

**PERCUTANEOUS
CORONARY
INTERVENTIONS
(PCI)
in
New York State
*2002-2004***

**New York State Department of Health
November 2006**

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TABLE OF CONTENTS

- MESSAGE FROM COMMISSIONER 1
- INTRODUCTION 3
- HEALTH DEPARTMENT PROGRAM 3
- PATIENT POPULATION 3
- RISK ADJUSTMENT FOR ASSESSING PROVIDER PERFORMANCE 4
 - Data Collection, Data Validation and Identifying In-hospital/30-Day Deaths 4
 - Assessing Patient Risk 4
 - Predicting Patient Mortality Rates for Providers 5
 - Computing the Risk-Adjusted Rate 5
 - Interpreting the Risk-Adjusted Mortality Rate 5
 - How this Contributes to Quality Improvement 6
- 2004 HOSPITAL RISK-ADJUSTED MORTALITY FOR PCI 6
- 2002 – 2004 HOSPITAL DATA FOR PCI 6
 - Table 1 Hospital Observed, Expected and Risk-Adjusted In-hospital/30-Day Mortality Rates (RAMR) for PCI in New York State, 2004 Discharges 8
 - Table 2 Hospital Observed, and Risk-Adjusted In-hospital Mortality Rates (RAMR) for PCI in New York State, 2002 – 2004 Discharges 9
- 2002 – 2004 HOSPITAL AND CARDIOLOGIST DATA FOR PCI 10
 - Table 3 Cardiologist Observed, Expected and Risk-Adjusted In-hospital Mortality Rates (RAMR) for PCI in New York State, 2002 – 2004 Discharges 10
 - Table 4 Summary Information for Cardiologists Practicing at More Than One Hospital, 2002 – 2004 Discharges 25
- CRITERIA USED IN REPORTING SIGNIFICANT RISK FACTORS (2004) 39
- MEDICAL TERMINOLOGY 41
- APPENDIX 1 2004 Risk Factors for PCI In-Hospital/30-Day Mortality 42
- APPENDIX 2 2004 Risk Factors For In-Hospital/30-Day Mortality for Non-Emergency PCI 44
- APPENDIX 3 2002 – 2004 Risk Factors for PCI In-Hospital Mortality (All Cases) 45
- APPENDIX 4 2002 – 2004 Risk Factors for In-Hospital Mortality for Non-Emergency PCI 47
- APPENDIX 5 2002 – 2004 Risk Factors for In-Hospital Mortality for Emergency PCI 48
- NYS Percutaneous Coronary Intervention Centers 49

MESSAGE FROM COMMISSIONER

I am pleased to provide the information contained in this booklet for use by health care providers, patients and families of patients who are considering treatment options for cardiovascular disease. The report provides data on risk factors associated with in-hospital/30-day mortality following percutaneous coronary intervention (also known as angioplasty) and lists hospital and physician-specific mortality rates that have been risk-adjusted to account for differences in patient severity of illness.

The Percutaneous Coronary Interventions (PCI) Reporting System (the data set upon which these analyses are based) represents the largest collection of data available in which all patients undergoing PCI have been reported. Hospitals and doctors involved in cardiac care have worked cooperatively with the Department of Health and the Cardiac Advisory Committee to compile accurate and meaningful data that can and have been used to enhance quality of care. As part of that process, we have included comprehensive information on non-emergency and emergency cases in our PCI analyses. Physician specific analysis of outcomes are also included. In addition, for the first time, this year's report includes information on mortality outside the hospital but within 30 days following PCI. We believe this to be an important quality indicator that will provide useful information to patients and providers.

I encourage doctors to discuss this information with their patients and colleagues as they develop treatment plans. While these statistics are an important tool in making informed health care choices, doctors and patients must make individual treatment plans together after careful consideration of all pertinent factors. It is also important to keep in mind that the information in this booklet does not include data after 2004. Important changes may have taken place in some hospitals since that time.

I would also ask that patients and physicians alike give careful consideration to the importance of healthy lifestyles for all those affected by heart disease. Controllable risk factors that contribute to a higher likelihood of developing coronary artery disease are high cholesterol levels, cigarette smoking, high blood pressure, obesity and lack of exercise. Limiting these risk factors will continue to be important in minimizing the occurrence of new blockages.

I extend my appreciation to the providers in this state and to the Cardiac Advisory Committee for their efforts in developing and refining this remarkable system. The Department of Health will continue to work in partnership with hospitals and physicians to ensure high quality of care for patients with heart disease. We look forward to providing reports such as this and the Adult Cardiac Surgery Report on an annual basis and to the continuing high quality of care available from our New York State health care providers.

INTRODUCTION

Heart disease is, by far, the leading cause of death in New York State, and the most common form of heart disease is atherosclerotic coronary artery disease. Various treatments are recommended for patients with coronary artery disease. For some people, changes in lifestyle, such as dietary changes, not smoking and regular exercise can result in great improvements in health. In other cases, medication prescribed for high blood pressure or other conditions can make a significant difference.

Sometimes, however, an interventional procedure is recommended. The two most common procedures performed on patients with coronary artery disease are percutaneous coronary intervention (PCI), also known as percutaneous transluminal coronary angioplasty (PTCA), and coronary artery bypass graft surgery (CABG).

During a PCI procedure, a catheter is threaded up to the site of the blockage in a coronary artery. In conjunction with the catheter, devices are used to open the blockage. In some cases, PCI is used as an emergency treatment for patients who are experiencing a heart attack or who may be in shock. Most cases, however, are not done on an emergency basis.

Those who have a PCI procedure are not cured of coronary artery disease; the disease can still occur in the treated blood vessels or other coronary arteries. In order to minimize new blockages, patients should continue to reduce their risk factors for heart disease.

The analyses contained in this report are based on the information collected on each of the 149,888 patients who underwent PCI and were discharged between January 1, 2002 and December 31, 2004. The number of PCI cases per year has increased during that period from 46,090 in 2002 to 51,677 in 2004. Analyses of risk-adjusted mortality rates and associated risk factors are provided for 2004 and for the three-year period from 2002 through 2004. Analysis of all cases, non-emergency cases (which represent the majority of procedures) and emergency cases are included.

HEALTH DEPARTMENT PROGRAM

The New York State Department of Health has been studying the effects of patient and treatment characteristics on outcomes for patients with heart disease for several years. Detailed statistical analyses of the information received from the study have been conducted under the guidance of the New York State Cardiac Advisory Committee, a group of independent practicing cardiac surgeons, cardiologists, and other professionals in related fields.

The results have been used to create a cardiac profile system that assesses the performance of hospitals and doctors over time, taking into account the severity of individual patient's pre-operative conditions. Coronary artery bypass surgery results have been assessed since 1989; PCI results were released in 1996 for the first time.

Designed to improve health in people with heart disease, this program is aimed at:

- understanding the health risks of patients that adversely affect how they will fare during and after PCI;
- improving the results of different treatments of heart disease;
- improving cardiac care; and
- providing information to help patients make better decisions about their own care.

PATIENT POPULATION

All adult New York State residents undergoing PCI in New York State hospitals who were discharged during 2004 are included in the one-year results presented in this report. All patients, residing inside or outside New York State, undergoing PCI who were discharged between January 1, 2002 and December 31, 2004 are included in the three-year results. Observed and risk-adjusted mortality rates are reported for patients undergoing PCI in each of the 48 New York State hospitals with approval to perform the procedure.

In New York State, PCI is limited to centers with cardiac surgery on-site. However, beginning in the year 2000, a process was put in place to allow time-limited waivers to this policy for centers participating in a special study for heart attack patients. After extensive training and review, hospitals meeting specific conditions may now be allowed to perform PCI on acute myocardial infarction (heart attack) patients. One hospital began performing PCI under these conditions in 2000, six were added between 2001 and 2003, and two more began in 2004. We will continue to study the impact of the new programs over the next several years.

RISK ADJUSTMENT FOR ASSESSING PROVIDER PERFORMANCE

Hospital or physician performance is an important factor that directly relates to patient outcomes. Whether patients recover quickly, experience complications, or die following a procedure is in part a result of the kind of medical care they receive. It is difficult, however, to compare outcomes among hospitals when assessing performance, because different hospitals treat different types of patients. Hospitals with sicker patients may have higher rates of complications and death than other hospitals in the state. The following describes how the New York State Department of Health adjusts for patient risk in assessing outcomes of care in different hospitals.

Data Collection, Data Validation and Identifying In-Hospital/30-Day Deaths

As part of the risk-adjustment process, hospitals in New York State where PCI is performed provide information to the Department of Health for each patient undergoing those procedures. Data concerning patients' demographic and clinical characteristics are collected by hospitals' cardiac catheterization laboratories. Approximately 40 of these characteristics (or risk factors) are collected for each patient. Along with information about the hospital, physician, and the patient's status at discharge, these data are entered into a computer, and sent to the Department of Health for analysis.

Data are verified through review of unusual reporting frequencies, cross-matching of PCI data with other Department of Health databases and a review of medical records for a selected sample of cases. These activities are extremely helpful in ensuring consistent interpretation of data elements across hospitals.

The analysis for the one-year PCI results bases mortality on deaths occurring during the same hospital stay in which a patient underwent PCI and on deaths that occur after hospital discharge but within 30 days of PCI. In this report, an in-hospital death is defined as a patient who died subsequent to PCI during the same acute care admission or was discharged to hospice care. Please note that in 2003 and 2004, patients who were still alive 30 days after discharge to hospice care are not considered mortalities. All other hospice discharges are counted as mortalities.

The 2004 report is the first time that deaths after hospital discharge but within 30 days of PCI will be counted in the risk-adjusted mortality analyses for all PCI procedures and for non-emergency PCIs. This is being done because hospital length of stay has been decreasing and in the opinion of the Cardiac Advisory Committee, most deaths that occur after hospital discharge but within 30 days after PCI are related to complications of the cardiac intervention.

Please note that the three-year results for all PCI, non-emergency PCI, and emergency PCI that are presented in this report are all based on in-hospital mortality, not on in-hospital/30-day mortality. The reason for this is that the Department of Health does not have access to deaths outside of the hospital for all three of the years 2002-2004. We expect that all analyses in next year's report will be based on in-hospital/30-day mortality. Also, the 30-day mortality data available at this time is limited to NYS residents, so those are the only patients included in the 2004 All-Cases and Non-Emergency PCI analyses. It is expected that 30-day mortality data will be available for patients residing outside NYS for the next report.

Assessing Patient Risk

Each person who develops coronary artery disease has a unique health history. A cardiac profile system has been developed to evaluate the risk of treatment for each individual patient based on his or her history, weighing the important health facts for that person based on the experiences of thousands of patients who have undergone the same procedures in recent years. All important risk factors for each patient are combined to create his or her risk profile.

For example, an 80-year-old patient with a heart attack in the past six hours has a very different risk profile than a 40-year-old who has never suffered a heart attack.

The statistical analyses conducted by the New York State Department of Health consist of determining which of the risk factors collected are significantly related to in-hospital/30-day death, and determining how to weight the significant risk factors to predict the chance each patient will have of dying in the hospital given his or her specific characteristics.

Predicting Patient Mortality Rates for Providers

The statistical methods used to predict mortality on the basis of the significant risk factors are tested to determine if they are sufficiently accurate in predicting mortality for patients who are extremely ill prior to undergoing the procedure as well as for patients who are relatively healthy. These tests have confirmed that the models are reasonably accurate in predicting how patients of all different risk levels will fare when undergoing PCI.

The mortality rate for each hospital and cardiologist is also predicted using the statistical model. This is accomplished by adding the predicted probabilities of death for each of the provider's patients and dividing by the number of patients. The resulting rate is an estimate of what the provider's mortality rate would have been if the hospital's performance was identical to the state performance. The percentage is called the predicted or expected mortality rate (EMR). A hospital's expected mortality rate is contrasted with its observed mortality rate (OMR), which is the number of PCI patients who died divided by the total number of PCI patients.

Computing the Risk-Adjusted Rate

The risk-adjusted mortality rate (RAMR) represents the best estimate, based on the associated statistical model, of what the provider's mortality rate would have been if the provider had a mix of patients identical to the statewide mix. Thus, the risk-adjusted mortality rate has, to the extent possible, ironed out differences among providers in patient severity of illness, since it arrives at a mortality rate for each provider based on an identical group of patients.

To get the risk-adjusted mortality rate, the observed mortality rate is first divided by the provider's expected mortality rate. If the resulting ratio is larger than one, the provider has a higher mortality rate than expected on the basis of its patient mix; if it is smaller than one, the provider has a lower mortality rate than expected from its patient mix. The ratio is then multiplied by the overall statewide rate (0.93% in-hospital/30-day for NYS residents in 2004) to obtain the provider's risk-adjusted rate.

Interpreting the Risk-Adjusted Mortality Rate

If the risk-adjusted mortality rate is lower than the statewide mortality rate, the hospital has a better performance than the state as a whole; if the risk-adjusted mortality rate is higher than the statewide mortality rate, the hospital has a worse performance than the state as a whole.

The risk-adjusted mortality rate is used in this report as a measure of quality of care provided by hospitals and cardiologists. However, there are reasons that a provider's risk-adjusted rate may not be indicative of its true quality.

For example, extreme outcome rates may occur due to chance alone. This is particularly true for low-volume providers, for whom very high or very low rates are more likely to occur than for high-volume providers. Another attempt to prevent misinterpretation of differences caused by chance variation is the use of expected ranges (confidence intervals) in the reported results.

Differences in hospital coding of risk factors could be an additional reason that a hospital's risk-adjusted rate may not be reflective of quality of care. The Department of Health monitors the quality of coded data by reviewing patients' medical records to ascertain the presence of key risk factors. When significant coding problems have been discovered, hospitals have been required to recode these data and have been subject to subsequent monitoring.

Some commentators have suggested that patient severity of illness may not be accurately estimated because some risk factors are not included in the data system, and this could lead to misleading risk-adjusted rates. This is not likely because the New York State data system has been reviewed by practicing physicians in the field and is updated continually. It now contains virtually every risk factor that has ever been demonstrated to be related to patient mortality in national and international studies.

How This Contributes to Quality Improvement

The goal of the Department of Health and the Cardiac Advisory Committee is to improve the quality of care in relation to cardiac surgery and angioplasty in New York State. Providing the hospitals, cardiac surgeons (who perform cardiac surgery), and cardiologists (who perform PCI) in New York State with data about their own outcomes for these procedures allows them to examine the quality of their own care, and to identify opportunities to improve that care.

The data collected and analyzed in this program are reviewed by the Cardiac Advisory Committee, who assist with interpretation and advise the Department of Health regarding which hospitals and physicians may need special attention. Committee members have also conducted site visits to particular hospitals, and have recommended that some hospitals obtain the expertise of outside consultants to design improvements for their programs.

2004 HOSPITAL RISK-ADJUSTED MORTALITY FOR PCI

Table 1 presents the 2004 PCI mortality results for the 48 hospitals performing PCI in New York in 2004. The table contains, for each hospital, the number of PCIs performed on New York State residents resulting in 2004 discharges, the number of in-hospital/30-day deaths, the observed mortality rate, the expected mortality rate based on the statistical model presented in Appendix 1, the risk-adjusted mortality rate, and a 95% confidence interval for the risk-adjusted rate. Also, it contains each hospital's volume of cases and risk-adjusted mortality rate for non-emergency patients residing in NYS. Emergency patients are defined to be patients in shock, a state of hemodynamic instability (very low blood pressure), or patients who experienced a heart attack within 24 hours prior to undergoing PCI. The hospital risk-adjusted rates for non-emergency PCI patients are provided because many studies are confined to this group of patients, and because these patients comprise the majority of all PCI patients (88.62% in 2004).

The overall in-hospital/30-day mortality rate for the 51,677 PCIs performed on New York State residents at the 48 hospitals was 0.93%. Observed mortality rates ranged from 0.00% to 5.62%. The range in expected mortality rates, which measure patient severity of illness, was between 0.56% and 5.49%. The risk-adjusted rates, which measure hospital performance, range from 0.00% to 2.43%. Based on confidence intervals for risk-adjusted rates, one hospital (University Hospital - Upstate) had a risk-adjusted mortality rate that was significantly higher than the statewide average. One hospital (Winthrop University Hospital) had a risk-adjusted mortality rate that was significantly lower than the statewide average.

The last column of Table 1 presents the hospital risk-adjusted mortality rates for non-emergency cases performed on NYS residents (based on the statistical model presented in Appendix 2.) As presented in the last row, the statewide in-hospital/30-day mortality rate for non-emergency cases is 0.59%. The range of risk-adjusted rates was from 0.00% to 1.99%. No hospital had risk-adjusted mortality rates that were significantly higher than the statewide rate. One hospital (Rochester General) had a risk-adjusted mortality rate that was significantly lower than the statewide rate.

Since the 2004 PCI analysis is based on in-hospital / 30-day mortality for New York State residents, the associated mortality rates cannot be compared directly to previous NYS publications or the 3-year analyses in this report which are all based on only in-hospital mortality.

The observed in-hospital mortality rate for all 2004 PCI discharges (not shown in Table 1) was 0.62% for all 53,752 patients and 0.61% for the 51,677 NYS residents included in Table 1. For the Non-Emergency analysis, there were 46,622 patients altogether with an in-hospital mortality rate of 0.30%. The in-hospital mortality rate for the 45,796 NYS residents included in Table 1 was also 0.30%.

2002-2004 HOSPITAL DATA FOR PCI

Table 2 provides the number of PCIs, the observed in-hospital mortality rate, and the risk-adjusted in-hospital mortality rate for 2002-2004 for each of three types of PCI patients in the 48 hospitals performing PCI during the time period. The three types of patients are: all patients, non-emergency patients, and emergency patients (patients in shock, a state of hemodynamic instability (very low blood pressure), or patients who experienced a heart attack within 24 hours prior to undergoing PCI). The statistical models that are the basis for all patients, non-emergency patients, and emergency patients in 2002-2004 are presented in Appendices 3-5, respectively.

As indicated in Table 2, the three-year observed in-hospital mortality rates for all PCI patients ranged from 0.00% to 3.85%, and the risk-adjusted mortality rates ranged from 0.00% to 1.37%. Four hospitals (Albany Medical Center, NY Presbyterian Columbia, St. Francis Hospital and University Hospital Stony Brook) had risk-adjusted mortality rates that were significantly higher than the statewide rate. Three hospitals (Long Island Jewish Medical Center, North Shore University Hospital, and Winthrop University Hospital) had risk-adjusted mortality rates that were significantly lower than the statewide rate. It should be noted that hospitals are more likely to have results that show a statistically significant difference from the statewide rate when three years of data are used than when one year of data is used because the three-year volumes are higher.

Table 2 also presents the 3-year risk adjusted in-hospital mortality rates for non-emergency cases based on the model in Appendix 4. Non-emergency cases comprise 88.86% of cases for the period 2002-2004. The statewide in-hospital mortality rate for the 133,191 non-emergency cases during the 3-year period was 0.33%. Observed mortality rates for this group of patients ranged from 0.00% to 0.73% and the risk-adjusted mortality rates ranged from 0.00 to 0.68%. Three hospitals (New York Presbyterian-Columbia, St. Francis Hospital, and University Hospital - Stony Brook) had risk-adjusted mortality rates that were significantly higher than the statewide average. One hospital (North Shore University Hospital) had a risk-adjusted mortality rate significantly below the statewide rate for non-emergency cases.

The last three columns in Table 2 present data on emergency cases based on the model in Appendix 5. Emergency cases represented 11.14% of cases for the period 2002-2004. The statewide in-hospital mortality rate for the 16,697 emergency PCI cases during the 3-year period was 3.04%. Observed mortality rates for this group ranged from 0.00% to 23.81% and the risk-adjusted mortality rates ranged from 0.00% to 7.26%. Three hospitals (Albany Medical Center, Beth Israel Medical Center, and Montefiore-Einstein) had risk-adjusted mortality rates that were significantly above the statewide average and two hospitals (Long Island Jewish Medical Center and Winthrop University Hospital) had risk-adjusted mortality rates that were significantly below the statewide average for emergency cases.

