Appendix — Criteria used for the automated chart review

A. Heart attack
   a. Chart review is positive if ANY of the following ICD-9 codes are listed as a final diagnosis and not listed as the admitting diagnosis.
      i. 410.01 (Acute myocardial infarction of anterolateral wall...initial episode of care)
      ii. 410.11 (Acute myocardial infarction of other anterior wall...initial episode of care)
      iii. 410.21 (Acute myocardial infarction of inferolateral wall...initial episode of care)
      iv. 410.31 (Acute myocardial infarction of infero-posterior wall...initial episode of care)
      v. 410.41 (Acute myocardial infarction of other inferior wall...initial episode of care)
      vi. 410.51 (Acute myocardial infarction of other lateral wall...initial episode of care)
      vii. 410.61 (True posterior wall infarction...initial episode of care)
      viii. 410.71 (Subendocardial infarction...initial episode of care)
      ix. 410.81 (Acute myocardial infarction of other specified sites...initial episode of care)
      x. 410.91 (Acute myocardial infarction of unspecified site...initial episode of care)

B. Your heart stopped beating (cardiac arrest)
   a. Chart review is positive if ANY of the following ICD-9 codes are listed as a final diagnosis and not listed as the admitting diagnosis.
      i. 427.4X (Ventricular fibrillation and flutter)
      ii. 427.5 (Cardiac arrest)

C. Heart failure (congestive heart failure)
   a. Chart review is positive if ANY of the following ICD-9 codes are listed as a final diagnosis and not listed as the admitting diagnosis.
      i. 428.1 (Left heart failure)
      ii. 428.21 (Acute systolic heart failure)
      iii. 428.23 (Acute on chronic systolic heart failure)
      iv. 428.31 (Acute diastolic heart failure)
      v. 428.33 (Acute on chronic diastolic heart failure)
      vi. 428.41 (Acute combined systolic and diastolic heart failure)
      vii. 428.43 (Acute on chronic combined systolic and diastolic heart failure)

D. Abnormal heart rhythm such as atrial fibrillation
   a. Chart review is positive if the patient meets ANY of the following criteria.
      i. A post-procedure electrocardiogram shows atrial fibrillation or atrial flutter, and the patient was not in atrial fibrillation/flutter prior to the procedure
      ii. There is a post-procedure order for amiodarone, and amiodarone was not on the patient’s home medication list
      iii. ICD-9 procedure code 99.61 (Atrial cardioversion) is listed
      iv. A post-procedure electrocardiogram shows ventricular tachycardia, supraventricular tachycardia, ectopic atrial rhythm, atrioventricular block, junctional rhythm, or wide QRS rhythm, and the rhythm was not also present on a pre-procedure electrocardiogram.
E. **Severe pain coming from your heart (angina)**
   a. Chart review is positive if there is at least one post-procedure pain score with Location = “Substernal” and intensity of 7/10 or greater.

F. **Stroke (for example, weakness on one side of the body or difficulty speaking)**
   a. Chart review is positive if ANY of the following ICD-9 codes are listed as a final diagnosis and not listed as the admitting diagnosis.
      i. 430 (Subarachnoid hemorrhage)
      ii. 431 (Intracerebral hemorrhage)
      iii. 433.01 (Oclusion and stenosis of basilar artery ...with cerebral infarction)
      iv. 433.11 (Oclusion and stenosis of carotid artery ...with cerebral infarction)
      v. 433.21 (Oclusion and stenosis of vertebral artery ...with cerebral infarction)
      vi. 433.31 (Oclusion and stenosis of multiple and bilateral precerebral arteries ...with cerebral infarction)
      vii. 433.81 (Oclusion and stenosis of other specified precerebral artery ...with cerebral infarction)
      viii. 433.91 (Oclusion and stenosis of unspecified precerebral artery ...with cerebral infarction)
      ix. 434.01 (Cerebral thrombosis ...with cerebral infarction)
      x. 434.11 (Cerebral embolism ...with cerebral infarction)
      xi. 434.91 (Cerebral artery occlusion unspecified ...with cerebral infarction)
      xii. 997.02 (Iatrogenic cerebrovascular infarction or hemorrhage)

G. **Blood clot in your leg**
   a. Chart review is positive if ICD-9 code 453.4X (Acute venous embolism and thrombosis of deep vessels of lower extremity) is listed as a final diagnosis and not listed as the admitting diagnosis.

