EMCA
Gestión de la Calidad Asistencial

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1. **ARTÍCULO Nº: 4104**

Chen PG, Mehrotra A, Auerbach DI. ***Response: effectiveness in primary care is paramount, but need not come at the expense of efficiency***. Med.Care. 2014; 52(2): 99-100.

Effective primary care is vital to sustainable provision of primary care for the US population. However, efficiency and effectiveness go hand-in-hand. Effective care is that which enables a health system to optimize the performance of all care providers while eliminating wasteful practices. If high-quality patient care and strengthened patient-provider relationships are to occur outside of isolated pockets of innovation and spread to the populace as a whole, each primary care physician must work within a system that affords the tools, opportunity, and support needed to optimally manage a growing number of patients with mounting health care needs. The expectation that primary care physicians must come into direct contact with each and every patient, no matter the acuity or chief complaint, no longer meets the expectations of patients or those whom we would attract to enter the field of primary care. We can no longer repair the faults in our primary care workforce by simply increasing the number of providers working in exactly the same way primary care physicians have always worked. A modern workforce will require efficient practices to produce the most effective health care for the population.

2. **ARTÍCULO Nº: 4105**

Han LC, Kim SP, Gross CP, Ross JS, Van Houten HK, Smaldone MC et al. ***Association of physician specialty and medical therapy for benign prostatic hyperplasia***. Med.Care. 2014; 52(2): 128-136.

BACKGROUND: Despite little available evidence to determine whether recently introduced selective alpha-1 blockers and 5-alpha reductase inhibitors (5-ARIs) are superior to the existing agents in treating benign prostatic hyperplasia (BPH), they are being increasingly prescribed. OBJECTIVE: To describe the prescribing patterns of new and existing agents among patients with incident BPH after the introduction of several new agents and determine whether these varied by physician specialty. RESEARCH DESIGN: We analyzed a retrospective cohort from an administrative claims database from January 2004 through December 2010. SUBJECTS: Patients diagnosed with incident BPH aged 40 years and above and those who received medical management. MEASURES: Receipt of medical therapy for incident BPH (ie, selective alpha-1 blockers [prazosin (released 1976), terazosin (1987), doxazosin (1990), tamsulosin (1997), alfuzosin (2003), silodosin (2009)] and 5-ARIs [finasteride (1992) and dutasteride (2002)]). RESULTS: A total of 42,769 men with incident BPH received any selective alpha-1 blocker or 5-ARI. Tamsulosin and dutasteride were the most widely prescribed agents of their respective drug classes. Predicted probabilities showed that urologists were more likely to prescribe alfuzosin (24.0% vs. 7.8%; P<0.001) and silodosin (2.3% vs. 0.4%; P<0.001) when compared with primary care providers (PCPs) at 6 months after diagnosis. Urologists were

more likely to prescribe 5-ARIs but less likely to prescribe older alpha-1 blockers (terazosin, prazosin, and doxazosin) than PCPs at 6 months postdiagnosis. CONCLUSIONS: Among insured patients diagnosed with BPH, our study suggests that the overall use of new agents is rising. In particular, urologists were more likely to prescribe newer selective alpha-1 blockers compared with PCPs.

3. **ARTÍCULO Nº: 4106**

Gao J, Moran E, Li YF, Almenoff PL. ***Predicting potentially avoidable hospitalizations***. Med.Care. 2014; 52(2): 164-171.

BACKGROUND: Hospitalizations due to ambulatory care sensitive conditions (ACSCs) are widely accepted as an indicator of primary care access and effectiveness. However, broad early intervention to all patients in a health care system may be deemed infeasible due to limited resources. OBJECTIVE: To develop a predictive model to identify high-risk patients for early intervention to reduce ACSC hospitalizations, and to explore the predictive power of different variables. METHODS: The study population included all patients treated for ACSCs in the VA system in fiscal years (FY) 2011 and 2012 (n=2,987,052). With all predictors from FY2011, we developed a statistical model using hierarchical logistic regression with a random intercept to predict the risk of ACSC hospitalizations in the first 90 days and the full year of FY2012. In addition, we configured separate models to assess the predictive power of different variables. We used a random split-sample method to prevent overfitting. RESULTS: For hospitalizations within the first 90 days of FY2012, the full model reached c-statistics of 0.856 (95% CI, 0.853-0.860) and 0.856 (95% CI, 0.852-0.860) for the development and validation samples, respectively. For predictive power of the variables, the model with only a random intercept yielded c-statistics of 0.587 (95% CI, 0.582-0.593) and 0.578 (95% CI, 0.573-0.583), respectively; with patient demographic and socioeconomic variables added, the c-statistics improved to 0.725 (95% CI, 0.720-0.729) and 0.721 (95% CI, 0.717-0.726), respectively; adding prior year utilization and cost raised the c-statistics to 0.826 (95% CI, 0.822-0.830) and 0.826 (95% CI,0.822-0.830), respectively; the full model was reached with HCCs added. For the 1-year hospitalizations, only the full model was fitted, which yielded c-statistics of 0.835 (95% CI, 0.831-0.837) and 0.833 (95% CI, 0.830-0.837), respectively, for development and validation samples. CONCLUSIONS: Our analyses demonstrate that administrative data can be effective in predicting ACSC hospitalizations. With high predictive ability, the model can assist primary care providers to identify high-risk patients for early intervention to reduce ACSC hospitalizations.

4. **ARTÍCULO Nº: 4107**

Segal JB, Bridges JF, Chang HY, Chang E, Nassery N, Weiner J et al. ***Identifying possible indicators of systematic overuse of health care procedures with claims data***. Med.Care. 2014; 52(2): 157-163.