Note on Hospitals Not Performing PCI During Entire 2002-2004 Period

Several hospitals began performing PCI during the 2002 - 2004 time period on which this report is based. These hospitals and the month of the first PCI are listed below. Hospitals marked with “#” are allowed to perform PCI only on acute myocardial infarction (heart attack) patients. Mercy Hospital - May 2002; #Elmhurst Hospital - November 2002; Mary Imogene Bassett Hospital - March 2003; #Park Ridge Hospital - May 2003; #Glens Falls Hospital - June 2003; #Good Samaritan Suffern - October 2003; New York Methodist - April 2004; #St. Catherine of Siena - October 2004; #Huntington Hospital - November 2004.

Definitions of key terms are as follows:

The **observed mortality rate (OMR)** is the observed number of deaths divided by the number of patients.

The **expected mortality rate (EMR)** is the sum of the predicted probabilities of death for all patients divided by the total number of patients.

The **risk-adjusted mortality rate (RAMR)** is the best estimate, based on the statistical model, of what the provider's mortality rate would have been if the provider had a mix of patients similar to the statewide mix. It is obtained by first dividing the observed mortality rate by the expected mortality rate, and then multiplying that quotient by the statewide mortality rate (0.95% in-hospital/30-day mortality for all PCI patients residing in New York State discharged in 2004).

Confidence intervals indicate which hospitals had significantly more or fewer deaths than expected given the risk factors of their patients. Hospitals with significantly higher rates than expected after adjusting for risk are those with confidence intervals entirely above the statewide rate. Hospitals with significantly lower rates than expected given the severity of illness of their patients before the PCI have confidence intervals entirely below the statewide rate.

Table 1 Hospital Observed, Expected, and Risk-Adjusted In-Hospital/30-Day Mortality Rates (RAMR) for PCI in New York State (NY residents only), 2004 Discharges (Listed Alphabetically by Hospital)

Hospital	Cases	Deaths	All Cases				Non-Emergency	
			OMR	EMR	RAMR	95% CI for RAMR	Cases	RAMR
Albany Medical Center	1114	16	1.44	0.89	1.50	(0.86, 2.44)	931	0.99
Arnot-Ogden	294	3	1.02	1.08	0.88	(0.18, 2.57)	216	0.49
Bellevue	417	4	0.96	1.07	0.83	(0.22, 2.13)	374	0.00
Beth Israel	1310	10	0.76	0.93	0.76	(0.37, 1.41)	1247	0.34
Buffalo General	1689	11	0.65	0.57	1.05	(0.53, 1.89)	1624	0.63
Crouse Hospital	797	7	0.88	0.96	0.85	(0.34, 1.76)	705	0.62
Ellis Hospital	863	11	1.27	1.05	1.13	(0.56, 2.02)	694	0.74
Elmhurst	63	2	3.17	1.21	2.43	(0.27, 8.78)	.	.
Erie County	395	5	1.27	0.60	1.96	(0.63, 4.57)	334	0.84
Glens Falls Hosp.	57	2	3.51	3.71	0.88	(0.10, 3.17)	.	.
Good Sam - Suffern	89	5	5.62	5.14	1.02	(0.33, 2.37)	.	.
Good Sam - W. Islip	85	4	4.71	2.47	1.78	(0.48, 4.55)	.	.
Huntington Hospital	9	0	0.00	5.49	0.00	(0.00, 6.90)	.	.
LIJ Medical Center	1778	17	0.96	1.08	0.82	(0.48, 1.32)	1560	0.65
Lenox Hill	2487	17	0.68	0.75	0.84	(0.49, 1.35)	2396	0.56
Maimonides	1563	12	0.77	1.05	0.68	(0.35, 1.19)	1466	0.63
Mary Imogene Bassett Hospital	153	1	0.65	1.06	0.58	(0.01, 3.20)	113	0.00
Mercy Hospital	537	5	0.93	1.53	0.57	(0.18, 1.32)	427	0.21
Millard Fillmore	988	8	0.81	0.90	0.84	(0.36, 1.66)	899	0.67
Montefiore - Einstein	811	6	0.74	0.67	1.03	(0.38, 2.25)	730	0.34
Montefiore - Moses	738	3	0.41	0.92	0.41	(0.08, 1.21)	679	0.33
Mount Sinai	2931	27	0.92	0.94	0.91	(0.60, 1.33)	2780	0.57
NY Hospital - Queens	1276	17	1.33	1.10	1.13	(0.65, 1.80)	1160	0.91
NY Methodist	646	12	1.86	1.02	1.69	(0.87, 2.95)	625	0.56
NYP-Columbia	1077	15	1.39	0.86	1.50	(0.84, 2.48)	983	1.12
NYP-Weill Cornell	1541	13	0.84	1.22	0.64	(0.34, 1.10)	1411	0.32
NYU Hospitals Center	678	5	0.74	0.67	1.02	(0.33, 2.39)	639	0.75
North Shore	3622	27	0.75	0.93	0.75	(0.49, 1.09)	3191	0.49
Park Ridge Hosp.	61	1	1.64	3.56	0.43	(0.01, 2.38)	.	.
Rochester General	2577	20	0.78	0.98	0.74	(0.45, 1.14)	2239	0.23 **
South Nassau	49	1	2.04	1.64	1.16	(0.02, 6.46)	.	.
Southside Hospital	55	2	3.64	2.95	1.15	(0.13, 4.14)	.	.
St. Catherine of Siena	10	0	0.00	1.49	0.00	(0.00,22.93)	.	.
St. Elizabeth	1542	19	1.23	0.97	1.18	(0.71, 1.84)	1380	0.69
St. Francis	3625	29	0.80	0.77	0.97	(0.65, 1.39)	3435	0.65
St. Josephs	2211	20	0.90	0.89	0.94	(0.58, 1.46)	1911	0.58
St. Lukes-Roosevelt	822	10	1.22	0.70	1.62	(0.78, 2.98)	754	1.30
St. Peters	1099	12	1.09	1.02	0.99	(0.51, 1.73)	903	0.63
St. Vincents	1451	13	0.90	0.81	1.02	(0.54, 1.75)	1293	0.65
Staten Island Univ Hosp	1382	10	0.72	0.76	0.88	(0.42, 1.63)	1269	0.55
Strong Memorial	1365	18	1.32	1.02	1.20	(0.71, 1.90)	1102	0.55
United Health Services	908	9	0.99	1.37	0.67	(0.31, 1.28)	749	0.58
Univ. Hosp. Brooklyn	1141	5	0.44	0.56	0.73	(0.23, 1.70)	1089	0.48
Univ. Hosp. Stony Brook	1435	14	0.98	0.87	1.04	(0.57, 1.75)	1190	0.76
Univ. Hosp. Upstate	275	12	4.36	1.72	2.36 *	(1.22, 4.12)	200	1.99
Vassar Brothers	891	6	0.67	0.91	0.69	(0.25, 1.49)	680	0.43
Westchester Med. Ctr.	1441	11	0.76	0.84	0.85	(0.42, 1.52)	1201	0.59
Winthrop Univ. Hosp.	1329	4	0.30	0.80	0.35 **	(0.09, 0.89)	1217	0.31
Statewide Total	51677	481	0.93				45796	0.59

* Risk-adjusted mortality rate significantly higher than statewide rate based on 95 percent confidence interval.

** Risk-adjusted mortality rate significantly lower than statewide rate based on 95 percent confidence interval.

Table 2 Hospital Observed and Risk-Adjusted In-Hospital Mortality Rates for PCI in New York State
2002 - 2004 Discharges.

Hospital	All Cases			Non-Emergency Cases			Emergency Cases		
	Cases	OMR	RAMR	Cases	OMR	RAMR	Cases	OMR	RAMR
Albany Medical Center	3498	1.11	1.06 *	2920	0.45	0.60	578	4.50	4.73 *
Arnot-Ogden	800	1.00	0.84	573	0.52	0.67	227	2.20	3.20
Bellevue	971	0.82	0.81	860	0.23	0.24	111	5.41	4.56
Beth Israel	3984	0.80	0.84	3764	0.35	0.35	220	8.64	5.32 *
Buffalo General	4802	0.31	0.58	4639	0.24	0.31	163	2.45	2.95
Crouse Hospital	2458	0.45	0.53	2231	0.13	0.17	227	3.52	3.12
Ellis Hospital	2445	0.78	0.69	1966	0.36	0.35	479	2.51	3.28
Elmhurst	131	3.05	0.92	.	.	.	131	3.05	3.91
Erie County	1063	0.56	0.77	967	0.21	0.27	96	4.17	4.00
Glens Falls Hosp.	74	1.35	0.51	.	.	.	74	1.35	1.80
Good Sam - Suffern	104	3.85	0.46	.	.	.	104	3.85	2.47
Good Sam - W. Islip	258	2.71	1.02	1	0.00	0.00	257	2.72	4.35
Huntington Hospital	11	0.00	0.00	.	.	.	11	0.00	0.00
LIJ Medical Center	4918	0.47	0.35 **	4215	0.28	0.23	703	1.56	1.52 **
Lenox Hill	9840	0.41	0.52	9507	0.28	0.28	333	3.90	2.58
Maimonides	4141	0.48	0.42	3869	0.41	0.26	272	1.47	1.52
Mary Imogene Bassett Hosp.	322	1.55	1.37	254	0.39	0.53	68	5.88	6.29
Mercy Hospital	1070	0.65	0.52	851	0.24	0.21	219	2.28	2.56
Millard Fillmore	2888	0.62	0.73	2693	0.41	0.45	195	3.59	3.04
Montefiore - Einstein	2238	0.63	0.91	2035	0.29	0.32	203	3.94	7.26 *
Montefiore - Moses	2139	0.51	0.48	1949	0.36	0.36	190	2.11	1.36
Mount Sinai	8185	0.53	0.51	7765	0.30	0.25	420	4.76	2.48
NY Hospital - Queens	3541	0.88	0.73	3167	0.41	0.38	374	4.81	3.60
NY Methodist	654	1.38	1.27	633	0.63	0.47	21	23.81	5.39
NYP-Columbia	2516	1.23	1.11 *	2205	0.73	0.68 *	311	4.82	4.94
NYP-Weill Cornell	5196	0.73	0.61	4734	0.25	0.25	462	5.63	3.48
NYU Hospitals Center	2229	0.49	0.59	2055	0.34	0.35	174	2.30	2.68
North Shore	10274	0.36	0.42 **	9083	0.15	0.18 **	1191	1.93	2.24
Park Ridge Hosp.	98	1.02	0.31	.	.	.	98	1.02	1.26
Rochester General	7559	0.58	0.58	6493	0.23	0.23	1066	2.72	3.28
South Nassau	177	2.26	0.84	.	.	.	177	2.26	4.12
Southside Hospital	179	1.12	0.31	.	.	.	179	1.12	1.46
St. Catherine of Siena	11	0.00	0.00	.	.	.	11	0.00	0.00
St. Elizabeth	4414	0.88	0.81	4063	0.44	0.39	351	5.98	4.63
St. Francis	11220	0.61	0.81 *	10651	0.44	0.47 *	569	3.87	3.17
St. Josephs	6242	0.54	0.59	5417	0.24	0.24	825	2.55	3.43
St. Lukes-Roosevelt	2659	0.68	0.93	2425	0.33	0.35	234	4.27	5.91
St. Peters	3373	0.62	0.57	2779	0.32	0.35	594	2.02	2.29
St. Vincents	4151	0.65	0.59	3651	0.44	0.38	500	2.20	2.53
Staten Island Univ Hosp	3432	0.29	0.44	3142	0.16	0.24	290	1.72	2.07
Strong Memorial	3948	0.86	0.75	3187	0.44	0.44	761	2.63	3.10
United Health Services	2853	0.88	0.47	2338	0.38	0.35	515	3.11	1.93
Univ. Hosp. Brooklyn	2625	0.27	0.54	2509	0.20	0.27	116	1.72	3.27
Univ. Hosp. Stony Brook	4055	0.99	0.88 *	3432	0.61	0.63 *	623	3.05	3.35
Univ. Hosp. Upstate	614	1.63	0.86	480	0.21	0.21	134	6.72	5.07
Vassar Brothers	2495	0.52	0.42	1819	0.22	0.22	676	1.33	1.87
Westchester Med. Ctr.	4633	0.82	0.72	3867	0.39	0.38	766	3.00	3.47
Winthrop Univ. Hosp.	4400	0.36	0.37 **	4002	0.30	0.28	398	1.01	1.01 **
Statewide Total	149888	0.63		133191	0.33		16697	3.04	

* Risk-adjusted mortality rate significantly higher than statewide rate based on 95 percent confidence interval.

** Risk-adjusted mortality rate significantly lower than statewide rate based on 95 percent confidence interval.

2002-2004 HOSPITAL AND CARDIOLOGIST DATA FOR PCI

Table 3 provides the number of PCIs, number of PCI patients who died in the hospital, observed mortality rate, expected mortality rate, risk-adjusted in-hospital mortality rate, and the 95% confidence interval for the risk-adjusted mortality rate for 2002-2004 for cardiologists in each of the 48 hospitals performing PCI during the time period, and for each of the hospitals. Table 3 also contains the volume and risk-adjusted in-hospital mortality rate for cardiologists and hospitals for non-emergency cases.

This information is presented for each cardiologist who (a) performed 200 or more PCIs during 2002-2004, and/or (b) performed at least one PCI in each of the years 2002-2004. The results for cardiologists not meeting the above criteria are grouped together and reported as "All Others" in the hospital in which the procedures were performed. Cardiologists who met criterion (a) or (b) above and performed procedures in more than one hospital are noted in the table and are listed in all hospitals in which they performed procedures during 2002-2004.

Also, cardiologists who met criterion (a) and/or criterion (b) above and have performed PCI in two or more New York State hospitals are listed separately in Table 4. For these cardiologists, the table presents the number of PCIs, the number of deaths, observed mortality rate, expected mortality rate and risk-adjusted in-hospital mortality rate with its 95 percent confidence interval for each hospital in which the cardiologist performed PCI, as well as the aggregate numbers (across all hospitals in which the cardiologist performed procedures). In addition, cardiologists and hospitals with risk-adjusted mortality rates that are significantly lower or higher than the statewide mortality rate (as judged by a 95% confidence interval) are noted in Tables 3 and 4.

It should be noted that MI less than 24 hours before the procedure, shock and hemodynamic instability are significant risk factors in the All Cases model. However, patients with these conditions are excluded from the non-emergency analysis. The outcomes models for the two groups can, therefore, yield substantially different risk-adjusted mortality rates. It is important to compare providers' RAMR to the statewide average mortality rate for the specific group of patients analyzed.

Table 3 Cardiologist Observed, Expected, and Risk-Adjusted In-Hospital Mortality Rates (RAMR) for PCI in New York State, 2002 - 2004 Discharges

	ALL CASES						NON-EMERGENCY	
	Cases	Deaths	OMR	EMR	RAMR	95% CI for RAMR	Cases	RAMR
Statewide Total	149888	944	0.63				133191	0.33
Albany Medical Center								
#Bishop G	22	0	0.00	0.27	0.00	(0.00,38.41)	20	0.00
##Brady S	589	9	1.53	0.79	1.22	(0.56, 2.32)	460	0.77
##Delago A	1297	13	1.00	0.68	0.92	(0.49, 1.58)	1143	0.36
##Dempsey S	1	0	0.00	0.05	0.00	(0.00,100.0)	1	0.00
##Desantis J	1	0	0.00	0.02	0.00	(0.00,100.0)	1	0.00
##Esper D	253	6	2.37	1.25	1.19	(0.44, 2.60)	179	1.86 *
##Hogan R	355	0	0.00	0.22	0.00	(0.00, 2.99)	350	0.00
Houghton J	406	6	1.48	0.35	2.69 *	(0.98, 5.86)	341	0.45
##Kufs W	8	0	0.00	1.22	0.00	(0.00,23.68)	7	0.00
#Macina A	129	0	0.00	0.75	0.00	(0.00, 2.38)	74	0.00
#Martinelli M	4	0	0.00	0.36	0.00	(0.00,100.0)	4	0.00
#Papaleo R	211	4	1.90	0.47	2.53 *	(0.68, 6.47)	186	1.81
#Papandrea L	58	0	0.00	1.94	0.00	(0.00, 2.06)	29	0.00
#Roccario E	4	0	0.00	0.47	0.00	(0.00,100.0)	3	0.00
All Others	160	1	0.63	0.68	0.58	(0.01, 3.24)	122	1.00
TOTAL	3498	39	1.11	0.66	1.06 *	(0.75, 1.45)	2920	0.60

Table 3 continued

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
Arnot-Ogden								
Laifer L	462	4	0.87	0.59	0.93	(0.25, 2.38)	352	0.89
#Wasserman H	1	0	0.00	0.21	0.00	(0.00,100.0)	1	0.00
##Winer H	260	2	0.77	0.87	0.56	(0.06, 2.01)	171	0.52
All Others	77	2	2.60	1.31	1.25	(0.14, 4.53)	49	0.00
TOTAL	800	8	1.00	0.75	0.84	(0.36, 1.66)	573	0.67
Bellevue								
#Attubato M	204	3	1.47	0.75	1.24	(0.25, 3.62)	183	0.43
#Feit F	210	0	0.00	0.43	0.00	(0.00, 2.56)	190	0.00
#Keller N	210	3	1.43	1.05	0.85	(0.17, 2.49)	176	0.00
##Slater J	97	1	1.03	0.65	1.00	(0.01, 5.57)	85	0.00
##Winer H	77	1	1.30	0.34	2.42	(0.03,13.47)	74	1.39
All Others	173	0	0.00	0.41	0.00	(0.00, 3.29)	152	0.00
TOTAL	971	8	0.82	0.64	0.81	(0.35, 1.59)	860	0.24
Beth Israel								
#Brown D	421	7	1.66	0.77	1.37	(0.55, 2.81)	378	0.54
##Duvvuri S	4	0	0.00	0.30	0.00	(0.00,100.0)	4	0.00
Fox J	1552	13	0.84	0.74	0.71	(0.38, 1.22)	1446	0.30
#Kantrowitz N	71	0	0.00	0.36	0.00	(0.00, 9.02)	70	0.00
Misra D	256	2	0.78	0.66	0.74	(0.08, 2.67)	227	0.48
#Nero T	144	2	1.39	1.20	0.73	(0.08, 2.63)	123	0.00
Patel R	94	0	0.00	0.27	0.00	(0.00, 9.21)	92	0.00
#Reimers C	717	7	0.98	0.43	1.43	(0.57, 2.94)	702	0.65
#Rentrop K	6	0	0.00	0.08	0.00	(0.00,100.0)	6	0.00
#Rouvelas P	4	0	0.00	0.28	0.00	(0.00,100.0)	4	0.00
##Sacchi T	307	0	0.00	0.29	0.00	(0.00, 2.57)	305	0.00
Shaknovich A	358	1	0.28	0.32	0.54	(0.01, 3.02)	357	0.32
#Siddiqi R	9	0	0.00	0.38	0.00	(0.00,67.24)	9	0.00
#Wilentz J	28	0	0.00	0.26	0.00	(0.00,31.88)	28	0.00
All Others	13	0	0.00	0.13	0.00	(0.00,100.0)	13	0.00
TOTAL	3984	32	0.80	0.60	0.84	(0.58, 1.19)	3764	0.35
Buffalo General								
Conley J	1612	4	0.25	0.28	0.55	(0.15, 1.42)	1587	0.28
##Emerson R	10	0	0.00	0.26	0.00	(0.00,89.58)	10	0.00
Farhi E	963	1	0.10	0.59	0.11 **	(0.00, 0.61)	882	0.11
##Gelormini J	5	0	0.00	0.70	0.00	(0.00,66.10)	5	0.00
#Masud A	445	1	0.22	0.28	0.51	(0.01, 2.82)	431	0.35
##Morris W	405	1	0.25	0.46	0.34	(0.00, 1.88)	392	0.22
Paris J	111	0	0.00	0.21	0.00	(0.00, 9.96)	108	0.00
##Phadke K	1	0	0.00	0.46	0.00	(0.00,100.0)	1	0.00
Sullivan P	85	2	2.35	0.20	7.56 *	(0.85,27.31)	79	2.53
Visco J	1132	6	0.53	0.21	1.59	(0.58, 3.47)	1113	0.62
##Young H	33	0	0.00	0.26	0.00	(0.00,26.79)	31	0.00
TOTAL	4802	15	0.31	0.34	0.58	(0.32, 0.96)	4639	0.31

