



Inpatient Quality Indicators (IQI) Risk Adjustment Coefficients for the IQI Version 4.3

Prepared for:

Agency for Healthcare Research and Quality
U.S. Department of Health and Human Services
540 Gaither Road
Rockville, MD 20850
<http://www.qualityindicators.ahrq.gov>

Contract No. 290-04-0020 (AHRQ SQI-II)

Prepared by:

Battelle
505 King Avenue
Columbus, OH 43201

August 2011

Table of Contents

Executive Summary	1
Table 1. Risk Adjustment Coefficients for IQI #08 – Esophageal Resection Mortality Rate	2
Table 2. Risk Adjustment Coefficients for IQI #09 – Pancreatic Resection Mortality Rate	2
Table 3. Risk Adjustment Coefficients for IQI #11 – Abdominal Aortic Aneurysm (AAA) Repair Mortality Rate	3
Table 4. Risk Adjustment Coefficients for IQI #12 – Coronary Artery Bypass Graft (CABG) Mortality Rate	4
Table 5. Risk Adjustment Coefficients for IQI #13 – Craniotomy Mortality Rate	5
Table 6. Risk Adjustment Coefficients for IQI #14 – Hip Replacement Mortality Rate.....	6
Table 7. Risk Adjustment Coefficients for IQI #15 – Acute Myocardial Infarction (AMI) Mortality Rate.	7
Table 8. Risk Adjustment Coefficients for IQI #16 – Congestive Heart Failure (CHF) Mortality Rate	8
Table 9. Risk Adjustment Coefficients for IQI #17 – Acute Stroke Mortality Rate.....	10
Table 10. Risk Adjustment Coefficients for IQI #18 – Gastrointestinal Hemorrhage Mortality Rate	12
Table 11. Risk Adjustment Coefficients for IQI #19 – Hip Fracture Mortality Rate	13
Table 12. Risk Adjustment Coefficients for IQI #20 – Pneumonia Mortality Rate.....	14
Table 13. Risk Adjustment Coefficients for IQI #30 – Percutaneous Transluminal Coronary Angioplasty (PTCA) Mortality Rate	15
Table 14. Risk Adjustment Coefficients for IQI #31 – Carotid Endarterectomy Mortality Rate	16
Table 15. Risk Adjustment Coefficients for IQI #32 – Acute Myocardial Infarction (AMI) Mortality Rate, Without Transfer Cases.....	17
Table 16. Risk Adjustment Coefficients for IQI #26 – Coronary Artery Bypass Graft (CABG) Admission Rate	18
Table 17. Risk Adjustment Coefficients for IQI #27 – Percutaneous transluminal coronary angioplasty (PTCA) Admission Rate	20
Table 18. Risk Adjustment Coefficients for IQI #28 – Hysterectomy Admission Rate.....	22
Table 19. Risk Adjustment Coefficients for IQI #29 – Laminectomy/Spinal Fusion Admission Rate	23
Table A.1. Population Age Categories.....	25
Table A.2. Major Diagnostic Categories (MDC).....	26
Table A.3. Transfer, Point of Origin, Ruptured.....	27

Executive Summary

This document provides the risk adjustment covariates and coefficients for relevant Agency for Healthcare Research and Quality (AHRQ) Quality Indicators (QI) Inpatient Quality Indicators. Descriptions of the categories are provided in the Appendix tables at the end of the document. Please note that the 3M® APR-DRG grouper list is not provided in the Appendix, as this material is copyrighted by 3M®.

Additional information on the AHRQ QI risk adjustment process can be found in the [AHRQ QI Empirical Methods Report](#).

Table 1. Risk Adjustment Coefficients for IQI #08 – Esophageal Resection Mortality Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-4.2080	0.1866	508.71	0.0000
Age	65 to 74	1	0.6112	0.1601	14.57	0.0001
Age	75+	1	0.8893	0.1810	24.13	0.0000
APR-DRG	'2203' to '2204'	1	2.7268	0.2126	164.47	0.0000
MDC	6	1	2.0377	0.2217	84.47	0.0000
MDC	Other	1	2.2034	0.5742	14.73	0.0001

c-statistic 0.778

Table 2. Risk Adjustment Coefficients for IQI #09 – Pancreatic Resection Mortality Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-4.1818	0.1854	508.83	0.0000
Sex	Female	1	-0.2294	0.1246	3.39	0.0655
Age	65 to 74	1	0.6209	0.1739	12.75	0.0004
Age	75+	1	0.9759	0.1538	40.27	0.0000
APR-DRG	'2603' to '2604'	1	1.9911	0.1845	116.44	0.0000
MDC	7	1	1.7478	0.2534	47.57	0.0000
MDC	Other	1	1.1604	0.2215	27.46	0.0000

