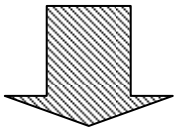
2006 Ramp-up

Medicare Update: Total additional dollars allocated to fix the SGR at least equal to the amount required to provide a fee schedule update equal to the increase in the MEI.

Development Period

- Measure Development (ongoing)
- PFP Pilot Tests/Demos



2007 Pay for Reporting

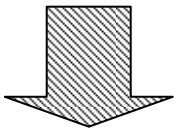
Medicare Update: Total additional dollars allocated to fix the SGR and fund a pay for reporting program are at least equal to the amount required to provide a fee schedule update equal to the increase in the MEI. All physicians guaranteed a payment "floor" of positive updates.

Reporting basic quality information such as:

- Practice structure (e.g. functions of IT use – patient registries)
- Participation in patient safety programs / use of protocols (e.g. mark your site, time out)

Development Period

- Measure Development (ongoing)
- PFP Pilot Tests/Demos



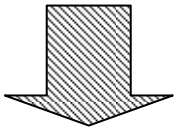
2008-2009 Pay for Reporting / Pay for Participation

Medicare Update: Total additional dollars allocated to fix the SGR and fund a pay for reporting / pay for participation program are at least equal to the amount required to provide a fee schedule update equal to the increase in the MEI. All physicians guaranteed a payment "floor" of positive updates.

- Transition to participation in more advanced quality improvement programs and reporting of evidence-based quality measures. Quality performance data will be transmitted back to physicians for internal quality improvement purposes. This phase would also test the feasibility of collecting data and accurately measuring physician performance in preparation for PFP.

Development Period

- Measure Development (ongoing)
- PFP Pilot Tests/Demos



2010 Pay for Performance

Medicare Update: Pay for performance (PFP) provisions are triggered contingent on repeal of SGR formula. Long term solution must assure that sufficient dollars are allocated to allow for positive annual fee schedule updates linked to inflation and money to be set aside to fund the proposed PFP program. All physicians must be guaranteed a payment "floor" of positive updates.

- % of Medicare payment of physicians (all specialties) based on quality performance
- Program focus on continuous quality improvement
- Performance measured on evidence-based measures of process and/or outcomes with appropriate risk adjustment, valid sample size, etc..
- Any "efficiency measures" used are transparent, evidence based, and focus on clinical quality improvement
- Only after adequate safeguards are put in place to prevent unintended consequences such as patient de-selection is public reporting permitted
- HHS conducts studies on Medicare program savings resulting from Part B quality efforts

G-Code Specifications and Instruction for Clinical Measures
Physician Voluntary Reporting Program (PVRP)
As of: December 27, 2005

Measure: Aspirin at arrival for acute myocardial infarction

Numerator:

G8006: Acute myocardial infarction: patient documented to have received aspirin at arrival

G8007: Acute myocardial infarction: patient not documented to have received aspirin at arrival

G8008: Clinician documented that acute myocardial infarction patient was not an eligible candidate to receive aspirin at arrival measure

Denominator:

*Patients with a*cute myocardial infarction *who present to hospital emergency department or are hospitalized as listed:*

Patients with acute myocardial infarction:
ICD-9: 410.01, 410.11, 410.21, 410.31, 410.41, 410.51, 410.61, 410.71, 410.81, 410.91
And
ED E&M: 99281-99285; initial hospital care E&M: 99221-99223; observation: 99218-99220, 99234-99236; critical care services: 99291- 99292

Instructions:

This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes are used and the listed CPT services are provided for a patient with acute myocardial infarction. It is anticipated that the patient would receive aspirin therapy upon initial arrival if clinically appropriate. However, the timeframe for this measure includes the entire 24 hour period before presentation and the 24 hour period from the time of presentation. This construct is consistent with the hospital performance measure. This measure is intended to reflect the quality of services provided for the initial, primary management of patients with acute myocardial infarction who present to the emergency department or the hospital setting.

Measure: Beta blocker at time of arrival for acute myocardial infarction

Numerator:

G8009: Acute myocardial infarction: patient documented to have received beta-blocker at arrival

G8010: Acute myocardial infarction: patient not documented to have received beta-blocker at arrival

G8011: Clinician documented that acute myocardial infarction patient was not an eligible candidate for beta-blocker at arrival measure

Denominator:

Patients with acute myocardial infarction *who present to hospital emergency department or are hospitalized as listed:*

Patients with acute myocardial infarction:
ICD-9: 410.01, 410.11, 410.21, 410.31, 410.41, 410.51, 410.61, 410.71, 410.81, 410.91
And
ED E&M: 99281-99285; initial hospital care E&M: 99221-99223; observation: 99218-99220, 99234-99236; critical care services: 99291- 99292

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes are used and the listed CPT services are provided for a patient with acute myocardial infarction who presents to the hospital emergency department or other hospital setting. It is anticipated that the patient would receive beta-blocker therapy upon initial arrival if clinically appropriate. However, the timeframe for this measure includes the entire 24 hour period from the time of presentation. This construct is consistent with the hospital performance measure. This measure is intended to reflect the quality of services provided for the initial, primary management of patients with acute myocardial infarction in the emergency department or hospital setting.

Measure: Antibiotic administration timing for patient hospitalized for pneumonia

Numerator:
G8012: Pneumonia: patient documented to have received antibiotic within 4 hours of presentation

G8013: Pneumonia: patient not documented to have received antibiotic within 4 hours of presentation

G8014: Clinician documented that pneumonia patient was not an eligible candidate for antibiotic within 4 hours of presentation measure

Denominator:
Patients with pneumonia as listed:

ICD-9CM codes: 480.1, 480.2, 480.3, 480.8, 480.9, 481 (S. pneumo), 482.0 (Klebsiella), 482.1 (Pseudomonas), 482.2 (H. flu), 482.30 (unspec. Strep), 482.31 (Strep A), 482.32 (Strep B), 482.39 (other Strep), 482.40 (unspec. Staph), 482.41(S. aureus), 482.49 (other Staph), 482.81 (Anaerobes), 482.82 (E. coli), 482.83 (other gram neg), 482.84 (Legionnaires), 482.89 (other spec. bacteria), 482.9 (unspec. bacteria), 483.0 (M. pneumoniae), 483.1 (Chlamydia), 483.8 (other spec. organism), 485 (Bronchopneumonia, unspec. organism), 486 (unspec organism), 487.0 (influenza with pneumonia)
And
ED E&M: 99281-99285; initial hospital care E&M: 99221-99223, 99218-99220; critical care codes 99291-99292

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 is used with the listed CPT services for a patient with pneumonia. This measure should reflect the quality of services for the initial management of a patient with pneumonia presenting to the emergency department

and admitted to hospital or a hospital setting. Patients transferred to an emergency department should not be considered an eligible candidate and the clinician should use the appropriate quality G-code indicator to indicate that such a patient is not a candidate for this measure.

Priority Measure: Hemoglobin A1c control in patient with Type I or Type II diabetes mellitus

Numerator:

G8016: Diabetic patient with most recent hemoglobin A1c level (within the last 6 months) documented as less than or equal to 9%

G8015: Diabetic patient with most recent hemoglobin A1c level (within the last 6 months) documented as greater than 9%

G8017: Clinician documented that diabetic patient was not eligible candidate for hemoglobin A1c measure

G8018: Clinician has not provided care for the diabetic patient for the required time for hemoglobin A1c measure (6 months)

Denominator:

Patients with diabetes:

ICD-9-CM codes 250.0-250.9 (DM), 357.2 (polyneuropathy in DM), 362.0 (DM retinopathy), 366.41 (DM cataract), 648.0 (DM in pregnancy, not gestational)

And

E&M visit: 99201-99205, 99211-99215 (E&M); 99341-99350 (home visit); 99304-99310 (nursing facility); 99324-99328, 99334-99337 (domiciliary); G0344

Instructions:

This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes are used and the listed E&M services are provided to patients with diabetes mellitus for the primary management of diabetes mellitus. It is not anticipated that clinicians would use this indicator if the clinician is not providing services for the primary management of diabetes mellitus.

Measure: Low-density lipoprotein control in patient with Type I or Type II diabetes mellitus

Numerator:

G8020: Diabetic patient with most recent low-density lipoprotein (within the last 12 months) documented as less than 100 mg/dl

G8019: Diabetic patient with most recent low-density lipoprotein (within the last 12 months) documented as greater than or equal to 100 mg/dl

G8021: Clinician documented that diabetic patient was not eligible candidate for low-density lipoprotein measure

G8022: Clinician has not provided care for the diabetic patient for the required time for low-density lipoprotein measure (12 months)

Denominator:
Patients with diabetes:

ICD-9-CM codes 250.0-250.9 (DM), 357.2 (polyneuropathy in DM), 362.0 (DM retinopathy), 366.41 (DM cataract), 648.0 (DM in pregnancy, not gestational)
And
E&M visit: 99201-99205, 99211-99215 (E&M); 99341-99350 (home visit); 99304-99310 (nursing facility); 99324-99328, 99334-99337 (domiciliary)

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes are used and the listed E&M services are provided to patients with diabetes mellitus for the primary management of diabetes mellitus. It is not anticipated that clinicians would use this indicator if the clinician is not providing services for the primary management of diabetes mellitus.

Measure: High blood pressure control in patient with Type I or Type II diabetes mellitus

Numerator:
G8024: Diabetic patient with most recent blood pressure (within the last 6 months) documented less than 140 systolic and less than 80 diastolic

G8023: Diabetic patient with most recent blood pressure (within the last 6 months) documented as equal to or greater than 140 systolic or equal to or greater than 80 mmHg diastolic

G8025: Clinician documented that the diabetic patient was not eligible candidate for blood pressure measure

G8026: Clinician has not provided care for the diabetic patient for the required time for blood measure (within the last 6 months)

Denominator:
Patients with diabetes:

ICD-9-CM codes 250.0-250.9 (DM), 357.2 (polyneuropathy in DM), 362.0 (DM retinopathy), 366.41 (DM cataract), 648.0 (DM in pregnancy, not gestational)
And
E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99341-99350 (home visit); 99304-99306, 99307-99310 (nursing facility); 99324-99328, 99334-99337 (domiciliary); G0344

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes are used and the listed E&M services are provided to patients with diabetes mellitus for the primary management of diabetes mellitus.

Measure: Angiotensin-converting enzyme inhibitor or angiotensin-receptor blocker therapy for left ventricular systolic dysfunction

Numerator:

G8027: Heart failure patient with left ventricular systolic dysfunction (LVSD) documented to be on either angiotensin-converting enzyme-inhibitor or angiotensin-receptor blocker (ACE-I or ARB) therapy

G8028: Heart failure patient with left ventricular systolic dysfunction (LVSD) not documented to be on either angiotensin-converting enzyme-inhibitor or angiotensin-receptor blocker (ACE-I or ARB) therapy

G8029: Clinician documented that heart failure patient was not an eligible candidate for either angiotensin-converting enzyme-inhibitor or angiotensin-receptor blocker (ACE-I or ARB) therapy measure

Denominator:

Heart failure patients with LVEF < 40% or with moderately or severely depressed left ventricular systolic function:

Patients with heart failure:
Hypertensive heart disease with Heart failure: 402.01, 402.11, 402.91; Hypertensive heart and renal disease with Heart failure: 404.01, 404.03, 404.11, 404.13, 404.91, 404.93; Heart Failure codes: 428.0, 428.1, 428.20-428.23, 428.30-428.33, 428.40-428.43, 428.9
And
Patients who had documentation of an ejection fraction < 40% (use most recent value) or moderately or severely depressed left ventricular systolic function
And
E&M visit: 99201-99205, 99211-99215 (E&M); 99341-99350 (home visit); 99304-99306, 99307-99310 (nursing facility); 99324-99328, 99334-99337 (domiciliary)

Instructions:

This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes are used and the listed E&M services visit are provided to patients with heart failure and decreased left ventricular systolic function. The left ventricular systolic dysfunction may be determined by quantitative or qualitative assessment. Examples of a quantitative or qualitative assessment would be an echocardiogram that provides a numerical value of left ventricular systolic dysfunction or that uses descriptive terms such moderate or severely depressed left ventricular dysfunction. This measure is intended to reflect the quality of services provided for the primary management of patients with heart failure.

Measure: Beta-blocker therapy for left ventricular systolic dysfunction

Numerator:

G8030: Heart failure patient with left ventricular systolic dysfunction (LVSD) documented to be on beta-blocker therapy

G8031: Heart failure patient with left ventricular systolic dysfunction (LVSD) not documented to be on beta-blocker therapy

G8032: Clinician documented that heart failure patient was not eligible candidate for beta-blocker therapy measure

Denominator:
Heart failure patients with left ventricular ejection fraction (LVEF) < 40% or with moderately or severely depressed left ventricular systolic function

Patients with heart failure:
Hypertensive heart disease with Heart failure: 402.01, 402.11, 402.91; Hypertensive heart and renal disease with Heart failure: 404.01, 404.03, 404.11, 404.13, 404.91, 404.93; Heart Failure codes: 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9
And
Patient who has documentation of an LVEF < 40% (use most recent value) or moderately or severely depressed left ventricular systolic function
And
E&M visit: 99201-99205, 99211-99215 (E&M); 99341-99350 (home visit); 99304-99306, 99307-99310 (nursing facility); 99324-99328, 99334-99337 (domiciliary)

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes are used and E&M services are provided for a patient with documented left ventricular systolic dysfunction. The left ventricular systolic dysfunction may be determined by quantitative or qualitative assessment. This measure is intended to reflect the quality of services provided for the primary management of patients with heart failure.

Measure: Beta-blocker therapy for patient with prior myocardial infarction

Numerator:
G8033: Prior myocardial infarction - coronary artery disease patient documented to be on beta-blocker therapy

G8034: Prior myocardial infarction - coronary artery disease patient not documented to be on beta -blocker therapy

G8035: Clinician documented that prior myocardial infarction - coronary artery disease patient was not eligible candidate for beta - blocker therapy measure

Denominator:
Patients with coronary artery disease who also have prior MI at any time as listed:

Patients with Coronary artery disease:
414.00-414.07, 414.8, 414.9, 410.00-410.92 (Acute myocardial infarction), 412 (old MI), 411.0-411.89, 413.0-413.9 (angina), V45.81 (Aortocoronary bypass status), V45.82 (PTCA status)
And

E&M visit: 99201-99205, 99211-99215 (E&M); 99341-99350 (home visit); 99304-99306, 99307-99310 (nursing facility); 99324-99328, 99334-99337 (domiciliary)
And
Patients with prior MI:
410.00-410.92, 412

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are provided to patients with documented coronary artery disease and prior myocardial infarction. This measure is intended to reflect the quality of services provided for the primary management of patients with coronary artery disease.

Measure: Antiplatelet therapy for patient with coronary artery disease

Numerator:
G8036: Coronary artery disease patient documented to be on antiplatelet therapy

G8037: Coronary artery disease patient not documented to be on antiplatelet therapy

G8038: Clinician documented that coronary artery disease patient was not eligible candidate for antiplatelet therapy measure

Denominator:
Patients with coronary artery disease:
ICD-9-CM codes for Coronary artery disease: 414.00-414.07, 414.8, 414.9, 410.00-410.92 (Acute myocardial infarction); 412 (old MI), 411.0-411.89, 413.0-413.9 (angina), V45.81 (Aortocoronary bypass status), V45.82 (PTCA status)
And
E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99341-99350 (home visit); 99304-99306, 99307-99310 (nursing facility); 99324-99328, 99334-99337 (domiciliary)

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes are used with the listed E&M services provided for a patient with coronary artery disease. This measure is intended to reflect the quality of services provided for the management of patients with coronary artery disease. Antiplatelet therapy consists of aspirin, clopidogrel, or combination of aspirin and dypyridamole.

Measure: Low-density lipoprotein control in patient with coronary artery disease

Numerator:
G8040: Coronary artery disease – patient with low-density lipoprotein documented to be less than or equal to 100mg/dl

G8039: Coronary artery disease – patient with low-density lipoprotein documented to be greater than 100mg/dl

G8041: Clinician documented that coronary artery disease patient was not eligible candidate for low-density lipoprotein measure

G8182: Clinician has not provided care for the cardiac patient for the required time for low-density lipoprotein measure (6 months)

Denominator:
Patients with coronary artery disease:

ICD-9-CM codes for coronary artery disease: 414.00-414.07, 414.8, 414.9, 410.00-410.92 (Acute myocardial infarction), 412 (old MI), 411.0-411.89, 413.0-413.9 (angina), V45.81 (aortocoronary bypass status), V45.82 (PTCA status);
And
E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99341-99350 (home visit); 99304-99306, 99307-99310 (nursing facility); 99324-99328, 99334-99337 (domiciliary)

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes are used and the CPT services are provided for a patient with coronary artery disease. This measure is intended to reflect the quality of services provided for the management of patients with coronary artery disease.

Measure: Osteoporosis assessment in elderly female patient

Numerator:
G8051: Patient (female) documented to have been assessed for osteoporosis

G8052: Patient (female) not documented to have been assessed for osteoporosis

G8053: Clinician documented that (female) patient was not an eligible candidate for osteoporosis assessment measure

Denominator:
Female patients 75 years of age or older:

E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99304-99306, 99307-99310 (nursing facility); 99341-99350 (home visit)
And
Female patients 75 years of age or older

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are provided to geriatric patients. This indicator, as well as other indicators related to assessments, should be provided only on an annual basis. It is anticipated that the clinical assessment would include counseling the patient about the risk of osteoporosis and the potential need for preventive therapy.

