OBJECTIVE: Health-related utility is poorly characterised in stroke patients with limb spasticity. The purpose of this study was to evaluate health utility in stroke patients with and without upper and lower limb spasticity. METHODS: Data were abstracted from the Health Outcomes Data Repository (HODaR) describing treatment patterns, outcomes and quality of life following a modified survey describing 151 patients who had experienced a stroke in the last two years. Data were available describing demographics, the EQ5D and the presence/absence of self reported limb spasticity. These data were then linked to routine hospital inpatient data. RESULTS: The mean age was 72.4 years (56% males). One quarter (26.5%) of respondents reported no limb spasticity. Of the remainder, 13.9% reported upper limb spasticity only, 11.2% lower limb spasticity only, and 27.2% a combination of both. Overall, the mean EQ5Dindex for these patients was 0.55, although patients reporting no limb spasticity had a higher EQ5Dindex (0.73) compared to those reporting lower limb spasticity (0.36; Δ = 0.37). There was a notable difference in utility between those with upper and lower limb spasticity where patients reporting lower limb spasticity had lower health utility (0.36 vs. 0.62 respectively; Δ = 0.26). A similar pattern existed in their duration of hospital stay with patients experiencing upper and lower limb spasticity having a mean length of stay of 42.7 days compared to 29.1 days (lower limb spasticity only) and 20.5 days (upper limb spasticity only). Patients reporting no limb spasticity had a mean length of stay of 10.2 days. CONCLUSIONS: The mean utility estimates obtained from this study show stroke patients experienced a substantial decrease in quality of life and a further decrease was recorded in those patients reporting upper and/or lower limb spasticity. Limb spasticity was also associated with a substantial increase in hospital length of stay.

PSR4
FREQUENCY OF INR TESTING IN MEDICARE BENEFICIARIES AT HIGH RISK FOR STROKE
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OBJECTIVES: Anticoagulation with warfarin for stroke prevention requires careful management to avoid hemorrhage or thrombosis. We evaluated the frequency of international normalized ratio (INR) testing in two high-risk Medicare populations who are likely to receive adjusted-dose warfarin: 1) patients diagnosed with atrial fibrillation (AF); and 2) patients with a mechanical heart valve (MHV). METHODS: We analyzed the 2001 Physician Supplier Procedure Summary Master Files (PSPSMF) database, a 5% sample of procedure-specific claims for all physician/supplier services rendered to Medicare beneficiaries. We identified patients with AF and MHV based on any-listed ICD-9-CM diagnosis code of 427.31 and V43.3, respectively. For each cohort, we searched for claims billed under Current Procedural Terminology (CPT) code 85610—prothrombin testing. We compared prevalence and frequency of INR testing for each cohort to expected standards of care. RESULTS: We identified 141,757 patients with AF and 10,055 patients with MHV, which would yield projected national estimates of 2.8 million and 200,000 patients, respectively. Sixty percent of AF patients and 43% of MHV patients did not have a single INR claim. Of AF patients who had at least one INR test claim, 41% were tested less than 6 times per year, and 59% were tested 10 or fewer times per year. For MHV patients, 31% were tested less than 6 times per year, and 47% were tested 10 or fewer times per year. CONCLUSIONS: Medicare claims histories reveal that clinical practice patterns may not adhere to accepted standards of care for the prevention of stroke in AF and MHV. Third-party payment policies, provider behavior, lack of patient awareness, and other factors may contribute to poor compliance and possible adverse events. Additional studies are needed to determine the cause of under-compliance in managing patients at risk for stroke and how Medicare policies may affect prescribing decisions and patient outcomes.