c-statistic 0.718

Table 3. Risk Adjustment Coefficients for IQI #11 – Abdominal Aortic Aneurysm (AAA) Repair Mortality Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-6.6044	0.1713	1486.04	0.0000
Sex	Female	1	0.4539	0.0747	36.95	0.0000
Age	65 to 74	1	0.4879	0.1072	20.72	0.0000
Age	75 to 79	1	0.8737	0.1201	52.97	0.0000
Age	80 to 84	1	1.1092	0.1200	85.50	0.0000
Age	85+	1	1.4440	0.1359	112.97	0.0000
APR-DRG	'1691' to '1692'	1	1.6789	0.1623	107.05	0.0000
APR-DRG	'1693' to '1694'	1	3.9127	0.1523	659.72	0.0000
APR-DRG	'1733' to '1734'	1	3.1568	0.1676	354.55	0.0000
MDC	5	1	2.6400	0.1483	316.85	0.0000
MDC	Other	1	2.9536	0.2252	172.05	0.0000
RUPTURED	AAA Repair	1	2.0565	0.0808	647.42	0.0000

c-statistic 0.937

Table 4. Risk Adjustment Coefficients for IQI #12 – Coronary Artery Bypass Graft (CABG) Mortality Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-5.1429	0.0755	4635.99	0.0000
Sex	Female	1	0.4145	0.0270	235.06	0.0000
Age	40 to 49	1	-0.4444	0.0815	29.77	0.0000
Age	50 to 54	1	-0.2721	0.0717	14.40	0.0001
Age	55 to 59	1	-0.2042	0.0586	12.13	0.0005
Age	65 to 84	1	0.2935	0.0425	47.70	0.0000
Age	85+	1	0.9268	0.0755	150.82	0.0000
APR-DRG	'1611' to '1612'	1	0.8122	0.2647	9.42	0.0021
APR-DRG	'1613'	1	2.1028	0.1715	150.40	0.0000
APR-DRG	'1614'	1	4.0926	0.1603	652.15	0.0000
APR-DRG	'1621' to '1622'	1	0.6771	0.0999	45.92	0.0000
APR-DRG	'1623'	1	2.4623	0.0866	808.19	0.0000
APR-DRG	'1624'	1	4.4892	0.1016	1952.77	0.0000
APR-DRG	'1631' to '1632'	1	0.4199	0.0909	21.36	0.0000
APR-DRG	'1633'	1	2.5647	0.0943	740.35	0.0000
APR-DRG	'1634'	1	5.0825	0.1284	1566.96	0.0000
APR-DRG	'1652'	1	-0.2166	0.0739	8.58	0.0034
APR-DRG	'1653'	1	1.4526	0.0701	429.17	0.0000
APR-DRG	'1654'	1	3.9635	0.0816	2360.52	0.0000
APR-DRG	'1661'	1	-0.6266	0.0772	65.81	0.0000
APR-DRG	'1663'	1	1.7449	0.0849	422.15	0.0000
APR-DRG	'1664'	1	4.2400	0.0980	1873.30	0.0000
MDC	5	1	2.2482	0.1063	447.50	0.0000
MDC	Other	1	2.0435	0.1117	334.41	0.0000

c-statistic 0.837

Table 5. Risk Adjustment Coefficients for IQI #13 – Craniotomy Mortality Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-4.5588	0.0749	3706.45	0.0000
Age	18 to 24	1	-0.9974	0.1321	57.04	0.0000
Age	25 to 59	1	-0.1171	0.0510	5.27	0.0217
Age	65 +	1	0.1312	0.0521	6.33	0.0119
APR-DRG	'0212'	1	1.1137	0.0703	250.85	0.0000
APR-DRG	'0213'	1	3.0644	0.0668	2106.05	0.0000
APR-DRG	'0214'	1	4.7000	0.0768	3743.80	0.0000
APR-DRG	'0221' to '0222'	1	-1.0338	0.1228	70.86	0.0000
APR-DRG	'0223'	1	1.9694	0.1944	102.67	0.0000
APR-DRG	'0224'	1	3.7246	0.1234	911.07	0.0000
APR-DRG	'0231' to '0232'	1	-1.8108	0.2761	43.02	0.0000
APR-DRG	'0233' to '0234'	1	1.8521	0.2198	71.03	0.0000
APR-DRG	'0241' to '0242'	1	0.3066	0.0991	9.57	0.0020
APR-DRG	'0243'	1	3.2199	0.1455	490.04	0.0000
APR-DRG	'0244'	1	5.0484	0.1899	706.97	0.0000
MDC	1	1	1.3295	0.0921	208.53	0.0000
TRANSFER	Transfer-in	1	0.4226	0.0638	43.93	0.0000

c-statistic 0.896

Table 6. Risk Adjustment Coefficients for IQI #14 – Hip Replacement Mortality Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-7.1682	0.4385	267.19	0.0000
Sex	Female	1	-0.2050	0.1033	3.94	0.0472
Age	18 to 59	1	-0.0732	0.1649	0.20	0.6573
Age	65 +	1	0.2810	0.2404	1.37	0.2425
APR-DRG	'3013' to '3014'	1	4.3935	0.2656	273.69	0.0000
MDC	8	1	1.8642	0.4933	14.28	0.0002
MDC	Other	1	2.3639	0.6674	12.54	0.0004