Table 3 continued

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
Crouse Hospital								
#Alfaro-Franco C	111	0	0.00	0.23	0.00	(0.00, 8.95)	107	0.00
#Amin N	205	0	0.00	0.48	0.00	(0.00, 2.34)	177	0.00
#Battaglia J	873	4	0.46	0.34	0.85	(0.23, 2.19)	809	0.35
#Berkery W	391	4	1.02	1.22	0.53	(0.14, 1.35)	323	0.26
#Caputo R	147	1	0.68	0.50	0.86	(0.01, 4.78)	135	0.00
#Esente P	91	0	0.00	0.23	0.00	(0.00,11.16)	89	0.00
#Ford T	174	1	0.57	0.26	1.41	(0.02, 7.83)	163	0.00
#Giambartolomei A	69	0	0.00	0.28	0.00	(0.00,12.10)	64	0.00
#Lozner E	211	0	0.00	0.92	0.00	(0.00, 1.19)	191	0.00
#Reger M	63	0	0.00	0.30	0.00	(0.00,12.37)	59	0.00
#Simons A	93	0	0.00	0.23	0.00	(0.00,10.82)	86	0.00
All Others	30	1	3.33	0.59	3.57	(0.05,19.86)	28	0.00
TOTAL	2458	11	0.45	0.53	0.53	(0.26, 0.95)	2231	0.17
Ellis Hospital								
#Card H	26	0	0.00	0.21	0.00	(0.00,41.47)	26	0.00
Cospito P	415	6	1.45	0.84	1.08	(0.39, 2.35)	324	0.61
##Dempsey S	147	1	0.68	0.78	0.55	(0.01, 3.06)	133	0.52
##Hogan R	324	0	0.00	0.26	0.00	(0.00, 2.71)	318	0.00
Jordan M	356	2	0.56	0.95	0.37	(0.04, 1.35)	244	0.49
##Kufs W	161	0	0.00	0.29	0.00	(0.00, 5.00)	152	0.00
Parkes R	635	7	1.10	0.70	0.99	(0.39, 2.03)	486	0.35
Weitz S	381	3	0.79	0.93	0.54	(0.11, 1.56)	283	0.32
TOTAL	2445	19	0.78	0.71	0.69	(0.41, 1.07)	1966	0.35
Elmhurst								
#Kamran M	80	3	3.75	2.45	0.97	(0.19, 2.82)	.	.
#Kim M	33	1	3.03	1.32	1.45	(0.02, 8.07)	.	.
##Suleman J	16	0	0.00	2.11	0.00	(0.00, 6.84)	.	.
All Others	2	0	0.00	0.30	0.00	(0.00,100.0)	.	.
TOTAL	131	4	3.05	2.09	0.92	(0.25, 2.36)	.	.
Erie County								
##Calandra S	3	0	0.00	0.07	0.00	(0.00,100.0)	3	0.00
#Corbelli J	22	1	4.55	0.09	33.40	(0.44,100.0)	22	15.17
Dashkoff N	628	3	0.48	0.58	0.52	(0.11, 1.53)	575	0.00
##Emerson R	47	0	0.00	0.85	0.00	(0.00, 5.81)	40	0.00
##Phadke K	340	2	0.59	0.19	1.95	(0.22, 7.03)	320	0.58
##Young H	23	0	0.00	1.10	0.00	(0.00, 9.13)	7	0.00
TOTAL	1063	6	0.56	0.46	0.77	(0.28, 1.67)	967	0.27
Glens Falls Hospital								
##Brady S	1	0	0.00	3.20	0.00	(0.00,72.14)	.	.
##Delago A	3	0	0.00	0.69	0.00	(0.00,100.0)	.	.
##Desantis J	24	0	0.00	1.26	0.00	(0.00, 7.65)	.	.

Table 3 *continued*

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
Glens Falls Hospital, <i>continued</i>								
##Esper D	2	0	0.00	3.00	0.00	(0.00,38.51)	.	.
##Hogan R	44	1	2.27	1.86	0.77	(0.01, 4.29)	.	.
TOTAL	74	1	1.35	1.67	0.51	(0.01, 2.84)	.	.
Good Samaritan - Suffern								
#Brogno D	33	1	3.03	6.93	0.28	(0.00, 1.53)	.	.
#Kovar L	18	1	5.56	7.46	0.47	(0.01, 2.61)	.	.
All Others	53	2	3.77	3.46	0.69	(0.08, 2.48)	.	.
TOTAL	104	4	3.85	5.25	0.46	(0.12, 1.18)	.	.
Good Samaritan - W. Islip								
##Deutsch E	34	0	0.00	1.81	0.00	(0.00, 3.74)	.	.
##Gambino A	3	0	0.00	0.23	0.00	(0.00,100.0)	.	.
##Hormozi S	15	1	6.67	3.35	1.25	(0.02, 6.97)	.	.
##Lee P	64	1	1.56	1.59	0.62	(0.01, 3.45)	.	.
##Patel R	68	4	5.88	1.57	2.37 *	(0.64, 6.06)	1	0.00
##Reich D	66	1	1.52	1.58	0.60	(0.01, 3.36)	.	.
##Schwartz R	7	0	0.00	1.09	0.00	(0.00,30.41)	.	.
All Others	1	0	0.00	0.39	0.00	(0.00,100.0)	.	.
TOTAL	258	7	2.71	1.68	1.02	(0.41, 2.10)	1	0.00
Huntington Hospital								
##Kaplan B	1	0	0.00	0.22	0.00	(0.00,100.0)	.	.
#Patcha R	6	0	0.00	0.87	0.00	(0.00,44.44)	.	.
##Strizik B	4	0	0.00	6.22	0.00	(0.00, 9.29)	.	.
TOTAL	11	0	0.00	2.75	0.00	(0.00, 7.63)	.	.
LIJ Medical Center								
#Freeman J	30	0	0.00	4.91	0.00	(0.00, 1.57)	2	0.00
##Friedman G	534	4	0.75	1.01	0.47	(0.13, 1.19)	470	0.18
#Green S	19	0	0.00	2.80	0.00	(0.00, 4.35)	3	0.00
##Grunwald A	631	3	0.48	0.69	0.43	(0.09, 1.26)	564	0.36
#Jauhar R	1022	4	0.39	0.73	0.34	(0.09, 0.86)	840	0.32
##Kaplan B	1394	3	0.22	0.74	0.18 **	(0.04, 0.54)	1243	0.13
#Katz S	22	1	4.55	8.22	0.35	(0.00, 1.94)	3	0.00
#Kim B	20	0	0.00	0.23	0.00	(0.00,50.63)	20	0.00
##Koss J	592	4	0.68	0.55	0.77	(0.21, 1.97)	521	0.40
##Lee P	20	0	0.00	0.26	0.00	(0.00,44.72)	19	0.00
#Marchant D	18	0	0.00	2.33	0.00	(0.00, 5.52)	1	0.00
#Ong L Y	14	0	0.00	3.82	0.00	(0.00, 4.32)	2	0.00
##Padmanabhan V	24	0	0.00	0.26	0.00	(0.00,37.30)	21	0.00
#Park C	313	2	0.64	1.14	0.35	(0.04, 1.28)	253	0.00
##Park J	1	0	0.00	0.03	0.00	(0.00,100.0)	1	0.00
##Reich D	83	0	0.00	0.50	0.00	(0.00, 5.60)	82	0.00
##Strizik B	65	1	1.54	0.60	1.60	(0.02, 8.91)	65	0.89

Table 3 *continued*

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
LIJ Medical Center, <i>continued</i>								
##Suleman J	9	0	0.00	0.26	0.00	(0.00,99.42)	9	0.00
All Others	107	1	0.93	1.05	0.56	(0.01, 3.11)	96	0.00
TOTAL	4918	23	0.47	0.84	0.35 **	(0.22, 0.53)	4215	0.23
Lenox Hill								
#Collins M	1247	4	0.32	0.41	0.49	(0.13, 1.26)	1217	0.17
#Columbo A	95	0	0.00	0.62	0.00	(0.00, 3.91)	95	0.00
#Dangas G	696	5	0.72	0.62	0.73	(0.23, 1.69)	649	0.69
##Dominguez A	151	2	1.32	0.43	1.94	(0.22, 7.00)	149	1.10
##Geizhals M	160	0	0.00	0.35	0.00	(0.00, 4.14)	160	0.00
Iyer S	561	0	0.00	0.64	0.00	(0.00, 0.65)	530	0.00
#Kreps E	781	3	0.38	0.65	0.37	(0.08, 1.09)	736	0.12
#Leon M	916	10	1.09	0.54	1.27	(0.61, 2.33)	892	0.64
#Mehran R	49	0	0.00	0.60	0.00	(0.00, 7.86)	46	0.00
#Moses J	2355	2	0.08	0.31	0.17 **	(0.02, 0.62)	2347	0.05 **
#Moussa I	1313	9	0.69	0.54	0.79	(0.36, 1.50)	1257	0.49
#Reimers C	162	0	0.00	0.35	0.00	(0.00, 4.12)	154	0.00
Roubin G	590	2	0.34	0.49	0.43	(0.05, 1.56)	563	0.37
#Stone G	548	2	0.36	0.64	0.36	(0.04, 1.29)	509	0.00
#Teirstein P	167	1	0.60	0.72	0.52	(0.01, 2.90)	157	0.63
All Others	49	0	0.00	0.39	0.00	(0.00,12.01)	46	0.00
TOTAL	9840	40	0.41	0.49	0.52	(0.37, 0.71)	9507	0.28
Maimonides								
Borgen E	961	4	0.42	0.87	0.30	(0.08, 0.77)	855	0.19
Frankel R	755	3	0.40	0.66	0.38	(0.08, 1.10)	722	0.25
Friedman M	399	1	0.25	0.79	0.20	(0.00, 1.11)	365	0.17
Malik B	521	2	0.38	0.71	0.34	(0.04, 1.24)	458	0.30
##Sacchi T	260	0	0.00	0.29	0.00	(0.00, 3.08)	260	0.00
Shani J	1245	10	0.80	0.73	0.69	(0.33, 1.27)	1209	0.34
TOTAL	4141	20	0.48	0.73	0.42	(0.26, 0.65)	3869	0.26
Mary Imogene Bassett Hospital								
All Others	322	5	1.55	0.72	1.37	(0.44, 3.19)	254	0.53
TOTAL	322	5	1.55	0.72	1.37	(0.44, 3.19)	254	0.53
Mercy Hospital								
##Calandra S	166	2	1.20	0.51	1.50	(0.17, 5.42)	139	1.01
##Emerson R	325	1	0.31	0.70	0.28	(0.00, 1.55)	227	0.30
##Gelormini J	173	0	0.00	0.50	0.00	(0.00, 2.67)	158	0.00
#Haq N	234	2	0.85	1.00	0.54	(0.06, 1.94)	199	0.00
##Morris W	88	1	1.14	1.40	0.51	(0.01, 2.84)	61	0.00
##Young H	84	1	1.19	1.07	0.70	(0.01, 3.88)	67	0.00
TOTAL	1070	7	0.65	0.79	0.52	(0.21, 1.08)	851	0.21

Table 3 continued

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
Millard Fillmore								
##Calandra S	482	2	0.41	0.32	0.80	(0.09, 2.91)	468	0.51
#Corbelli J	591	7	1.18	0.54	1.39	(0.56, 2.86)	542	1.12 *
##Emerson R	17	0	0.00	0.45	0.00	(0.00,30.22)	14	0.00
##Gelormini J	324	2	0.62	0.43	0.91	(0.10, 3.29)	311	0.60
#Haq N	1	0	0.00	0.17	0.00	(0.00,100.0)	1	0.00
#Masud A	257	2	0.78	0.35	1.38	(0.16, 4.99)	247	0.49
##Morris W	712	2	0.28	0.70	0.25	(0.03, 0.92)	670	0.00
##Phadke K	475	2	0.42	0.68	0.39	(0.04, 1.41)	414	0.00
##Young H	12	1	8.33	0.38	13.89	(0.18,77.26)	10	0.00
All Others	17	0	0.00	0.60	0.00	(0.00,22.58)	16	0.00
TOTAL	2888	18	0.62	0.53	0.73	(0.43, 1.16)	2693	0.45
Montefiore Medical Center - Einstein Division								
#Brown D	12	0	0.00	0.49	0.00	(0.00,39.51)	10	0.00
Gotsis W	608	3	0.49	0.23	1.34	(0.27, 3.92)	567	0.64
Monrad E	549	3	0.55	0.51	0.67	(0.13, 1.96)	498	0.17
Silverman G	461	3	0.65	0.49	0.83	(0.17, 2.42)	412	0.46
Srinivas V	608	5	0.82	0.51	1.01	(0.32, 2.35)	548	0.19
TOTAL	2238	14	0.63	0.43	0.91	(0.50, 1.53)	2035	0.32
Montefiore Medical Center - Moses Division								
#Goldman A Y	357	2	0.56	1.37	0.26	(0.03, 0.93)	331	0.19
Greenberg M	670	1	0.15	0.63	0.15	(0.00, 0.83)	606	0.20
#Grose R	177	1	0.56	0.31	1.13	(0.01, 6.29)	165	0.00
#Johnson M	252	2	0.79	0.45	1.10	(0.12, 3.97)	239	0.88
Menegus M	683	5	0.73	0.52	0.89	(0.29, 2.08)	608	0.58
TOTAL	2139	11	0.51	0.67	0.48	(0.24, 0.86)	1949	0.36
Mount Sinai Hospital								
#Kamran M	753	1	0.13	0.42	0.20	(0.00, 1.10)	713	0.16
#Kim M	1141	10	0.88	0.70	0.79	(0.38, 1.45)	1075	0.40
Kini A	1349	9	0.67	0.75	0.56	(0.26, 1.07)	1260	0.17
#Marmur J	133	2	1.50	1.07	0.89	(0.10, 3.20)	117	0.88
#Mittal N	267	0	0.00	0.16	0.00	(0.00, 5.29)	266	0.00
Moreno P	273	0	0.00	0.97	0.00	(0.00, 0.88)	233	0.00
Sharma S	3012	9	0.30	0.60	0.31 **	(0.14, 0.59)	2910	0.17
Sherman W	681	7	1.03	0.95	0.68	(0.27, 1.40)	641	0.41
##Suleman J	447	4	0.89	0.34	1.68	(0.45, 4.30)	428	1.08
All Others	129	1	0.78	0.67	0.73	(0.01, 4.05)	122	0.00
TOTAL	8185	43	0.53	0.65	0.51	(0.37, 0.69)	7765	0.25
NY Hospital - Queens								
#Chang J	556	4	0.72	0.53	0.86	(0.23, 2.19)	498	0.46
#Chiu S	105	0	0.00	0.29	0.00	(0.00, 7.66)	100	0.00
##David M	131	1	0.76	0.55	0.87	(0.01, 4.87)	127	0.65

Table 3 *continued*

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
NY Hospital - Queens, <i>continued</i>								
##Friedman G	32	1	3.13	1.29	1.52	(0.02, 8.48)	27	0.00
##Geizhals M	408	1	0.25	0.34	0.45	(0.01, 2.51)	400	0.28
##Grunwald A	37	1	2.70	0.59	2.91	(0.04,16.18)	35	2.94
Gustafson G	1079	13	1.20	0.88	0.87	(0.46, 1.48)	957	0.38
##Koss J	18	0	0.00	0.14	0.00	(0.00,93.44)	17	0.00
Papadakos S	1055	9	0.85	1.03	0.52	(0.24, 0.99)	900	0.33
##Park J	10	0	0.00	0.07	0.00	(0.00,100.0)	10	0.00
#Perry-Bottinger L	110	1	0.91	0.46	1.24	(0.02, 6.90)	96	0.00
TOTAL	3541	31	0.88	0.76	0.73	(0.50, 1.03)	3167	0.38
NY Methodist								
Puma J	248	5	2.02	0.72	1.77	(0.57, 4.13)	244	1.25
#Reddy C	86	1	1.16	1.10	0.66	(0.01, 3.70)	84	0.00
##Sacchi T	320	3	0.94	0.54	1.09	(0.22, 3.18)	305	0.23
TOTAL	654	9	1.38	0.68	1.27	(0.58, 2.41)	633	0.47
NYP-Columbia								
Apfelbaum M	195	2	1.03	0.56	1.14	(0.13, 4.13)	153	0.00
#Brogno D	122	3	2.46	0.94	1.64	(0.33, 4.80)	98	1.22
#Collins M	95	1	1.05	0.78	0.85	(0.01, 4.72)	92	0.50
#Columbo A	2	0	0.00	1.96	0.00	(0.00,58.98)	2	0.00
#Dangas G	72	1	1.39	0.90	0.98	(0.01, 5.43)	64	0.00
#Grose R	217	0	0.00	0.30	0.00	(0.00, 3.51)	203	0.00
#Johnson M	91	1	1.10	0.86	0.80	(0.01, 4.47)	86	0.00
#Kovar L	13	0	0.00	0.16	0.00	(0.00,100.0)	13	0.00
#Kreps E	37	0	0.00	1.86	0.00	(0.00, 3.36)	36	0.00
#Leon M	44	1	2.27	0.57	2.52	(0.03,14.04)	42	1.47
#Mehran R	12	1	8.33	1.48	3.55	(0.05,19.76)	10	0.00
#Moses J	249	3	1.20	0.32	2.40	(0.48, 7.02)	249	1.49
#Moussa I	108	1	0.93	0.74	0.79	(0.01, 4.41)	103	0.64
#Perry-Bottinger L	24	0	0.00	0.19	0.00	(0.00,51.05)	24	0.00
Rabbani L	286	4	1.40	0.98	0.90	(0.24, 2.30)	225	0.99
Reison D	38	0	0.00	0.15	0.00	(0.00,40.62)	37	0.00
Schwartz A	6	0	0.00	0.09	0.00	(0.00,100.0)	6	0.00
#Stone G	14	0	0.00	0.14	0.00	(0.00,100.0)	13	0.00
#Teirstein P	6	0	0.00	0.36	0.00	(0.00,100.0)	6	0.00
Warshovsky M	211	0	0.00	0.47	0.00	(0.00, 2.34)	199	0.00
#Wasserman H	327	3	0.92	0.89	0.65	(0.13, 1.90)	263	0.37
Weinberger J	236	7	2.97	0.63	2.95 *	(1.18, 6.07)	193	1.62 *
All Others	111	3	2.70	1.24	1.37	(0.28, 4.02)	88	0.94
TOTAL	2516	31	1.23	0.70	1.11 *	(0.76, 1.58)	2205	0.68 *

