APPENDIX A – National Voluntary Consensus Standards for Venous Thromboembolism (VTE) Prophylaxis in the Surgical Patient

Measure	Specifications	Inclusions/Exclusions/Risk Adjustment
1. Surgery Patients with Recommended Venous Thromboembolism (VTE) Prophylaxis Ordered **Source:** Centers for Medicare and Medicaid Services (CMS)	*Numerator:* Surgery patients with recommended VTE prophylaxis ordered during the admission *Denominator:* All selected surgery patients	*Denominator inclusions:* • *ICD-9-CM Principal Procedure Code* or *ICD-9-CM Other Procedure Code* of selected surgeries (refer to Specifications Manual, National Healthcare Quality Measures, Appendix A, Table 5.10 for ICD-9-CM codes) **AND** • *ICD-9-CM Principal Procedure Code* or *ICD-9-CM Other Procedure Code* of selected surgeries (refer to Specifications Manual, National Healthcare Quality Measures, Appendix A, Table 5.17-5.24 for ICD-9-CM codes) *Denominator exclusions:* • Patients who are less than 18 years of age • Patients with procedures performed entirely by laparoscope • Patients whose total surgery time is less than or equal to 30 minutes • Patients who stayed less than or equal to 24 hours postop • Burn patients (refer to Specifications Manual, National Healthcare Quality Measures, Appendix A, Table 5.14 for ICD-9-CM codes) *Risk adjustment:* None

Measure	Specifications	Inclusions/Exclusions/Risk Adjustment
2. Surgery Patients Who Received Appropriate Venous Thromboembolism Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery **Source:** Centers for Medicare and Medicaid Services (CMS)	*Numerator:* Surgery patients who received appropriate venous thromboembolism (VTE) prophylaxis during the timeframe 24 hours prior to *Surgical Incision Time* to 24 hours after *Surgery End Time* for the *VTE Procedure of Interest* *Denominator:* All selected surgery patients	*Denominator inclusions:* • *ICD-9-CM Principal Procedure Code* or *ICD-9-CM Other Procedure Code* of selected surgeries (refer to Specifications Manual, National Healthcare Quality Measures,Appendix A, Table 5.10 for ICD-9-CM codes) **AND** • *ICD-9-CM Principal Procedure Code* or *ICD-9-CM Other Procedure Code* of selected surgeries (refer to Specifications Manual, National Healthcare Quality Measures,Appendix A, Table 5.17-5.24 for ICD-9-CM codes) *Denominator exclusions:* • Patients who are less than 18 years of age • Patients with procedures performed entirely by laparoscope • Patients whose total surgery time is less than or equal to 30 minutes • Patients who stayed less than or equal to 24 hours postop • Burn Patients (Refer to Specifications Manual, National Healthcare Quality Measures, Appendix A, Table 5.14 for ICD-9-CM codes) *Risk adjustment:* None

APPENDIX B—ADDITIONAL INFORMATION FOR NATIONAL VOLUNTARY CONSENSUS STANDARDS FOR VENOUS THROMBOEMBOLISM (VTE) PROPHYLAXIS IN THE SURGICAL PATIENT

Measure Information Form

Measure Set: Surgical Care Improvement Project (SCIP)

Set Measure ID#: SCIP-VTE-1

Performance Measure Name: Surgery Patients with Recommended Venous Thromboembolism Prophylaxis Ordered

Description: Surgery patients with recommended venous thromboembolism (VTE) prophylaxis ordered during the admission.

Rationale: There are over 30 million surgeries performed in the United States each year. Despite the evidence that VTE is one of the most common postoperative complications and prophylaxis is the most effective strategy to reduce morbidity and mortality, it is often underused. The frequency of venous thromboembolism (VTE), that includes deep vein thrombosis and pulmonary embolism, is related to the type and duration of surgery, patient risk factors, duration and extent of postoperative immobilization, and use or nonuse of prophylaxis. According to Heit et al, 2000, surgery was associated with over a twenty-fold increase in the odds of being diagnosed with VTE. Studies have shown that appropriately used thromboprophylaxis has a positive risk/benefit ratio and is cost effective. Prophylaxis recommendations for this measure are based on selected surgical procedures from the 2004 American College of Chest Physicians guidelines.

Type of Measure: Process

Improvement Noted As: An increase in the rate

Numerator Statement: Surgery patients with recommended venous thromboembolism (VTE) prophylaxis ordered during the admission

Included Populations: Not applicable

Excluded Populations: None

Data Elements:

- *Documented Bleeding Risk*
- *VTE Prophylaxis*

Denominator Statement: All selected surgery patients

Included Populations:

- *ICD-9-CM Principal Procedure Code* or *ICD-9-CM Other Procedure Code* of selected surgeries (refer to Appendix A, Table 5.10 for ICD-9-CM codes)
  AND
- *ICD-9-CM Principal Procedure Code* or *ICD-9-CM Other Procedure Code* of selected surgeries (refer to Appendix A, Table 5.17-5.24 for ICD-9-CM codes)

Excluded Populations:

- Patients who are less than 18 years of age
- Patients with procedures performed entirely by laparoscope
- Patients whose total surgery time is less than or equal to 30 minutes
- Patients who stayed less than or equal to 24 hours postop
- Burn patients (refer to Appendix A, Table 5.14 for ICD-9-CM codes)

Data Elements:

- *Admission Date*
- *Birthdate*
- *Contraindication to VTE Prophylaxis*
- *Discharge Date*
- *Discharge Time*
- *ICD-9-CM Other Procedure Code*
- *ICD-9-CM Principle Diagnosis Code*
- *ICD-9-CM Principal Procedure Code*
- *Surgery End Date*
- *Surgery End Time*
- *Surgery Start Date*
- *Surgical Incision Time*
- *VTE Laparoscope*
- *VTE Procedure of Interest*

Risk Adjustment: No

Data Collection Approach: Retrospective data sources for required data elements include administrative data and medical records.

Data Accuracy: Variation may exist in the assignment of ICD-9-CM codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions: Measure rates for SCIP-VTE-1 should be analyzed in order to identify where quality improvement efforts should be focused. In the course of these efforts, hospitals may find it useful to drill down by types of surgery to the responses for the data element *VTE Prophylaxis*. The analysis would identify surgical patients that had prophylaxis ordered, which was not the "recommended prophylaxis.

Sampling: Yes, for additional information see the Sampling Section.

Data Reported As: Aggregate rate generated from count data reported as a proportion.

Selected References:

- Chapter 31 of Making Healthcare Safer: A Critical Analysis of Patient Safety Practices. Prepared for Agency for Healthcare Research and Quality, Contract No. 290-97-0013. Prevention of Venous Thromboembolism. PMID: 00000
- Agu O, Hamilton G, Baker D. Graduated compression stockings in the prevention of venous thromboembolism. *Br J Surg*. 1999;86:992-1004. PMID: 10460633
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- Mismetti P, Laporte-Simitsidis S, Tardy B, et al. Prevention of venous thromboembolism in internal medicine with unfractionated or low-molecular-weight heparins: a meta-analysis of randomized clinical trials. *Thromb Haemost*. 2000; 83:14-19. PMID: 10669147
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- Iorio A, Agnelli G. Low-molecular-weight and unfractionated heparin for prevention of venous thromboembolism in neurosurgery: a meta-analysis. *Arch Intern Med*. 2000;160:2327-2332. PMID: 10927730
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- Clagett GP, Anderson FAJ, Levine MN, et al. Prevention of venous thromboembolism. *Chest*. 1995;108S:312S-334S PMID: 7555186
- Caprini JA, Arcelus JI, Hoffman K, et al. Prevention of venous thromboembolism in North America: results of a survey among general surgeons. *J Vasc Surg*. 1994;20:751-758. PMID: 7966811
- Wells PS, Lensing AW, Hirsh J. Graduated compression stockings in the prevention of postoperative venous thromboembolism. A meta-analysis. Arch *Intern Med*. 1994;154:67-72. PMID: 8267491
- Janku GV, Paiement GD, Green HD. Prevention of venous thromboembolism in orthopaedics in the United States. *Clin Ortho & Related Research*. 1996:313-321. PMID: 8998892
- Koch A, Bouges S, Ziegler S, et al. Low molecular weight heparin and infractionated heparin in thrombosis prophylaxis after major surgical intervention: update of previous meta-analyses. *Br J Surg*. 1997;84:750-759. PMID: 9189079
- Palmer AJ, Schramm W, Kirchhof B, et al. Low molecular weight heparin and unfractionated heparin for prevention of thrombo-embolism in general surgery: a meta-analysis of randomised clinical trials. *Haemostasis*. 1997;27:65-74. PMID: 9212354
- Bratzler DW, Raskob GE, Murray CK, et al. Underuse of venous thromboembolism prophylaxis for general surgery patients: physician practices in the community hospital setting. *Arch Intern Med*. 1998;158:1909-1912. PMID: 9759687
- Vanek VW. Meta-analysis of effectiveness of intermittent pneumatic compression devices with a comparison of thigh-high to knee-high sleeves. *American Surgeon*. 1998;64:1050-1058. PMID: 9798767
- Hull RD, Brant RF, Pineo GF, et al. Preoperative vs postoperative initiation of low-molecular-weight heparin prophylaxis against venous thromboembolism in patients undergoing elective hip replacement. *Arch Intern Med*. 1999;159:137-141. PMID: 9927095
- Heit JA, Silverstein MD, Mohr DN, Petterson TM, O'Fallon WM, Melton LJ, III. Risk factors for deep vein thrombosis and pulmonary embolism: a population-based case-control study. Arch Intern Med 2000;160:809-815

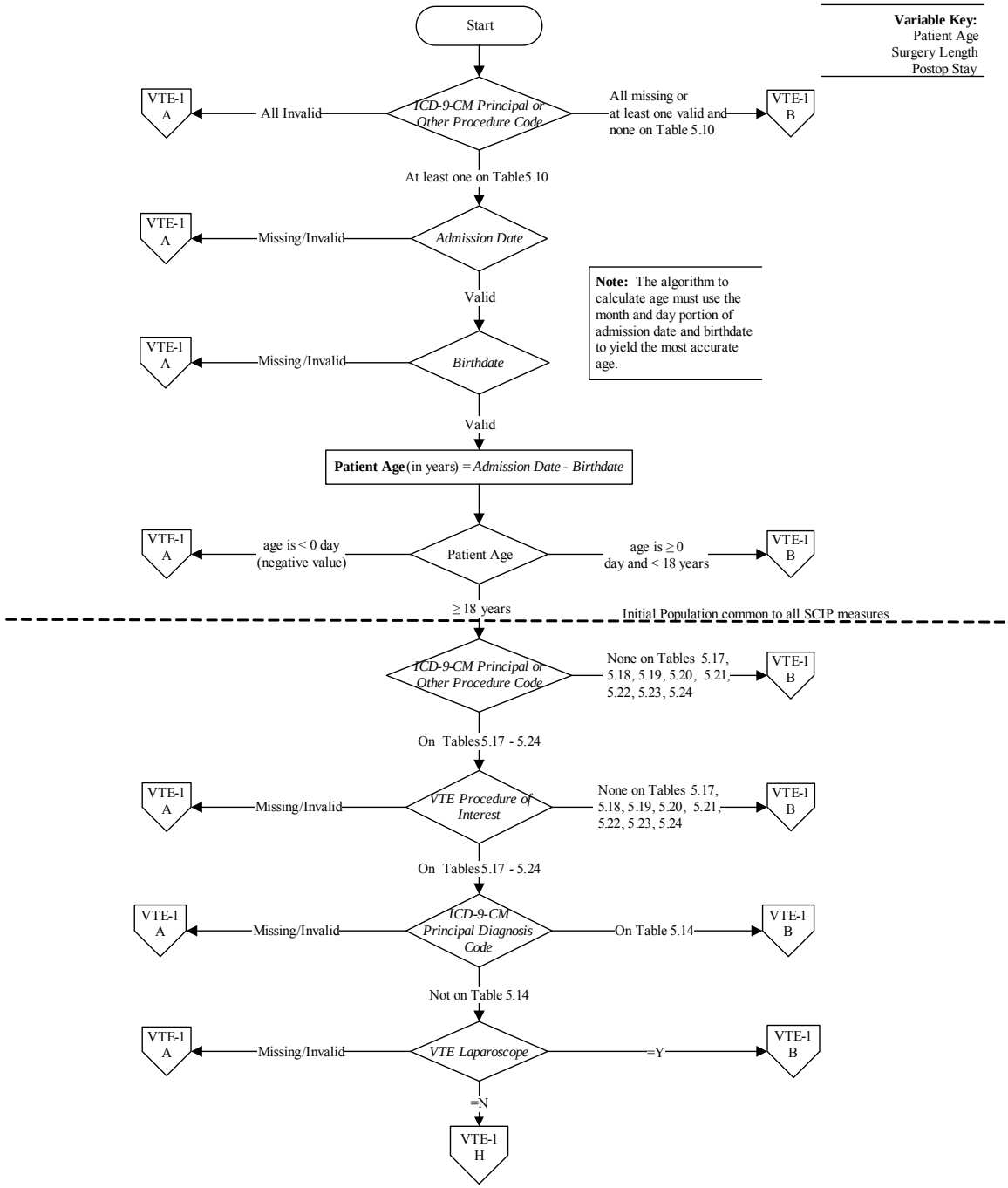
VTE Prophylaxis Selection for Surgery	
Surgery, Level of Risk	**Recommended Prophylaxis**
Intracranial Neurosurgery **Appendix A, Table 5.17**	Any of the following: IPC with or without GCS Low-dose unfractionated heparin (LDUH) Low molecular weight heparin (LMWH) LDUH or LMWH combined with IPC or GCS
Elective Spinal Surgery **Appendix A, Table 5.18** (With additional risk factors such as advanced age, known malignancy, presence of a neurologic deficit, previous VTE, or an anterior surgical approach)	Any of the following: Low-dose unfractionated heparin (LDUH) Low molecular weight heparin (LMWH) Intermittent pneumatic compression devices (IPC) Graduated compression stockings (GCS) IPC combined with GCS LDUH or LMWH combined with IPC or GCS
General Surgery with moderate to high risk **Appendix A, Table 5.19** (Open surgical procedure > 30 minutes requiring in hospital stay > 24 hours postop)	Any of the following: Low-dose unfractionated heparin (LDUH) Low molecular weight heparin (LMWH) LDUH or LMWH combined with IPC or GCS
General Surgery with high risk for bleeding **Appendix A, Table 5.19** (based on physician, nurse practitioner, physician assistant, or certified registered nurse anesthetist documentation of bleeding risk)	Any of the following: Graduated Compression stockings (GCS) Intermittent pneumatic compression (IPC)
Gynecologic Surgery **Appendix A, Table 5.20** (Open surgical procedure > 30 minutes and requiring hospital stay > 24 hours postop)	Any of the following: Low-dose unfractionated heparin (LDUH) Low molecular weight heparin (LMWH) Intermittent pneumatic compression devices (IPC) LDUH or LMWH combined with IPC or GCS
Urologic Surgery **Appendix A, Table 5.21** (Open surgical procedure > 30 minutes requiring hospital stay > 24 hours postop)	Any of the following: Low-dose unfractionated heparin (LDUH) Low molecular weight heparin (LMWH) Intermittent pneumatic compression devices (IPC) Graduated compression stockings (GCS) LDUH or LMWH combined with IPC or GCS

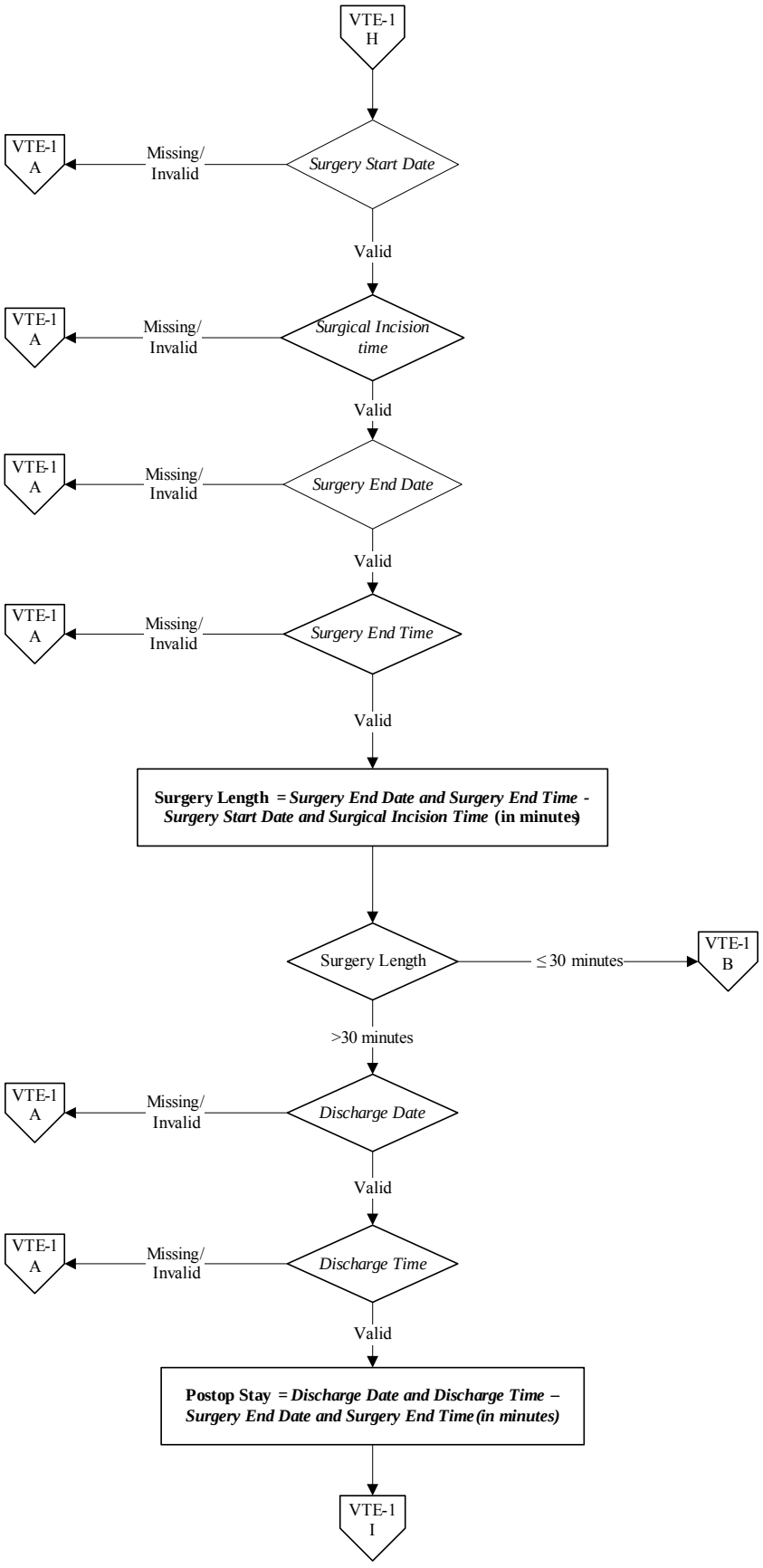
VTE Prophylaxis Regimen Selection for Surgery (Con't)	
Surgery, Level of Risk	**Recommended Prophylaxis**
□ **Elective Total Hip Replacement** **Appendix A, Table 5.22**	Any of the following started within 24 hours of surgery: Low molecular weight heparin (LMWH) Fondaparinux Warfarin
□ **Elective Total Knee Replacement** **Appendix A, Table 5.23**	Any of the following: Low molecular weight heparin (LMWH) Fondaparinux Warfarin Intermittent pneumatic compression devices (IPC)
□ **Hip Fracture Surgery** **Appendix A, Table 5.24**	Any of the following: Low-dose unfractionated heparin (LDUH) Low molecular weight heparin (LMWH) Fondaparinux Warfarin
□ **Hip Fracture Surgery with high risk for bleeding** **Appendix A, Table 5.24** (based on physician, nurse practitioner, physician assistant, or certified registered nurse anesthetist documentation of bleeding risk)	Any of the following: Graduated Compression stockings (GCS) Intermittent pneumatic compression (IPC)

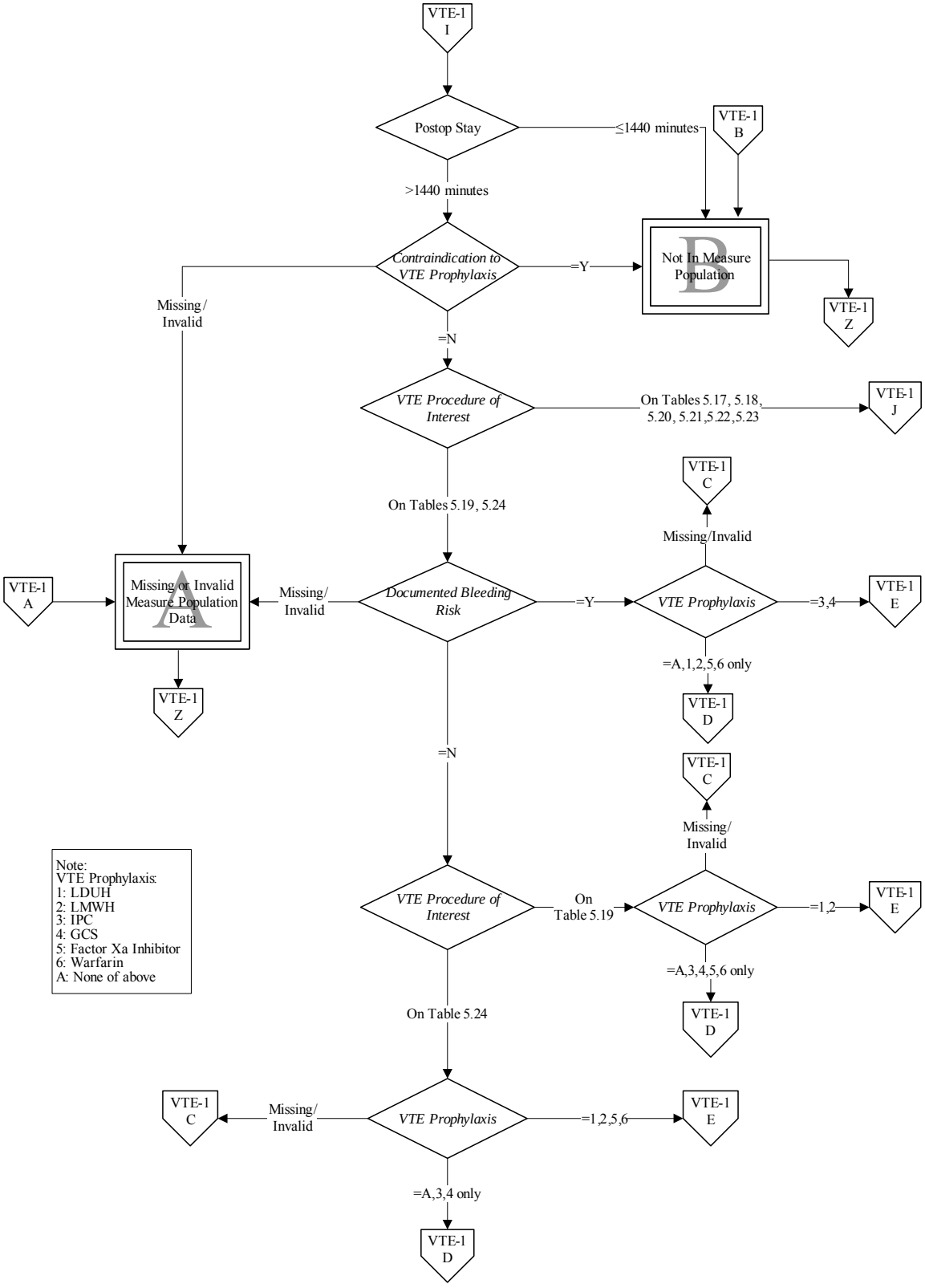
VTE-1: Surgery patients with Recommended Venous Thromboembolism Prophylaxis Ordered

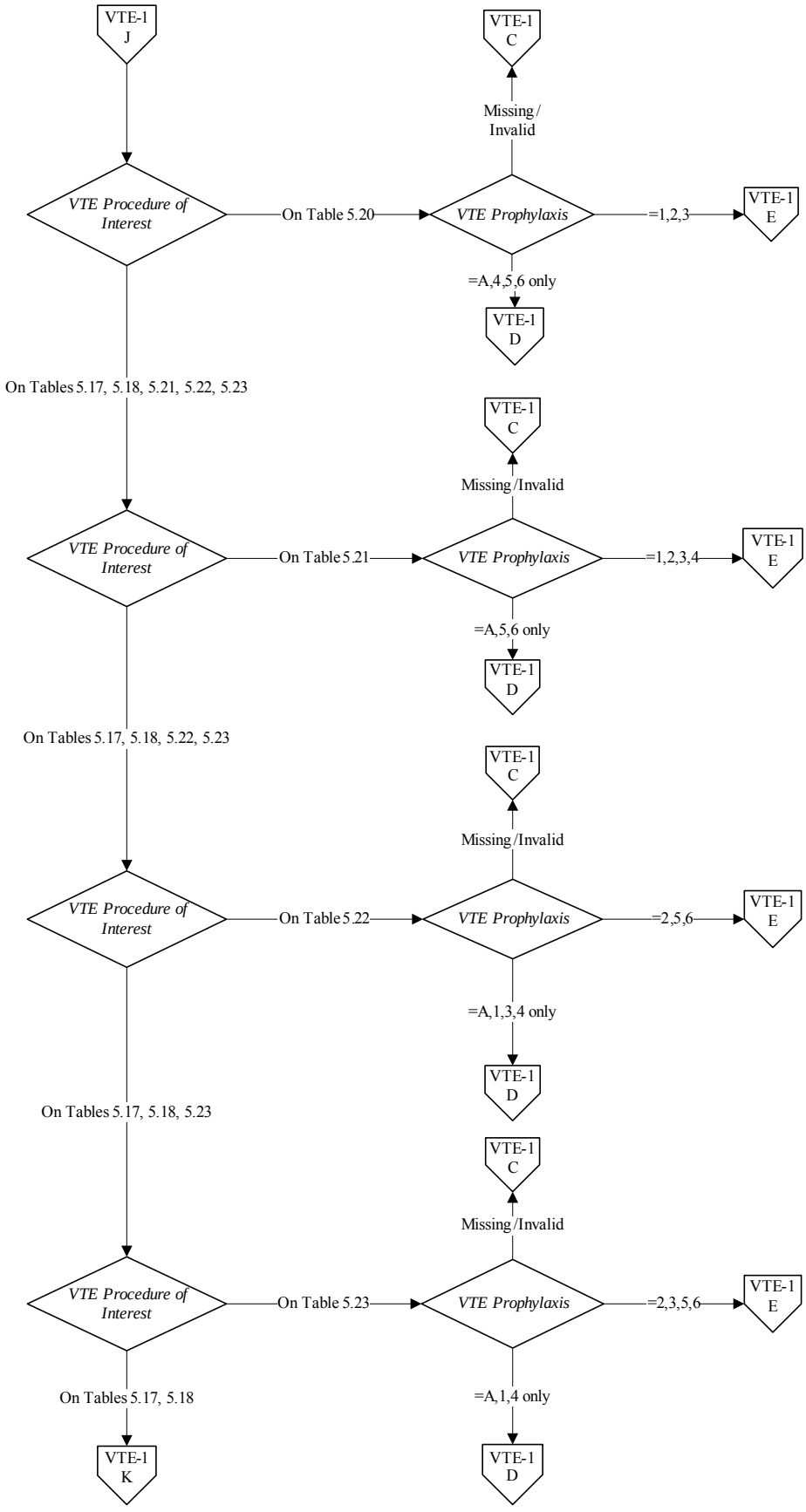
Numerator: Surgery patients with recommended Venous Thromboembolism (VTE) prophylaxis ordered during the admission.

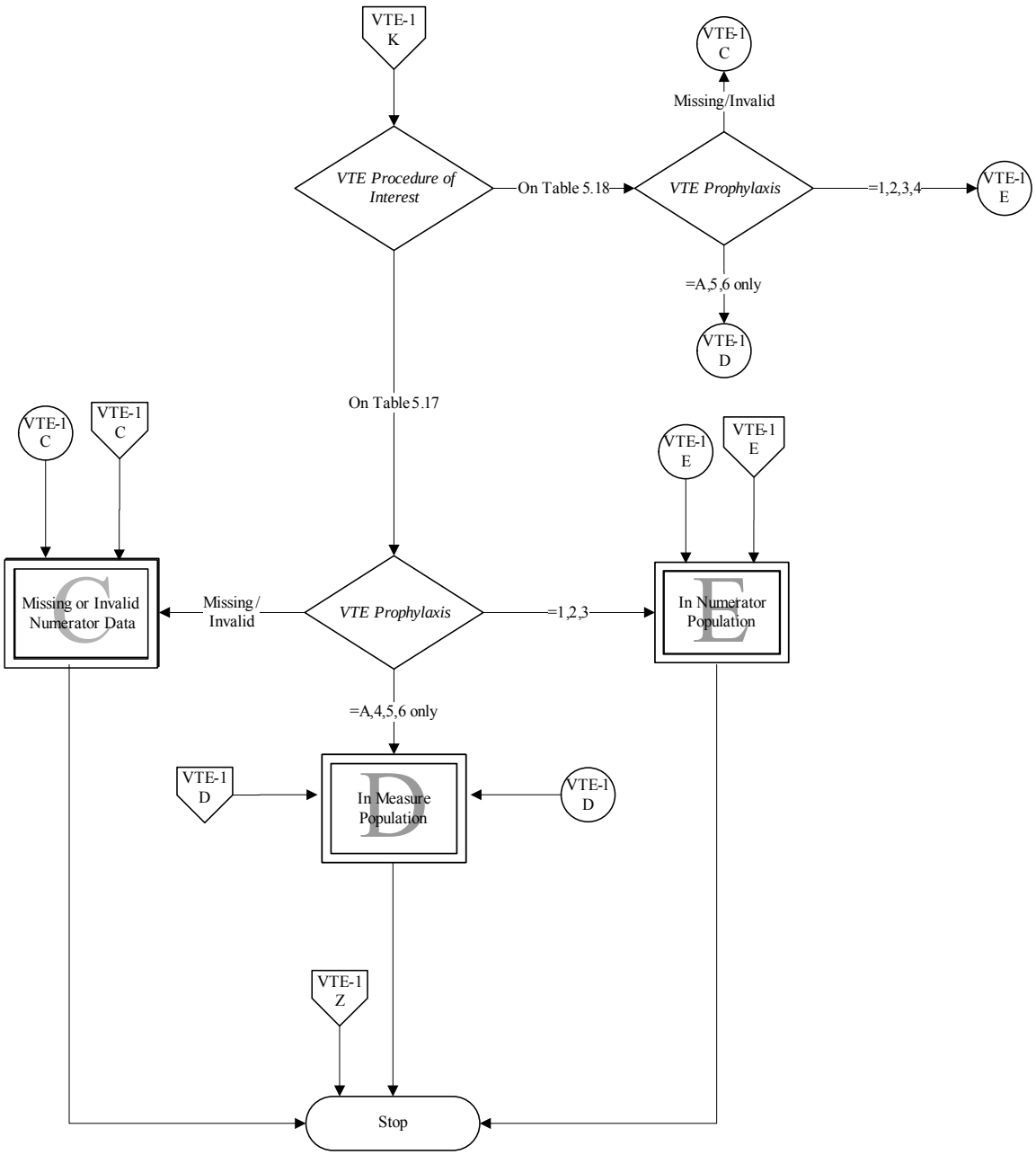
Denominator: All selected surgery patients.