PSR5
CONTINUITY OF CARE IN STROKE PATIENTS UNDER REHABILITATION IN MEXICO
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OBJECTIVE: To evaluate continuity of care (CoC) and social capital in stroke patients under rehabilitation in the Mexican Institute of Social Security (IMSS). METHODS: Cross-sectional study in three IMSS hospitals in Mexico City. Inclusion criteria were: stroke adult patients surviving a first ischaemic event, consent to participate in the study and capable to answer questions in an interview. No instruments to measure CoC and social capital in stroke patients were identified in our previous literature review. Three instruments to measure CoC were used: Mexican one (Constantino), from United States (Chao) and from Canada (Salmoni). The first one is being validated and the other two have been used and validated in general practice and chronic patients discharged from hospital to community, respectively. RESULTS: Forty stroke patients were interviewed, mean age was 68 years, education of 7 years and 87.5% had some chronic illness (hypertension 58.3%). Sixty seven percent informed that they were receiving formal rehabilitation and that in 88.2% it met their needs and expectations. The Mexican instrument (scale from 1 to 10) found a mean score for patient perception of CoC of 7.1 and from carer/relative 8.1. Patients said they trusted their doctor in 83.3% (Chao instrument). Opinion in relation to hospital care quality was: poor in 16.8%, regular in 12.5% and good/very good in 50% (Salmoni instrument). About social capital: 91.6% trusted public institutions in their community and in people living in the neighbourhood in 54.2%. Patients received help to attend medical facilities in 4.2% from the neighbour, 4.2% from a friend; patients helped the neighbour in 16.7% and a friend in 54.2%. CONCLUSIONS: Most of stroke patients interviewed were satisfied with the quality of rehabilitation provided by the IMSS. CoC score from patient and carer was acceptable and similar. Social capital level was also good.

PSR6
STROKE RECURRENT AND PERSISTENCE ON DRUG THERAPY IN A MEDICAID POPULATION
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OBJECTIVES: This study assesses predictors of stroke recurrence in a Medicaid population, specifically examining persistence on clopidogrel, warfarin and aspirin drug therapy. METHODS: Medical and pharmacy claims for patients with a diagnosis of stroke (ICD-9 Codes 430-438) were obtained from Medicaid for the period of January 1, 2001–December 31, 2003. Only patients with at least one month of follow up were included. In order to obtain an incident cohort, patients who had a stroke diagnosis between January 1, 2001–June 30, 2001 were included.
excluded. Cox proportional hazard models were built to predict the time dependent likelihood of no recurrence, as a function of drug persistence, for patients who start on clopidogrel, warfarin or aspirin, adjusting for blood pressure lowering and lipid lowering drugs taken after the first stroke, hypertension, heart disease, diabetes, race, gender, age and residence (urban or not).

RESULTS: In total, there were 925 patients, 36% older than 60, 58% African Americans, and 35% males. Patients who persist on the first drug taken post-stroke (HR = 1.29, p = 0.03, CI 1.02–1.63), start on clopidogrel (HR = 1.42, p = 0.006 CI 1.10–1.82) or take up to two (HR = 1.43, p = 0.001, CI 1.15–1.78) blood pressure lowering drugs post-stroke are significantly more likely to have no recurrence. Patients with a diagnosis of heart disease (HR = 0.81, p = 0.05, CI 0.66–0.99), hypertension (HR = 0.64, p = 0.00, CI 0.51–0.79) or diabetes (HR = 0.75, p = 0.006, CI 0.61–0.92) post-stroke are less likely to have no recurrence, i.e. to stay in remission after the first stroke. CONCLUSIONS: Among Medicaid patients, persistence on the first drug taken after a stroke reduces the likelihood of recurrence. Clopidogrel and the combination of up to two blood pressure lowering drugs are associated with a higher likelihood of no recurrence. However, heart disease, hypertension and diabetes decrease the likelihood of avoiding a second stroke. These results may inform care management plans for Medicaid patients.

**PSR7**

**DISABILITY MEASURES IN STROKE: SCORE CONVERSION BETWEEN THE BARTHEL INDEX AND THE MOTOR COMPONENT OF FUNCTIONAL INDEPENDENCE MEASURE FOR PRACTITIONER**

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OBJECTIVES: Disability presents a major economic and humanistic burden among stroke survivors. To quantify disability in patients, activities of daily living (ADLs) measures have been developed, leaving a significant discontinuation of patient care between facilities that use different measures. The purpose of this study is to develop a conversion system for two widely used ADL measures, the Motor component in Functional Independence Measure (M-FIM) and the Barthel Index (BI).