Measure: Assessment of elderly patients for falls

Numerator:
G8055: Patient documented for the assessment for falls within last 12 months

G8054: Patient not documented for the assessment for falls within last 12 months

G8056: Clinician documented that patient was not an eligible candidate for the falls assessment measure within the last 12 months

Denominator:
Patients 75 years of age or older:

E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99341-99350 (home visit); 99304-99306, 99307-99310 (nursing facility); G0344
And
Patients 75 years of age or older

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are provided to geriatric patients. This indicator, as well as other indicators related to assessments, should be provided only on an annual basis. It is anticipated that the clinical assessment would include annual review of the patient's fall history as part of a medically necessary visit.

Measure: Assessment of hearing acuity in elderly patient

Numerator:
G8057: Patient documented to have received hearing assessment

G8058: Patient not documented to have received hearing assessment

G8059: Clinician documented that patient was not an eligible candidate for hearing assessment measure

Denominator:
Patients 75 years of age or older:

E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99304-99306, 99307-99310 (nursing facility); 99341-99350 (home visit); G0344
And
Patients 75 years of age or older

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are provided to geriatric patients. This indicator, as well as other indicators related to assessments, should be provided only on an annual basis. It is anticipated that the clinical assessment would include an annual clinical examination and history of hearing capacity as part of a medically necessary visit.

Measure: Assessment for urinary incontinence in elderly patients

Numerator:
G8060: Patient documented for the assessment of urinary incontinence

G8061: Patient not documented for the assessment of urinary incontinence

G8062: Clinician documented that patient was not an eligible candidate for urinary incontinence assessment measure

Denominator:
Patients 75 years of age or older:

E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99304-99306, 99307-99310 (nursing facility); 99341-99350 (home visit); G0344
And
Patients 75 years of age or older

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are provided to geriatric patients. This indicator, as well as other indicators related to assessments, should be provided only on an annual basis. It is anticipated that the clinical assessment would include annual history of patient's absence or presence of urinary incontinence.

Measure: Dialysis dose in end stage renal disease patient

Numerator:
G8075: End-stage renal disease patient with documented dialysis dose of URR greater than or equal to 65% (or Kt/V greater than or equal to 1.2)

G8076: End-stage renal disease patient with documented dialysis dose of URR less than 65% (or Kt/V less than 1.2)

G8077: Clinician documented that end-stage renal disease patient was not an eligible candidate for URR or Kt/V measure

Denominator:
Patients with end-stage renal disease *on hemodialysis as listed:*

CPT: G0308-G0327, 90945, 90947
Or
585.6 (End-stage renal disease)

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services or ICD-9 are provided and the listed hemodialysis CPT services are provided to patients with end stage

renal disease. This measure is anticipated to reflect the services provided for the primary management of end stage renal disease. It is not anticipated that this measure would be applicable for services not related to the primary management of end stage renal disease.

Measure: Hematocrit level in end stage renal disease patient

Numerator:

G8078: End-stage renal disease patient with documented hematocrit greater than or equal to 33 (or hemoglobin greater than or equal to 11)

G8079: End-stage renal disease patient with documented hematocrit less than 33 (or hemoglobin less than 11)

G8080: Clinician documented that end-stage renal disease patient was not an eligible candidate for hematocrit (hemoglobin) measure

Denominator:

Patients with end-stage renal disease *as listed:*

CPT: G0308-G0327, 90945, 90947
Or
585.6 (End-stage renal disease)

Instructions:

This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 is used or the listed CPT services or ICD-9 are provided to patients with end stage renal disease on hemodialysis. This measure is anticipated to reflect the services provided for the primary management of end stage renal disease. It is not anticipated that this measure would be applicable for services not related to the primary management of end stage renal disease.

Measure: Receipt of autogenous arteriovenous fistula in end-stage renal disease patient requiring hemodialysis

Numerator:

G8081: End-stage renal disease patient requiring hemodialysis vascular access documented to have received autogenous AV fistula

G8082: End-stage renal disease patient requiring hemodialysis documented to have received vascular access other than autogenous AV fistula

Denominator:

Patients with end-stage renal disease *on hemodialysis as listed:*

CPT: 36800, 36810, 36815, 36818-36821, 36825, 36830
And

585.6 (End-stage renal disease)

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are used and the listed CPT services are provided to patients with end stage renal disease on hemodialysis. It is anticipated that the clinician providing vascular access for the patient's hemodialysis would submit this measure for their patients. It is anticipated that clinicians will still make clinical determinations at the individual level regarding whether a patient is an appropriate candidate for arteriovenous fistula placement.

Measure: Warfarin therapy in heart failure patient with atrial fibrillation

Numerator:
G8183: Patient with heart failure and atrial fibrillation documented to be on warfarin therapy

G8184: Clinician documented that patient with heart failure and atrial fibrillation was not an eligible candidate for warfarin therapy measure

Denominator:
Patients with heart failure:
Hypertensive heart disease with Heart failure: 402.01, 402.11, 402.91; Hypertensive heart and renal disease with Heart failure: 404.01, 404.03, 404.11, 404.13, 404.91, 404.93; Heart Failure codes: 428.0, 428.1, 428.20-428.23, 428.30-428.33, 428.40-428.43, 428.9
And
E&M visit: 99201-99205, 99211-99215, 99241-99245 (office consultation); 99341-99350 (home visit); 99218-99220 (observation); 99234-99236 (observation or inpatient); 99304-99306, 99307-99310 (nursing facility); 99324-99328, 99334-99337(domiciliary); 99221-99223
And
Atrial fibrillation 427.31

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes for heart failure and atrial fibrillation are used with the listed CPT services. This measure should reflect the quality of the services for the management of atrial fibrillation for a patient with heart failure.

Measure: Smoking cessation intervention in newly diagnosed chronic obstructive pulmonary disease

Numerator:
G8093: Newly diagnosed chronic obstructive pulmonary disease (COPD) patient documented to have received smoking cessation intervention, within 3 months of diagnosis,

G8094: Newly diagnosed chronic obstructive pulmonary disease (COPD) patient not documented to have received smoking cessation intervention, within 3 months of diagnosis

Denominator:
Patients with COPD:

ICD-9: 491.0, 491.1, 491.20, 491.21, 491.22, 491.8, 491.9 (Chronic bronchitis); 492.0, 492.8 (Emphysema); 494.0, 494.1 (Bronchiectasis); 496 (COPD); 493.20 – 493.22 (COPD with chronic obstructive asthma)
And
E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99341-99350 (home visit); 99324-99328, 99334-99337 (domiciliary); 99304-99306, 99307-99310 (nursing facility); G0375; G0376

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are used and the listed E&M services are provided to patients with documented COPD.

Measure: Prescription of calcium and vitamin D supplements in osteoporosis

Numerator:
G8099: Osteoporosis patient documented to have been prescribed calcium and vitamin D supplements

G8100: Clinician documented that osteoporosis patient was not an eligible candidate for calcium and vitamin D supplement measure

Denominator:
Patients with Osteoporosis as listed:

ICD-9: 733.00, 733.01, 733.02, 733.03, 733.09
And
E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99304-99306, 99307-99310 (nursing facility); 99324-99328, 99334-99337(domiciliary); 99341-99350 (home visit)

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes are used and the listed E&M services are provided for a patient with osteoporosis. It is anticipated that this measures reflects the services provided for the primary management of osteoporosis.

Measure: Antiresorptive therapy and/or parathyroid hormone treatment in newly diagnosed osteoporosis

Numerator:
G8103: Newly diagnosed osteoporosis patients documented to have been treated with antiresorptive therapy and/or parathyroid hormone treatment within 3 months of diagnosis

G8104: Clinician documented that newly diagnosed osteoporosis patient was not an eligible candidate for antiresorptive therapy and/or parathyroid hormone treatment measure within 3 months of diagnosis

Denominator:
Patients with Osteoporosis:

ICD-9: 733.00 733.01 733.02 733.03 733.09
And
E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99304-99306, 99307-99310 (nursing facility); 99324-99328, 99334-99337 (domiciliary); 99341-99350 (home visit)

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes are used and the listed E&M services are provided for a patient with osteoporosis. It is anticipated that this measure reflects the services provided for the primary management of osteoporosis.

Measure: Bone mineral density testing and osteoporosis treatment and prevention following osteoporosis associated nontraumatic fracture

Numerator:
G8106: Within 6 months of suffering a nontraumatic fracture, female patient 65 years of age or older documented to have undergone bone mineral density testing or to have been prescribed a drug to treat or prevent osteoporosis

G8107: Clinician documented that female patient 65 years of age or older who suffered a nontraumatic fracture within the last 6 months was not an eligible candidate for measure to test bone mineral density or drug to treat or prevent osteoporosis

Denominator:
Female patients 65 and older with osteoporosis:

ICD-9: 733.00 733.01 733.02 733.03 733.09
And
E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99304-99306, 99307-99310 (nursing facility); 99324-99328, 99334-99337 (domiciliary); 99341-99350 (home visit)
And
Female patients 65 and older with osteoporosis

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes are used and the listed CPT services are provided for an elderly female patient with nontraumatic fracture. This measure should reflect quality of services for the detection of osteoporosis related complications in the elderly female population. It is anticipated that the clinician who provides primary management of the patient would submit this measure.

Measure: Annual assessment of function and pain in symptomatic osteoarthritis

Numerator:
G8185: Patients diagnosed with symptomatic osteoarthritis with documented annual assessment of function and pain

G8186: Clinician documented that symptomatic osteoarthritis patient was not an eligible candidate for annual assessment of function and pain measure

Denominator:
Visits for patients with Osteoarthritis as listed:

ICD-9: 715.00-715.98 (OA)
And
E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99304-99306, 99307-99310 (nursing facility); 99324-99328, 99334-99337 (domiciliary); 99341-99350 (home visit)

Instructions:
This measure is reported whenever the listed ICD-9 codes are used and the listed CPT services are provided for a patient with symptomatic osteoarthritis. This indicator, as well as other indicators related to assessments, should be provided only on an annual basis. This measure should reflect quality of services for the primary management of osteoarthritis.

Measure: Influenza vaccination

Numerator:
G8108: Patient documented to have received influenza vaccination during influenza season

G8109: Patient not documented to have received influenza vaccination during influenza season

G8110: Clinician documented that patient was not an eligible candidate for influenza vaccination measure

Denominator:
Patients 50 years of age or older:

E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99304-99306, 99307-99310 (nursing facility); 99324-99328, 99334-99337 (domiciliary); 99341-99350; G0008
And
Patients 50 years of age or older

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are provided to patients for the purpose of providing preventive services. This indicator should be provided only on an annual basis.

Measure: Mammography

Numerator:
G8111: Patient (female) documented to have received a mammogram during the measurement year or prior year to the measurement year

G8112: Patient (female) not documented to have received a mammogram during the measurement year or prior year to the measurement year

G8113: Clinician documented that female patient was not an eligible candidate for mammography measure

G8114: Clinician did not provide care to patient for the required time of mammography measure (i.e., measurement year or prior year)

Denominator:
Women age 40 or over:

E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99304-99306, 99307-99310 (nursing facility); 99324-99328, 99334-99337 (domiciliary); 99341-99350 (home visit); G0344
And
Female patients age 40 or over

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are provided to patients for the purpose of providing preventive services. This indicator should be provided only on an annual basis.

Measure: Pneumococcal vaccination

Numerator:
G8115: Patient documented to have received pneumococcal vaccination

G8116: Patient not documented to have received pneumococcal vaccination

G8117: Clinician documented that patient was not an eligible candidate for pneumococcal vaccination measure

Denominator:
Patients 65 years of age or older:

E&M visit: 99201-99205, 99211-99215 (E&M); 99241-99245 (office consult); 99304-99306, 99307-99310 (nursing facility); 99324-99328, 99334-99337 (domiciliary); 99341-99350; G0009, G0344
And
Patients 65 years of age or older

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are provided to patients for the purpose of providing preventive services. This indicator shall not be reported more than once a year.

Measure: Antidepressant medication during acute phase for patient diagnosed with new episode of major depression

Numerator:
G8126: Patient documented as being treated with antidepressant medication during the entire 12 week acute treatment phase

G8127: Patient not documented as being treated with antidepressant medication during the entire 12 weeks acute treatment phase

G8128: Clinician documented that patient was not an eligible candidate for antidepressant medication during the entire 12 week acute treatment phase measure

Denominator:
Patients 18 years and older diagnosed with a New Episode of MDD (major depression) and treated with antidepressant medication:

E&M Visit: 99201-99205, 99211-99215; psychiatry: 90801, 90804-90809
And
ICD-9 296.2, 296.3, 300.4, 309.1, 311 (major depression)

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes are used and the patient is placed on prescription therapy for the treatment of a new episode of major depression disorder. It is anticipated that the clinician that provides the primary management of depression for the patient would submit this measure.

Measure: Antidepressant medication duration for patient diagnosed with new episode of major depression

Numerator:
G8129: Patient documented as being treated with antidepressant medication for at least 6 months continuous treatment phase

G8130: Patient not documented as being treated with antidepressant medication for at least 6 months continuous treatment phase

G8131: Clinician documented that patient was not an eligible candidate for antidepressant medication for continuous treatment phase

Denominator:
Patients 18 years and older diagnosed with a New Episode of MDD (major depression) and treated with antidepressant medication.

E&M Visit: 99201-99205, 99211-99215; psychiatry: 90801, 90804-90809
And
ICD-9 296.2, 296.3, 300.4, 309.1, 311 (major depression)

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed ICD-9 codes are used and the patient is placed on prescription therapy for the treatment of a new episode of major depression disorder. This measure is anticipated to reflect that the primary management of the acute treatment for depression including continuous treatment (beyond 12 weeks) where clinically appropriate.

Measure: Antibiotic prophylaxis in surgical patient

Numerator:
G8152: Patient documented to have received antibiotic prophylaxis one hour prior to incision time (two hours for vancomycin)

G8153: Patient not documented to have received antibiotic prophylaxis one hour prior to incision time (two hours for vancomycin)

G8154: Clinician documented that patient was not an eligible candidate for antibiotic prophylaxis one hour prior to incision time (two hours for vancomycin) measure

Denominator:
Patients with selected surgical procedures as listed:

Musculoskeletal: 27130, 27125, 27138, 27437, 27445, 27446

Cardiovascular System: 33300 33305 33400 33401 33403 33404 33405 33406 33410 33411 33412 33413 33414 33415 33416 33417 33420 33422 33425 33426 33427 33430 33460 33463 33464 33465 33468 33470 33471 33472 33474 33475 33476 33478 33496 33510 33511 33512 33513 33514 33516 33517 33518 33519 33521 33522 33523 33530 33533 33534 33535 33536 33545 33560 33600 33602 33608 33610 33611 33612 33615 33617 33619 33641 33645 33647 33660 33665 33670 33681 33684 33688 33692 33694 33697 33702 33710 33720 33722 33730 33732 33735 33736 33737 33770 33771 33774 33775 33776 33777 33778 33779 33780 33781 33786 33813 33814 33875 33877 33918 33919 33920 33924 33999 34520 34830 34831 34832 35081 35082 35091 35092 35102 35103 35111 35112 35121 35122 35131 35132 35141 35142 35151 35152 35256 35286 35331 35341 35351 35355 35361 35363 35371 35372 35381 35516 35518 35521 35522 35525 35531 35533 35536 35541 35546 35548 35549 35551 35556 35558 35563 35565 35566 35571 35583 35585 35587 35600 35616 35621 35623 35631 35636 35641 35646 35647 35650 35651 35654 35656 35661 35665 35666 35671 35686 35879 35881 35903 35907 37500 37700 37720 37730 37735 37760 37765 37766 37780 37785 37788 37791 92992 92993 93580 93581

Hemic and Lymphatic Systems: 38082 38103

Digestive System: 44025 44110 44111 44120 44121 44125 44130 44139 44140 44141 44143 44144 44145 44146 44147 44150 44151 44152 44153 44155 44156 44160 44204 44205 44206 44207 44208 44210 44211 44212 44300 44320 44322 44604 44605 44615 44625 44626 44660 44661 44799 45110 45111 45112 45113 45114 45116 45119 45120 45121 45123 45126 45130 45135 45550 45562 45563 45800 45805 45820 45825 45999

Urinary System: 51597 51925

Female Genital System: 57307 58150 58152 58180 58200 58210 58240 58260 58262 58263 58285 58550 58552 58553 58554 58951 58953 59135 59136 59140 59525

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are provided for a patient undergoing surgery that typically requires the administration of prophylactic antibiotics. It is anticipated that this measure should reflect the management of the surgical patient to reduce complications from infections. Thus, it is anticipated that it may be appropriate for both the clinician performing the surgery and the clinician providing anesthesia services may submit this measure for a patient.