Measure Information Form

Measure Set: Surgical Care Improvement Project (SCIP)

Set Measure ID#: SCIP-VTE-2

Performance Measure Name: Surgery Patients Who Received Appropriate Venous Thromboembolism Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery

Description: Surgery patients who received appropriate venous thromboembolism (VTE) prophylaxis during the timeframe 24 hours prior to *Surgical Incision Time* to 24 hours after *Surgery End Time*.

Rationale: There are over 30 million surgeries performed in the United States each year. Despite the evidence that VTE is one of the most common postoperative complications and prophylaxis is the most effective strategy to reduce morbidity and mortality, it is often underused. The frequency of venous thromboembolism (VTE), that includes deep vein thrombosis and pulmonary embolism, is related to the type and duration of surgery, patient risk factors, duration and extent of postoperative immobilization, and use or nonuse of prophylaxis. According to Heit et al, 2000, surgery was associated with over a twenty-fold increase in the odds of being diagnosed with VTE. Studies have shown that appropriately used thromboprophylaxis has a positive risk/benefit ratio and is cost effective. Prophylaxis recommendations for this measure are based on selected surgical procedures from the 2004 American College of Chest Physicians guidelines.

Timing of prophylaxis is based on the type of procedure, prophylaxis selection, and clinical judgment regarding the impact of patient risk factors. The optimal start of pharmacologic prophylaxis in surgical patients varies and must be balanced with the efficacy-to-bleeding potential. Due to the inherent variability related to the initiation of prophylaxis for surgical procedures, 24 hours prior to surgery to 24 hours post surgery was recommended by consensus of the SCIP Technical Expert Panel in order to establish a timeframe that would encompass most procedures.

Type of Measure: Process

Improvement Noted As: An increase in the rate

Numerator Statement: Surgery patients who received appropriate venous thromboembolism (VTE) prophylaxis during the timeframe 24 hours prior to *Surgical Incision Time* to 24 hours after *Surgery End Time* for the *VTE Procedure of Interest*

Included Populations: Not applicable

Excluded Populations: None

Data Elements:
- *Documented Bleeding Risk*
- *VTE Prophylaxis*
- *VTE Timely*

Denominator Statement: All selected surgery patients

Included Populations:
- *ICD-9-CM Principal Procedure Code* or *ICD-9-CM Other Procedure Code* of selected surgeries (refer to Appendix A, Table 5.10 for ICD-9-CM codes)
  AND
- *ICD-9-CM Principal Procedure Code* or *ICD-9-CM Other Procedure Code* of selected surgeries (refer to Appendix A, Table 5.17-5.24 for ICD-9-CM codes)

Excluded Populations:
- Patients who are less than 18 years of age
- Patients with procedures performed entirely by laparoscope
- Patients whose total surgery time is less than or equal to 30 minutes
- Patients who stayed less than or equal to 24 hours postop
- Burn Patients (Refer to Appendix A, Table 5.14 for ICD-9-CM codes)

Data Elements:
- *Admission Date*
- *Birthdate*
- *Contraindication to VTE Prophylaxis*
- *Discharge Date*
- *Discharge Time*
- *ICD-9-CM Other Procedure Code*
- *ICD-9-CM Principle Diagnosis Code*
- *ICD-9-CM Principal Procedure Code*
- *Surgery End Date*
- *Surgery End Time*
- *Surgery Start Date*
- *Surgical Incision Time*
- *VTE Laparoscope*
- *VTE Procedure of Interest*

Risk Adjustment: No

Data Collection Approach: Retrospective data sources for required data elements include administrative data and medical records.

Data Accuracy: Variation may exist in the assignment of ICD-9-CM codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions: Measure rates for SCIP-VTE-2 should be analyzed in conjunction with SCIP-VTE-1 in order to identify focus areas for quality improvement. Low measure rates may indicate the need for staff education or evaluation of organizational factors and processes of care. Note that rates for SCIP-VTE- 2 may be lower than those for SCIP-VTE-1 as a result of more stringent criteria. SCIP-VTE-2 requires documentation that prophylaxis was performed and ordered, whereas SCIP-VTE-1 requires only documentation of an order.

Sampling: Yes, for additional information see the Sampling Section.

Data Reported As: Aggregate rate generated from count data reported as a proportion.

Selected References:

- Chapter 31 of Making Healthcare Safer: A Critical Analysis of Patient Safety Practices. Prepared for Agency for Healthcare Research and Quality, Contract No. 290-97-0013. Prevention of Venous Thromboembolism. PMID: 00000
- Anderson FA, Wheeler HB, Goldberg RJ, et al. Physician practices in the prevention of VTE. *Ann Intern Med*. 1991;115-591-595. PMID: 1892330
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- Stratton MA, Anderson FA, Bussey HI, Caprini J. Prevention of venous thromboembolism: adherence to the 1995 American College of Chest Physicians Consensus Guidelines for Surgical Patients. *Arch Intern Med*. 2000;160:334-3. PMID: 10668835
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- thromboembolism in internal medicine with unfractionated or low-molecular-weight heparins: a meta-analysis of randomized clinical trials. *Thromb Haemost*. 2000;83:14-19. PMID: 10669147
- Amarigiri SV, Lees TA. Elastic compression stockings for prevention of deep vein thrombosis. *The Cochrane Library*, Issue1, 2001. PMID: 10908501
- Iorio A, Agnelli G. Low-molecular-weight and unfractionated heparin for prevention of venous thromboembolism in neurosurgery: a meta-analysis. *Arch Intern Med*. 2000;160:2327-2332. PMID: 10927730
- Goldhaber SZ, Dunn K, MacDougall RC. New onset of venous thromboembolism among hospitalized patients at Brigham and Women's Hospital is caused more often by prophylaxis failure than by withholding treatment. *Chest*. 000;118:1680-1684. PMID: 11115458
- Geerts WH, Heit JA, Clagett GP, et al. Prevention of Venous Thromboembolism.

Chest. 2001;119:132s-175s. PMID: 11157647

- Velmahos GC, Kern J, Chan LS, et al. Prevention of venous thromboembolism after injury: an evidence-based report-part I: analysis of risk factors and evaluation of the role of vena caval filters. *J Trauma*. 2000;49:132-138. PMID: 11925968
- O'Donnell M, Weitz JI. Thromboprophylaxis in surgical patients. *Can J Surg*. 2003; 46(2): 129-135. PMID: 12691354
- Clagett GP, Anderson FAJ, Levine MN, et al. Prevention of venous thromboembolism. *Chest*. 1995;108S:312S-334S PMID: 7555186
- Caprini JA, Arcelus JI, Hoffman K, et al. Prevention of venous thromboembolism in North America: results of a survey among general surgeons. *J Vasc Surg*. 1994;20:751-758. PMID: 7966811
- Wells PS, Lensing AW, Hirsh J. Graduated compression stockings in the prevention of postoperative venous thromboembolism. A meta-analysis. *Arch Intern Med*. 1994;154:67-72. PMID: 8267491
- Janku GV, Paiement GD, Green HD. Prevention of venous thromboembolism in orthopaedics in the United States. *Clin Ortho & Related Research*. 1996:313-321. PMID: 8998892
- Koch A, Bouges S, Ziegler S, et al. Low molecular weight heparin and infractionated heparin in thrombosis prophylaxis after major surgical intervention: update of previous meta-analyses. *Br J Surg*. 1997;84:750-759. PMID: 9189079
- Palmer AJ, Schramm W, Kirchhof B, et al. Low molecular weight heparin and unfractionated heparin for prevention of thrombo-embolism in general surgery: a meta-analysis of randomised clinical trials. *Haemostasis*. 1997;27:65-74. PMID: 9212354
- Bratzler DW, Raskob GE, Murray CK, et al. Underuse of venous thromboembolism prophylaxis for general surgery patients: physician practices in the community hospital setting. *Arch Intern Med*. 1998;158:1909-1912. PMID: 9759687
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- Hull RD, Brant RF, Pineo GF, et al. Preoperative vs postoperative initiation of low-molecular-weight heparin prophylaxis against venous thromboembolism in patients undergoing elective hip replacement. *Arch Intern Med*. 1999;159:137-141. PMID: 9927095
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- Heit JA, Silverstein MD, Mohr DN, Petterson TM, O'Fallon WM, Melton LJ, III. Risk factors for deep vein thrombosis and pulmonary embolism: a population-based case-control study. Arch Intern Med 2000;160:809-815

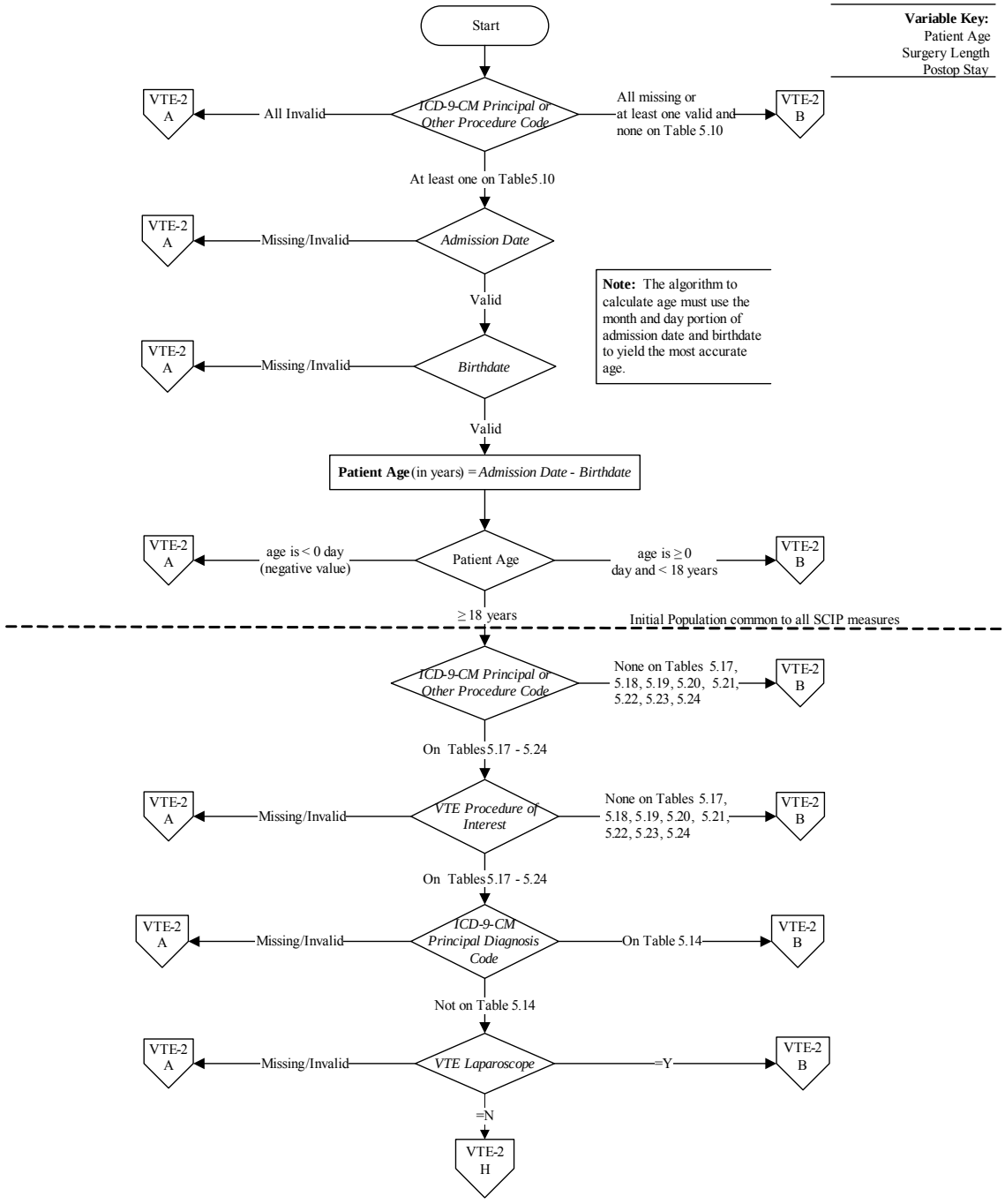
VTE Prophylaxis Selection for Surgery	
Surgery, Level of Risk	**Recommended Prophylaxis**
Intracranial Neurosurgery **Appendix A, Table 5.17**	Any of the following: IPC with or without GCS Low-dose unfractionated heparin (LDUH) Low molecular weight heparin (LMWH) LDUH or LMWH combined with IPC or GCS
Elective Spinal Surgery **Appendix A, Table 5.18** (With additional risk factors such as advanced age, known malignancy, presence of a neurologic deficit, previous VTE, or an anterior surgical approach)	Any of the following: Low-dose unfractionated heparin (LDUH) Low molecular weight heparin (LMWH) Intermittent pneumatic compression devices (IPC) Graduated compression stockings (GCS) IPC combined with GCS LDUH or LMWH combined with IPC or GCS
General Surgery with moderate to high risk **Appendix A, Table 5.19** (Open surgical procedure > 30 minutes requiring in hospital stay > 24 hours postop)	Any of the following: Low-dose unfractionated heparin (LDUH) Low molecular weight heparin (LMWH) LDUH or LMWH combined with IPC or GCS
General Surgery with high risk for bleeding **Appendix A, Table 5.19** (based on physician, nurse practitioner, physician assistant, or certified registered nurse anesthetist documentation of bleeding risk)	Any of the following: Graduated Compression stockings (GCS) Intermittent pneumatic compression (IPC)
Gynecologic Surgery **Appendix A, Table 5.20** (Open surgical procedure > 30 minutes and requiring hospital stay > 24 hours postop)	Any of the following: Low-dose unfractionated heparin (LDUH) Low molecular weight heparin (LMWH) Intermittent pneumatic compression devices (IPC) LDUH or LMWH combined with IPC or GCS
Urologic Surgery **Appendix A, Table 5.21** (Open surgical procedure > 30 minutes requiring hospital stay > 24 hours postop)	Any of the following: Low-dose unfractionated heparin (LDUH) Low molecular weight heparin (LMWH) Intermittent pneumatic compression devices (IPC) Graduated compression stockings (GCS) LDUH or LMWH combined with IPC or GCS

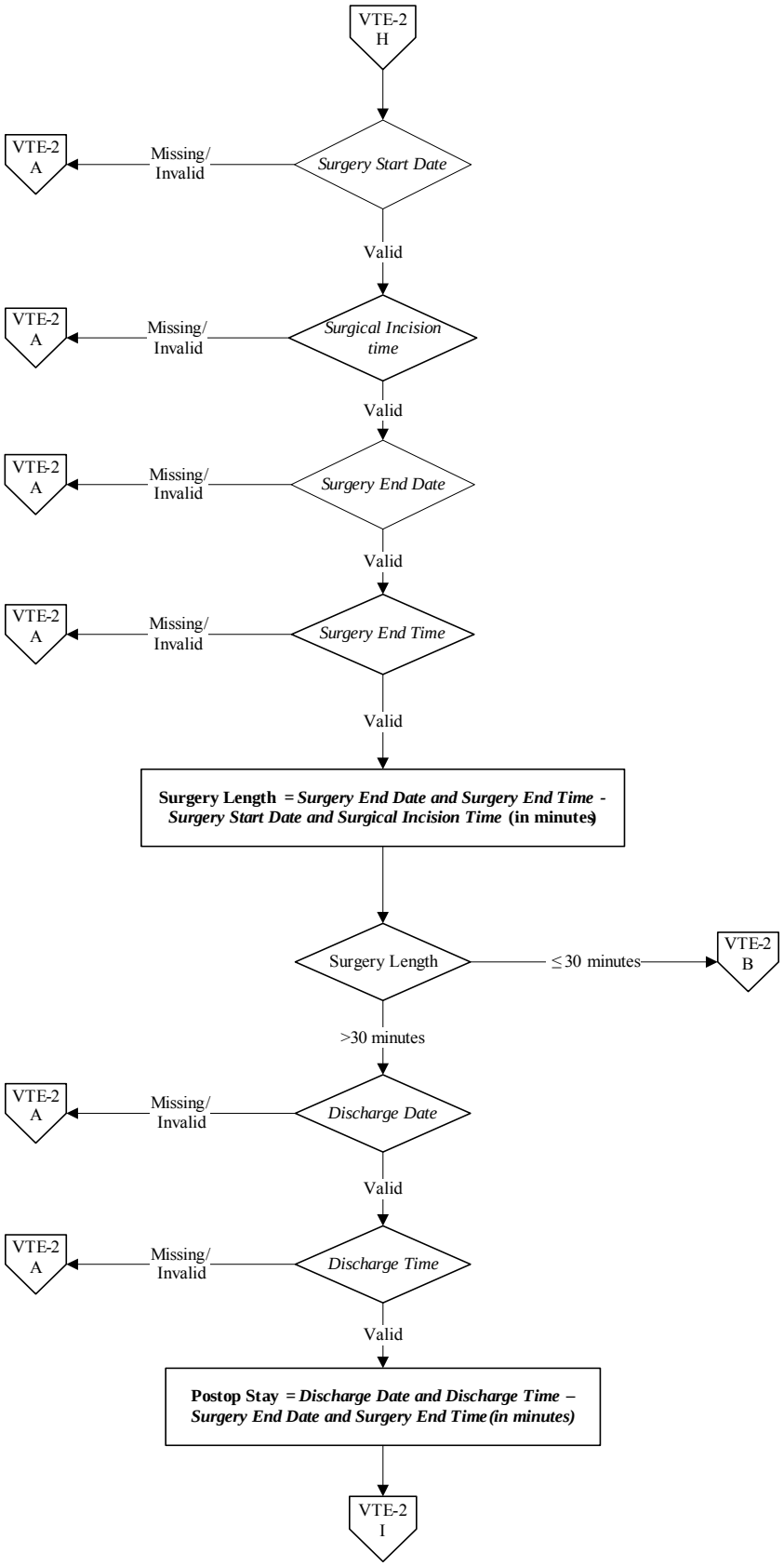
VTE Prophylaxis Regimen Selection for Surgery (Con't)	
Surgery, Level of Risk	**Recommended Prophylaxis**
□ **Elective Total Hip Replacement** **Appendix A, Table 5.22**	Any of the following started within 24 hours of surgery: Low molecular weight heparin (LMWH) Fondaparinux Warfarin
□ **Elective Total Knee Replacement** **Appendix A, Table 5.23**	Any of the following: Low molecular weight heparin (LMWH) Fondaparinux Warfarin Intermittent pneumatic compression devices (IPC)
□ **Hip Fracture Surgery** **Appendix A, Table 5.24**	Any of the following: Low-dose unfractionated heparin (LDUH) Low molecular weight heparin (LMWH) Fondaparinux Warfarin
□ **Hip Fracture Surgery with high risk for bleeding** **Appendix A, Table 5.24** (based on physician, nurse practitioner, physician assistant, or certified registered nurse anesthetist documentation of bleeding risk)	Any of the following: Graduated Compression stockings (GCS) Intermittent pneumatic compression (IPC)

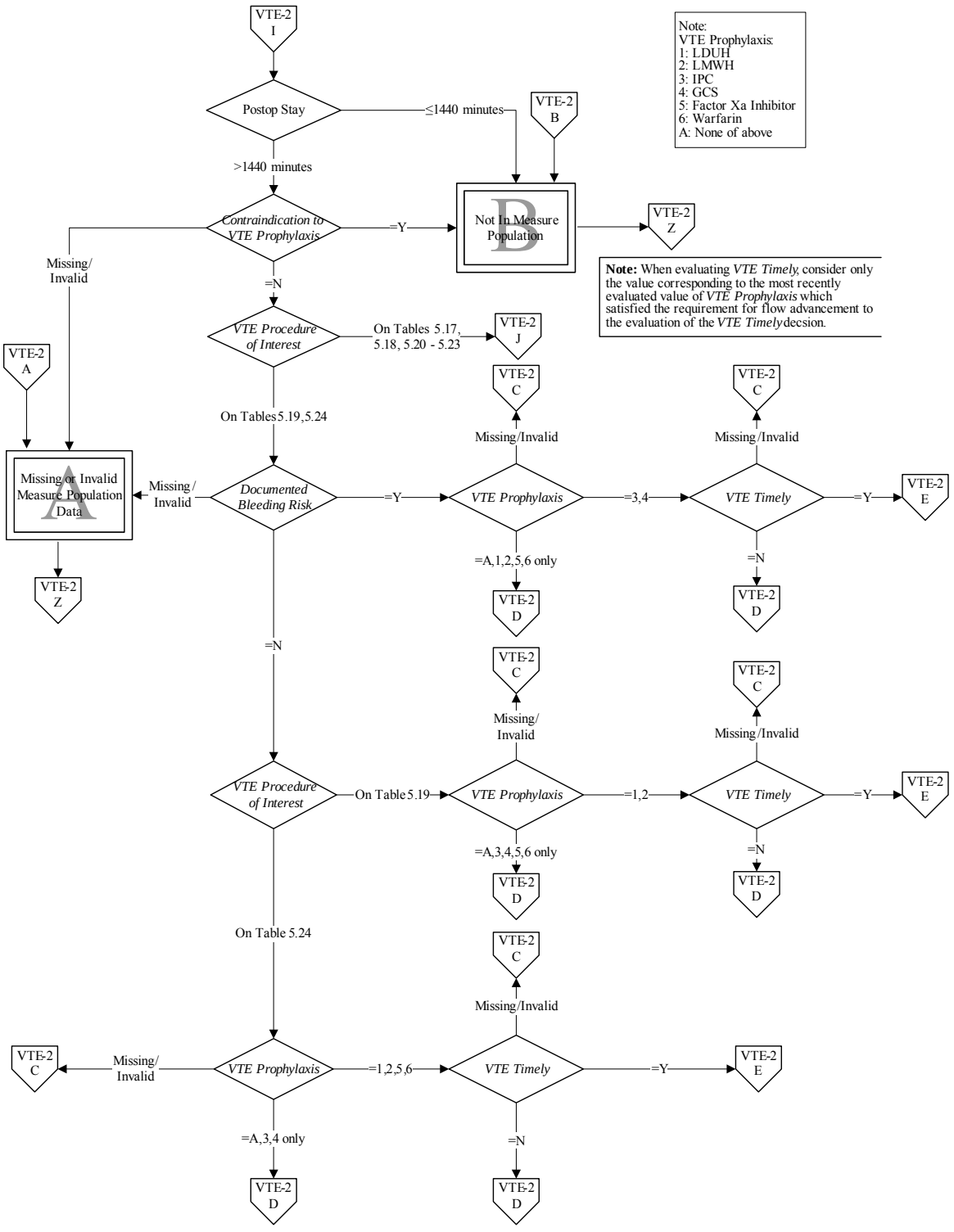
VTE-2: Surgery Patients Who Received Appropriate Venous Thromboembolism Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery

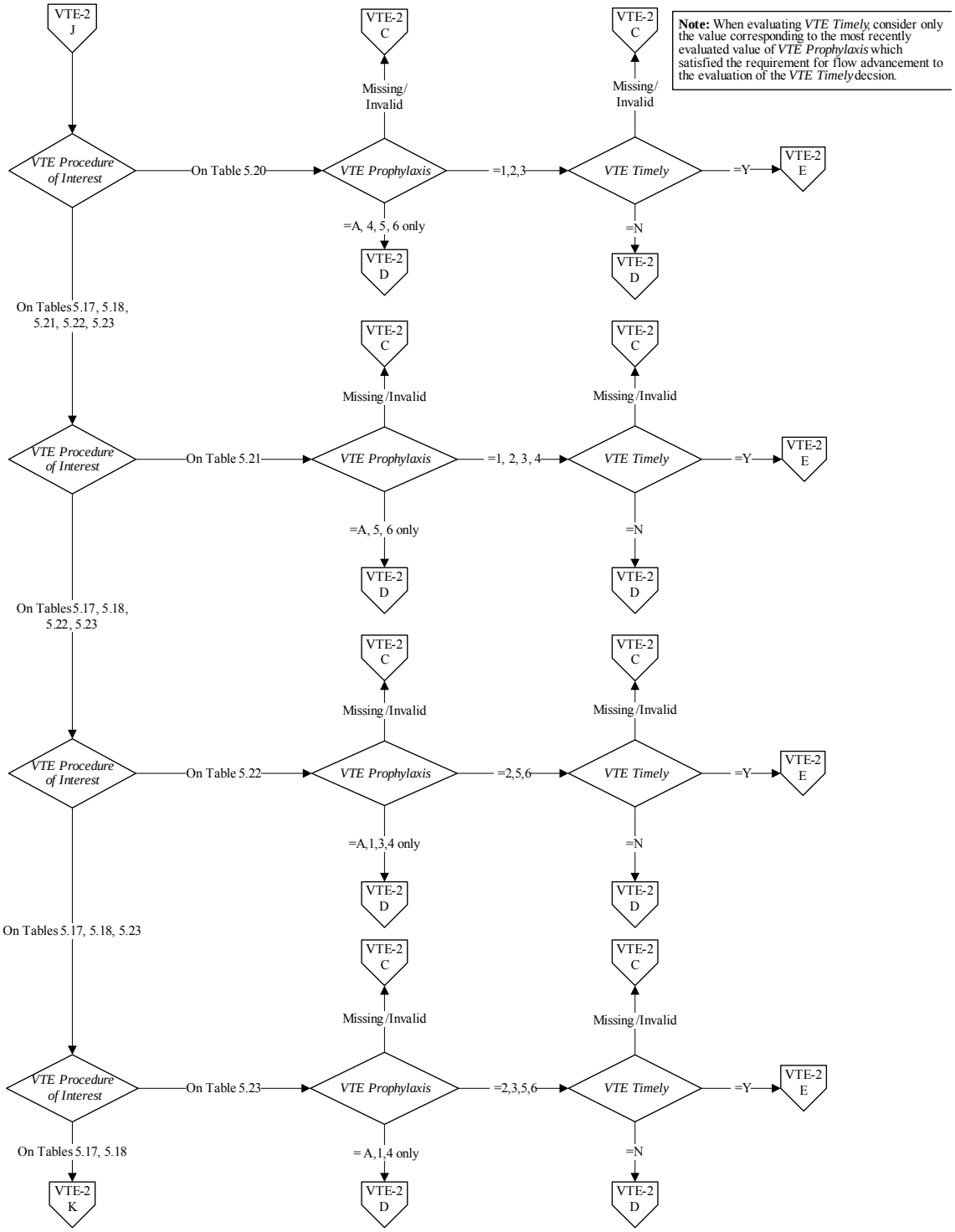
Numerator: Surgery patients who received appropriate venous thromboembolism (VTE) prophylaxis during the timeframe 24 hours prior to *Surgical Incision Time* to 24 hours after *Surgery End Time*.