c-statistic 0.764

Table 7. Risk Adjustment Coefficients for IQI #15 – Acute Myocardial Infarction (AMI) Mortality Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-4.7535	0.0485	9591.97	0.0000
Age	18 to 39	1	-0.6348	0.0657	93.31	0.0000
Age	40 to 44	1	-0.6954	0.0591	138.54	0.0000
Age	45 to 49	1	-0.4571	0.0398	131.93	0.0000
Age	50 to 54	1	-0.3593	0.0342	110.41	0.0000
Age	55 to 59	1	-0.2236	0.0316	50.10	0.0000
Age	65 to 69	1	0.1406	0.0247	32.31	0.0000
Age	80 to 84	1	0.1903	0.0299	40.57	0.0000
Age	85+	1	0.3380	0.0289	136.48	0.0000
APR-DRG	'1611' to '1612'	1	-0.0552	0.2468	0.05	0.8232
APR-DRG	'1613' to '1614'	1	2.1458	0.0947	513.84	0.0000
APR-DRG	'1621' to '1622'	1	0.9282	0.1961	22.40	0.0000
APR-DRG	'1623'	1	2.7030	0.1355	397.81	0.0000
APR-DRG	'1624'	1	4.4079	0.1170	1419.15	0.0000
APR-DRG	'1651' to '1652'	1	0.0356	0.0719	0.24	0.6207
APR-DRG	'1653'	1	1.5778	0.0644	600.70	0.0000
APR-DRG	'1654'	1	3.8812	0.0704	3038.96	0.0000
APR-DRG	'1731' to '1734'	1	2.8096	0.0967	843.53	0.0000
APR-DRG	'1742'	1	0.3628	0.0448	65.61	0.0000
APR-DRG	'1743'	1	2.0598	0.0514	1605.21	0.0000
APR-DRG	'1744'	1	4.0112	0.0495	6560.05	0.0000
APR-DRG	'1901'	1	0.1650	0.0661	6.23	0.0125
APR-DRG	'1902'	1	1.2140	0.0480	638.38	0.0000
APR-DRG	'1903'	1	2.4343	0.0433	3161.12	0.0000
APR-DRG	'1904'	1	4.3754	0.0463	8921.21	0.0000
MDC	5	1	2.3079	0.0494	2181.68	0.0000
TRANSFER	Transfer-in	1	-0.0391	0.0204	3.69	0.0548

c-statistic 0.871

Table 8. Risk Adjustment Coefficients for IQI #16 – Congestive Heart Failure (CHF) Mortality Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-4.7386	0.0478	9823.62	0.0000
Sex	Female	1	-0.0982	0.0121	66.03	0.0000
Age	18 to 49	1	-0.3071	0.0381	65.08	0.0000
Age	50 to 54	1	-0.2455	0.0420	34.13	0.0000
Age	55 to 59	1	-0.2098	0.0370	32.20	0.0000
Age	65 to 84	1	0.1192	0.0258	21.36	0.0000
Age	85+	1	0.6621	0.0268	610.28	0.0000
APR-DRG	'1611'	1	-1.3985	0.2073	45.53	0.0000
APR-DRG	'1612'	1	-1.0034	0.1293	60.23	0.0000
APR-DRG	'1613'	1	0.3671	0.1013	13.14	0.0003
APR-DRG	'1614'	1	2.6775	0.1104	587.87	0.0000
APR-DRG	'1621' to '1622'	1	1.5101	0.2359	40.97	0.0000
APR-DRG	'1623'	1	2.1899	0.1211	327.07	0.0000
APR-DRG	'1624'	1	4.5088	0.1544	852.60	0.0000
APR-DRG	'1751' to '1753'	1	0.2959	0.0958	9.54	0.0020
APR-DRG	'1754'	1	3.1054	0.1047	879.08	0.0000
APR-DRG	'1801'	1	1.0751	0.3914	7.55	0.0060
APR-DRG	'1802'	1	0.9596	0.1761	29.69	0.0000
APR-DRG	'1803'	1	1.4712	0.1176	156.54	0.0000
APR-DRG	'1804'	1	3.2079	0.1261	647.63	0.0000
APR-DRG	'1911' to '1912'	1	-0.8531	0.0888	92.24	0.0000
APR-DRG	'1913'	1	0.9694	0.0771	158.29	0.0000
APR-DRG	'1914'	1	3.2034	0.0803	1592.64	0.0000
APR-DRG	'1942'	1	0.3396	0.0346	96.30	0.0000
APR-DRG	'1943'	1	1.6788	0.0355	2230.86	0.0000