BACKGROUND: Health care quality is frequently described with measures representing the overall performance of a health care system. Despite the growing attention to overuse of health care resources, there is little experience with aggregate measures of overuse. OBJECTIVE: To identify a set of possible indicators of overuse that can be operationalized with claims data and to describe variation in these indicators across the hospital referral regions (HRRs). DESIGN: Using an environmental scan, we identified published descriptions of overused procedures. We assessed each procedure's feasibility for measurement with claims and developed algorithms for occurrences of procedures in patients unlikely to benefit. Using a 5% sample of Medicare claims from 2008, we calculated summary statistics to illustrate variance in the use across HRRs. RESULTS: A total of 613 procedures were identified as overused; 20 had abundant frequency and variance to be possible measures of systematic overuse. These included 13 diagnostic tests, 2 tests for screening, 1 for monitoring, and 4 therapeutic

procedures. The usage varied markedly across HRRs. For illustration, 1 HRR used computed tomography for rhinosinusitis diagnosis in 80 of 1000 beneficiaries (mean usage across HRRs was 14/1000). Among 1,451,142 beneficiaries, 14% had at least one overuse event (range, 8.4%-27%). CONCLUSIONS: We identified a set of overused procedures that may be used as measures of overuse and that demonstrate significant variance in their usage. The implication is that an index of overuse might be built from these indicators that would reveal systematic patterns of overuse within regions. Alternatively, these indicators may be valuable in the quality improvement efforts.

5. **ARTÍCULO Nº: 4108**

Marco P, Zamorano JL, Chana F, Llau JV. ***[New clinical perspectives in the management of oral direct anticoagulant agents]***. Med.Clin.(Barc.). 2014; 142(4): 171-178.

6. **ARTÍCULO Nº: 4109**

Garcia-Pachon E, Padilla-Navas I. ***[Impact factor and h index of Spanish biomedical journals]***. Med.Clin.(Barc.). 2014; 142(5): 226-227.

7. **ARTÍCULO Nº: 4110**

Elosua R. ***Cardiovascular Risk Functions: Usefulness and Limitations***. Rev.Esp.Cardiol. 2014; 67(2): 77-79.

8. **ARTÍCULO Nº: 4111**

Brotons C, Moral I, Soriano N, Cuixart L, Osorio D, Bottaro D et al. ***Impact of Using Different SCORE Tables for Estimating Cardiovascular Risk***. Rev.Esp.Cardiol. 2014; 67(2): 94-100.

INTRODUCTION AND OBJECTIVES: In Spain, various SCORE tables are available to estimate cardiovascular risk: tables for low-risk countries, tables calibrated for the Spanish population, and tables that include high-density lipoprotein values. The aim of this study is to assess the impact of using one or another SCORE table in clinical practice. METHODS: In a cross-sectional study carried out in two primary health care centers, individuals aged 40 to 65 years in whom blood pressure and total cholesterol levels were recorded between March 2010 and March 2012 were selected. Patients with diabetes or a history of cardiovascular disease were excluded. Cardiovascular risk was calculated using SCORE for low-risk countries, SCORE with high-density lipoprotein cholesterol, and the calibrated SCORE. RESULTS: Cardiovascular risk was estimated in 3716 patients. The percentage of patients at high or very high risk was 1.24% with SCORE with high-density lipoprotein cholesterol, 4.73% with the low-risk SCORE, and 15.44% with the calibrated SCORE (P<.01). Treatment with lipid-lowering drugs would be recommended in 10.23% of patients using the calibrated SCORE, 3.12% of patients using the low-risk SCORE, and 0.67% of patients using SCORE with high-density lipoprotein cholesterol. CONCLUSIONS: The calibrated SCORE table classifies a larger number of patients at high or very high risk than the SCORE for low-risk countries or the SCORE with high-density lipoprotein cholesterol. Therefore, its use would imply treating more patients with lipid-lowering medication. Validation studies are needed to assess the most appropriate SCORE table for use in our setting. Full English text available from:www.revespcardiol.org/en.

9. **ARTÍCULO Nº: 4112**

Puig T, Ferrero-Gregori A, Roig E, Vazquez R, Gonzalez-Juanatey JR, Pascual-Figal D et al. ***Prognostic Value of Body Mass Index and Waist Circumference in Patients With Chronic Heart Failure (Spanish REDINSCOR Registry)***. Rev.Esp.Cardiol. 2014; 67(2): 101-106.

INTRODUCTION AND OBJECTIVES: To analyze the association between higher body mass index and waist circumference, and the prognostic values of both indicators in total and cardiac mortality in patients with chronic heart failure. METHODS: The study included 2254 patients who were followed up for 4 years. Obesity was classified as a body mass index >/=30 and overweight as a body mass index of 25.0-29.9. Central obesity was defined as waist circumference >/=88cm for women and >/=102cm for men. Independent predictors of total and cardiac mortality were assessed in a multivariate Cox model adjusted for confounding variables. RESULTS: Obesity was present in 35% of patients, overweight in 43%, and central obesity in 60%. Body mass index and waist circumference were independent predictors of lower total mortality: hazard ratio=0.84 (P<.001) and hazard ratio=0.97 (P=.01), respectively, and lower cardiac death (body mass index, hazard ratio=0.84, P<.001; waist circumference, hazard ratio=0.97, P=.01). The interaction between body mass index and waist circumference (hazard ratio=1.001, P<.01) showed that the protective effect of body mass index was lost in patients with a waist circumference >120cm. CONCLUSIONS: Mortality was significantly lower in patients with a high body mass index and waist circumference. The results also showed that this protection was lost when these indicators over a certain limit. Full English text available from:www.revespcardiol.org/en.

10. **ARTÍCULO Nº: 4113**

Requena ML, Suarez M, Perez O. ***[Current situation of health surveys in Spain]***. Rev.Esp.Salud Publica. 2013; 87(6): 549-573.

