(ED) from January 2013 to August 2014 with confirmed dengue test. Analyses were made in three steps: results description; agreement analysis with Kappa test; and several regression analyses. Outcome (severe dengue) was defined as critical care entrance. **RESULTS:** 761 children with confirmed dengue were analyzed. 50.6% were male, 67.2% stayed more than one day in the hospital. Median age was 7.9 years (IQR, 5.0-10.7). Kappa statistics between the two definitions for hospitalized patients (n = 504) was 0.30 (standard error=0.04). 137 (18%) patients were admitted with DHF/DSS, according to WHO 1997. DHF/DSS had a sensitivity of 33.3% (95% CI, 30.0-36.7) and specificity of 83.2% (95% CI, 80.5-85.8) in inpatient with severe dengue. Adjusted binomial regression showed a relative risk of 2.3 (95% CI, 1.3-3.9) for the outcome in patients with DHF/DSS. WHO 2009 definition showed a sensitivity of 31.5% (95% CI, 28.2-34.8) and specificity of 94.3% (95% CI, 92.7-96.0). Median number of warning sign at emergency admission was 2 (IQR, 1-2). Number of warning signs was significantly different between patients who entered critical care versus patients who did not (P<0.001). **CONCLUSIONS:** The WHO 2009 showed significant over-perfomance compared WHO 1997.

PHS9
IS PHARMACEUTICAL CARE EFFECTIVE FOR IMPROVING BLOOD PRESSURE CONTROL AND MEDICATION ADHERENCE AMONG HYPERTENSIVE PATIENTS? A REVIEW

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OBJECTIVES: Medication adherence among hypertensive patients is poor stemming from various factors. The aim of this review was to appraise published randomized control trials (RCTs) on hypertensive patients to determine the effectiveness of a pharmacist led intervention for improving medication adherence and blood pressure control. **METHODS:** Only English language RCTs published between January 1st, 1995 and December 31st, 2013 were considered for inclusion. Electronic databases searched included: PubMed, Web of Science, Elsevier, CINAHL, and Google Scholar. Studies were eligible if they comprised a separate group of controls. The intervention, pharmaceutical care or counseling provided by a pharmacist, had to be compared with the usual treatment for hypertension or a combination of usual treatment and sham interventions. Only studies that compared outcomes after at least a six month follow up period using at least one or a combination of the following for assessing adherence: pill count, medication refill rate, or a validated adherence scale were included. **RESULTS:** Of 457 citations reviewed, 9 RCTs met the inclusion criteria. The included RCTs were conducted in various parts of the world, including China, Brazil, Portugal and the United States. Across the 9 RCTs, a total of 581 individuals for the intervention group and 587 individuals in the control group were compared in the analyses. The outcome measures were systolic and diastolic blood pressure, and medication adherence assessed using a validated tool. The results showed that for the intervention group, which received pharmaceutical care services, there was a significant decline in systolic and diastolic blood pressure and improved medication adherence from baseline, in comparison to the control group. **CONCLUSIONS:** Pharmaceutical care may improve adherence and blood pressure control in hypertensive individuals. The evidence supports the wider provision of pharmaceutical care for hypertension management in various practice settings.

PHS10
EFFECTS OF SOCIAL NETWORKS ON PATIENT ADHERENCE TO PRESCRIBED TREATMENT FOR SERIOUS MENTAL ILLNESS: A SYSTEMATIC REVIEW

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OBJECTIVES: Mental illness is a global public health concern with clinical and economical burden. Medication non-adherence increases the risk outcomes (e.g. relapse, re-hospitalization and delayed illness recovery) of mental health care. The purpose of this study was to determine the effects (positive, negative or none) of social networks on patient adherence to prescribed treatment for serious mental illness (SMI). **METHODS:** We systematically reviewed studies published from January 2003 to December 2012. We evaluated five established social network interventions (education and behavioral support, social support, collaborative care; case management, care management) with three outcomes (improved patient adherence to prescribed mental health treatment protocol, hindered/impeded patient adherence to prescribed mental health treatment protocol & no effect on patient adherence to prescribed mental health treatment protocol). We assessed the number of studies that reported improved, hindered or no effect outcome by summarizing the studies and listing their main outcomes. We also assessed the quality of the studies by checking yes (or no) whether they met methodological quality criteria, and assigned a percentage score that indicated the strength of quality. Quality was based on reporting and design standards and statistical soundness. **RESULTS:** Thirteen studies met the inclusion criteria of enrolling patients suffering from SMI and reporting effects of social network relating to patient adherence to prescribed mental healthcare treatment. Nine studies reported improved, three reported no effect and only one reported hindered outcome. All studies met the general quality criteria but their strength varied. **CONCLUSIONS:** The findings indicate that social networks improved patient adherence to prescribed mental illness treatment but there are limitations to these findings. The potential for publication bias underscores the need to more closely examine the results of evidence-based research.