Table 3 continued

	All Cases						Non-Emergency	
	Cases	Deaths	OMR	EMR	RAMR	95% CI for RAMR	Cases	RAMR
NYP-Weill Cornell								
Bergman G	774	7	0.90	0.92	0.62	(0.25, 1.27)	682	0.14
#Charney R	347	2	0.58	0.68	0.53	(0.06, 1.93)	332	0.00
Hong M	681	9	1.32	1.06	0.78	(0.36, 1.48)	602	0.36
Iacovone F	466	7	1.50	1.44	0.66	(0.26, 1.35)	396	0.20
#Messinger D	260	0	0.00	0.56	0.00	(0.00, 1.59)	240	0.00
Minutello R	220	3	1.36	1.22	0.70	(0.14, 2.05)	179	0.00
Parikh M	1344	4	0.30	0.46	0.41	(0.11, 1.05)	1258	0.37
#Reddy C	288	2	0.69	0.23	1.88	(0.21, 6.79)	288	1.07
Wong S	605	2	0.33	0.39	0.54	(0.06, 1.94)	563	0.28
All Others	211	2	0.95	1.19	0.50	(0.06, 1.82)	194	0.00
TOTAL	5196	38	0.73	0.76	0.61	(0.43, 0.84)	4734	0.25
NYU Hospitals Center								
##Angelopoulos P	18	0	0.00	0.23	0.00	(0.00,57.02)	18	0.00
#Attubato M	796	4	0.50	0.55	0.57	(0.15, 1.46)	731	0.34
#Feit F	780	1	0.13	0.51	0.16	(0.00, 0.88)	717	0.00
#Keller N	17	0	0.00	1.18	0.00	(0.00,11.51)	8	0.00
##Slater J	305	3	0.98	0.25	2.50	(0.50, 7.31)	295	0.61
##Winer H	129	1	0.78	0.62	0.79	(0.01, 4.38)	124	0.55
All Others	184	2	1.09	0.80	0.85	(0.10, 3.08)	162	0.98
TOTAL	2229	11	0.49	0.52	0.59	(0.30, 1.06)	2055	0.35
North Shore								
##Angelopoulos P	23	0	0.00	0.35	0.00	(0.00,28.55)	16	0.00
##Deutsch E	539	0	0.00	0.38	0.00	(0.00, 1.12)	519	0.00
#Freeman J	1108	2	0.18	0.67	0.17 **	(0.02, 0.61)	902	0.13
##Friedman G	111	1	0.90	0.64	0.88	(0.01, 4.90)	102	0.65
##Gambino A	186	0	0.00	0.18	0.00	(0.00, 6.86)	177	0.00
#Green S	1056	11	1.04	0.63	1.04	(0.52, 1.86)	883	0.14
##Grunwald A	53	0	0.00	0.73	0.00	(0.00, 5.93)	48	0.00
##Hormozi S	106	0	0.00	0.23	0.00	(0.00, 9.33)	102	0.00
#Jauhar R	47	1	2.13	2.13	0.63	(0.01, 3.50)	2	0.00
##Kaplan B	53	0	0.00	1.22	0.00	(0.00, 3.58)	10	0.00
#Katz S	1062	6	0.56	0.65	0.55	(0.20, 1.20)	930	0.49
#Kim B	51	0	0.00	0.10	0.00	(0.00,45.84)	51	0.00
##Koss J	75	1	1.33	1.30	0.64	(0.01, 3.58)	67	0.00
##Lederman S	257	3	1.17	0.34	2.13	(0.43, 6.24)	248	1.31
##Lee P	488	1	0.20	0.28	0.47	(0.01, 2.61)	479	0.31
#Marchant D	553	2	0.36	0.72	0.32	(0.04, 1.14)	432	0.00
#Ong L Y	1323	3	0.23	0.61	0.24	(0.05, 0.69)	1159	0.11
##Padmanabhan V	109	0	0.00	0.77	0.00	(0.00, 2.76)	89	0.00
#Park C	45	1	2.22	1.90	0.74	(0.01, 4.10)	11	0.00
##Park J	187	0	0.00	0.27	0.00	(0.00, 4.57)	179	0.00
#Patcha R	452	0	0.00	0.46	0.00	(0.00, 1.12)	407	0.00

Table 3 *continued*

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
North Shore, <i>continued</i>								
##Patel R	265	0	0.00	0.32	0.00	(0.00, 2.74)	253	0.00
##Reich D	365	0	0.00	0.28	0.00	(0.00, 2.25)	358	0.00
#Robin G	3	0	0.00	0.21	0.00	(0.00,100.0)	3	0.00
#Sassower M	74	0	0.00	0.28	0.00	(0.00,11.11)	73	0.00
##Schwartz R	362	2	0.55	0.44	0.79	(0.09, 2.84)	344	0.36
##Strizik B	457	2	0.44	0.58	0.47	(0.05, 1.71)	423	0.17
#Witkes D	186	0	0.00	0.24	0.00	(0.00, 5.25)	182	0.00
#Zisfein J	330	0	0.00	0.24	0.00	(0.00, 2.92)	323	0.00
All Others	348	1	0.29	0.66	0.27	(0.00, 1.53)	311	0.00
TOTAL	10274	37	0.36	0.54	0.42 **	(0.29, 0.58)	9083	0.18**
Park Ridge Hospital								
##Chockalingam S	4	0	0.00	0.76	0.00	(0.00,75.93)	.	.
#Gacioch G	1	0	0.00	0.17	0.00	(0.00,100.0)	.	.
##Ong L S	4	1	25.00	23.18	0.68	(0.01, 3.78)	.	.
##Patel T	86	0	0.00	1.23	0.00	(0.00, 2.19)	.	.
#Stuver T	3	0	0.00	0.98	0.00	(0.00,78.41)	.	.
TOTAL	98	1	1.02	2.09	0.31	(0.00, 1.71)	.	.
Rochester General								
Berlowitz M	421	6	1.43	0.83	1.08	(0.40, 2.36)	309	0.75
##Chockalingam S	494	4	0.81	0.64	0.80	(0.22, 2.05)	426	0.24
#Doling M	597	1	0.17	0.33	0.32	(0.00, 1.78)	554	0.23
Fitzpatrick P	463	3	0.65	0.98	0.42	(0.08, 1.22)	342	0.36
#Gacioch G	427	5	1.17	0.79	0.93	(0.30, 2.17)	301	0.34
#Mathew T M	477	1	0.21	0.43	0.31	(0.00, 1.70)	434	0.26
##Ong L S	2801	13	0.46	0.57	0.52	(0.27, 0.88)	2577	0.19
##Patel T	606	5	0.83	0.62	0.84	(0.27, 1.97)	517	0.16
Scortichini D	334	0	0.00	0.45	0.00	(0.00, 1.53)	314	0.00
#Stuver T	939	6	0.64	0.84	0.48	(0.17, 1.04)	719	0.24
TOTAL	7559	44	0.58	0.63	0.58	(0.42, 0.78)	6493	0.23
South Nassau								
#Berke A	16	0	0.00	1.27	0.00	(0.00,11.38)	.	.
##Hormozi S	7	0	0.00	1.29	0.00	(0.00,25.61)	.	.
#Lituchy A	51	2	3.92	2.19	1.13	(0.13, 4.08)	.	.
#Minadeo J	46	2	4.35	1.37	2.00	(0.22, 7.21)	.	.
#Petrossian G	14	0	0.00	1.09	0.00	(0.00,15.08)	.	.
#Zisfein J	43	0	0.00	1.86	0.00	(0.00, 2.89)	.	.
TOTAL	177	4	2.26	1.69	0.84	(0.23, 2.16)	.	.
Southside Hospital								
##Deutsch E	24	0	0.00	2.65	0.00	(0.00, 3.63)	.	.
##Hormozi S	12	0	0.00	0.72	0.00	(0.00,26.63)	.	.
##Lee P	35	2	5.71	3.06	1.17	(0.13, 4.24)	.	.

Table 3 *continued*

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
Southside Hospital, <i>continued</i>								
##Patel R	60	0	0.00	2.46	0.00	(0.00, 1.56)	.	.
##Reich D	44	0	0.00	1.49	0.00	(0.00, 3.53)	.	.
##Schwartz R	3	0	0.00	6.39	0.00	(0.00,12.04)	.	.
All Others	1	0	0.00	0.26	0.00	(0.00,100.0)	.	.
TOTAL	179	2	1.12	2.30	0.31	(0.03, 1.10)	.	.
St. Catherine of Siena								
##Hormozi S	3	0	0.00	1.03	0.00	(0.00,74.90)	.	.
##Patel R	4	0	0.00	0.85	0.00	(0.00,67.79)	.	.
#Rosenband M	2	0	0.00	1.11	0.00	(0.00,100.0)	.	.
#Shlofmitz R	1	0	0.00	0.25	0.00	(0.00,100.0)	.	.
#Tsiamsiouris T	1	0	0.00	0.22	0.00	(0.00,100.0)	.	.
TOTAL	11	0	0.00	0.84	0.00	(0.00,25.14)	.	.
St. Elizabeth								
Gaffney B	284	2	0.70	0.67	0.66	(0.07, 2.37)	268	0.00
Kelberman M	508	3	0.59	0.47	0.80	(0.16, 2.33)	481	0.21
Macisaac H	820	10	1.22	0.94	0.81	(0.39, 1.50)	731	0.64
Mathew T C	1040	11	1.06	0.68	0.98	(0.49, 1.75)	963	0.36
Nassif R	602	2	0.33	0.72	0.29	(0.03, 1.04)	560	0.12
Patel A	535	4	0.75	0.68	0.69	(0.19, 1.77)	493	0.17
Varma P	625	7	1.12	0.50	1.42	(0.57, 2.93)	567	1.08 *
TOTAL	4414	39	0.88	0.68	0.81	(0.58, 1.11)	4063	0.39
St. Francis								
Abittan M	557	5	0.90	0.53	1.06	(0.34, 2.47)	535	0.29
Arkonac B	567	2	0.35	0.89	0.25	(0.03, 0.90)	514	0.10
#Berke A	479	6	1.25	1.21	0.65	(0.24, 1.42)	428	0.73
Boatman B	77	1	1.30	1.16	0.70	(0.01, 3.91)	70	0.00
##David M	4	0	0.00	0.61	0.00	(0.00,93.92)	3	0.00
Ezratty A	444	0	0.00	0.24	0.00	(0.00, 2.21)	438	0.00
Goldman A B	403	3	0.74	0.48	0.98	(0.20, 2.85)	376	0.69
Gulotta R	381	1	0.26	0.37	0.45	(0.01, 2.52)	366	0.26
Hamby R	210	2	0.95	0.25	2.39	(0.27, 8.62)	209	1.42
Hershman R	586	1	0.17	0.23	0.48	(0.01, 2.66)	581	0.00
##Hormozi S	539	5	0.93	0.63	0.93	(0.30, 2.16)	487	0.43
#Lituchy A	646	2	0.31	0.41	0.48	(0.05, 1.74)	600	0.00
Matthew K	362	2	0.55	0.35	1.00	(0.11, 3.62)	357	0.60
#Minadeo J	258	3	1.16	0.78	0.94	(0.19, 2.74)	235	1.02
Oruci E	463	5	1.08	0.44	1.56	(0.50, 3.65)	457	1.03
Pappas T	532	1	0.19	0.30	0.40	(0.01, 2.22)	517	0.35
#Petrossian G	1111	7	0.63	0.43	0.92	(0.37, 1.89)	1051	0.60
Randall A	152	3	1.97	0.71	1.75	(0.35, 5.12)	147	0.91
Rehman A	703	4	0.57	0.54	0.66	(0.18, 1.69)	642	0.32

Table 3 *continued*

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
St. Francis, <i>continued</i>								
#Shlofmitz R	1394	5	0.36	0.20	1.11	(0.36, 2.58)	1368	0.52
Timmermans R	248	2	0.81	0.39	1.30	(0.15, 4.69)	232	0.83
#Tsiamtsiouris T	581	3	0.52	0.52	0.63	(0.13, 1.83)	551	0.32
Venditto J	408	4	0.98	0.63	0.99	(0.27, 2.53)	380	0.56
All Others	115	2	1.74	0.40	2.72	(0.31, 9.83)	107	1.07
TOTAL	11220	69	0.61	0.48	0.81 *	(0.63, 1.03)	10651	0.47 *
St. Josephs								
#Alfaro-Franco C	145	0	0.00	0.46	0.00	(0.00, 3.45)	109	0.00
#Amin N	173	1	0.58	0.74	0.49	(0.01, 2.72)	127	0.00
Bhan R	726	4	0.55	0.56	0.63	(0.17, 1.60)	653	0.17
#Caputo R	1185	12	1.01	0.57	1.12	(0.58, 1.96)	1049	0.50
#Esente P	561	2	0.36	0.66	0.34	(0.04, 1.23)	522	0.21
#Ford T	139	0	0.00	0.77	0.00	(0.00, 2.15)	99	0.00
#Giambartolomei A	682	4	0.59	0.59	0.62	(0.17, 1.60)	576	0.21
#Lozner E	113	0	0.00	0.58	0.00	(0.00, 3.52)	82	0.00
O'Hern M	323	3	0.93	0.81	0.73	(0.15, 2.12)	270	0.25
#Reger M	560	1	0.18	0.51	0.22	(0.00, 1.23)	496	0.00
#Simons A	880	1	0.11	0.55	0.13	(0.00, 0.72)	781	0.00
Walford G	644	6	0.93	0.44	1.33	(0.49, 2.89)	559	0.56
All Others	111	0	0.00	0.59	0.00	(0.00, 3.51)	94	0.00
TOTAL	6242	34	0.54	0.58	0.59	(0.41, 0.83)	5417	0.24
St. Lukes-Roosevelt								
##Dominguez A	1	0	0.00	0.37	0.00	(0.00,100.0)	1	0.00
##Geizhals M	1	0	0.00	0.08	0.00	(0.00,100.0)	1	0.00
#Goldman A Y	16	0	0.00	0.76	0.00	(0.00,18.92)	15	0.00
Leber R	205	1	0.49	0.35	0.88	(0.01, 4.89)	180	0.76
#Nero T	96	1	1.04	0.77	0.85	(0.01, 4.72)	73	0.98
Palazzo A	178	0	0.00	0.35	0.00	(0.00, 3.76)	159	0.00
Simon C	278	2	0.72	0.77	0.59	(0.07, 2.12)	270	0.34
Singh V	910	6	0.66	0.38	1.09	(0.40, 2.36)	850	0.47
##Slater J	221	1	0.45	0.46	0.62	(0.01, 3.42)	213	0.65
Tamis J	242	3	1.24	0.46	1.71	(0.34, 5.00)	201	0.00
#Wilentz J	511	4	0.78	0.44	1.11	(0.30, 2.85)	462	0.00
TOTAL	2659	18	0.68	0.46	0.93	(0.55, 1.47)	2425	0.35
St. Peters Hospital								
#Bishop G	244	5	2.05	0.66	1.97 *	(0.63, 4.59)	179	1.23
##Brady S	97	0	0.00	0.73	0.00	(0.00, 3.25)	78	0.00
#Card H	139	0	0.00	0.41	0.00	(0.00, 4.07)	135	0.00
##Delago A	6	0	0.00	0.33	0.00	(0.00,100.0)	.	.
##Dempsey S	9	0	0.00	0.31	0.00	(0.00,83.44)	9	0.00
##Desantis J	217	1	0.46	0.84	0.35	(0.00, 1.93)	182	0.00

Table 3 continued

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
St. Peters Hospital, continued								
##Esper D	249	1	0.40	0.85	0.30	(0.00, 1.66)	224	0.49
Garrand T	64	0	0.00	0.35	0.00	(0.00,10.44)	57	0.00
##Kufs W	21	0	0.00	0.45	0.00	(0.00,24.34)	17	0.00
#Macina A	1	0	0.00	0.19	0.00	(0.00,100.0)	.	.
Marmulstein M	258	1	0.39	0.76	0.32	(0.00, 1.79)	188	0.00
#Martinelli M	842	2	0.24	0.60	0.25	(0.03, 0.91)	715	0.00
#Papaleo R	62	1	1.61	0.33	3.05	(0.04,16.96)	58	2.59
#Papandrea L	285	1	0.35	0.64	0.34	(0.00, 1.91)	237	0.37
#Roccario E	809	8	0.99	0.85	0.73	(0.32, 1.45)	638	0.52
All Others	70	1	1.43	0.49	1.85	(0.02,10.31)	62	3.13
TOTAL	3373	21	0.62	0.69	0.57	(0.35, 0.86)	2779	0.35
St. Vincents Hospital and Medical Center								
#Acuna D	171	3	1.75	0.71	1.56	(0.31, 4.55)	129	0.70
Ambrose J	86	0	0.00	0.60	0.00	(0.00, 4.48)	73	0.00
Bhambhani G	527	0	0.00	0.35	0.00	(0.00, 1.26)	524	0.00
Braff R	110	1	0.91	0.64	0.90	(0.01, 5.02)	88	1.48
#Chiu S	1	0	0.00	0.04	0.00	(0.00,100.0)	1	0.00
Chokshi A	103	0	0.00	0.39	0.00	(0.00, 5.75)	102	0.00
Coppola J	476	1	0.21	0.94	0.14	(0.00, 0.79)	378	0.26
##Dominguez A	387	3	0.78	0.93	0.52	(0.11, 1.53)	372	0.26
##Duvvuri S	9	0	0.00	0.26	0.00	(0.00,97.36)	9	0.00
Elmquist T	137	3	2.19	1.01	1.36	(0.27, 3.97)	100	0.94
#Farid A	50	0	0.00	0.39	0.00	(0.00,11.78)	45	0.00
#Hasan C	105	0	0.00	0.33	0.00	(0.00, 6.74)	101	0.00
#Homayuni A	2	0	0.00	0.04	0.00	(0.00,100.0)	2	0.00
#Kantrowitz N	427	2	0.47	0.59	0.50	(0.06, 1.81)	389	0.17
Klapholz M	127	2	1.57	1.68	0.59	(0.07, 2.13)	77	0.00
Kwan T	383	0	0.00	0.23	0.00	(0.00, 2.67)	375	0.00
Nguyen T	229	3	1.31	1.52	0.54	(0.11, 1.59)	163	0.57
#Rentrop K	63	1	1.59	0.28	3.54	(0.05,19.68)	62	4.20
Seldon M	114	4	3.51	1.51	1.46	(0.39, 3.74)	82	3.99 *
#Siddiqi R	340	0	0.00	0.26	0.00	(0.00, 2.60)	332	0.00
#Snyder S	2	0	0.00	0.08	0.00	(0.00,100.0)	2	0.00
#Vazzana T	1	0	0.00	0.03	0.00	(0.00,100.0)	1	0.00
All Others	301	4	1.33	0.77	1.09	(0.29, 2.79)	244	0.87
TOTAL	4151	27	0.65	0.69	0.59	(0.39, 0.86)	3651	0.38
Staten Island Univ Hosp								
#Acuna D	1	0	0.00	0.21	0.00	(0.00,100.0)	1	0.00
##Duvvuri S	644	3	0.47	0.50	0.59	(0.12, 1.73)	590	0.37
#Farid A	201	0	0.00	0.34	0.00	(0.00, 3.39)	188	0.00
#Homayuni A	362	0	0.00	0.27	0.00	(0.00, 2.39)	334	0.00
Malpeso J	429	2	0.47	0.31	0.96	(0.11, 3.46)	388	0.92