To describe the evolution of health interview surveys in Spain (as of 01/01/2012), whether national or regional, its main characteristics and methodology, and in the case of general health surveys (GHIS), its contents. An adapted version of Eurostat quality control template European Health Interview Survey Technical and Methodological Report was filled in by those responsible for GHIS in each region (autonomous communities) and at the national level. The first part (11 questions) gathers general information about health surveys, both GHIS and surveys targeted to specific populations or health problems (SHIS). The second part (109 questions) asks about methodological characteristics of most recent GHIS. Inclusion criteria: 1) regional or supra-regional scope; 2) for the second part, GHIS currently active series. Quality control was performed using double data entry and validated by informants.100 HIS were identified. 16 were GHIS and 84 SHIS. 32 (38%) of the latter were national and 52 (62%) regional. Nutrition 21 (25%), drug use 10 (12%), opinion polls 7 (9%) and dental health 7 (9%) were the most frequent topics in SHIS. Highest GHIS density was reached after year 2000, with several surveys on field at a time (mode=3). 11 GHIS (2 national, 9 regional) met inclusion criteria for the second part. All complied with general quality benchmarks. Few differences were observed in content.GHIS show more similarities than differences in objectives, methods and content. Rationalization and harmonization are needed. Physical activity, alcohol consumption, quality of life and mental health instruments are not yet consensual. Valid and comparable data are required on health status and its determinants to inform health policy.

11. **ARTÍCULO Nº: 4114**

Goicoechea Salazar JA, Nieto Garcia MA, Laguna TA, Larrocha MD, Canto C, V, Murillo CF. ***[Case-Mix of hospital emergencies in the Andalusian Health Service based on the 2012 Minimum Data Set. Spain]***. Rev.Esp.Salud Publica. 2013; 87(6): 587-600.

BACKGROUND: The implementation of digital health records in emergency departments (ED) in hospitals in the Andalusian Health Service and the development of an automatic encoder for this area have allowed us to establish a Minimum Data Set for Emergencies (MDS-ED). The aim of this article is

to describe the case mix of hospital EDs using various dimensions contained in the MDS-ED. METHODS: 3.235.600 hospital emergency records in 2012 were classified in clinical categories from the ICD-9-CM codes generated by the automatic encoder. Operating rules to obtain response time and length of stay were defined. A descriptive analysis was carried out to obtain demographic and chronological indicators as well as hospitalization, return and death rates and response time and length of stay in the Eds. RESULTS: Women generated 54,26% of all occurrences and their average age (39,98 years) was higher than men's (37,61). Paediatric emergencies accounted for 21,49% of the total. The peak hours were from 10:00 to 13:00 and from 16:00 to 17:00. Patients who did not undergo observation (92,67%) remained in the ED an average of 153 minutes. Injuries and poisoning, respiratory diseases, musculoskeletal diseases and symptoms and signs generated over 50% of all visits. 79.191 cases of chest pain, 28.741 episodes of heart failure and 27.989 episodes of serious infections were identified among the most relevant disorders. CONCLUSIONS: The MDS-ED makes it possible to address systematically the analysis of hospital emergencies by identifying the activity developed, the case-mix attended, the response times, the time spent in ED and the quality of the care.

12. **ARTÍCULO Nº: 4115**

Etxebarria-Foronda I, Mar J, Arrospide A, Ruiz de EJ. ***[Cost and mortality associated to the surgical delay of patients with a hip fracture. Spain]***. Rev.Esp.Salud Publica. 2013; 87(6): 639-649.

BACKGROUND: Hip fractures surgery is often delayed for several days. The present work has two objectives. The first one is to determine the preoperative hospital length of stay of patients with a hip fracture in our region and its possible correlation with an increase in mortality rate. Secondly we assessed the healthcare expenditure associated to this preoperative period. METHODS: We carried out an observational, retrospective study in which all hip fractures attended in the Basque Country throughout 2010 were assessed by the Minimun Basic Data Set (MSBD): hospital, age, sex, preoperative hospital length, status at hospital discharge, comorbidities and surgical procedure. Furthermore we studied the Charlson Index and the total cost associated stratified by pre and post-operative period using a multiple model regression. RESULTS: A total of 1856 surgical procedures were analyzed. Average pre and post-operative length of stay was 2.7 and 9.7 days respectively. The mean total cost per hospital admission was 12,552 euro with 1,295.5 euro corresponding to the preoperative period. The duration of preoperative stay is not associated with a significant reduction in mortality, although it did with an increase in the total cost. CONCLUSIONS: Preoperative hospital stay in patients with hip fracture is still challenging. We could not find an association between the delays in surgical procedures and hospital mortality, although it seems to be associated with an increased the total procedure cost. These results can serve as a foundation for setting up strategies to decrease the length of hospital stay, not only for cost-saving purposes.

13. **ARTÍCULO Nº: 4116**

Keaney JF, Jr., Curfman GD, Jarcho JA. ***A pragmatic view of the new cholesterol treatment guidelines***. N.Engl.J.Med. 2014; 370(3): 275-278.

14. **ARTÍCULO Nº: 4117**

Wang Y, Eldridge N, Metersky ML, Verzier NR, Meehan TP, Pandolfi MM et al. ***National trends in patient safety for four common conditions, 2005-2011***. N.Engl.J.Med. 2014; 370(4): 341-351.

BACKGROUND: Changes in adverse-event rates among Medicare patients with common medical conditions and conditions requiring surgery remain largely unknown. METHODS: We used Medicare