**Inpatient Quality Indicators (IQI)
Risk Adjustment Coefficients for the IQI, Version 4.3**

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
APR-DRG	'1944'	1	3.4513	0.0396	7600.26	0.0000
MDC	Other	1	1.5338	0.0462	1101.84	0.0000
TRANSFER	Transfer-in	1	0.9006	0.0427	444.22	0.0000
NOPOUB04	UB-04 Point-of-Origin Data Not Available	1	0.0300	0.0209	2.07	0.1498

c-statistic 0.784

Table 9. Risk Adjustment Coefficients for IQI #17 – Acute Stroke Mortality Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-4.7627	0.0487	9549.41	0.0000
Sex	Female	1	0.0918	0.0129	51.05	0.0000
Age	18 to 59	1	-0.0947	0.0262	13.02	0.0003
Age	65 to 84	1	0.1341	0.0261	26.39	0.0000
Age	85+	1	0.6066	0.0277	478.46	0.0000
APR-DRG	'0211'	1	1.2967	0.0971	178.17	0.0000
APR-DRG	'0212'	1	2.0685	0.0646	1024.82	0.0000
APR-DRG	'0213'	1	3.5256	0.0483	5321.39	0.0000
APR-DRG	'0214'	1	5.4325	0.0657	6843.44	0.0000
APR-DRG	'0221'	1	2.3263	0.5307	19.21	0.0000
APR-DRG	'0222'	1	2.5978	0.6403	16.46	0.0000
APR-DRG	'0223' to '0224'	1	4.0354	0.1170	1189.08	0.0000
APR-DRG	'0231' to '0232'	1	-0.0833	0.7142	0.01	0.9071
APR-DRG	'0233'	1	2.2575	0.6295	12.86	0.0003
APR-DRG	'0234'	1	4.5973	0.5751	63.90	0.0000
APR-DRG	'0241'	1	1.2609	0.1608	61.52	0.0000
APR-DRG	'0242'	1	0.8381	0.1035	65.54	0.0000
APR-DRG	'0243'	1	2.8074	0.1087	666.46	0.0000
APR-DRG	'0244'	1	5.3720	0.1600	1127.48	0.0000
APR-DRG	'0261' to '0263'	1	0.4089	0.1669	6.00	0.0143
APR-DRG	'0264'	1	3.2604	0.2721	143.61	0.0000
APR-DRG	'0441'	1	2.3561	0.0502	2203.15	0.0000
APR-DRG	'0442'	1	2.3939	0.0380	3970.34	0.0000
APR-DRG	'0443'	1	3.6647	0.0450	6625.20	0.0000
APR-DRG	'0444'	1	5.8159	0.0449	16785.01	0.0000
APR-DRG	'0452'	1	1.0170	0.0338	906.06	0.0000

**Inpatient Quality Indicators (IQI)
Risk Adjustment Coefficients for the IQI, Version 4.3**

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
APR-DRG	'0453'	1	2.3968	0.0386	3862.86	0.0000
APR-DRG	'0454'	1	4.5865	0.0415	12198.25	0.0000
MDC	OTHER	1	2.1975	0.0487	2038.50	0.0000
NOPOUB04	UB-04 Point-of-Origin Data Not Available	1	-0.0053	0.0235	0.05	0.8199

c-statistic 0.894

Table 10. Risk Adjustment Coefficients for IQI #18 – Gastrointestinal Hemorrhage Mortality Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-5.2153	0.0697	5595.93	0.0000
Age	18 to 59	1	-0.1733	0.0494	12.31	0.0004
Age	65+	1	0.1454	0.0470	9.59	0.0020
APR-DRG	'2201'	1	1.4052	0.2493	31.77	0.0000
APR-DRG	'2202'	1	2.5315	0.1298	380.17	0.0000
APR-DRG	'2203'	1	3.3609	0.1180	811.71	0.0000
APR-DRG	'2204'	1	5.0554	0.1156	1911.36	0.0000
APR-DRG	'2211'	1	0.7506	0.2236	11.27	0.0008
APR-DRG	'2212'	1	2.0235	0.1373	217.22	0.0000
APR-DRG	'2213'	1	3.0474	0.1224	619.54	0.0000
APR-DRG	'2214'	1	5.1812	0.1305	1576.83	0.0000
APR-DRG	'2411' to '2413'	1	0.3547	0.0618	32.92	0.0000
APR-DRG	'2414'	1	3.7847	0.0734	2662.12	0.0000
APR-DRG	'2421' to '2423'	1	0.6748	0.0884	58.22	0.0000
APR-DRG	'2424'	1	4.2938	0.1081	1577.52	0.0000
APR-DRG	'2441' to '2442'	1	-1.0253	0.1055	94.51	0.0000
APR-DRG	'2443'	1	1.2019	0.1083	123.08	0.0000
APR-DRG	'2444'	1	3.3347	0.1200	772.10	0.0000
APR-DRG	'2532'	1	0.9608	0.0621	239.43	0.0000
APR-DRG	'2533'	1	2.5538	0.0612	1742.20	0.0000
APR-DRG	'2534'	1	4.4473	0.0696	4085.73	0.0000
APR-DRG	'2541' to '2534'	1	0.8521	0.0764	124.47	0.0000
APR-DRG	'2544'	1	4.3364	0.1069	1645.74	0.0000
MDC	Other	1	1.5317	0.0659	540.39	0.0000
TRANSFER	Transfer-in	1	0.6387	0.0633	101.67	0.0000