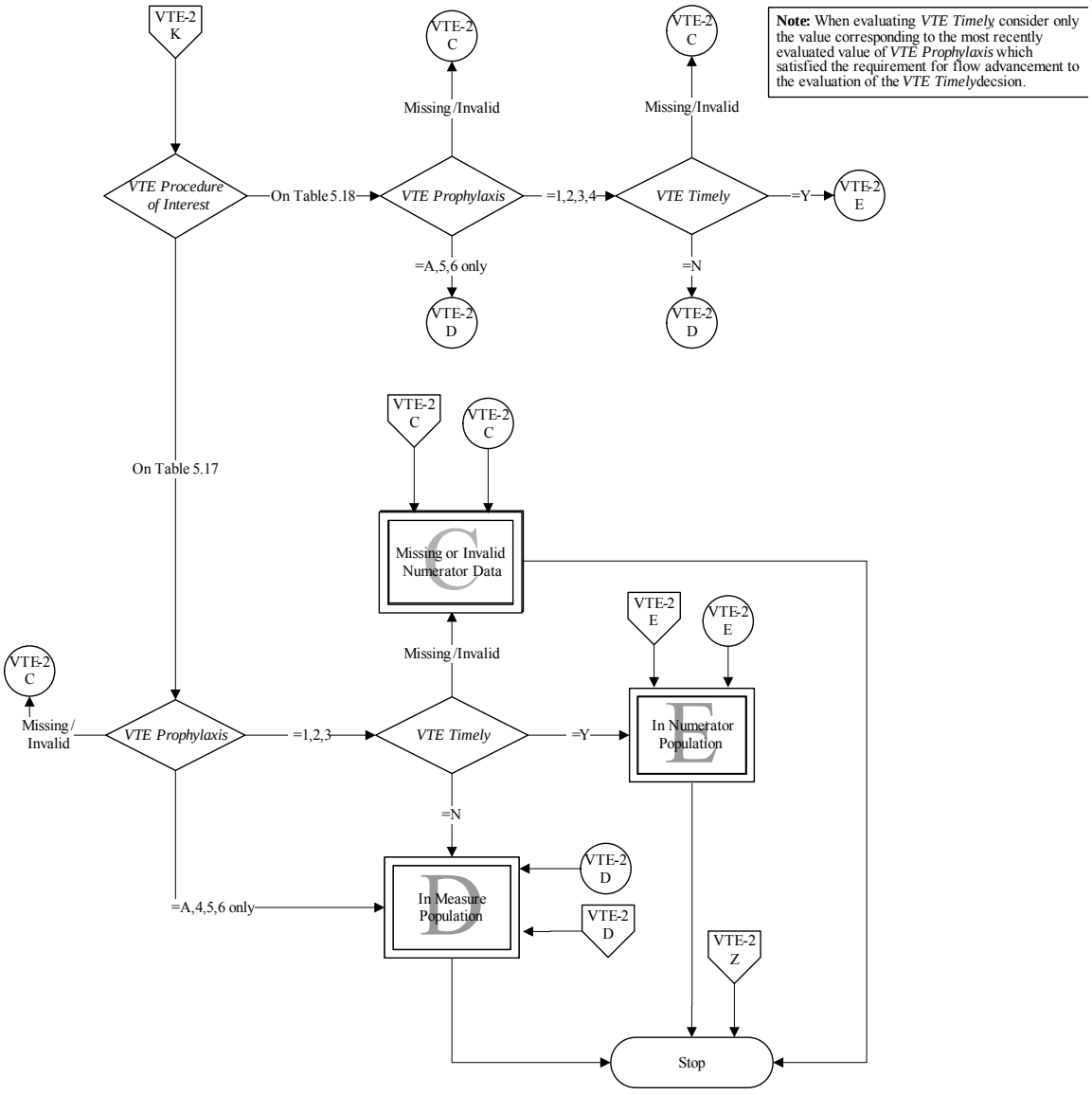
Denominator: All selected surgery patients











CURRENT AS OF JANUARY 30, 2006

Appendix A
ICD-9-CM Code Tables

Surgical Care Improvement Project Codes

New Table
Effective 01-01-2006 Discharges

Table 5.10 Major Surgery

Code	ICD-9-CM Description	Shortened Description
00.70	Revision of hip replacement, both acetabular and femoral components	REV HIP REPL-ACETAB/FEM
00.71	Revision of hip replacement, acetabular component	REV HIP REPL-ACETAB COMP
00.72	Revision of hip replacement, femoral component	REV HIP REPL-FEM COMP
00.73	Revision of hip replacement, acetabular liner and/or femoral head only	REV HIP REPL-LINER/HEAD
00.80	Revision of knee replacement, total (all components)	REV KNEE REPLACEMT-TOTAL
00.81	Revision of knee replacement, tibial component	REV KNEE REPL-TIBIA COMP
00.82	Revision of knee replacement, femoral component	REV KNEE REPL-FEMUR COMP
00.83	Revision of knee replacement, patellar component	REV KNEE REPLACE-PATELLA
00.84	Revision of knee replacement, tibial insert (liner)	REV KNEE REPL-TIBIA LIN
01.14	Open biopsy of brain	OPEN BRAIN BIOPSY
01.21	Incision and drainage of cranial sinus	CRANIAL SINUS I & D
01.23	Reopening of craniotomy site	REOPEN CRANIOTOMY SITE
01.24	Other craniotomy	OTHER CRANIOTOMY
01.25	Other craniectomy	OTHER CRANIECTOMY
01.31	Incision of cerebral meninges	INCISE CEREBRAL MENINGES
01.32	Lobotomy and tractotomy	LOBOTOMY & TRACTOTOMY
01.39	Other incision of brain	OTHER BRAIN INCISION
01.41	Operations on thalamus	THALAMUS OPERATIONS
01.42	Operations on globus pallidus	GLOBUS PALLIDUS OPS
01.51	Excision of lesion or tissue of cerebral meninges	EX CEREB MENINGEAL LES
01.52	Hemispherectomy	HEMISPHERECTOMY
01.53	Lobectomy of brain	BRAIN LOBECTOMY
01.59	Other excision or destruction of lesion or tissue of brain	OTHER BRAIN EXCISION
01.6	Excision of lesion of skull	EXCISE SKULL LESION
02.01	Opening of cranial suture	LINEAR CRANIECTOMY
02.02	Elevation of skull fracture fragments	ELEVATE SKULL FX FRAGMNT
02.03	Formation of cranial bone flap	SKULL FLAP FORMATION
02.04	Bone graft to skull	BONE GRAFT TO SKULL
02.05	Insertion of skull plate	SKULL PLATE INSERTION
02.06	Other cranial osteoplasty	CRANIAL OSTEOPLASTY NEC
02.07	Removal of skull plate	SKULL PLATE REMOVAL
02.11	Simple suture of dura mater of brain	SIMPLE SUTURE OF DURA
02.12	Other repair of cerebral meninges	BRAIN MENINGE REPAIR NEC
02.13	Ligation of meningeal vessel	MENINGE VESSEL LIGATION
02.14	Choroid plexectomy	CHOROID PLEXECTOMY
02.31	Ventricular shunt to structure in head and neck	VENTRICL SHUNT-HEAD/NECK
02.32	Ventricular shunt to circulatory system	VENTRI SHUNT-CIRCULA SYS
02.33	Ventricular shunt to thoracic cavity	VENTRICL SHUNT-THORAX
02.34	Ventricular shunt to abdominal cavity and organs	VENTRICL SHUNT-ABDOMEN

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
02.35	Ventricular shunt to urinary system	VENTRI SHUNT-UNINARY SYS
02.39	Other operations to establish drainage of ventricle	OTHER VENTRICULAR SHUNT
02.91	Lysis of cortical adhesions	LYSIS CORTICAL ADHESION
02.92	Repair of brain	BRAIN REPAIR
02.93	Implantation of spinal neurostimulator lead(s)	IMP/REPL BRAIN STIM LEAD
03.01	Removal of foreign body from spinal canal	REMOVAL FB SPINAL CANAL
03.02	Reopening of laminectomy site	REOPEN LAMINECTOMY SITE
03.09	Other exploration and decompression of spinal canal	SPINAL CANAL EXPLOR NEC
03.1	Division of intraspinal nerve root	INTRASPIN NERVE ROOT DIV
03.29	Other chordotomy	OTHER CHORDOTOMY
03.4	Excision or destruction of lesion of spinal cord or spinal meninges	EXCIS SPINAL CORD LESION
03.51	Repair of spinal meningocele	SPINE MENINGOCELE REPAIR
03.52	Repair of spinal myelomeningocele	MYELOMENINGOCEL REPAIR
03.53	Repair of vertebral fracture	VERTEBRAL FX REPAIR
03.59	Other repair and plastic operations on spinal cord structures	SPINAL STRUCT REPAIR NEC
03.6	Lysis of adhesions of spinal cord and nerve roots	SPINAL CORD ADHESIOLYSIS
03.71	Spinal subarachnoid-peritoneal shunt	SUBARACH-PERITON SHUNT
03.72	Spinal subarachnoid-ureteral shunt	SUBARACH-URETERAL SHUNT
03.79	Other shunt of spinal theca	OTH SPINAL THECAL SHUNT
03.97	Revision of spinal thecal shunt	REVISE SPINE THECA SHUNT
03.98	Removal of spinal thecal shunt	REMOVE SPINE THECA SHUNT
04.01	Excision of acoustic neuroma	EXCISION ACOUSTC NEUROMA
04.02	Division of trigeminal nerve	TRIGEMINAL NERV DIVISION
04.03	Division or crushing of other cranial and peripheral nerves	PERIPH NERVE DIV NEC
04.04	Other incision of cranial and peripheral nerves	PERIPH NERVE INCIS NEC
04.05	Gasserian ganglionectomy	GASSERIAN GANGLIONECTOMY
04.06	Other cranial or peripheral ganglionectomy	PERIPH GANGLIONECT NEC
04.07	Other excision or avulsion of cranial and peripheral nerves	PERIPH NERV EXCISION NEC
04.2	Destruction of cranial and peripheral nerves	PERIPH NERVE DESTRUCTION
04.3	Suture of cranial and peripheral nerves	PERIPHERAL NERVE SUTURE
04.41	Decompression of trigeminal nerve root	DECOMPRESS TRIGEM ROOT
04.42	Other cranial nerve decompression	CRAN NERV ROOT DECOM NEC
05.0	Division of sympathetic nerve or ganglion	SYMPATH NERVE DIVISION
05.21	Sphenopalatine ganglionectomy	SPHENOPALATIN GANGLIONEC
05.22	Cervical sympathectomy	CERVICAL SYMPATHECTOMY
05.23	Lumbar sympathectomy	LUMBAR SYMPATHECTOMY
05.24	Presacral sympathectomy	PRESACRAL SYMPATHECTOMY
05.25	Periarterial sympathectomy	PERIART SYMPATHECTOMY
05.29	Other sympathectomy and ganglionectomy	OTHER SYMPATHECTOMY
06.02	Reopening of wound of thyroid field	REOPEN THYROID FIELD WND
06.09	Other incision of thyroid field	INCIS THYROID FIELD NEC
06.2	Unilateral thyroid lobectomy	UNILAT THYROID LOBECTOMY
06.31	Excision of lesion of thyroid	EXCISION THYROID LESION
06.39	Other (Partial thyroidectomy NOS)	PART THYROIDECTOMY NEC
06.4	Complete thyroidectomy	COMPLETE THYROIDECTOMY
06.50	Substernal thyroidectomy, not otherwise specified	SUBSTERN THYROIDECT NOS
06.51	Partial substernal thyroidectomy	PART SUBSTERN THYROIDECT

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
06.52	Complete substernal thyroidectomy	TOT SUBSTERN THYROIDECT
06.6	Excision of lingual thyroid	LINGUAL THYROID EXCISION
06.7	Excision of thyroglossal duct or tract	THYROGLOSS DUCT EXCISION
06.81	Complete parathyroidectomy	TOTAL PARATHYROIDECTOMY
06.89	Other parathyroidectomy	OTHER PARATHYROIDECTOMY
06.91	Division of thyroid isthmus	THYROID ISTHMUS DIVISION
06.92	Ligation of thyroid vessels	THYROID VESSEL LIGATION
06.93	Suture of thyroid gland	THYROID SUTURE
06.94	Thyroid tissue reimplantation	THYROID REIMPLANTATION
06.95	Parathyroid tissue reimplantation	PARATHYROID REIMPLANT
06.98	Other operations on thyroid glands	OTHER THYROID OPERATIONS
06.99	Other operations on parathyroid glands	OTHER PARATHYROID OPS
07.00	Exploration of adrenal field, not otherwise specified	ADRENAL EXPLORATION NOS
07.01	Unilateral exploration of adrenal field	UNILAT ADRENAL EXPLORAT
07.02	Bilateral exploration of adrenal field	BILAT ADRENAL EXPLORAT
07.21	Excision of lesion of adrenal gland	ADRENAL LESION EXCISION
07.22	Unilateral adrenalectomy	UNILATERAL ADRENALECTOMY
07.29	Other partial adrenalectomy	PART ADRENALECTOMY NEC
07.3	Bilateral adrenalectomy	BILATERAL ADRENALECTOMY
07.41	Incision of adrenal gland	ADRENAL INCISION
07.42	Division of nerves to adrenal glands	ADRENAL NERVE DIVISION
07.43	Ligation of adrenal vessels	ADRENAL VESSEL LIGATION
07.44	Repair of adrenal gland	ADRENAL REPAIR
07.45	Reimplantation of adrenal tissue	ADRENAL REIMPLANTATION
07.49	Other operations on adrenal glands, nerves, and vessels	ADRENAL OPERATION NEC
07.51	Exploration of pineal field	PINEAL FIELD EXPLORATION
07.52	Incision of pineal gland	PINEAL GLAND INCISION
07.53	Partial excision of pineal gland	PARTIAL PINEALECTOMY
07.54	Total excision of pineal gland	TOTAL PINEALECTOMY
07.59	Other operations on pineal gland	PINEAL OPERATION NEC
07.61	Partial excision of pituitary gland, transfrontal approach	EXC PITUIT LES-TRANSFRON
07.62	Partial excision of pituitary gland, transsphenoidal approach	EXC PITUIT LES-TRANSPHEN
07.63	Partial excision of pituitary gland, unspecified approach	PART EXCIS PITUITARY NOS
07.64	Total excision of pituitary gland, transfrontal approach	TOT EXC PITUIT-TRANSFRON
07.65	Total excision of pituitary gland, transsphenoidal approach	TOT EXC PITUIT-TRANSPHEN
07.68	Total excision of pituitary gland, other specified approach	TOTAL EXC PITUITARY NEC
07.69	Total excision of pituitary gland, unspecified approach	TOTAL EXC PITUITARY NOS
07.71	Exploration of pituitary fossa	PITUITARY FOSSA EXPLORAT
07.72	Incision of pituitary gland	PITUITARY GLAND INCISION
07.79	Other operations on hypophysis	PITUITARY OPERATION NEC
07.80	Thymectomy, not otherwise specified	THYMECTOMY NOS
07.81	Partial excision of thymus	PART EXCISION OF THYMUS
07.82	Total excision of thymus	TOTAL EXCISION OF THYMUS
07.91	Exploration of thymus field	THYMUS FIELD EXPLORATION
07.92	Incision of thymus	INCISION OF THYMUS
07.93	Repair of thymus	REPAIR OF THYMUS
07.94	Transplantation of thymus	THYMUS TRANSPLANTATION
07.99	Other operations on thymus	THYMUS OPERATION NEC

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
16.31	Removal of ocular contents with synchronous implant into scleral shell	EYE EVISC W SYNCH IMPLAN
16.39	Other evisceration of eyeball	EYEBALL EVISCERATION NEC
16.41	Enucleation of eyeball with synchronous implant into Tenon's capsule with attachment of muscles	EYE ENUC/IMPLAN/MUSC ATT
16.42	Enucleation of eyeball with other synchronous implant	EYE ENUC W IMPLANT NEC
16.49	Other enucleation of eyeball	EYEBALL ENUCLEATION NEC
16.51	Exenteration of orbit with removal of adjacent structures	RADICAL ORBITOMAXILLECT
16.52	Exenteration of orbit with therapeutic removal of orbital bone	ORBIT EXENT W BONE REMOV
16.59	Other exenteration of orbit	ORBITAL EXENTERATION NEC
16.63	Revision of enucleation socket with graft	REVIS ENUC SOCKET W GRFT
16.64	Other revision of enucleation socket	ENUC SOCKET REVIS NEC
16.65	Secondary graft to exenteration cavity	2NDRY EXENT CAVITY GRAFT
16.66	Other revision of exenteration cavity	REVIS EXENTER CAVITY NEC
16.69	Other secondary procedures after removal of eyeball	2ND OP POST EYE REM NEC
20.41	Simple mastoidectomy	SIMPLE MASTOIDECTOMY
20.42	Radical mastoidectomy	RADICAL MASTOIDECTOMY
20.49	Other mastoidectomy	MASTOIDECTOMY NEC
25.4	Radical glossectomy	RADICAL GLOSSECTOMY
27.62	Correction of cleft palate	CLEFT PALATE CORRECTION
27.63	Revision of cleft palate repair	REVIS CLEFT PALAT REPAIR
27.69	Other plastic repair of palate	OTH PLASTIC REPAIR PALAT
28.7	Control of hemorrhage after tonsillectomy and adenoidectomy	HEMORR CONTRL POST T & A
29.0	Pharyngotomy	PHARYNGOTOMY
29.2	Excision of branchial cleft cyst or vestige	EXC BRANCHIAL CLEFT CYST
29.31	Cricopharyngeal myotomy	CRICOPHARYNGEAL MYOTOMY
29.32	Pharyngeal diverticulectomy	PHARYNGEAL DIVERTICULEC
29.33	Pharyngectomy (partial)	PHARYNGECTOMY
29.39	Other excision or destruction of lesion or tissue of pharynx	EXCIS/DESTR LES PHAR NEC
29.4	Plastic operation on pharynx	PLASTIC OP ON PHARYNX
30.1	Hemilaryngectomy	HEMILARYNGECTOMY
30.21	Epiglottidectomy	EPIGLOTTIDECTOMY
30.22	Vocal cordectomy	VOCAL CORDECTOMY
30.29	Other partial laryngectomy	OTHER PART LARYNGECTOMY
30.3	Complete laryngectomy	COMPLETE LARYNGECTOMY
30.4	Radical laryngectomy	RADICAL LARYNGECTOMY
31.1	Temporary tracheostomy	TEMPORARY TRACHEOSTOMY
31.21	Mediastinal tracheostomy	MEDIASTINAL TRACHEOSTOMY
31.29	Other permanent tracheostomy	OTHER PERM TRACHEOSTOMY
31.61	Suture of laceration of larynx	SUTURE OF LARYNGEAL LAC
31.62	Closure of fistula of larynx	LARYNGEAL FISTULA CLOS
31.63	Revision of laryngostomy	LARYNGOSTOMY REVISION
31.64	Repair of laryngeal fracture	LARYNGEAL FX REPAIR
31.69	Other repair of larynx	OTHER LARYNGEAL REPAIR
31.73	Closure of other fistula of trachea	TRACHEA FISTULA CLOS NEC
31.74	Revision of tracheostomy	REVISION OF TRACHEOSTOMY
31.75	Reconstruction of trachea and construction of artificial larynx	TRACHEAL RECONSTRUCTION
31.79	Other repair and plastic operations on trachea	OTHER TRACHEAL REPAIR

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
31.92	Lysis of adhesions of trachea or larynx	LYSIS TRACH/LARYNX ADHES
31.93	Replacement of laryngeal or tracheal stent	REPLACE TRAC/LARYN STENT
31.95	Tracheoesophageal fistulization	TRACHEOESOPH FISTULIZAT
32.09	Other local excision or destruction of lesion or tissue of bronchus	OTHER DESTRUC BRONC LES
32.1	Other excision of bronchus	OTHER BRONCHIAL EXCISION
32.21	Plication of emphysematous bleb	EMPHYSEMA BLEB PLICATION
32.22	Lung volume reduction surgery	LUNG VOL REDUCTION SURG
32.29	Other local excision or destruction of lesion or tissue of lung	DESTROY LOC LUNG LES NEC
32.3	Segmental resection of lung	SEGMENTAL LUNG RESECTION
32.4	Lobectomy of lung	LOBECTOMY OF LUNG
32.5	Complete pneumonectomy	COMPLETE PNEUMONECTOMY
32.6	Radical dissection of thoracic structures	RAD DISSEC THORAC STRUCT
32.9	Other excision of lung	OTHER EXCISION OF LUNG
33.0	Incision of bronchus	INCISION OF BRONCHUS
33.1	Incision of lung	INCISION OF LUNG
33.31	Destruction of phrenic nerve for collapse of lung	DESTR PHREN-LUNG COLLAPS
33.33	Pneumoperitoneum for collapse of lung	PNEUMOPERIT-LUNG COLLAPS
33.34	Thoracoplasty	THORACOPLASTY
33.39	Other surgical collapse of lung	SURG COLLAPS OF LUNG NEC
33.41	Suture of laceration of bronchus	BRONCHIAL LACERAT SUTURE
33.42	Closure of bronchial fistula	BRONCHIAL FISTULA CLOS
33.43	Closure of laceration of lung	LUNG LACERATION CLOSURE
33.48	Other repair and plastic operations on bronchus	BRONCHIAL REPAIR NEC
33.49	Other repair and plastic operations on lung	LUNG REPAIR NEC
33.50	Lung transplantation, not otherwise specified33.51	LUNG TRANSPLANT NOS
33.51	Unilateral lung transplantation	UNILAT LUNG TRANSPLANT
33.52	Bilateral lung transplantation	BILAT LUNG TRANSPLANT
33.6	Combined heart-lung transplantation	COMB HEART/LUNG TRANSPLA
33.92	Ligation of bronchus	BRONCHIAL LIGATION
34.02	Exploratory thoracotomy	EXPLORATORY THORACOTOMY
34.03	Reopening of recent thoracotomy site	REOPEN THORACOTOMY SITE
34.05	Creation of pleuroperitoneal shunt	PLEUROPERITONEAL SHUNT
34.1	Incision of mediastinum	INCISION OF MEDIASTINUM
34.3	Excision or destruction of lesion or tissue of mediastinum	DESTRUCT MEDIASTIN LES
34.4	Excision or destruction of lesion of chest wall	DESTRUCT CHEST WALL LES
34.51	Decortication of lung	DECORTICATION OF LUNG
34.59	Other excision of pleura	OTHER PLEURAL EXCISION
34.73	Closure of other fistula of thorax	CLOS THORACIC FISTUL NEC
34.74	Repair of pectus deformity	PECTUS DEFORMITY REPAIR
34.79	Other repair of chest wall	OTHER CHEST WALL REPAIR
34.81	Excision of lesion or tissue of diaphragm	EXCISE DIAPHRAGM LESION
34.82	Suture of laceration of diaphragm	SUTURE DIAPHRAGM LACERAT
34.83	Closure of fistula of diaphragm	CLOSE DIAPHRAGM FISTULA
34.84	Other repair of diaphragm	OTHER DIAPHRAGM REPAIR
34.89	Other operations on diaphragm	DIAPHRAGM OPERATION NEC
34.93	Repair of pleura	REPAIR OF PLEURA
35.00	Closed heart valvotomy, unspecified valve	CLOSED VALVOTOMY NOS
35.01	Closed heart valvotomy, aortic valve	CLOSED AORTIC VALVOTOMY

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
35.02	Closed heart valvotomy, mitral valve	CLOSED MITRAL VALVOTOMY
35.03	Closed heart valvotomy, pulmonary valve	CLOSED PULMON VALVOTOMY
35.04	Closed heart valvotomy, tricuspid valve	CLOSED TRICUSP VALVOTOMY
35.10	Open heart valvuloplasty without replacement, unspecified valve	OPEN VALVULOPLASTY NOS
35.11	Open heart valvuloplasty of aortic valve without replacement	OPN AORTIC VALVULOPLASTY
35.12	Open heart valvuloplasty of mitral valve without replacement	OPN MITRAL VALVULOPLASTY
35.13	Open heart valvuloplasty of pulmonary valve without replacement	OPN PULMON VALVULOPLASTY
35.14	Open heart valvuloplasty of tricuspid valve without replacement	OPN TRICUS VALVULOPLASTY
35.20	Replacement of unspecified heart valve	REPLACE HEART VALVE NOS
35.21	Replacement of aortic valve with tissue graft	REPLACE AORT VALV-TISSUE
35.22	Other replacement of aortic valve	REPLACE AORTIC VALVE NEC
35.23	Replacement of mitral valve with tissue graft	REPLACE MITR VALV-TISSUE
35.24	Other replacement of mitral valve	REPLACE MITRAL VALVE NEC
35.25	Replacement of pulmonary valve with tissue graft	REPLACE PULM VALV-TISSUE
35.26	Other replacement of pulmonary valve	REPLACE PULMON VALVE NEC
35.27	Replacement of tricuspid valve with tissue graft	REPLACE TRIC VALV-TISSUE
35.28	Other replacement of tricuspid valve	REPLACE TRICUSP VALV NEC
35.31	Operations on papillary muscle	PAPILLARY MUSCLE OPS
35.32	Operations on chordae tendineae	CHORDAE TENDINEAE OPS
35.33	Annuloplasty	ANNULOPLASTY
35.34	Infundibulectomy	INFUNDIBULECTOMY
35.35	Operations on trabeculae carneae cordis	TRABECUL CARNEAE CORD OP
35.39	Operations on other structures adjacent to valves of heart	TISS ADJ TO VALV OPS NEC
35.41	Enlargement of existing atrial septal defect	ENLARGE EXISTING SEP DEF
35.42	Creation of septal defect in heart	CREATE SEPTAL DEFECT
35.50	Repair of unspecified septal defect of heart with prosthesis	PROSTH REP HRT SEPTA NOS
35.51	Repair of atrial septal defect with prosthesis, open technique	PROS REP ATRIAL DEF-OPN
35.53	Repair of ventricular septal defect with prosthesis	PROST REPAIR VENTRIC DEF
35.54	Repair of endocardial cushion defect with prosthesis	PROS REP ENDOCAR CUSHION
35.60	Repair of unspecified septal defect of heart with tissue graft	GRFT REPAIR HRT SEPT NOS
35.61	Repair of atrial septal defect with tissue graft	GRAFT REPAIR ATRIAL DEF
35.62	Repair of ventricular septal defect with tissue graft	GRAFT REPAIR VENTRIC DEF
35.63	Repair of endocardial cushion defect with tissue graft	GRFT REP ENDOCAR CUSHION
35.70	Other and unspecified repair of unspecified septal defect of heart	HEART SEPTA REPAIR NOS
35.71	Other and unspecified repair of atrial septal defect	ATRIA SEPTA DEF REP NEC
35.72	Other and unspecified repair of ventricular septal defect	VENTR SEPTA DEF REP NEC
35.73	Other and unspecified repair of endocardial cushion defect	ENDOCAR CUSHION REP NEC
35.81	Total repair of tetralogy of Fallot	TOT REPAIR TETRAL FALLOT
35.82	Total repair of total anomalous pulmonary venous connection	TOTAL REPAIR OF TAPVC
35.83	Total repair of truncus arteriosus	TOT REP TRUNCUS ARTERIOS
35.84	Total correction of transposition of great vessels, not elsewhere classified	TOT COR TRANSPOS GRT VES
35.91	Interatrial transposition of venous return	INTERAT VEN RETRN TRANSP
35.92	Creation of conduit between right ventricle and pulmonary artery	CONDUIT RT VENT-PUL ART
35.93	Creation of conduit between left ventricle and aorta	CONDUIT LEFT VENTR-AORTA
35.94	Creation of conduit between atrium and pulmonary artery	CONDUIT ARTIUM-PULM ART
35.95	Revision of corrective procedure on heart	HEART REPAIR REVISION

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
35.96	Percutaneous valvuloplasty	PERC HEART VALVULOPLASTY
35.98	Other operations on septa of heart	OTHER HEART SEPTA OPS
35.99	Other operations on valves of heart	OTHER HEART VALVE OPS
36.03	Open chest coronary artery angioplasty	OPEN CORONRY ANGIOPLASTY
36.10	Aortocoronary bypass for heart revascularization, not otherwise specified	AORTOCORONARY BYPASS NOS
36.11	(Aorto)coronary bypass of one coronary artery	AORTOCOR BYPAS-1 COR ART
36.12	(Aorto)coronary bypass of two coronary arteries	AORTOCOR BYPAS-2 COR ART
36.13	(Aorto)coronary bypass of three coronary arteries	AORTOCOR BYPAS-3 COR ART
36.14	(Aorto)coronary bypass of four or more coronary arteries	AORTCOR BYPAS-4+ COR ART
36.15	Single internal mammary-coronary artery bypass	1 INT MAM-COR ART BYPASS
36.16	Double internal mammary-coronary artery bypass	2 INT MAM-COR ART BYPASS
36.17	Abdominal - coronary artery bypass	ABD-CORON ARTERY BYPASS
36.19	Other bypass anastomosis for heart revascularization	HRT REVAS BYPS ANAS NEC
36.2	Heart revascularization by arterial implant	ARTERIAL IMPLANT REVASC
36.31	Open chest transmyocardial revascularization	OPEN CHEST TRANS REVASC
36.32	Other transmyocardial revascularization	OTH TRANSMYO REVASCULAR
36.39	Other heart revascularization	OTH HEART REVASCULAR
36.91	Repair of aneurysm of coronary vessel	CORON VESS ANEURYSM REP
36.99	Other operations on vessels of heart	HEART VESSEL OP NEC
37.10	Incision of heart, not otherwise specified	INCISION OF HEART NOS
37.11	Cardiotomy	CARDIOTOMY
37.12	Pericardiotomy	PERICARDIOTOMY
37.31	Pericardiectomy	PERICARDIECTOMY
37.32	Excision of aneurysm of heart	HEART ANEURYSM EXCISION
37.33	Excision or destruction of other lesion or tissue of heart, open approach	EXC/DEST HRT LESION OPEN
37.34	Catheter ablation Excision or destruction of other lesion or tissues of heart, other approach	EXC/DEST HRT LES OTHER
37.35	Partial ventriculectomy	PARTIAL VENTRICULECTOMY
37.41	Implantation of prosthetic cardiac support device around the heart	IMPL CARDIAC SUPPORT DEV
37.49	Other repair of heart and pericardium	HEART/PERICARD REPR NEC
37.51	Heart transplantation	HEART TRANSPLANTATION
37.52	Implantation of total replacement heart system	IMPLANT TOT REP HRT SYS
37.53	Replacement or repair of thoracic unit of total replacement heart system	REPL/REP THORAC UNIT HRT
37.54	Replacement or repair of other implantable component of total replacement heart system	REPL/REP OTH TOT HRT SYS
37.61	Implant of pulsation balloon	PULSATION BALLOON IMPLAN
37.62	Insertion of non-implantable heart assist system	INS NON-IMPL HRT ASSIST
37.63	Repair of heart assist system	REPAIR HEART ASSIST SYS
37.64	Removal of heart assist system	REMOVE HEART ASSIST SYS
37.66	Insertion of implantable heart assist system	IMPLANTABLE HRT ASSIST
37.67	Implantation of cardiomyostimulation system	IMP CARDIOMYOSTIMUL SYS
37.79	Revision or relocation of cardiac device pocket	REV/RELOC CARD DEV POCKT
37.91	Open chest cardiac massage	OPN CHEST CARDIAC MASSAG
38.10	Endarterectomy, unspecified site	ENDARTERECTOMY NOS
38.11	Endarterectomy, intracranial vessels	INTRACRAN ENDARTERECTOMY
38.12	Endarterectomy, other vessels of head and neck	HEAD & NECK ENDARTER NEC

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
38.13	Endarterectomy, upper limb vessels	UPPER LIMB ENDARTERECTOM
38.14	Endarterectomy, aorta	ENDARTERECTOMY OF AORTA
38.15	Endarterectomy, other thoracic vessels	THORACIC ENDARTERECTOMY
38.16	Endarterectomy, abdominal arteries	ABDOMINAL ENDARTERECTOMY
38.18	Endarterectomy, lower limb arteries	LOWER LIMB ENDARTERECT
38.30	Resection of vessel with anastomosis, unspecified site	VESSEL RESECT/ANAST NOS
38.31	Resection of vessel with anastomosis, intracranial vessels	INTRACRAN VES RESEC-ANAS
38.32	Resection of vessel with anastomosis, other vessels of head and neck	HEAD/NECK VES RESEC-ANAS
38.33	Resection of vessel with anastomosis, upper limber vissels	ARM VESSEL RESECT/ANAST
38.34	Resection of vessel with anastomosis, aorta	AORTA RESECTION & ANAST
38.35	Resection of vessel with anastomosis, other thoracic vessels	THOR VESSEL RESECT/ANAST
38.36	Resection of vessel with anastomosis, abdominal arteries	ABD VESSEL RESECT/ANAST
38.37	Resection of vessel with anastomosis, abdominal veins	ABD VEIN RESECT & ANAST
38.38	Resection of vessel with anastomosis, lower limb arteries	LEG ARTERY RESECT/ANAST
38.39	Resection of vessel with anastomosis, lower limb veins	LEG VEIN RESECT/ANASTOM
38.40	Resection of vessel with replacement, unspecified site	VESSEL RESECT/REPLAC NOS
38.41	Resection of vessel with replacement, intracranial vessels	INTRACRAN VES RESEC-REPL
38.42	Resection of vessel with replacement, other vessels of head and neck	HEAD/NECK VES RESEC-REPL
38.43	Resection of vessel with replacement, upper limb vessels	ARM VES RESECT W REPLACE
38.44	Resection of vessel with replacement, aorta, abdominal	RESECT ABDM AORTA W REPL
38.45	Resection of vessel with replacement, thoracic vessels	RESECT THORAC VES W REPL
38.46	Resection of vessel with replacement, abdominal arteries	ABD ARTERY RESEC W REPLA
38.47	Resection of vessel with replacement, abdominal veins	ABD VEIN RESECT W REPLAC
38.48	Resection of vessel with replacement, lower limb arteries	LEG ARTERY RESEC W REPLA
38.49	Resection of vessel with replacement, lower limb veins	LEG VEIN RESECT W REPLAC
38.59	Ligation and stripping of varicose veins, lower limb veins	LEG VARICOS V LIGA-STRIP
38.64	Other excision of vessels, aorta, abdominal	EXCISION OF AORTA
38.7	Interruption of the vena cava	INTERRUPTION VENA CAVA
38.80	Other surgical occlusion of vessels, unspecified site	SURG VESSEL OCCLUS NEC
38.81	Other surgical occlusion of vessels, intracranial vessels	OCCLUS INTRACRAN VES NEC
38.82	Other surgical occlusion of vessels, other vessels of head and neck	OCCLUS HEAD/NECK VES NEC
38.84	Other surgical occlusion of vessels, aorta	OCCLUDE AORTA NEC
38.85	Other surgical occlusion of vessels, other thoracic vessels	OCCLUDE THORACIC VES NEC
38.86	Other surgical occlusion of vessels, abdominal arteries	OCCLUDE ABD ARTERY NEC
38.87	Other surgical occlusion of vessels, abdominal veins	OCCLUDE ABD VEIN NEC
38.88	Other surgical occlusion of vessels, lower limb arteries	OCCLUDE LEG ARTERY NEC
39.0	Systemic to pulmonary artery shunt	SYSTEMIC-PULM ART SHUNT
39.1	Intra-abdominal venous shunt	INTRA-ABD VENOUS SHUNT
39.21	Caval-pulmonary artery anastomosis	CAVAL-PULMON ART ANASTOM
39.22	Aorta-subclavian-carotid bypass	AORTA-SUBCLV-CAROT BYPAS
39.23	Other intrathoracic vascular shunt or bypass	INTRATHORACIC SHUNT NEC
39.24	Aorta-renal bypass	AORTA-RENAL BYPASS
39.25	Aorta-iliac-femoral bypass	AORTA-ILIAC-FEMOR BYPASS
39.26	Other intra-abdominal vascular shunt or bypass	INTRA-ABDOMIN SHUNT NEC
39.27	Arteriovenostomy for renal dialysis	DIALYSIS ARTERIOVENOSTOM