Patient Safety Monitoring System data abstracted from medical records on 21 adverse events in patients hospitalized in the United States between 2005 and 2011 for acute myocardial infarction, congestive heart failure, pneumonia, or conditions requiring surgery. We estimated trends in the rate of occurrence of adverse events for which patients were at risk, the proportion of patients with one or more adverse events, and the number of adverse events per 1000 hospitalizations. RESULTS: The study included 61,523 patients hospitalized for acute myocardial infarction (19%), congestive heart failure (25%), pneumonia (30%), and conditions requiring surgery (27%). From 2005 through 2011, among patients with acute myocardial infarction, the rate of occurrence of adverse events declined from 5.0% to 3.7% (difference, 1.3 percentage points; 95% confidence interval [CI], 0.7 to 1.9), the proportion of patients with one or more adverse events declined from 26.0% to 19.4% (difference, 6.6 percentage points; 95% CI, 3.3 to 10.2), and the number of adverse events per 1000 hospitalizations declined from 401.9 to 262.2 (difference, 139.7; 95% CI, 90.6 to 189.0). Among patients with congestive heart failure, the rate of occurrence of adverse events declined from 3.7% to 2.7% (difference, 1.0 percentage points; 95% CI, 0.5 to 1.4), the proportion of patients with one or more adverse events declined from 17.5% to 14.2% (difference, 3.3 percentage points; 95% CI, 1.0 to 5.5), and the number of adverse events per 1000 hospitalizations declined from 235.2 to 166.9 (difference, 68.3; 95% CI, 39.9 to 96.7). Patients with pneumonia and those with conditions requiring surgery had no significant declines in adverse-event rates. CONCLUSIONS: From 2005 through 2011, adverse-event rates declined substantially among patients hospitalized for acute myocardial infarction or congestive heart failure but not among those hospitalized for pneumonia or conditions requiring surgery. (Funded by the Agency for Healthcare Research and Quality and others.).

15. **ARTÍCULO Nº: 4118**

Morden NE, Colla CH, Sequist TD, Rosenthal MB. ***Choosing wisely--the politics and economics of labeling low-value services***. N.Engl.J.Med. 2014; 370(7): 589-592.

More than 40 medical specialties have identified "Choosing Wisely" lists of five overused or low-value services. But these services vary widely in potential impact on care and spending, and specialty societies often name other specialties' services as low value.

16. **ARTÍCULO Nº: 4119**

Feigin VL, Forouzanfar MH, Krishnamurthi R, Mensah GA, Connor M, Bennett DA et al. ***Global and regional burden of stroke during 1990-2010: findings from the Global Burden of Disease Study 2010***. Lancet. 2014; 383(9913): 245-254.

BACKGROUND: Although stroke is the second leading cause of death worldwide, no comprehensive and comparable assessment of incidence, prevalence, mortality, disability, and epidemiological trends has been estimated for most regions. We used data from the Global Burden of Diseases, Injuries, and Risk Factors Study 2010 (GBD 2010) to estimate the global and regional burden of stroke during 1990-2010. METHODS: We searched Medline, Embase, LILACS, Scopus, PubMed, Science Direct, Global Health Database, the WHO library, and WHO regional databases from 1990 to 2012 to identify relevant studies published between 1990 and 2010.We applied the GBD 2010 analytical technique (DisMod-MR), based on disease-specific, pre-specified associations between incidence, prevalence, and mortality, to calculate regional and country-specific estimates of stroke incidence, prevalence, mortality, and disability-adjusted life-years (DALYs) lost by age group (<75 years, >/= 75 years, and in total)and country income level (high-income, and low-income and middle-income) for 1990, 2005, and 2010. FINDINGS: We included 119 studies (58 from high-income countries and 61 from low-income and middle-income countries). From 1990 to 2010, the age-standardised incidence of stroke

significantly decreased by 12% (95% CI 6-17)in high-income countries, and increased by 12% (-3 to 22) in low-income and middle-income countries, albeit nonsignificantly. Mortality rates decreased significantly in both high income (37%, 31-41) and low-income and middle income countries (20%, 15-30). In 2010, the absolute numbers of people with fi rst stroke (169 million), stroke survivors (33 million), stroke-related deaths (59 million), and DALYs lost (102 million) were high and had significantly increased since 1990 (68%, 84%, 26%, and 12% increase, respectively), with most of the burden (686% incident strokes, 522% prevalent strokes, 709% stroke deaths, and 777% DALYs lost) in low-income and middle-income countries. In 2010, 52 million (31%) strokes were in children (aged <20 years old) and young and middle-aged adults(20-64 years), to which children and young and middle-aged adults from low-income and middle-income countries contributed almost 74 000 (89%) and 40 million (78%), respectively, of the burden. Additionally, we noted significant geographical differences of between three and ten times in stroke burden between GBD regions and countries. More than 62% of new strokes, 698% of prevalent strokes, 455% of deaths from stroke, and 717% of DALYs lost because of stroke were in people younger than 75 years. INTERPRETATION: Although age-standardised rates of stroke mortality have decreased worldwide in the past two decades,the absolute number of people who have a stroke every year, stroke survivors, related deaths, and the overall global burden of stroke (DALYs lost) are great and increasing. Further study is needed to improve understanding of stroke determinants and burden worldwide, and to establish causes of disparities and changes in trends in stroke burden between countries of different income levels. FUNDING: Bill & Melinda Gates Foundation.

17. **ARTÍCULO Nº: 4120**

Moore M, Stuart B, Coenen S, Butler CC, Goossens H, Verheij TJ et al. ***Amoxicillin for acute lower respiratory tract infection in primary care: subgroup analysis of potential high-risk groups***. Br.J.Gen.Pract. 2014; 64(619): e75-e80.

BACKGROUND: Antibiotics are of limited overall clinical benefit for uncomplicated lower respiratory tract infection (LRTI) but there is uncertainty about their effectiveness for patients with features associated with higher levels of antibiotic prescribing. AIM: To estimate the benefits and harms of antibiotics for acute LRTI among those producing coloured sputum, smokers, those with fever or prior comorbidities, and longer duration of prior illness. DESIGN AND SETTING: Secondary analysis of a randomised controlled trial of antibiotic placebo for acute LRTI in primary care. METHOD: Two thousand and sixty-one adults with acute LRTI, where pneumonia was not suspected clinically, were given amoxicillin or matching placebo. The duration of symptoms, rated moderately bad or worse (primary outcome), symptom severity on days 2-4 (0-6 scale), and the development of new or worsening symptoms were analysed in pre-specified subgroups of interest. Evidence of differential treatment effectiveness was assessed in prespecified subgroups by interaction terms. RESULTS: No subgroups were identified that were significantly more likely to benefit from antibiotics in terms of symptom duration or the development of new or worsening symptoms. Those with a history of significant comorbidities experienced a significantly greater reduction in symptom severity between days 2 and 4 (interaction term -0.28, P = 0.003; estimated effect of antibiotics among those with a past history -0.28 [95% confidence interval = -0.44 to -0.11], P = 0.001), equivalent to three people in 10 rating symptoms as a slight rather than a moderately bad problem. For subgroups not specified in advance antibiotics provided a modest reduction in symptom severity for non-smokers and for those with short prior illness duration (<7 days), and a modest reduction in symptom duration for those with short prior illness duration. CONCLUSION: There is no clear evidence of clinically meaningful benefit from antibiotics in the studied high-risk groups of patients presenting in general practice with

uncomplicated LRTIs where prescribing is highest. Any possible benefit must be balanced against the side-effects and longer-term effects on antibiotic resistance.