Measure: Thromboembolism prophylaxis in surgical patient

Numerator:
G8155: Patient with documented receipt of thromboemoblism prophylaxis

G8156: Patient without documented receipt of thromboemoblism prophylaxis

G8157: Clinician documented that patient was not an eligible candidate for thromboembolism prophylaxis measure

Denominator:
Patients with selected surgical procedures as listed:

Integumentary System: 13160

Musculoskeletal System: 20102 22554 22556 22558 22585 22590 22600 22612 22614 22800 22802 22804 22808 22810 22812 22840 22851 27120 27125 27130 27132 27134 27137 27138 27236 27437 27445 27446 27447 27486 27487
Respiratory System: 32140 32141 32220 32225 32310 32320 32440 32442 32445 32480 32482 32484 32486 32488 32520 32522 32525 32651 32652 32655 32656 32663 32800 32850

Cardiovascular System: 33930 35840 35870 37799

Hemic and Lymphatic Systems: 38100 38101 38102 38120

Mediastinum and Diaphragm: 39501 39502 39503 39520 39530 39531 39540 39541 39545 39560 39561 39599

Digestive System: 42953 43020 43045 43107 43108 43112 43113 43116 43117 43118 43121 43122 43123 43124 43228 43240 43250 43251 43258 43267 43268 43269 43271 43272 43280 43289 43300 43305 43310 43312 43313 43314 43316 43320 43324 43325 43326 43340 43341 43350 43351 43352 43360 43361 43401 43405 43410 43415 43420 43425 43496 43499 43500 43501 43502 43510 43620

43621 43622 43631 43632 43633 43634 43635 43638 43639 43640 43641 43652 43761 43800 43810 43820 43825 43840 43842 43843 43845 43846 43847 43848 43850 43855 43860 43865 43870 43880 43999 44005 44010 44015 44020 44021 44025 44050 44055 44110 44111 44120 44121 44125 44126 44127 44128 44130 44132 44133 44139 44140 44141 44143 44144 44145 44146 44147 44150 44151 44152 44153 44155 44156 44160 44201 44202 44203 44204 44205 44206 44207 44208 44210 44211 44212 44300 44310 44316 44320 44322 44340 44345 44346 44351 44370 44379 44383 44397 44602 44603 44604 44605 44615 44620 44625 44626 44640 44650 44660 44661 44680 44700 44799 44800 44820 44850 45000 45005 45020 45110 45111 45112 45113 45114 45116 45119 45120 45121 45123 45126 45130 45135 45136 45160 45170 45321 45327 45345 45387 45500 45505 45540 45541 45550 45562 45563 45800 45805 45820 45825 45999 46730 46735 46744 46746 46748 47010 47011 47120 47122 47125 47130 47133 47300 47315 47350 47360 47361 47362 47370 47371 47380 47381 47382 47399 47400 47420 47425 47460 47510 47511 47564 47570 47579 47610 47612 47620 47716 47720 47721 47740 47741 47760 47765 47780 47785 47800 47802 47900 47999 48000 48001 48005 48020 48120 48140 48145 48146 48148 48150 48151 48152 48153 48154 48155 48160 48180 48500 48510 48511 48520 48540 48545 48547 48550 48554 48556 48662 48999 49002 49020 49021 49040 49041 49060 49061 49080 49081 49085 49201 49210 49215 49220 49255 49420 49421 49425 49426 49605 49606 49610 49611 49900 49904 49906 49999 96445

Urinary System:
50020 50021 50220 50223 50225 50230 50234 50236 50240 50300 50320 50340 50360 50365 50370 50380 50543 50545 50546 50547 50548 50562 50715 50722 50725 50727 50728 50760 50770 50780 50782 50783 50785 50800 50810 50815 50820 50947 50948 51314 51550 51555 51565 51570 51575 51580 51585 51590 51595 51596 51597 51800 51820 51860 51865 51880 51900 51920 51925 51940 51960 52355 53899

Male Genital System: 54380 54385 54390 54595 55810 55812 55815 55821 55831 55840 55842 55845 55866

Female Genital System: 57307 57330 57531 58150 58152 58180 58200 58210 58240 58260 58262 58263 58285 58291 58292 58550 58552 58553 58554 58661 58662 58679 58700 58720 58823 58920 58925 58940 58943 58950 58951 58952 58953 58954 58960 58999
59120 59121 59135 59136 59140 59150 59151 59154 59525

Endocrine System: 60540 60545

Nervous System: 61105 61107 61108 61120 61150 61151 61154 61156 61210 61250 61253 61304 61305 61312 61313 61314 61315 61320 61321 61322 61323 61330 61332 61333 61340 61345 61437 61440 61470 61480 61490 61510 61512 61514 61516 61518 61519 61520 61521 61522 61524 61526 61530 61534 61536 61537 61538 61539 61540 61541 61542 61543 61545 61556 61557 61570 61571 61575 61576 61580 61581 61582 61583 61584 61585 61586 61590 61591 61592 61595 61598 61600 61601 61605 61606 61607 61608 61615 61616 61720 61735 61770 61800 62000 62005 62010 62161 62162 62163 62164 64752 64755 64760 64999

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services codes are provided to a surgical patient. This measure should reflect the quality of the services provided

for surgical patients to prevent the complications of thromboembolism. It is anticipated that the clinician providing primary management of the surgical patient would submit this measure. It is anticipated that thromboembolism prophylaxis includes low-dose unfractionated heparin, low molecular weight heparin, graduated compression stockings, intermittent pneumatic compression devices, factor Xa inhibitor and warfarin. The appropriate use of thromboembolism prophylaxis will vary according to the surgical procedure.

Measure: Use of internal mammary artery in coronary artery bypass graft surgery

Numerator:
G8158: Patient documented to have received coronary artery bypass graft with use of internal mammary artery

G8159: Patient documented to have received coronary artery bypass graft without use of internal mammary artery

G8160: Clinician documented that patient was not an eligible candidate for coronary artery bypass graft with use of internal mammary artery measure

Denominator:
Patients with coronary artery bypass graft using internal mammary artery:

CPT: 33510, 33511, 33512, 33533, 33534, 33535

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are provided for a patient undergoing coronary artery bypass graft surgery. This measure is intended to reflect the quality of the surgical services provided for CABG patients.

Measure: Pre-operative beta-blocker for patient with isolated coronary artery bypass graft

Numerator:
G8161: Patient with isolated coronary artery bypass graft documented to have received pre-operative beta-blockade

G8162: Patient with isolated coronary artery bypass graft not documented to have received pre-operative beta-blockade

G8163: Clinician documented that patient with isolated coronary artery bypass graft was not an eligible candidate for pre-operative beta-blockade measure

Denominator:
Patients with Coronary artery bypass graft *as listed:*

CPT: 33510, 33511, 33512, 33533, 33534, 33535

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are provided for a patient undergoing coronary artery bypass graft surgery. This measure should reflect the primary management of the surgical patient undergoing isolated coronary artery bypass surgery.

Measure: Prolonged intubation in isolated coronary artery bypass graft surgery

Numerator:
G8164: Patient with isolated coronary artery bypass graft documented to have prolonged intubation

G8165: Patient with isolated coronary artery bypass graft not documented to have prolonged intubation

Denominator:
Patients with coronary artery bypass graft *as listed:*

CPT: 33510, 33511, 33512, 33513, 33514, 33516, 33533, 33534, 33535, 33536

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are provided for a patient undergoing isolated coronary artery bypass graft surgery. This measure should reflect the management of the surgical patient undergoing coronary artery bypass graft surgery. This measure is not intended to encourage the inappropriate early extubation of patients. The treating clinician should continue to make the appropriate clinical determination regarding the necessity for intubation.

Measure: Surgical re-exploration in coronary artery bypass graft surgery

Numerator:
G8166: Patient with isolated coronary artery bypass graft documented to have required surgical re-exploration

G8167: Patient with isolated coronary artery bypass graft did not require surgical re-exploration

Denominator:
Patients with coronary artery bypass graft *as listed:*

CPT: 33510, 33511, 33512, 33513, 33514, 33516, 33533, 33534, 33535, 33536

Instructions:
This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are provided for a patient undergoing coronary artery bypass graft surgery. It is anticipated that there may be clinical reasons for a patient to undergo re-exploration. This measure is not anticipated to discourage the treating physician from making the appropriate clinical decision for surgical re-exploration.

Measure: Aspirin or clopidogrel on discharge for patient undergoing isolated coronary artery bypass graft

Numerator:

G8170: Patient with isolated coronary artery bypass graft documented to have been discharged on aspirin or clopidogrel

G8171: Patient with isolated coronary artery bypass graft not documented to have been discharged on aspirin or clopidogrel

G8172: Clinician documented that patient with isolated coronary artery bypass graft was not an eligible candidate for antiplatelet therapy at discharge measure

Denominator:

Patients with coronary artery bypass graft*:*

CPT: 33510, 33511, 33512, 33513, 33514, 33516, 33533, 33534, 33535, 33536

Instructions:

This measure is reported using the appropriate quality G-code indicator whenever the listed CPT services are provided for a patient undergoing coronary artery bypass graft surgery. This measure should reflect the primary management of the surgical patient undergoing isolated coronary artery bypass surgery.

Surgical Specialty Societies' Quality Measures Approved by Unanimous Consent

MEASURE	Organizations with Similar Measure or Literature Topic
SSI, Antibiotics or Antiseptics Ordered Prior to Incision **GXXX1** Documentation in the medical record that prophylactic antibiotics or antiseptics are not indicated for procedure. **GXXX2** Documentation in the medical record that surgeon ordered prophylactic antibiotics or antiseptics within one hour of incision. **GXXX3** Documentation in the medical record of medical or patient's reason(s) for surgeon not ordering prophylactic antibiotics or antiseptics within one hour of incision. **GXXX4** No documentation in the medical record that surgeon ordered delivery of prophylactic antibiotics or antiseptics within one hour prior to incision.	Surgical Care Improvement Project (SCIP), National Quality Forum (NQF), Joint Commission on Accreditation of Healthcare Organizations (JCAHO), Centers for Medicare & Medicaid Services (CMS)
SSI, Antibiotics or Antiseptics Administered Prior to Incision **GXXX5** Documentation in the medical record that anesthesiologist or other appropriate provider administered prophylactic antibiotics or antiseptics within one hour prior to incision (within two hours for vancomycin). **GXXX6** No documentation in the medical record that anesthesiologist or other appropriate provider administered prescribed prophylactic antibiotics or antiseptics within one hour of incision (two hours for vancomycin). **GXXX7**Documentation in the medical record that prophylactic antibiotics or antiseptics was not ordered for the procedure.	Same as Above
Cardiac Risk, History, Current Symptoms and Physical Examination **GXXX8** Documentation in the medical record that the surgeon or other appropriate provider assessed the patient for history of conditions associated with elevated cardiac risk and examined the patient for current signs of cardiac risk. **GXXX9** Documentation in the medical record that history could not be obtained. **GXX10** No documentation in the medical record that the surgeon or other appropriate provider assessed the patient for history of conditions associated with elevated cardiac risk and examined the patient for current signs of cardiac risk.	NQF, Physician Consortium for Performance Improvement (PCPI)
DVT Prophylaxis **GXX11** Documentation in the medical record that DVT prophylaxis is not indicated for procedure. **GXX12** Documentation in the medical record that surgeon ordered appropriate DVT prophylaxis consistent with current guidelines. **GXX13** Documentation in the medical record of medical or patient's reason(s) for not ordering appropriate DVT prophylaxis consistent with current guidelines. **GXX14** No documentation in the medical record that surgeon ordered appropriate DVT prophylaxis consistent with current guidelines.	NQF, SCIP,CMS

Preoperative Smoking Cessation **GXX15** Documentation in the medical record that surgeon provided patient with information on the benefits of preoperative smoking cessation. **GXX16** No documentation in the medical record that surgeon provided patient with information on the benefits of preoperative smoking cessation.	CMS, JCAHO, PCPI, NQF (for heart failure, MI, and pulmonary disease), American College of Surgeons (ACS) Best Practices for Millennium
Wrong-Side, Wrong-Site, Wrong-Person Surgery Prevention **GXX17** Documentation in the medical record that surgeon participated in a "time out" with members of the surgical team to verify intended patient, procedure, and surgical site. **GXX18** No documentation in the medical record that surgeon participated in a "time out" with members of the surgical team to verify intended patient, procedure, and surgical site.	NQF, JCAHO, ACS
Patient Copy of Preoperative Instructions **GXX19** Documentation in the medical record that surgeon gave, or directed staff to give, a copy of preoperative instructions to the patient. **GXX20** No documentation in the medical record that surgeon gave, or directed staff to give, a copy of preoperative instructions to the patient.	AMA Health Literacy Manual, AHRQ
Patient Copy of Postoperative Discharge Instructions **GXX21** Documentation in the medical record that surgeon provided, or directed staff to provide, written discharge instructions that address all of the following: activity level, diet, discharge medications, proper incision care, symptoms of SSI, what to do if symptoms worsen, and follow-up appointments. **GXX22** No documentation in the medical record that surgeon provided, or directed staff to provide, written discharge instructions.	JCAHO, NQF, CMS (for heart failure patients), American Society of Plastic Surgeons' (ASPS) Patient safety in office-based surgery facilities

SURGICAL QUALITY ALLIANCE MEETING

December 5, 2005

Issues and Observations

In December 2005, surgical specialty societies assembled to assess current initiatives for standardized quality measurements in both ambulatory and hospital-based care. The group realizes these measures serve as a critical foundation for quality improvement and value-based purchasing systems now under consideration by healthcare agencies in both the private and public sector.

Surgical specialties are in various stages of developing measures, even in compiling the information needed to develop measures. Assessments of levels of evidence remain underdeveloped in many disciplines. Consequently, not everyone can participate in a value-based purchasing system that relies on Level I clinical evidence. A true quality improvement effort will allow and even encourage all participants to begin where they are and work toward achieving high-quality care based on Level I or Level 2 evidence.

As private and public organizations begin to design a value-based purchasing system, surgery has particular concerns that need to be addressed. For example:

- A physician payment system in which financial incentives are tied to quality improvement poses an obstacle for participation by certain specialties. There are key procedures for which there is little room for improvement in outcomes. For these services, we need to focus on processes of care and structural measures.

- Because there is little Level 1 or Level 2 evidence on which to base clinical quality measures for surgical care, a value-based purchasing program should also reward participation in national, multi-facility clinical data collection efforts.

- Developing Level 1 clinical evidence is particularly difficult for surgery. As a result, the quality metrics for surgery will be somewhat different. We need to better define the level of evidence required for surgical care. Is a simple “good standard of care” good enough?

- Outcome measures will play a large role in surgical care because a surgical procedure is well defined in scope and time.

- Surgery, as a discipline measured by outcomes, is best served with a measurement tool that reaches across ambulatory and hospital-based programs to define the complete patient experience.

The goals of the Surgical Quality Alliance are to:

- Bring the surgical specialties together to define the principles of surgical quality measurements.

- Collate measures of surgical care quality and share methodologies across specialties to assist in the development of meaningful tools for quality improvement.

- Develop a level of awareness about issues related to surgical care and surgical quality among interested parties including insurers and federal agencies.

Among the principles pertaining to the measurement of surgical care quality, the group agreed that:

- Quality measures should encompass the entire scope of care for surgical procedures, from the point of the decision for care until recovery is complete.

- Quality measures may include aspects of care such as structure, process, and/or risk-adjusted outcomes.

- Quality measures of structure or process should be evidence-based for the overall improvement of outcomes.

- Process measures should be assessed and endorsed as evidence-based by an appropriate multi-stakeholder organization such as the National Quality Forum.

- Measurements should focus on the IOM quality performance goals of making care safe, effective, patient-centered, timely, and efficient.

With respect to the Ambulatory Care Quality Alliance (AQA) and other structures that are involved in the development and adoption of quality measures:

- We agree that there needs to be a method for validating and selecting measures for implementation. However, quality measures across the entire depth and breath of care do not fit within one small metric box such as process measurements or risk-adjusted outcomes measurements.

- AQA needs to understand the differences between chronic and acute care and develop structure and quality metrics that reflect those differences.

Surgery is in the process of identifying suggested changes to Medicare's Physician Voluntary Reporting Program. Among the questions raised at the meeting:

- What happens in consecutive or team-based operations, in which a second surgeon comes to the operating room after the first and conducts a separate procedure (e.g., breast reconstruction)? Can both surgeons use the same set of G-codes on their claims?

- Can we substitute clinical information for administrative information in pay-for-reporting, and how?

- The instructions are incomplete on whether the G-code can be reported on a claim that is separate from the claim containing the CPT code for the primary procedure. This is a problem because claims for payment are typically filed promptly after an operation is performed, while some of the quality measures may apply to processes or complications that occur later in the global service period.

Despite these and other concerns, it is widely accepted that the process cannot be ignored and neurosurgeons need to be a part of the process for developing clinical parameters for our practices. If neurosurgeons are not involved, then, as has already been evidenced, others -- both medical specialty and non-medical specialties -- will define and dictate clinical neurosurgical practice (e.g., carotid endarterectomy guidelines published by neurology) and quality process measures without neurosurgical input.

Production of Neurosurgical Guidelines

With the derivation of process quality measures based on outcomes, particularly those based on questionable data and science, being tied to measures of performance and reimbursement, there is a sense of urgency as to the need to have a formal infrastructure in place for the development, production, and approval of evidence based documents and guidelines in order to guide scientifically valid outcomes and quality process measures specifically for neurosurgery. The present infrastructure for neurosurgical guidelines is inadequate for the needs of the specialty and a new one is being tentatively explored and proposed by the subgroup. The subgroup held an initial conference call to lay-out a preliminary plan for these activities, as follows:

- A Joint Committee of the AANS/ CNS should be established that consists of adequate manpower to serve not only as an oversight and approval of the guidelines process, but to also determine an agenda for the important topics for development and production. These topics will be prioritized as per the needs of the specialty based on timely needs for patient clinical care as well as pressing sociopolitical issues. The committee would consist of members from each of the subspecialty sections, the Washington Committee (WC), and the Council of State Neurosurgical Societies (CSNS) to represent the vast cross section of the specialty and to provide insight by the different subspecialties and individuals that might be impacted. It has been proposed that the committee will consist of: 2 members from each section, the CSNS, and the WC (n=18). These individuals would be trained in EBM guidelines methodology, establishing the agenda for guidelines production and maintenance, delegation of neurosurgical expertise for to the subspecialty section, developing the appropriate oversight and budgeting of the topic production, and lastly the finalization of topic review and approval process. The committee will also need to ensure that topic development does not repeat work by others already completed or in process.

- Preliminarily, it has been proposed that there be two types of guidelines production efforts:

    1. The first would be the partnering with other disciplines, specialties, and/or organizations in the development of guidelines where multidisciplinary roles are utilized in providing care (e.g.) movement disorders- neurosurgery, neurology, radiology, etc. Neurosurgery would serve in a supportive role, providing neurosurgical expertise to the topic being addressed. In this way, neurosurgery would ensure a role in defining the clinical parameters for neurosurgical involvement in the patient care for a particular neurologic problem, and avoid exclusion as a provider of that care. This would be the least expensive endeavor in that neurosurgery is not directly financially responsible for the production of the guidelines but rather serves as expert support.