c-statistic 0.831

Table 11. Risk Adjustment Coefficients for IQI #19 – Hip Fracture Mortality Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-5.2742	0.1157	2079.37	0.0000
Sex	Female	1	-0.5344	0.0316	286.40	0.0000
Age	70 to 84	1	0.3133	0.0863	13.17	0.0003
Age	85+	1	0.9489	0.0838	128.27	0.0000
APR-DRG	'3011' to '3012'	1	0.3439	0.0685	25.23	0.0000
APR-DRG	'3013'	1	2.3914	0.0770	964.26	0.0000
APR-DRG	'3014'	1	4.9707	0.0988	2530.25	0.0000
APR-DRG	'3082'	1	0.4856	0.0709	46.84	0.0000
APR-DRG	'3083'	1	2.0972	0.0754	774.11	0.0000
APR-DRG	'3084'	1	4.8447	0.0909	2840.47	0.0000
APR-DRG	'3401'	1	1.3236	0.1222	117.28	0.0000
APR-DRG	'3402'	1	2.2756	0.0750	921.05	0.0000
APR-DRG	'3403'	1	3.8459	0.0853	2034.94	0.0000
APR-DRG	'3404'	1	6.0672	0.1359	1992.07	0.0000
MDC	8	1	1.5530	0.0777	399.55	0.0000
MDC	24	1	2.2594	0.0922	600.80	0.0000
TRANSFER	Transfer-in	1	-0.2298	0.1055	4.75	0.0293
NOPOUB04	UB-04 Point-of-Origin Data Not Available	1	-0.0182	0.0436	0.17	0.6768

c-statistic 0.800

Table 12. Risk Adjustment Coefficients for IQI #20 – Pneumonia Mortality Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-5.1471	0.0418	15145.55	0.0000
Sex	Female	1	-0.1205	0.0119	101.74	0.0000
Age	18 to 24	1	-1.0815	0.0913	140.41	0.0000
Age	25 to 29	1	-0.8321	0.0926	80.79	0.0000
Age	30 to 34	1	-0.9834	0.0875	126.32	0.0000
Age	35 to 39	1	-0.7791	0.0726	115.19	0.0000
Age	40 to 44	1	-0.7292	0.0568	164.87	0.0000
Age	45 to 49	1	-0.4345	0.0475	83.67	0.0000
Age	50 to 54	1	-0.2703	0.0430	39.53	0.0000
Age	55 to 59	1	-0.1285	0.0385	11.12	0.0009
Age	80 to 84	1	0.1960	0.0270	52.59	0.0000
Age	85+	1	0.7555	0.0298	644.38	0.0000
APR-DRG	'1211'	1	1.2454	0.2133	34.10	0.0000
APR-DRG	'1212'	1	2.1202	0.2075	104.37	0.0000
APR-DRG	'1213'	1	3.4063	0.1268	721.48	0.0000
APR-DRG	'1214'	1	5.8256	0.2054	804.35	0.0000
APR-DRG	'1301'	1	3.3127	0.1144	838.93	0.0000
APR-DRG	'1302'	1	3.8681	0.0605	4083.03	0.0000
APR-DRG	'1303' to '1304'	1	4.8811	0.0494	9767.43	0.0000
APR-DRG	'1371'	1	-0.0784	0.1387	0.32	0.5717
APR-DRG	'1372'	1	1.2626	0.0473	712.86	0.0000
APR-DRG	'1373'	1	2.5489	0.0412	3833.23	0.0000
APR-DRG	'1374'	1	3.9893	0.0508	6170.21	0.0000
APR-DRG	'1392'	1	1.0461	0.0314	1111.07	0.0000
APR-DRG	'1393'	1	2.5516	0.0324	6188.34	0.0000
APR-DRG	'1394'	1	4.3524	0.0392	12335.05	0.0000
MDC	4	1	2.0988	0.0442	2250.63	0.0000
MDC	25	1	1.7282	0.0952	329.45	0.0000
TRANSFER	Transfer-in	1	0.6992	0.0388	323.96	0.0000

c-statistic 0.849

Table 13. Risk Adjustment Coefficients for IQI #30 – Percutaneous Transluminal Coronary Angioplasty (PTCA) Mortality Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-7.2926	0.0857	7233.68	0.0000
Sex	Female	1	0.1467	0.0249	34.66	0.0000
Age	40 to 59	1	-0.3361	0.0444	57.22	0.0000
Age	65 to 74	1	0.0914	0.0438	4.35	0.0371
Age	75 to 79	1	0.3097	0.0473	42.95	0.0000
Age	80 to 84	1	0.5863	0.0483	147.41	0.0000
Age	85+	1	0.9693	0.0536	326.61	0.0000
APR-DRG	'1653' to '1654'	1	4.9493	0.0936	2798.12	0.0000
APR-DRG	'1741'	1	0.8002	0.0868	84.97	0.0000
APR-DRG	'1742'	1	2.3827	0.0732	1058.82	0.0000
APR-DRG	'1743'	1	4.1900	0.0724	3347.25	0.0000
APR-DRG	'1744'	1	6.2470	0.0733	7268.94	0.0000
APR-DRG	'1752'	1	0.4628	0.0832	30.94	0.0000
APR-DRG	'1753'	1	2.5835	0.0906	812.91	0.0000
APR-DRG	'1754'	1	5.6365	0.0833	4578.43	0.0000
MDC	4	1	4.4364	0.0932	2268.08	0.0000
MDC	5	1	3.0131	0.0847	1265.33	0.0000
MDC	8	1	4.2351	0.1252	1145.12	0.0000
MDC	18	1	5.0924	0.1220	1741.27	0.0000
MDC	Other	1	4.1433	0.0853	2361.21	0.0000
TRANSFER	Transfer-in	1	0.0895	0.0402	4.96	0.0259
NOPOUB04	UB-04 Point-of-Origin Data Not Available	1	0.0628	0.0392	2.56	0.1096