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
39.28	Extracranial-intracranial (EC-IC) vascular bypass	EXTRACRAN-INTRACR BYPASS
39.29	Other (peripheral) vascular shunt or bypass	VASC SHUNT & BYPASS NEC
39.30	Suture of unspecified blood vessel	SUTURE OF VESSEL NOS
39.31	Suture of artery	SUTURE OF ARTERY
39.32	Suture of vein	SUTURE OF VEIN
39.41	Control of hemorrhage following vascular surgery	POSTOP VASC OP HEM CONTR
39.42	Revision of arteriovenous shunt for renal dialysis	REVIS REN DIALYSIS SHUNT
39.43	Removal of arteriovenous shunt for renal dialysis	REMOV REN DIALYSIS SHUNT
39.49	Other revision of vascular procedure	VASC PROC REVISION NEC
39.50	Angioplasty or atherectomy of other non-coronary vessel(s)	ANGIO OTH NON-CORONARY
39.51	Clipping of aneurysm	CLIPPING OF ANEURYSM
39.52	Other repair of aneurysm	ANEURYSM REPAIR NEC
39.53	Repair of arteriovenous fistula	ARTERIOVEN FISTULA REP
39.54	Re-entry operation (aorta)	RE-ENTRY OPERATION
39.55	Reimplantation of aberrant renal vessel	REIMPLAN ABERR RENAL VES
39.56	Repair of blood vessel with tissue patch graft	REPAIR VESS W TIS PATCH
39.57	Repair of blood vessel with synthetic patch graft	REP VESS W SYNTH PATCH
39.58	Repair of blood vessel with unspecified type of patch graft	REPAIR VESS W PATCH NOS
39.59	Other repair of vessel	REPAIR OF VESSEL NEC
39.61	Extracorporeal circulation auxiliary to open heart surgery	EXTRACORPOREAL CIRCULAT
39.62	Hypothermia (systemic) incidental to open heart surgery	HYPOTHERMIA W OPEN HEART
39.63	Cardioplegia	CARDIOPLEGIA
39.64	Intraoperative cardiac pacemaker	INTRAOP CARDIAC PACEMAK
39.71	Endovascular implantation of graft in abdominal aorta	ENDO IMPL GRFT ABD AORTA
39.72	Endovascular repair or occlusion of head and neck vessels	ENDOVASC REPAIR HEAD VES
39.73	Endovascular implantation of graft in thoracic aorta	ENDO IMP GRFT THOR AORTA
39.79	Other endovascular repair (of aneurysm) of other vessels	ENDO REPAIR OTHER VESSEL
39.8	Operations on carotid body and other vascular bodies	VASCULAR BODY OPERATIONS
39.91	Freeing of vessel	FREEING OF VESSEL
39.98	Control of hemorrhage, not otherwise specified	HEMORRHAGE CONTROL NOS
39.99	Other operations on vessels	VESSEL OPERATION NEC
40.22	Excision of internal mammary lymph node	EXCISE INT MAMMARY NODE
40.40	Radical neck dissection, not otherwise specified	RAD NECK DISSECTION NOS
40.41	Radical neck dissection, unilateral	UNILAT RAD NECK DISSECT
40.42	Radical neck dissection, bilateral	BILAT RAD NECK DISSECT
40.50	Radical excision of lymph nodes, not otherwise specified	RAD NODE DISSECTION NOS
40.51	Radical excision of axillary lymph nodes	RAD DISSEC AXILLARY NODE
40.52	Radical excision of periaortic lymph nodes	RAD DISSEC PERIAORT NODE
40.53	Radical excision of iliac lymph nodes	RAD DISSECT ILIAC NODES
40.54	Radical groin dissection	RADICAL GROIN DISSECTION
40.59	Radical excision of other lymph nodes	RAD NODE DISSECTION NEC
40.62	Fistulization of thoracic duct	THORACIC DUCT FISTULIZAT
40.63	Closure of fistula of thoracic duct	CLOSE THORACIC DUCT FIST
41.2	Splenotomy	SPLENOTOMY
41.5	Total splenectomy	TOTAL SPLENECTOMY
42.01	Incision of esophageal web	ESOPHAGEAL WEB INCISION
42.09	Other incision of esophagus	ESOPHAGEAL INCISION NEC
42.10	Esophagostomy, not otherwise specified	ESOPHAGOSTOMY NOS

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
42.11	Cervical esophagostomy	CERVICAL ESOPHAGOSTOMY
42.12	Exteriorization of esophageal pouch	ESOPH POUCH EXTERIORIZAT
42.19	Other external fistulization of esophagus	EXT FISTULIZAT ESOPH NEC
42.40	Esophagectomy, not otherwise specified	ESOPHAGECTOMY NOS
42.41	Partial esophagectomy	PARTIAL ESOPHAGECTOMY
42.42	Total esophagectomy	TOTAL ESOPHAGECTOMY
42.51	Intrathoracic esophagoesophagostomy	THORAC ESOPHAGOESOPHAGOS
42.52	Intrathoracic esophagogastrostomy	THORAC ESOPHAGOGASTROST
42.53	Intrathoracic esophageal anastomosis with interposition of small bowel	THORAC SM BOWEL INTERPOS
42.54	Other intrathoracic esophagoenterostomy	THORAC ESOPHAGOENTER NEC
42.55	Intrathoracic esophageal anastomosis with interposition of colon	THORAC LG BOWEL INTERPOS
42.56	Other intrathoracic esophagocolostomy	THORAC ESOPHAGOCOLOS NEC
42.58	Intrathoracic esophageal anastomosis with other interposition	THORAC INTERPOSITION NEC
42.59	Other intrathoracic anastomosis of esophagus	THORAC ESOPHAG ANAST NEC
42.61	Antesternal esophagoesophagostomy	STERN ESOPHAGOESOPHAGOST
42.62	Antesternal esophagogastrostomy	STERN ESOPHAGOGASTROSTOM
42.63	Antesternal esophageal anastomosis with interposition of small bowel	STERN SM BOWEL INTERPOS
42.64	Other antesternal esophagoenterostomy	STERN ESOPHAGOENTER NEC
42.65	Antesternal esophageal anastomosis with interposition of colon	STERN LG BOWEL INTERPOS
42.66	Other antesternal esophagocolostomy	STERN ESOPHAGOCOLOS NEC
42.68	Other antesternal esophageal anastomosis with interposition	STERN INTERPOSITION NEC
42.69	Other antesternal anastomosis of esophagus	STERN ESOPHAG ANAST NEC
42.7	Esophagomyotomy	ESOPHAGOMYOTOMY
42.82	Suture of laceration of esophagus	SUTURE ESOPHAGEAL LACER
42.83	Closure of esophagostomy	ESOPHAGOSTOMY CLOSURE
42.84	Repair of esophageal fistula, not elsewhere classified	ESOPH FISTULA REPAIR NEC
42.85	Repair of esophageal stricture	ESOPHAG STRICTURE REPAIR
42.86	Production of subcutaneous tunnel without esophageal anastomosis	PROD SUBQ TUNNEL NO ANAS
42.87	Other graft of esophagus	ESOPHAGEAL GRAFT NEC
42.89	Other repair of esophagus	ESOPHAGEAL REPAIR NEC
43.3	Pyloromyotomy	PYLOROMYOTOMY
43.5	Partial gastrectomy with anastomosis to esophagus	PROXIMAL GASTRECTOMY
43.6	Partial gastrectomy with anastomosis to duodenum	DISTAL GASTRECTOMY
43.7	Partial gastrectomy with anastomosis to jejunum	PART GASTREC W JEJ ANAST
43.81	Partial gastrectomy with jejunal transposition	PART GAST W JEJ TRANSPOS
43.89	Other partial gastrectomy	PARTIAL GASTRECTOMY NEC
43.91	Total gastrectomy with intestinal interposition	TOT GAST W INTES INTERPO
43.99	Other total gastrectomy	TOTAL GASTRECTOMY NEC
44.00	Vagotomy, not otherwise specified	VAGOTOMY NOS
44.01	Truncal vagotomy	TRUNCAL VAGOTOMY
44.02	Highly selective vagotomy	HIGHLY SELECT VAGOTOMY
44.03	Other selective vagotomy	SELECTIVE VAGOTOMY NEC
44.21	Dilation of pylorus by incision	DILATE PYLORUS, INCISION
44.29	Other pyloroplasty	OTHER PYLOROPLASTY
44.31	High gastric bypass	HIGH GASTRIC BYPASS
44.39	Other gastroenterostomy	GASTROENTEROSTOMY NEC

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
44.40	Suture of peptic ulcer, not otherwise specified	SUTURE PEPTIC ULCER NOS
44.41	Suture of gastric ulcer site	SUT GASTRIC ULCER SITE
44.42	Suture of duodenal ulcer site	SUTURE DUODEN ULCER SITE
44.49	Other control of hemorrhage of stomach or duodenum	OTHER CONTROL GAST HEM
44.5	Revision of gastric anastomosis	REVISION GASTRIC ANASTOM
44.61	Suture of laceration of stomach	SUTURE GASTRIC LACERAT
44.62	Closure of gastrostomy	GASTROSTOMY CLOSURE
44.63	Closure of other gastric fistula	CLOSE GASTRIC FISTUL NEC
44.64	Gastropexy	GASTROPEXY
44.65	Esophagogastroplasty	ESOPHAGOGASTROPLASTY
44.66	Other procedures for creation of esophagogastric sphincteric competence	CREAT ESOPHAGASTR SPHINC
44.69	Other (Inversion of gastric diverticulum, repair of stomach NOS)	GASTRIC REPAIR NEC
44.91	Ligation of gastric varices	LIGATE GASTRIC VARICES
44.92	Intraoperative manipulation of stomach	INTRAOP GASTRIC MANIPUL
44.99	Other operations on stomach	GASTRIC OPERATION NEC
45.00	Incision of intestine, not otherwise specified	INTESTINAL INCISION NOS
45.01	Incision of duodenum	DUODENAL INCISION
45.02	Other incision of small intestine	SMALL BOWEL INCISION NEC
45.03	Incision of large intestine	LARGE BOWEL INCISION
45.31	Other local excision of lesion of duodenum	OTH EXCISE DUODENUM LES
45.32	Other destruction of lesion of duodenum	DESTRUCT DUODEN LES NEC
45.33	Local excision of lesion or tissue of small intestine, except duodenum	LOCAL EXCIS SM BOWEL NEC
45.34	Other destruction of lesion of small intestine, except duodenum	DESTR SM BOWEL LES NEC
45.41	Excision of lesion or tissue of large intestine	EXCISE LG INTESTINE LES
45.49	Other destruction of lesion of large intestine	DESTRUC LG BOWEL LES NEC
45.50	Isolation of intestinal segment, not otherwise specified	INTEST SEG ISOLAT NOS
45.51	Isolation of segment of small intestine	SM BOWEL SEGMENT ISOLAT
45.52	Isolation of segment of large intestine	LG BOWEL SEGMENT ISOLAT
45.61	Multiple segmental resection of small intestine	MULT SEG SM BOWEL EXCIS
45.62	Other partial resection of small intestine	PART SM BOWEL RESECT NEC
45.63	Total removal of small intestine	TOTAL REMOVAL SM BOWEL
45.71	Multiple segmental resection of large intestine	MULT SEG LG BOWEL EXCIS
45.72	Cecectomy	CECECTOMY
45.73	Right hemicolectomy	RIGHT HEMICOLECTOMY
45.74	Resection of transverse colon	TRANSVERSE COLON RESECT
45.75	Left hemicolectomy	LEFT HEMICOLECTOMY
45.76	Sigmoidectomy	SIGMOIDECTOMY
45.79	Other partial excision of large intestine	PART LG BOWEL EXCIS NEC
45.8	Total intra-abdominal colectomy	TOT INTRA-ABD COLECTOMY
45.90	Intestinal anastomosis, not otherwise specified	INTESTINAL ANASTOM NOS
45.91	Small-to-small intestinal anastomosis	SM-TO-SM BOWEL ANASTOM
45.92	Anastomosis of small intestine to rectal stump	SM BOWEL-RECT STUMP ANAS
45.93	Other small-to-large intestinal anastomosis	SMALL-TO-LARGE BOWEL NEC
45.94	Large-to-large intestinal anastomosis	LG-TO-LG BOWEL ANASTOM
45.95	Anastomosis to anus	ANAL ANASTOMOSIS
46.01	Exteriorization of small intestine	SM BOWEL EXTERIORIZATION

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
46.02	Resection of exteriorized segment of small intestine	RESECT EXT SEG SM BOWEL
46.03	Exteriorization of large intestine	LG BOWEL EXTERIORIZATION
46.04	Resection of exteriorized segment of large intestine	RESECT EXT SEG LG BOWEL
46.10	Colostomy, not otherwise specified	COLOSTOMY NOS
46.11	Temporary colostomy	TEMPORARY COLOSTOMY
46.13	Permanent colostomy	PERMANENT COLOSTOMY
46.14	Delayed opening of colostomy	DELAY OPENING COLOSTOMY
46.20	Ileostomy, not otherwise specified	ILEOSTOMY NOS
46.21	Temporary ileostomy	TEMPORARY ILEOSTOMY
46.22	Continent ileostomy	CONTINENT ILEOSTOMY
46.23	Other permanent ileostomy	PERMANENT ILEOSTOMY NEC
46.24	Delayed opening of ileostomy	DELAY OPENING ILEOSTOMY
46.31	Delayed opening of other enterostomy	DELAY OPENING ENTEROSTOM
46.39	Other (duodenostomy, feeding enterostomy)	ENTEROSTOMY NEC
46.40	Revision of intestinal stoma, not otherwise specified	INTEST STOMA REVIS NOS
46.42	Repair of pericolostomy hernia	PERICOLOST HERNIA REPAIR
46.43	Other revision of stoma of large intestine	LG BOWEL STOMA REVIS NEC
46.50	Closure of intestinal stoma, not otherwise specified	INTEST STOMA CLOSURE NOS
46.51	Closure of stoma of small intestine	SM BOWEL STOMA CLOSURE
46.52	Closure of stoma of large intestine	LG BOWEL STOMA CLOSURE
46.60	Fixation of intestine, not otherwise specified	INTESTINAL FIXATION NOS
46.61	Fixation of small intestine to abdominal wall	SM BOWEL-ABD WALL FIXAT
46.62	Other fixation of small intestine	SMALL BOWEL FIXATION NEC
46.63	Fixation of large intestine to abdominal wall	LG BOWEL-ABD WALL FIXAT
46.64	Other fixation of large intestine	LARGE BOWEL FIXATION NEC
46.71	Suture of laceration of duodenum	DUODENAL LACERAT SUTURE
46.72	Closure of fistula of duodenum	DUODENAL FISTULA CLOSURE
46.73	Suture of laceration of small intestine, except duodenum	SMALL BOWEL SUTURE NEC
46.74	Closure of fistula of small intestine, except duodenum	CLOSE SM BOWEL FIST NEC
46.75	Suture of laceration of large intestine	SUTURE LG BOWEL LACERAT
46.76	Closure of fistula of large intestine	CLOSE LG BOWEL FISTULA
46.79	Other repair of intestine	REPAIR OF INTESTINE NEC
46.91	Myotomy of sigmoid colon	MYOTOMY OF SIGMOID COLON
46.92	Myotomy of other parts of colon	MYOTOMY OF COLON NEC
46.94	Revision of anastomosis of large intestine	REVISE LG BOWEL ANASTOM
47.01	Laparoscopic appendectomy	LAP APPENDECTOMY
47.09	Other appendectomy	OTHER APPENDECTOMY
47.2	Drainage of appendiceal abscess	DRAIN APPENDICEAL ABSC
47.91	Appendicostomy	APPENDICOSTOMY
47.92	Closure of appendiceal fistula	CLOSE APPENDICEAL FISTUL
47.99	Other operations on appendix	APPENDICEAL OPS NEC
48.0	Proctotomy	PROCTOTOMY
48.1	Proctostomy	PROCTOSTOMY
48.41	Soave submucosal resection of rectum	SOAVE SUBMUC RECT RESECT
48.49	Other pull-through resection of rectum	PULL-THRU RECT RESEC NEC
48.5	Abdominoperineal resection of rectum	ABD-PERINEAL RECT RESECT
48.61	Transsacral rectosigmoidectomy	TRANSSAC RECTOSIGMOIDECT
48.62	Anterior resection of rectum with synchronous colostomy	ANT RECT RESECT W COLOST

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
48.63	Other anterior resection of rectum	ANTERIOR RECT RESECT NEC
48.64	Posterior resection of rectum	POSTERIOR RECT RESECTION
48.65	Duhamel resection of rectum	DUHAMEL RECTAL RESECTION
48.69	Other (Partial proctectomy, rectal resection NOS)	RECTAL RESECTION NEC
48.71	Suture of laceration of rectum	SUTURE OF RECTAL LACER
48.72	Closure of proctostomy	CLOSURE OF PROCTOSTOMY
48.73	Closure of other rectal fistula	CLOSE RECTAL FIST NEC
48.74	Rectorectostomy	RECTORECTOSTOMY
48.75	Abdominal proctopexy	ABDOMINAL PROCTOPEXY
48.76	Other proctopexy	PROCTOPEXY NEC
48.79	Other repair of rectum	REPAIR OF RECTUM NEC
50.0	Hepatotomy	HEPATOTOMY
50.21	Marsupialization of lesion of liver	MARSUPIALIZAT LIVER LES
50.22	Partial hepatectomy	PARTIAL HEPATECTOMY
50.29	Other destruction of lesion of liver	DESTRUC HEPATIC LES NEC
50.3	Lobectomy of liver	HEPATIC LOBECTOMY
50.4	Total hepatectomy	TOTAL HEPATECTOMY
50.51	Auxiliary liver transplant	AUXILIARY LIVER TRANSPL
50.59	Other transplant of liver	LIVER TRANSPLANT NEC
50.61	Closure of laceration of liver	CLOSURE LIVER LACERAT
50.69	Other repair of liver	LIVER REPAIR NEC
50.93	Localized perfusion of liver	LOCAL PERFUSION LIVER
51.02	Trocar cholecystostomy	TROCAR CHOLECYSTOSTOMY
51.03	Other cholecystostomy	CHOLECYSTOSTOMY NEC
51.04	Other cholecystotomy	CHOLECYSTOTOMY NEC
51.21	Other partial cholecystectomy	OTH PART CHOLECYSTECTOMY
51.22	Cholecystectomy	CHOLECYSTECTOMY
51.23	Laparoscopic cholecystectomy	LAPAROSCOPIC CHOLECYSTEC
51.24	Laparoscopic partial cholecystectomy	LAP PART CHOLECYSTECTOMY
51.31	Anastomosis of gallbladder to hepatic ducts	GB-TO-HEPAT DUCT ANAST
51.32	Anastomosis of gallbladder to intestine	GB-TO-INTESTINE ANASTOM
51.33	Anastomosis of gallbladder to pancreas	GB-TO-PANCREAS ANASTOM
51.34	Anastomosis of gallbladder to stomach	GB-TO-STOMACH ANASTOMOS
51.35	Other gallbladder anastomosis	GALLBLADDER ANASTOM NEC
51.36	Choledochoenterostomy	CHOLEDOCHOENTEROSTOMY
51.37	Anastomosis of hepatic duct to gastrointestinal tract	HEPATIC DUCT-GI ANASTOM
51.39	Other bile duct anastomosis	BILE DUCT ANASTOMOS NEC
51.41	Common duct exploration for removal of calculus	CDE FOR CALCULUS REMOV
51.42	Common duct exploration for relief of other obstruction	CDE FOR OBSTRUCTION NEC
51.43	Insertion of choledochohepatic tube for decompression	CHOLEDOCHOHEPAT INTUBAT
51.49	Incision of other bile ducts for relief of obstruction	INCIS OBSTR BILE DUC NEC
51.51	Exploration of common duct	COMMON DUCT EXPLORATION
51.59	Incision of other bile duct	BILE DUCT INCISION NEC
51.61	Excision of cystic duct remnant	EXCIS CYST DUCT REMNANT
51.62	Excision of ampulla of Vater (with reimplantation of common duct)	EXCIS AMPULLA OF VATER
51.63	Other excision of common duct	COMMON DUCT EXCIS NEC
51.69	Excision of other bile duct	BILE DUCT EXCISION NEC

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
51.71	Simple suture of common bile duct	SIMPLE SUT-COMMON DUCT
51.72	Choledochoplasty	CHOLEDOCHOPLASTY
51.79	Repair of other bile ducts	BILE DUCT REPAIR NEC
51.81	Dilation of sphincter of Oddi	SPHINCTER OF ODDI DILAT
51.82	Pancreatic sphincterotomy	PANCREAT SPHINCTEROTOM
51.83	Pancreatic sphincteroplasty	PANCREAT SPHINCTEROPLAS
51.89	Other operations on sphincter of Oddi	SPHINCT OF ODDI OP NEC
51.91	Repair of laceration of gallbladder	REPAIR GB LACERATION
51.92	Closure of cholecystostomy	CLOSURE CHOLECYSTOSTOMY
51.93	Closure of other biliary fistula	CLOS BILIARY FISTUL NEC
51.94	Revision of anastomosis of biliary tract	REVIS BILE TRACT ANASTOM
51.95	Removal of prosthetic device from bile duct	REMOVE BILE DUCT PROSTH
51.99	Other operations on biliary tract	BILIARY TRACT OP NEC
52.09	Other pancreatotomy	PANCREATOTOMY NEC
52.22	Other excision or destruction of lesion or tissue of pancreas or pancreatic duct	OTHER DESTRU PANCREA LES
52.3	Marsupialization of pancreatic cyst	PANCREAT CYST MARSUPIALI
52.4	Internal drainage of pancreatic cyst	INT DRAIN PANCREAT CYST
52.51	Proximal pancreatectomy	PROXIMAL PANCREATECTOMY
52.52	Distal pancreatectomy	DISTAL PANCREATECTOMY
52.53	Radical subtotal pancreatectomy	RAD SUBTOT PANCREATECTOM
52.59	Other partial pancreatectomy	PARTIAL PANCREATECT NEC
52.6	Total pancreatectomy	TOTAL PANCREATECTOMY
52.7	Radical pancreaticoduodenectomy	RAD PANCREATICODUODENECT
52.80	Pancreatic transplant, not otherwise specified	PANCREAT TRANSPLANT NOS
52.81	Reimplantation of pancreatic tissue	REIMPLANT PANCREATIC TIS
52.82	Homotransplant of pancreas	PANCREATIC HOMOTRANSPLAN
52.83	Heterotransplant of pancreas	PANCREATIC HETEROTRANSPL
52.84	Autotransplantation of cells of Islets of Langerhans	AUTOTRNSPLNT ISLETS LANG
52.85	Allotransplantation of cells of Islets of Langerhans	ALLOTRNSPLNT ISLETS LANG
52.86	Transplantation of cells of Islets of Langerhans, not otherwise specified	TRNSPLNT ISLETS LANG NOS
52.92	Cannulation of pancreatic duct	CANNULATION PANCREA DUC
52.95	Other repair of pancreas	PANCREATIC REPAIR NEC
52.96	Anastomosis of pancreas	PANCREATIC ANASTOMOSIS
52.99	Other operations on pancreas	PANCREATIC OPERATION NEC
53.51	Incisional hernia repair	INCISIONAL HERNIA REPAIR
53.59	Repair of other hernia of anterior abdominal wall	ABD WALL HERN REPAIR NEC
53.61	Incisional hernia repair with prosthesis	INCIS HERNIA REPAIR-GRFT
53.69	Repair of other hernia of anterior abdominal wall with prosthesis	ABD HERN REPAIR-GRFT NEC
53.7	Repair of diaphragmatic hernia, abdominal approach	ABD REPAIR-DIAPHR HERNIA
53.80	Repair of diaphragmatic hernia with thoracic approach, not otherwise specified	THOR REP-DIAPH HERN NOS
53.81	Plication of the diaphragm	DIAPHRAGMATIC PLICATION
53.82	Repair of parasternal hernia	PARASTERN HERNIA REPAIR
53.9	Other hernia repair	OTHER HERNIA REPAIR
54.11	Exploratory laparotomy	EXPLORATORY LAPAROTOMY
54.12	Reopening of recent laparotomy site	REOPEN RECENT LAP SITE
54.19	Other laparotomy	LAPAROTOMY NEC

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
54.4	Excision or destruction of peritoneal tissue	DESTRUCT PERITONEAL TISS
54.51	Laparoscopic lysis of peritoneal adhesions	LAP PERITON ADHESIOLYSIS
54.59	Other lysis of peritoneal adhesions	OTH PERITON ADHESIOLYSIS
54.61	Reclosure of postoperative disruption of abdominal wall	RECLOSE POST OP DISRUPT
54.62	Delayed closure of granulating abdominal wound	DELAYED CLOS ABD WOUND
54.63	Other suture of abdominal wall	ABD WALL SUTURE NEC
54.64	Suture of peritoneum	PERITONEAL SUTURE
54.71	Repair of gastroschisis	REPAIR OF GASTROSCHISIS
54.72	Other repair of abdominal wall	ABDOMEN WALL REPAIR NEC
54.73	Other repair of peritoneum	PERITONEAL REPAIR NEC
54.74	Other repair of omentum	OMENTAL REPAIR NEC
54.75	Other repair of mesentery	MESENTERIC REPAIR NEC
54.91	Percutaneous abdominal drainage	PERCU ABDOMINAL DRAINAGE
54.92	Removal of foreign body from peritoneal cavity	REMOVE FB FROM PERITON
54.94	Creation of peritoneovascular shunt	CREAT PERITONEOVAS SHUNT
54.95	Incision of peritoneum	PERITONEAL INCISION
55.01	Nephrotomy	NEPHROTOMY
55.02	Nephrostomy	NEPHROSTOMY
55.11	Pyelotomy	PYELOTOMY
55.12	Pyelostomy	PYELOSTOMY
55.4	Partial nephrectomy	PARTIAL NEPHRECTOMY
55.51	Nephroureterectomy	NEPHROURETERECTOMY
55.52	Nephrectomy of remaining kidney	SOLITARY KIDNEY NEPHRECT
55.53	Removal of transplanted or rejected kidney	REJECTED KIDNEY NEPHRECT
55.54	Bilateral nephrectomy	BILATERAL NEPHRECTOMY
55.61	Renal autotransplantation	RENAL AUTOTRANSPLANT
55.69	Other kidney transplantation	KIDNEY TRANSPLANT NEC
55.7	Nephropexy	NEPHROPEXY
55.81	Suture of laceration of kidney	SUTURE KIDNEY LACERATION
55.82	Closure of nephrostomy and pyelostomy	CLOSE NEPHROST & PYELOST
55.83	Closure of other fistula of kidney	CLOSE RENAL FISTULA NEC
55.84	Reduction of torsion of renal pedicle	REDUCE RENAL PEDICL TORS
55.85	Symphysiotomy for horseshoe kidney	SYMPHYSIOTOMY
55.86	Anastomosis of kidney	RENAL ANASTOMOSIS
55.87	Correction of ureteropelvic junction	CORRECT URETEROPELV JUNC
55.91	Decapsulation of kidney	RENAL DECAPSULATION
55.95	Local perfusion of kidney	LOCAL RENAL PERFUSION
55.97	Implantation or replacement of mechanical kidney	IMPLANT MECHANIC KIDNEY
55.98	Removal of mechanical kidney	REMOV MECHANICAL KIDNEY
55.99	Other operations on kidney	RENAL OPERATION NEC
56.40	Ureterectomy, not otherwise specified	URETERECTOMY NOS
56.41	Partial ureterectomy	PARTIAL URETERECTOMY
56.42	Total ureterectomy	TOTAL URETERECTOMY
56.51	Formation of cutaneous uretero-ileostomy	FORM CUTAN ILEOURETEROST
56.52	Revision of cutaneous uretero-ileostomy	REVIS CUTAN ILEOURETEROS
56.61	Formation of other cutaneous ureterostomy	FORM CUTAN URETEROSTOMY
56.62	Revision of other cutaneous ureterostomy	REVIS CUTAN URETEROS NEC
56.71	Urinary diversion to intestine	URIN DIVERSION TO BOWEL