    2. The second effort would be from within the specialty itself. While it has been preliminarily agreed that neurosurgical support and involvement is paramount, it was felt best that outsourcing of administrative activities would be a better utilization of time and effort of

those involved. Neurosurgical expertise from the sections, WC and CSNS would be necessary for topic specific production and content. It was agreed though that neurosurgery should not establish its own infrastructure, which would duplicate efforts by other more professionally experienced groups. Rather, we should establish a contractual relationship with a professional Evidence-Based Practice Center (EPC), academic department, or other professional organization for infrastructure and methodology training/facilitation support (e.g.) annual retainer fee plus confirmed per-initiative rate up to a certain number of initiatives per year. There are presently 13 EPC's funded by AHRQ of the Department of HHS. As well, there are a number of academic departments of Epidemiology and Medical Informatics that could potentially serve this role (e.g.) Dept of Medical Information & Clinical Epidemiology (DMICE) at University of Oregon (N. Carney) – currently contracted with Brain Trauma Foundation to develop the next revision of the Adult TBI Guidelines and the University of Washington, Dept Neurosurgery (N. Temkin). Once approved, exploration of potential services and bids for these types of initiatives will need to be requested following the approval by the parent organizations and formation of the Joint Committee.

Education and Protection

Recognizing the potentially unintended consequence of the use of clinical practice guidelines as inculpatory evidence in medical liability cases by the plaintiff against a neurosurgeon, it is necessary for neurosurgery to define the problem and devise strategies for the practicing neurosurgeon to counter these challenges to appropriate patient care. Once developed, dissemination of these strategies will need to be made available and accessible via educational tools or supportive documents.

It should be noted that in most states, the "standard of care" is determined by the jury. While the guidelines may be used as evidence of clinically acceptable practice, the burden of proof to show deviation from the standard is still imposed on plaintiff's counsel and the designated expert. There is no state in the U.S. where deviation from the guidelines is by definition inappropriate care or deviation from the standard of care. While physicians who provide inappropriate care for the patient are likely to be prosecuted for negligence whether or not such guidelines exist, neurosurgery must agree that from an ethical standard that those individuals who practice outside an accepted "standard" and provide medically inappropriate care should be found negligent in those cases. The guidelines would therefore provide an opportunity for a quick settlement and resolution of the case. The use of guidelines though are more likely to be supportive and exculpatory in the vast majority of cases where clinical parameters are being questioned and can and should be used in refutation of the plaintiff and their "expert" opinion to quickly dispose of a case. While a case may go forward, patient care with support of the guidelines will remain a strong case and increase the likelihood of a good outcome. The last instance, where the guidelines were not followed for medically appropriate reasons, documentation of the reasoning behind the deviation from the guidelines would serve as justification and appropriate medical decision making. This documentation should be performed whether or not practice guidelines exist in explanation of care at the time the care is given and will provide support if a case moves forward.

Suggested strategies for lessening the impact of the guidelines as inculpatory evidence include:

1. Develop a disclaimer for each guideline topic removing them as a claim of "standard of care" but rather potential algorithm of care. This method has been used by a number of societies

involved in guidelines efforts. The following is a sample draft disclaimer, as amalgamated from multiple other medical societies' own disclaimers and could be used in future efforts:

Draft Disclaimer

"DISCLAIMER - The AANS and CNS are not engaged in rendering professional medical services and assume no responsibility for patient outcomes resulting from application of these general recommendations in specific patient circumstances. Adherence to these clinical practice parameter guidelines does not necessarily assure a successful medical outcome. The information contained in these guidelines reflects published scientific evidence at the time of completion of the guidelines and cannot anticipate subsequent findings and/or additional evidence and, therefore, should not be considered inclusive of all proper procedures and tests or exclusive of other procedures and tests that are reasonably directed to obtaining the same result. Medical advice and decisions are appropriately made only by a competent and licensed physician who must make decisions in light of all the facts and circumstances in each individual and particular case and on the basis of availability of resources and expertise. Guidelines are not intended to supplant physician judgment with respect to particular patients or special clinical situations and are not a substitute for physician-patient consultation. Accordingly, the AANS and CNS consider adherence to these guidelines to be voluntary, with the ultimate determination regarding their application to be made by the physician in light of each patient's individual circumstances."

2. Provide education as to the "best practice" and alternate schools of thought. Included in each of the guidelines topics could be not only the scientific and evidentiary findings from the guidelines but data and instances of medically appropriate deviation of care from the guidelines. By providing this information and examples of appropriate deviation, introduction of different schools of thought on a subject could be recognized.

3. Provide education as to determination of true "standards." The guidelines often represent an amalgamation of thinking of risk/benefit optimization and cost-optimization. Both risk/ benefit and cost optimization may be argued as the basis of the "standard" but should be clarified that despite equal risk / benefit efficacy, the least expensive technique should not be considered the standard of care.

4. Provide easily accessible, quick points of the findings of the guidelines on particular topics. These would facile short outlines of findings with reference to the larger document, data, and explanation as needed. These outlines for recommendations would be provide a useful tool for the practicing physician prior to an implementation of strategy of care without the burdensome need to review the complete literature and supportive proof/ documentation in the guidelines document. Ensuring that these guidelines and quick references are readily available on the AANS and CNS websites is recommended as well.

5. Develop educational CME as to the guidelines methodology and their use. By having participated in the guidelines process or education on the topic of its development, personal "expertise" of its application into everyday practice could be used for explanation and providing appropriate documentation in "deviations" from the outlined recommendations.

QUALITY IMPROVEMENT WORKGROUP
Clinical Guidelines Subgroup

Members: Drs. Adelson (Chair), Bloomgarden, Wohns, VanDerVeer, Resnick, Tippett, Harbaugh, Ms. Orrico and Peck

Draft Summary and Outline of Issues and Objectives

Goal of the Quality Improvement Workgroup, Clinical Guidelines Subgroup

The general goal of the clinical guidelines subgroup is to propose how neurosurgery can best be involved in the guidelines development process, as well as how best to disseminate the information derived from this process for use by the practicing physician. This dissemination of information will include not only potential algorithms for clinical care, but also education for how best to use the guidelines in the practice of medicine for defining outcomes and actual "standards of care" for medical liability issues.

Evidence Based Medicine and Clinical Practice Guidelines

Evidence Based Medicine (EBM) has recently become the basis in many instances for "best" clinical practice but also been used to define quality parameters and outcomes assessments. In addition, it has served in defining the optimization of cost and risk/ benefit assessment particularly for new technologies and in surgery, new procedures. EBM helps define the extent of the available scientific evidence along with an assessment of the quality of the science. Clinical guidelines serve as an overview of that evidence with the addition of recommendations for clinical algorithms based on the strength of that scientific evidence. The goal of developing clinical guidelines is for improving and optimizing patient care and potentially cost. It is unrealistic to expect that physicians will be able to sort through all of the available literature on every topic for which they provide care. Clinical Guidelines provide the periodic overview of the status of the literature with updates with each revision. ***It is generally supported that guidelines should not be construed as the "standard of care" and should not be used to strictly dictate the care and the practice of medicine.*** Rather, they should serve as a "guide" based on the existing science.

While the use of guidelines or evidentiary based documents to outline clinical care is presently widespread across many specialties and disciplines, there have been a number of concerns raised about their use outside the practice of medicine. For example:

- Clinical practice guidelines have been recently cited by regulatory agencies to define and measure how well a procedure was performed and whether it should have been performed at all. The potential cost-savings benefit of reducing the number of unnecessary or questionable surgical procedures performed in the U.S. may be realized with the strict "interpretation" of these clinical practice guidelines and will likely be a prominent quality measure in these so-called pay-for-performance (P4P) or value-based purchasing programs. Instances where techniques that are not supported by evidence could be used to deny payment and/ or to minimize overall payments to physicians.

- There is a great deal of concern that clinical guidelines may be inappropriately used as inculpatory evidence in medical liability proceedings. Therefore, the benefit to patients and need for clarification of the strength of the evidence for different clinical situations and outcomes remains paramount in the present climate.

Coding and Reimbursement Committee Update

CPT Coding Issues

AANS/CNS Code Proposals

Jeff Cozzens, MD, and Patrick Jacob, MD, presented four code change proposals to the AMA CPT Editorial Panel on February 9, 2005. The code changes were for the following:

1. Closed skull fracture code deletion

Drs. Cozzens and Jacob asked the panel to consider eliminating CPT Code 21300, *Closed treatment of skull fracture without operation,* as it is rarely used and obsolete. However, panel members felt that the code should be maintained, even if rarely used.

2. Intracranial Pressure Monitoring Devices

An editorial change to the codes below was requested by the AANS/CNS Trauma Section to allow for the coding of various implanted intracerebral monitoring devices. Drs. Cozzens and Jacob presented the following editorial changes to expand the code to allow for new technology for more diverse monitoring of cerebral and intracranial physiology:

▲⦸**61107** Twist drill hole for subdural, intracerebral or ventricular puncture; for implanting ventricular catheter, ~~or~~ pressure recording device or other intracerebral monitoring device

(Report 61107 for each twist drill hole)

▲⦸**61210** Burr hole~~(s)~~; for implanting ventricular catheter, reservoir, EEG electrode(s), ~~or~~ pressure recording device or other cerebral monitoring device (separate procedure)
(Report 61210 for each burr hole)

Some panel members expressed concern about the variation in the use of the word “hole and hole(s)” in the Burr Hole family of codes, as presumably the work involved would be different for multiple holes and one hole. However, the panel suggested that these questions can be addressed at a later date and should not delay the request to change the codes to allow for intracerebral monitoring devices.

3. Editorial change to Neuroendoscopy “Add On” Code

Drs. Cozzens and Jacob requested that CPT Code 62258 *Removal of complete cerebrospinal fluid shunt system; with replacement by similar or other shunt system* be added to the list of CPT Codes that can be used with the neuroendoscopy add-on code 62160. The code was inadvertently left off from the list of codes to be used with neuroendoscopy and the panel agreed. CPT Code 62258 was added as follows:

▲+**62160** Neuroendoscopy, intracranial, for placement or replacement of ventricular catheter and attachment to shunt system or external drainage (List separately in addition to code for primary procedure)

(Use 62160 only in conjunction with 61107, 61210, 62220, 62223, 62225, ~~or~~ 62230, or 62258)

4. Convection Enhanced Delivery (CED)

The AANS/CNS Tumor Section requested a code for CED, which use stereotactically placed catheters in the brain around a tumor resection cavity to deliver an anti-tumor agent. Drs. Cozzens and Jacob presented the following suggested wording to the panel:

●00X1T Stereotactic placement of infusion catheter(s) in the brain for convection enhanced delivery of therapeutic agent(s), including computerized stereotactic planning and burr hole(s) (Do not report with 20660 or 61795)

ASTRO Stereotactic "Body Radiation Therapy" Code Proposal

The American Society for Therapeutic Radiology and Oncology (ASTRO) submitted a proposal to the CPT editorial panel to change two category III codes for "stereotactic body radiation therapy" to category I status. In the code proposal, ASTRO defined Stereotactic Body Radiation Therapy (SBRT) as "any stereotactic radiation therapy (SRT) treatment other than stereotactic radiosurgery." ASTRO defined SRS as "stereotactic-based radiation treatment for cranial lesions delivered in a single fraction as a complete course."

The AANS and CNS sent a letter to Tracy Gordy, Chairman of the CPT Editorial Panel, asking that the ASTRO proposal be postponed until after a scheduled March 20, 2006 meeting at which ASTRO and AANS and CNS leaders plan to discuss radiosurgery issues. **(See attached)** On February 9, 2005, a multispecialty group workgroup met to consider the concerns of neurosurgery. Attending the meeting were Drs. Cozzens and Jacob; William Thorwarth, MD, a radiologist and Vice-Chair of the CPT Editorial Panel; Richard Whitten, Vice-Chairman of the RUC and a carrier medical director for Noridian; representatives of ASTRO, and representatives of eight surgical societies. Although Dr. Whitten seemed to understand the concerns of neurosurgery, especially that SRS can be done in up to five sessions and should not be limited to cranial lesions, he did not feel that it was appropriate to postpone the proposal and felt that there was support to pass the proposal, despite the objections of neurosurgery.

Following the meeting, Drs. Cozzens and Jacob stated that they were not comfortable with the proposal going forward, despite agreement from Dr. Whitten that SRS could be used for extra-cranial applications. Subsequently, Drs. Cozzens and Jacob suggested that a parenthetical be inserted to direct coders to 61793 for SRS when reported by a surgeon. The proposal passed on February 10, 2005 as follows. The added parenthetical is in bold. The goal of the addition was to clarify that SRS was performed by surgeons and to avoid any changes to CPT Code 61793 that could trigger review by the RUC.

λ774XX1 Stereotactic body radiation therapy, treatment delivery, per fraction to one or more lesions, including image guidance, entire course not to exceed 5 fraction(s)

(For cranial lesion(s), use 7741X1 or 774X2)

(Do not report with 77401-77416, 77418)

λ774XX2 Stereotactic body radiation therapy, treatment management, per treatment course, to one or more lesions, including image guidance, entire course not to exceed 5 fractions

(Do not report with 77427, 77431,77432)

(When stereotactic radiation therapy is performed jointly by a surgeon and radiation oncologist (eg spinal or cranial), the surgeon reports radiosurgery with 61793)

IDET

On February 10, 2006, the CPT Editorial Panel approved two new Category I codes for Percutaneous Intradiscal Annuloplasty by electrothermal methodology (IDET) including fluoroscopic guidance. The proposal was opposed by specialties representing surgeons who perform spine operations and supported by radiology groups and several pain societies.

CPT Assistant Advisory Board

The AMA has announced plans to create a CPT Assistant Editorial Board. This board would review and comment on information submitted for publication for the AMA CPT Assistant publication, which is designed to help explain the appropriate use of CPT codes. The board will include a representative from the CPT Advisors. AANS/CNS plan to nominate Jeff Cozzens, MD to serve on the board.

Future CPT Representation. The Coding and Reimbursement Committee has discussed efforts to keep a neurosurgeon on the CPT panel when Dr. Hassenbusch finishes his term, as he is not eligible to be reappointed. Dr. Cozzens is willing to serve if selected. Cathy will prepare a time table for our efforts, which will include asking for letters from other societies in support of neurosurgical representation and having support from neurosurgeons leaders at AMA, such as Peter Carmel.

RUC Issues

Total Disc Arthroplasty Lumbar

On February 10, 2006, John Wilson, MD, and Patrick Jacob, MD, presented three new codes for Total Disc Arthroplasty (TDA) Lumbar to the RUC for valuation for work and practice expense relative value units.

Drs. Wilson and Greg Przybylski, MD successfully defended the AANS/CNS request for 75 minutes of pre-service clinical labor time practice expense for the procedures, despite opposition from member of the RUC Practice Expense Review Committee (PERC). The 75 minutes of pre-service clinical labor time for all complex spine procedures was proposed by Jamie Metcalf, MD and Dr. Przybylski, defended and agreed to as a standard pre-service time by the Practice Expense Advisory Committee (PEAC) in March 2002. The PEAC assigned a standard of 60 minutes of pre-service clinical labor time for many 90 day global services, but agreed to 75 minutes as the standard time for complex spine procedures. Neurosurgery has successfully defended the additional time for the complex spine procedure, despite many challenges by PERC members from primary care specialties.

The Relative Values for Work (RVW) passed for the new codes were:

228X1 TDA, including anterior approach, including diskectomy to prepare interspace (other than for decompression), lumbar, single interspace: 25.50 RVW

228X2 Revision of TDA, including anterior approach, lumbar, single interspace: 30.57 RVW

228X3 Removal of TDA, including anterior approach, lumbar, single interspace: 29.57 RVW

Functional MRI Codes

The American Academy of Neurology and several radiology groups presented new codes for Functional MRI (fMRI). AANS and CNS CPT Advisors had participated in a workgroup at several CPT meetings to try to resolve differences between the specialties interested in fMRI. After several years, the groups came to agreement and codes passed by CPT last October were brought to the RUC on February 4, 2005. AANS and CNS indicated a level 2 interested in the codes, which means the specialty was not planning to survey the codes but wished to have the option to comment on values recommended.

Work values passed by the RUC for fMRI were as follows:

705X54 *Magnetic resonance imaging, brain, functional MRI; including test selection and administration of repetitive body part movement and/or visual stimulation, not requiring physician or psychologist administration*: 2.11 RVW

705X55 *Magnetic resonance imaging, brain, functional MRI; requiring physician or psychologist administration of entire neurofunctional testing*: 2.54 RVW

9604X1: *Neurofunctional testing selection and administration during non-invasive imaging functional brain mapping, with test administered entirely by a physician or psychologist, with review of test results and report*: 3.43 RVW

Evaluation and Management Code Five Year Review

On February 3, 2005, the RUC reviewed and made recommendations for the remaining 9 Evaluation and Management (E/M) Codes to be considered as part of the Five Year Review of the Medicare Fee Schedule. The remaining codes were among the highest volume codes in the Medicare Fee Schedule. CPT Code 99213 accounted for over $5.2 billion in allowed charges in 2004. The RUC recommended that CPT Code 99213, which is currently valued at .67 RVW be increased to .92 RVW. The impact to the Medicare fee schedule from the proposed increases to the E/M RVWs is not completely clear, but some estimates have suggested that they would result in about a $4 billion dollar increase in payment for these codes, which would require a 4 percent reduction to the Medicare conversion factor (although recent information suggests that the impact may be as much as a 6 percent reduction.