METHODS: We use Kansas City Stroke Study data. We standardized the scales of both instruments to 0–1 and rotated them 45 degrees in order to get a consistent conversion scheme regardless of the direction of the conversion (from BI to M-FIM or from M-FIM to BI). We applied the censored heteroscedastic regression spline model using Monte Carlo Expectation and Conditional Maximization (MCECM) algorithm, since the data is censored in both boundaries (for M-FIM: 13–91, and BI: 0–100) with ceiling and floor effects. RESULTS: Among 1676 records, 2.4% and 5.8% of M-FIM records, and 3.5% and 24% of BI presented the lowest and highest scores respectively. Based on our model, zero, 60, and 100 of BI scores are equivalent to 13 to 15, 59 to 62, and 88 to 91 of M-FIM. (Complete conversion table will be provided in the presentation.) The two measures were highly correlated (r = 0.9479, p < 0.0001), but the linearity assumption was improper, particularly, for the higher score range of the M-FIM and BI. CONCLUSIONS: For the continuum of patient care, the conversion among scales is an important issue. We developed a conversion scheme between two widely used ADL measures, BI and M-FIM, based on their total scores. Further research is planned to obtain a more robust and precise conversion model addressing item level information.

**PSR8**

**BUILDING A LINK BETWEEN DISABILITY AFTER AN ISCHEMIC STROKE AND NEED FOR FOLLOW-UP CARE**

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OBJECTIVES: We aimed to determine whether, and by how much, stroke severity, as measured by the Modified Rankin Scale (MRS) of disability, influences the duration of subsequent disability, and therefore the need for rehabilitation and nursing care.

METHODS: A total of 7599 patients were enrolled in a randomised clinical trial (MATCH) of clopidogrel vs. aspirin + clopidogrel after a transient ischaemic attack or ischaemic stroke within 90 days (median 15 days). The two study arms were pooled. The Modified Rankin Scale (MRS) was assessed at: baseline (randomisation), months one, three, six, 12, 18 and following a recurrent stroke. RESULTS: At baseline, 20.7% of 7599 patients were disabled (11.6% at MRS 3, 8.6% at MRS 4 and 0.5% at MRS 5). Median time to change from disabled state (MRS 3, 4, or 5) to non-disabled state (MRS 0, 1, or 2) was three-months for patients with moderate disability (MRS 3) and 18 months for patients with severe disability (MRS 4). For patients with very severe disability (MRS 5), 80.7% remained disabled at 18-months. Among the 804 patients who experienced a recurrent ischaemic stroke during the study, 53.4% of patients were disabled after the recurrent stroke (20.3% at MRS 3, 20.8% at MRS 4, and 12.3% for MRS 5). Median time to change from disabled state to non-disabled state was six-months for MRS 3 and more than 18-months for MRS 4. For MRS 5, 94.5% of patients still remained disabled. CONCLUSIONS: More severe strokes and recurrent strokes cause longer-term disability. After a recurrent stroke, the median time to change from a disabled to non-disabled state is six-months for patients with moderate disability (MRS 3) and more than 18-months for patients with severe disability (MRS 4). Almost all patients with very severe disability (MRS 5), remain disabled and require permanent nursing care.

**STENTS**

**ECONOMIC EVALUATION OF SIROLIMUS-ELUTING STENTS IN JAPAN**

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OBJECTIVES: Percutaneous coronary intervention (PCI) using a sirolimus-eluting stent (SES), coated with the immunosuppressive agent sirolimus, dramatically reduces the risk of restenosis compared to bare metal stent (BMS) implantation. However, before SES can be widely adopted in clinical practice, it is essential to conduct an economic evaluation of this effective but expensive device. Our study was undertaken to estimate the three-year cumulative medical costs of stenting using SES compared to BMS in the Japanese health care system. METHODS: The data on clinical sequelae of stenting using BMS were derived from our previous study, based on data collected from three Japanese hospitals. We estimated that the probability of target-lesion revascularization would be 0.15 times in SES implantation compared to BMS implantation based on the recent meta-analysis results (Babarille et al, 2004). The medical costs for procedures were obtained from published articles and were adjusted to the January, 2005 level. Annual discount rate was set to 0.03. Sensitivity analyses with different presumptions, including the cost of intervention, the probability of target-lesion revascular-