18. **ARTÍCULO Nº: 4121**

Hamoen M, Broekhuizen BD, Little P, Melbye H, Coenen S, Goossens H et al. ***Medication use in European primary care patients with lower respiratory tract infection: an observational study***. Br.J.Gen.Pract. 2014; 64(619): e81-e91.

BACKGROUND It is largely unknown what medication is used by patients with lower respiratory tract infection (LRTI). AIM To describe the use of self-medication and prescribed medication in adults presenting with LRTI in different European countries, and to relate self-medication to patient characteristics. DESIGN AND SETTING An observational study in 16 primary care networks in 12 European countries. METHOD A total of 2530 adult patients presenting with LRTI in 12 European countries filled in a diary on any medication used before and after a primary care consultation. Patient characteristics related to self-medication were determined by univariable and multivariable logistic regression analysis. RESULTS The frequency and types of medication used differed greatly between European countries. Overall, 55.4% self-medicated before consultation, and 21.5% after consultation, most frequently with paracetamol, antitussives, and mucolytics. Females, non-smokers, and patients with more severe symptoms used more self-medication. Patients who were not prescribed medication during the consultation self-medicated more often afterwards. Self-medication with antibiotics was relatively rare. CONCLUSION A considerable amount of medication, often with no proven efficacy, was used by adults presenting with LRTI in primary care. There were large differences between European countries. These findings should help develop patient information resources, international guidelines, and international legislation concerning the availability of over-the-counter medication, and can also support interventions against unwarranted variations in care. In addition, further research on the effects of symptomatic medication is needed.

19. **ARTÍCULO Nº: 4122**

Madigan CD, Daley AJ, Lewis AL, Jolly K, Aveyard P. ***Which weight-loss programmes are as effective as Weight Watchers(R)?: non-inferiority analysis***. Br.J.Gen.Pract. 2014; 64(620): e128-e136.

BACKGROUND: Three randomised controlled trials have provided strong evidence that Weight Watchers((R)) is an effective weight-loss programme but there is insufficient evidence to determine whether three other weight-loss programmes are also effective. AIM: To examine whether other group-based weight-loss programmes were not inferior to Weight Watchers. DESIGN AND SETTING: A prospective cohort study using a non-inferiority analysis of 3290 adults referred through primary care. METHOD Participants who met the eligibility criteria for primary care obesity management treatment chose a free programme (Weight Watchers, Rosemary Conley Diet and Fitness Clubs, Slimming World or a NHS group programme) lasting 3 months; they were weighed at 3 months (programme end) and self-reported their weight at 12 months. RESULTS: At 3 months, weight loss achieved through Rosemary Conley and Slimming World was not inferior to Weight Watchers. The NHS group programme was inferior. At 12 months Slimming World and Rosemary Conley were not inferior to Weight Watchers, although participants using Slimming World lost significantly more weight than those using Weight Watchers. Data on the NHS group programme were inconclusive. CONCLUSION: In the short term all commercial weight-loss programmes appear to result in similar weight loss but the NHS alternative appears to produce less weight loss. At 12 months Slimming World led to greater weight loss but the differences between commercial programmes was small and of minor clinical importance.

20. **ARTÍCULO Nº: 4123**

de WC, O'Donnell C, Bowie P. ***Developing a preliminary 'never event' list for general practice using consensus-building methods.*** Br.J.Gen.Pract. 2014; 64(620): e159-e167.

BACKGROUND: The 'never event' concept has been implemented in many acute hospital settings to help prevent serious patient safety incidents. Benefits include increasing awareness of highly important patient safety risks among the healthcare workforce, promoting proactive implementation of preventive measures, and facilitating incident reporting. AIM: To develop a preliminary list of never events for general practice. DESIGN AND SETTING: Application of a range of consensus-building methods in Scottish and UK general practices. METHOD: A total of 345 general practice team members suggested potential never events. Next, 'informed' staff (n =15) developed criteria for defining never events and applied the criteria to create a list of candidate never events. Finally, UK primary care patient safety 'experts' (n = 17) reviewed, refined, and validated a preliminary list via a modified Delphi group and by completing a content validity index exercise. RESULTS: There were 721 written suggestions received as potential never events. Thematic categorisation reduced this to 38. Five criteria specific to general practice were developed and applied to produce 11 candidate never events. The expert group endorsed a preliminary list of 10 items with a content validity index (CVI) score of >80%. CONCLUSION: A preliminary list of never events was developed for general practice through practitioner experience and consensus-building methods. This is an important first step to determine the potential value of the never event concept in this setting. It is now intended to undertake further testing of this preliminary list to assess its acceptability, feasibility, and potential usefulness as a safety improvement intervention.

21. **ARTÍCULO Nº: 4124**

Hudak ML, Graves A, Reichelt KA, Sweigart J, Harry E, Glasheen J et al. ***What makes a positive deviant: utilizing common themes in best practice stroke hospitals to influence institutional quality improvement.*** Am.J.Med.Qual. 2014; 29(2): 170

22. **ARTÍCULO Nº: 4125**

Nallamothu BK, Tommaso CL, Anderson HV, Anderson JL, Cleveland JC, Jr., Dudley RA et al. ***ACC/AHA/SCAI/AMA-Convened PCPI/NCQA 2013 Performance Measures for Adults Undergoing Percutaneous Coronary Intervention: A Report of the American College of Cardiology/American Heart Association Task Force on Performance Measures, the Society for Cardiovascular Angiography and Interventions, the American Medical Association-Convened Physician Consortium for Performance Improvement, and the National Committee for Quality Assurance.*** Circulation. 2014; 129(8): 926-949.