Table 3 *continued*

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
Staten Island Univ Hosp, <i>continued</i>								
McCord D	413	0	0.00	0.40	0.00	(0.00, 1.40)	378	0.00
Mohan R	201	1	0.50	0.23	1.37	(0.02, 7.63)	182	1.11
#Rouvelas P	188	0	0.00	0.43	0.00	(0.00, 2.87)	181	0.00
#Snyder S	228	2	0.88	0.60	0.93	(0.10, 3.35)	210	0.00
Swamy S	254	0	0.00	0.33	0.00	(0.00, 2.73)	241	0.00
#Vazzana T	310	2	0.65	0.80	0.51	(0.06, 1.84)	271	0.00
Warchol A	201	0	0.00	0.34	0.00	(0.00, 3.38)	178	0.00
TOTAL	3432	10	0.29	0.42	0.44	(0.21, 0.80)	3142	0.24
Strong Memorial								
##Chockalingam S	26	0	0.00	0.32	0.00	(0.00,28.16)	25	0.00
Cove C	717	7	0.98	0.86	0.71	(0.29, 1.47)	562	0.70
#Doling M	379	1	0.26	0.45	0.37	(0.00, 2.07)	341	0.33
Gassler J	521	4	0.77	0.78	0.62	(0.17, 1.59)	402	0.00
Ling F	728	6	0.82	0.87	0.60	(0.22, 1.30)	581	0.17
#Mathew T M	22	1	4.55	1.40	2.04	(0.03,11.36)	21	7.85
Narins C	949	11	1.16	0.66	1.11	(0.55, 1.99)	770	0.57
##Ong L S	100	0	0.00	0.38	0.00	(0.00, 6.15)	99	0.00
##Patel T	67	0	0.00	0.40	0.00	(0.00, 8.65)	64	0.00
Pomerantz R	352	3	0.85	0.73	0.74	(0.15, 2.15)	243	0.93
All Others	87	1	1.15	0.58	1.25	(0.02, 6.98)	79	0.00
TOTAL	3948	34	0.86	0.72	0.75	(0.52, 1.05)	3187	0.44
United Health Services								
Ahmed O	303	2	0.66	1.50	0.28	(0.03, 1.00)	251	0.00
Husain S	120	2	1.67	1.50	0.70	(0.08, 2.52)	83	0.00
Jamal N	620	6	0.97	1.13	0.54	(0.20, 1.17)	532	0.43
Kashou H	581	7	1.20	0.95	0.80	(0.32, 1.64)	486	0.38
Rehman A U	378	3	0.79	1.23	0.41	(0.08, 1.19)	296	0.31
Stamato N	348	2	0.57	1.15	0.32	(0.04, 1.14)	279	0.67
Traverse P	404	3	0.74	1.26	0.37	(0.07, 1.09)	328	0.31
All Others	99	0	0.00	0.90	0.00	(0.00, 2.60)	83	0.00
TOTAL	2853	25	0.88	1.17	0.47	(0.30, 0.69)	2338	0.35
University Hospital of Brooklyn								
Afflu E	237	0	0.00	0.21	0.00	(0.00, 4.57)	231	0.00
Badero O	183	3	1.64	0.27	3.87 *	(0.78,11.32)	178	1.52
Cavusoglu E	431	0	0.00	0.29	0.00	(0.00, 1.87)	410	0.00
Chadow H	330	2	0.61	0.37	1.04	(0.12, 3.77)	320	0.72
University Hospital of Brooklyn								
Feit A	638	2	0.31	0.29	0.69	(0.08, 2.50)	597	0.24
#Hasan C	3	0	0.00	0.03	0.00	(0.00,100.0)	3	0.00
#Marmur J	689	0	0.00	0.39	0.00	(0.00, 0.86)	659	0.00

Table 3 *continued*

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
University Hospital of Brooklyn, <i>continued</i>								
#Mittal N	8	0	0.00	0.05	0.00	(0.00,100.0)	8	0.00
All Others	106	0	0.00	0.23	0.00	(0.00, 9.54)	103	0.00
TOTAL	2625	7	0.27	0.31	0.54	(0.22, 1.11)	2509	0.27
University Hospital-Stony Brook								
Balchandani R	334	1	0.30	0.54	0.35	(0.00, 1.96)	297	0.37
Chernilas J	435	3	0.69	0.74	0.59	(0.12, 1.71)	326	0.29
Dervan J	502	9	1.79	0.84	1.35	(0.61, 2.55)	459	1.64 *
Grella R	491	3	0.61	0.41	0.94	(0.19, 2.74)	437	0.49
Korlipara G	384	2	0.52	0.28	1.16	(0.13, 4.18)	355	0.80
Lawson W	548	8	1.46	0.97	0.94	(0.41, 1.86)	426	0.50
##Lederman S	108	1	0.93	0.58	1.01	(0.01, 5.62)	95	0.00
Mirza H	225	3	1.33	0.90	0.93	(0.19, 2.72)	165	0.00
Novotny H	262	2	0.76	0.99	0.48	(0.05, 1.75)	227	0.00
#Rosenband M	560	5	0.89	0.62	0.90	(0.29, 2.11)	503	0.83
All Others	206	3	1.46	1.04	0.88	(0.18, 2.58)	142	1.15
TOTAL	4055	40	0.99	0.70	0.88 *	(0.63, 1.20)	3432	0.63 *
University Hospital Upstate								
#Battaglia J	233	2	0.86	0.66	0.82	(0.09, 2.95)	194	0.00
#Berkery W	47	0	0.00	1.82	0.00	(0.00, 2.70)	35	0.00
Kozman H	322	8	2.48	1.51	1.04	(0.45, 2.05)	242	0.37
##Phadke K	12	0	0.00	0.47	0.00	(0.00,41.38)	9	0.00
TOTAL	614	10	1.63	1.19	0.86	(0.41, 1.59)	480	0.21
Vassar Brothers								
Gorwara S	629	3	0.48	0.84	0.36	(0.07, 1.04)	450	0.20
Jafar M	1166	7	0.60	0.75	0.50	(0.20, 1.04)	855	0.11
Kantaros L	682	3	0.44	0.78	0.35	(0.07, 1.04)	496	0.50
All Others	18	0	0.00	0.14	0.00	(0.00,93.90)	18	0.00
TOTAL	2495	13	0.52	0.78	0.42	(0.22, 0.72)	1819	0.22
Westchester Medical Center								
#Charney R	43	0	0.00	0.39	0.00	(0.00,13.87)	43	0.00
Cohen Martin	546	4	0.73	0.89	0.52	(0.14, 1.32)	440	0.21
Hjemdahl-Monsen C	1290	8	0.62	0.66	0.59	(0.25, 1.17)	1110	0.17
Kalapatapu K	1216	10	0.82	0.65	0.80	(0.38, 1.47)	982	0.41
#Messinger D	25	1	4.00	0.58	4.31	(0.06,24.01)	23	2.15
Pucillo A	1002	8	0.80	0.56	0.90	(0.39, 1.78)	851	0.55
Weiss M	511	7	1.37	1.16	0.75	(0.30, 1.54)	418	0.65
TOTAL	4633	38	0.82	0.71	0.72	(0.51, 0.99)	3867	0.38

Table 3 *continued*

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
Winthrop University Hospital								
##Angelopoulos P	96	0	0.00	0.52	0.00	(0.00, 4.66)	81	0.00
#Chang J	32	1	3.13	1.60	1.23	(0.02, 6.82)	19	0.00
##David M	27	0	0.00	0.34	0.00	(0.00,24.82)	27	0.00
##Deutsch E	109	0	0.00	0.52	0.00	(0.00, 4.07)	109	0.00
##Gambino A	482	5	1.04	0.66	0.99	(0.32, 2.31)	431	0.80
##Lederman S	85	1	1.18	0.43	1.73	(0.02, 9.61)	77	1.01
##Lee P	79	0	0.00	0.27	0.00	(0.00,10.90)	77	0.00
Marzo K	896	2	0.22	0.53	0.27	(0.03, 0.96)	812	0.32
##Padmanabhan V	107	0	0.00	0.94	0.00	(0.00, 2.31)	77	0.00
##Park J	265	0	0.00	0.44	0.00	(0.00, 1.99)	237	0.00
##Patel R	51	0	0.00	0.80	0.00	(0.00, 5.65)	48	0.00
##Reich D	275	1	0.36	0.33	0.70	(0.01, 3.90)	270	0.41
#Robin G	28	0	0.00	0.78	0.00	(0.00,10.57)	20	0.00
#Sassower M	575	3	0.52	0.96	0.34	(0.07, 1.00)	510	0.35
##Schwartz R	1014	3	0.30	0.66	0.28	(0.06, 0.82)	944	0.18
#Witkes D	273	0	0.00	0.36	0.00	(0.00, 2.38)	257	0.00
All Others	6	0	0.00	0.73	0.00	(0.00,52.75)	6	0.00
TOTAL	4400	16	0.36	0.62	0.37 **	(0.21, 0.60)	4002	0.28
Statewide Total	149888	944	0.63				133191	0.33

* Risk-adjusted mortality rate significantly higher than statewide rate based on 95 percent confidence interval.

** Risk-adjusted mortality rate significantly lower than statewide rate based on 95 percent confidence interval.

Performed procedures in another New York State hospital.

Performed procedures in two or more other New York State hospitals.

Table 4 Summary Information for Cardiologists Practicing at More Than One Hospital, 2002-2004.

	All Cases						Non-Emergency	
	Cases	Deaths	OMR	EMR	RAMR	95% CI for RAMR	Cases	RAMR
Acuna D	172	3	1.74	0.71	1.55	(0.31, 4.54)	130	0.70
St. Vincents	171	3	1.75	0.71	1.56	(0.31, 4.55)	129	0.70
Staten Island Univ Hosp	1	0	0.00	0.21	0.00	(0.00,100.0)	1	0.00
Alfaro-Franco C	256	0	0.00	0.36	0.00	(0.00, 2.49)	216	0.00
Crouse Hospital	111	0	0.00	0.23	0.00	(0.00, 8.95)	107	0.00
St. Josephs	145	0	0.00	0.46	0.00	(0.00, 3.45)	109	0.00
Amin N	378	1	0.26	0.60	0.28	(0.00, 1.54)	304	0.00
Crouse Hospital	205	0	0.00	0.48	0.00	(0.00, 2.34)	177	0.00
St. Josephs	173	1	0.58	0.74	0.49	(0.01, 2.72)	127	0.00
Angelopoulos P	137	0	0.00	0.45	0.00	(0.00, 3.75)	115	0.00
NYU Hospitals Center	18	0	0.00	0.23	0.00	(0.00,57.02)	18	0.00
North Shore	23	0	0.00	0.35	0.00	(0.00,28.55)	16	0.00
Winthrop Univ. Hosp.	96	0	0.00	0.52	0.00	(0.00, 4.66)	81	0.00
Attubato M	1000	7	0.70	0.59	0.74	(0.30, 1.53)	914	0.36
Bellevue	204	3	1.47	0.75	1.24	(0.25, 3.62)	183	0.43
NYU Hospitals Center	796	4	0.50	0.55	0.57	(0.15, 1.46)	731	0.34
Battaglia J	1106	6	0.54	0.41	0.84	(0.31, 1.83)	1003	0.27
Crouse Hospital	873	4	0.46	0.34	0.85	(0.23, 2.19)	809	0.35
Univ. Hosp. Upstate	233	2	0.86	0.66	0.82	(0.09, 2.95)	194	0.00
Berke A	495	6	1.21	1.21	0.63	(0.23, 1.37)	428	0.73
South Nassau	16	0	0.00	1.27	0.00	(0.00,11.38)	.	.
St. Francis	479	6	1.25	1.21	0.65	(0.24, 1.42)	428	0.73
Berkery W	438	4	0.91	1.28	0.45	(0.12, 1.15)	358	0.25
Crouse Hospital	391	4	1.02	1.22	0.53	(0.14, 1.35)	323	0.26
Univ. Hosp. Upstate	47	0	0.00	1.82	0.00	(0.00, 2.70)	35	0.00
Bishop G	266	5	1.88	0.62	1.90	(0.61, 4.43)	199	1.14
Albany Medical Center	22	0	0.00	0.27	0.00	(0.00,38.41)	20	0.00
St. Peters	244	5	2.05	0.66	1.97 *	(0.63, 4.59)	179	1.23
Brady S	687	9	1.31	0.78	1.05	(0.48, 2.00)	538	0.64
Albany Medical Center	589	9	1.53	0.79	1.22	(0.56, 2.32)	460	0.77
Glens Falls Hosp.	1	0	0.00	3.20	0.00	(0.00,72.14)	.	.
St. Peters	97	0	0.00	0.73	0.00	(0.00, 3.25)	78	0.00
Brogno D	155	4	2.58	2.22	0.73	(0.20, 1.88)	98	1.22
Good Sam - Suffern	33	1	3.03	6.93	0.28	(0.00, 1.53)	.	.
NYP-Columbia	122	3	2.46	0.94	1.64	(0.33, 4.80)	98	1.22
Brown D	433	7	1.62	0.76	1.34	(0.54, 2.76)	388	0.52
Beth Israel	421	7	1.66	0.77	1.37	(0.55, 2.81)	378	0.54
Montefiore - Einstein	12	0	0.00	0.49	0.00	(0.00,39.51)	10	0.00

Table 4 continued

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
Calandra S	651	4	0.61	0.37	1.05	(0.28, 2.68)	610	0.61
Erie County	3	0	0.00	0.07	0.00	(0.00,100.0)	3	0.00
Mercy Hospital	166	2	1.20	0.51	1.50	(0.17, 5.42)	139	1.01
Millard Fillmore	482	2	0.41	0.32	0.80	(0.09, 2.91)	468	0.51
Caputo R	1332	13	0.98	0.56	1.10	(0.58, 1.87)	1184	0.45
Crouse Hospital	147	1	0.68	0.50	0.86	(0.01, 4.78)	135	0.00
St. Josephs	1185	12	1.01	0.57	1.12	(0.58, 1.96)	1049	0.50
Card H	165	0	0.00	0.38	0.00	(0.00, 3.70)	161	0.00
Ellis Hospital	26	0	0.00	0.21	0.00	(0.00,41.47)	26	0.00
St. Peters	139	0	0.00	0.41	0.00	(0.00, 4.07)	135	0.00
Chang J	588	5	0.85	0.59	0.91	(0.29, 2.13)	517	0.42
NY Hospital - Queens	556	4	0.72	0.53	0.86	(0.23, 2.19)	498	0.46
Winthrop Univ. Hosp.	32	1	3.13	1.60	1.23	(0.02, 6.82)	19	0.00
Charney R	390	2	0.51	0.65	0.50	(0.06, 1.80)	375	0.00
NYP-Weill Cornell	347	2	0.58	0.68	0.53	(0.06, 1.93)	332	0.00
Westchester Med. Ctr.	43	0	0.00	0.39	0.00	(0.00,13.87)	43	0.00
Chiu S	106	0	0.00	0.28	0.00	(0.00, 7.65)	101	0.00
NY Hospital - Queens	105	0	0.00	0.29	0.00	(0.00, 7.66)	100	0.00
St. Vincents	1	0	0.00	0.04	0.00	(0.00,100.0)	1	0.00
Chockalingam S	524	4	0.76	0.62	0.77	(0.21, 1.98)	451	0.22
Park Ridge Hosp.	4	0	0.00	0.76	0.00	(0.00,75.93)	.	.
Rochester General	494	4	0.81	0.64	0.80	(0.22, 2.05)	426	0.24
Strong Memorial	26	0	0.00	0.32	0.00	(0.00,28.16)	25	0.00
Collins M	1342	5	0.37	0.44	0.54	(0.17, 1.25)	1309	0.22
Lenox Hill	1247	4	0.32	0.41	0.49	(0.13, 1.26)	1217	0.17
NYP-Columbia	95	1	1.05	0.78	0.85	(0.01, 4.72)	92	0.50
Columbo A	97	0	0.00	0.65	0.00	(0.00, 3.67)	97	0.00
Lenox Hill	95	0	0.00	0.62	0.00	(0.00, 3.91)	95	0.00
NYP-Columbia	2	0	0.00	1.96	0.00	(0.00,58.98)	2	0.00
Corbelli J	613	8	1.31	0.52	1.58 *	(0.68, 3.11)	564	1.29 *
Erie County	22	1	4.55	0.09	33.40	(0.44,100.0)	22	15.17
Millard Fillmore	591	7	1.18	0.54	1.39	(0.56, 2.86)	542	1.12 *
Dangas G	768	6	0.78	0.65	0.76	(0.28, 1.65)	713	0.62
Lenox Hill	696	5	0.72	0.62	0.73	(0.23, 1.69)	649	0.69
NYP-Columbia	72	1	1.39	0.90	0.98	(0.01, 5.43)	64	0.00

Table 4 continued

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
David M	162	1	0.62	0.52	0.75	(0.01, 4.18)	157	0.57
NY Hospital - Queens	131	1	0.76	0.55	0.87	(0.01, 4.87)	127	0.65
St. Francis	4	0	0.00	0.61	0.00	(0.00,93.92)	3	0.00
Winthrop Univ. Hosp.	27	0	0.00	0.34	0.00	(0.00,24.82)	27	0.00
Delago A	1306	13	1.00	0.68	0.92	(0.49, 1.57)	1143	0.36
Albany Medical Center	1297	13	1.00	0.68	0.92	(0.49, 1.58)	1143	0.36
Glens Falls Hosp.	3	0	0.00	0.69	0.00	(0.00,100.0)	.	.
St. Peters	6	0	0.00	0.33	0.00	(0.00,100.0)	.	.
Dempsey S	157	1	0.64	0.75	0.54	(0.01, 2.99)	143	0.50
Albany Medical Center	1	0	0.00	0.05	0.00	(0.00,100.0)	1	0.00
Ellis Hospital	147	1	0.68	0.78	0.55	(0.01, 3.06)	133	0.52
St. Peters	9	0	0.00	0.31	0.00	(0.00,83.44)	9	0.00
Desantis J	242	1	0.41	0.88	0.30	(0.00, 1.65)	183	0.00
Albany Medical Center	1	0	0.00	0.02	0.00	(0.00,100.0)	1	0.00
Glens Falls Hosp.	24	0	0.00	1.26	0.00	(0.00, 7.65)	.	.
St. Peters	217	1	0.46	0.84	0.35	(0.00, 1.93)	182	0.00
Deutsch E	706	0	0.00	0.55	0.00 **	(0.00, 0.60)	628	0.00
Good Sam - W. Islip	34	0	0.00	1.81	0.00	(0.00, 3.74)	.	.
North Shore	539	0	0.00	0.38	0.00	(0.00, 1.12)	519	0.00
Southside Hospital	24	0	0.00	2.65	0.00	(0.00, 3.63)	.	.
Winthrop Univ. Hosp.	109	0	0.00	0.52	0.00	(0.00, 4.07)	109	0.00
Doling M	976	2	0.20	0.38	0.34	(0.04, 1.24)	895	0.27
Rochester General	597	1	0.17	0.33	0.32	(0.00, 1.78)	554	0.23
Strong Memorial	379	1	0.26	0.45	0.37	(0.00, 2.07)	341	0.33
Dominguez A	539	5	0.93	0.79	0.74	(0.24, 1.72)	522	0.43
Lenox Hill	151	2	1.32	0.43	1.94	(0.22, 7.00)	149	1.10
St. Lukes-Roosevelt	1	0	0.00	0.37	0.00	(0.00,100.0)	1	0.00
St. Vincents	387	3	0.78	0.93	0.52	(0.11, 1.53)	372	0.26
Duvvuri S	657	3	0.46	0.49	0.59	(0.12, 1.71)	603	0.36
Beth Israel	4	0	0.00	0.30	0.00	(0.00,100.0)	4	0.00
St. Vincents	9	0	0.00	0.26	0.00	(0.00,97.36)	9	0.00
Staten Island Univ Hosp	644	3	0.47	0.50	0.59	(0.12, 1.73)	590	0.37
Emerson R	399	1	0.25	0.69	0.23	(0.00, 1.27)	291	0.25
Buffalo General	10	0	0.00	0.26	0.00	(0.00,89.58)	10	0.00
Erie County	47	0	0.00	0.85	0.00	(0.00, 5.81)	40	0.00
Mercy Hospital	325	1	0.31	0.70	0.28	(0.00, 1.55)	227	0.30
Millard Fillmore	17	0	0.00	0.45	0.00	(0.00,30.22)	14	0.00