Medicare Practice Expense Valuation

On February 15, 2005, CMS hosted a town meeting on practice expense (PE) issues at its headquarters in Baltimore. CMS plans to release a new “bottom up” methodology for the 2007 Medicare Fee Schedule and is in the process of soliciting comments on the issue. AANS/CNS

Washington Office Staff attended the meeting. At the meeting, CMS staff reviewed the PE issues from the 2006 Medicare Fee Schedule proposed rule; outlined four possible methods to determine PE with impact tables for each methodology; and provided details on the type of input they are seeking from interested physician societies. They encouraged societies to submit comments based on the meeting within the next 30 days, after which they will issue a Notice of Proposed Rulemaking (NPRM) in the *Federal Register*.

Under each of the four PE scenarios presented, Neurosurgery PE payments would be reduced by about 1 percent (which is better than earlier predictions of -4 percent). CMS emphasized that the scenarios presented did not incorporate any of the changes in work values resulting from the Medicare Fee Schedule Five Year Review, which will be incorporated in the 2007 Medicare Fee Schedule. CMS expects substantial changes if the RUC recommendations for Evaluation and Management codes are accepted, particularly because physician time is an important factor in indirect practice expense. In addition, they stated that the four proposals were just a sample of the countless possible combinations of factors determining PE.

CMS appears to be committed to changing the PE methodology from the current "top-down" methodology to a "bottom-up" methodology that distributes PE RVUS per code, as opposed to the top-down method that distributes PE RVUS across specialties. Also, the new methodology will eliminate the non-physician work pool and allow those practitioners to be paid from the total PE payment pool that includes physicians. This change will reduce the total percentage of money allocated to several specialties, particularly specialties with codes that are used by non-physician practitioners. The specialties most substantially impacted appear to be almost exclusively non-surgical.

Key issues on which CMS is requesting comments include the percentage distribution be between direct and indirect Practice Expense. The current distribution is approximately 33% direct expenses and 67% indirect expenses. Potential changes in this percentage distribution impact different specialties based on the amount of PE attributable to labor, supplies, and equipment. Specialties with higher physician work tend to have greater indirect PE. In addition, CMS is reviewing methods to account for the percentage of PE that is allocated to labor, supply and equipment costs. Obviously, specialties with high equipment costs in the non facility setting, such as radiology, would want to see higher weight given to equipment.

Finally, CMS is seeking input from societies on whether and how to conduct a multispecialty PE survey, possibly coordinated by the American Medical Association (AMA) to replace the discontinued AMA SMS survey. Unsurprisingly, the societies such as ASTRO, American Academy of Dermatology, and others that completed supplemental PE surveys in 2005 opposed the use of a multispecialty survey if the survey data would be used in place of the specialty specific supplemental survey data. The supplemental surveys resulted in figures of over twice the physician as compared with the CMS calculated physician cost per hour. However, CMS staff is strongly in favor of a multispecialty survey.

Coverage Issues

Medicare Coverage of Artificial Discs

On February 15, 2006, CMS posted on its website a notice of intent to issue a non-coverage decision for Total Disc Arthroplasty (TDA). The notice follows a request for non-coverage review for TDA made by Richard Deyo, MD, on August 16, 2005. In September, AANS and CNS submitted comments, arguing that it was premature for CMS to render a definitive decision on this matter as

there isn't enough data on the Medicare population to determine whether or not this is an acceptable procedure. We noted that careful patient selection should be left up to the surgeon and although the procedure may not be appropriate for all patients in the Medicare population, the few who would be appropriate should not be denied coverage arbitrarily.

The comment period for the proposed non-coverage ends on March 17, 2006. AANS/CNS Washington Office staff will coordinate review of the proposal and development of official comments with the Spine Section for review by AANS and CNS leadership.

The link for the full memo is: http://www.cms.hhs.gov/mcd/viewdraftdecisionmemo.asp?id=170

Medicare Coverage of Carotid Stents

On February 8, 2006 the American College of Cardiology (ACC) sent a letter announcing that, following several months of collaboration between physician-specialists from multiple societies, the carotid intervention registry dataset is in final draft form. In its letter, the ACC has asked for comments on the dataset, which is designed to provide a consistent and agreed-upon outcomes database across disciplines. The dataset is the culmination of a multispecialty society group organized following the Medicare coverage of Carotid Stents last year. ACC has asked that AANS and CNS appoint an individual to represent neurosurgery and to provide feedback on the carotid intervention registry data elements and definitions. The AANS/CNS CV Section is in the process of identifying a representative.

Medicare Coverage of Intracranial Stents

The Medicare Fee Schedule for 2006 listed five new codes that were passed by the RUC in April 2005 for Intracranial Angioplasty and Stenting, as non-covered. Two of the codes involve the use of an intracranial stent and three codes are for treating vasospasm. AANS and CNS submitted comments asking that the RVWs for these procedures be published, even if CMS did not intend to pay for them, in order for private payors to have the RUC passed values. Subsequently CMS issued a correction notice to the 2006 Medicare Fee Schedule and listed values for two codes that use the intracranial stents but did not list the values for the balloon angioplasty procedures for vasospasm. Dr. Przybylski raised this to CMS staff at the RUC and HHS Practicing Physician Advisory Committee (PPAC) meetings.

On February 9, 2006, CMS received a request from Jon Hernandez with Boston Scientific Corporation to provide coverage for intracranial stenting with angioplasty with a device which recently was approved by the FDA for a Humanitarian Device Exemption. The device, the Wingspan Stent System with Gateway PTA Balloon Catheter, is indicated for improving cerebral artery lumen diameter in patients with intracranial atherosclerotic disease, refractory to medical therapy, in intracranial vessels with $\geq$ 50% stenosis that are acceptable to the system. This procedure is currently noncovered under a National Coverage Decision for Percutaneous Transluminal Angioplasty (PTA). The PTA coverage was amended in March 2005 to allow PTA for carotid arteries under certain conditions. However, PTA for vertebral and cerebral arteries remains non-covered. Comments on the request are due March 11, 2006.

Washington office staff is working with John Wilson, MD, and leaders of the AANS/CNS CV Section to determine comments to the pending coverage decision on the intracranial stent procedures and the best way to proceed to request coverage for the for vasospasm procedures. One approach would be to request a coverage decision for the vasospasm procedures separately from the Boston Scientific request for coverage of the procedure using the Wingspan stent. Coverage of the Wingspan stent

may be predicated on maintaining a database or registry. Issues to be raised for the vasospasm procedures differ from the stent and the overall number of procedures is likely to be low.

Stereotactic Radiosurgery Coverage Proposal

The Noridian Part B Carrier which covers 11 western states issued a Local Coverage Decision (LCD) on body radiosurgery (attached) late last year. **(See attachment)** The public comment period for the proposal began on December 22, 2005 and closes on April 30, 2006.

Several items in the proposal are of concern. First, the definitions of SRS and SRT are the ASTRO definitions and conflict with the definition of SRS developed by AANS and CNS. Second, the policy seems to allow for a team approach using a neurosurgeon and a radiation oncologist only for SRS for cranial applications; but not to require or even allow a surgeon for SRS for spine or elsewhere in the body. Third, the proposal is very detailed in listing the requirements for the neurosurgeon to be paid for SRS but requirements for the Radiation Oncologist are not specified.

On February 4, 2005, the AANS and CNS hosted a meeting in Miami with Richard Witten, MD, Carrier Medical Director for Noridian and Vice-Chairman of the RUC. Attending from AANS and CNS were Troy Tippett, MD, AANS/CNS Washington Committee Chair; Gene Barnett, MD, Chair of the AANS/CNS SRS Task Force; Mark Linskey, MD, Vice-chair of the SRS Task Force; John Wilson, MD, AANS RUC Advisor and Patrick Jacob, MD, CNS CPT Advisor; and AANS/CNS Washington Office Staff. Dr. Whitten seemed receptive to the expansion of the definition for SRS to include some spine procedures and asked for additional information regarding the medical necessity for the presence of a surgeon during SRS.

The SRS Task Force is in the process of reviewing the Noridian policy and drafting a comment letter to submit on behalf of AANS and CNS. The letter will incorporate the contents of the Task Force's Monograph, which will be published in the *Journal of Neurosurgery* and *Neurosurgery*. **(See attachment)**

Payor Coverage Policy for Image Guide Systems

AANS/CNS Washington Office is continuing to learn of denials by payors for image guidance with surgery. Last year, the Blue Cross/Blue Shield plans of Texas, Illinois, and New Mexico issued a policy not to pay for image guidance with surgery, CPT Code 61795. In response, Pat Jacob, MD, drafted a detailed letter for AANS and CNS stating strongly that the procedure is not experimental and providing strong clinical evidence for the benefits of the technology. Washington Office staff is coordinating a response to the denials and make the case that they are inaccurate.

American Association of Neurological Surgeons

AMERICAN ASSOCIATION OF NEUROLOGICAL SURGEONS
and
CONGRESS OF NEUROLOGICAL SURGEONS

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January 30, 2006

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Dear Ted,

As you may be aware, ASTRO has submitted a CPT code proposal for stereotactic body radiation therapy for consideration at the upcoming February CPT Editorial Panel meeting. It was our understanding when we met last March, that both of our groups were going to refrain from submitting any additional code proposals until we could hold a follow-up meeting to discuss various coding and reimbursement matters. Unfortunately, because of some scheduling issues on your end, we were not able to convene this follow-up meeting, which is currently scheduled for March 20, 2006 in Washington, DC.

The AANS and CNS continue to have concerns with these code proposals, and we therefore are planning to request that the CPT Editorial Panel postpone consideration of the ASTRO proposal until we have had the opportunity to meet in March. The current proposals may affect non-cranial areas of neurosurgery as well as other surgical specialties' procedures, and we therefore would like the opportunity to discuss these codes with ASTRO prior to their consideration by CPT.

We look forward to our continued discussions in March.

Sincerely,

Troy M. Tippett, M.D.

Troy M. Tippett, MD

cc: Jeffrey Cozzens, MD, AANS CPT Advisor
Patrick Jacob, MD, CNS CPT Advisor

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February 6, 2006

Tracy R. Gordy, MD
Chairman, CPT Editorial Panel
American Medical Association
515 N. State Street
Chicago, IL 60610

Dear Dr. Gordy:

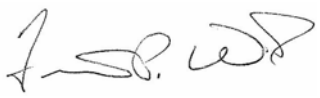
On behalf of the American Association of Neurological Surgeons (AANS) and the Congress of Neurological Surgeons (CNS) we would like to ask that the Stereotactic Body Radiotherapy proposal sponsored by the American Society of Therapeutic Radiology and Oncology (ASTRO) be postponed and a workgroup be established to consider issues associated with stereotactic radiosurgery and radiotherapy.

As you may recall, AANS and CNS have had a number of concerns about proposals offered by ASTRO. We are especially troubled by differences in the definition of radiosurgery. Leaders from our organizations met in March of 2005, but did not come to a final resolution on some key issues involving stereotactic radiosurgery and stereotactic radiotherapy. We have plans for a second meeting with ASTRO next month and hope to be able to finalize a definition of radiosurgery at that time.

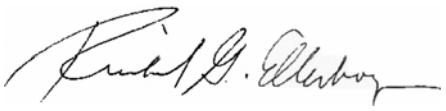
Therefore, we respectfully ask that consideration of ASTRO's Stereotactic "Body Radiotherapy" proposal not be discussed at the upcoming February CPT Editorial Panel Meeting in San Juan. We feel this would allow all parties concerned to have input into this important issue. A meeting has been scheduled with interested advisors and staff for Thursday, February 9, at 12 noon. We expect many of our concerns to be raised at that meeting and hope it will be the beginning of a more clear understanding of stereotactic radiosurgery.

Thank you for your time and attention.

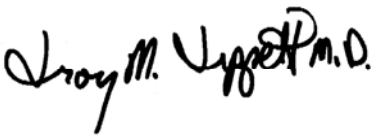
Sincerely,



Fremont P. Wirth, MD
AANS, President



Richard Ellenbogen, MD
CNS, President



Troy Tippett, MD, Chairman
AANS/CNS Washington Committee

Cc: Marie Mindeman
Michael Bebe

WASHINGTON OFFICE
KATIE O. ORRICO, *Director*
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February 8, 2006

Richard G. Ellenbogen, M.D., F.A.C.S.
President
Congress of Neurological Surgeons
10 North Martingale Road, Suite 190
Schaumburg, IL 60173

RE: Review/Comment Requested on Final Draft of Carotid Intervention Registry Dataset

Dear Dr. Ellenbogen:

It is our pleasure to announce that after several months of collaboration between physician-specialists from multiple societies, the carotid intervention registry dataset is in final draft form. The long-awaited dataset, designed to provide a consistent and agreed-upon outcomes database across disciplines, is now available for review and feedback by each society.

As agreed, the dataset is intended to be transparent in its data elements and definitions, as well as to be consistent with the database currently available through the Society for Vascular Surgeons (SVS). This collaboration will ensure standardized data definitions across specialties, hospitals, and operators, thus avoiding redundant and non-comparable data collection efforts. The resulting uniform carotid intervention database will provide the opportunity to:

- Measure outcomes, ensure high quality standards, and establish benchmarks;
- Eliminate the possibility of competing or conflicting guidelines; and
- Standardize data acquisition across disciplines, with the ultimate goal to evaluate results and develop "best practices" in order to optimize care for patients.

In the next week, please consider designating an individual who is willing to represent your specialty and is able to provide feedback on the carotid intervention registry data elements and definitions. To best facilitate the work of this group, we also encourage you to select a reviewer that has experience with databases, registries, and/or clinical trials.

Specifically, we are soliciting comments based on the following considerations:

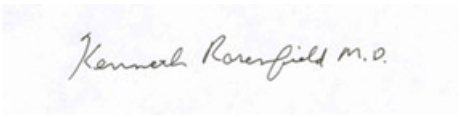
- Inclusiveness and clarity of the data elements and definitions
- Ability of the data elements and definitions to track outcomes for carotid artery stenting and carotid endarterectomy
- Review of the data elements and definitions from a multidisciplinary perspective

In an effort to move this process forward, the American College of Cardiology will provide dedicated staff and resources to support the group. The timeline for this project will commence with an initial deadline for designating a representative by **Friday, February 17th, 2005**. An ACC staff member will then contact your representative to provide specific instructions in submitting comments for the registry. A private website has been designed so that reviewers may submit their comments through an online form. All reviewers should submit their comments online by **Friday, March 17th, 2006.** The comments will then be compiled by ACC staff and sent for committee review.

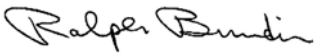
We believe that your organization will make a valuable contribution to this endeavor. Each of the societies holds the strong belief that the success of accurately defining and assessing the outcomes of carotid intervention procedures depends on the cooperation of all key stakeholders.

To designate a representative from your society, please contact Ms. Fareen Pourhamidi via email at **fpourham@acc.org**; or telephone at **(800) 253-4636**, **ext. 614, by February 17th**. As always, please do not hesitate to contact us if you have any questions or concerns regarding the carotid intervention registry.

Sincerely,



Kenneth Rosenfield, MD, FACC
Chair, Carotid Intervention Registry
Office: (617) 724-1935



Ralph G. Brindis, MD, MPH, FACC
Chief Medical Officer, ACC-NCDR®
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cc: Stephen E. Coy
Kathleen Hewitt

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Medicare

DRAFT DRAFT DRAFT

Stereotactic Radiosurgery & Stereotactic Body Radiation Therapy

Noridian Administrative Services, LLC

Contractor Information	
Contractor Name	Noridian Administrative Services, LLC
Contractor Number	00820 – CO, ND, SD, WY 00821 – AK, AZ, HI, NV, OR, WA 00826 – IA
Contractor Type	Carrier
LCD Information	
LCD Database ID Number	DL17506 – CO, ND, SD, WY DL19880 – AK, AZ, HI, NV, OR, WA DL19883 – IA
LCD Version Number	
LCD Title	Stereotactic Radiosurgery & Stereotactic Body Radiation Therapy
Contractor's Determination Number	B2003.36 R1
AMA CPT / ADA CDT Copyright Statement	CPT codes, descriptions and other data only are copyright 2005 American Medical Association (or such other date of publication of CPT). All Rights Reserved. Applicable FARS/DFARS Clauses Apply. Current Dental Terminology, (CDT) (including procedure codes, nomenclature, descriptors and other data contained therein) is copyright by the American Dental Association. © 2002, 2004 American Dental Association. All rights reserved. Applicable FARS/DFARS apply.
CMS National Coverage Policy	Title XVIII of the Social Security Act, Section 1862(a)(1)(A). This section allows coverage and payment for only those services that are considered to be medically reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member. Title XVIII of the Social Security Act, Section 1833(e). This section prohibits Medicare payment for any claim, which lacks the necessary information to process the claim.