23. **ARTÍCULO Nº: 4126**

Martinez EA, Donelan K, Henneman JP, Berenholtz SM, Miralles PD, Krug AE et al. ***Identifying meaningful outcome measures for the intensive care unit.*** Am.J.Med.Qual. 2014; 29(2): 144-152.

Despite important progress in measuring the safety of health care delivery in a variety of health care settings, a comprehensive set of metrics for benchmarking is still lacking, especially for patient outcomes. Even in high-risk settings where similar procedures are performed daily, such as hospital intensive care units (ICUs), these measures largely do not exist. Yet we cannot compare safety or quality across institutions or regions, nor can we track whether safety is improving over time. To a large extent, ICU outcome measures deemed valid, important, and preventable by clinicians are unavailable, and abstracting clinical data from the medical record is excessively burdensome. Even if a

set of outcomes garnered consensus, ensuring adequate risk adjustment to facilitate fair comparisons across institutions presents another challenge. This study reports on a consensus process to build 5 outcome measures for broad use to evaluate the quality of ICU care and inform quality improvement efforts.

24. **ARTÍCULO Nº: 4127**

Topel AM, Schini CA. ***An integrated health care system's approach to development of a process to collect patient functional outcomes on total joint replacement procedures***. Am.J.Med.Qual. 2014; 29(2): 160-164.

Health care organizations are challenged to find ways to measure not only process of care but also outcomes of care. Gundersen Health System's Orthopaedic Surgery Department in the La Crosse, Wisconsin area developed a process to collect outcomes of care for patients having hip or knee arthroplasty procedures and planned to use these data to determine impact on patients' lives. The Hip Osteoarthritis Outcomes Score and Knee Osteoarthritis Outcomes Score, adapted from the widely used Western Ontario and McMaster Universities Osteoarthritis Index, were collected preoperatively and at 1 year postoperatively. From these data, the health system determined that patients were experiencing significant improvement in 4 of 5 scales. Further recommendations include evaluating the impact of patients' age, sex, and preoperative body mass index on outcomes, as well as evaluating the impact of more patient involvement in goal setting on recovery time and functional outcomes.

25. **ARTÍCULO Nº: 4128**

Owens PL, Barrett ML, Raetzman S, Maggard-Gibbons M, Steiner CA. ***Surgical site infections following ambulatory surgery procedures***. JAMA. 2014; 311(7): 709-716.

IMPORTANCE: Surgical site infections can result in substantial morbidity following inpatient surgery. Little is known about serious infections following ambulatory surgery. OBJECTIVE: To determine the incidence of clinically significant surgical site infections (CS-SSIs) following low- to moderate-risk ambulatory surgery in patients with low risk for surgical complications. DESIGN, SETTING, AND PARTICIPANTS: Retrospective analysis of ambulatory surgical procedures complicated by CS-SSIs that require a postsurgical acute care visit (defined as subsequent hospitalization or ambulatory surgical visit for infection) using the 2010 Healthcare Cost and Utilization Project State Ambulatory Surgery and State Inpatient Databases for 8 geographically dispersed states (California, Florida, Georgia, Hawaii, Missouri, Nebraska, New York, and Tennessee) representing one-third of the US population. Index cases included 284 098 ambulatory surgical procedures (general surgery, orthopedic, neurosurgical, gynecologic, and urologic) in adult patients with low surgical risk (defined as not seen in past 30 days in acute care, length of stay less than 2 days, no other surgery on the same day, and discharged home and no infection coded on the same day). MAIN OUTCOMES AND MEASURES: Rates of 14- and 30-day postsurgical acute care visits for CS-SSIs following ambulatory surgery. RESULTS: Postsurgical acute care visits for CS-SSIs occurred in 3.09 (95% CI, 2.89-3.30) per 1000 ambulatory surgical procedures at 14 days and 4.84 (95% CI, 4.59-5.10) per 1000 at 30 days. Two-thirds (63.7%) of all visits for CS-SSI occurred within 14 days of the surgery; of those visits, 93.2% (95% CI, 91.3%-94.7%) involved treatment in the inpatient setting. All-cause inpatient or outpatient postsurgical visits, including those for CS-SSIs, following ambulatory surgery occurred in 19.99 (95% CI, 19.48-20.51) per 1000 ambulatory surgical procedures at 14 days and 33.62 (95% CI, 32.96-34.29) per 1000 at 30 days. CONCLUSIONS AND RELEVANCE: Among patients in 8 states undergoing ambulatory surgery, rates of postsurgical visits for CS-SSIs were low relative to all causes; however, they may represent a

substantial number of adverse outcomes in aggregate. Thus, these serious infections merit quality improvement efforts to minimize their occurrence.

26. **ARTÍCULO Nº: 4129**

Wells PS, Forgie MA, Rodger MA. ***Treatment of venous thromboembolism***. JAMA. 2014; 311(7): 717-728.

