

Supplementary Table 1: ICD9 codes used in ADHF:

ICD-9	Frequency	%
428	8,665	70.65
428.1	97	0.79
428.2	7	0.06
428.21	305	2.49
428.22	99	0.81
428.23	1,021	8.32
428.3	24	0.2
428.31	243	1.98
428.32	80	0.65
428.33	787	6.42
428.4	6	0.05
428.41	109	0.89
428.42	50	0.41
428.43	742	6.05
428.9	30	0.24
Total	12,265	100

Frequency: Number of patients that were diagnosed based on that code.

?: The percentage of the code out of total number of patients

Supplementary Table 2: ICD9 codes used in AMI.

ICD-9	Frequency	%
410	3	0.02
410.01	536	3.4
410.02	2	0.01
410.1	34	0.22
410.11	2,186	13.86
410.12	11	0.07
410.2	5	0.03
410.21	466	2.95
410.22	3	0.02
410.3	4	0.03
410.31	309	1.96
410.32	2	0.01
410.4	9	0.06
410.41	2,688	17.04
410.42	17	0.11
410.5	4	0.03
410.51	256	1.62
410.52	2	0.01
410.6	1	0.01
410.61	75	0.48
410.7	25	0.16
410.71	8,345	52.89
410.72	58	0.37
410.8	6	0.04
410.81	331	2.1
410.82	2	0.01
410.9	7	0.04
410.91	389	2.47
410.92	1	0.01
Total	15,777	100

Frequency: Number of patients that were diagnosed based on that code.

%: The percentage of the code out of total number of patients

Supplementary Table 3: ICD9 codes used in pneumonia:

ICD-9	Frequency	%
11.6	1	0.01
11.64	1	0.01
52.1	10	0.08
73	2	0.02
115.05	68	0.53
115.95	29	0.22
480	1	0.01
480.1	67	0.52
480.2	1	0.01
480.3	1	0.01
480.8	12	0.09
480.9	57	0.44
481	431	3.33
482	68	0.53
482.1	208	1.61
482.2	163	1.26
482.3	57	0.44
482.31	11	0.09
482.32	6	0.05
482.39	15	0.12
482.4	66	0.51
482.41	140	1.08
482.42	57	0.44
482.49	2	0.02
482.81	8	0.06
482.82	33	0.26
482.83	118	0.91
482.84	46	0.36
482.89	42	0.32
482.9	143	1.11
483	25	0.19
483.8	5	0.04
484.1	3	0.02
484.6	1	0.01
485	104	0.8
486	8,520	65.9
487	234	1.81
495.8	4	0.03
495.9	62	0.48
506	12	0.09
507	2,081	16.1
507.1	6	0.05
507.8	2	0.02
997.32	6	0.05
Total	12,929	100

Frequency: Number of patients that were diagnosed based on that code.

#: The percentage of the code out of total number of patients

Supplementary Table 4: Comorbidities specified by OASH.

Dyslipidemia	Coronary Artery Disease	Depression	COPD
Arthritis	Substance abuse	Diabetes	Dementia
Osteoporosis	Congestive Heart Failure	Cancer	Schizophrenia
Autism	Chronic Kidney Disease	Arrhythmia	Hepatitis
Hypertension	Stroke	Asthma	HIV

Supplementary Table 5: List of ICD-9 codes used for the comorbidities:

The condition	ICD-9 codes used:
Dyslipidemia	272.0, 272.1, 272.2, 272.3, 272.4
Arthritis	714.0, 714.1, 714.2, 714.30, 714.31, 714.32, 714.33, 715.00, 715.04, 715.09, 715.10, 715.11, 715.12, 715.13, 715.14, 715.15, 715.16, 715.17, 715.18, 715.20, 715.21, 715.22, 715.23, 715.24, 715.25, 715.26, 715.27, 715.28, 715.30, 715.31, 715.32, 715.33, 715.34, 715.35, 715.36, 715.37, 715.38, 715.80, 715.89, 715.90, 715.91, 715.92, 715.93, 715.94, 715.95, 715.96, 715.97, 715.98, 720.0, 721.0, 721.1, 721.2, 721.3, 721.90, 721.91
Osteoporosis	733.00, 733.01, 733.02, 733.03, 733.09
Hypertension	401.0, 401.1, 401.9, 402.00, 402.01, 402.10, 402.11, 402.90, 402.91, 403.00, 403.01, 403.10, 403.11, 403.90, 403.91, 404.00, 404.01, 404.02, 404.03, 404.10, 404.11, 404.12, 404.13, 404.90, 404.91, 404.92, 404.93, 405.01, 405.09, 405.11, 405.19, 405.91, 405.99, 362.11, 437.2
Coronary Artery Disease	410.00, 410.01, 410.02, 410.10, 410.11, 410.12, 410.20, 410.21, 410.22, 410.30, 410.31, 410.32, 410.40, 410.41, 410.42, 410.50, 410.51, 410.52, 410.60, 410.61, 410.62, 410.70, 410.71, 410.72, 410.80, 410.81, 410.82, 410.90, 410.91, 410.92, 411.0, 411.1, 411.81, 411.89, 412, 413.0, 413.1, 413.9, 414.00, 414.01, 414.02, 414.03, 414.04, 414.05, 414.06, 414.07, 414.12, 414.2, 414.3, 414.8, 414.9
COPD	490, 491.0, 491.1, 491.20, 491.21, 491.22, 491.8, 491.9, 492.0, 492.8, 494.0, 494.1, 496
Chronic Kidney Disease	016.00, 016.01, 016.02, 016.03, 016.04, 016.05, 016.06, 095.4, 189.0, 189.9, 223.0, 236.91, 249.40, 249.41, 250.40, 250.41, 250.42, 250.43, 271.4, 274.10, 283.11, 403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 440.1, 442.1, 572.4, 580.0, 580.4, 580.81, 580.89, 580.9, 581.0, 581.1, 581.2, 581.3, 581.81, 581.89, 581.9, 582.0, 582.1, 582.2, 582.4, 582.81, 582.89, 582.9, 583.0, 583.1, 583.2, 583.4, 583.6, 583.7, 583.81, 583.89, 583.9, 584.5, 584.6, 584.7, 584.8, 584.9, 585, 585.1, 585.2, 585.3, 585.4, 585.5, 585.6, 585.9, 586, 587, 588.0, 588.1, 588.81, 588.89, 588.9, 591, 753.12, 753.13, 753.14, 753.15, 753.16, 753.17, 753.19, 753.20, 753.21, 753.22, 753.23, 753.29, 794.4
Stroke	430, 431, 433.01, 433.11, 433.21, 433.31, 433.81, 433.91, 434.00, 434.01, 434.10, 434.11, 434.90, 434.91, 435.0, 435.1, 435.3, 435.8, 435.9, 436, 997.02
Depression	296.20, 296.21, 296.22, 296.23, 296.24, 296.25, 296.26, 296.30, 296.31, 296.32, 296.33, 296.34, 296.35, 296.36, 296.51, 296.52, 296.53, 296.54, 296.55, 296.56, 296.60, 296.61, 296.62, 296.63, 296.64, 296.65, 296.66, 296.89, 298.0, 300.4, 309.1, 311
Diabetes	249.00, 249.01, 249.10, 249.11, 249.20, 249.21, 249.30, 249.31, 249.40, 249.41, 249.50, 249.51, 249.60, 249.61, 249.70, 249.71, 249.80, 249.81, 249.90, 249.91, 250.00, 250.01, 250.02, 250.03,