Table 4 continued

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
Esente P	652	2	0.31	0.60	0.32	(0.04, 1.16)	611	0.19
Crouse Hospital	91	0	0.00	0.23	0.00	(0.00,11.16)	89	0.00
St. Josephs	561	2	0.36	0.66	0.34	(0.04, 1.23)	522	0.21
Esper D	504	7	1.39	1.06	0.83	(0.33, 1.70)	403	1.09
Albany Medical Center	253	6	2.37	1.25	1.19	(0.44, 2.60)	179	1.86 *
Glens Falls Hosp.	2	0	0.00	3.00	0.00	(0.00,38.51)	.	.
St. Peters	249	1	0.40	0.85	0.30	(0.00, 1.66)	224	0.49
Farid A	251	0	0.00	0.35	0.00	(0.00, 2.63)	233	0.00
St. Vincents	50	0	0.00	0.39	0.00	(0.00,11.78)	45	0.00
Staten Island Univ Hosp	201	0	0.00	0.34	0.00	(0.00, 3.39)	188	0.00
Feit F	990	1	0.10	0.49	0.13	(0.00, 0.72)	907	0.00
Bellevue	210	0	0.00	0.43	0.00	(0.00, 2.56)	190	0.00
NYU Hospitals Center	780	1	0.13	0.51	0.16	(0.00, 0.88)	717	0.00
Ford T	313	1	0.32	0.49	0.41	(0.01, 2.30)	262	0.00
Crouse Hospital	174	1	0.57	0.26	1.41	(0.02, 7.83)	163	0.00
St. Josephs	139	0	0.00	0.77	0.00	(0.00, 2.15)	99	0.00
Freeman J	1138	2	0.18	0.78	0.14 **	(0.02, 0.51)	904	0.13
LIJ Medical Center	30	0	0.00	4.91	0.00	(0.00, 1.57)	2	0.00
North Shore	1108	2	0.18	0.67	0.17 **	(0.02, 0.61)	902	0.13
Friedman G	677	6	0.89	0.97	0.58	(0.21, 1.26)	599	0.27
LIJ Medical Center	534	4	0.75	1.01	0.47	(0.13, 1.19)	470	0.18
NY Hospital - Queens	32	1	3.13	1.29	1.52	(0.02, 8.48)	27	0.00
North Shore	111	1	0.90	0.64	0.88	(0.01, 4.90)	102	0.65
Gacioch G	428	5	1.17	0.79	0.93	(0.30, 2.17)	301	0.34
Park Ridge Hosp.	1	0	0.00	0.17	0.00	(0.00,100.0)	.	.
Rochester General	427	5	1.17	0.79	0.93	(0.30, 2.17)	301	0.34
Gambino A	671	5	0.75	0.52	0.89	(0.29, 2.09)	608	0.68
Good Sam - W. Islip	3	0	0.00	0.23	0.00	(0.00,100.0)	.	.
North Shore	186	0	0.00	0.18	0.00	(0.00, 6.86)	177	0.00
Winthrop Univ. Hosp.	482	5	1.04	0.66	0.99	(0.32, 2.31)	431	0.80
Geizhals M	569	1	0.18	0.34	0.32	(0.00, 1.79)	561	0.20
Lenox Hill	160	0	0.00	0.35	0.00	(0.00, 4.14)	160	0.00
NY Hospital - Queens	408	1	0.25	0.34	0.45	(0.01, 2.51)	400	0.28
St. Lukes-Roosevelt	1	0	0.00	0.08	0.00	(0.00,100.0)	1	0.00

Table 4 continued

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
Gelormini J	502	2	0.40	0.45	0.55	(0.06, 1.99)	474	0.41
Buffalo General	5	0	0.00	0.70	0.00	(0.00,66.10)	5	0.00
Mercy Hospital	173	0	0.00	0.50	0.00	(0.00, 2.67)	158	0.00
Millard Fillmore	324	2	0.62	0.43	0.91	(0.10, 3.29)	311	0.60
Giambartolomei A	751	4	0.53	0.56	0.60	(0.16, 1.52)	640	0.19
Crouse Hospital	69	0	0.00	0.28	0.00	(0.00,12.10)	64	0.00
St. Josephs	682	4	0.59	0.59	0.62	(0.17, 1.60)	576	0.21
Goldman A Y	373	2	0.54	1.34	0.25	(0.03, 0.91)	346	0.18
Montefiore - Moses	357	2	0.56	1.37	0.26	(0.03, 0.93)	331	0.19
St. Lukes-Roosevelt	16	0	0.00	0.76	0.00	(0.00,18.92)	15	0.00
Green S	1075	11	1.02	0.67	0.96	(0.48, 1.72)	886	0.14
LIJ Medical Center	19	0	0.00	2.80	0.00	(0.00, 4.35)	3	0.00
North Shore	1056	11	1.04	0.63	1.04	(0.52, 1.86)	883	0.14
Grose R	394	1	0.25	0.31	0.52	(0.01, 2.88)	368	0.00
Montefiore - Moses	177	1	0.56	0.31	1.13	(0.01, 6.29)	165	0.00
NYP-Columbia	217	0	0.00	0.30	0.00	(0.00, 3.51)	203	0.00
Grunwald A	721	4	0.55	0.69	0.51	(0.14, 1.30)	647	0.44
LIJ Medical Center	631	3	0.48	0.69	0.43	(0.09, 1.26)	564	0.36
NY Hospital - Queens	37	1	2.70	0.59	2.91	(0.04,16.18)	35	2.94
North Shore	53	0	0.00	0.73	0.00	(0.00, 5.93)	48	0.00
Haq N	235	2	0.85	1.00	0.54	(0.06, 1.94)	200	0.00
Mercy Hospital	234	2	0.85	1.00	0.54	(0.06, 1.94)	199	0.00
Millard Fillmore	1	0	0.00	0.17	0.00	(0.00,100.0)	1	0.00
Hasan C	108	0	0.00	0.32	0.00	(0.00, 6.72)	104	0.00
St. Vincents	105	0	0.00	0.33	0.00	(0.00, 6.74)	101	0.00
Univ. Hosp. Brooklyn	3	0	0.00	0.03	0.00	(0.00,100.0)	3	0.00
Hogan R	723	1	0.14	0.34	0.26	(0.00, 1.44)	668	0.00
Albany Medical Center	355	0	0.00	0.22	0.00	(0.00, 2.99)	350	0.00
Ellis Hospital	324	0	0.00	0.26	0.00	(0.00, 2.71)	318	0.00
Glens Falls Hosp.	44	1	2.27	1.86	0.77	(0.01, 4.29)	.	.
Homayuni A	364	0	0.00	0.27	0.00	(0.00, 2.38)	336	0.00
St. Vincents	2	0	0.00	0.04	0.00	(0.00,100.0)	2	0.00
Staten Island Univ Hosp	362	0	0.00	0.27	0.00	(0.00, 2.39)	334	0.00

Table 4 continued

	Cases	Deaths	All Cases				Non-Emergency	
			OMR	EMR	RAMR	95% CI for RAMR	Cases	RAMR
Hormozi S	682	6	0.88	0.64	0.87	(0.32, 1.89)	589	0.38
Good Sam - W. Islip	15	1	6.67	3.35	1.25	(0.02, 6.97)	.	.
North Shore	106	0	0.00	0.23	0.00	(0.00, 9.33)	102	0.00
South Nassau	7	0	0.00	1.29	0.00	(0.00,25.61)	.	.
Southside Hospital	12	0	0.00	0.72	0.00	(0.00,26.63)	.	.
St. Catherine of Siena	3	0	0.00	1.03	0.00	(0.00,74.90)	.	.
St. Francis	539	5	0.93	0.63	0.93	(0.30, 2.16)	487	0.43
Jauhar R	1069	5	0.47	0.79	0.37	(0.12, 0.87)	842	0.32
LIJ Medical Center	1022	4	0.39	0.73	0.34	(0.09, 0.86)	840	0.32
North Shore	47	1	2.13	2.13	0.63	(0.01, 3.50)	2	0.00
Johnson M	343	3	0.87	0.56	0.98	(0.20, 2.86)	325	0.69
Montefiore - Moses	252	2	0.79	0.45	1.10	(0.12, 3.97)	239	0.88
NYP-Columbia	91	1	1.10	0.86	0.80	(0.01, 4.47)	86	0.00
Kamran M	833	4	0.48	0.62	0.49	(0.13, 1.26)	713	0.16
Elmhurst	80	3	3.75	2.45	0.97	(0.19, 2.82)	.	.
Mount Sinai	753	1	0.13	0.42	0.20	(0.00, 1.10)	713	0.16
Kantrowitz N	498	2	0.40	0.56	0.46	(0.05, 1.65)	459	0.15
Beth Israel	71	0	0.00	0.36	0.00	(0.00, 9.02)	70	0.00
St. Vincents	427	2	0.47	0.59	0.50	(0.06, 1.81)	389	0.17
Kaplan B	1448	3	0.21	0.75	0.17 **	(0.03, 0.51)	1253	0.13
Huntington Hospital	1	0	0.00	0.22	0.00	(0.00,100.0)	.	.
LIJ Medical Center	1394	3	0.22	0.74	0.18 **	(0.04, 0.54)	1243	0.13
North Shore	53	0	0.00	1.22	0.00	(0.00, 3.58)	10	0.00
Katz S	1084	7	0.65	0.80	0.51	(0.20, 1.05)	933	0.49
LIJ Medical Center	22	1	4.55	8.22	0.35	(0.00, 1.94)	3	0.00
North Shore	1062	6	0.56	0.65	0.55	(0.20, 1.20)	930	0.49
Keller N	227	3	1.32	1.06	0.78	(0.16, 2.29)	184	0.00
Bellevue	210	3	1.43	1.05	0.85	(0.17, 2.49)	176	0.00
NYU Hospitals Center	17	0	0.00	1.18	0.00	(0.00,11.51)	8	0.00
Kim B	71	0	0.00	0.14	0.00	(0.00,24.06)	71	0.00
LIJ Medical Center	20	0	0.00	0.23	0.00	(0.00,50.63)	20	0.00
North Shore	51	0	0.00	0.10	0.00	(0.00,45.84)	51	0.00
Kim M	1174	11	0.94	0.72	0.82	(0.41, 1.47)	1075	0.40
Elmhurst	33	1	3.03	1.32	1.45	(0.02, 8.07)	.	.
Mount Sinai	1141	10	0.88	0.70	0.79	(0.38, 1.45)	1075	0.40

Table 4 continued

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
Koss J	685	5	0.73	0.63	0.74	(0.24, 1.72)	605	0.34
LIJ Medical Center	592	4	0.68	0.55	0.77	(0.21, 1.97)	521	0.40
NY Hospital - Queens	18	0	0.00	0.14	0.00	(0.00,93.44)	17	0.00
North Shore	75	1	1.33	1.30	0.64	(0.01, 3.58)	67	0.00
Kovar L	31	1	3.23	4.40	0.46	(0.01, 2.57)	13	0.00
Good Sam - Suffern	18	1	5.56	7.46	0.47	(0.01, 2.61)	.	.
NYP-Columbia	13	0	0.00	0.16	0.00	(0.00,100.0)	13	0.00
Kreps E	818	3	0.37	0.70	0.33	(0.07, 0.96)	772	0.11
Lenox Hill	781	3	0.38	0.65	0.37	(0.08, 1.09)	736	0.12
NYP-Columbia	37	0	0.00	1.86	0.00	(0.00, 3.36)	36	0.00
Kufs W	190	0	0.00	0.34	0.00	(0.00, 3.53)	176	0.00
Albany Medical Center	8	0	0.00	1.22	0.00	(0.00,23.68)	7	0.00
Ellis Hospital	161	0	0.00	0.29	0.00	(0.00, 5.00)	152	0.00
St. Peters	21	0	0.00	0.45	0.00	(0.00,24.34)	17	0.00
Lederman S	450	5	1.11	0.42	1.68	(0.54, 3.92)	420	0.98
North Shore	257	3	1.17	0.34	2.13	(0.43, 6.24)	248	1.31
Univ. Hosp. Stony Brook	108	1	0.93	0.58	1.01	(0.01, 5.62)	95	0.00
Winthrop Univ. Hosp.	85	1	1.18	0.43	1.73	(0.02, 9.61)	77	1.01
Lee P	686	4	0.58	0.54	0.68	(0.18, 1.75)	575	0.24
Good Sam - W. Islip	64	1	1.56	1.59	0.62	(0.01, 3.45)	.	.
LIJ Medical Center	20	0	0.00	0.26	0.00	(0.00,44.72)	19	0.00
North Shore	488	1	0.20	0.28	0.47	(0.01, 2.61)	479	0.31
Southside Hospital	35	2	5.71	3.06	1.17	(0.13, 4.24)	.	.
Winthrop Univ. Hosp.	79	0	0.00	0.27	0.00	(0.00,10.90)	77	0.00
Leon M	960	11	1.15	0.54	1.33 *	(0.66, 2.38)	934	0.70
Lenox Hill	916	10	1.09	0.54	1.27	(0.61, 2.33)	892	0.64
NYP-Columbia	44	1	2.27	0.57	2.52	(0.03,14.04)	42	1.47
Lituchy A	697	4	0.57	0.54	0.67	(0.18, 1.73)	600	0.00
South Nassau	51	2	3.92	2.19	1.13	(0.13, 4.08)	.	.
St. Francis	646	2	0.31	0.41	0.48	(0.05, 1.74)	600	0.00
Lozner E	324	0	0.00	0.80	0.00	(0.00, 0.89)	273	0.00
Crouse Hospital	211	0	0.00	0.92	0.00	(0.00, 1.19)	191	0.00
St. Josephs	113	0	0.00	0.58	0.00	(0.00, 3.52)	82	0.00
Macina A	130	0	0.00	0.75	0.00	(0.00, 2.37)	74	0.00
Albany Medical Center	129	0	0.00	0.75	0.00	(0.00, 2.38)	74	0.00
St. Peters	1	0	0.00	0.19	0.00	(0.00,100.0)	.	.

Table 4 continued

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
Marchant D	571	2	0.35	0.77	0.29	(0.03, 1.03)	433	0.00
LIJ Medical Center	18	0	0.00	2.33	0.00	(0.00, 5.52)	1	0.00
North Shore	553	2	0.36	0.72	0.32	(0.04, 1.14)	432	0.00
Marmulstein M	293	2	0.68	0.67	0.68	(0.08, 2.44)	208	0.62
Albany Medical Center	4	0	0.00	0.75	0.00	(0.00,81.09)	3	0.00
St. Peters	289	2	0.69	0.67	0.69	(0.08, 2.48)	205	0.62
Marmur J	822	2	0.24	0.50	0.31	(0.03, 1.10)	776	0.15
Mount Sinai	133	2	1.50	1.07	0.89	(0.10, 3.20)	117	0.88
Univ. Hosp. Brooklyn	689	0	0.00	0.39	0.00	(0.00, 0.86)	659	0.00
Martinelli M	846	2	0.24	0.60	0.25	(0.03, 0.90)	719	0.00
Albany Medical Center	4	0	0.00	0.36	0.00	(0.00,100.0)	4	0.00
St. Peters	842	2	0.24	0.60	0.25	(0.03, 0.91)	715	0.00
Masud A	702	3	0.43	0.31	0.88	(0.18, 2.56)	678	0.41
Buffalo General	445	1	0.22	0.28	0.51	(0.01, 2.82)	431	0.35
Millard Fillmore	257	2	0.78	0.35	1.38	(0.16, 4.99)	247	0.49
Mathew T M	499	2	0.40	0.47	0.53	(0.06, 1.92)	455	0.50
Rochester General	477	1	0.21	0.43	0.31	(0.00, 1.70)	434	0.26
Strong Memorial	22	1	4.55	1.40	2.04	(0.03,11.36)	21	7.85
Mehran R	61	1	1.64	0.77	1.34	(0.02, 7.43)	56	0.00
Lenox Hill	49	0	0.00	0.60	0.00	(0.00, 7.86)	46	0.00
NYP-Columbia	12	1	8.33	1.48	3.55	(0.05,19.76)	10	0.00
Messinger D	285	1	0.35	0.56	0.39	(0.01, 2.19)	263	0.28
NYP-Weill Cornell	260	0	0.00	0.56	0.00	(0.00, 1.59)	240	0.00
Westchester Med. Ctr.	25	1	4.00	0.58	4.31	(0.06,24.01)	23	2.15
Minadeo J	304	5	1.64	0.87	1.19	(0.38, 2.78)	235	1.02
South Nassau	46	2	4.35	1.37	2.00	(0.22, 7.21)	.	.
St. Francis	258	3	1.16	0.78	0.94	(0.19, 2.74)	235	1.02
Mittal N	275	0	0.00	0.16	0.00	(0.00, 5.24)	274	0.00
Mount Sinai	267	0	0.00	0.16	0.00	(0.00, 5.29)	266	0.00
Univ. Hosp. Brooklyn	8	0	0.00	0.05	0.00	(0.00,100.0)	8	0.00
Morris W	1205	4	0.33	0.67	0.31	(0.08, 0.80)	1123	0.08
Buffalo General	405	1	0.25	0.46	0.34	(0.00, 1.88)	392	0.22
Mercy Hospital	88	1	1.14	1.40	0.51	(0.01, 2.84)	61	0.00
Millard Fillmore	712	2	0.28	0.70	0.25	(0.03, 0.92)	670	0.00
Moses J	2604	5	0.19	0.31	0.39	(0.12, 0.90)	2596	0.19
Lenox Hill	2355	2	0.08	0.31	0.17 **	(0.02, 0.62)	2347	0.05 **
NYP-Columbia	249	3	1.20	0.32	2.40	(0.48, 7.02)	249	1.49

Table 4 continued

	Cases	Deaths	All Cases				Non-Emergency	
			OMR	EMR	RAMR	95% CI for RAMR	Cases	RAMR
Moussa I	1421	10	0.70	0.56	0.79	(0.38, 1.46)	1360	0.50
Lenox Hill	1313	9	0.69	0.54	0.79	(0.36, 1.50)	1257	0.49
NYP-Columbia	108	1	0.93	0.74	0.79	(0.01, 4.41)	103	0.64
Nero T	240	3	1.25	1.03	0.77	(0.15, 2.24)	196	0.42
Beth Israel	144	2	1.39	1.20	0.73	(0.08, 2.63)	123	0.00
St. Lukes-Roosevelt	96	1	1.04	0.77	0.85	(0.01, 4.72)	73	0.98
Ong L S	2905	14	0.48	0.59	0.51	(0.28, 0.86)	2676	0.18
Park Ridge Hosp.	4	1	25.00	23.18	0.68	(0.01, 3.78)	.	.
Rochester General	2801	13	0.46	0.57	0.52	(0.27, 0.88)	2577	0.19
Strong Memorial	100	0	0.00	0.38	0.00	(0.00, 6.15)	99	0.00
Ong L Y	1337	3	0.22	0.64	0.22	(0.04, 0.65)	1161	0.11
LIJ Medical Center	14	0	0.00	3.82	0.00	(0.00, 4.32)	2	0.00
North Shore	1323	3	0.23	0.61	0.24	(0.05, 0.69)	1159	0.11
Padmanabhan V	240	0	0.00	0.79	0.00	(0.00, 1.22)	187	0.00
LIJ Medical Center	24	0	0.00	0.26	0.00	(0.00,37.30)	21	0.00
North Shore	109	0	0.00	0.77	0.00	(0.00, 2.76)	89	0.00
Winthrop Univ. Hosp.	107	0	0.00	0.94	0.00	(0.00, 2.31)	77	0.00
Papaleo R	273	5	1.83	0.44	2.62 *	(0.84, 6.11)	244	2.01 *
Albany Medical Center	211	4	1.90	0.47	2.53 *	(0.68, 6.47)	186	1.81
St. Peters	62	1	1.61	0.33	3.05	(0.04,16.96)	58	2.59
Papandrea L	343	1	0.29	0.86	0.21	(0.00, 1.19)	266	0.33
Albany Medical Center	58	0	0.00	1.94	0.00	(0.00, 2.06)	29	0.00
St. Peters	285	1	0.35	0.64	0.34	(0.00, 1.91)	237	0.37
Park C	358	3	0.84	1.23	0.43	(0.09, 1.25)	264	0.00
LIJ Medical Center	313	2	0.64	1.14	0.35	(0.04, 1.28)	253	0.00
North Shore	45	1	2.22	1.90	0.74	(0.01, 4.10)	11	0.00
Park J	463	0	0.00	0.36	0.00	(0.00, 1.38)	427	0.00
LIJ Medical Center	1	0	0.00	0.03	0.00	(0.00,100.0)	1	0.00
NY Hospital - Queens	10	0	0.00	0.07	0.00	(0.00,100.0)	10	0.00
North Shore	187	0	0.00	0.27	0.00	(0.00, 4.57)	179	0.00
Winthrop Univ. Hosp.	265	0	0.00	0.44	0.00	(0.00, 1.99)	237	0.00
Patcha R	458	0	0.00	0.46	0.00	(0.00, 1.09)	407	0.00
Huntington Hospital	6	0	0.00	0.87	0.00	(0.00,44.44)	.	.
North Shore	452	0	0.00	0.46	0.00	(0.00, 1.12)	407	0.00

