM coding and DRG changes. These changes will only affect data from FY 2008 (October 1, 2007) or later.
SAS® IQI Software	Requires the SAS® statistical program distributed by the SAS Institute, Inc. The company may be contacted directly regarding the licensing of its products: http://www.sas.com
3M® APR® DRG Limited License Grouper for SAS®	Creates APR-DRG variables for use with SAS version of IQI software. Instructions for running the software are included in the Zip file.

AHRQ QI Windows Application

The AHRQ QI Windows Application calculates rates for all of the AHRQ Quality Indicators modules and does not require SAS®. It is available at:

http://www.qualityindicators.ahrq.gov/winqi_download.htm

Additional Documents

The following documents are available within the "Documentation" section of the **AHRQ QI Downloads** Web page:

<http://www.qualityindicators.ahrq.gov/downloads.htm>

- *Refinement of the HCUP Quality Indicators (Technical Review), May 2001*
- *Refinement of the HCUP Quality Indicators (Summary), May 2001*
- *Measures of Patient Safety Based on Hospital Administrative Data - The Patient Safety Indicators, August 2002*
- *Measures of Patient Safety Based on Hospital Administrative Data - The Patient Safety Indicators (Summary), August 2002*

In addition, these documents may be accessed at the AHRQ QI Documentation Web page:

<http://www.qualityindicators.ahrq.gov/documentation.htm>

- *Guidance for Using the AHRQ Quality Indicators for Hospital-level Public Reporting or Payment, August 2004*
- *AHRQ Summary Statement on Comparative Hospital Public Reporting, December 2005*
- *Appendix A: Current Uses of AHRQ Quality Indicators and Considerations for Hospital-level*
- *Comparison of Recommended Evaluation Criteria in Five Existing National Frameworks*

The following documents can be viewed or downloaded from the page:

<http://www.qualityindicators.ahrq.gov/newsletter.htm>

- *2006 Area Level Indicator Changes*
- *Considerations in Public Reporting for the AHRQ QIs*
- *June 2005 Newsletter - Contains the article, "Using Different Types of QI Rates"*

Other Tools and Information

IQI rates can be calculated using the modified Federal Information Processing Standards (FIPS) State/county code. A list of codes is available at:

<http://www.census.gov/popest/geographic/codes02.pdf>

AHRQ provides a free, on-line query system based on HCUP data that provides access to health statistics and information on hospital stays at the national, regional, and State level. It is available at:

<http://hcup.ahrq.gov/HCUPnet.asp>

Information on the 3M™ APR-DRG system is available at:

http://www.3m.com/us/healthcare/his/products/coding/refined_drg.jhtml