PHS11
PREDICTORS OF ALLOPURINOL ADHERENCE IN PATIENTS WITH GOUT

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OBJECTIVES: To assess the factors associated with high allopurinol adherence. **METHODS:** Allopurinol prescription was defined as at least 30 days of a filled allopurinol prescription. Patients were censored when they switched from allopurinol to one of the other ULT. Index allopurinol prescription was defined

as not exposed to allopurinol for 121 days (which contains 30 days grace period for refilling and 91 days for washout **RESULTS:** In multivariable-adjusted that adjusted for all factors except medication and disease severity factors (model 5), we found that the following factors were significantly associated with higher odds of allopurinol MPR ≥80%: older age, Caucasian race, being currently married; gout care from primary care provider specialty, smaller facility bed size, community-based outpatient clinic and Midwest location; means test, service connection ≥50% and longer distance to the nearest VA. Higher BMI had a non-significant trend towards higher odds of allopurinol MPR ≥80%. **CONCLUSIONS:** In this study, we identified several novel factors associated with allopurinol adherence. This new knowledge can be used to improve the likelihood of success of lowering serum urate with allopurinol pharmacotherapy by targeting modifiable risk factors identified in our study.

PHS12
COMPARISON OF THE IMPACT OF HUMAN VERSUS ANALOGUE INSULINS ON GLYCOSYLATED HEMOGLOBIN IN A POPULATION WITH DIABETES MELLITUS COLOMBIA

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OBJECTIVES: To compare the effect on metabolic control between conventional and analogues insulins. **METHODS:** Retrospective cohort study in primary care centers in cities of Pereira and Manizales from Colombia. Monitoring period 18 months to patients diagnosed with diabetes mellitus type 1 and 2 selected by stratified random sampling, of pay regime members of the Health System of Colombia, treated with conventional and analogues insulins (glargine, glulisine, aspartate, detemir) for at least 6 months. Collecting data from the clinical records and analytical results for each patient. Comparison groups according to the type of insulin received were created (insulin glargine vs NPH / glargine vs regular / glulisine). Primary and secondary variables: initial HbA1c measurement and comparison at 6 months and 3 and 18 months respectively. **RESULTS:** 313 patients were included with a mean age of 57.3 years and 56.9% were female. No statistically significant difference in reducing glycosylated hemoglobin at 3, 6 and 18 months comparing groups insulin glargine vs NPH (p = 0.403) and NPH/glargine vs regular/glulisine (p = 0.514) were observed. The percentage of patients with metabolic control increased from 27.8% to 34.2% during follow-up with all insulins. **CONCLUSIONS:** We did not find that analogue insulins were superior to human in glycemic control effect and a high percentage of patients did not meet the recommended treatment, which requires implement measures to improve the monitoring and control of diabetes mellitus.

PHS13
MANAGEMENT OF TUBEROUS SCLEROSIS COMPLEX IN ENGLAND: INSIGHTS INTO REAL-WORLD CLINICAL PRACTICE

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OBJECTIVES: To understand NHS hospital activity associated with Tuberous Sclerosis Complex (TSC) management, and support the development of specialised commissioned services in England. **METHODS:** Hospital Episode Statistics (HES) data for patients with TSC (ICD-10 code Q85.1, recorded between 2006-2013) were extracted in July 2014. Hospital visits and admissions occurring in 2013 were analysed nationally, at 14 'hub' hospitals and at the top-five most frequently accessed 'spoke' hospitals. **RESULTS:** Since 2006, 1922 patients were coded with TSC; age distribution 46% <18 years, 54% >18 years. In 2013 the most common TSC-associated conditions were epilepsy (n=1101), developmental disorder (n=485), benign lipomatous neoplasms (n=160), childhood autism (n=141), other convulsions (n=60). 615 patients attended for outpatient appointments in 2013 (all indications). There were 0.8 elective and 1.9 non-elective admissions/patient (n=489 and 1180/615, respectively). Elective admissions averaged 3.9 bed-days per patient, with 4.2 bed-days/admission for non-elective admissions. There were 1.9 day-case (1193/615) and 9.6 outpatient (5899/615) visits/patient. Of 5899 outpatient attendances, the top five specialties were paediatrics (17%), paediatric neurology (9%), neurology (6%) nephrology (5%) and ophthalmology (5%). In the 'hub' hospitals there were 5.4 outpatient visits/patient, with the top five specialties being paediatric neurology (12%), paediatrics (6%), nephrology (6%), neurology (4%), paediatric nephrology (4% In the spoke providers, the top-five outpatient specialties (n=1564 visits) were paediatrics (21%), learning disability (11%), neurology (8%), paediatric neurology (7%) and ophthalmology (6%). **CONCLUSIONS:** The prevalence of TSC was lower than expected, possibly an artefact of inappropriate NHS coding. TSC management is intensive with many outpatient/day-case visits, and non-elective admissions. Patients are also likely to be receiving care in the community, in addition to the hospital activity reported. TSC management is unevenly distributed between 'hub' and 'spoke' hospitals. Differentiated paediatric and adult services are needed. Fragmentation of TSC service provision suggests specialist management is needed, with coordination by specialist providers.

PHS14
PREDICTORS OF CIGARETTE SMOKING IN THREE ASIAN COUNTRIES: CHINA INDIA AND TAIWAN

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OBJECTIVES: Worldwide, cigarette Smoking is responsible for more than 5 million deaths and is expected to exceed 8 million by 2030. The objective of this study was to identify predictors of smoking in China India and Taiwan. **METHODS:** A cross-sectional study was conducted in convenient sample of adults using a pretested and validated questionnaire between 2008-2011 in China, India and Taiwan. Smoking status was ascertained among participants through one question inquiring if they had smoked cigarette within last 30days. **RESULTS:** A total of 2397 questionnaires