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
56.72	Revision of ureterointestinal anastomosis	REVIS URETEROENTEROSTOMY
56.73	Nephrocystanastomosis, not otherwise specified	NEPHROCYSTANASTOMOSI NOS
56.74	Ureteroneocystostomy	URETERONEOCYSTOSTOMY
56.75	Transureteroureterostomy	TRANSURETEROURETEROSTOMY
56.79	Other anastomosis or bypass of ureter	URETERAL ANASTOMOSIS NEC
56.81	Lysis of intraluminal adhesions of ureter	INTRALUM URETE ADHESIOLY
56.82	Suture of laceration of ureter	SUTURE URETERAL LACERAT
56.83	Closure of ureterostomy	URETEROSTOMY CLOSURE
56.84	Closure of other fistula of ureter	CLOSE URETER FISTULA NEC
56.85	Ureteropexy	URETEROPEXY
56.86	Removal of ligature from ureter	REMOVE URETERAL LIGATURE
56.89	Other repair of ureter	REPAIR OF URETER NEC
56.95	Ligation of ureter	LIGATION OF URETER
56.99	Other operations on ureter	URETERAL OPERATION NEC
57.12	Lysis of intraluminal adhesions with incision into bladder	CYSTOTOMY & ADHESIOLYSIS
57.18	Other suprapubic cystostomy	OTHER SUPRAPU CYSTOSTOMY
57.19	Other cystotomy	CYSTOTOMY NEC
57.21	Vesicostomy	VESICOSTOMY
57.22	Revision or closure of vesicostomy	REVISE CLO VESICOSTOMY
57.6	Partial cystectomy	PARTIAL CYSTECTOMY
57.71	Radical cystectomy	RADICAL CYSTECTOMY
57.79	Other total cystectomy	TOTAL CYSTECTOMY NEC
57.81	Suture of laceration of bladder	SUTURE BLADDER LACERAT
57.82	Closure of cystostomy	CYSTOSTOMY CLOSURE
57.83	Repair of fistula involving bladder and intestine	ENTEROVESICO FIST REPAIR
57.84	Repair of other fistula of bladder	VESIC FISTULA REPAIR NEC
57.85	Cystourethroplasty and plastic repair of bladder neck	CYSTOURETHROPLASTY
57.86	Repair of bladder exstrophy	BLADDER EXSTROPHY REPAIR
57.87	Reconstruction of urinary bladder	BLADDER RECONSTRUCTION
57.88	Other anastomosis of bladder	BLADDER ANASTOMOSIS NEC
57.89	Other repair of bladder	BLADDER REPAIR NEC
57.91	Sphincterotomy of bladder	BLADDER SPHINCTEROTOMY
57.92	Dilation of bladder neck	BLADDER NECK DILATION
57.93	Control of (postoperative) hemorrhage of bladder	CONTROL BLADD HEMORRHAGE
59.00	Retroperitoneal dissection, not otherwise specified	RETROPERIT DISSECT NOS
59.02	Other lysis of perirenal or periureteral adhesions	PERIREN ADHESIOLYS NEC
59.03	Laparoscopic lysis of perirenal or periureteral adhesions	LAP LYS PERIREN/URET ADH
59.09	Other incision of perirenal or periureteral tissue	PERIREN/URETER INCIS NEC
59.11	Other lysis of perivesical adhesions	OTH LYS PERIVES ADHESIO
59.12	Laparoscopic lysis of perivesical adhesions	LAP LYS PERIVESURETH ADH
59.19	Other incision of perivesical tissue	PERIVESICAL INCISION NEC
59.3	Plication of urethrovesical junction	URETHROVES JUNCT PLICAT
59.4	Suprapubic sling operation	SUPRAPUBIC SLING OP
59.5	Retropubic urethral suspension	RETROPUBIC URETH SUSPENS
59.6	Paraurethral suspension	PARAURETHRAL SUSPENSION
59.71	Levator muscle operation for urethrovesical suspension	LEVATOR MUSC SUSPENSION

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
59.72	Injection of implant into urethra and/or bladder neck	INJECT IMPLANT URETHRA
59.79	Other repair of urinary stress incontinence	URIN INCONTIN REPAIR NEC
60.0	Incision of prostate	INCISION OF PROSTATE
60.21	Transurethral (ultrasound) guided laser induced prostatectomy (TULIP)	TRANSURETH PROSTATECTOMY
60.29	Other transurethral prostatectomy	OTH TRANSURETH PROSTATEC
60.3	Suprapubic prostatectomy	SUPRAPUBIC PROSTATECTOMY
60.4	Retropubic prostatectomy	RETROPUBIC PROSTATECTOMY
60.5	Radical prostatectomy	RADICAL PROSTATECTOMY
60.61	Local excision of lesion of prostate	LOS EXCIS PROSTATIC LES
60.62	Perineal prostatectomy	PERINEAL PROSTATECTOMY
60.69	Other prostatectomy	PROSTATECTOMY NEC
60.72	Incision of seminal vesicle	SEMINAL VESICLE INCISION
60.73	Excision of seminal vesicle	SEMINAL VESICLE EXCISION
60.79	Other operations on seminal vesicles	SEMINAL VESICLE OP NEC
60.81	Incision of periprostatic tissue	PERIPROSTATIC INCISION
60.82	Excision of periprostatic tissue	PERIPROSTATIC EXCISION
64.3	Amputation of penis	AMPUTATION OF PENIS
64.43	Construction of penis	CONSTRUCTION OF PENIS
64.44	Reconstruction of penis	RECONSTRUCTION OF PENIS
64.45	Replantation of penis	REPLANTATION OF PENIS
64.49	Other repair of penis	PENILE REPAIR NEC
64.5	Operations for sex transformation, not elsewhere classified	SEX TRANSFORMAT OP NEC
65.01	Laparoscopic oophorotomy	LAPAROSCOPIC OOPHOROTOMY
65.09	Other oophorotomy	OTHER OOPHOROTOMY
65.21	Marsupialization of ovarian cyst	OVARIAN CYST MARSUPIALIZ
65.22	Wedge resection of ovary	OVARIAN WEDGE RESECTION
65.23	Laparoscopic marsupialization of ovarian cyst	LAP MARSUP OVARIAN CYST
65.24	Laparoscopic wedge resection of ovary	LAP WEDGE RESECT OVARY
65.25	Other laparoscopic local excision or destruction of ovary	OTH LAP LOC EXC DEST OVA
65.29	Other local excision or destruction of ovary	LOCAL DESTR OVA LES NEC
65.31	Laparoscopic unilateral oophorectomy	LAP UNILAT OOPHORECTOMY
65.39	Other unilateral oophorectomy	OTH UNILAT OOPHORECTOMY
65.41	Laparoscopic unilateral salpingo-oophorectomy	LAP UNI SALPINGO-OOPHOR
65.49	Other unilateral salpingo-oophorectomy	OTH UNI SALPINGO-OOPHOR
65.51	Other removal of both ovaries at same operative episode	OTH REMOVE BOTH OVARIES
65.52	Other removal of remaining ovary	OTH REMOVE REMAIN OVARY
65.53	Laparoscopic removal of both ovaries at same operative episode	LAP REMOVE BOTH OVARIES
65.54	Laparoscopic removal of remaining ovary	LAP REMOVE REMAIN OVARY
65.61	Other removal of both ovaries and tubes at same operative episode	OTH REMOVE OVARIES/TUBES
65.62	Other removal of remaining ovary and tube	OTH REMOVE REM OVA/TUBE
65.63	Laparoscopic removal of both ovaries and tubes at same operative episode	LAP REMOVE OVARIES/TUBES
65.64	Laparoscopic removal of remaining ovary and tube	LAP REMOVE REM OVA/TUBE
65.71	Other simple suture of ovary	OTH SIMPLE SUTURE OVARY
65.72	Other reimplantation of ovary	OTH REIMPLANT OF OVARY
65.73	Other salpingo-oophoroplasty	OTH SALPINGO-OOPHOROPLAS
65.74	Laparoscopic simple suture of ovary	LAP SIMPLE SUTURE OVARY

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
65.75	Laparoscopic reimplantation of ovary	LAP REIMPLANT OF OVARY
65.76	Laparoscopic salpingo-oophoroplasty	LAP SALPINGO-OOPHOROPLAS
65.79	Other repair of ovary	REPAIR OF OVARY NEC
65.81	Laparoscopic lysis of adhesions of ovary and fallopian tube	LAP ADHESIOLYS OVA/TUBE
65.89	Other lysis of adhesions of ovary and fallopian tube	ADHESIOLYSIS OVARY/TUBE
65.92	Transplantation of ovary	TRANSPLANTATION OF OVARY
65.93	Manual rupture of ovarian cyst	MANUAL RUPT OVARIAN CYST
65.94	Ovarian denervation	OVARIAN DENERVATION
65.95	Release of torsion of ovary	OVARIAN TORSION RELEASE
65.99	Other operations on ovary	OVARIAN OPERATION NEC
66.01	Salpingotomy	SALPINGOTOMY
66.02	Salpingostomy	SALPINGOSTOMY
66.4	Total unilateral salpingectomy	TOTAL UNILAT SALPINGECT
66.51	Removal of both fallopian tubes at same operative episode	REMOVE BOTH FALLOP TUBES
66.52	Removal of remaining fallopian tube	REMOVE SOLITARY FAL TUBE
66.61	Excision or destruction of lesion of fallopian tube	DESTROY FALLOP TUBE LES
66.62	Salpingectomy with removal of tubal pregnancy	REMOV TUBE & ECTOP PREG
66.63	Bilateral partial salpingectomy, not otherwise specified	BILAT PART SALPINGEC NOS
66.69	Other partial salpingectomy	PARTIAL SALPINGECTOM NEC
66.71	Simple suture of fallopian tube	SIMPL SUTURE FALLOP TUBE
66.72	Salpingo-oophorostomy	SALPINGO-OOPHOROSTOMY
66.73	Salpingo-salpingostomy	SALPINGO-SALPINGOSTOMY
66.74	Salpingo-uterostomy	SALPINGO-UTEROSTOMY
66.79	Other repair of fallopian tube	FALLOP TUBE REPAIR NEC
68.0	Hysterotomy	HYSTEROTOMY
68.21	Division of endometrial synechiae	ENDOMET SYNECHIAE DIVIS
68.22	Incision or excision of congenital septum of uterus	INCISION UTERINE SEPTUM
68.29	Other excision or destruction of lesion of uterus	UTERINE LES DESTRUCT NEC
68.31	Laparoscopic supracervical hysterectomy [LSH]	LAP SCERVIC HYSTERECTOMY
68.39	Other subtotal abdominal hysterectomy, NOS	OTH SUBTOT ABD HYSTERECT
68.4	Total abdominal hysterectomy	TOTAL ABD HYSTERECTOMY
68.51	Laparoscopically assisted vaginal hysterectomy (LAVH)	LAP AST VAG HYSTERECTOMY
68.59	Other vaginal hysterectomy	OTHER VAG HYSTERECTOMY
68.6	Radical abdominal hysterectomy	RADICAL ABD HYSTERECTOMY
68.7	Radical vaginal hysterectomy	RADICAL VAG HYSTERECTOMY
68.8	Pelvic evisceration	PELVIC EVISCERATION
68.9	Other and unspecified hysterectomy	HYSTERECTOMY NEC/NOS
69.19	Other excision or destruction of uterus and supporting structures	DESTRUC UTER SUPPORT NEC
69.3	Paracervical uterine denervation	PARACERV UTERINE DENERV
69.41	Suture of laceration of uterus	SUTURE UTERINE LACERAT
69.42	Closure of fistula of uterus	CLOSURE UTERINE FISTULA
69.49	Other repair of uterus	UTERINE REPAIR NEC
70.4	Obliteration and total excision of vagina	VAGINAL OBLITERATION
70.50	Repair of cystocele and rectocele	CYSTOCEL/RECTOCEL REPAIR
70.51	Repair of cystocele	CYSTOCELE REPAIR
70.52	Repair of rectocele	RECTOCELE REPAIR
70.61	Vaginal construction	VAGINAL CONSTRUCTION
70.62	Vaginal reconstruction	VAGINAL RECONSTRUCTION

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
70.8	Obliteration of vaginal vault	VAGINAL VAULT OBLITERAT
74.0	Classical cesarean section	CLASSICAL C-SECTION
74.1	Low cervical cesarean section	LOW CERVICAL C-SECTION
74.2	Extraperitoneal cesarean section	EXTRAPERITONEAL C-SECT
74.3	Removal of extratubal ectopic pregnancy	REM EXTRATUB ECTOP PREG
75.50	Repair of current obstetric laceration of uterus, not otherwise specified	REPAIR OB LAC UTERUS NOS
75.51	Repair of current obstetric laceration of cervix	REPAIR OB LACERAT CERVIX
75.52	Repair of current obstetric laceration of corpus uteri	REPAIR OB LAC CORP UTERI
75.61	Repair of current obstetric laceration of bladder and urethra	REPAIR OB LAC BLAD/URETH
75.62	Repair of current obstetric laceration of rectum and sphincter ani	REPAIR OB LAC RECT/ANUS
75.69	Repair of other current obstetric laceration	REPAIR OB LACERATION NEC
77.00	Sequestrectomy, unspecified site	SEQUESTRECTOMY NOS
77.01	Sequestrectomy, scapula, clavicle, and thorax [ribs and sternum]	CHEST CAGE SEQUESTREC
77.02	Sequestrectomy, humerus	HUMERUS SEQUESTRECTOMY
77.03	Sequestrectomy, radius and ulna	RADIUS & ULNA SEQUESTREC
77.04	Sequestrectomy, carpals and metacarpals	METACARP/CARP SEQUESTREC
77.05	Sequestrectomy, carpals and metacarpals	FEMORAL SEQUESTRECTOMY
77.06	Sequestrectomy, patella	PATELLAR SEQUESTRECTOMY
77.07	Sequestrectomy, tibia and fibula	TIBIA/FIBULA SEQUESTREC
77.08	Sequestrectomy, tarsals and metatarsals	METATAR/TAR SEQUESTREC
77.09	Sequestrectomy, other	SEQUESTRECTOMY NEC
77.90	Total ostectomy, unspecified site	TOTAL OSTECTOMY NOS
77.91	Total ostectomy, scapula, clavicle, and thorax [ribs and sternum]	TOT CHEST CAGE OSTECTOMY
77.92	Total ostectomy, humerus	TOTAL OSTECTOMY-HUMERUS
77.93	Total ostectomy, radius and ulna	TOT OSTECT-RADIUS/ULNA
77.94	Total ostectomy, carpals and metacarpals	TOT OSTECT-METACARP/CARP
77.95	Total ostectomy, carpals and metacarpals	TOT OSTECTOMY-FEMUR
77.96	Total ostectomy, patella	TOTAL PATELLECTOMY
77.97	Total ostectomy, tibia and fibula	TOT OSTECT-TIBIA/FIBULA
77.98	Total ostectomy, tarsals and metatarsals	TOT OSTECT-METATARS/TARS
77.99	Total ostectomy, other	TOTAL OSTECTOMY NEC
78.00	Bone graft, unspecified site	BONE GRAFT NOS
78.01	Bone graft, scapula, clavicle, and thorax [ribs and sternum]	BONE GRAFT TO CHEST CAGE
78.02	Bone graft, humerus	BONE GRAFT TO HUMERUS
78.03	Bone graft, radius and ulna	BONE GRAFT-RADIUS/ULNA
78.04	Bone graft, carpals and metacarpals	BONE GRFT TO METACAR/CAR
78.05	Bone graft, femur	BONE GRAFT TO FEMUR
78.06	Bone graft, patella	BONE GRAFT TO PATELLA
78.07	Bone graft, tibia and fibula	BONE GRAFT-TIBIA/FIBULA
78.08	Bone graft, tarsals and metatarsals	BONE GRAFT-METATAR/TAR
78.09	Bone graft, other	BONE GRAFT NEC
78.20	Limb shortening procedures, unspecified site	LIMB SHORTEN PROC NOS
78.22	Limb shortening procedures, humerus	LIMB SHORT PROC-HUMERUS
78.23	Limb shortening procedures, radius and ulna	LIMB SHORTEN-RADIUS/ULNA
78.24	Limb shortening procedures, carpals and metacarpals	LIMB SHORTEN-METACAR/CAR
78.25	Limb shortening procedures, femur	LIMB SHORT PROC-FEMUR
78.27	Limb shortening procedures, tibia and fibula	LIMB SHORTEN-TIB/FIBULA

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
78.28	Limb shortening procedures, tarsals and metatarsals	LIMB SHORTEN-METATAR/TAR
78.29	Limb shortening procedures, other	LIMB SHORTEN PROC NEC
78.30	Limb lengthening procedures, unspecified site	LIMB LENGTHEN PROC NOS
78.32	Limb lengthening procedures, humerus	LIMB LENGTH PROC-HUMERUS
78.33	Limb lengthening procedures, radius and ulna	LIMB LENGTH-RADIUS/ULNA
78.34	Limb lengthening procedures, carpals and metacarpals	LIMB LENGTH-METACAR/CAR
78.35	Limb lengthening procedures, femur	LIMB LENGTH PROC-FEMUR
78.37	Limb lengthening procedures, tibia and fibula	LIMB LENGTHEN-TIB/FIBULA
78.38	Limb lengthening procedures, tarsals and metatarsal	LIMB LENGTHN-METATAR/TAR
78.39	Limb lengthening procedures, other	LIMB LENGTHEN PROC NEC
78.40	Other repair or plastic operations on bone, unspecified site	OTH BONE REPAIR/PLAST OP
78.41	Other repair or plastic operations on bone, scapula, clavicle, and thorax [ribs and sternum]	OTH CHEST CAGE REP/PLAST
78.42	Other repair or plastic operations on bone, humerus	OTH HUMERUS REPAIR/PLAST
78.43	Other repair or plastic operations on bone, radius and ulna	OTH RAD/ULN REPAIR/PLAST
78.44	Other repair or plastic operations on bone, carpals and metacarpals	OTH METAC/CARP REP/PLAST
78.45	Other repair or plastic operations on bone, femur	OTH FEMUR REPAIR/PLASTIC
78.46	Other repair or plastic operations on bone, patella	OTH PATELLA REPAIR/PLAST
78.47	Other repair or plastic operations on bone, tibia and fibula	OTH TIB/FIB REPAIR/PLAST
78.48	Other repair or plastic operations on bone, tarsals and metatarsals	OTH META/TAR REPA/PLAST
78.49	Other repair or plastic operations on bone, other	OTH BONE REPA/PLAST NEC
78.60	Removal of implanted devices from bone, unspecified site	REMOVE IMP DEVICE NOS
78.61	Removal of implanted devices from bone, scapula, clavicle, and thorax [ribs and sternum]	REMOV IMP DEV-CHEST CAGE
78.62	Removal of implanted devices from bone, humerus	REMOVE IMPL DEV-HUMERUS
78.63	Removal of implanted devices from bone, radius and ulna	REMOV IMP DEV-RADIUS/ULN
78.65	Removal of implanted devices from bone, femur	REMOVE IMP DEVICE-FEMUR
78.67	Removal of implanted devices from bone, tibia and fibula	REMOV IMP DEV-TIB/FIBULA
78.69	Removal of implanted devices from bone, other	REMOVE IMPL DEVICE NEC
78.70	Osteoclasis, unspecified site	OSTEOCLASIS NOS
78.71	Osteoclasis, scapula, clavicle, and thorax [ribs and sternum]	OSTEOCLASIS-CHEST CAGE
78.72	Osteoclasis, humerus	OSTEOCLASIS-HUMERUS
78.73	Osteoclasis, radius and ulna	OSTEOCLASIS-RADIUS/ULNA
78.74	Osteoclasis, carpals and metacarpals	OSTEOCLASIS-METACAR/CAR
78.75	Osteoclasis, femur	OSTEOCLASIS-FEMUR
78.76	Osteoclasis, patella	OSTEOCLASIS-PATELLA
78.77	Osteoclasis, tibia and fibula	OSTEOCLASIS-TIBIA/FIBULA
78.78	Osteoclasis, tarsals and metatarsals	OSTEOCLASIS-METATAR/TAR
78.79	Osteoclasis, other	OSTEOCLASIS NEC
79.20	Open reduction of fracture without internal fixation, unspecified site	OPEN FX REDUCTION NO
79.21	Open reduction of fracture without internal fixation, humerus	OPEN REDUC-HUMERUS FX
79.22	Open reduction of fracture without internal fixation, radius and ulna	OPEN REDUC-RADIUS/ULN FX
79.23	Open reduction of fracture without internal fixation, carpals and metacarpals	OPEN REDUC-METAC/CAR FX
79.25	Open reduction of fracture without internal fixation, femur	OPEN REDUCTION-FEMUR FX

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
79.26	Open reduction of fracture without internal fixation, tibia and fibula	OPEN REDUC-TIBIA/FIB FX
79.27	Open reduction of fracture without internal fixation, tarsals and metatarsals	OPEN REDUC-METAT/TARS FX
79.29	Open reduction of fracture without internal fixation, other specified bone	OPEN FX REDUCTION NEC
79.30	Open reduction of fracture with internal fixation, unspecified site	OPN FX RED W INT FIX NOS
79.31	Open reduction of fracture with internal fixation, humerus	OPEN RED-INT FIX HUMERUS
79.32	Open reduction of fracture with internal fixation, radius and ulna	OP RED-INT FIX RAD/ULNA
79.33	Open reduction of fracture with internal fixation, carpals and metacarpals	OP RED-INT FIX METAC/CAR
79.35	Open reduction of fracture with internal fixation, femur	OPEN REDUC-INT FIX FEMUR
79.36	Open reduction of fracture with internal fixation, tibia and fibula	OP RED-INT FIX TIB/FIBUL
79.37	Open reduction of fracture with internal fixation, tarsals and metatarsals	OP RED-INT FIX METAT/TAR
79.39	Open reduction of fracture with internal fixation, other specified bone	OPN FX RED W INT FIX NEC
79.50	Open reduction of separated epiphysis, unspecified site	OPEN RED-SEP EPIPHY NOS
79.51	Open reduction of separated epiphysis, humerus	OPN RED-SEP EPIPHY-HUMER
79.52	Open reduction of separated epiphysis, radius and ulna	OP RED-RADIUS/ULN EPIPHY
79.55	Open reduction of separated epiphysis, femur	OPN RED-SEP EPIPHY-FEMUR
79.56	Open reduction of separated epiphysis, tibia and fibula	OP RED-TIBIA/FIB EPIPHYS
79.59	Open reduction of separated epiphysis, other specified bone	OPEN RED-SEP EPIPHY NEC
79.60	Debridement of open fracture site, unspecified site	OPEN FX SITE DEBRIDE NOS
79.61	Debridement of open fracture site, humerus	DEBRID OPEN FX-HUMERUS
79.62	Debridement of open fracture site, radius and ulna	DEBRID OPN FX-RADIUS/ULN
79.63	Debridement of open fracture site, carpals and metacarpals	DEBRID OPN FX-METAC/CAR
79.65	Debridement of open fracture site, femur	DEBRID OPN FX-FEMUR
79.66	Debridement of open fracture site, tibia and fibula	DEBRID OPN FX-TIBIA/FIB
79.67	Debridement of open fracture site, tarsals and metatarsals	DEBRID OPN FX-METAT/TAR
79.69	Debridement of open fracture site, other specified bone	OPEN FX SITE DEBRIDE NEC
79.80	Open reduction of dislocation of unspecified site	OPEN REDUC-DISLOCAT NOS
79.81	Open reduction of dislocation of shoulder	OPN REDUC DISLOC-SHOULDR
79.82	Open reduction of dislocation of elbow	OPEN REDUC-ELBOW DISLOC
79.83	Open reduction of dislocation of wrist	OPEN REDUC-WRIST DISLOC
79.85	Open reduction of dislocation of hip	OPEN REDUC-HIP DISLOCAT
79.86	Open reduction of dislocation of knee	OPEN REDUC-KNEE DISLOCAT
79.87	Open reduction of dislocation of ankle	OPEN REDUC-ANKLE DISLOC
79.88	Open reduction of dislocation of foot and toe	OPN REDUC DISLOC-FT/TOE
79.89	Open reduction of dislocation of other specified sites	OPEN REDUC-DISLOCAT NEC
80.00	Arthrotomy for removal of prosthesis, unspecified site	ARTHROT & PROS REMOV NOS
80.01	Arthrotomy for removal of prosthesis, shoulder	ARTHROT/PROS REMOV-SHLDR
80.02	Arthrotomy for removal of prosthesis, elbow	ARTHROT/PROS REMOV-ELBOW
80.03	Arthrotomy for removal of prosthesis, wrist	ARTHROT/PROS REMOV-WRIST
80.04	Arthrotomy for removal of prosthesis, hand and finger	ARTHROT/PROS REMOV-HAND
80.05	Arthrotomy for removal of prosthesis, hip	ARTHROT/PROS REMOV-HIP
80.06	Arthrotomy for removal of prosthesis, knee	ARTHROT/PROS REMOV-KNEE
80.07	Arthrotomy for removal of prosthesis, ankle	ARTHROT/PROS REMOV-ANKLE
80.09	Arthrotomy for removal of prosthesis, other specified sites	ARTHROT & PROS REMOV NEC

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
80.10	Other arthrotomy, unspecified site	OTHER ARTHROTOMY NOS
80.11	Other arthrotomy, shoulder	OTH ARTHROTOMY-SHOULDER
80.12	Other arthrotomy, elbow	OTH ARTHROTOMY-ELBOW
80.13	Other arthrotomy, wrist	OTH ARTHROTOMY-WRIST
80.15	Other arthrotomy, hip	OTH ARTHROTOMY-HIP
80.16	Other arthrotomy, knee	OTH ARTHROTOMY-KNEE
80.17	Other arthrotomy, ankle	OTH ARTHROTOMY-ANKLE
80.19	Other arthrotomy, other specified sites	OTHER ARTHROTOMY NEC
80.6	Excision of semilunar cartilage of knee	EXCIS KNEE SEMILUN CARTL
80.80	Other local excision or destruction of lesion of joint, unspecified site	DESTRUCT JOINT LES NOS
80.81	Other local excision or destruction of lesion of joint, shoulder	DESTRUC-SHOULDER LES NEC
80.82	Other local excision or destruction of lesion of joint, elbow	DESTRUC-ELBOW LESION NEC
80.83	Other local excision or destruction of lesion of joint, wrist	DESTRUC-WRIST LESION NEC
80.84	Other local excision or destruction of lesion of joint, hand and finger	DESTRUC-HAND JT LES NEC
80.85	Other local excision or destruction of lesion of joint, hip	DESTRUCT-HIP LESION NEC
80.86	Other local excision or destruction of lesion of joint, knee	DESTRUCT-KNEE LESION NEC
80.87	Other local excision or destruction of lesion of joint, ankle	DESTRUC-ANKLE LESION NEC
80.88	Other local excision or destruction of lesion of joint, foot and toe	DESTRUC-FOOT JT LES NEC
80.89	Other local excision or destruction of lesion of joint, other specified sites	DESTRUCT JOINT LES NEC
80.90	Other excision of joint, unspecified site	EXCISION OF JOINT NOS
80.91	Other excision of joint, shoulder	EXCISION OF SHOULDER NEC
80.92	Other excision of joint, elbow	EXCISION OF ELBOW NEC
80.93	Other excision of joint, wrist	EXCISION OF WRIST NEC
80.94	Other excision of joint, hand and finger	EXCISION HAND JOINT NEC
80.95	Other excision of joint, hip	EXCISION OF HIP NEC
80.96	Other excision of joint, knee	EXCISION OF KNEE NEC
80.97	Other excision of joint, ankle	EXCISION OF ANKLE NEC
80.98	Other excision of joint, foot and toe	EXCISION FOOT JOINT NEC
80.99	Other excision of joint, other specified sites	EXCISION OF JOINT NEC
81.00	Spinal fusion, not otherwise specified	SPINAL FUSION NOS
81.01	Atlas-axis spinal fusion	ATLAS-AXIS FUSION
81.02	Other cervical fusion, anterior technique	OTHER CERVICAL FUS ANT
81.03	Other cervical fusion, posterior technique	OTHER CERVICAL FUS POST
81.04	Dorsal and dorsolumbar fusion, anterior technique	DORSAL/DORSOLUM FUS ANT
81.05	Dorsal and dorsolumbar fusion, posterior technique	DORSAL/DORSOLUM FUS POST
81.06	Lumbar and lumbosacral fusion, anterior technique	LUMBAR/LUMBOSAC FUS ANT
81.07	Lumbar and lumbosacral fusion, lateral transverse process technique	LUMBAR/LUMBOSAC FUS LAT
81.08	Lumbar and lumbosacral fusion, posterior technique	LUMBAR/LUMBOSAC FUS POST
81.11	Ankle fusion	ANKLE FUSION
81.12	Triple arthrodesis	TRIPLE ARTHRODESIS
81.13	Subtalar fusion	SUBTALAR FUSION
81.14	Midtarsal fusion	MIDTARSAL FUSION
81.15	Tarsometatarsal fusion	TARSOMETATARSAL FUSION
81.16	Metatarsophalangeal fusion	METATARSOPHALANGEAL FUS
81.17	Other fusion of foot	OTHER FUSION OF FOOT

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
81.20	Arthrodesis of unspecified joint	ARTHRODESIS NOS
81.21	Arthrodesis of hip	ARTHRODESIS OF HIP
81.22	Arthrodesis of knee	ARTHRODESIS OF KNEE
81.23	Arthrodesis of shoulder	ARTHRODESIS OF SHOULDER
81.24	Arthrodesis of elbow	ARTHRODESIS OF ELBOW
81.25	Carporadial fusion	CARPORADIAL FUSION
81.26	Metacarpocarpal fusion	METACARPOCARPAL FUSION
81.27	Metacarpophalangeal fusion	METACARPOPHALANGEAL FUS
81.28	Interphalangeal fusion	INTERPHALANGEAL FUSION
81.29	Arthrodesis of other specified joints	ARTHRODESIS NEC
81.30	Refusion of spine, not otherwise specified	SPINAL REFUSION NOS
81.31	Refusion of atlas-axis spine	REFUSION OF ATLAS-AXIS
81.32	Refusion of other cervical spine, anterior technique	REFUSION OF OTH CERV ANT
81.33	Refusion of other cervical spine, posterior technique	REFUS OF OTH CERV POST
81.34	Refusion of dorsal and dorsolumbar spine, anterior technique	REFUSION OF DORSAL ANT
81.35	Refusion of dorsal and dorsolumbar spine, posterior technique	REFUSION OF DORSAL POST
81.36	Refusion of lumbar and lumbosacral spine, anterior technique	REFUSION OF LUMBAR ANT
81.37	Refusion of lumbar and lumbosacral spine, lateral transverse process technique	REFUSION OF LUMBAR LAT
81.38	Refusion of lumbar and lumbosacral spine, posterior technique	REFUSION OF LUMBAR POST
81.39	Refusion of spine, not elsewhere classified	REFUSION OF SPINE NEC
81.40	Repair of hip, not elsewhere classified	REPAIR OF HIP, NEC
81.42	Five-in-one repair of knee	FIVE-IN-ONE KNEE REPAIR
81.43	Triad knee repair	TRIAD KNEE REPAIR
81.44	Patellar stabilization	PATELLAR STABILIZATION
81.45	Other repair of the cruciate ligaments	CRUCIATE LIG REPAIR NEC
81.46	Other repair of the collateral ligaments	COLLATERL LIG REPAIR NEC
81.47	Other repair of knee	OTHER REPAIR OF KNEE
81.49	Other repair of ankle	OTHER REPAIR OF ANKLE
81.51	Total hip replacement	TOTAL HIP REPLACEMENT
81.52	Partial hip replacement	PARTIAL HIP REPLACEMENT
81.53	Revision of hip replacement, not otherwise specified	REVISE HIP REPLACEMT NOS
81.54	Total knee replacement	TOTAL KNEE REPLACEMENT
81.55	Revision of knee replacement, not otherwise specified	REVISE KNEE REPLACE NOS
81.56	Total ankle replacement	TOTAL ANKLE REPLACEMENT
81.57	Replacement of joint of foot and toe	REPL JOINT OF FOOT, TOE
81.59	Revision of joint replacement of lower extremity, not elsewhere classified	REV JT REPL LOW EXT NEC
81.62	Fusion or refusion of 2-3 vertebrae	FUS/REFUS 2-3 VERTEBRAE
81.63	Fusion or refusion of 4- 8 vertebrae	FUS/REFUS 4-8 VERTEBRAE
81.64	Fusion or refusion of 9 or more vertebrae	FUS/REFUS 9 VERTEBRAE
81.80	Total shoulder replacement	TOTAL SHOULDER REPLACE
81.81	Partial shoulder replacement	PARTIAL SHOULDER REPLACE
81.82	Repair of recurrent dislocation of shoulder	REP RECUR SHLDER DISLOC
81.83	Other repair of shoulder	SHOULDER ARTHROPLAST NEC
81.84	Total elbow replacement	TOTAL ELBOW REPLACEMENT
81.85	Other repair of elbow	ELBOW ARTHROPLASTY NEC
81.91	Arthrocentesis	ARTHROCENTESIS