	Medicare National Coverage Determinations Manual, Publication 100-3, Chapter 1, Part 2, Section 160.4 (formerly CIM 35-84) Medicare Program Integrity Manual, Chapter 13.7.1 and Chapter 13.11, E, 3.
Primary Geographic Jurisdiction	AK AZ CO HI IA ND NV OR SD WA WY
Oversight Region	Region X
CMS Consortium	Western
Projected Determination Effective Date	For services performed on or after 05/15/2005
Original Determination Ending Date	
Revision Effective Date	
Revision Ending Date	
Indications and Limitations of Coverage and/or Medical Necessity	Stereotactic radiosurgery (SRS) and stereotactic body radiation therapy (SBRT) are forms of computer-assisted radiation therapy for intracranial (SRS) and extracranial (SBRT) lesions using three dimensional planning of stereotactic and convergent beam technologies, such as Gamma-ray photons, x-ray photons, protons, helium ions, neutrons, or multiple non-coplanar or coplanar photon arcs (e.g. Gamma knife). This policy recognizes two distinct treatment approaches. 1. Stereotactic radiosurgery (SRS) involves the delivery of a single fraction of high dose radiation to a defined volume of intracranial tissue, completed in a single session. 2. Stereotactic body radiation therapy (SBRT), delivers a prescribed dose of radiation, with high precision, either to a non-cranial location in one or more fractions or to a defined volume of intracranial tissue in a series of doses fractionated over time. The target(s) is (are) localized by stereotactic methods and treatment is delivered using multiple arcs and angles. Lesions that are difficult or impossible to approach surgically can be treated with vital parts of the brain and other normal tissue spared as the technology

	allows high precision dose specifications (isocenter and target volume). A variety of methods have been developed to provide a reference system for localization to determine the target coordinates. These include fixed frame and frameless systems, removable frame systems, rigid masks, casts and image-guided systems, with use of rigid landmarks or fiducials (such as gold markers or screws). Regardless of the number of sessions, both SRS and SBRT procedures include the following components: 1. Position stabilization (attachment of a frame or frameless) 2. Imaging for localization (CT, MRI, or angiography, etc.) 3. Computer assisted tumor localization (i.e. "Image Guidance") 4. Treatment planning - number of isocenters, number, placement and length of arcs, beam size and weight, etc. 5. Isodose distributions, dosage prescription and calculation 6. Setup and accuracy verification testing 7. Simulation of prescribed arcs or fixed portals For SRS, CPT code 61793 may be billed by the neurosurgeon, as one member of the team, when and **only** when this physician is (a) present, (b) medically necessary and (c) fully participating, during the full course of the procedure. It is not appropriate to bill for this code for any other circumstance. Note that a number of CPT codes are bundled into CPT 61793. This bundling delineates the customary division of labor between the neurosurgeon and the radiation oncologist. The neurosurgeon may not bill both 61793 and the 77000 codes. The radiation oncologist will customarily bill 77432 and the other physics codes reflecting work done. The radiation oncologist may not bill both 61793 and 77432 since the first will bundle the latter as well as the other codes. For SBRT, treatment may be repeated a number of times with equal precision, as the target is calculated from the position of a stabilizing framework, anatomic landmarks or fiducials (e.g. gold markers). Since the nature of SBRT allows high doses with high precision, more than five fractions for a course of treatment are not necessary and will not be covered. **This LCD addresses only CPT codes 61793, 77432, 0082T and 0083T.** The other radiation oncology codes that may appropriately be billed by the radiation oncologist are dependent on the fractionation scheme (single or multiple), site (cranial or body), delivery technique (cobalt 60 or linac [robotic or non-robotic]), and delivery setting (hospital or freestanding). Some of these other radiation oncology codes are addressed in the separate LCD, B2003.37, Radiation Oncology: External Beam/Teletherapy. When SRS or SBRT delivery is used, then the SRS or SBRT delivery code is the only delivery code billed. It is not appropriate to bill more than one treatment delivery code, even though some types of delivery may have elements of several modalities (for example, a

	stereotactic approach with IMRT). **Indications for SRS or SBRT for sites above the neck:** 1. Primary central nervous system malignancies, generally under 5 cm. 2. Primary and secondary tumors above the neck. 3. Benign brain tumors such as meningiomas and acoustic neuromas 4. Cranial arteriovenous malformations and hemangiomas, not suited for other treatment modalities 5. Other cranial non-neoplastic conditions for which it has been proven effective, e.g., movement disorders such as Parkinson's disease, essential tremor and other disabling tremor that are refractory to conventional therapy 6. As a boost treatment for larger cranial lesions that have been treated initially with external beam radiation therapy or surgery (i.e., grade III and IV gliomas, oligodendrogliomas, sarcomas, and chordomas) 7. Metastatic brain lesions, generally limited in number, with stable systemic disease, Karnofsky Performance Status 70 or greater, and otherwise reasonable survival expectations 8. Relapse in a previously irradiated field **Indications for SBRT treatment of spinal neoplasms:** NAS covers primary and metastatic tumors of the spine when and only when <u>each</u> of the following criteria are met, and each specifically documented in the medical record: 1. The characteristics and number of lesions and the necessity for intervention would otherwise qualify the patient to be a candidate for necessary surgical resection 2. Other forms of radiotherapy, including but not limited to external beam and IMRT, cannot be as safely or effectively utilized, and 3. For specific clinical reasons (as distinct from patient, family or provider preference), the patient is not an acceptable candidate for the surgery and/or the necessary anesthesia. **Indications for SBRT for lung or liver neoplasms:** NAS covers primary and metastatic tumors of the lung or liver when and only when <u>each</u> of the following criteria are met, and <u>each</u> specifically documented in the medical record: 1. The characteristics and number of lesions and the necessity for intervention would otherwise qualify the patient to be a candidate for necessary surgical resection 2. Other forms of radiotherapy, including but not limited to external beam and IMRT, cannot be as safely or effectively utilized, and 3. The tumor burden can be completely targeted with acceptable risk to critical normal structures 4. For specific clinical reasons (as distinct from patient, family or provider preference), the patient is not an acceptable candidate for the surgery and/or the necessary anesthesia.

	5. If the tumor histology is small cell, germ cell or lymphoma, effective chemotherapy regimens are exhausted or not feasible. **Indications for SBRT for solid kidney or pancreas neoplasms:** NAS covers primary and metastatic solid tumors of the kidney or pancreas when and only when each of the following criteria are met, and each specifically documented in the medical record: 1. The characteristics and number of lesions and the necessity for intervention would otherwise qualify the patient to be a candidate for necessary surgical resection 2. Other forms of radiotherapy, including but not limited to external beam and IMRT, cannot be as safely or effectively utilized 3. Other forms of ablative therapy (e.g. thermotherapy, radio frequency ablation, chemical ablation) cannot be as safely or effectively utilized 4. For specific clinical reasons (as distinct from patient, family or provider preference), the patient is not an acceptable candidate for the surgery and/or the necessary anesthesia. 5. If the tumor histology is small cell, germ cell or lymphoma, effective chemotherapy regimens are exhausted or not feasible. **Indications for SRS or SBRT for areas which have received prior radiotherapy and for that reason require the precision of stereotactic radiotherapy:** Lesions which have received previous radiotherapy or are immediately adjacent to previously irradiated fields, where the additional precision of stereotactic radiotherapy is required to avoid unacceptable tissue radiation will be covered when other conditions of coverage are met (see "Limitations" below) and this necessity is documented in the medical record. **Other neoplasms:** Lesions of bone, adrenal, prostate, breast, uterus, ovary and other internal organs not listed above are not covered for SRS or SBRT as literature does not support an outcome advantage over other conventional radiation modalities. **Limitations:** Coverage will be denied for each of the following: 1. Treatment for anything other than a severe symptom not responsive or reasonably amenable to another therapy. 2. Patients with wide-spread cerebral or extra-cranial metastases 3. Patients with poor performance status (Karnofsky Performance Status **less than 40**), - see Karnofsky Performance Status below. 4. A claim for stereotactic cingulotomy as a means of psychotherapy, considered investigational, per Medicare National Coverage Determinations Manual, Publication 100-3, Chapter 1, Part 2, Section 160.4 (formerly CIM 35-84). CPT 61793 will be paid only **once** per course of treatment

	regardless of the number of sessions or lesions. Code 61793 is valued for treatment delivered to one or more isocenters with different stereotactic coordinates and in one or more sessions. CPT 77432 has a descriptor using the words "CEREBRAL LESION(S)" but is used commonly (and referenced in CPT Assistant® and elsewhere) as being appropriate for "CRANIAL LESION(S)". This policy accepts the broader definition (and wide current practice) of using 77432 to indicate "STEREOTACTIC RADIATION TREATMENT MANAGEMENT OF CRANIAL LESION(S) (COMPLETE COURSE OF TREATMENT CONSISTING OF ONE SESSION)" CPT 77432 will be paid only **once** per course of treatment of cranial lesions **regardless of the number of lesions**. This code covers a "complete course of treatment consisting of one session." Multiple session stereotactic radiotherapy and stereotactic radiotherapy of non-cranial lesions are to be billed using codes 0082T and 0083T. CPT 0082T and 0083T will be paid only **once** per day of treatment **regardless of the number of sessions or lesions**. As the services are collegial in nature with different specialties providing individual components of the treatment, surgical assistants will not be reimbursed. It is inappropriate for the same provider to bill the surgery code (61793) in conjunction with the radiation codes (77xxx series). For ICD-9-CM code 333.1, essential tremor, coverage is limited to the patient who cannot be controlled with medication, has major systemic disease or coagulopathy, and who is unwilling or unsuited for open surgery. Coverage is further limited to unilateral thalamotomy. Gamma Knife pallidotomy remains non-covered and will be denied. **Karnofsky Performance Scale** (Perez and Brady, p 225) 100 Normal; no complaints, no evidence of disease 90 Able to carry on normal activity; minor signs or symptoms of disease 80 Normal activity with effort; some signs or symptoms of disease 70 Cares for self; unable to carry on normal activity or to do active work 60 Requires occasional assistance but is able to care for most needs 50 Requires considerable assistance and frequent medical care 40 Disabled; requires special care and assistance 30 Severely disabled; hospitalization is indicated although death not imminent 20 Very sick; hospitalization necessary; active supportive treatment is necessary 10 Moribund, fatal processes progressing rapidly 0 Dead
Coverage Topic	Surgical Services Radiation Therapy (Inpatient)

	Radiation Therapy (Outpatient)
Coding Information	
Bill Type Codes	999x Not Applicable
Revenue Codes	99999 Not Applicable
CPT/HCPCS Codes	0082T STEREOTACTIC BODY RADIATION THERAPY, TREATMENT DELIVERY, ONE OR MORE TREATMENT AREAS, PER DAY 0083T STEREOTACTIC BODY RADIATION THERAPY, TREATMENT MANAGEMENT, PER DAY 61793 STEREOTACTIC RADIOSURGERY (PARTICLE BEAM, GAMMA RAY OR LINEAR ACCELERATOR), ONE OR MORE SESSIONS 77432 STEREOTACTIC RADIATION TREATMENT MANAGEMENT OF CEREBRAL LESION(S) (COMPLETE COURSE OF TREATMENT CONSISTING OF ONE SESSION)
Does the CPT 30% Coding Rule Apply?	No
ICD-9 Codes that Support Medical Necessity	**Note:** Diagnosis codes are based on the current ICD-9-CM codes that are effective at the time of LCD publication. Any updates to ICD-9-CM codes will be reviewed by NAS, and coverage should not be presumed until the results of such review have been published/posted. These are the **only** covered ICD-9-CM codes that support medical necessity: 146.0 MALIGNANT NEOPLASM OF TONSIL 146.1 MALIGNANT NEOPLASM OF TONSILLAR FOSSA 146.2 MALIGNANT NEOPLASM OF TONSILLAR PILLARS (ANTERIOR) (POSTERIOR) 146.3 MALIGNANT NEOPLASM OF VALLECULA EPIGLOTTICA 146.4 MALIGNANT NEOPLASM OF ANTERIOR ASPECT OF EPIGLOTTIS 146.5 MALIGNANT NEOPLASM OF JUNCTIONAL REGION OF OROPHARYNX 146.6 MALIGNANT NEOPLASM OF LATERAL WALL OF OROPHARYNX

146.7	MALIGNANT NEOPLASM OF POSTERIOR WALL OF OROPHARYNX
146.8	MALIGNANT NEOPLASM OF OTHER SPECIFIED SITES OF OROPHARYNX
146.9	MALIGNANT NEOPLASM OF OROPHARYNX UNSPECIFIED SITE
147.0	MALIGNANT NEOPLASM OF SUPERIOR WALL OF NASOPHARYNX
147.1	MALIGNANT NEOPLASM OF POSTERIOR WALL OF NASOPHARYNX
147.2	MALIGNANT NEOPLASM OF LATERAL WALL OF NASOPHARYNX
147.3	MALIGNANT NEOPLASM OF ANTERIOR WALL OF NASOPHARYNX
147.8	MALIGNANT NEOPLASM OF OTHER SPECIFIED SITES OF NASOPHARYNX
147.9	MALIGNANT NEOPLASM OF NASOPHARYNX UNSPECIFIED SITE
155.0	MALIGNANT NEOPLASM OF LIVER PRIMARY
155.1	MALIGNANT NEOPLASM OF INTRAHEPATIC BILE DUCTS
155.2	MALIGNANT NEOPLASM OF LIVER NOT SPECIFIED AS PRIMARY OR SECONDARY
157.0	MALIGNANT NEOPLASM OF HEAD OF PANCREAS
157.1	MALIGNANT NEOPLASM OF BODY OF PANCREAS
157.2	MALIGNANT NEOPLASM OF TAIL OF PANCREAS
157.3	MALIGNANT NEOPLASM OF PANCREATIC DUCT
157.4	MALIGNANT NEOPLASM OF ISLETS OF LANGERHANS
157.8	MALIGNANT NEOPLASM OF OTHER SPECIFIED SITES OF PANCREAS
157.9	MALIGNANT NEOPLASM OF PANCREAS PART UNSPECIFIED
160.0	MALIGNANT NEOPLASM OF NASAL CAVITIES
160.1	MALIGNANT NEOPLASM OF AUDITORY TUBE MIDDLE EAR AND MASTOID AIR CELLS
160.2	MALIGNANT NEOPLASM OF MAXILLARY SINUS
160.3	MALIGNANT NEOPLASM OF ETHMOIDAL SINUS
160.4	MALIGNANT NEOPLASM OF FRONTAL SINUS
160.5	MALIGNANT NEOPLASM OF SPHENOIDAL SINUS

	160.8	MALIGNANT NEOPLASM OF OTHER ACCESSORY SINUSES
	160.9	MALIGNANT NEOPLASM OF ACCESSORY SINUS UNSPECIFIED
	162.0	MALIGNANT NEOPLASM OF TRACHEA
	162.2	MALIGNANT NEOPLASM OF MAIN BRONCHUS
	162.3	MALIGNANT NEOPLASM OF UPPER LOBE BRONCHUS OR LUNG
	162.4	MALIGNANT NEOPLASM OF MIDDLE LOBE BRONCHUS OR LUNG
	162.5	MALIGNANT NEOPLASM OF LOWER LOBE BRONCHUS OR LUNG
	162.8	MALIGNANT NEOPLASM OF OTHER PARTS OF BRONCHUS OR LUNG
	162.9	MALIGNANT NEOPLASM OF BRONCHUS AND LUNG UNSPECIFIED
	189.0	MALIGNANT NEOPLASM OF KIDNEY EXCEPT PELVIS
	189.1	MALIGNANT NEOPLASM OF RENAL PELVIS
	190.0	MALIGNANT NEOPLASM OF EYEBALL EXCEPT CONJUNCTIVA CORNEA RETINA AND CHOROID
	190.1	MALIGNANT NEOPLASM OF ORBIT
	190.2	MALIGNANT NEOPLASM OF LACRIMAL GLAND
	190.3	MALIGNANT NEOPLASM OF CONJUNCTIVA
	190.4	MALIGNANT NEOPLASM OF CORNEA
	190.5	MALIGNANT NEOPLASM OF RETINA
	190.6	MALIGNANT NEOPLASM OF CHOROID
	190.7	MALIGNANT NEOPLASM OF LACRIMAL DUCT
	190.8	MALIGNANT NEOPLASM OF OTHER SPECIFIED SITES OF EYE
	190.9	MALIGNANT NEOPLASM OF EYE PART UNSPECIFIED
	191.0	MALIGNANT NEOPLASM OF CEREBRUM EXCEPT LOBES AND VENTRICLES
	191.1	MALIGNANT NEOPLASM OF FRONTAL LOBE
	191.2	MALIGNANT NEOPLASM OF TEMPORAL LOBE
	191.3	MALIGNANT NEOPLASM OF PARIETAL LOBE
	191.4	MALIGNANT NEOPLASM OF OCCIPITAL LOBE
	191.5	MALIGNANT NEOPLASM OF VENTRICLES

191.6	MALIGNANT NEOPLASM OF CEREBELLUM NOS
191.7	MALIGNANT NEOPLASM OF BRAIN STEM
191.8	MALIGNANT NEOPLASM OF OTHER PARTS OF BRAIN
191.9	MALIGNANT NEOPLASM OF BRAIN UNSPECIFIED SITE
192.0	MALIGNANT NEOPLASM OF CRANIAL NERVES
192.1	MALIGNANT NEOPLASM OF CEREBRAL MENINGES
194.3	MALIGNANT NEOPLASM OF PITUITARY GLAND AND CRANIOPHARYNGEAL DUCT
194.4	MALIGNANT NEOPLASM OF PINEAL GLAND
194.6	MALIGNANT NEOPLASM OF AORTIC BODY AND OTHER PARAGANGLIA
197.0	SECONDARY MALIGNANT NEOPLASM OF LUNG
197.7	MALIGNANT NEOPLASM OF LIVER SECONDARY
197.8*	SECONDARY MALIGNANT NEOPLASM OF OTHER DIGESTIVE ORGANS AND SPLEEN
198.0	SECONDARY MALIGNANT NEOPLASM OF KIDNEY
198.3	SECONDARY MALIGNANT NEOPLASM OF BRAIN AND SPINAL CORD
198.4*	SECONDARY MALIGNANT NEOPLASM OF OTHER PARTS OF NERVOUS SYSTEM
198.5*	SECONDARY MALIGNANT NEOPLASM OF BONE AND BONE MARROW
198.89*	SECONDARY MALIGNANT NEOPLASM OF OTHER SPECIFIED SITES
225.0	BENIGN NEOPLASM OF BRAIN
225.1	BENIGN NEOPLASM OF CRANIAL NERVES
225.2	BENIGN NEOPLASM OF CEREBRAL MENINGES
227.3	BENIGN NEOPLASM OF PITUITARY GLAND AND CRANIOPHARYNGEAL DUCT
227.4	BENIGN NEOPLASM OF PINEAL GLAND
227.6	BENIGN NEOPLASM OF AORTIC BODY AND OTHER PARAGANGLIA
228.02	HEMANGIOMA OF INTRACRANIAL STRUCTURES
234.8*	CARCINOMA IN SITU OF OTHER SPECIFIED SITES
237.0	NEOPLASM OF UNCERTAIN BEHAVIOR OF PITUITARY GLAND AND CRANIOPHARYNGEAL DUCT
237.1	NEOPLASM OF UNCERTAIN BEHAVIOR OF PINEAL