Table 4 continued

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
Patel R	448	4	0.89	0.85	0.66	(0.18, 1.69)	302	0.00
Good Sam - W. Islip	68	4	5.88	1.57	2.37 *	(0.64, 6.06)	1	0.00
North Shore	265	0	0.00	0.32	0.00	(0.00, 2.74)	253	0.00
Southside Hospital	60	0	0.00	2.46	0.00	(0.00, 1.56)	.	.
St. Catherine of Siena	4	0	0.00	0.85	0.00	(0.00,67.79)	.	.
Winthrop Univ. Hosp.	51	0	0.00	0.80	0.00	(0.00, 5.65)	48	0.00
Patel T	759	5	0.66	0.67	0.62	(0.20, 1.46)	581	0.14
Park Ridge Hosp.	86	0	0.00	1.23	0.00	(0.00, 2.19)	.	.
Rochester General	606	5	0.83	0.62	0.84	(0.27, 1.97)	517	0.16
Strong Memorial	67	0	0.00	0.40	0.00	(0.00, 8.65)	64	0.00
Perry-Bottinger L	134	1	0.75	0.41	1.14	(0.01, 6.34)	120	0.00
NY Hospital - Queens	110	1	0.91	0.46	1.24	(0.02, 6.90)	96	0.00
NYP-Columbia	24	0	0.00	0.19	0.00	(0.00,51.05)	24	0.00
Petrosian G	1125	7	0.62	0.44	0.89	(0.36, 1.84)	1051	0.60
South Nassau	14	0	0.00	1.09	0.00	(0.00,15.08)	.	.
St. Francis	1111	7	0.63	0.43	0.92	(0.37, 1.89)	1051	0.60
Phadke K	828	4	0.48	0.47	0.64	(0.17, 1.64)	744	0.19
Buffalo General	1	0	0.00	0.46	0.00	(0.00,100.0)	1	0.00
Erie County	340	2	0.59	0.19	1.95	(0.22, 7.03)	320	0.58
Millard Fillmore	475	2	0.42	0.68	0.39	(0.04, 1.41)	414	0.00
Univ. Hosp. Upstate	12	0	0.00	0.47	0.00	(0.00,41.38)	9	0.00
Reddy C	374	3	0.80	0.43	1.17	(0.23, 3.41)	372	0.55
NY Methodist	86	1	1.16	1.10	0.66	(0.01, 3.70)	84	0.00
NYP-Weill Cornell	288	2	0.69	0.23	1.88	(0.21, 6.79)	288	1.07
Reger M	623	1	0.16	0.49	0.21	(0.00, 1.15)	555	0.00
Crouse Hospital	63	0	0.00	0.30	0.00	(0.00,12.37)	59	0.00
St. Josephs	560	1	0.18	0.51	0.22	(0.00, 1.23)	496	0.00
Reich D	833	2	0.24	0.48	0.31	(0.04, 1.13)	710	0.17
Good Sam - W. Islip	66	1	1.52	1.58	0.60	(0.01, 3.36)	.	.
LIJ Medical Center	83	0	0.00	0.50	0.00	(0.00, 5.60)	82	0.00
North Shore	365	0	0.00	0.28	0.00	(0.00, 2.25)	358	0.00
Southside Hospital	44	0	0.00	1.49	0.00	(0.00, 3.53)	.	.
Winthrop Univ. Hosp.	275	1	0.36	0.33	0.70	(0.01, 3.90)	270	0.41
Reimers C	879	7	0.80	0.42	1.21	(0.48, 2.49)	856	0.52
Beth Israel	717	7	0.98	0.43	1.43	(0.57, 2.94)	702	0.65
Lenox Hill	162	0	0.00	0.35	0.00	(0.00, 4.12)	154	0.00

Table 4 continued

	Cases	Deaths	All Cases				Non-Emergency	
			OMR	EMR	RAMR	95% CI for RAMR	Cases	RAMR
Rentrop K	69	1	1.45	0.27	3.44	(0.05,19.16)	68	3.93
Beth Israel	6	0	0.00	0.08	0.00	(0.00,100.0)	6	0.00
St. Vincents	63	1	1.59	0.28	3.54	(0.05,19.68)	62	4.20
Robin G	31	0	0.00	0.73	0.00	(0.00,10.27)	23	0.00
North Shore	3	0	0.00	0.21	0.00	(0.00,100.0)	3	0.00
Winthrop Univ. Hosp.	28	0	0.00	0.78	0.00	(0.00,10.57)	20	0.00
Roccario E	813	8	0.98	0.85	0.73	(0.32, 1.44)	641	0.52
Albany Medical Center	4	0	0.00	0.47	0.00	(0.00,100.0)	3	0.00
St. Peters	809	8	0.99	0.85	0.73	(0.32, 1.45)	638	0.52
Rosenband M	562	5	0.89	0.62	0.90	(0.29, 2.09)	503	0.83
St. Catherine of Siena	2	0	0.00	1.11	0.00	(0.00,100.0)	.	.
Univ. Hosp. Stony Brook	560	5	0.89	0.62	0.90	(0.29, 2.11)	503	0.83
Rouvelas P	192	0	0.00	0.42	0.00	(0.00, 2.83)	185	0.00
Beth Israel	4	0	0.00	0.28	0.00	(0.00,100.0)	4	0.00
Staten Island Univ Hosp	188	0	0.00	0.43	0.00	(0.00, 2.87)	181	0.00
Sacchi T	887	3	0.34	0.38	0.56	(0.11, 1.63)	870	0.12
Beth Israel	307	0	0.00	0.29	0.00	(0.00, 2.57)	305	0.00
Maimonides	260	0	0.00	0.29	0.00	(0.00, 3.08)	260	0.00
NY Methodist	320	3	0.94	0.54	1.09	(0.22, 3.18)	305	0.23
Sassower M	649	3	0.46	0.89	0.33	(0.07, 0.96)	583	0.32
North Shore	74	0	0.00	0.28	0.00	(0.00,11.11)	73	0.00
Winthrop Univ. Hosp.	575	3	0.52	0.96	0.34	(0.07, 1.00)	510	0.35
Schwartz R	1386	5	0.36	0.62	0.37	(0.12, 0.86)	1288	0.21
Good Sam - W. Islip	7	0	0.00	1.09	0.00	(0.00,30.41)	.	.
North Shore	362	2	0.55	0.44	0.79	(0.09, 2.84)	344	0.36
Southside Hospital	3	0	0.00	6.39	0.00	(0.00,12.04)	.	.
Winthrop Univ. Hosp.	1014	3	0.30	0.66	0.28	(0.06, 0.82)	944	0.18
Shlofmitz R	1395	5	0.36	0.20	1.11	(0.36, 2.58)	1368	0.52
St. Catherine of Siena	1	0	0.00	0.25	0.00	(0.00,100.0)	.	.
St. Francis	1394	5	0.36	0.20	1.11	(0.36, 2.58)	1368	0.52
Siddiqi R	349	0	0.00	0.26	0.00	(0.00, 2.50)	341	0.00
Beth Israel	9	0	0.00	0.38	0.00	(0.00,67.24)	9	0.00
St. Vincents	340	0	0.00	0.26	0.00	(0.00, 2.60)	332	0.00
Simons A	973	1	0.10	0.52	0.12	(0.00, 0.69)	867	0.00
Crouse Hospital	93	0	0.00	0.23	0.00	(0.00,10.82)	86	0.00
St. Josephs	880	1	0.11	0.55	0.13	(0.00, 0.72)	781	0.00

Table 4 continued

	Cases	Deaths	OMR	All Cases			Non-Emergency	
				EMR	RAMR	95% CI for RAMR	Cases	RAMR
Slater J	623	5	0.80	0.39	1.31	(0.42, 3.05)	593	0.48
Bellevue	97	1	1.03	0.65	1.00	(0.01, 5.57)	85	0.00
NYU Hospitals Center	305	3	0.98	0.25	2.50	(0.50, 7.31)	295	0.61
St. Lukes-Roosevelt	221	1	0.45	0.46	0.62	(0.01, 3.42)	213	0.65
Snyder S	230	2	0.87	0.59	0.93	(0.10, 3.34)	212	0.00
St. Vincents	2	0	0.00	0.08	0.00	(0.00,100.0)	2	0.00
Staten Island Univ Hosp	228	2	0.88	0.60	0.93	(0.10, 3.35)	210	0.00
Stone G	562	2	0.36	0.63	0.36	(0.04, 1.28)	522	0.00
Lenox Hill	548	2	0.36	0.64	0.36	(0.04, 1.29)	509	0.00
NYP-Columbia	14	0	0.00	0.14	0.00	(0.00,100.0)	13	0.00
Strizik B	526	3	0.57	0.63	0.57	(0.12, 1.67)	488	0.29
Huntington Hospital	4	0	0.00	6.22	0.00	(0.00, 9.29)	.	.
LIJ Medical Center	65	1	1.54	0.60	1.60	(0.02, 8.91)	65	0.89
North Shore	457	2	0.44	0.58	0.47	(0.05, 1.71)	423	0.17
Stuver T	942	6	0.64	0.84	0.48	(0.17, 1.04)	719	0.24
Park Ridge Hosp.	3	0	0.00	0.98	0.00	(0.00,78.41)	.	.
Rochester General	939	6	0.64	0.84	0.48	(0.17, 1.04)	719	0.24
Suleman J	472	4	0.85	0.39	1.35	(0.36, 3.47)	437	1.05
Elmhurst	16	0	0.00	2.11	0.00	(0.00, 6.84)	.	.
LIJ Medical Center	9	0	0.00	0.26	0.00	(0.00,99.42)	9	0.00
Mount Sinai	447	4	0.89	0.34	1.68	(0.45, 4.30)	428	1.08
Teirstein P	173	1	0.58	0.71	0.51	(0.01, 2.85)	163	0.61
Lenox Hill	167	1	0.60	0.72	0.52	(0.01, 2.90)	157	0.63
NYP-Columbia	6	0	0.00	0.36	0.00	(0.00,100.0)	6	0.00
Tsiamtsiouris T	582	3	0.52	0.52	0.63	(0.13, 1.83)	551	0.32
St. Catherine of Siena	1	0	0.00	0.22	0.00	(0.00,100.0)	.	.
St. Francis	581	3	0.52	0.52	0.63	(0.13, 1.83)	551	0.32
Vazzana T	311	2	0.64	0.80	0.51	(0.06, 1.84)	272	0.00
St. Vincents	1	0	0.00	0.03	0.00	(0.00,100.0)	1	0.00
Staten Island Univ Hosp	310	2	0.65	0.80	0.51	(0.06, 1.84)	271	0.00
Wasserman H	328	3	0.91	0.89	0.65	(0.13, 1.90)	264	0.37
Arnot-Ogden	1	0	0.00	0.21	0.00	(0.00,100.0)	1	0.00
NYP-Columbia	327	3	0.92	0.89	0.65	(0.13, 1.90)	263	0.37
Wilentz J	539	4	0.74	0.43	1.08	(0.29, 2.76)	490	0.00
Beth Israel	28	0	0.00	0.26	0.00	(0.00,31.88)	28	0.00
St. Lukes-Roosevelt	511	4	0.78	0.44	1.11	(0.30, 2.85)	462	0.00

Table 4 continued

	Cases	Deaths	All Cases				Non-Emergency	
			OMR	EMR	RAMR	95% CI for RAMR	Cases	RAMR
Winer H	466	4	0.86	0.71	0.76	(0.20, 1.94)	369	0.67
Arnot-Ogden	260	2	0.77	0.87	0.56	(0.06, 2.01)	171	0.52
Bellevue	77	1	1.30	0.34	2.42	(0.03,13.47)	74	1.39
NYU Hospitals Center	129	1	0.78	0.62	0.79	(0.01, 4.38)	124	0.55
Witkes D	459	0	0.00	0.31	0.00	(0.00, 1.64)	439	0.00
North Shore	186	0	0.00	0.24	0.00	(0.00, 5.25)	182	0.00
Winthrop Univ. Hosp.	273	0	0.00	0.36	0.00	(0.00, 2.38)	257	0.00
Young H	152	2	1.32	0.85	0.98	(0.11, 3.53)	115	0.00
Buffalo General	33	0	0.00	0.26	0.00	(0.00,26.79)	31	0.00
Erie County	23	0	0.00	1.10	0.00	(0.00, 9.13)	7	0.00
Mercy Hospital	84	1	1.19	1.07	0.70	(0.01, 3.88)	67	0.00
Millard Fillmore	12	1	8.33	0.38	13.89	(0.18,77.26)	10	0.00
Zisfein J	373	0	0.00	0.43	0.00	(0.00, 1.45)	323	0.00
North Shore	330	0	0.00	0.24	0.00	(0.00, 2.92)	323	0.00
South Nassau	43	0	0.00	1.86	0.00	(0.00, 2.89)	.	.

Criteria Used in Reporting Significant Risk Factors (2004)

Based on Documentation in Medical Record

Patient Risk Factor	Definitions
Hemodynamic State	
<ul style="list-style-type: none"> Unstable 	Patient requires pharmacologic or mechanical support to maintain blood pressure or cardiac output.
<ul style="list-style-type: none"> Shock 	Acute hypotension (systolic blood pressure < 80 mmHg) or low cardiac index (< 2.0 liters/min/m ²), despite pharmacologic or mechanical support.
Comorbidities	
<ul style="list-style-type: none"> Chronic Obstructive Pulmonary Disease (COPD) 	Patients who require chronic (longer than three months) bronchodilator therapy to avoid disability from obstructive airway disease, have a forced expiratory volume in one second of less than 75% of the predicted value or less than 1.25 liters, or have a room air pO ₂ <60 or a pCO ₂ >50.
<ul style="list-style-type: none"> Congestive Heart Failure (CHF), Current 	Within 2 weeks prior to the procedure, a physician has diagnosed CHF by one of the following: <ul style="list-style-type: none"> Paroxysmal nocturnal dyspnea (PND) Dyspnea on exertion (DOE) due to heart failure, or Chest X-Ray showing pulmonary congestion.
<ul style="list-style-type: none"> Renal Failure, Creatinine 	Highest Pre-PCI creatinine during the hospital admission was within indicated range.
<ul style="list-style-type: none"> Renal Failure, Dialysis 	The patient is on chronic peritoneal or hemodialysis.
<ul style="list-style-type: none"> Stent Thrombosis 	Formation of a blood clot in the stented segment of the artery and/or adjacent area. This usually results in an acute occlusion, chest pain or development of an acute MI.
Ventricular Function	
<ul style="list-style-type: none"> Previous MI 	One or more myocardial infarctions (MI) in the specified time period before the intervention.
<ul style="list-style-type: none"> Ejection Fraction 	Value of the ejection fraction taken closest to the procedure. When a calculated measure is unavailable the ejection fraction should be estimated visually from the ventriculogram or by echocardiography. Intraoperative direct observation of the heart is not an adequate basis for a visual estimate of the ejection fraction.

Severity of Atherosclerotic Process

- Peripheral Vascular Disease Angiographic demonstration of at least 50% narrowing in a major aortoiliac or femoral/popliteal vessel, previous surgery for such disease, absent femoral or pedal pulses, or the inability to insert a catheter or intra-aortic balloon due to iliac aneurysm or obstruction of the aortoiliac or femoral arteries.
-

Vessels Diseased

- Three Vessels Diseased The patient has at least 70% blockage in each of three native coronary arteries including the Left Anterior Descending (LAD), the Right Coronary Artery (RCA), and the Left Circumflex (LCX) or their major branches.

MEDICAL TERMINOLOGY

percutaneous coronary intervention (PCI) also known as **angioplasty** or **percutaneous transluminal coronary angioplasty** – typically in this procedure, a balloon catheter is threaded up to the site of blockage in an artery in the heart, and is then inflated to push arterial plaque against the wall of the artery to create a wider channel in the artery. Other procedures or devices are frequently used in conjunction with the catheter to remove plaque. In particular, stents are used for most patients, and procedures such as atherectomies and ultrasound are sometimes used.

angina pectoris - the pain or discomfort felt when blood and oxygen flow to the heart are impeded by blockage in the coronary arteries. This can also be caused by an arterial spasm.

arteriosclerosis - the group of diseases characterized by thickening and loss of elasticity of the arterial walls, popularly called “hardening of the arteries”. Also called *atherosclerotic coronary artery disease* or *coronary artery disease*.

atherosclerosis - one form of arteriosclerosis in which plaques or fatty deposits form in the inner layer of the arteries.

cardiac catheterization - also known as *coronary angiography* - a procedure for diagnosing the condition of the heart and the arteries connecting to it. A thin tube threaded through an artery to the heart releases a dye, which allows doctors to observe blockages with an x-ray camera. This procedure is required before PCI is performed.

cardiovascular disease - disease of the heart and blood vessels, the most common form is coronary artery disease.

coronary arteries - the arteries that supply the heart muscle with blood. When they are narrowed or blocked, blood and oxygen cannot flow freely to the heart muscle or myocardium.

coronary artery bypass graft surgery (CABG) - a procedure in which a vein or artery from another part of the body is used to create an alternate path for blood to flow to the heart, bypassing the arterial blockage. Typically, a section of one of the large saphenous veins in the leg, the radial artery in the arm or the mammary artery in the chest is used to construct the bypass. One

or more bypasses may be performed during a single operation. When no other major heart surgery (such as valve replacement) is included, the operation is referred to as an isolated CABG.

Double, triple, quadruple **bypass**- the average number of bypass grafts created during coronary artery bypass graft surgery is three or four. Generally, all significantly blocked arteries are bypassed unless they enter areas of the heart that are permanently damaged by previous heart attacks. Five or more bypasses are occasionally created. Multiple bypasses are often performed to provide several alternate routes for the blood flow and to improve the long-term success of the procedure, not necessarily because the patient’s condition is more severe.

ischemic heart disease (ischemia) - heart disease that occurs as a result of inadequate blood supply to the heart muscle or myocardium.

lesion - an irregular growth of fiber and tissue.

myocardial infarction - partial destruction of the heart muscle due to interrupted blood supply, also called a *heart attack*.

plaque - also called *atheroma*, this is the fatty deposit in the coronary artery that can block blood flow.

risk factors for heart disease - certain risk factors have been found to increase the likelihood of developing heart disease. Some are controllable or avoidable, and some cannot be controlled. The biggest heart disease risk factors are heredity, gender, and age, all of which cannot be controlled. Men are much more likely to develop heart disease than women before the age of 55, although it is the number one killer of both men and women.

Some controllable risk factors that contribute to a higher likelihood of developing coronary artery disease are high cholesterol levels, cigarette smoking, high blood pressure (hypertension), obesity, a sedentary lifestyle or lack of exercise, diabetes, and poor stress management.

stenosis - the narrowing of an artery due to blockage. *Restenosis* is when the narrowing recurs after PCI or surgery.

Appendix 1

2004 Risk Factors For PCI In-Hospital/30-Day Mortality (ALL CASES)

The significant pre-procedural risk factors for in-hospital/30-day mortality following PCI in 2004 are presented in the table that follows.

Roughly speaking, the odds ratio for a risk factor represents the number of times more likely a patient with that risk factor is of dying in the hospital during or after PCI or after hospital discharge but within 30 days of the PCI than a patient without the risk factor, all other risk factors being the same. For example, the odds ratio for the risk factor “Peripheral Vascular Disease” is 1.949. This means that a patient with Peripheral Vascular Disease is approximately 1.949 times as likely to die in the hospital during the same admission as PCI or after hospital discharge but within 30 days of the PCI as a patient without Peripheral Vascular Disease who has the same other significant risk factors. The risk factors COPD and CHF-Current are interpreted in the same way.