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
81.92	Injection of therapeutic substance into joint or ligament	INJECTION INTO JOINT
81.93	Suture of capsule or ligament of upper extremity	SUTUR CAPSUL/LIGAMEN ARM
81.94	Suture of capsule or ligament of ankle and foot	SUTURE CAPSUL/LIG ANK/FT
81.95	Suture of capsule or ligament of other lower extremity	SUTUR CAPSUL/LIG LEG NEC
81.96	Other repair of joint	OTHER REPAIR OF JOINT
81.97	Revision of joint replacement of upper extremity	REV JT REPL UPPER EXTREM
81.98	Other diagnostic procedures on joint structures	OTHER JOINT DX PROCEDURE
81.99	Other operations on joint structures	JOINT STRUCTURE OP NEC
82.61	Pollicization operation carrying over nerves and blood supply	POLLICIZATION OPERATION
82.81	Transfer of finger, except thumb	TRANSFER OF FINGER
83.32	Excision of lesion of muscle	EXCIS LESION OF MUSCLE
83.39	Excision of lesion of other soft tissue	EXC LES SOFT TISSUE NEC
83.5	Bursectomy	BURSECTOMY
83.61	Suture of tendon sheath	TENDON SHEATH SUTURE
83.62	Delayed suture of tendon	DELAYED TENDON SUTURE
83.63	Rotator cuff repair	ROTATOR CUFF REPAIR
83.64	Other suture of tendon	OTHER SUTURE OF TENDON
83.65	Other suture of muscle or fascia	OTHER MUSCLE/FASC SUTURE
83.71	Advancement of tendon	TENDON ADVANCEMENT
83.72	Recession of tendon	TENDON RECESSION
83.73	Reattachment of tendon	TENDON REATTACHMENT
83.74	Reattachment of muscle	MUSCLE REATTACHMENT
83.75	Tendon transfer or transplantation	TENDON TRNSFR/TRANSPLANT
83.76	Other tendon transposition	OTHER TENDON TRANSPOSIT
83.77	Muscle transfer or transplantation	MUSCLE TRNSFR/TRANSPLANT
83.79	Other muscle transposition	OTHER MUSCLE TRANSPOSIT
83.81	Tendon graft	TENDON GRAFT
83.82	Graft of muscle or fascia	MUSCLE OR FASCIA GRAFT
83.83	Tendon pulley reconstruction	TENDON PULLEY RECONSTRUC
83.84	Release of clubfoot, not elsewhere classified	CLUBFOOT RELEASE NEC
83.85	Other change in muscle or tendon length	MUSC/TEND LNG CHANGE NEC
83.86	Quadricepsplasty	QUADRICEPSPLASTY
83.87	Other plastic operations on muscle	OTHER PLASTIC OPS MUSCLE
83.88	Other plastic operations on tendon	OTHER PLASTIC OPS TENDON
83.89	Other plastic operations on fascia	OTHER PLASTIC OPS FASCIA
83.91	Lysis of adhesions of muscle, tendon, fascia, and bursa	ADHESIOLYSIS MUS/TEN/FAS
83.94	Aspiration of bursa	ASPIRATION OF BURSA
83.95	Aspiration of other soft tissue	SOFT TISSUE ASPIRAT NEC
83.99	Other operations on muscle, tendon, fascia, and bursa	MUS/TEN/FAS/BUR OP NEC
84.00	Upper limb amputation, not otherwise specified	UPPER LIMB AMPUTAT NOS
84.03	Amputation through hand	AMPUTATION THROUGH HAND
84.04	Disarticulation of wrist	DISARTICULATION OF WRIST
84.05	Amputation through forearm	AMPUTATION THRU FOREARM
84.06	Disarticulation of elbow	DISARTICULATION OF ELBOW
84.07	Amputation through humerus	AMPUTATION THRU HUMERUS
84.08	Disarticulation of shoulder	SHOULDER DISARTICULATION
84.09	Interthoracoscapular amputation	FOREQUARTER AMPUTATION
84.10	Lower limb amputation, not otherwise specified	LOWER LIMB AMPUTAT NOS

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
84.12	Amputation through foot	AMPUTATION THROUGH FOOT
84.13	Disarticulation of ankle	DISARTICULATION OF ANKLE
84.14	Amputation of ankle through malleoli of tibia and fibula	AMPUTAT THROUGH MALLEOLI
84.15	Other amputation below knee	BELOW KNEE AMPUTAT NEC
84.16	Disarticulation of knee	DISARTICULATION OF KNEE
84.17	Amputation above knee	ABOVE KNEE AMPUTATION
84.18	Disarticulation of hip	DISARTICULATION OF HIP
84.19	Abdominopelvic amputation	HINDQUARTER AMPUTATION
84.22	Finger reattachment	FINGER REATTACHMENT
84.23	Forearm, wrist, or hand reattachment	FOREARM/WRIST/HAND REATT
84.24	Upper arm reattachment	UPPER ARM REATTACHMENT
84.25	Toe reattachment	TOE REATTACHMENT
84.26	Foot reattachment	FOOT REATTACHMENT
84.27	Lower leg or ankle reattachment	LOWER LEG/ANKLE REATTACH
84.28	Thigh reattachment	THIGH REATTACHMENT
84.29	Other reattachment	REATTACHMENT NEC
84.3	Revision of amputation stump	AMPUTATION STUMP REVIS
84.51	Insertion of interbody spinal fusion device	INS SPINAL FUSION DEVICE
84.56	Insertion of (cement) spacer	INSERTION CEMENT SPACER
84.57	Removal of (cement) spacer	REMOVAL OF CEMENT SPACER
84.58	Implantation of interspinous process decompression device	IMP INTRSPINE DECOMP DEV
84.71	Application of external fixator device, monoplanar system	APP EXT FIX DEV-MONOPLAN
84.72	Application of external fixator device, ring system	APP EXT FIX DEV-RING SYS
84.73	Application of hybrid external fixator device	APP HYBRID EXT FIX DEV
85.22	Resection of quadrant of breast	QUADRANT RESECT BREAST
85.23	Subtotal mastectomy	SUBTOTAL MASTECTOMY
85.31	Unilateral reduction mammoplasty	UNILAT REDUCT MAMMOPLAST
85.32	Bilateral reduction mammoplasty	BILAT REDUCT MAMMOPLASTY
85.33	Unilateral subcutaneous mammectomy with synchronous implant	UNIL SUBQ MAMMECT-IMPLNT
85.34	Other unilateral subcutaneous mammectomy	UNILAT SUBQ MAMMECT NEC
85.35	Bilateral subcutaneous mammectomy with synchronous implant	BIL SUBQ MAMMECT-IMPLANT
85.36	Other bilateral subcutaneous mammectomy	BILAT SUBQ MAMMECTOM NEC
85.41	Unilateral simple mastectomy	UNILAT SIMPLE MASTECTOMY
85.42	Bilateral simple mastectomy	BILAT SIMPLE MASTECTOMY
85.43	Unilateral extended simple mastectomy	UNILAT EXTEN SIMP MASTEC
85.44	Bilateral extended simple mastectomy	BILAT EXTEND SIMP MASTEC
85.45	Unilateral radical mastectomy	UNILAT RADICAL MASTECTOM
85.46	Bilateral radical mastectomy	BILAT RADICAL MASTECTOMY
85.47	Unilateral extended radical mastectomy	UNIL EXT RAD MASTECTOMY
85.48	Bilateral extended radical mastectomy	BIL EXTEN RAD MASTECTOMY
85.50	Augmentation mammoplasty, not otherwise specified	AUGMENT MAMMOPLASTY NOS
85.53	Unilateral breast implant	UNILAT BREAST IMPLANT
85.54	Bilateral breast implant	BILATERAL BREAST IMPLANT
85.6	Mastopexy	MASTOPEXY
85.7	Total reconstruction of breast	TOTAL BREAST RECONSTRUCT
85.93	Revision of implant of breast	BREAST IMPLANT REVISION
85.94	Removal of implant of breast	BREAST IMPLANT REMOVAL
85.95	Insertion of breast tissue expander	INSER BREAST TISSU EXPAN

Table 5.10 Major Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
85.96	Removal of breast tissue expander	REMOV BREAST TISSU EXPAN
86.4	Radical excision of skin lesion	RADICAL EXCIS SKIN LES
86.70	Pedicle or flap graft, not otherwise specified	PEDICLE GRAFT/FLAP NOS
86.71	Cutting and preparation of pedicle grafts or flaps	CUT & PREP PEDICLE GRAFT
86.72	Advancement of pedicle graft	PEDICLE GRAFT ADVANCEMEN
86.73	Attachment of pedicle or flap graft to hand	ATTACH PEDICLE TO HAND
86.74	Attachment of pedicle or flap graft to other sites	ATTACH PEDICLE GRAFT NEC
86.75	Revision of pedicle or flap graft	REVISION OF PEDICLE GRFT

New Table
Effective 01-01-2006 Discharges

Table 5.17 Intracranial Neurosurgery

Code	ICD-9-CM Description	Shortened Description
01.21	Incision and drainage of cranial sinus	CRANIAL SINUS I & D
01.23	Reopening of craniotomy	REOPEN CRANIOTOMY SITE
01.24	Other craniotomy	OTHER CRANIOTOMY
01.25	Other craniectomy	OTHER CRANIECTOMY
01.31	Incision of cerebral meninges	INCISE CEREBRAL MENINGES
01.32	Lobotomy and tractotomy	LOBOTOMY & TRACTOTOMY
01.39	Other incision of brain	OTHER BRAIN INCISION
01.41	Operations of thalamus	THALAMUS OPERATIONS
01.42	Operations on globus pallidus	GLOBUS PALLIDUS OPS
01.51	Excision of lesion or tissue of cerebral meninges	EX CEREB MENINGEAL LES
01.52	Hemispherectomy	HEMISPHERECTOMY
01.53	Lobectomy of brain	BRAIN LOBECTOMY
01.59	Other excision or destruction of lesion or tissue of brain	OTHER BRAIN EXCISION

New Table
Effective 01-01-2006 Discharges

Table 5.18 Elective Spinal Surgery

Code	ICD-9-CM Description	Shortened Description
81.02	Other cervical fusion, anterior technique	OTHER CERVICAL FUS ANT
81.04	Dorsal and dorsolumbar fusion, anterior technique	DORSAL/DORSOLUM FUS ANT
81.06	Lumbar and lumbosacral fusion, anterior technique	LUMBAR/LUMBOSAC FUS ANT

New Table
Effective 01-01-2006 Discharges

Table 5.19 General Surgery

Code	ICD-9-CM Description	Shortened Description
32.3	Segmental resection of lung	SEGMENTAL LUNG RESECTION
32.4	Lobectomy of lung	LOBECTOMY OF LUNG
32.5	Complete pneumonectomy	COMPLETE PNEUMONECTOMY
34.51	Decortication of lung	DECORTICATION OF LUNG
34.59	Other excision of pleura	OTHER PLEURAL EXCISION
34.81	Excision of lesion or tissue of diaphragm	EXCISE DIAPHRAGM LESION
34.82	Sutre of laceration of diaphragm	SUTURE DIAPHRAGM LACERAT
34.83	Closure of fistula of diaphragm	CLOSE DIAPHRAGM FISTULA
34.84	Other repair of diaphragm	OTHER DIAPHRAGM REPAIR
34.89	Other operations on diaphragm	DIAPHRAGM OPERATION NEC
41.5	Total splenectomy	TOTAL SPLENECTOMY
42.01	Incision of esophageal web	ESOPHAGEAL WEB INCISION
42.09	Other incision of esophagus	ESOPHAGEAL INCISION NEC
42.10	Esophagostomy, not otherwise specified	ESOPHAGOSTOMY NOS
42.11	Cervical esophagostomy	CERVICAL ESOPHAGOSTOMY
42.12	Exteriorization of esophageal pouch	ESOPH POUCH EXTERIORIZAT
42.19	Other external fistulization of esophagus	EXT FISTULIZAT ESOPH NEC
42.40	Esophagectomy, not otherwise specified	ESOPHAGECTOMY NOS
42.41	Partial esophagectomy	PARTIAL ESOPHAGECTOMY
42.42	Total esophagectomy	TOTAL ESOPHAGECTOMY
42.51	Intrathoracic esophagoesophagostomy	THORAC ESOPHAGOESOPHAGOS
42.52	Intrathoracic esophagogastrostomy	THORAC ESOPHAGOGASTROST
42.53	Intrathoracic esophageal anastomosis with interposition of small bowel	THORAC SM BOWEL INTERPOS
42.54	Other intrathoracic esophaoenterostomy	THORAC ESOPHAGOENTER NEC
42.55	Intrathoracic esophageal anastomosis with interposition of colon	THORAC LG BOWEL INTERPOS
42.56	Other intrathoracic esophagocolostomy	THORAC ESOPHAGOCOLOS NEC
42.58	Intrathoracic esophageal anastomosis with other interposition	THORAC INTERPOSITION NEC
42.59	Other intrathoracic anastomosis of esophagus	THORAC ESOPHAG ANAST NEC
42.61	Antesternal esophagoesophagostomy	STERN ESOPHAGOESOPHAGOST
42.62	Antesternal esophagogastrostomy	STERN ESOPHAGOGASTROSTOM
42.63	Antesternal esophageal anastomosis with interposition of small bowel	STERN SM BOWEL INTERPOS
42.64	Other antesternal esophagoenterostomy	STERN ESOPHAGOENTER NEC
42.65	Antesternal esophageal anastomosis with interposition of colon	STERN LG BOWEL INTERPOS
42.66	Other antesternal esophagocolostomy	STERN ESOPHAGOCOLOS NEC
42.68	Other antesternal esophageal anastomosis with interposition	STERN INTERPOSITION NEC
42.69	Other antesternal anastomosis of esophagus	STERN ESOPHAG ANAST NEC
42.82	Suture of laceration of esophagus	SUTURE ESOPHAGEAL LACER
42.83	Closure of esophagostomy	ESOPHAGOSTOMY CLOSURE
42.84	Repair of esophageal fistula, not elsewhere classified	ESOPH FISTULA REPAIR NEC

Table 5.19 General Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
42.85	Repair of esophageal stricture	ESOPHAG STRICTURE REPAIR
42.86	Production of subcutaneous tunnel without esophageal anastomosis	PROD SUBQ TUNNEL NO ANAS
42.87	Other graft of esophagus	ESOPHAGEAL GRAFT NEC
42.89	Other repair of esophagus	ESOPHAGEAL REPAIR NEC
43.5	Partial gastrectomy with anastomosis to esophagus	PROXIMAL GASTRECTOMY
43.6	Partial gastrectomy with anastomosis to duodenum	DISTAL GASTRECTOMY
43.7	Partial gastrectomy with anastomosis to jejunum	PART GASTREC W JEJ ANAST
43.81	Partial gastrectomy with jejunal transposition	PART GAST W JEJ TRANSPOS
43.89	Other partial gastrectomy	PARTIAL GASTRECTOMY NEC
43.91	Total gastrectomy with intestinal interposition	TOT GAST W INTES INTERPO
43.99	Other total gastrectomy	TOTAL GASTRECTOMY NEC
44.00	Vagotomy, not otherwise specified	VAGOTOMY NOS
44.01	Truncal vagotomy	TRUNCAL VAGOTOMY
44.02	Highly selective vagotomy	HIGHLY SELECT VAGOTOMY
44.03	Other selective vagotomy	SELECTIVE VAGOTOMY NEC
44.21	Dilation of pylorus by incision	DILATE PYLORUS, INCISION
44.29	Other pyloroplasty	OTHER PYLOROPLASTY
44.31	High gastric bypass	HIGH GASTRIC BYPASS
44.39	Other gastroenterostomy	GASTROENTEROSTOMY NEC
44.40	Suture of peptic ulcer, not otherwise specified	SUTURE PEPTIC ULCER NOS
44.41	Suture of gastric ulcer site	SUT GASTRIC ULCER SITE
44.42	Suture of duodenal ulcer site	SUTURE DUODEN ULCER SITE
44.49	Other control of hemorrhage of stomach or duodenum	OTHER CONTROL GAST HEM
44.5	Revision of gastric anastomosis	REVISION GASTRIC ANASTOM
44.61	Suture of laceration of stomach	SUTURE GASTRIC LACERAT
44.62	Closure of gastrostomy	GASTROSTOMY CLOSURE
44.63	Closure of other gastric fistula	CLOSE GASTRIC FISTUL NEC
44.64	Gastropexy	GASTROPEXY
44.65	Esophagostroplasty	ESOPHAGOGASTROPLASTY
44.66	Other procedures for creation of esophagogastric sphincteric competence	CREAT ESOPHAGASTR SPHINC
44.69	Other repair of stomach	GASTRIC REPAIR NEC
44.91	Ligation of gastric varices	LIGATE GASTRIC VARICES
44.92	Intraoperative manipulation of stomach	INTRAOP GASTRIC MANIPUL
44.99	Other operations on stomach	GASTRIC OPERATION NEC
45.00	Incision of intestine, not otherwise specified	INTESTINAL INCISION NOS
45.01	Incision of duodenum	DUODENAL INCISION
45.02	Other incision of small intestine	SMALL BOWEL INCISION NEC
45.03	Incision of large intestine	LARGE BOWEL INCISION
45.31	Other local excision of lesion of duodenum	OTH EXCISE DUODENUM LES
45.32	Other destruction of lesion of duodenum	DESTRUCT DUODEN LES NEC
45.33	Local excision of lesion or tissue of small intestine, except duodenum	LOCAL EXCIS SM BOWEL NEC
45.34	Other destruction of lesion of small intestine, except duodenum	DESTR SM BOWEL LES NEC
45.41	Excision of lesion or tissue of large intestine	EXCISE LG INTESTINE LES
45.49	Other destruction of lesion of large intestine	DESTRUC LG BOWEL LES NEC
45.50	Isolation of intestinal segment, not otherwise specified	INTEST SEG ISOLAT NOS
45.51	Isolation of segment of small intestine	SM BOWEL SEGMENT ISOLAT

Table 5.19 General Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
45.52	Isolation of segment of large intestine	LG BOWEL SEGMENT ISOLAT
45.61	Multiple segmental resection of small intestine	MULT SEG SM BOWEL EXCIS
45.62	Other partial resection of small intestine	PART SM BOWEL RESECT NEC
45.63	Total removal of small intestine	TOTAL REMOVAL SM BOWEL
45.71	Multiple segmental resection of large intestine	MULT SEG LG BOWEL EXCIS
45.72	Cecectomy	CECECTOMY
45.73	Right hemicolectomy	RIGHT HEMICOLECTOMY
45.74	Resection of transverse colon	TRANSVERSE COLON RESECT
45.75	Left hemicolectomy	LEFT HEMICOLECTOMY
45.76	Sigmoidectomy	SIGMOIDECTOMY
45.79	Other partial excision of large intestine	PART LG BOWEL EXCIS NEC
45.8	Total intra-abdominal colectomy	TOT INTRA-ABD COLECTOMY
45.90	Intestinal anastomosis, not otherwise specified	INTESTINAL ANASTOM NOS
45.91	Small-to-small intestinal anastomosis	SM-TO-SM BOWEL ANASTOM
45.92	Anastomosis of small intestine to rectal stump	SM BOWEL-RECT STUMP ANAS
45.93	Other small-to-large intestinal anastomosis	SMALL-TO-LARGE BOWEL NEC
45.94	Large-to-large intestinal anastomosis	LG-TO-LG BOWEL ANASTOM
45.95	Anastomosis to anus	ANAL ANASTOMOSIS
46.01	Exteriorization of small intestine	SM BOWEL EXTERIORIZATION
46.02	Resction of exteriorized segment of small intestine	RESECT EXT SEG SM BOWEL
46.03	Exteriorization of large intestine	LG BOWEL EXTERIORIZATION
46.04	Resection of exteriorized segment of large intestine	RESECT EXT SEG LG BOWEL
46.10	Colostomy, not otherwise specified	COLOSTOMY NOS
46.11	Temporary colostomy	TEMPORARY COLOSTOMY
46.13	Permanent colostomy	PERMANENT COLOSTOMY
46.14	Delayed opening of colostomy	DELAY OPENING COLOSTOMY
46.20	Ileostomy, not otherwise specified	ILEOSTOMY NOS
46.21	Temporary ileostomy	TEMPORARY ILEOSTOMY
46.22	Continent ileostomy	CONTINENT ILEOSTOMY
46.23	Other permanent ileostomy	PERMANENT ILEOSTOMY NEC
46.39	Other enterostomy	ENTEROSTOMY NEC
46.42	Repair of pericolostomy hernia	PERICOLOST HERNIA REPAIR
46.43	Other revision of stoma of large intestine	LG BOWEL STOMA REVIS NEC
46.50	Closure of intestinal stoma, not otherwise specified	INTEST STOMA CLOSURE NOS
46.51	Closure of stoma of small intestine	SM BOWEL STOMA CLOSURE
46.52	Closure of stoma of large intestine	LG BOWEL STOMA CLOSURE
46.60	Fixation of intestine, not otherwise specified	INTESTINAL FIXATION NOS
46.61	Fixation of small intestine to abdominal wall	SM BOWEL-ABD WALL FIXAT
46.62	Other fixation of small intestine	SMALL BOWEL FIXATION NEC
46.63	Fixation of large intestine to abdominal wall	LG BOWEL-ABD WALL FIXAT
46.64	Other fixation of large intestine	LARGE BOWEL FIXATION NEC
46.71	Suture of laceration of duodenum	DUODENAL LACERAT SUTURE
46.72	Closure of fistula of duodenum	DUODENAL FISTULA CLOSURE
46.73	Suture of laceration of small intestine, except duodenum	SMALL BOWEL SUTURE NEC
46.74	Closure of fistula of small intestine, except duodenum	CLOSE SM BOWEL FIST NEC
46.75	Suture of laceration of large intestine	SUTURE LG BOWEL LACERAT
46.76	Closure of fistula of large intestine	CLOSE LG BOWEL FISTULA
46.79	Other repair of intestine	REPAIR OF INTESTINE NEC
48.0	Proctotomy	PROCTOTOMY

Table 5.19 General Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
48.1	Proctostomy	PROCTOSTOMY
48.41	Soave submucosal resection of rectum	SOAVE SUBMUC RECT RESECT
48.49	Other pull-through resection of rectum	PULL-THRU RECT RESEC NEC
48.5	Abdominoperineal resection of rectum	ABD-PERINEAL RECT RESECT
48.61	Transsacral rectosigmoidectomy	TRANSSAC RECTOSIGMOIDECT
48.62	Anterior resection of rectum with synchronous colostomy	ANT RECT RESECT W COLOST
48.63	Other anterior resection of rectum	ANTERIOR RECT RESECT NEC
48.64	Posterior resection of rectum	POSTERIOR RECT RESECTION
48.65	Duhamel resection of rectum	DUHAMEL RECTAL RESECTION
48.69	Other resection of rectum	RECTAL RESECTION NEC
48.71	Suture of laceration of rectum	SUTURE OF RECTAL LACER
48.74	Rectorectostomy	RECTORECTOSTOMY
48.75	Abdominal proctopexy	ABDOMINAL PROCTOPEXY
48.76	Other proctopexy	PROCTOPEXY NEC
48.79	Other repair of rectum	REPAIR OF RECTUM NEC
50.0	Hepatotomy	HEPATOTOMY
50.21	Marsupialization of lesion of liver	MARSUPIALIZAT LIVER LES
50.22	Partial hepatectomy	PARTIAL HEPATECTOMY
50.29	Other destruction of lesion of liver	DESTRUC HEPATIC LES NEC
50.3	Lobectomy of liver	HEPATIC LOBECTOMY
50.61	Closure of laceration of liver	CLOSURE LIVER LACERAT
50.69	Other repair of liver	LIVER REPAIR NEC
50.93	Localized perfusion of liver	LOCAL PERFUSION LIVER
51.31	Anastomosis of gallbladder to hepatic ducts	GB-TO-HEPAT DUCT ANAST
51.32	Anastomosis of gallbladder to intestine	GB-TO-INTESTINE ANASTOM
51.33	Anastomosis of gallbladder to pancreas	GB-TO-PANCREAS ANASTOM
51.34	Anastomosis of gallbladder to stomach	GB-TO-STOMACH ANASTOMOS
51.35	Other gallbladder anastomosis	GALLBLADDER ANASTOM NEC
51.36	Choledochoenterostomy	CHOLEDOCHOENTEROSTOMY
51.37	Anastomosis of hepatic duct to gastrointestinal tract	HEPATIC DUCT-GI ANASTOM
51.39	Other bile duct anastomosis	BILE DUCT ANASTOMOS NEC
51.41	Common duct exploration for removal of calculus	CDE FOR CALCULUS REMOV
51.42	Common duct exploration for relief of other obstruction	CDE FOR OBSTRUCTION NEC
51.43	Insertion of choledochohepatic tube of decompression	CHOLEDOCHOHEPAT INTUBAT
51.49	Incision of other bile ducts for relief of obstruction	INCIS OBSTR BILE DUC NEC
51.51	Exploration of common duct	COMMON DUCT EXPLORATION
51.59	Incision of other bile duct	BILE DUCT INCISION NEC
51.61	Excision of cystic duct remnant	EXCIS CYST DUCT REMNANT
51.62	Excision of ampulla of Vater (with reimplantation of common duct)	EXCIS AMPULLA OF VATER
51.63	Other excision of common duct	COMMON DUCT EXCIS NEC
51.69	Excision of other bile duct	BILE DUCT EXCISION NEC
51.71	Simple suture of common bile duct	SIMPLE SUT-COMMON DUCT
51.72	Choledochoplasty	CHOLEDOCHOPLASTY
51.79	Repair of other bile ducts	BILE DUCT REPAIR NEC
51.81	Dilation of sphincter of Oddi	SPHINCTER OF ODDI DILAT
51.82	Pancreatic sphincterotomy	PANCREAT SPHINCTEROTOM
51.83	Pancreatic sphincteroplasty	PANCREAT SPHINCTEROPLAS
51.89	Other operations on sphincter of Oddi	SPHINCT OF ODDI OP NEC

Table 5.19 General Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
51.91	Repair of laceration of gallbladder	REPAIR GB LACERATION
51.92	Closure of cholecystostomy	CLOSURE CHOLECYSTOSTOMY
51.93	Closure of other biliary fistula	CLOS BILIARY FISTUL NEC
51.94	Revision of anastomosis of biliary tract	REVIS BILE TRACT ANASTOM
51.95	Removal of prosthetic device from bile duct	REMOVE BILE DUCT PROSTH
51.99	Other operations on biliary tract	BILIARY TRACT OP NEC
52.09	Other pancreatotomy	PANCREATOTOMY NEC
52.22	Other excision or destruction of lesion or tissue of pancreas or pancreatic duct	OTHER DESTRU PANCREA LES
52.3	Marsupialization of pancreatic cyst	PANCREAT CYST MARSUPIALI
52.4	Internal drainage of pancreatic cyst	INT DRAIN PANCREAT CYST
52.51	Proximal pancreatectomy	PROXIMAL PANCREATECTOMY
52.52	Distal pancreatectomy	DISTAL PANCREATECTOMY
52.53	Radical subtotal pancreatectomy	RAD SUBTOT PANCREATECTOM
52.59	Other partial pancreatectomy	PARTIAL PANCREATECT NEC
52.6	Total pancreatectomy	TOTAL PANCREATECTOMY
52.7	Radical pancreaticoduodenectomy	RAD PANCREATICODUODENECT
52.92	Cannulation of pancreatic duct	CANNULATION PANCREA DUC
52.95	Other repair of pancreas	PANCREATIC REPAIR NEC
52.96	Anastomosis of pancreas	PANCREATIC ANASTOMOSIS
52.99	Other operations on pancreas	PANCREATIC OPERATION NEC
53.7	Repair of diaphragmatic hernia, abdominal approach	ABD REPAIR-DIAPHR HERNIA
53.80	Repair of diaphragmatic hernia with thoracic approach, not otherwise specified	THOR REP-DIAPH HERN NOS
53.81	Plication of the diaphragm	DIAPHRAGMATIC PLICATION
53.82	Repair of parasternal hernia	PARASTERN HERNIA REPAIR
54.11	Exploratory laparotomy	EXPLORATORY LAPAROTOMY
54.12	Reopening of recent laparotomy site	REOPEN RECENT LAP SITE
54.19	Other laparotomy	LAPAROTOMY NEC
54.4	Excision or destruction of peritoneal tissue	DESTRUCT PERITONEAL TISS
54.59	Other lysis of peritoneal adhesions	OTH PERITON ADHESIOLYSIS
54.61	Reclosure of postoperative disruption of abdominal wall	RECLOSE POST OP DISRUPT
54.62	Delayed closure of granulating abdominal wound	DELAYED CLOS ABD WOUND
54.63	Other suture of abdominal wall	ABD WALL SUTURE NEC
54.64	Suture of peritoneum	PERITONEAL SUTURE
54.71	Repair of gastroschisis	REPAIR OF GASTROSCHISIS
54.72	Other repair of abdominal wall	ABDOMEN WALL REPAIR NEC
54.73	Other repair of peritoneum	PERITONEAL REPAIR NEC
54.74	Other repair of omentum	OMENTAL REPAIR NEC
54.75	Other repair of mesentery	MESENTERIC REPAIR NEC
54.91	Percutaneous abdominal drainage	PERCU ABDOMINAL DRAINAGE
54.92	Removal of foreign body from peritoneal cavity	REMOVE FB FROM PERITON
54.94	Creation of peritoneovascular shunt	CREAT PERITONEOVAS SHUNT
54.95	Incision of peritoneum	PERITONEAL INCISION

New Table
Effective 01-01-2006 Discharges

Table 5.20 Gynecological Surgery

Code	ICD-9-CM Description	Shortened Description
65.22	Wedge resection of ovary	OVARIAN WEDGE RESECTION
65.25	Other laparoscopic local excision or destruction of ovary	OTH LAP LOC EXC DEST OVA
65.29	Other local excision or destruction of ovary	LOCAL DESTR OVA LES NEC
65.31	Lapoaroscopic unilateral oophorectomy	LAP UNILAT OOPHORECTOMY
65.39	Other unilater oophorectomy	OTH UNILAT OOPHORECTOMY
65.41	Laparoscopic unilateral salpingo-oophorectomy	LAP UNI SALPINGO-OOPHOR
65.49	Other unilateral salpingo-oophorectomy	OTH UNI SALPINGO-OOPHOR
65.51	Other removal of both ovaries at same operative episode	OTH REMOVE BOTH OVARIES
65.52	Other removal of remaining ovary	OTH REMOVE REMAIN OVARY
65.53	Laparoscopic removal of both ovaries at same operative episode	LAP REMOVE BOTH OVARIES
65.54	Laparoscopic removal of remaining ovary	LAP REMOVE REMAIN OVARY
65.61	Other removal of both ovaries and tubes at same operative episode	OTH REMOVE OVARIES/TUBES
65.62	Other removal of remaining ovary and tube	OTH REMOVE REM OVA/TUBE
65.63	Laparoscopic removal of both ovaries and tubes at same operative episode	LAP REMOVE OVARIES/TUBES
65.64	Laparoscopic removal of remaining ovary and tube	LAP REMOVE REM OVA/TUBE
66.4	Total unilateral salpingectomy	TOTAL UNILAT SALPINGECT
66.51	Removal of both fallopian tubes at same operative episode	REMOVE BOTH FALLOP TUBES
66.52	Removal of remaining fallopian tube	REMOVE SOLITARY FAL TUBE
66.61	Excision or destruction of lesion of fallopian tube	DESTROY FALLOP TUBE LES
66.62	Salpingectomy with removal of tubal pregnancy	REMOV TUBE & ECTOP PREG
66.63	Bilateral partial salpingectomy, not otherwise specified	BILAT PART SALPINGEC NOS
66.69	Other parital salpingectomy	PARTIAL SALPINGECTOM NEC
68.39	Subtotal abdominal hysterectomy	OTH SUBTOT ABD HYSTERECT
68.4	Total abdominal hysterectomy	TOTAL ABD HYSTERECTOMY
68.51	Lap-assisted vaginal hysterectomy	LAP AST VAG HYSTERECTOMY
68.59	Other vaginal hysterectomy	OTHER VAG HYSTERECTOMY
68.6	Radical abdominal hysterectomy	RADICAL ABD HYSTERECTOMY
68.7	Radical vaginal hysterectomy	RADICAL VAG HYSTERECTOMY

New Table
Effective 01-01-2006 Discharges

Table 5.21 Urological Surgery

Code	ICD-9-CM Description	Shortened Description
55.4	Partial nephrectomy	PARTIAL NEPHRECTOMY
55.51	Nephroureterectomy	NEPHROURETERECTOMY
55.52	Nephrectomy of remaining kidney	SOLITARY KIDNEY NEPHRECT
55.53	Removal of transplanted kidney	REJECTED KIDNEY NEPHRECT
55.54	Bilateral nephrectomy	BILATERAL NEPHRECTOMY
56.51	Formation of cutaneous uretero-ileostomy	FORM CUTAN ILEOURETEROST
56.52	Revision of cutaneous uretero-ileostomy	REVIS CUTAN ILEOURETEROS

Table 5.21 Urological Surgery (cont.)