	250.10, 250.11, 250.12, 250.13, 250.20, 250.21, 250.22, 250.23, 250.30, 250.31, 250.32, 250.33, 250.40, 250.41, 250.42, 250.43, 250.50, 250.51, 250.52, 250.53, 250.60, 250.61, 250.62, 250.63, 250.70, 250.71, 250.72, 250.73, 250.80, 250.81, 250.82, 250.83, 250.90, 250.91, 250.92, 250.93, 357.2, 362.01, 362.02, 366.41
Cancer	Female breast cancer: 174.0, 174.1, 174.2, 174.3, 174.4, 174.5, 174.6, 174.8, 174.9, 175.0, 175.9, 233.0, V10.3. Colorectal cancer: 154.0, 154.1, 153.0, 153.1, 153.2, 153.3, 153.4, 153.5, 153.6, 153.7, 153.8, 153.9, 230.3, 230.4, V10.05. Prostate cancer: 185, 233.4, V10.46. Lung cancer: 162.2, 162.3, 162.4, 162.5, 162.8, 162.9, 231.2, V10.11.
Arrhythmia	427.31
Asthma	493.00, 493.01, 493.02, 493.10, 493.11, 493.12, 493.20, 493.21, 493.22, 493.81, 493.82, 493.90, 493.91, 493.92
Congestive Heart Failure	398.91, 402.01, 402.11, 402.91, 404.01, 404.11, 404.91, 404.03, 404.13, 404.93, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9
Dementia	331.0, 331.1, 331.11, 331.19, 331.2, 331.7, 290.0, 290.10, 290.11, 290.12, 290.13, 290.20, 290.21, 290.3, 290.40, 290.41, 290.42, 290.43, 294.0, 294.10, 294.11, 294.8, 797

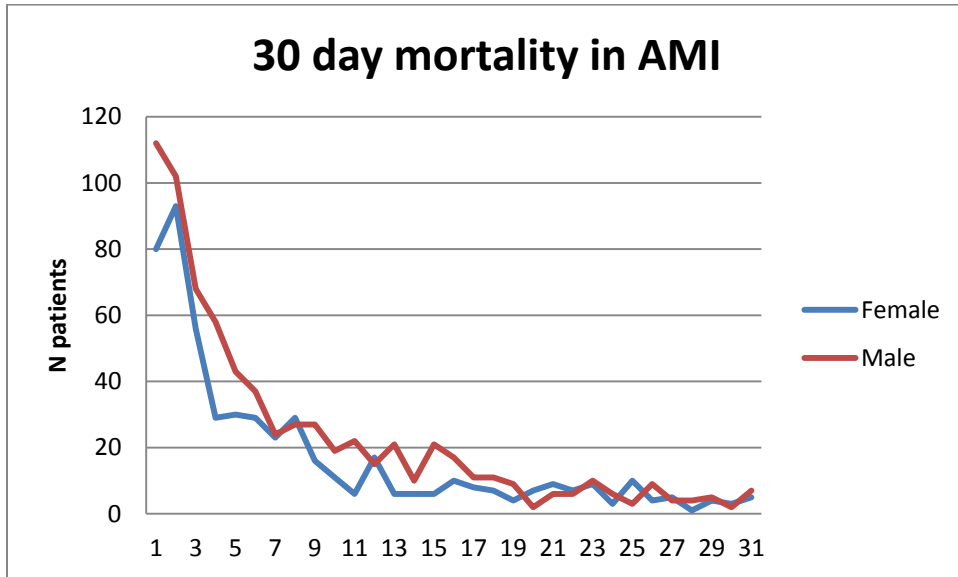
Supplementary Table 6: sensitivity analysis for the last 5 years of the study

Last 5 years	AMI	ADHF	Pneumonia
Men vs. Women	OR (95% CI)	OR (95% CI)	OR (95% CI)
30 day mortality	1.02 (0.73 to 1.43)	0.81 (0.62 to 1.06)	1.12 (0.85 to 1.47)
30 day readmission	0.85 (0.63 to 1.15)	0.78 (0.63 to 0.97)	0.94 (0.74 to 1.20)