Age is represented by a linear term. The odds ratio represents the number of times more likely a patient is to die during the same hospital stay after PCI or after hospital discharge but within 30 days than a patient who is one year younger, all other significant risk factors being the same. Thus the odds of dying for a patient who is 55 are 1.048 times the odds of dying for a patient who is 54, all other risk factors being the same.

The odds ratio for the variable “Female Gender” is 1.554, meaning that a female undergoing PCI is 1.554 times more likely to die in the hospital or after discharge but within 30 days than a male with all of the same other significant risk factors.

The variables for Hemodynamic State are relative to patients that are not hemodynamically unstable or in shock. So, for example, a patient that is unstable has 8.095 times the odds of death of a hemodynamically stable patient, all of the other significant risk factors being the same.

Ejection fraction, which is the percentage of blood in the heart’s left ventricle that is expelled when it contracts (with more denoting a healthier heart), is subdivided into four ranges (<20%, 20% to 29%, 30% to 39% and 40% or more). The last range is referred to as the reference category. This means that the odds ratio that appears for the other ejection fraction categories in the table is relative to patients with an ejection fraction of 40% or more. Thus, a PCI patient with an ejection fraction of <20% is about 4.057 times as likely to die in the hospital or within 30 days as a patient with an ejection fraction of 40% or higher, all other significant risk factors being the same.

Previous MI is subdivided into six ranges (occurring less than 24 hours prior to the procedure with stent thrombosis, less than 6 hours prior without stent thrombosis, 6 to 11 hours prior without stent thrombosis, 12 to 23 hours prior without stent thrombosis, 1 to 7 days prior with or without stent thrombosis and no MI within 7 days prior to the procedure.) The last range is referred to as the reference category. The odds ratios for the Previous MI ranges are relative to patients who have not had an MI within 7 days prior to PCI.

Renal failure is subdivided into six groups. Four categories represent patients with various levels of elevated creatinine, but no dialysis. The fifth category includes patients with renal failure on dialysis. All groups are relative to patients who are not on dialysis and had no pre-PCI creatinine values greater than 1.5 mg/dl.

The risk factor “Three Vessels Diseased” refers to patient with at least a 70% blockage in each of three native coronary arteries (LAD, RCA, LCX), or their major branches. The odds ratio for this group is relative to all other patients.

Appendix 1 Multivariate Risk-Factor Equation for In-Hospital/30 Day Deaths During or Following PCI in NYS Residents 2004 (*All Cases*).

Patient Risk Factor	Prevalence (%)	Logistic Regression		
		Coefficient	P-Value	Odds Ratio
Demographic				
Age	--	0.0473	<.0001	1.048
Female Gender	32.40	0.4411	<.0001	1.554
Hemodynamic State				
Hemodynamically Stable	99.26	— Reference —		1.000
Unstable	0.59	2.0912	<.0001	8.095
Shock	0.15	3.6018	<.0001	36.666
Ventricular Function				
Ejection Fraction				
Ejection Fraction 40% or greater	88.60	— Reference —		1.000
Ejection Fraction less than 20%	0.84	1.4004	<.0001	4.057
Ejection Fraction 20-29%	3.43	0.9843	<.0001	2.676
Ejection Fraction 30-39%	7.13	0.5764	<.0001	1.780
Pre-Procedural MI				
No MI within 7 days	76.97	— Reference —		1.000
MI < 24 hrs with Stent Thrombosis	0.20	2.4969	<.0001	12.145
MI < 6 hrs w/o Stent Thrombosis	6.50	1.7859	<.0001	5.965
MI 6-11 hrs w/o Stent Thrombosis	1.73	1.4834	<.0001	4.408
MI 12-23 hrs w/o Stent Thrombosis	2.75	1.4454	<.0001	4.244
MI 1-7 days with or w/o Stent Thrombosis	11.85	1.0386	<.0001	2.825
Comorbidities				
CHF, Current	6.13	0.5908	<.0001	1.805
COPD	6.40	0.5951	<.0001	1.813
Peripheral Vascular Disease	6.81	0.6675	<.0001	1.949
Renal Failure				
No Renal Failure	89.61	— Reference —		1.000
Renal Failure, Creatinine 1.6-2.0	5.93	0.7044	<.0001	2.023
Renal Failure, Creatinine 2.1-2.5	1.43	1.3621	<.0001	3.904
Renal Failure, Creatinine 2.6-3.0	0.53	1.3843	<.0001	3.992
Renal Failure, Creatinine > 3.0	0.54	1.8540	<.0001	6.385
Renal Failure, Requiring Dialysis	1.96	1.3294	<.0001	3.779
Vessels				
3-Vessels Diseased	13.93	0.3455	0.0032	1.413

Intercept = -9.4577

C Statistic = 0.860

Appendix 2

2004 Risk Factors For In-Hospital/30-Day Mortality For Non-Emergency PCI

Appendix 2 contains the significant pre-procedural risk factors for 2004 New York State resident PCI patients who were not emergency patients (were not in shock or hemodynamically unstable and who did not suffer a heart attack within 24 hours prior to the PCI being performed).

The variables for Age, Peripheral Vascular Disease, CHF-Current and COPD are interpreted in the same manner as they were in Appendix 1. CHF-Past refers to patients with Congestive Heart Failure 2 weeks to 6 months prior to PCI and is relative to patients who did not have CHF in that time period.

In this model, Pre-procedure MI is represented by four ranges: patients who have had their most recent MI 1-7 days before the procedure, 8-14 days before the procedure, 15 or more days before the procedure, and patients who have not had an MI. The odds ratio for the Previous MI ranges are relative to patients who have not had an MI prior to PCI.

The interpretation of renal failure is similar to that in Appendix 1. In this case, patients with renal failure (elevated creatinine without dialysis and those requiring dialysis) are compared to patients with no Pre-PCI creatinine greater than 2.0 mg/dl and no dialysis prior to PCI.

Appendix 2 Multivariate Risk-Factor Equation for In-Hospital/30-Day Deaths During or Following PCI in NYS Residents, 2004 (Non-Emergency Cases)

Patient Risk Factor	Prevalence (%)	Logistic Regression		
		Coefficient	P-Value	Odds Ratio
Demographic				
Age	--	0.0471	<.0001	1.048
Ventricular Function				
No Previous MI	61.73	— Reference —		1.000
Previous MI 1-7 days	13.27	1.4395	<.0001	4.219
Previous MI 8-14 days	1.67	0.9809	0.0011	2.667
Previous MI 15-21 days	23.33	0.5704	0.0005	1.769
Comorbidities				
CHF, Current	5.87	1.0657	<.0001	2.903
CHF, Previous	3.64	0.9767	<.0001	2.656
COPD	6.63	0.8348	<.0001	2.304
Peripheral Vascular Disease	7.14	0.5808	0.0004	1.788
Renal Failure				
No Renal Failure	95.34	— Reference —		1.000
Renal Failure, Creatinine 2.1-3.0 mg/dl	2.00	0.8374	0.0003	2.310
Renal Failure, Creatinine > 3.0 mg/dl	0.55	1.3377	0.0005	3.810
Renal Failure, Requiring Dialysis	2.11	1.1010	<.0001	3.007

Intercept = -9.3844

C Statistic = 0.806

Appendix 3

2002-2004 Risk Factors for PCI In-Hospital Mortality (ALL CASES)

The significant pre-procedural risk factors for in-hospital mortality following PCI in the 2002-2004 time period are presented in the table that follows. The interpretation of this table is similar to the interpretation of Appendices 1 and 2 that is described previously. The variables Female Gender, Peripheral Vascular Disease, COPD, CHF-Current, Malignant Ventricular Arrhythmia and Left Main Disease are interpreted in the same manner as Peripheral Vascular Disease in Appendix 1. For example, patients with COPD have odds of dying in the hospital that are 3.626 times the odds of patients without COPD dying in the hospital, all other risk factors being the same. The variables for Hemodynamic State, Ejection Fraction and Renal Failure are interpreted in the same manner as they are in Appendix 1.

Age is represented by a linear and a quadratic (squared) term in order to improve the fit of the statistical model, and in this form the odds ratios for the two terms are not meaningful in characterizing relative risk of patients.

The interpretation for Previous MI is very similar to that in Appendix 1. In this case, the reference category is patients who have not had an MI within 14 days prior to the procedure.

The Number of Risk Factors Squared term is merely the square of the number of risk factors in Appendix 3 that a patient has (not counting age), and is used to improve the ability of the model to predict mortality.

Appendix 3 Multivariate Risk-Factor Equation for In-Hospital Deaths During or Following PCI in New York State 2002-2004 (*All Cases*).

Patient Risk Factor	Prevalence (%)	Logistic Regression		
		Coefficient	P-Value	Odds Ratio
Demographic				
Age	--	-0.0034	0.9055	0.997
Age squared	--	0.0440	0.0358	1.045
Female Gender	32.06	1.0946	<.0001	2.988
Hemodynamic State				
Hemodynamically Stable	99.16	—Reference—		1.000
Unstable	0.65	2.8684	<.0001	17.609
Shock	0.19	3.9252	<.0001	50.663
Ventricular Function				
Ejection Fraction				
Ejection Fraction 40% or more		—Reference—		1.000
Ejection Fraction less than 20 %	0.82	1.9545	<.0001	7.060
Ejection Fraction 20-29 %	3.41	1.4291	<.0001	4.175
Ejection Fraction 30-39 %	7.43	1.0574	<.0001	2.879
Pre-Procedural MI				
No MI within 14 days		—Reference—		1.000
MI < 24 hrs with Stent Thrombosis	0.20	3.1235	<.0001	22.725
MI < 6 hrs w/o Stent Thrombosis	5.97	2.6195	<.0001	13.729
MI 6-11 hrs w/o Stent Thrombosis	1.87	2.5435	<.0001	12.724
MI 12-23 hrs w/o Stent Thrombosis	2.91	2.1918	<.0001	8.951
MI 1-7 days with or w/o Stent Thrombosis	12.88	1.5986	<.0001	4.946
MI 8-14 days with or w/o Stent Thrombosis	1.46	1.3665	<.0001	3.922
Comorbidities				
Peripheral Vascular Disease	6.37	1.4690	<.0001	4.345
COPD	6.20	1.2882	<.0001	3.626
CHF, Current	6.04	1.6427	<.0001	5.169
Malignant Ventricular Arrhythmia	0.60	1.6707	<.0001	5.316
Renal Failure				
No Renal Failure	97.13	—Reference—		1.000
Renal Failure, Creatinine > 2.5	1.19	2.0228	<.0001	7.560
Renal Failure, Requiring Dialysis	1.68	2.0360	<.0001	7.660
Vessels Diseased				
2-Vessels Diseased	30.57	0.8921	<.0001	2.440
3-Vessels Diseased	15.20	1.1013	<.0001	3.008
Left Main Disease	3.82	1.3583	<.0001	3.889
Sum of Risk Factors Squared	--	-0.0972	<.0001	0.907
Intercept = -9.6949				
C Statistic = 0.896				

Appendix 4

2002-2004 Risk Factors for In-Hospital Mortality for Non-Emergency PCI

The significant pre-procedural risk factors for in-hospital mortality following non-emergency PCI in the 2002-2004 time period are presented in the Appendix 4 table below. With regard to age, the odds ratio roughly represents the number of times more likely a patient who is over age 55 is to die in the hospital than another patient who is one year younger, all other significant risk factors being the same. Thus, a patient undergoing PCI who is 63 years old has approximately 1.062 times the chance of dying in the hospital or within 30 days outside of the hospital that a 62 year-old patient has, all other risk factors being the same. All patients aged 55 years or younger have roughly the same odds of dying in the hospital if their other risk factors are identical. The interpretation for the rest of the table is similar to the interpretation of Appendices 1-3 that is described previously.

Appendix 4 Multivariate Risk-Factor Equation for In-Hospital Deaths During or Following PCI in New York State 2002-2004 (*Non-Emergency Cases*)

Patient Risk Factor	Prevalence (%)	Logistic Regression		
		Coefficient	P-Value	Odds Ratio
Demographic				
Age: number of years > 55	--	0.0606	<.0001	1.062
Female Gender	32.65	0.8463	<.0001	2.331
Ventricular Function				
Ejection Fraction				
Ejection Fraction 40% or greater	89.60	— Reference —		1.000
Ejection Fraction less than 20 %	0.75	1.5358	<.0001	4.645
Ejection Fraction 20-39 %	9.65	1.0894	<.0001	2.972
Pre-Procedural MI				
Previous MI, 1- 7 days	14.39	1.3902	<.0001	4.016
Comorbidities				
CHF, Current	5.69	1.6573	<.0001	5.245
CHF, Past	3.49	1.0843	<.0001	2.957
COPD	6.32	1.1119	<.0001	3.040
Peripheral Vascular Disease	6.66	1.2887	<.0001	3.628
Renal Failure				
No Renal Failure	96.98	— Reference —		1.000
Renal Failure, creatinine > 2.5	1.22	1.5984	<.0001	4.945
Renal Failure, dialysis	1.80	1.8498	<.0001	6.359
Three Vessels Diseased.	15.47	0.8773	<.0001	2.404
Sum of Risk Factors Squared	--	-0.0780	0.0002	0.925
Intercept = -8.2516				
C Statistic = 0.826				

Appendix 5

2002-2004 Risk Factors for In-Hospital Mortality for Emergency PCI

The significant pre-procedural risk factors for in-hospital mortality following Emergency PCI in the 2002-2004 time period are presented in the Appendix 5 table below. The risk factor Renal Failure refers to patients with Renal Failure who are on dialysis or who have a Creatinine greater than 2.5 mg/dl and is relative to those who do not have renal failure. The interpretation of the rest of this table is similar to the interpretations of Appendices 1-4 that are described previously.

Appendix 5 Multivariate Risk-Factor Equation for In-Hospital Deaths During or Following PCI in New York State 2002-2004 (*Emergency Cases*)

Patient Risk Factor	Prevalence (%)	Logistic Regression		
		Coefficient	P-Value	Odds Ratio
Demographic				
Age	--	0.0637	<.0001	1.066
Female Gender	27.36	0.3697	0.0005	1.447
Hemodynamic State				
Hemodynamically Stable	92.46	— Reference —		1.000
Unstable	5.85	1.7468	<.0001	5.736
Shock	1.69	2.9643	<.0001	19.381
Ventricular Function				
Ejection Fraction				
Ejection Fraction 30% or greater	92.46	— Reference —		1.000
Ejection Fraction less than 20 %	1.38	1.3130	<.0001	3.717
Ejection Fraction 20-29 %	6.16	0.7757	<.0001	2.172
Pre-Procedural MI				
No MI < 24 hrs with Stent Thrombosis or < 6 hours without Stent Thrombosis	44.68	— Reference —		1.000
MI < 24 hrs with Stent Thrombosis	1.77	0.8242	0.0045	2.280
MI < 6 hrs w/o Stent Thrombosis	53.55	0.3329	0.0019	1.395
Comorbidities				
CHF, Current	8.79	0.9014	<.0001	2.463
CHF, Past	1.29	0.6449	0.0155	1.906
Malignant Ventricular Arrhythmia	1.78	0.9083	<.0001	2.480
Peripheral Vascular Disease	4.07	0.7194	<.0001	2.053
Renal Failure	1.73	1.4154	<.0001	4.118

Intercept = -9.0455

C Statistic = 0.894

NEW YORK STATE PERCUTANEOUS CORONARY INTERVENTION CENTERS

Albany Medical Center Hospital
New Scotland Avenue
Albany, New York 12208

Arnot Ogden Medical Center
600 Roe Avenue
Elmira, New York 14905

Bellevue Hospital Center
First Avenue and 27th Street
New York, New York 10016

Beth Israel Medical Center
10 Nathan D. Perlman Place
New York, New York 10003

Buffalo General Hospital
100 High Street
Buffalo, New York 14203

City Hospital at Elmhurst*
79-01 Broadway
Elmhurst, NY 11373

Columbia Presbyterian
Medical Center – NY Presbyterian
161 Fort Washington Avenue
New York, New York 10032

Crouse Hospital
736 Irving Avenue
Syracuse, New York 13210

Ellis Hospital
1101 Nott Street
Schenectady, New York 12308

Erie County Medical Center
462 Grider Street
Buffalo, New York 14215

Glens Falls Hospital*
100 Park Street
Glens Falls, NY 12801

Good Samaritan Hospital of Suffern*
255 Lafayette Avenue
Suffern, NY 10901

Good Samaritan Hospital
Medical Center*
1000 Montauk Highway
West Islip, New York 11795

Huntington Hospital*
270 Park Ave.
Huntington, NY 11743

Lenox Hill Hospital
100 East 77th Street
New York, New York 10021

Long Island Jewish Medical Center
270-05 76th Avenue
New Hyde Park, New York 11040

Mary Imogene Bassett Healthcare
Atwell Road
Cooperstown, NY 13326

Maimonides Medical Center
4802 Tenth Avenue
Brooklyn, New York 11219

Mercy Hospital
565 Abbot Rd.
Buffalo, NY 14220

Millard Fillmore Hospital
3 Gates Circle
Buffalo, New York 14209

Montefiore Medical Center
Henry & Lucy Moses Division
111 East 210th Street
Bronx, New York 11219

Montefiore Medical Center-
Weiler Hospital of
A Einstein College
1825 Eastchester Road
Bronx, New York 10461

Mount Sinai Medical Center
One Gustave L. Levy Place
New York, New York 10019

NYU Hospitals Center
550 First Avenue
New York, New York 10016

New York Methodist Hospital
506 Sixth St.
Brooklyn, NY 11215

New York Hospital Medical
Center-Queens
56-45 Main Street
Flushing, New York 11355

North Shore University Hospital
300 Community Drive
Manhasset, New York 11030

Park Ridge Hospital*
1555 Long Pond Road
Rochester, NY 14626

Rochester General Hospital
1425 Portland Avenue
Rochester, New York 14621

South Nassau Communities Hospital*
One Healthy Way
Oceanside, New York 11572

Southside Hospital*
301 East Main Street
Bayshore, New York 11706

St. Catherine of Siena Hospital*
50 Route 25A
Smithtown, NY 11787

St. Elizabeth Medical Center
2209 Genesee Street
Utica, New York 13413

St. Francis Hospital
Port Washington Boulevard
Roslyn, New York 11576

St. Joseph's Hospital
Health Center
301 Prospect Avenue
Syracuse, New York 13203

St. Luke's Roosevelt Hospital Center
11-11 Amsterdam Avenue at 114th Street
New York, New York 10025

St. Peter's Hospital
315 South Manning Boulevard
Albany, New York 12208

SVMC - St. Vincent's Manhattan
153 West 11th Street
New York, New York 10011

Staten Island University Hospital
475 Seaview Avenue
Staten Island, New York 10305

Stony Brook University Medical Center
Stony Brook, New York 11794-8410

Strong Memorial Hospital
601 Elmwood Avenue
Rochester, New York 14642

United Health Services
Wilson Hospital Division
33-57 Harrison Street
Johnson City, New York 13790

University Hospital of Brooklyn
450 Lenox Road
Brooklyn, New York 11203

University Hospital-Upstate
Medical University
750 East Adams Street
Syracuse, New York 13210

Vassar Brothers Hospital
45 Reade Place
Poughkeepsie, New York 12601

Weill-Cornell Medical Center –
NY Presbyterian
525 East 68th Street
New York, New York 10021

Westchester Medical Center
Grasslands Road
Valhalla, New York 10595

Winthrop – University Hospital
259 First Street
Mineola, New York 11501

* Hospital is allowed to perform Primary PCI only on acute MI (heart attack) patients.

*Additional copies of this report may be obtained through the
Department of Health web site at <http://www.health.state.ny.us>
or by writing to:*

*Cardiac
Box 2000
New York State Department of Health
Albany, New York 12220*



State of New York
George E. Pataki, Governor

Department of Health
Antonia C. Novello, M.D., M.P.H., Dr. P.H., Commissioner