IMPORTANCE: Venous thromboembolism (VTE), comprising deep vein thrombosis (DVT) and pulmonary embolism (PE), is a common, potentially lethal condition with acute morbidity. OBJECTIVE: To review the etiology of VTE and the 3 phases of VTE treatment: acute (first 5-10 days), long-term (from end of acute treatment to 3-6 months), and extended (beyond 3-6 months). EVIDENCE REVIEW: Cochrane reviews, meta-analyses, and randomized controlled trials, as well as other clinical trials for topics not covered by the former, were reviewed. Literature searches using broad terms were used to find meta-analyses published in the last 15 years. The ninth edition of the American College of Chest Physicians Antithrombotic Therapy Guidelines was used to supplement the literature search. Guidelines from specialty organizations were consulted when relevant. The Canadian Agency for Drugs and Technologies in Health was searched for relevant cost-effectiveness studies. We also searched our own literature database of 8386 articles for relevant research. FINDINGS: Low-molecular-weight heparin (LMWH) along with with vitamin K antagonists and the benefits and proven safety of ambulation have allowed for outpatient management of most cases of DVT in the acute phase. Development of new oral anticoagulants further simplifies acute-phase treatment and 2 oral agents can be used as monotherapy, avoiding the need for LMWH. Patients with PE can also be treated in the acute phase as outpatients, a decision dependent on prognosis and severity of PE. Thrombolysis is best reserved for severe VTE; inferior vena cava filters, ideally the retrievable variety, should be used when anticoagulation is contraindicated. In general, DVT and PE patients require 3 months of treatment with anticoagulants, with options including LMWH, vitamin K antagonists, or direct factor Xa or direct factor IIa inhibitors. After this time, decisions for further treatment are based on balancing the risk of VTE recurrence, determined by etiology of the VTE (transient risk factors, unprovoked or malignancy associated), against the risk of major hemorrhage from treatment. Better prediction tools for major hemorrhage are needed. Experience with new oral anticoagulants as acute, long-term, and extended therapy options is limited as yet, but as a class they appear to be safe and effective for all phases of treatment. CONCLUSIONS AND RELEVANCE: The mainstay of VTE treatment is anticoagulation, while interventions such as thrombolysis and inferior vena cava filters are reserved for limited circumstances. Multiple therapeutic modes and options exist for VTE treatment with small but nonetheless important differential effects to consider. Anticoagulants will probably always increase bleeding risk, necessitating tailored treatment strategies that must incorporate etiology, risk, benefit, cost, and patient preference. Although great progress has been made, further study to understand individual patient risks is needed to make ideal treatment decisions.

27. **ARTÍCULO Nº: 4130**

Moyer VA. ***Screening for lung cancer: U.S. Preventive Services Task Force recommendation statement***. Ann.Intern.Med. 2014; 160(5): 330-338.

DESCRIPTION: Update of the 2004 U.S. Preventive Services Task Force (USPSTF) recommendation on screening for lung cancer. METHODS: The USPSTF reviewed the evidence on the efficacy of low-dose computed tomography, chest radiography, and sputum cytologic evaluation for lung cancer screening in asymptomatic persons who are at average or high risk for lung cancer (current or former smokers) and the benefits and harms of these screening tests and of surgical resection of early-stage non-small

cell lung cancer. The USPSTF also commissioned modeling studies to provide information about the optimum age at which to begin and end screening, the optimum screening interval, and the relative benefits and harms of different screening strategies. POPULATION: This recommendation applies to asymptomatic adults aged 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years. RECOMMENDATION: The USPSTF recommends annual screening for lung cancer with low-dose computed tomography in adults aged 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery. (B recommendation).

28. **ARTÍCULO Nº: 4131**

Stone NJ, Robinson JG, Lichtenstein AH, Goff DC, Jr., Lloyd-Jones DM, Smith SC, Jr. et al. ***Treatment of blood cholesterol to reduce atherosclerotic cardiovascular disease risk in adults: synopsis of the 2013 American College of Cardiology/American Heart Association cholesterol guideline***. Ann.Intern.Med. 2014; 160(5): 339-343.

DESCRIPTION: In November 2013, the American College of Cardiology and American Heart Association (ACC/AHA) released a clinical practice guideline on the treatment of blood cholesterol to reduce cardiovascular risk in adults. This synopsis summarizes the major recommendations. METHODS: In 2008, the National Heart, Lung, and Blood Institute convened the Adult Treatment Panel (ATP) IV to update the 2001 ATP-III cholesterol guidelines using a rigorous process to systematically review randomized, controlled trials (RCTs) and meta-analyses of RCTs that examined cardiovascular outcomes. The panel commissioned independent systematic evidence reviews on low-density lipoprotein cholesterol and non-high-density lipoprotein cholesterol goals in secondary and primary prevention and the effect of lipid drugs on atherosclerotic cardiovascular disease events and adverse effects. In September 2013, the panel's draft recommendations were transitioned to the ACC/AHA. RECOMMENDATIONS: This synopsis summarizes key features of the guidelines in 8 areas: lifestyle, groups shown to benefit from statins, statin safety, decision making, estimation of cardiovascular disease risk, intensity of statin therapy, treatment targets, and monitoring of statin therapy.

29. **ARTÍCULO Nº: 4132**

Guallar E, Laine C. ***Controversy over clinical guidelines: listen to the evidence, not the noise***. Ann.Intern.Med. 2014; 160(5): 361-362.

30. **ARTÍCULO Nº: 4133**

Gache K, Leleu H, Nitenberg G, Woimant F, Ferrua M, Minvielle E. ***Main barriers to effective implementation of stroke care pathways in France: a qualitative study***. BMC.Health Serv.Res. 2014; 14: 95

BACKGROUND: Stroke Care Pathways (SCPs) aim to improve quality of care by providing better access to stroke units, rehabilitation centres, and home care for dependent patients. The objective of this study was to identify the main barriers to effective implementation of SCPs in France. METHODS: We selected 4 types of SCPs currently implemented in France that differed in terms of geographical location, population size, socio-economic conditions, and available health care facilities. We carried out 51 semi-structured interviews of 44 key health professionals involved in these SCPs and used the interview data to (i) create a typology of the organisational barriers to effective SCP implementation by axial coding, (ii) define barrier contents by vertical coding. The typology was validated by a panel of

15 stroke care professionals. RESULTS: Four main barriers to effective SCP implementation were identified: lack of resources (31/44 interviewees), coordination problems among staff (14/44) and among facilities (27/44), suboptimal professional and organisational practices (16/44), and inadequate public education about stroke (13/44). Transposition of the findings onto a generic SCP highlighted alternative care options and identified 10 to 17 barriers that could disrupt continuity of care. CONCLUSION: Lack of resources was considered to be the chief obstacle to effective SCP implementation. However, the main weakness of existing SCPs was poor communication and cooperation among health professionals and among facilities. We intend to use this knowledge to construct a robust set of quality indicators for use in SCP quality improvement initiatives, in comparisons between SCPs, and in the assessment of the effective implementation of clinical practice guidelines.