c-statistic 0.935

Table 14. Risk Adjustment Coefficients for IQI #31 – Carotid Endarterectomy Mortality Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-7.6866	0.2575	890.75	0.0000
Age	18 to 59	1	-0.1385	0.2225	0.39	0.5335
Age	65+	1	0.3525	0.1794	3.86	0.0494
APR-DRG	'0242' to '0244'	1	2.5707	0.2054	156.68	0.0000
MDC	1	1	2.2348	0.2459	82.59	0.0000
MDC	5	1	4.1208	0.2094	387.34	0.0000
MDC	Other	1	3.8342	0.2674	205.63	0.0000

c-statistic 0.789

Table 15. Risk Adjustment Coefficients for IQI #32 – Acute Myocardial Infarction (AMI) Mortality Rate, Without Transfer Cases

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-4.7136	0.0472	9960.70	0.0000
Age	18 to 39	1	-0.6637	0.0737	80.99	0.0000
Age	40 to 44	1	-0.7856	0.0628	156.48	0.0000
Age	45 to 49	1	-0.4764	0.0447	113.35	0.0000
Age	50 to 54	1	-0.3640	0.0396	84.61	0.0000
Age	55 to 59	1	-0.2395	0.0371	41.66	0.0000
Age	65 to 84	1	0.1292	0.0276	21.82	0.0000
Age	85+	1	0.2972	0.0312	90.87	0.0000
APR-DRG	'1611' to '1614'	1	1.4544	0.1015	205.19	0.0000
APR-DRG	'1621' to '1622'	1	1.0240	0.2074	24.38	0.0000
APR-DRG	'1623'	1	2.7545	0.1543	318.51	0.0000
APR-DRG	'1624'	1	4.3798	0.1314	1110.34	0.0000
APR-DRG	'1651' to '1652'	1	-0.0475	0.0801	0.35	0.5537
APR-DRG	'1653'	1	1.5013	0.0671	500.87	0.0000
APR-DRG	'1654'	1	3.8380	0.0765	2519.60	0.0000
APR-DRG	'1731' to '1734'	1	2.7570	0.1106	621.74	0.0000
APR-DRG	'1742'	1	0.3342	0.0469	50.74	0.0000
APR-DRG	'1743'	1	2.0583	0.0523	1551.41	0.0000
APR-DRG	'1744'	1	3.9692	0.0466	7259.03	0.0000
APR-DRG	'1901'	1	0.1864	0.0719	6.72	0.0095
APR-DRG	'1902'	1	1.1952	0.0429	777.31	0.0000
APR-DRG	'1903'	1	2.4304	0.0421	3326.74	0.0000
APR-DRG	'1904'	1	4.3265	0.0446	9417.53	0.0000
MDC	5	1	2.2998	0.0528	1896.09	0.0000

c-statistic 0.864

Table 16. Risk Adjustment Coefficients for IQI #26 – Coronary Artery Bypass Graft (CABG) Admission Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-5.13510	0.00599	735574.74	<.0001
SEX	Female	1	-1.10380	0.01140	9325.41	<.0001
AGE5	Males					
AGE6	Males					
AGE7	Males					
AGE8	Males					
AGE9	Males	1	-2.77690	0.01860	22203.99	<.0001
AGE10	Males	1	-1.90130	0.01260	22618.56	<.0001
AGE11	Males	1	-1.26180	0.01020	15161.52	<.0001
AGE12	Males	1	-0.72080	0.00905	6341.19	<.0001
AGE13	Males	1	-0.33460	0.00859	1517.55	<.0001
AGE14	Males					
AGE15	Males	1	0.13500	0.00879	235.98	<.0001
AGE16	Males	1	0.18300	0.00924	392.67	<.0001
AGE17	Males	1	-0.06060	0.01100	30.26	<.0001
AGE18	Males	1	-1.08300	0.01790	3671.35	<.0001
AGE5	Females					
AGE6	Females					
AGE7	Females					
AGE8	Females					
AGE9	Females	1	0.04660	0.03650	1.63	0.20180
AGE10	Females	1	-0.08280	0.02550	10.57	0.00110
AGE11	Females	1	-0.18360	0.02100	76.11	<.0001
AGE12	Females	1	-0.16770	0.01830	84.32	<.0001
AGE13	Females	1	-0.10180	0.01690	36.30	<.0001