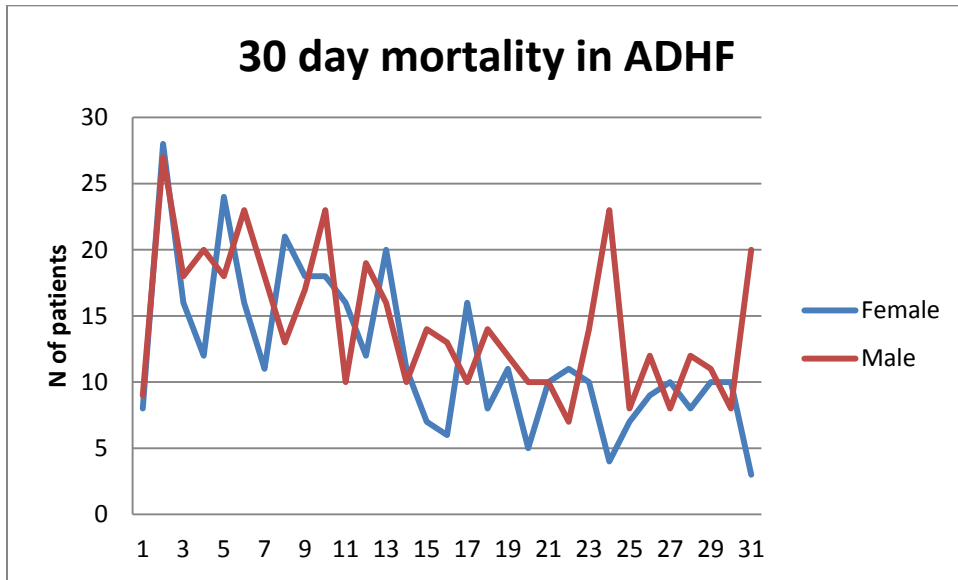
Supplementary Table 7: sensitivity analysis for 15 day mortality and readmission

Last 5 years	AMI	ADHF	Pneumonia
Men vs. Women	OR (95% CI)	OR (95% CI)	OR (95% CI)
15 day mortality	1.00 (0.88 to 1.15)	0.88 (0.73 to 1.05)	1.15 (1.00 to 1.33)
15 day readmission	0.91 (0.81 to 1.03)	0.93 (0.81 to 1.06)	1.10 (0.96 to 1.27)

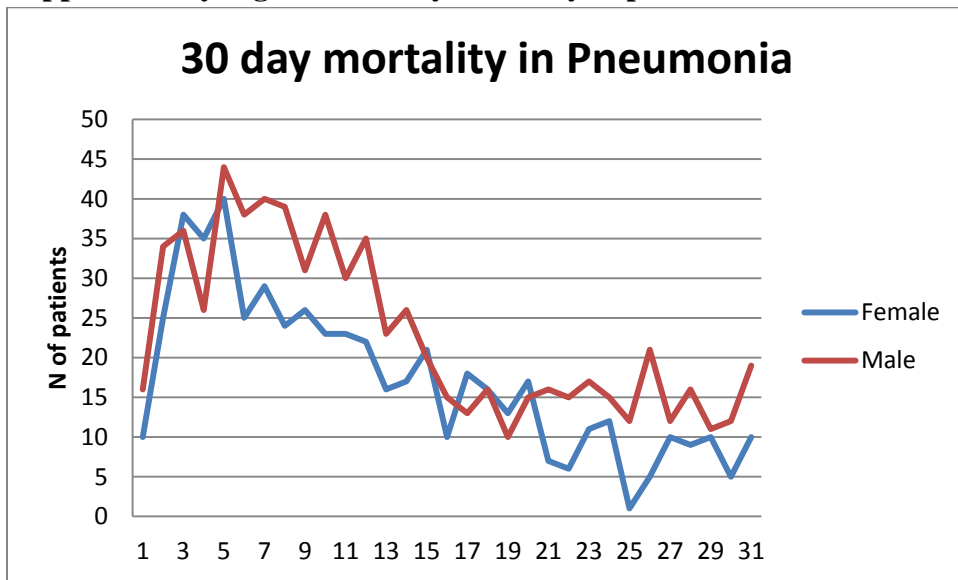
Supplementary Figure 1: 30 day mortality in AMI