H. **Blood clot in your lung**
   a. Chart review is positive if ICD-9 code 415.1X (Pulmonary embolism and infarction) is listed as a final diagnosis and not listed as the admitting diagnosis.

I. **Infection in the surgical wound**
   a. Chart review is positive if ANY of the following ICD-9 codes are listed as a final diagnosis and not listed as the admitting diagnosis.
      i. 519.01 (Infection of tracheostomy)
      ii. 530.86 (Infection of esophagostomy)
      iii. 536.41 (Infection of gastrostomy)
      iv. 539.01 (Infection due to gastric band procedure)
      v. 539.81 (Infection due to other bariatric procedure)
      vi. 569.61 (Infection of colostomy or enterostomy)
      vii. 596.81 (Infection of cystostomy)
      viii. 635.0X (Legally induced abortion complicated by genital tract and pelvic infection)
      ix. 636.0X (Illegal abortion complicated by genital tract and pelvic infection)
      x. 637.0X (Unspecified abortion complicated by genital tract and pelvic infection)
xi. 638.0X (Failed attempted abortion complicated by genital tract and pelvic infection)

xii. 639.0X (Genital tract and pelvic infection following abortion or ectopic and molar pregnancies)

xiii. 996.6X (Infection and inflammatory reaction due to internal prosthetic device implant and graft)

xiv. 998.5X (Postoperative infection not elsewhere classified)

xv. 999.3X (Other infection due to medical care not elsewhere classified)

J. **You stopped breathing (respiratory arrest)**
   a. Chart review is positive if ICD-9 code 799.1 (Respiratory arrest) is listed as a final diagnosis and not listed as the admitting diagnosis.

K. **You were placed on a breathing machine because you were struggling to breathe on your own (respiratory failure)**
   a. Chart review is positive if ANY of the following ICD-9 procedure codes are listed.
      i. 93.90 (Non-invasive mechanical ventilation)
      ii. 93.91 (Intermittent positive pressure breathing [IPPB])
      iii. 96.70 (Continuous invasive mechanical ventilation of unspecified duration)
      iv. 96.71 (Continuous invasive mechanical ventilation for less than 96 consecutive hours)
      v. 96.72 (Continuous invasive mechanical ventilation for 96 consecutive hours or more)

L. **An infection in your lungs (pneumonia)**
   a. Chart review is positive if ANY of the following ICD-9 codes are listed as a final diagnosis and not listed as the admitting diagnosis.
      i. 011.6X (Tuberculous pneumonia)
      ii. 073.0 (Ornithosis with pneumonia)
      iii. 112.4 (Candidiasis of lung)
      iv. 136.3 (Pneumocystosis)
      v. 480.X (Viral pneumonia)
      vi. 481 (Pneumococcal pneumonia)
      vii. 482.X (Other bacterial pneumonia)
      viii. 483.X (Pneumonia due to other specified organism)
      ix. 484.X (Pneumonia in infectious diseases classified elsewhere)
      x. 485 (Bronchopneumonia, organism unspecified)
      xi. 486 (Pneumonia, organism unspecified)
      xii. 487.0 (Influenza with pneumonia)
      xiii. 510.X (Empyema)
      xiv. 997.31 (Ventilator associated pneumonia)
      xv. 997.32 (Postprocedural aspiration pneumonia)

M. **Kidney failure and you needed dialysis**
   a. Chart review is positive if the patient is not on dialysis at home AND if ANY of the following ICD-9 procedure codes are listed.
      i. 39.95 (Hemodialysis)
      ii. 54.98 (Peritoneal dialysis)
N. **Nerve injury related to your procedure**
   a. Chart review is positive if ANY of the following ICD-9 codes are listed as a final diagnosis and not listed as the admitting diagnosis.
      i. 354.X (Mononeuritis of upper limb and mononeuritis multiplex)
         1. Except do not count 354.0 (Carpal tunnel syndrome)
      ii. 355.X (Mononeuritis of lower limb and unspecified site)
      iii. 950.X (Injury to optic nerve and pathways)
      iv. 951.X (Injury to other cranial nerve(s))
      v. 952.X (Spinal cord injury without evidence of spinal bone injury)
      vi. 953.X (Injury to nerve roots and spinal plexus)
      vii. 954.X (Injury to other nerve(s) of trunk, excluding shoulder and pelvic girdles)
      viii. 955.X (Injury to peripheral nerve(s) of shoulder girdle and upper limb)
      ix. 956.X (Injury to peripheral nerve(s) of pelvic girdle and lower limb)
      x. 957.X (Injury to other and unspecified nerves)