	GLAND
237.3	NEOPLASM OF UNCERTAIN BEHAVIOR OF PARAGANGLIA
237.5*	NEOPLASM OF UNCERTAIN BEHAVIOR OF BRAIN AND SPINAL CORD
237.6*	NEOPLASM OF UNCERTAIN BEHAVIOR OF MENINGES
239.6*	NEOPLASM OF UNSPECIFIED NATURE OF BRAIN
239.7*	NEOPLASM OF UNSPECIFIED NATURE OF ENDOCRINE GLANDS AND OTHER PARTS OF NERVOUS SYSTEM
332.0	PARALYSIS AGITANS
333.1*	ESSENTIAL AND OTHER SPECIFIED FORMS OF TREMOR
345.11	GENERALIZED CONVULSIVE EPILEPSY WITH INTRACTABLE EPILEPSY
345.3	GRAND MAL STATUS EPILEPTIC
345.91	EPILEPSY UNSPECIFIED WITH INTRACTABLE EPILEPSY
350.1	TRIGEMINAL NEURALGIA
350.8	OTHER SPECIFIED TRIGEMINAL NERVE DISORDERS
350.9	TRIGEMINAL NERVE DISORDER UNSPECIFIED
351.0	BELL'S PALSY
351.1	GENICULATE GANGLIONITIS
351.8	OTHER FACIAL NERVE DISORDERS
351.9	FACIAL NERVE DISORDER UNSPECIFIED
352.0*	DISORDERS OF OLFACTORY (1ST) NERVE
352.1*	GLOSSOPHARYNGEAL NEURALGIA
352.2*	OTHER DISORDERS OF GLOSSOPHARYNGEAL (9TH) NERVE
352.3*	DISORDERS OF PNEUMOGASTRIC (10TH) NERVE
352.4*	DISORDERS OF ACCESSORY (11TH) NERVE
352.5*	DISORDERS OF HYPOGLOSSAL (12TH) NERVE
352.6*	MULTIPLE CRANIAL NERVE PALSIES
352.9*	UNSPECIFIED DISORDER OF CRANIAL NERVES
747.81*	CONGENITAL ANOMALIES OF CEREBROVASCULAR SYSTEM

	990* EFFECTS OF RADIATION UNSPECIFIED * ICD-9-CM codes 198.4, 198.5, 198.89, 234.8, 237.5, 237.6, 239.6, 239.7, 333.1, 352.0, 352.1, 352.2, 352.3, 352.4, 352.5, 352.6, 352.9 and 747.81 are all limited to use for lesions occurring either above the neck or in the spine. * ICD-9-CM 333.1 code is limited to the patient who cannot be controlled with medication, has major systemic disease or coagulopathy, and who is unwilling or unsuited for open surgery. * ICD-9-CM 197.8 is limited to secondary malignant neoplasms of pancreas. * ICD-9-CM 990 may only be used where prior radiation therapy to the site is the governing factor necessitating SRS or SRT/SBRT in lieu of other radiotherapy. An ICD-9-CM code for the anatomic diagnosis must also be used.
Diagnoses that Support Medical Necessity	**All** diagnoses listed in "ICD-9-CM Codes that Support Medical Necessity" above.
ICD-9 Codes that DO NOT Support Medical Necessity	**All** ICD-9-CM codes **not** listed in this policy under "ICD-9-CM Codes that Support Medical Necessity" above.
Non-Medical Necessity ICD-9 Codes Asterisk Explanation	
Diagnoses that DO NOT Support Medical Necessity	**All** ICD-9-CM codes **not** listed in this policy under "ICD-9-CM Codes that Support Medical Necessity" above.
General Information	
Documentation Requirements	The patient's record must support the necessity and frequency of treatment. Medical records should include not only the standard history and physical but also the patient's functional status and a description of current performance status (Karnofsky Performance Status). See Karnofsky Performance Status listed under Indications and Limitation of Coverage and/or Medical Necessity above. Documentation should include the date and the current treatment dose. A radiation oncologist must evaluate the clinical and technical aspects of the treatment, and document this evaluation as well as the resulting management decisions. All documentation must be available upon request of the Medicare carrier. When the documentation does not meet the criteria for the service rendered or the documentation does not establish the medical

	necessity for the services, such services will be denied as "not reasonable and necessary" under Section 1862(a)(1) of the Social Security Act. The HCPCS/CPT code(s) may be subject to Correct Coding Initiative (CCI) edits. This policy does not take precedence over CCI edits. Please refer to the CCI for correct coding guidelines and specific applicable code combinations prior to billing Medicare. When requesting a written redetermination (formerly appeal), provider must include all relevant documentation with the request.
Appendices	
Utilization Guidelines	
Sources of Information and Basis for Decision	• Medical Consultants • Contractor Medical Directors • The LMRP titled Stereotactic Radiosurgery from Group Health Inc. (NY) and other contractor policies. • American Society of Therapeutic Radiation and Oncology and American College of Radiology (ACR) Radiation Oncology Carrier Advisory Committee "Model" Policy and supplemental recommendations. • Perez CA, et al (Eds.), Principles and Practice of Radiation Oncology, 4th Ed., Philadelphia, Lippincott-Raven, 2003. • Kavanagh BD and Timmerman RD (Eds.) Stereotactic Body Radiation Therapy, Philadelphia, Lippincott Williams & Wilkins, 2005. • NAS Carrier Advisory Committee Members
Advisory Committee Meeting Notes	This medical policy was presented at the Medicare Part B Open Public Meeting held on January 10, 2006 and discussed at the following Carrier Advisory Committee meetings: Alaska - January 19, 2006 Arizona - January 10, 2006 Colorado - February 16, 2006 Hawaii - March 10, 2006 Iowa - February 9, 2006 Nevada - January 19, 2006 North Dakota - February 7, 2006 Oregon - February 4, 2006 South Dakota - February 9, 2006 Washington - February 7, 2006 Wyoming - February 23, 2006 This policy does not reflect the sole opinion of the contractor or contractor medical director(s). Although the final decision rests with the contractor, this policy was developed in cooperation with representatives from neurosurgery, radiation oncology, radiology and other specialties. The Section titled "Does the 'CPT 30% Rule' apply?" needs clarification. This rule comes from the AMA (American Medical Association), the organization that holds the copyrights for all CPT codes. The rule states that if, in a given section (e.g., **surgery**) or

	subsection (e.g., surgery, **integumentary**) of the CPT Manual, more than 30% of the codes are listed in the LCD, then the short descriptors must be used rather than the long descriptors found in the CPT Manual. This policy is subject to the reasonable and necessary guidelines and the limitation of liability provision. **This medical policy consolidates and replaces all previous policies and publications on this subject by Noridian Administrative Services (NAS) and its predecessors for Medicare B.** **NAS' Responses to Provider Recommendations: B2003.36:** 1. CPT code 77432, stereotactic radiation treatment management of cerebral lesion(s) (complete course of treatment consisting of one session), is included in this policy. Note that the Correct Coding Initiative (CCI) bundles 77432 and most other radiation oncology codes into 61793, so that the physician billing 61793 can bill no other code associated with the treatment course in question. Also note that the physician billing 77432 may bill other (appropriate) 77xxx codes, but not 61793. 77432 does not appear in the associated LCD, B2003.37, Radiation Oncology: External Beam/Teletherapy. Thus, the ICD-9-CM list in this LCD will "control" 61793, 77432, 0082T and 0083T but not other radiation oncology codes. 2. NAS has accepted many recommendations that improved clarity and consistency, and appreciates these recommendations. 3. Several providers recommended lists of ICD-9-CM codes for addition. Many referred to spinal cord lesions. Most of these have now been included. NAS will accept further requests for reconsideration, but points out that, to be a **valid request**, the request **must** be accompanied by "justifying published scientific literature." (See Medicare Program Integrity Manual, Chapter 13.7.1 and Chapter 13.11, E, 3). 4. Several providers submitted a "model" policy written by the ACR Radiation Oncology Carrier Advisory Committee (CAC) in conjunction with ASTRO. Multiple changes were made based on this (overall broader) policy which was very helpful, as were multiple subsequent recommendations from ASTRO and individual ASTRO and CAC members. 5. A communication from ASTRO also suggested adding trigeminal neuralgia in the list of "Other cranial non-neoplastic conditions for which (SRS/SBRT) has been proven effective" in the section above "**Indications for SRS or SBRT for sites above the neck"**. NAS will be glad to review further peer-reviewed literature on this issue and will also welcome further information on appropriate guidelines or restrictions, but does not currently have adequate information to

	make this addition. **B2003.36 R1:**
Start Date of Comment Period	12/22/2005
End Date of Comment Period	04/30/2006
Start Date of Notice Period	
Revision History Number	R1
Revision History Explanation	**B2003.36** This medical policy was renumbered and revised to create consistency among the eleven NAS Medicare Part B states. For Alaska, Arizona, Hawaii, Nevada, Oregon, and Washington, the original policy (Policy Number 97-6.2) was effective for dates of services on/after November 1, 1998, as published in the "Medicare B News," Issue Number 168 dated September 1998, with an update in Issue 176, dated September 1999. For Colorado, North Dakota, South Dakota, and Wyoming, the original policy (Policy Number 98.20) was effective for dates of services on/after November 1, 1998, as published in the "Medicare B News," Issue Number 168 dated September 1998, with an update in Issue 176, dated September 1999. For Iowa, there was no previous medical policy, so this is Not Applicable. **B2003.36 R1**
Last Reviewed on Date	
Notes	
Does this LCD contain a "Least Costly Alternative" provision?	No
Related Documents	This LCD has no Related Documents.
LCD Attachments	There are no attachments for this LCD
Draft Contact	Noridian Administrative Services LLC Contractor Medical Director - policyb.drafts@noridian.com Policy Development - Medicare Part B - Drafts 901 40th St. S, Suite 1 Fargo, ND 58103-2146
Draft Approved for Display to Public on Front End	Yes

	Send all comments by 04/30/2006 to: Noridian Administrative Services, LLC Contractor Medical Director(s) Policy Development – Medicare Part B – Drafts 901 40th St S, Suite 1 Fargo, ND 58103-2146

THIS IS A DRAFT LCD

Stereotactic Radiosurgery – An Organized Neurosurgery Sanctioned Definition

AANS/CNS Washington Committee Stereotactic Radiosurgery Task Force.

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Change is the law of life. And those who look only to the past or present are certain to miss the future. – J.F. Kennedy

Since its introduction five decades ago, Stereotactic Radiosurgery (SRS) has evolved from an investigational concept into a mainstream neurosurgical procedure for the management of a wide variety of brain disorders. Contemporary neurosurgeons routinely use radiosurgery either as a definitive or adjuvant modality in the fields of neuro-oncology, cerebrovascular and functional neurosurgery. SRS offers the surgical neuro-oncologist a precise and established treatment which, in combination with fractionated radiotherapy, chemotherapy and conventional surgery, offers additional management options for the treatment of patients with brain tumors.[4,5,12] Its role in the management of vascular malformations is also well established. Further, SRS has had a significant impact on the management of patients with brain metastases, [4,26,50] such that, when SRS is possible, these patients more commonly succumb to their uncontrolled extracranial disease rather than the historical norm of dying from their intracranial disease.

Recently there has been a spate of reports attempting to clarify or to (re)define the terms stereotactic radiosurgery and stereotactic radiotherapy.[1, 47,66] It has become increasingly clear that the evolution of radiosurgery and radiotherapeutic

techniques demands a reevaluation of the definition of radiosurgery by organized neurosurgery. These factors led the American Association of Neurological Surgeons (AANS) and Congress of Neurological Surgeons (CNS) to form the Stereotactic Radiosurgery Task Force under the auspices of the AANS/CNS Washington Committee. The Stereotactic Radiosurgery Task Force was directed to review, clarify, and recommend to their parent organizations a contemporary definition of SRS taking into account historical, current and potential applications of SRS. The purpose of this paper is to express the position of the AANS and CNS on the definition of stereotactic radiosurgery.

Historical Review

"Stereotactic radiosurgery" was defined by Swedish neurosurgeon Lars Leksell in 1951.[58] At that time he sought to mimic destructive lesions in the brain produced by mechanically invasive stereotactic surgical procedures for movement and pain disorders by delivering a high dose of photon or proton energy to the intended target in a single session, while steep fall-off dose gradients protected adjacent brain. Early efforts using stereotactically applied ultrasound, orthovoltage x-ray and accelerated particles such as protons proved inadequate to create these lesions deep in the brain or were otherwise too cumbersome. To overcome these shortcomings, Leksell, Liden, Larsson and colleagues developed the Gamma Knife in 1967. This device focuses multiple beams of high energy gamma rays to a common point directed by frame-based stereotactic guidance

that overcame these shortcomings.[56,57] Contemporaries such as Kjellberg, Winston, Lutz, Loeffler, Fabrikant and others also developed systems using X-rays or particles to achieve these same ends. [21,25,46,73,80]

For decades, stereotactic localization was limited to information derived from atlases, plain radiographs, pneumonencephalograms and angiograms. [36,37,41,55,71] Throughout his life, Leksell remained active in advancing the state-of-the-art of stereotactic radiosurgery and was one of several visionaries who developed methods of exploiting the inherent spatial information in computerized tomography and, later, magnetic resonance imaging, thereby creating the field of image-guided stereotaxy.[61] Although the radiosurgical treatment of intracranial malignancies was now feasible, Leksell believed that stereotactic radiosurgery was best used for functional neurosurgery or for benign lesions such as tumors and arteriovenous malformations and not for malignant tumors.

Early neurosurgeons who performed radiosurgery found that collateral damage to adjacent structures occasionally occurred when treating benign disease and several strategies were devised to reduce complications.[46,49] Stereotactic MRI was used to provide better visualization and definition of targets and structures at risk.[23] Lesion marginal doses were gradually reduced while maintaining therapeutic efficacy.[23,24] Computer-assisted planning systems allowed for treatment plans that better conformed to the shape of the radiosurgery target.[23,24] Rigid skull fixation, the “gold-standard” for stereotactic accuracy, was

supplemented by relocatable frames that allowed radiosurgery to be performed in multiple sessions.". [13,16,18,22,38,42,59,64,65,69,70,78,79]

Stereotactic radiosurgery became established and accepted as an important neurosurgical technique in the 1980s and 1990s. [57,60] Its value transcended Leksell's original indications to include proven efficacy for the most common central nervous system malignancy – metastatic disease. [4,26,50] Neurosurgeons wished to extend the reach of this technology beyond the limits of cranial disease. Extra-cranial radiosurgery using a frame was first reported by Hamilton in 1996[40.72] Concurrently, conventional surgical stereotaxy was revolutionized by the neurosurgical development of "frameless" stereotactic techniques. [8,62,67,74] The notion that radiosurgery could also be delivered without a stereotactic frame was brought to fruition by Adler and others. [2,15,64,75,76] New generations of linear accelerator devices provide stereotactic localization with advanced imaging capabilities and beam delivery methodologies. In one system, radiosurgical delivery is performed by a light weight linear accelerator that is robotically positioned[15,75,76] and, in another, by a LINAC whose output is modulated by computer-controlled multi-leaf collimators.[19] Today, radiosurgery can and has been performed on virtually any part of the body, and the lesser fixation requirements facilitate performing the procedure in multiple sessions. [9-11,13,19,27-35,39,45,51,68,69,77]

Recently developed alternative forms of energy include high intensity focused ultrasound (HIFUS).[17,43,44] When delivered stereotactically, use of these other energies to destroy or injure tissue could be interpreted by some as falling within the umbrella of stereotactic radiosurgery.

Role of Neurosurgeon in Stereotactic Radiosurgery

These advances not withstanding, stereotactic radiosurgery remains a “team” discipline where the roles of the surgeon, radiation oncologist and physicist are essential, regardless of the target organ or site of service. As in any brain or spine surgical procedure, the neurological surgeon provides preoperative assessment of the patient and review of pertinent imaging studies in order to provide informed consent as to the therapeutic alternatives. After the procedure the neurosurgeon provides continued reevaluation and follow-up at clinically appropriate intervals in order to assess outcomes on a long-term basis. During the radiosurgical procedure itself, the neurosurgeon serves as the primary responsible healthcare provider. The tasks of a radiosurgical procedure including treatment set-up, planning, and delivery that are performed by or directly supervised by the neurosurgeon include:: delivery of appropriate conscious sedation; application of the stereotactic coordinate frame (when pertinent) based on lesion location; selection and creation of the appropriate imaging data set (e.g., CT, MRI, angiography, PET) necessary for radiosurgical planning; computer assisted delineation of target volumes and adjacent critical

anatomic structures; creation of the 3D volumetric radiosurgical effect assisted by computer planning; set up, confirmation, and delivery of the radiation; provision of additional sedation as required; monitoring of the patient's vital signs during dose delivery; removal of the stereotactic frame followed by bandaging or other wound care as needed, and standard post-radiosurgery 90 day follow-up care. As the primary responsible health care provider, the neurosurgeon assumes responsibility for chart completion as required by the patient's inpatient or ambulatory status after radiosurgery.

Recent publications on the role of radiosurgery vs. stereotactic radiotherapy

Because new technology now enables radiosurgery to be delivered in more than one session, and because "radiation therapy" is sometimes administered with the aid of stereotactic localization, there have been several attempts in the neurosurgical literature over the past few years to define, redefine or clarify: stereotactic radiosurgery (SRS).[1,47,66] At present there are "purists" that conform to the original definition for SRS offered by Lars Leksell some 50 years ago, while others subscribe to the concept of a procedure that has evolved with the emergence of new technology.