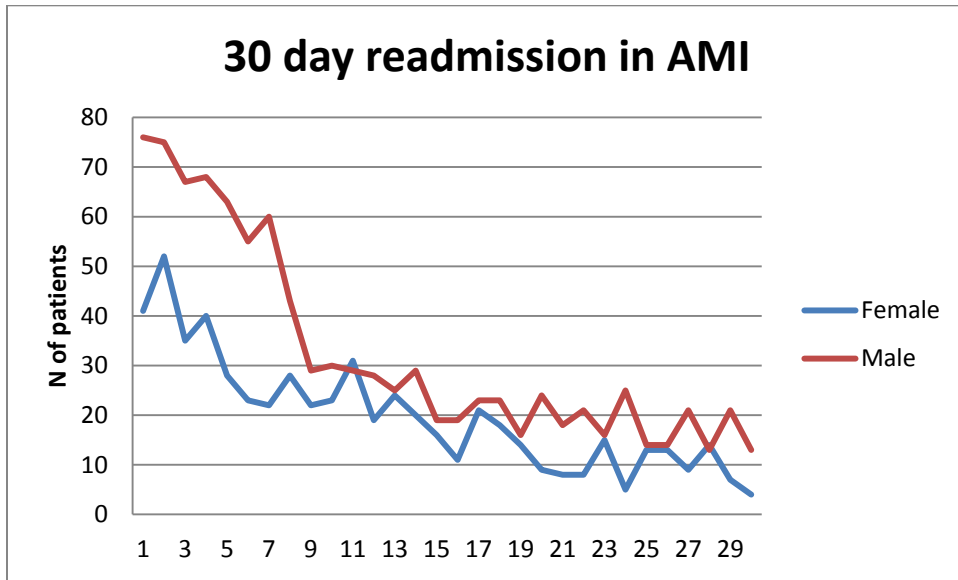
Supplementary Figure 2: 30 day mortality in ADHF



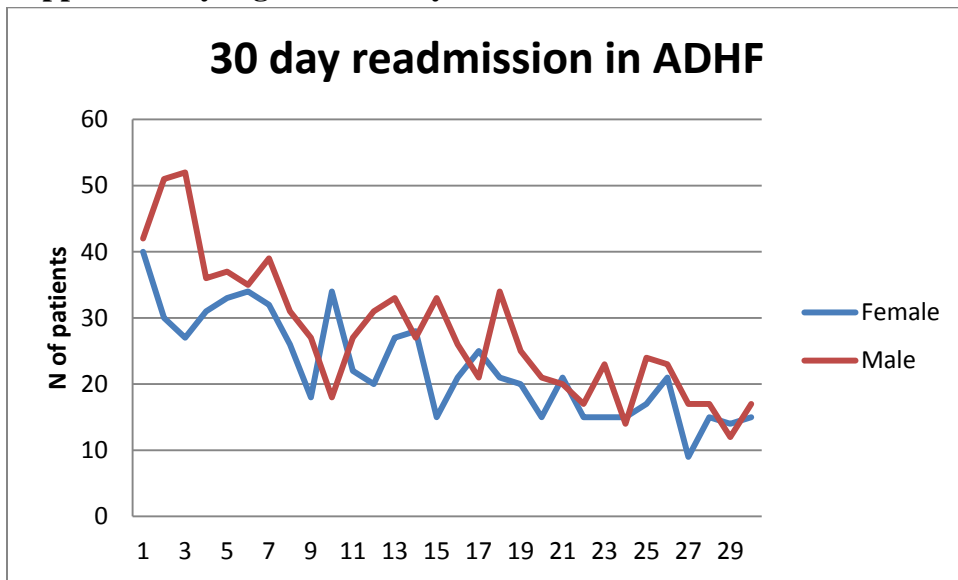
Supplementary Figure 3: 30 day mortality in pneumonia



Supplementary Figure 4: 30 day readmission in AMI



Supplementary Figure 5: 30 day readmission in ADHF



Supplementary Figure 6: 30 day readmission in pneumonia