Code	ICD-9-CM Description	Shortened Description
56.71	Urinary diversion to intestine	URIN DIVERSION TO BOWEL
56.72	Revision of uretrointestinal anastomosis	REVIS URETEROENTEROSTOMY
56.73	Nephrocystanastomosis, not otherwise specified	NEPHROCYSTANASTOMOSI NOS
56.74	Ureteroneocystostomy	URETERONEOCYSTOSTOMY
56.75	Transureteroureterostomy	TRANSURETEROURETEROSTOMY
56.79	Other anastomosis or bypass of ureter	URETERAL ANASTOMOSIS NEC
57.6	Partial cystectomy	PARTIAL CYSTECTOMY
57.71	Radical cystectomy	RADICAL CYSTECTOMY
57.79	Other total cystectomy	TOTAL CYSTECTOMY NEC
57.81	Suture of laceration of bladder	SUTURE BLADDER LACERAT
57.82	Closure of cystostomy	CYSTOSTOMY CLOSURE
57.83	Repair of fistula involving bladder and intestine	ENTEROVESICO FIST REPAIR
57.84	Repair of other fistula of bladder	VESIC FISTULA REPAIR NEC
57.85	Cystourethroplasty and plastic repair of bladder neck	CYSTOURETHROPLASTY
57.86	Repair of bladder exstrophy	BLADDER EXSTROPHY REPAIR
57.87	Reconstruction of urinary bladder	BLADDER RECONSTRUCTION
57.88	Other anastomosis of bladder	BLADDER ANASTOMOSIS NEC
57.89	Other repair of bladder	BLADDER REPAIR NEC
59.00	Retroperitoneal dissection, not otherwise specified	RETROPERIT DISSECT NOS
59.02	Other lysis of perirenal or periureteral adhesions	PERIREN ADHESIOLYS NEC
59.09	Other incision of perirenal or periureteral tissue	PERIREN/URETER INCIS NEC
60.3	Suprapubic prostatectomy	SUPRAPUBIC PROSTATECTOMY
60.4	Retropubic prostatectomy	RETROPUBIC PROSTATECTOMY
60.5	Radical prostatectomy	RADICAL PROSTATECTOMY

New Table
Effective 01-01-2006 Discharges

Table 5.22 Elective Total Hip Replacement

Code	ICD-9-CM Description	Shortened Description
00.70	Revision of hip replacement, both acetabular and femoral components	REV HIP REPL-ACETAB/FEM
00.71	Revision of hip replacement, acetabular component	REV HIP REPL-ACETAB COMP
00.72	Revision of hip replacement, femoral component	REV HIP REPL-FEM COMP
00.73	Revision of hip replacement, acetabular liner and/or femoral head only	REV HIP REPL-LINER/HEAD
81.51	Total hip replacement	TOTAL HIP REPLACEMENT
81.53	Revision of hip replacement	REVISE HIP REPLACEMENT

New Table
Effective 01-01-2006 Discharges

Table 5.23 Elective Total Knee Replacement

Code	ICD-9-CM Description	Shortened Description
00.80	Revision of knee replacement, total (all components)	REV KNEE REPLACEMT-TOTAL
00.81	Revision of knee replacement, tibial component	REV KNEE REPL-TIBIA COMP
00.82	Revision of knee replacement, femoral component	REV KNEE REPL-FEMUR COMP
00.83	Revision of knee replacement, patellar component	REV KNEE REPLACE-PATELLA
00.84	Revision of total knee replacement, tibial insert (liner)	REV KNEE REPL-TIBIA LIN
81.54	Total knee replacement	TOTAL KNEE REPLACEMENT
81.55	Revision of knee replacement	REVISE KNEE REPLACEMENT

New Table
Effective 01-01-2006 Discharges

Table 5.24 Hip Fracture Surgery

Code	ICD-9-CM Description	Shortened Description
81.40	Repair of hip, not elsewhere classified	REPAIR OF HIP, NEC

APPENDIX C—COMMENTARY

INTRODUCTION

In January 2005, the National Quality Forum (NQF) formally initiated a project to achieve consensus on an initial set of voluntary consensus standards comprising model organizational policies, preferred practices and performance measures for prevention and care of venous thromboembolism (VTE) which includes deep vein thrombosis (DVT) and pulmonary embolism (PE). As with other NQF consensus projects, a Steering Committee (appendix D) representing key healthcare constituencies—including consumers, providers, purchasers, and research and quality improvement organizations was convened. In December 2005, the Steering Committee recommended a statement of policy that identifies four domains of VTE prevention and care, a set of 17 key characteristics of preferred practices around the four domains and two performance measures for endorsement as voluntary consensus standards in accordance with NQF's Consensus Development Process (CDP) (appendix F). A Technical Advisory Panel (TAP) (appendix D) assisted the Steering Committee and NQF staff with evaluating the policy, practices, and measures; advised the Steering Committee on the technical aspects of all candidate items; advised and assisted the Joint Commission on Accreditation of Healthcare Organizations (JCAHO)[1] in development and testing of performance measures; and made recommendations to the Steering Committee. This appendix summarizes the deliberations of the Steering Committee and the TAP during the first phase of this project.

The final set of consensus standards is intended to:

- enable early promulgation of policy that include adoption of the domains and practices into which performance measures can be integrated as they are selected, developed, and endorsed;
- facilitate assessment, prophylaxis, diagnosis and treatment services as well as patient education and organizational monitoring of VTE prevention and care services; and
- enable organizational accountability in the area of prophylaxis of surgical patients.

[1] JCAHO is a subcontractor to NQF for development and testing of performance measures for this project.

RELATIONSHIP TO OTHER NQF VOLUNTARY CONSENSUS STANDARDS

This project grew from discussions that recognized that the 2003 NQF-endorsed™ Safe Practices 17/18, while a start to raising awareness of the need for evaluating patients for VTE–DVT/PE and providing prophylaxis in a structured and rigorous way, did not fill the gap in guidance that existed. In mid-2004, guidelines for conducting individual patient risk assessments, national consensus guidelines for VTE–DVT/PE prevention and care and widely agreed upon performance measures to assess adherence to preferred practices did not exist.

Recognizing that patients both present to hospitals with VTE–DVT/PE and a significant percentage develop these problems during their hospital stay, Safe Practice 17 set the expectation that all patients admitted to hospital would be evaluated at admission and then regularly throughout hospitalization. Safe Practice 18 moved the agenda further by specifying that services should be in place to assure care management in a coordinated fashion.

This project involves a multifaceted, multiphased approach to improve prevention and care of patients at risk for, or diagnosed with, VTE–DVT/PE by establishing a standardized approach to prevention and care, setting forth a statement of policy that identifies four domains of prevention and care, and achieving evidence-based consensus on practices and performance measures to make available guidance and tools on prevention and care well beyond that begun with Safe Practices 17/18.

APPROACH TO IDENTIFICATION, SCREENING, AND EVALUATION

The Steering Committee's approach to policy, practice, and measure screening and evaluation followed a six-step process:

1. Establish a conceptual framework that clarifies the aims and approach to the set.
2. Agree on a purpose statement for the set.
3. Identify the scope of the policies, practices, and measures set to identify domains to be addressed.
4. Identify priority areas to assure a parsimonious and feasible set of policies, practices and measures in the final set.

5. Use criteria for evaluating policies and practices set forth in *Safe Practices for Better Healthcare,*[2] and for measures as detailed in *A Comprehensive Framework for Hospital Performance Evaluation*.[3]

6. Make recommendations to NQF Members on these matters and any accompanying recommendations.

Framework for VTE Prevention and Care

To set a framework in which policies, preferred practices, and performance measures could be considered, the Steering Committee drew upon previous NQF-endorsed frameworks.[4,5] The Steering Committee's recommended framework, like other NQF projects, also revolves around the six NQF-endorsed aims for healthcare—i.e., that it be safe, beneficial, patient centered, timely, equitable, and efficient.

Additionally, the Steering Committee affirmed that the framework should ensure that:

- the endorsed set of measures, preferred practices, and model organizational policies is comprehensive and covers all aspects of prevention and care that impact on quality;
- the needs of all stakeholders are addressed and offer knowledge that is useable to all stakeholders;
- the endorsed set of preferred practices, and model organizational policies builds upon the criteria set forth in the 'Safe Practices' report and are generalizable (i.e., they may be applied in multiple care settings, and/or multiple types of patients);
- endorsed set of measures, practices, and organizational policies reflects strong evidence that they are effective in preventing and/or reducing the incidence and/or complications of DVT;
- processes and criteria for the recommendation of measures, practices, and policies are standardized and precisely defined;

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[2] National Quality Forum (NQF). *Safe Practices for Better Healthcare: A Consensus Report*. Washington, DC: NQF; 2003.
[3] National Quality Forum (NQF). *A Comprehensive Framework for Hospital Care Performance Evaluation: A Consensus Report*: NQF; 2003.
[4] NQF. *A Comprehensive Framework for Hospital Care Performance Evaluation: A Consensus Report*. Washington, DC: NQF; 2003.
[5] NQF. *A National Framework for Healthcare Quality Measurement and Reporting*. Washington, DC: NQF;2002

- reporting and implementation of the consensus standards are performed in a way that will maximize their impact; and
- measures, practices, and policies leverage opportunities for significant improvement in the prevention and care of DVT by identifying critical points in the clinical course and progression of this condition.

Finally, the construct describing the relationship among policy, practices, and performance measures (figure 1) was used as reference during the development of the statement of policy and characteristics of preferred practices. It also will be used by the TAP and Steering Committee as they look toward recommending a comprehensive measure set that will complete the tools that, once implemented, should improve prevention and care of VTE in an evolutionary fashion.

Purpose and Scope

Steering Committee members spent considerable time discussing the purpose and scope of the project. It was their consensus that limiting the scope to DVT would exclude the potentially fatal complication of PE and that a more expansive description and approach to the project were important to the products that would be forthcoming. At the same time, the Committee recognized that DVT or 'blood clots' are terms more frequently used to raise patient and consumer awareness of the problem and removing the term DVT would detract from those advances. The Committee further noted that:

- the purpose statement should be concise and specific yet comprehensive enough so that all stakeholders are able to understand the project and its purpose;
- the term "venous thromboembolism," which encompasses DVT and PE, is more appropriate than DVT; and
- a large and concerted effort will be needed to educate healthcare stakeholders regarding the appropriate assessment, prevention, diagnosis, and treatment of DVT/PE.

The Committee concluded that VTE, encompassing DVT and PE, should be used to convey the full problem to be addressed and recommended the following purpose statement:

> The purpose of the prevention and care measures, practices, and policies set for deep vein thrombosis (DVT) and pulmonary embolism (PE), which together

comprise venous thromboembolism (VTE), is to inform all healthcare stakeholders about the quality of VTE prevention and treatment activities across the continuum of healthcare, and to identify opportunities to improve these activities in order to reduce death, disability, suffering, and the economic burden from VTE, including complications.

In addition to expanding the project to include both DVT and PE, the Steering Committee engaged in a broad and far-reaching discussion on themes that provided focus to the project scope. Two of the areas—future research and implementation—received less emphasis in this report, but the Committee notes that more emphasis will be placed on future research and implementation in the next phase of the project. The themes that guided the Committee's deliberations to date were:

- **Consumer/patient education.** Awareness of risks should be enhanced in that the percent of consumers aware of DVT is low.
- **Evidence-based medicine.** The project should focus on evidence-based processes that will improve implementation of proven prophylaxis, including non-pharmacological methods.
- **Research.** Future research should address the lack of clarity surrounding the diagnosis, prevention, and treatment of VTE (e.g., type of patient who should receive prophylaxis, appropriate dosage of appropriate medications, and appropriate length of administration, etc.).
- **Risk assessment tools.** There is a critical need to develop appropriate VTE risk assessment tools that can be incorporated into the general screening process. While adequate data exist to determine absolute risk, there is insufficient evidence to support the use of a specific risk assessment tool. Additionally, patients often have multiple risk factors and no validated tool currently exists for ranking risk factors in patients who have multiple risks.
- **Care settings.** Measures, practices, and policies should address multiple care settings. With the high incidence of DVT after hospital discharge, it is necessary to address both inpatient and outpatient treatment.

- **Policies and practices.** Given the dearth of performance measures in this area at present, emphasis should be placed on evaluating and endorsing policies and practices.
- **Implementation.** While a potential disconnect exists between measure sets and future implementation; focus should remain on measure development/identification within a framework of policies and practices.

To help ensure that the TAP and Steering Committee's considerations of practices and performance measures would address the full spectrum of approaches to prevention and care across the domains, one of the Steering Committee co-chairs constructed a tool, "Clinical Logic for Venous Thromboembolism," which the TAP found useful in its discussion of the domains of care (table C-1).

Priority Areas

At the outset of the project, the Steering Committee recognized that a broad array of potential policies, practices, and measures that fall under the umbrella of prevention and care of VTE could be available for analysis. Accordingly, the Committee set priorities to ensure that the areas of special importance to improving prevention and care of VTE could be recommended without causing an undue data collection burden. Informed by prior NQF work in this regard, the Steering Committee set seven priorities (see list in Priority Areas for VTE Prevention and Care Policy, Practices, and Performance Measures in the report) and determined that candidate policies, practices, or measures that did not reflect these priorities, but fell within the scope of the project, could be eliminated or returned to developers for refinement.

Criteria for Selection

To evaluate practices, the Steering Committee drew upon NQF's consensus report *Safe Practices for Better Healthcare* for the threshold criterion of specificity and the additional criteria of benefit, evidence of effectiveness, generalizability, and readiness to evaluate practices. With respect to performance measures, the TAP and Steering Committee used the NQF-endorsed criteria from *A Comprehensive Framework for Hospital Performance Evaluation* – i.e., that they be important, scientifically acceptable, useable and feasible.

Identifying the Set

In January 2005, NQF and JCAHO issued a joint call for model organizational policies, preferred practices, and performance measures that was sent to the then more than 260 NQF Member organizations and the public. Specifically, the solicitation sought model organization policies and practices for prevention and care of DVT. With respect to the latter, the call specified that candidate practices had to: 1) demonstrate strong evidence of their effectiveness in reducing the likelihood of DVT or PE; 2) be generalizable across multiple care settings and/or for multiple types of patients and 3) be in the public domain. The call also sought candidate structure, process, or outcome performance measures for risk assessment, prevention and treatment of DVT requiring that they be fully developed for use (i.e., with research and testing complete) and open source.

In addition to the call, a literature review was conducted and NQF and JCAHO engaged in targeted outreach through solicitation to individuals, organizations, and governmental jurisdictions who had previously indicated specific interest in the general topic area or asked to be advised of new projects. A second Call for Measures was jointly conducted in August 2005, as described in greater detail in a later section.

Model Organizational Policies. No model organizational policies were received in response to the January 2005 solicitation. However, the Technical Advisory Panel (TAP) and Steering Committee felt strongly that, based on its prevalence and the number of hospital-related deaths related to the disease, an overarching statement of policy would signal to all healthcare facilities the need for explicit, documented guidance in the form of policy and practices around the four domains of VTE prevention and care.

Although no candidate policies were available for its review, the TAP recommended identifying a statement making clear the expectation that all organizations that treat patients at risk for VTE should have appropriate policy(ies) in place. TAP members viewed five points as key: 1) any proposed policy statement should provide guidance without being overly prescriptive; 2) each phase or domain of caring for VTE should be addressed separately; 3) 'how' institutions execute risk assessment, prophylaxis, diagnosis, and treatment should not be specified however local policies should address each of these components of care; 4) statements

of policy and practice should not be limited to inpatient hospital settings; and 5) ultimately, adoption of performance measures linked to practice guidelines will drive practice and motivate providers to adhere to institutional policies.

The policy statement recommended by the TAP— "every healthcare organization will have a written policy appropriate for its scope that addresses venous thromboembolism risk assessment, prophylaxis, diagnosis, and treatment"—was further refined by the Steering Committee to make explicit the expectation that an institution's policy should be written, evidence-based, and drive quality improvement.

Key Characteristics of Preferred Practices. Nine healthcare organizations submitted procedures, guidelines, or practices. Not unexpectedly, all submissions were facility- or system-specific; none covered all domains of VTE prevention and care. Although none of the submitted procedures, guidelines, or practices were recommended in and of themselves, they were essential to shaping the framework, policy statement, and key characteristics of preferred practices. That is, when considered together, they helped crystallize the statement of policy, including the four domains as well as the key characteristics of preferred practices. Of note, this occurred so clearly that the recommendations developed in July 2005 by the TAP were changed little through this phase; only one item was dropped from consideration—a statement regarding use of identification bracelets for outpatients on anticoagulation therapy, which was removed because TAP members did not agree on its value to the set.

In its deliberations related to preferred practices, the TAP recommended that 18 characteristics be reflected in institutional practices for the prevention and care of VTE. The 18 arrayed across categories and in the (number) were: general (4); risk assessment/stratification (2); prophylaxis (1); diagnosis (3); treatment (7); and monitoring (1).

The Steering Committee further refined the characteristics and eliminated, as just noted, the item related to identification bracelets. In finalizing its recommendations, the Steering Committee focused on ensuring the key characteristics were based on nationally accepted, evidence-based guidelines, that the need for provider education across all domains of care was emphasized, and that the statements clearly specified what local practice guidelines should address. More specifically, the Steering Committee's changes were to make clear that provider

education in all domains is needed; to tease apart compound characteristics to assure clarity, as in the case of prophylaxis; and to spell out specific areas in which guideline-directed therapy should be used.

Performance Measures. The initial call yielded nineteen candidate performance measures: eight for prevention, four for treatment, and seven related to occurrence of DVT during or following an episode of inpatient care; the initial review was that few met the specified criteria, in particular the detail of the specifications and whether the measure had been tested.

Because the measures submitted did not adequately address all the domains of care and prevention of VTE-DVT/PE, the TAP recommended a second call based on the belief that there were measures in existence that addressed areas of particular importance. The Steering Committee concurred, and a second Call for Measures in targeted areas was issued in an attempt to obtain a comprehensive set of measures. The areas targeted in the call were:

- risk assessment/stratification/secondary prevention including measures for completed risk assessment and unnecessary screening at discharge;
- prophylaxis/primary prevention including measures for stroke, heart failure, cancer, patients over age 60 hospitalized in medical units; multiple trauma, joint replacements, and hip fracture in the surgical population; post-operative discontinuation of prophylaxis; post-discharge prophylaxis; mechanical prophylaxis; and IVC filters; and
- therapy measures for patients with acute VTE started on fast-acting anticoagulants and with therapeutic PTT within 24 hours of therapy initiation; monitoring of appropriate dose of unfractionated heparin; overlap-inpatient to outpatient; treatment or dosage determination based on appropriate testing; initiation of warfarin; and warfarin monitoring.

Nineteen additional measures were received, but again did not yield a comprehensive set of fully developed and tested measures when evaluated against the criteria.

Two process measures from the initial solicitation that focused on prophylaxis for surgical patients, however, ultimately were recommended by the Steering Committee. Submitted by the Centers for Medicare and Medicaid Services (CMS) from its Surgical Care Improvement Project

(SCIP), the TAP recommended that the measures be further developed by JCAHO along with de novo development of measures to address the other domains. The Committee concluded, however, that sufficient testing had occurred to demonstrate their validity and reliability, in particular because CMS and JCAHO had agreed to minor modifications to the specifications. In making its recommendation, the Steering Committee noted that the two measures should work well with and complement measures that will be developed and tested by JCAHO in the next phase of this project.[6]

Research Recommendations. The statement of policy that sets out the four domains of prevention and care and the key characteristics of preferred practices, derived from clinical guidelines and the TAP and Steering Committee members' collective experience, provide an umbrella under which all the domains of care and prevention will be specified through performance measures. While research areas have been contemplated, they will be more fully addressed in the next phase of the project through the de novo development and testing being performed by JCAHO.

[6] Because the understanding of the state of the science at the initiation of this project suggested a paucity of measures could occur, the project included a subcontract with the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) to develop detailed measure specifications for measures relevant to hospital settings and to conduct alpha and pilot testing of measures for which development was done.

Table C-1. Clinical Logic for Venous Thromboembolism

Risk Groups and Factors (risk assessment)	1° Prevention	Diagnosis	Acute Therapy	2° Prevention (risk assessment)
Community Travel Inpatients Surgery Acute medical illness Long-term care facility Outpatients	Risk factor modification	Pre-test probability D-dimer	Anticoagulation Heparin UFH vs LMWH vs. fondaparinux Start Dose/schedule In- vs. out-patient Monitoring Duration/overlap Warfarin Start Loading dose Monitoring Thrombolysis Catheter-directed Thrombolysis Mechanical Thrombectomy	VTE Recurrence Risk assessment Type of prophylaxis LMWH vs. warfarin Duration Intensity Monitoring
	Screening Thrombophilia Imaging	Imaging DVT DUS Venogram CT/MRI PE Lung scan CT Pul angiogram MRI		
Common Risk Factors Patient Age BMI Active cancer Extremity paresis Trauma/fracture CVC/TVPM SVT Oral contraceptives Hormone therapy Pregnancy/postpartum Other*	Drug Prophylaxis Agent Dose/schedule Start time Duration Adjuvant Monitoring Mechanical Prophylaxis Start time Duration Foot vs. calf vs. leg	For PE, Assessment of Right Heart Function Hypotension If normotensive ?Echo ?BNP ?cardiac troponin		Venous Stasis Syndrome Risk assessment Compression therapy
			Complications Bleeding HIT(T)	Chronic Thromboembolic Pulmonary Hypertension
Oral contraceptives Hormone therapy	Complications of prophylaxis Bleeding HIT (T)		Therapeutic failure	Complications of 2º Prevention Bleeding Osteoporosis
Other	Prophylaxis failure			2º Prevention Failure Diagnosis of recurrence Modification of 2º prevention
Education Increased patient satisfaction Increased community awareness Increased use of guidelines by physicians VTE Epidemiology Decreased incidence Decreased recurrence Improved survival Decreased complications				

CVC/TVPM: central venous catheter/transvenous pacemaker
SVT: superficial vein thrombosis

THE NATIONAL QUALITY FORUM

APPENDIX D—STEERING COMMITTEE AND PROJECT STAFF

STEERING COMMITTEE

T. Bruce Ferguson, Jr., MD, Co-Chair
Louisiana State University School of Medicine
New Orleans, LA

John A. Heit, MD, Co-Chair
Mayo Clinic
Rochester, MN

John R. Bartholemew, MD
Cleveland Clinic Foundation
Cleveland, OH

Michael Becker, RN, MSN
CareScience
Philadelphia, PA

Melanie Bloom
The Coalition to Prevent DVT
Washington, DC

Ralph G. DePalma, MD
Department of Veterans Affairs
Washington, DC

Nancy L. Fisher, MD, MPH, RN
Washington State Health Care Authority
Olympia, WA

Mary E. Foscue, MD
Sacred Heart Health System Hospital
Ascension Health
Pensacola, FL

Samuel Z. Goldhaber, MD
Brigham and Women's Hospital
Boston, MA

Virginia A. Hemelt, MD
Fellow
American Academy of Family Physicians
Leawood, KS

David W. Hunter, MD
University of Minnesota Hospital and Clinic
Minneapolis, MN

Belinda Ireland, MD, MS
BJC Healthcare
St. Louis, MO

Jay R. Lieberman, MD
University of California, Los Angeles Medical Center
Los Angeles, CA

Edith Nutescu, PharmD
College of Pharmacy
University of Illinois at Chicago
Chicago, IL

Arthur L. Pelberg, MD, MPA
Schaller Anderson, Inc.
Phoenix, AZ

Mary Lou Sole, PhD, RN
University of Central Florida School of Nursing
Orlando, FL

Richard M. Weinberg, MD
University Hospital
Newark, NJ

Richard H. White, MD
University of California, Davis Medical Center
Sacramento, CA

David C. Zanick, MD, MPH
Northwest Airlines
Minneapolis, MN

TECHNICAL ADVISORY PANEL

Dale Bratzler, DO, MPH (Co-Chair)
Oklahoma Foundation for Medical Quality
Oklahoma City, OK

Joseph A. Caprini, MD, MS, RVT (Co-Chair)
Evanston Northwestern Healthcare
Evanston, IL

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Kathryn Hassell, MD
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Maywood, IL

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Cleveland Clinic Foundation
Cleveland, OH

Ruth Morrison, BSN, CVN
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Boston MA

Robert Jeffery Panzer, MD
University of Rochester
Rochester, NY

Vincent Pellegrini, Jr., MD

University of Maryland School of Medicine
Baltimore, MD

Jodi Beth Segal, MD, MPH
Johns Hopkins University School of Medicine
Baltimore, MD

Victor F. Tapson, MD
Duke University Medical Center
Durham, NC

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McMaster University
Hamilton, Ontario, Canada

Suresh Vedanthan, MD
Mallinckrodt Institute of Radiology
Washington University School of Medicine
St. Louis, MO

PROJECT STAFF

Kenneth W. Kizer, MD, MPH[1]
President and Chief Executive Officer

Robyn Y. Nishimi, PhD
Chief Operating Officer

Melinda L. Murphy, RN, MS, CNA
Senior Vice President

Lawrence D. Gorban, MA
Vice President, Operations

Philip Dunn, MSJ
Vice President, Communications and Public Affairs

Tammy P. McBride, RN, BSN
Senior Program Director

Angela Miele, MPA
Program Director

[1] Through November 2005.

Jennifer Kraszewski, MPH
Research Analyst

Bakeyah S. Nelson, MA
Research Analyst

Kate C. Shores
Research Assistant

Draft Letter

Dear Dr. _____

The Scoliosis Research Society has been involved in an initiative to enhance the quality of spine deformity education and thus spine deformity care. This was prompted by several factors. Patients with spinal deformity deserve care from surgeons who are educated in the current principles of diagnosis and treatment. Not only are patients and families concerned about the professional qualifications of their surgeons, but governmental, third party and legal entities are also aware of quality assurance.

A recent paper from the American College of Physicians supported the pay-for-performance concept based on continually improving quality of medical care delivery. In the future, strategies based on quality assurance and quality improvement will be prominent in physician reimbursement.

The SRS has sought to define the unique domain of spine deformity therapy and subsequently propose an ideal educational curriculum that would prepare a surgeon to practice in this specialized area. Not all educational programs may fulfill the entire curriculum, but the document can serve as a benchmark for program directors and surgical educators as well as fellowship applicants.

The SRS spine deformity curriculum committee is composed of surgeons from the pediatric, adult and neurological surgeon communities. The current draft document represents many iterations and we are presenting it to you as president of the Pediatric Orthopaedic Society of North America for your consideration. We ask that you discuss it with your society for their consideration and constructive comments. We welcome suggestions that would serve the purpose of educational enhancement.

Our ultimate goal is to have the prominent societies that deal with spine deformity approve the document. It would then be distributed to relevant educational programs for their use.

John Dormans, MD, and Denis Drummond, MD, members of our committee, will make personal contact with you and we look forward to a productive effort in behalf of spine deformity education and care.

Sincerely,

Scoliosis Research Society Spine Deformity Curriculum Committee
Todd Albert, MD
John Dormans, MD
Denis Drummond, MD Co-Chair
James Ogilvie, MD Chair
Steve Ondra, MD

Spine Deformity Educational Curriculum

Definition: Spine deformity therapy is treatment for any condition in which the correction of posture and/or spinal contour is the primary indication.