O. **Internal bleeding from your stomach or intestine (GI bleed)**
   a. Chart review is positive if ANY of the following ICD-9 codes are listed as a final diagnosis and not listed as the admitting diagnosis.
      i. 530.21 (Ulcer of esophagus with hemorrhage)
      ii. 530.82 (Esophageal hemorrhage)
      iii. 531.0X (Acute gastric ulcer with hemorrhage)
      iv. 531.2X (Acute gastric ulcer with hemorrhage and perforation)
      v. 531.4X (Chronic or unspecified gastric ulcer with hemorrhage)
      vi. 531.6X (Chronic or unspecified gastric ulcer with hemorrhage and perforation)
      vii. 532.0X (Acute duodenal ulcer with hemorrhage)
      viii. 532.2X (Acute duodenal ulcer with hemorrhage and perforation)
      ix. 532.4X (Chronic or unspecified duodenal ulcer with hemorrhage)
      x. 532.6X (Chronic or unspecified duodenal ulcer with hemorrhage and perforation)
      xi. 533.0X (Acute peptic ulcer of unspecified site with hemorrhage)
      xii. 533.2X (Acute peptic ulcer of unspecified site with hemorrhage and perforation)
      xiii. 533.4X (Chronic or unspecified peptic ulcer of unspecified site with hemorrhage)
      xiv. 533.6X (Chronic or unspecified peptic ulcer of unspecified site with hemorrhage and perforation)
      xv. 534.0X (Acute gastrojejunal ulcer with hemorrhage)
      xvi. 534.2X (Acute gastrojejunal ulcer with hemorrhage and perforation)
      xvii. 534.4X (Chronic or unspecified gastrojejunal ulcer with hemorrhage)
      xviii. 534.6X (Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation)
      xix. 535.01 (Acute gastritis with hemorrhage)
      xx. 535.11 (Atrophic gastritis with hemorrhage)
      xxi. 535.21 (Gastric mucosal hypertrophy with hemorrhage)
      xxii. 535.31 (Alcoholic gastritis with hemorrhage)
      xxiii. 535.41 (Other specified gastritis with hemorrhage)
      xxiv. 535.51 (Unspecified gastritis and gastroduodenitis with hemorrhage)
      xxv. 535.61 (Duodenitis with hemorrhage)
      xxvi. 535.71 (Eosinophilic gastritis with hemorrhage)
P. Stomach or intestinal ulcer
   a. Chart review is positive if ANY of the following ICD-9 codes are listed as a final diagnosis and not listed as the admitting diagnosis.
      i. 531.0X (Acute gastric ulcer with hemorrhage)
      ii. 531.1X (Acute gastric ulcer with perforation)
      iii. 531.2X (Acute gastric ulcer with hemorrhage and perforation)
      iv. 531.3X (Acute gastric ulcer without mention of hemorrhage or perforation)
      v. 532.0X (Acute duodenal ulcer with hemorrhage)
      vi. 532.1X (Acute duodenal ulcer with perforation)
      vii. 532.2X (Acute duodenal ulcer with hemorrhage and perforation)
      viii. 532.3X (Acute duodenal ulcer without mention of hemorrhage or perforation)
      ix. 533.0X (Acute peptic ulcer of unspecified site with hemorrhage)
      x. 533.1X (Acute peptic ulcer of unspecified site with perforation)
      xi. 533.2X (Acute peptic ulcer of unspecified site with hemorrhage and perforation)
      xii. 533.3X (Acute peptic ulcer of unspecified site without mention of hemorrhage and perforation)
      xiii. 534.0X (Acute gastrojejunal ulcer with hemorrhage)
      xiv. 534.1X (Acute gastrojejunal ulcer with perforation)
      xv. 534.2X (Acute gastrojejunal ulcer with hemorrhage and perforation)
      xvi. 534.3X (Acute gastrojejunal ulcer without mention of hemorrhage or perforation)

Q. Severe pain lasting for more than one day
   a. Chart review is positive if there is at least one pain score intensity of 7/10 or greater on post-procedure day 1 or later.

R. Severe nausea and vomiting lasting for more than one day
   a. Chart review is positive if the patient received ANY of the following medications on post-procedure day 1 or later.
      i. Dexamethasone
      ii. Metoclopramide
      iii. Ondansetron
      iv. Prochlorperazine
      v. Scopolamine