**Inpatient Quality Indicators (IQI)
Risk Adjustment Coefficients for the IQI, Version 4.3**

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
AGE14	Females					
AGE15	Females	1	0.09940	0.01630	37.25	<.0001
AGE16	Females	1	0.19660	0.01650	142.13	<.0001
AGE17	Females	1	0.21030	0.01880	125.04	<.0001
AGE18	Females	1	0.00326	0.02900	0.01	0.91070

c-statistic 0.717

Table 17. Risk Adjustment Coefficients for IQI #27 – Percutaneous transluminal coronary angioplasty (PTCA) Admission Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-4.35750	0.00409	1136974.44	<.0001
SEX	Female	1	-0.80520	0.00702	13160.51	<.0001
AGE5	Males	0	0.00000	.	.	.
AGE6	Males	0	0.00000	.	.	.
AGE7	Males	0	0.00000	.	.	.
AGE8	Males	0	0.00000	.	.	.
AGE9	Males	1	-1.92620	0.00883	47563.19	<.0001
AGE10	Males	1	-1.24710	0.00682	33460.81	<.0001
AGE11	Males	1	-0.79020	0.00606	17016.05	<.0001
AGE12	Males	1	-0.45980	0.00576	6371.43	<.0001
AGE13	Males	1	-0.22950	0.00571	1617.42	<.0001
AGE14	Males	0	0.00000	.	.	.
AGE15	Males	1	0.08360	0.00609	188.62	<.0001
AGE16	Males	1	0.10900	0.00644	286.22	<.0001
AGE17	Males	1	0.01870	0.00732	6.49	0.01080
AGE18	Males	1	-0.51530	0.00956	2904.83	<.0001
AGE5	Females	0	0.00000	.	.	.
AGE6	Females	0	0.00000	.	.	.
AGE7	Females	0	0.00000	.	.	.
AGE8	Females	0	0.00000	.	.	.
AGE9	Females	1	-0.30690	0.01720	318.79	<.0001
AGE10	Females	1	-0.31900	0.01300	606.56	<.0001
AGE11	Females	1	-0.32600	0.01140	823.91	<.0001
AGE12	Females	1	-0.25200	0.01050	573.65	<.0001
AGE13	Females	1	-0.11980	0.01010	140.95	<.0001

**Inpatient Quality Indicators (IQI)
Risk Adjustment Coefficients for the IQI, Version 4.3**

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
AGE14	Females	0	0.00000	.	.	.
AGE15	Females	1	0.11180	0.01010	121.50	<.0001
AGE16	Females	1	0.22370	0.01040	466.79	<.0001
AGE17	Females	1	0.28050	0.01130	619.69	<.0001
AGE18	Females	1	0.27170	0.01370	393.63	<.0001

c-statistic 0.697

Table 18. Risk Adjustment Coefficients for IQI #28 – Hysterectomy Admission Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-6.07050	0.00895	459644.54	<.0001
SEX	Female					
AGE5	Females	1	-2.76240	0.02630	11035.18	<.0001
AGE6	Females	1	-0.60580	0.01310	2137.69	<.0001
AGE7	Females	1	0.38760	0.01080	1282.44	<.0001
AGE8	Females	1	1.07450	0.00990	11790.97	<.0001
AGE9	Females	1	1.49080	0.00956	24304.74	<.0001
AGE10	Females	1	1.48960	0.00952	24460.26	<.0001
AGE11	Females	1	0.87460	0.01000	7607.23	<.0001
AGE12	Females	1	0.13910	0.01130	151.41	<.0001
AGE13	Females	1	-0.03930	0.01210	10.53	0.00120
AGE14	Females					
AGE15	Females	1	-0.18150	0.01410	165.55	<.0001
AGE16	Females	1	-0.44380	0.01600	767.60	<.0001
AGE17	Females	1	-1.02960	0.02140	2318.32	<.0001
AGE18	Females	1	-2.08720	0.03270	4076.66	<.0001

c-statistic 0.727

Table 19. Risk Adjustment Coefficients for IQI #29 – Laminectomy/Spinal Fusion Admission Rate

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
Intercept		1	-5.15690	0.00605	726024.23	<.0001
SEX	Female	1	-0.02330	0.00835	7.80	0.00520
AGE5	Males	1	-2.53110	0.01490	28897.15	<.0001
AGE6	Males	1	-1.97830	0.01320	22293.67	<.0001
AGE7	Males	1	-1.36930	0.01100	15637.47	<.0001
AGE8	Males	1	-0.94600	0.00945	10012.98	<.0001
AGE9	Males	1	-0.70580	0.00877	6474.12	<.0001
AGE10	Males	1	-0.50490	0.00826	3741.14	<.0001
AGE11	Males	1	-0.38980	0.00814	2291.34	<.0001
AGE12	Males	1	-0.30690	0.00824	1388.63	<.0001
AGE13	Males	1	-0.22230	0.00844	692.87	<.0001
AGE14	Males					
AGE15	Males	1	0.04210	0.00911	21.38	<.0001
AGE16	Males	1	0.00467	0.00984	0.22	0.63530
AGE17	Males	1	-0.28790	0.01210	566.98	<.0001
AGE18	Males	1	-1.03430	0.01770	3420.70	<.0001
AGE5	Females	1	-0.16720	0.02210	57.03	<.0001
AGE6	Females	1	-0.11840	0.01940	37.34	<.0001
AGE7	Females	1	-0.10240	0.01580	41.91	<.0001
AGE8	Females	1	-0.05030	0.01340	14.10	0.00020
AGE9	Females	1	0.01360	0.01230	1.23	0.26650
AGE10	Females	1	0.04350	0.01150	14.42	0.00010
AGE11	Females	1	-0.00108	0.01140	0.01	0.92390
AGE12	Females	1	-0.03740	0.01150	10.51	0.00120
AGE13	Females	1	-0.00828	0.01170	0.50	0.48020