Educational curriculum: The curriculum is an ideal for educational planning. It is recognized that some fellowships may not currently incorporate all aspects of the curriculum.

Didactic:

Clinical biomechanics of the spine
Pediatric and adult reading list
Pain management
Nutritional
Spinal radiology
Spine embryology, growth, development and genetics

A. The fellowship curriculum for spine deformity should include exposure to and familiarity with the pathogenesis, treatment principles, and surgical decision making, but not necessarily a comprehensive surgical experience:

1. Diagnosis
   a. Scoliosis: idiopathic, neuromuscular (cerebral palsy, muscular dystrophies, myelodysplasia, etc), congenital, degenerative, Syndromic (neurofibromatosis, osteogenesis imperfecta, mucopolysaccharidoses, Down, etc.), pathologic, traumatic
   b. Kyphosis: Scheuermann's, adult and pediatric post-laminectomy, neuromuscular, degenerative, traumatic, pathologic, congenital, neoplastic
   c. Spondylolisthesis
   d. Trauma
   e. Tumor
   f. Infection
   g. Degenerative disc disease as it relates to spine deformity
   h. Nerve compression syndromes in the context of spine deformity
   i. Metabolic: osteoporosis

2. Surgical approaches performed with attending or access surgeon
   a. Anterior including extracavitary
      i. cervical including cervicothoracic junction
      ii. thoracic
      iii. lumbar
   b. Posterior
      i. midline including cervico-occipital
      ii. transpedicular

iii. posterior lateral (TLIF, costotransversectomy)
iv. sacropelvic exposure

3. Fusion techniques including grafting options

B. Osteotomies
   i. Smith-Peterson
   ii. Pedicle subtraction
   iii. Vertebral body resection

C. Instrumentation
   i. thoracic and lumbar pedicle instrumentation, hooks, sublaminar wires
   ii. sacral and iliac fixation
   iii. anterior plating – cervical, thoracic and lumbar
   iv. vertebral body replacement, anterior strut
   v. posterior cervical instrumentation
   vi. cervico-thoracic
   vii. occipito-cervical
   viii. Fusionless instrumentation: growth rods, VEPRT, stapling

D. Principles of and indication for neuromonitoring
   i. SSEP
   ii. MEP
   iii. Evoked EMG

E. Non-operative
   i. Orthotic treatment options for spinal deformity
   ii. Awareness of long term consequences of treatment/non-treatment
   iii. Understanding of appropriate referral patterns for specialized care in ICU, renal, metabolic, developmental pediatrics, pulmonary, genetics

F. Inpatient and post-operative care

The Spinal Deformity Curriculum Committee's recommendation is that the SRS Executive Committee, in sequence:

1. Present the curriculum to spine societies (POSNA, NASS, CSRS, AANS-CNS) for their comments and approval.
2. Present it to the greater SRS membership for discussion and approval at a business meeting.
3. Distribute the document to spine fellowship directors indicating that the above societies have endorsed the curriculum as the model for spine deformity fellowship education.

Todd Albert, John Dormans, Denis Drummond (Co-C), Steve Ondra, Jim Ogilvie (C)

From: Charles Branch [cbranch@wfubmc.edu]
Sent: Monday, February 13, 2006 7:53 PM
To: Joseph Alexander; Resnick (Daniel)
Cc: heary@umdnj.edu; tryken@razi.surgery.uiowa.edu; Gerald Rodts
Subject: RE: Spine Section Executive Committee Meeting

Sounds like we are going to have to burn more time in our Exec Mtg. on this topic (again). Let's call it the Groundhog Day initiative. We don't have to piss off the AANS or anybody to make a decision to use a different meeting planner. Member services stay with AANS, a meeting services group takes care of the meeting and activities related to the meeting. As our agent, they would work with AANS or whomever to get contracts etc. The big legal stuff (i.e. getting valid contracts to fund awards and fellowships, who and how much money we can give for political purposes, etc.) would still reside with AANS/CNS.
I have learned another name from email streams over the last few weeks Michelle Garret Heim, and then dear old Paula Nezda. What happened to Veronica?
Shall I invite Jeremy Longhurst to the annual meeting for consultation?
CB

From: Joseph Alexander
Sent: Thursday, February 02, 2006 12:48 PM
To: Resnick (Daniel)
Cc: heary@umdnj.edu; Charles Branch; tryken@razi.surgery.uiowa.edu; Gerald Rodts
Subject: RE: Spine Section Executive Committee Meeting

I STILL don't have any mailings or emailings from the AANS office on this meeting, except for a single "save the date" postcard and a couple of mentions in the generic AANS bulletin. This is MONTHS later than the info we get for other meetings, including the AANS meeting! I have already registered for SF, booked my hotel and flight, etc. I have to believe that this hurts our meeting. We may be "doing well"--but maybe we would be doing alot better if we had more effective meeting management. I think the AANS office is too busy at this time of year (or too conflicted?) to give our meeting the attention it deserves. I know we have covered this ground before, but I feel it should be an agenda item again at the Ex Comm meeting in Orlando. We have been good citizens with the AANS, in terms of adjusting our meeting time, etc., and we have certainly given the AANS meetings office plenty of chances over the years since the last agreement was reached.

From: Resnick (Daniel) [mailto:resnick@neurosurg.wisc.edu]
Sent: Friday, January 27, 2006 3:48 PM
To: Joseph Alexander
Subject: RE: Spine Section Executive Committee Meeting

Charlie, Bob, Tim, Rusty and I talked about this a few months ago. Bob and Tim were not enthusiastic about changing, Charlie and I were interested in changing. The main objection to changing (if I recall) was the fact that the meetings have been doing well despite the neglect, it would be a major hassle to get someone else to run the meeting given the fact that the AANS controls our money and that all of our assets are actually owned by the cNS and AANS, therefore, both the AANS and CNS would have to approve any contract we made with anybody. We also thought that it would be a bad thing to piss off the

AANS. I personally think it would be a good thing to piss off the AANS and at least put a real proposal to their executive board to change meeting management services. I don't think they'll really take us seriously until we actually demonstrate that we have an alternative.

-----Original Message-----
From: Joseph Alexander [mailto:jtalexan@wfubmc.edu]
Sent: Wednesday, January 25, 2006 3:08 PM
To: Resnick (Daniel)
Cc: Michael Groff; Mark McLaughlin
Subject: RE: Spine Section Executive Committee Meeting

Thanks, I will be there.

By the way, have I missed receiving the registration/hotel info for the meeting--or is the AANS office later than ever this year? Do we need to revisit the meeting management issues yet again as an action item at this year's Exec Committee? Any thoughts from the meeting planners?

From: Resnick (Daniel) [mailto:resnick@neurosurg.wisc.edu]
Sent: Wednesday, January 25, 2006 3:56 PM
To: heary@umdnj.edu; Charles Branch; Gerald_Rodts@emoryhealthcare.org; Resnick (Daniel); timothy-ryken@uiowa.edu; Joseph Alexander; neurokim@stanford.edu; kfoley@semmes-murphey.com; zgokasl1@jhmi.edu; mgroff@iupui.edu; mclaughlin@spineuniverse.com; jknightly@atlanticneurosurgical.com; jhurlber@ucalgary.ca; jyork@lumc.edu; dirisid@mail.amc.edu; cwolfla@neuroscience.mcw.edu; matzpg@yahoo.com; Trost (Gregory); mgk7@columbia.edu; tanvir.choudhri@msnyuhealth.org; wmitchell@solarishs.org; zagere@uphs.upenn.edu; sondra@nmff.org; Charleskuntz@yahoo.com
Cc: CIS8Z@hscmail.mcc.virginia.edu; Kalfas@neus.ccf.org; praveen_mummaneni@emoryhealthcare.org; myw@usc.edu; emendel@mdanderson.org
Subject: Spine Section Executive Committee Meeting

Gentlemen,
The executive meeting at the spine section meeting will occur on March 15th from 8-11 am. I do not yet know where and I do not have any details regarding the executive committee dinner. Once this information is available, I will send it along.
See you in Orlando.
Dan

American Association of Neurological Surgeons

5550 Meadowbrook Drive
Rolling Meadows, IL 60008

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fax: 847.378.0600
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MEMORANDUM

Date: August 5, 2005

To: AANS Board of Directors, Ex-Officios to the Board, Selected Committee Chairs, and Selected Affiliated Organizations' Leaders

From: Thomas A. Marshall, AANS Executive Director

Re: Education and Meetings Department

Please be advised that Ms. Lisa Sykes, AANS Director of Meetings, is no longer a member of the AANS executive staff. I am sure you will join with me in thanking Lisa for her six years of service to the organization, its membership, and its constituent publics.

The search for a new Director of Meetings has been initiated. During the interim search period, AANS Associate Executive Director Ms. Joni Shulman will direct the day-to-day function and operations of the AANS Education and Meetings Department, and all that department's staff will directly report to Ms. Shulman during this time.

Any inquiries that normally may have been directed to Lisa Sykes should be directed to Joni Shulman. AANS Educations and Meetings staff that have already been designated as your contacts for various projects and services will retain those responsibilities; you may continue to work with those staff people you are most familiar with in this regard. If you already have an Executive Office staff contact person for any service or program, contact them as you have been; nothing has changed in that respect. Of course, you may always contact Ms Shulman as well.

In the meantime, I want to assure you that there will be no interruption in the planning or execution of any meetings or ancillary functions for which the AANS is responsible or to which it has committed. The experience and efficiency of the AANS professional staff and the "decentralized function" business model we have employed in the Executive Office over the past five years will ensure the uninterrupted planning and delivery of all of our educational offerings and those of our contracted groups.

Changes in professional association staff often raises concerns about continuity. I want to assure you that my goal is to make the transition seamless. The reason for my confidence in this regard is that over the past five years, AANS has not only hired some of the best association management professionals in the field, but we have created an infrastructure where there is absolutely no service, product, or function that is solely “individual employee dependent”. Every function and service AANS produces has a team of experienced staff representing multiple departments and skill sets behind it.

If you have any questions or concerns, please feel free to contact me. Thank you for your involvement and your commitment to the AANS.

From: Joseph Alexander [jtalexan@wfubmc.edu]
Sent: Monday, August 15, 2005 3:35 PM
To: Robert Heary
Cc: Gerald Rodts; Regis Haid; Resnick (Daniel); Charles Branch; mgroff@iupui.edu; CIS8Z@hscmail.mcc.virginia.edu
Subject: FW: 2008 spine section meeting

Bob

In my opinion, the continual and ongoing turnover in the AANS meetings office over the last several years has been a large burden for the section. It has certainly made the future sites job more challenging without a stable contact person, and we heard from Michael Groff and Chris Shaffrey about the issues with planning for and running our meeting last year. It looks like we have reason to be concerned again this year.

I would recommend that we reopen the issue of our long-term meeting management at the upcoming Exec Committee meeting, as the AANS does not appear to be able to offer us any continuity. We selected the AANS as the "lowest bidder" a couple of years ago, so I guess we got what we paid for. Does anyone know if the CNS meetings office personnel has been any more stable? Will we have the authority to contract independently if we feel it is in the best interest of the Section?

Joe

-----Original Message-----
From: Thomas A. Marshall [mailto:tam@aans.org]
Sent: Monday, August 15, 2005 10:34 AM
To: Dr. Heary
Cc: Dr. Wirth; resnick@neurosurg.wisc.edu; Joseph Alexander; Joni L. Shulman; Patty L. Anderson
Subject: RE: 2008 spine section meeting

Bob:

As I mentioned in the email announcements, Joni Shulman is the overall contact for the Educations and Meetings Departments, and I will copy her on this email so that she can assure you of the progress being made and contracts locked in to date.

And as the email attached indicated, the new Meetings Director - also copied - began her duties one hour ago. As a result in our extraordinary good fortune in having less time in transition than if an AANS staff person had been out of the office on vacation, all initiatives are proceeding without interruption.

Tom

Thomas A. Marshall
Executive Director
American Association of Neurological Surgeons
direct: 847.378.0502
email: tam@aans.org
www.aans.org

-----Original Message-----
From: Robert Heary [mailto:heary@umdnj.edu]
Sent: Monday, August 15, 2005 8:39 AM
To: Thomas A. Marshall
Cc: Dr. Wirth; resnick@neurosurg.wisc.edu; jtalexan@wfubmc.edu
Subject: Re: 2008 spine section meeting

tom:
hi, do you know the current status of the 2008 spine section meeting? i was working with lisa sykes (no longer employed by AANS) and am now unclear as to what the status of our meeting is. the spine section had a discussion at our last executive committee meeting on this topic. the section leadership had a strong preference for having our meeting lock in to the march 7-10 range on an annual basis. most members of the executive committee want this rigidly adhered to. dr. wirth, the AANS president, has asked for us to try and accomodate the 2008 AANS meeting with an earlier date for the spine section meeting. in an effort to help, i was working with lisa sykes to try and find acceptable facilities that might be available 1 or 2 weeks earlier in 2008. her departure leaves me in a very uncertain status. we would like to try and help the AANS out; however, we also need to lock into a facility in the very near future. who can we count on from your office to pick up this ball and run with it? dr. wirth and myself consider this a very important issue. i appreciate your attention to this matter. sincerely, dr. robert heary
p.s.- i had also told lisa to go ahead and lock in to our 2007 and our 2009 meeting dates and sites. could you confirm our status with these meetings as well?

>>> "Thomas A. Marshall" <tam@aans.org> 08/10/05 5:28 PM >>>
MEMORANDUM

To: AANS Board of Directors, Ex-Officios to the Board, Selected Committee Chairs, and Selected Affiliated Organizations' Leaders

From: Thomas A. Marshall, AANS Executive Director

Re: AANS Meetings Director

Following up on my memo to you this past Friday (attached), I am very pleased to announce Ms Patricia Anderson, CMP, as the new AANS Meetings Director.

Ms Anderson not only has over 25 years in association management meeting planning, but all of them have been with national medical associations. Twenty of those years have been in the planning and direction of medical Annual Scientific Meetings of virtually the same size, scope and structure as the AANS Annual Meeting in almost all respects: attendees; exhibits, social events.

Moreover, the medical association she has spent the bulk of her career with had a very similar situation as the AANS in managing groups akin to our joint Sections and affiliated partners. These individual groups contracted with the association for a variety of services, but mainly for the management of all phases of their respective annual meetings. She managed many of those meetings as part of her duties.

Thus, the negotiations, planning, exhibit management, social event planning, working with leadership and maintaining effective and timely communication throughout the full meeting planning cycle with both professional staff and volunteer leaders are all areas that Ms Anderson has many years of direct experience in, and has achieved measurable successes.

For nearly a decade during a portion of my earlier career, I was the Director of Marketing tasked with creating and executing the promotion and advertising campaigns for Annual Meetings managed by Ms Anderson. I can tell you from first-hand experience that the meetings she crafted were creative, dynamic, versatile and always evolving to better meet the attendees and leadership's needs. As a subsequent member of the senior management of that association, I also directly observed her skill in management of budget revenue and expenses, and judicious management of staff and infrastructure resources to achieve successful results.

And as if that weren't enough, she was part of the management team for an international medical federation meeting on the scale of our 2009 meeting for WFNS, which also included a bid process to earn the right to host the meeting.

The addition to Ms Anderson to my management team at AANS is a tremendous step for me, and will prove an even greater benefit to you and the entire AANS membership. I am sure you will join me in welcoming Patty to our organization, and I'm looking forward to introducing you all to her in person.

But until then, please feel free to contact her here at the Executive Office when she begins her employment with us this Monday, August 15. Also, Patty will be in San Francisco at the end of that week for her first meeting with the various vendors and leaders involved in the next stage of planning for the 2006 meeting. She will also be acclimating to staff's ongoing work in the various Section and affiliated organizations'

meeting. She will report directly to Associate Executive Director Ms Joni Shulman, who may also remain as a contact for your inquires regarding the Department of Meetings and Education.

Best wishes,

Thomas A. Marshall
Executive Director
American Association of Neurological Surgeons
direct: 847.378.0502
email: tam@aans.org
www.aans.org

> -----Original Message-----
> From: Thomas A. Marshall
> Sent: Friday, August 05, 2005 12:33 PM
> To: Board Voting; Board Ex-officio; 'bergerm@neurosurg.ucsf.edu';
> 'Barbaro, Nicholas'; 'wfisher@aubmc.edu'; 'faboop@aol.com';
> 'hhanki@aol.com'
> Subject: AANS Leadership
>
>
> Please see the attached memo to the AANS Leadership.
<<05aug5_ldrshp.doc>>

> Thomas A. Marshall
> Executive Director
> American Association of Neurological Surgeons
> direct: 847.378.0502
> email: tam@aans.org
> www.aans.org
>
>

March 17, 2004

1. Annual Meeting Request for Proposal: Dr. Haid reported on the Executive Committee's review of RFP's for annual meeting services. After receiving and reviewing these, a vote was made by the Executive Committee to retain the AANS Meeting Services as the annual meeting manager and organizer for the section. It appeared that the AANS bid was about $35,000.00 below the other proposals. Discussion ensued and the decision of the Executive Committee was affirmed.

May, 2004

3. AANS Annual Meeting Personnel Changes: Mr. Tom Marshall, the Executive Director of the AANS, indicated that Jennifer Byrd, who was the section liaison, is no longer with AANS. Ms. Angie Silberhorn has been appointed as the liaison for the Section on Spine and Peripheral Nerves. She will help manage the annual meeting and other needs of the Section during the year. Dr. Alexander indicated that the experience with the personnel change has been very positive thus far. Mr. Marshall reinforced that it is not just Angie but the entire AANS office that is responding to Section needs

April, 2003

2. Annual Spine Section Meeting Request for Proposal. The letter documenting the rationale for soliciting requests for proposals for management of the annual meeting of the Joint Section and a sample request for proposal were reviewed by the Executive Committee. Changes proposed included a clause requiring that the mechanics of the Continuing Medical Education Protocol approved by the AANS would have to be met by the meeting services group. A list of potential recipients of the request for proposal included the AANS meeting service, the CNS meeting service, MCJ Associates, Medisource, Carlson Wagonlit, and Slack Meeting Services. After further discussion, Dr. Heary moved that we distribute the modified RFP's to the aforementioned meeting services groups. This motion was approved by the Executive Committee vote.

From: Charles Branch [cbranch@wfubmc.edu]
Sent: Monday, August 15, 2005 5:25 PM
To: Joseph Alexander; Robert Heary; tam@aans.org
Cc: Gerald Rodts; Resnick (Daniel); mgroff@iupui.edu; CIS8Z@hscmail.mcc.virginia.edu; timothy-ryken@uiowa.edu
Subject: RE: AANS Staff Change

Tom
Thanks for the update on the status of the AANS revolving door. Any ideas on when the revolving door stops long enough for us to get to know the name of the person we will work with let alone the job? You will have to pardon my sarcasm, but it isn't really sarcasm anymore, its reality and from our section leadership perspective it is really burdensome and disruptive to be polite. I am sure that this is disruptive for you too, but we know that the demands of the AANS Annual Meeting will always take top priority and that means someone will be getting up to speed on our needs after they get up to speed on the Annual Meeting. Even if it is speedy, the fact that we can't develop an relationship with someone in the meeting group because they aren't there long enough is just about more than I personally can take, and I feel confident that my thoughts are shared among the Section leadership. Maybe you have outgrown us or we have outgrown you, but I'm sure that this is an issue that will come up again at our section exec meeting. Charlie Branch Chair Elect

-----Original Message-----
From: Thomas A. Marshall [mailto:tam@aans.org]
Sent: Monday, August 15, 2005 10:34 AM
To: Dr. Heary
Cc: Dr. Wirth; resnick@neurosurg.wisc.edu; Joseph Alexander; Joni L. Shulman; Patty L. Anderson
Subject: RE: 2008 spine section meeting

Bob:

As I mentioned in the email announcements, Joni Shulman is the overall contact for the Educations and Meetings Departments, and I will copy her on this email so that she can assure you of the progress being made and contracts locked in to date.

And as the email attached indicated, the new Meetings Director - also copied - began her duties one hour ago. As a result in our extraordinary good fortune in having less time in transition than if an AANS staff person had been out of the office on vacation, all initiatives are proceeding without interruption.

Tom

Thomas A. Marshall
Executive Director
American Association of Neurological Surgeons
direct: 847.378.0502
email: tam@aans.org
www.aans.org

-----Original Message-----
From: Robert Heary [mailto:heary@umdnj.edu]
Sent: Monday, August 15, 2005 8:39 AM
To: Thomas A. Marshall
Cc: Dr. Wirth; resnick@neurosurg.wisc.edu; jtalexan@wfubmc.edu
Subject: Re: 2008 spine section meeting

tom:
hi, do you know the current status of the 2008 spine section meeting? i was working with lisa sykes (no longer employed by AANS) and am now unclear as to what the status of our meeting is. the spine section had a discussion at our last executive committee meeting on this topic. the section leadership had a strong preference for having our meeting lock in to the march 7-10 range on an annual basis. most members of the executive committee want this rigidly adhered to. dr. wirth, the AANS president, has asked for us to try and accomodate the 2008 AANS meeting with an earlier date for the spine section meeting. in an effort to help, i was working with lisa sykes to try and find acceptable facilities that might be available 1 or 2 weeks earlier in 2008. her departure leaves me in a very uncertain status. we would like to try and help the AANS out; however, we also need to lock into a facility in the very near future. who can we count on from your office to pick up this ball and run with it? dr. wirth and myself consider this a very important issue. i appreciate your attention to this matter. sincerely, dr. robert heary
p.s.- i had also told lisa to go ahead and lock in to our 2007 and our 2009 meeting dates and sites. could you confirm our status with these meetings as well?

>>> "Thomas A. Marshall" <tam@aans.org> 08/10/05 5:28 PM >>>
MEMORANDUM

To: AANS Board of Directors, Ex-Officios to the Board, Selected Committee Chairs, and Selected Affiliated Organizations' Leaders

From: Thomas A. Marshall, AANS Executive Director

Re: AANS Meetings Director

Following up on my memo to you this past Friday (attached), I am very pleased to announce Ms Patricia Anderson, CMP, as the new AANS Meetings Director.

Ms Anderson not only has over 25 years in association management meeting planning, but all of them have been with national medical associations. Twenty of those years have been in the planning and direction of medical Annual Scientific Meetings of virtually the same size, scope and structure as the AANS Annual Meeting in almost all respects: attendees; exhibits, social events.

Moreover, the medical association she has spent the bulk of her career with had a very similar situation as the AANS in managing groups akin to our joint Sections and affiliated partners. These individual groups contracted with the association for a variety of services, but mainly for the management of all phases of their respective annual meetings. She managed many of those meetings as part of her duties.

Thus, the negotiations, planning, exhibit management, social event planning, working with leadership and maintaining effective and timely communication throughout the full meeting planning cycle with both professional staff and volunteer leaders are all areas that Ms Anderson has many years of direct experience in, and has achieved measurable successes.

For nearly a decade during a portion of my earlier career, I was the Director of Marketing tasked with creating and executing the promotion and advertising campaigns for Annual Meetings managed by Ms Anderson. I can tell you from first-hand experience that the meetings she crafted were creative, dynamic, versatile and always evolving to better meet the attendees and leadership's needs. As a subsequent member of the senior management of that association, I also directly observed her skill in management of budget revenue and expenses, and judicious management of staff and infrastructure resources to achieve successful results.

And as if that weren't enough, she was part of the management team for an international medical federation meeting on the scale of our 2009 meeting for WFNS, which also included a bid process to earn the right to host the meeting.

The addition to Ms Anderson to my management team at AANS is a tremendous step for me, and will prove an even greater benefit to you and the entire AANS membership. I am sure you will join me in welcoming Patty to our organization, and I'm looking forward to introducing you all to her in person.

But until then, please feel free to contact her here at the Executive Office when she begins her employment with us this Monday, August 15. Also, Patty will be in San Francisco at the end of that week for her first meeting with the various vendors and leaders involved in the next stage of planning for the 2006 meeting. She will also be acclimating to staff's ongoing work in the various Section and affiliated organizations'

meeting. She will report directly to Associate Executive Director Ms Joni Shulman, who may also remain as a contact for your inquires regarding the Department of Meetings and Education.

Best wishes,

Thomas A. Marshall
Executive Director
American Association of Neurological Surgeons
direct: 847.378.0502
email: tam@aans.org
www.aans.org

> -----Original Message-----
> From: Thomas A. Marshall
> Sent: Friday, August 05, 2005 12:33 PM
> To: Board Voting; Board Ex-officio; 'bergerm@neurosurg.ucsf.edu';
> 'Barbaro, Nicholas'; 'wfisher@aubmc.edu'; 'faboop@aol.com';
> 'hhanki@aol.com'
> Subject: AANS Leadership
>
>
> Please see the attached memo to the AANS Leadership.
<<05aug5_ldrshp.doc>>

> Thomas A. Marshall
> Executive Director
> American Association of Neurological Surgeons
> direct: 847.378.0502
> email: tam@aans.org
> www.aans.org
>
>

From: Charles Branch [cbranch@wfubmc.edu]
Sent: Thursday, February 23, 2006 11:40 AM
To: Robert Heary; Resnick (Daniel); Joseph Alexander;
timothy-ryken@uiowa.edu; CWolfla@mcw.edu
Subject: RE: meeting services

The AANS is already doing it and hopefully they are looking at it although I frankly am convinced that they are focussed on the AANS annual meeting, and should be, and our meeting service is a secondary effort. I have discussed the meeting planning and management service with Laurie Behncke in the past. She indicated that meeting planning and management service outside of the CNS annual meeting was not a priority and would require them to increase resources etc. I will inquire again if she and the CNS resources that she manages are interested in our meeting. She can and will let me know of that interest here in the next few days I believe. If there is interest, then we should familiarize both Laurie and the CNS, and Jeremy Longhurst and BroadWater with our meeting, venues, future sites planning, meeting management needs etc. at our meeting this year and allow them to deliver an opinion or proposal as soon after the meeting as possible.

At the Spine Section Exec meeting in April, we should be prepared to make a decision regarding meeting planning and management service for the at least the 07-09 meetings. There is no longer a debate over what the AANS Meeting service can or will provide. They have demonstrated their level of service to the Section under increased scrutiny and expectation. So, my sense is, this is the best that they can or will do. If we believe that we can acquire a better or more focussed meeting planning and management service for a reasonable expense, then as leaders of the Section it is our responsibility to consider that. If not, then we put this issue to bed.

I will communicate the response from Laurie with all of you as soon as I receive it.

Charlie Branch

-----Original Message-----
From: Robert Heary [mailto:heary@umdnj.edu]
Sent: Wednesday, February 22, 2006 1:52 PM
To: resnick@neurosurg.wisc.edu; Charles Branch; Joseph Alexander
Subject: RE: meeting services

dan:
hi, i agree that any thoughts regarding meeting services should be looked at by the AANS, the CNS, and any outside vendors. this is the minimum we can look into. bob

>>> "Resnick (Daniel)" <resnick@neurosurg.wisc.edu> 2/22/2006 12:11:43 PM >>>
Bob? Charlie?

_____

From: Joseph Alexander [mailto:jtalexan@wfubmc.edu]
Sent: Tue 2/21/2006 3:55 PM
To: Resnick (Daniel); Charles Branch; Robert Heary
Subject: RE: meeting services

I would say yes, so that we can honestly say we have given our in house services a chance to respond.

_____

From: Resnick (Daniel) [mailto:resnick@neurosurg.wisc.edu]
Sent: Tuesday, February 21, 2006 3:29 PM
To: Charles Branch; Robert Heary; Joseph Alexander
Subject: meeting services

Dudes,

Should we ask the CNS to send a representative to the meeting to review meeting services from their standpoint?

Dan

From: Robert Heary [heary@umdnj.edu]
Sent: Monday, February 27, 2006 10:41 AM
To: ttippett2@aol.com; Gerald.Rodts@emoryhealthcare.org; chill@neurosurgery.org; gprzybyl@optonline.net; GPrzybylski@solarishs.org; vincent-traynelis@uiowa.edu
Cc: Resnick (Daniel); korrico@neurosurgery.org
Subject: Re: TDA in elderly

rusty:
hi, you raise some legit points. we should emphasize that properly selected patients in the medicare age group are able to get clinical results comparable to younger patients. as with any series of surgical patients, poorly selected patients will have higher complication rates.
i think your suggestions seem very reasonable. another alternative is to draft a letter which continues to ask for no decision to be made at this time because there is not enough evidence; however, the minimal evidence available does support the use of TDA in properly selected patients in the medicare age group. bob

>>> Gerald Rodts <Gerald.Rodts@emoryhealthcare.org> 2/27/2006 9:14:56 AM >>>
Bob:

Two problems with that article. One, they did have a higher complication rate. Two, and the biggest fear of all, is that they did have cases of subsidence AND stated that they now reinformce ALL older patients with PMMA (which I think is a clear statement as to how risky subsidence is in this population). Though they claimed that osteoporosis was a contraindication, they attributed their complications to osteoporosis in some patients. I think the article works both ways.

It shows that there IS a subset of the Medicare population that would benefit, and it highlights the contraindications of implanting the device that should be avoided in everyone.

I think we should draft a letter arguing that the procedure be covered in all patients in the Medicare population who fit the same criteria as published in the younger groups: one level disc problem, no stenosis, no osteoporosis, no ankylosis or severe facet hypertrophy, etc.
Emphasize that there IS a subset of Medicare patients who will fit the bill (though I think we all suspect that very few people in that age group would ever be considered candidates for TDA....er...except when I need mine done..). Rusty Rodts

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Fax 404-778-6310

>>> "Robert Heary" <heary@umdnj.edu> 02/26/06 7:34 PM >>>
** High Priority **

all:
hi, in the february, 2006 jns:spine is an article on lumbar total disc arthroplasty in patients older than 60 (actual range was 61-71 years).

this prospective study of 22 patients found very good results at 3 months which were maintained at 2 year follow-up in a group which had a 100% follow-up rate. unfortunately, this study used the ProDisc prosthesis rather than the Charite. the CMS statements are really quite particular to the Charite. that being said, i believe this is the first peer-reviewed journal article which specifically looks at TDA in a population that could be considered typical for medicare. in addition, this article shows very good results which were comparable to the results that this same investigator found in younger patients.
clinical
outcomes were similar between the older group and the younger group and the complication rate was slightly higher in the older group (which would be expected in essentially any surgical series where younger patients are compared to older ones). the first author on this february study is rudolf bertagnoli and he is the same person who first authored the comparable results on the younger patients. since there is no data on the older group for Charite patients, it is not unreasonable that the results of this study could be extrapolated to include artificial lumbar disc in general and that, in so doing, the only available data which assesses clinical results in the medicare age group shows comparable results. i think this is a worthwhile article for us to reference. bob heary

This presentation entails no attachments.

Please click here to return to the agenda