The traditional perspective:

The principal argument made by these authors is that the term radiosurgery must be restricted to "a high dose of ionizing radiation delivered to a defined target delivered in a single session."[47,66] SRS derives its safety by its high degree of conformality and high selectivity (steep dose fall-off in the adjacent normal tissue), such that dose homogeneity within the target area is irrelevant. On the other hand, the above-cited authors contend that the delivery of fractionated radiation, delivered in multiple sessions by daily application of a non-skeletal – affixed guiding device (stereotactic radiation therapy, or SRT) is usually less conformal and precise than conventional frame-based SRS. This presumably makes dose homogeneity desirable. This group also maintains that that the

rationale for SRT is primarily an attempt to reduce the radiation risks in the surrounding normal tissue. Finally, they state that the term "(hypo-) fractionated stereotactic radiosurgery" is an oxymoron.

Alternative perspectives:

All will agree that "a high dose of ionizing radiation delivered to a stereotactically defined target delivered in a single session" is (a form of) stereotactic radiosurgery. Contemporary controversies focus on two areas – can "radiosurgery" be delivered in more than one session, and, if so, where does stereotactic radiosurgery (SRS) delivered in multiple sessions end and stereotactic radiotherapy (SRT) begin?

The historical review presented above demonstrates the evolutionary process of thought and practice in stereotactic radiosurgery over the past five decades. We believe that a reasonable person will recognize that this evolution includes radiosurgery delivered in more than one session. In his original description of stereotactic radiosurgery in 1951, Lars Leksell did not specifically state that the procedure need be performed in a single session. In 1983, Leksell described stereotactic radiosurgery as "a technique for the non-invasive destruction of intracranial tissues or lesions…[where] the open stereotactic method provides the basis…" again without explicitly restricting its use to a single session.[57] Statements limiting SRS to a single session arose years later, describing the state of practice *at that time*.[6,20,52,53] Today, the American Medical Association

recognizes that stereotactic radiosurgery may be delivered in one or more session in Current Procedural Terminology (CPT) definitions[3] as does the Centers for Medicare and Medicaid Services[14].

Ionizing radiation has been used for over a century in medical therapy. Much has been made of the differential radiobiology of stereotactic radiosurgery and fractionated radiotherapy (i.e., the "Four R's" of reoxygenation, reassortment, repopulation and repair)[1,20] to distinguish SRS from SRT. In truth, little is known about the true radiobiology of radiosurgery and these arguments are theoretical at best.[48,54]

What is known is the *intent* of the treatment. Radiosurgery aims to injure or destroy the tissue at the target and preserve adjacent critical tissue primarily on the base of steep dose gradients. Homogeneity within the lesion is generally not considered important and can be a disadvantage for achieving tumor shrinkage when treating tumors that do not contain normal tissue within them, or for treating internal tumor areas of necrosis or hypoxemia. Tumors that may be resistant to fractionated radiotherapy may respond well to radiosurgery. Multiple sessions may be used to further reduce injury to adjacent normal tissue while maintaining the efficacy of radiosurgery. Fractionated radiotherapy aims to differentiate abnormal from normal tissue within the target site by the differential sensitivity of these tissues to fractionated ionizing radiation.[20] Dose homogeneity is desirable when the treatment volume contains sensitive normal tissue (either in the tumor

or closely adjacent). Deleterious effects outside the treatment area may be further reduced by enhancing treatment conformality (and by increasing the dose gradient). Either technique may be directed stereotactically (SRS and SRT).

Few would disagree that the precise stereotactic delivery of a high dose of radiation for the purpose of tissue inactivation or destruction in a single session is within the scope of SRS, and that the precise stereotactic delivery of radiation in 30 sessions is not SRS but is better described as SRT. Conversely, such single session delivery should fall outside the scope of stereotactic radiotherapy. Between these extremes, however, are cases of potential overlap between the techniques. We believe that these are best differentiated by the intended mechanism of action and that the literature, federal policy and contemporary practice indicate that the upper limit of sessions in which SRS may be delivered is five.[14]

After considerable previous debate and discussions, on June29, 2005 the AANS/CNS Stereotactic Radiosurgery Task Force met in Chicago and arrived at the following contemporary definition of stereotactic radiosurgery, which has subsequently been approved by both parent organizations:

> Stereotactic Radiosurgery, as used by neurosurgeons, is a distinct discipline that utilizes externally generated ionizing radiation and other energies to inactivate or eradicate (a) defined target(s) in the head (*cranial radiosurgery*), spine and peripheral nerves (*extracranial radiosurgery*),

without the need to make an incision. The target is defined by high-resolution stereotactic imaging. To assure quality of patient care the procedure is performed by a multidisciplinary team consisting of a neurosurgeon, radiation oncologist, and medical physicist.

Stereotactic Radiosurgery (SRS) typically is performed in a single session, using a rigidly attached stereotactic guiding device, other immobilization technology and/or a stereotactic image-guidance system, but can be performed in a limited number of sessions, up to a maximum of five.

Technologies that are used to perform SRS include linear accelerators, particle beam accelerators, multisource Cobalt 60 units and other energy sources. In order to enhance precision, various devices may incorporate robotics and real time imaging.

Members of the AANS/CNS Washington Committee Stereotactic Radiosurgery Task Force – Barnett GH (Chair), Linskey ME (Vice Chair), Adler JR, Cozzens JW, Friedman WA, Heilbrun MP, Lunsford LD, Schulder M, Sloan AE.

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Emergency Services Update

Acute Surgeon Specialty

A subset of trauma surgeons are attempting to establish a new specialty trained to deliver acute surgical care. The American Association for Surgery of Trauma is attempting to develop a training curriculum for this new specialty. Preliminary information suggests that this group would like to be trained in a variety of neurosurgical procedures, including placement of intra-cranial monitors, burr holes, shunt revisions, repair of cranial nerves, and spinal stabilization.

Alex Valadka, who is a member of AAST, attended a meeting of the AAST and expressed neurosurgery's concerns about this new specialty and the inclusion of neurosurgical procedures in its training curriculum. The AANS and CNS leaders will be meeting with the leadership of the American College of Surgeons on March 9, 2006 to discuss this issue in detail.

Emergency Neurosurgical Services and Available Workforce

The Washington Committee continues to focus much of its attention on a number of issues related to emergency neurosurgical services. Committee members are representing neurosurgery's interests on a number of fronts including: the EMTALA TAG, AMA Task Group on Workforce for Emergency/Trauma Care, the Institute of Medicine's report panel on the Future of Emergency Medical Care in the U.S., the Coalition for American Trauma Care, and the American College of Surgeons. Each of these groups are currently evaluating various aspects of the emergency medical system and will ultimately make recommendations for improving the system.

1. The AANS Workforce Task Force has conducted a survey and preliminary results are now available. **(See attached)** The Task Force has held 2 meetings to date and is moving forward with the development of a White Paper that will contain various recommendations for addressing this issue.

2. The CNS Executive Committee has recently reviewed a draft paper prepared by Chris Wolfla, MD. **(See attached)** The paper is suggests a number of options to address the emergency/trauma workforce issue.

3. The American College of Surgeons will be convening an Emergency Workforce Summit meeting on March 9, 2006 of all the surgical specialty societies to continue its review of this issue and develop recommendations for addressing the problems. Representatives from the AANS and CNS will be attending this meeting.

4. The AMA Task Group on Workforce for Emergency/Trauma Care, chaired by Peter Carmel, MD, will convene its second meeting on March 31, 2006. The AANS/CNS will be participating in this meeting. Similar to the ACS and others' efforts, this group will be developing various recommendations to address the emergency workforce shortage problem.

5. The Institute of Medicine is expected to release the first of several reports on the future of emergency care in the U.S. sometime in May. Representatives of the IOM will be participating in the March ACS meeting.

The common theme that is coming out of these various activities appears to be that regionalization of emergency/trauma care may be the best solution to address workforce issues. Other policy options include passing medical liability reform and improving reimbursement for emergency services.

ACEP Report Card

The American College of Emergency Physicians recently issued a comprehensive report that grades the nation and each state on the state of its emergency health care delivery system. The report is entitled: "The National Report Card of the State of Emergency Medicine: Evaluating the Environment of Emergency Care Systems State by State" is available for download at: http://my.acep.org/site/DocServer/2006-NationalReportCard.pdf?docID=221

According to ACEP's summary, provided on their website:

The emergency medicine system of the United States as a whole has earned a grade of C- - barely above a D. This represents an average of the overall grades for all states and the District of Columbia, as well as data received from ACEP's Government Services and Puerto Rico chapters. No state scored either an A or F for its overall grade. California, Massachusetts, Connecticut, and the District of Columbia led the nation with overall grades of B. Rating worst in the nation with overall grades of D+ or D were Alabama, Arizona, Arkansas, Idaho, Indiana, New Mexico, Oklahoma, South Dakota, Utah, Virginia, Washington and Wyoming. More than 80 percent of states earned poor or near-failing overall grades (C+ to D).

Facts Behind the National Grade

Despite the life-saving importance of emergency care, the emergency medicine systems in many states are under extreme stress. The number of people coming to emergency departments continues to increase, with nearly 114 million patient visits in 2003, the highest number ever, according to the Centers for Disease Control and Prevention (CDC). At the same time, the overall capacity of the nation's emergency systems has decreased, with hundreds of emergency departments closing in the past 10 years. The number of emergency departments has decreased by 14 percent since 1993, according to the CDC, and hospitals are operating far fewer inpatient beds than they did a decade ago. During the 1990s, hospitals lost 103,000 staffed inpatient medical-surgical beds and 7,800 intensive care unit beds nationwide.

In addition, hospital emergency departments have a federal mandate to medically screen and stabilize all patients, regardless of their ability to pay. As a result, increasing numbers of uninsured patients with nowhere else to go for medical care are coming to emergency departments. Thus, a large number of people pay nothing for their care. Soaring amounts of uncompensated care means fewer resources for everyone. At the same time, all health insurance payers, including private insurance companies, Medicare, and Medicaid, are paying less for services, and state governments are cutting health budgets.

Local emergency departments are at the front line of this national health care crisis. They are increasingly crowded, often to the point that ambulances must be diverted to another hospital. A key cause is the lack of staffed inpatient beds. Often, when emergency patients need to be moved into hospital beds, they must wait in emergency department hallways for hours and sometimes days. Another cause is the high cost of medical liability insurance, which has led

some specialty doctors to leave medicine or to be less willing to be "on call" for emergency situations, aggravating hospitals' ability to provide emergency care.

Federal medical liability reform would help states prevent medical specialists from leaving the practice of medicine and end the ongoing battles against the reforms in place. For example, Wisconsin last year lost its battle and rescinded its reforms. Federal policymakers also could increase the number of physicians available in emergency departments by supporting liability protections for physicians who provide EMTALA- (Emergency Medical Treatment and Labor Act) related care.

Ambulance Diversion Survey
The report cards include the first-ever national survey of state government emergency medicine services officials on ambulance diversion. The Quality and Patient Safety category included the question, "Does the state require hospitals to submit data on diversions?" The survey sought to determine which states, on a statewide basis, require reporting on the frequency of diversions. State government emergency medical services (EMS) offices were contacted by telephone to obtain this information.

The survey found that only 10 states currently collect this data. Only with adequate data about the extent of the diversion problem will the country begin to confront this serious problem. ACEP is calling on all states, as well as the federal government, to begin systematic monitoring of ambulance diversion. Gathering this data will allow the nation to know the true dimensions of this rapidly growing symptom of the gridlock in emergency departments. Understanding the scope of the issue is the logical first step in confronting a complex and critical issue.

Hurricane Katrina
The Hurricane Katrina disaster demonstrated the critical role of emergency medicine in times of natural or man-made disasters. It also showed the need for "surge capacity" in the critical time between when a disaster occurs and when state or federal resources can be mobilized to respond.

The report card statistics from Louisiana and Mississippi are effective as of September 1, 2005, prior to the hurricane. Clearly, the loss of additional resources, particularly in New Orleans and the Gulf Coast areas, indicates even greater need for infrastructure, capacity, and local resources. At the same time, the report card offers some insights into how these areas can be rebuilt.

Trauma System Funding

In the final FY 2006 appropriations bill, Congress eliminated funding for the federal government's trauma system development grant program, which has operated under the auspices of the Health Resources and Services Administration (HRSA). In an effort to educate Members of Congress about the importance of this program, the Coalition for American Trauma Care will be holding a Congressional briefing on February 24, 2006 entitled: "Saving Lives When Minutes Count: Briefing on a Public Health Model for Trauma Systems". **(See attached** briefing announcement**)**. The AANS and CNS have sponsored the briefing and Alex Valadka, MD and Chris Wolfla, MD will be attending on neurosurgery's behalf.

It is expected that the Senate will pass legislation reauthorizing this program in the near future. Alex Mason, MD, the CNS Public Policy Fellow, is working on this bill for Senator Frist. Whether the Congress funds the program, however, remains to be seen, but the AANS and CNS will continue to advocate for appropriate funding with our coalition partners.

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American Association of Neurological Surgeons
2006 Workforce Survey

January 2006

Analysis & Result Reporting

January 31, 2006

Confidential

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American Association of Neurological Surgeons

2006 Workforce Survey

Sample Size Analysis

Based upon the total sample of completed surveys (770) and using a lower bound on responses for any particular question of 700, the minimal accuracy for any observed response category is within plus or minus 3.7% - meaning that the 95% confidence interval for any response is within plus or minus 3.7% of the observed response. Minimal accuracy is computed assuming an observed category response of 50% (highest possible variance).

In the table below, survey accuracy is computed and compared for the current number of survey responses and for the survey with an additional 100 responses. Adding an additional 100 responses only compresses the maximum confidence interval by approximately one-half percent.

Respondents	Sample Size	Minimal Accuracy
Current Survey: Overall	770	+/- 3.53%
Current Survey: Question response lower bound	700	+/- 3.70%
Survey +100: Overall	870	+/- 3.32%
Survey +100: Question response lower bound	800	+/- 3.46%

To examine the effect of increasing the survey sample size on a specific question, the response to question #1, "Do you take ER Call?" is examined in the table below. Increasing the survey by 100 respondents will effectively decrease the 95% confidence interval by two tenths of one percent.

	Sample Size	Sample Size Percent	95% Confidence Interval	
			Lower Bound	Upper Bound
Observed	770	93.8	92.1	95.5
Hypothetical	870	93.8	92.2	95.4

Conclusions

Unless the demographics of the survey respondents do not accurately represent the AANS membership or specific stratified analysis is desired where current sub-populations are not sufficient, increasing the sample size by 100 respondents will not significantly increase the accuracy of the survey. The survey response, as it stands, should be sufficient to provide accurate representation of the overall AANS workforce.

American Association of Neurological Surgeons
2006 Workforce Survey

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American Association of Neurological Surgeons
2006 Workforce Survey

Survey Highlights

Survey Methodology, Return Rate and Validity

- An online survey was conducted in January 2006, and two waves of e-mail invitations were sent to about 2,552 members.
- A total of 770 members participated in the survey resulting in an impressive 30% return rate. The return rate is comparable to similar studies conducted by Perception Solutions.
- With 770 completed surveys and a sample size of 700 or more for most questions, we can be 95% confident that results presented in this report have +/-5% accuracy or better. This means that if the same survey is conducted 100 times, the results would be the same 95 times.

Respondent Profile

- Over 48% of survey participants were in private practices. About 28% were full-time academicians.
- About 63% of respondents were from small and medium neurosurgical groups (2-20 neurosurgeons).
- About 37% of respondents were 36 to 45 years old, while 36% were 46 to 55 years old, and 20% were 56 to 65 years old.
- California, Florida, Illinois, New York, and Texas were the top five states with most survey participants practicing in.
- Survey participants worked an average of 70 hours per week. They worked an average of 56 hours in direct patient care, about 5.5 hours on research/education, and 7.9 hours per week on administrative work.
- About 59% of survey participants practiced in a community hospital, while 38% practiced in an academic medical center.
- Over 40% of respondents indicated that they practiced in a level 1 trauma center, and 37% practiced in a level 2 trauma center.

Emergency Call Coverage

- Over 93% of survey participants indicated that they took ER calls. About 43% of them provided emergency call coverage at one hospital, while 30% did so at two hospitals.
- An overwhelming majority of respondents (85%) indicated that hospitals they were practicing in required taking calls.
- The majority (57%) indicated that on average, they personally covered emergency or trauma call two or three days/nights per week.
- Survey participants selected variety of services for which they took calls for.
- Over 50% of survey participants indicated that they did not receive a monetary stipend for emergency call coverage.
- Of the few that indicated they did not take calls, they cited several reasons. They included "Insufficient pay for emergency services ", "Disruption of routine practice schedule ", "Lifestyle interference", and "Other."
- When asked "have you limited the type of procedures performed by your practice?", the majority (62%) indicated no.
- About 38% indicated that they had limited their practices. Of these, about 57% indicated that they had eliminated pediatrics, 13% eliminated trauma, and 11% eliminated cranial.

Survey Highlights

- About 43% of survey participants indicated that their neurosurgical groups had been involved in developing a hospital's plan for transfer of patients. However, the majority (51%) indicated that their neurosurgical groups had not been involved in developing a plan for a hospital's ER going off-line.
- When asked "would you be willing to participate in this type of planning for coverage in your area?", about 65% said yes.
- Over 97% of survey participants indicated that they had not experienced any cost reduction or discount on malpractice insurance for not taking call.
- About 40% of survey participants indicated that their yearly cost of malpractice insurance ranged between $50,000 to $80,000.
- The majority of survey participants (76%) indicated that they perceived call coverage as a problem in their geographic areas.
- Only 52% of survey participants felt that the call system works in the best interest of patients. Also about 52% felt that the call system is effective.