**Inpatient Quality Indicators (IQI)
Risk Adjustment Coefficients for the IQI, Version 4.3**

PARAMETER	LABEL	DF	ESTIMATE	STANDARD ERROR	WALD CHI-SQUARE	PR > CHI-SQUARE
AGE14	Females					
AGE15	Females	1	-0.03330	0.01250	7.06	0.00790
AGE16	Females	1	-0.11380	0.01350	71.09	<.0001
AGE17	Females	1	-0.17300	0.01640	111.95	<.0001
AGE18	Females	1	-0.43390	0.02380	333.31	<.0001

c-statistic 0.648

Table A.1. Population Age Categories

POPCAT	AGE RANGE
1	low - 4
2	5 - 9
3	10 - 14
4	15 - 17
5	18 - 24
6	25 - 29
7	30 - 34
8	35 - 39
9	40 - 44
10	45 - 49
11	50 - 54
12	55 - 59
13	60 - 64
14	65 - 69
15	70 - 74
16	75 - 79
17	80 - 84
18	85 - high

Table A.2. Major Diagnostic Categories (MDC)

MDC	DESCRIPTION
1	DISEASES & DISORDERS OF THE NERVOUS SYSTEM
2	DISEASES & DISORDERS OF THE EYE
3	DISEASES & DISORDERS OF THE EAR, NOSE, MOUTH & THROAT
4	DISEASES & DISORDERS OF THE RESPIRATORY SYSTEM
5	DISEASES & DISORDERS OF THE CIRCULATORY SYSTEM
6	DISEASES & DISORDERS OF THE DIGESTIVE SYSTEM
7	DISEASES & DISORDERS OF THE HEPATOBILIARY SYSTEM & PANCREAS
8	DISEASES & DISORDERS OF THE MUSCULOSKELETAL SYSTEM & CONN TISSUE
9	DISEASES & DISORDERS OF THE SKIN, SUBCUTANEOUS TISSUE & BREAST
10	ENDOCRINE, NUTRITIONAL & METABOLIC DISEASES & DISORDERS
11	DISEASES & DISORDERS OF THE KIDNEY & URINARY TRACT
12	DISEASES & DISORDERS OF THE MALE REPRODUCTIVE SYSTEM
13	DISEASES & DISORDERS OF THE FEMALE REPRODUCTIVE SYSTEM
14	PREGNANCY, CHILDBIRTH & THE PUERPERIUM
15	NEWBORNS & OTHER NEONATES WITH CONDTN ORIG IN PERINATAL PERIOD
16	DISEASES & DISORDERS OF BLOOD, BLOOD FORMING ORGANS, IMMUNOLOG DISORD
17	MYELOPROLIFERATIVE DISEASES & DISORDERS, POORLY DIFFERENTIATED NEOPLASM
18	INFECTIOUS & PARASITIC DISEASES, SYSTEMIC OR UNSPECIFIED SITES
19	MENTAL DISEASES & DISORDERS
20	ALCOHOL/DRUG USE & ALCOHOL/DRUG INDUCED ORGANIC MENTAL DISORDERS
21	INJURIES, POISONINGS & TOXIC EFFECTS OF DRUGS
22	BURNS
23	FACTORS INFLUENCING HLTH STAT & OTHR CONTACTS WITH HLTH SERVCS
24	MULTIPLE SIGNIFICANT TRAUMA
25	HUMAN IMMUNODEFICIENCY VIRUS INFECTIONS

Table A.3. Transfer, Point of Origin, Ruptured

CATEGORY	DESCRIPTION	DEFINITION
TRNSFER	Transfer-in	If admission type (ATYPE) not equal to '4' (newborn) and - admission source (ASOURCE) equal to '2' (Another Hospital) or - point of origin (POINTOFORIGINUB04) equal to '4' (Transfer from a Hospital)
NOPOUB04	UB-04 Point-of-Origin Data Not Available	If admission source (ASOURCE) is not equal to missing and point of origin (POINTOFORIGINUB04) is equal to missing
NOPRDAY	Procedure Days Data Not Available	If PRDAY1 and PRDAY2 and . . . PRDAYn is equal to missing, where n is the number of Procedure Codes reported the user's data.
RUPTURED	AAA Repair	ICD-9-CM diagnosis code 441.3 Abdominal aneurysm, ruptured