31. **ARTÍCULO Nº: 4134**

Bernhardsson S, Larsson ME, Eggertsen R, Olsen MF, Johansson K, Nilsen P et al. ***Evaluation of a tailored, multi-component intervention for implementation of evidence-based clinical practice guidelines in primary care physical therapy: a non-randomized controlled trial***. BMC.Health Serv.Res. 2014; 14: 105

BACKGROUND: Clinical practice guidelines are important for transmitting research findings into practice and facilitating the application of evidence-based practice (EBP). There is a paucity of knowledge about the impact of guideline implementation strategies in primary care physical therapy. The aim of this study was to evaluate the effect of a guideline implementation intervention in primary care physical therapy in western Sweden.
METHODS: An implementation strategy based on theory and current evidence was developed. A tailored, multi-component implementation intervention, addressing earlier identified determinants, was carried out in three areas comprising 28 physical therapy practices including 277 physical therapists (PTs) (intervention group). In two adjacent areas, 171 PTs at 32 practices received no intervention (control group). The core component of the intervention was an implementation seminar with group discussions. Among other components were a website and email reminders. Data were collected at baseline and follow-up with a web-based questionnaire. Primary outcomes were the self-reported awareness of, knowledge of, access to, and use of guidelines. Secondary outcomes were self-reported attitudes toward EBP and guidelines. Analyses were performed using Pearson's chi2 test and approximative z-test.
RESULTS: 168 PTs (60.6%) in the intervention group and 88 PTs (51.5%) in the control group responded to the follow-up questionnaire. 186/277 PTs (67.1%) participated in the implementation seminars, of which 97 (52.2%) responded. The proportions of PTs reporting awareness of (absolute difference in change 20.6%, $p = 0.023$), knowledge where to find (20.4%, $p = 0.007$), access to (21.7%, $p < 0.001$), and frequent use of (9.5%, NS) guidelines increased more in the intervention group than in the control group. The proportion of PTs reporting frequent guideline use after participation in the implementation seminar was 15.2% ($p = 0.043$) higher than the proportion in the control group. A higher proportion considered EBP helpful in decision making ($p = 0.018$). There were no other significant differences in secondary outcomes. CONCLUSIONS: A tailored, theory- and evidence-informed, multi-component intervention for the implementation of clinical practice guidelines had a modest, positive effect on awareness of, knowledge of, access to, and use of guidelines, among PTs in primary care in western Sweden. In general, attitudes to EBP and guidelines were not affected.

32. **ARTÍCULO Nº: 4135**

Sooriakumaran P, Nyberg T, Akre O, Haendler L, Heus I, Olsson M et al. ***Comparative effectiveness of radical prostatectomy and radiotherapy in prostate cancer: observational study of mortality outcomes*** . BMJ. 2014; 348: g1502

OBJECTIVE: To compare the survival outcomes of patients treated with surgery or radiotherapy for prostate cancer. DESIGN: Observational study. SETTING: Sweden, 1996-2010. PARTICIPANTS: 34,515 men primarily treated for prostate cancer with surgery (n=21,533) or radiotherapy (n=12,982). Patients were categorised by risk group (low, intermediate, high, and metastatic), age, and Charlson comorbidity score. MAIN OUTCOME MEASURES: Cumulative incidence of mortality from prostate cancer and other causes. Competing risks regression hazard ratios for radiotherapy versus surgery were computed without adjustment and after propensity score and traditional (multivariable) adjustments, as well as after propensity score matching. Several sensitivity analyses were performed. RESULTS: Prostate cancer mortality became a larger proportion of overall mortality as risk group increased for both the surgery and the radiotherapy cohorts. Among patients with non-metastatic prostate cancer the adjusted subdistribution hazard ratio for prostate cancer mortality favoured surgery (1.76, 95% confidence interval 1.49 to 2.08, for radiotherapy v prostatectomy), whereas there was no discernible difference in treatment effect among men with metastatic disease. Subgroup analyses indicated more clear benefits of surgery among younger and fitter men with intermediate and high risk disease. Sensitivity analyses confirmed the main findings. CONCLUSIONS: This large observational study with follow-up to 15 years suggests that for most men with non-metastatic prostate cancer, surgery leads to better survival than does radiotherapy. Younger men and those with less comorbidity who have intermediate or high risk localised prostate cancer might have a greater benefit from surgery.

33. **ARTÍCULO Nº: 4136**

Saini SD, Vijan S, Schoenfeld P, Powell AA, Moser S, Kerr EA. ***Role of quality measurement in inappropriate use of screening for colorectal cancer: retrospective cohort study***. BMJ. 2014; 348: g1247

OBJECTIVE: To examine whether the age based quality measure for screening for colorectal cancer is associated with overuse of screening in patients aged 70-75 in poor health and underuse in those aged over age 75 in good health. DESIGN: Retrospective cohort study utilizing electronic data from the Veterans Affairs (VA) Health Care System, the largest integrated healthcare system in the United States. SETTING: VA Health Care System. PARTICIPANTS: Veterans aged >/= 50 due for repeat average risk colorectal cancer screening at a primary care visit in fiscal year 2010. MAIN OUTCOME MEASURES: Completion of colonoscopy, sigmoidoscopy, or fecal occult blood testing within 24 months of the 2010 visit. RESULTS: 399,067 veterans met inclusion/exclusion criteria (mean age 67, 97% men). Of these, 38% had electronically documented screening within 24 months. In multivariable log binomial regression adjusted for Charlson comorbidity index, sex, and number of primary care visits, screening decreased markedly after the age of 75 (the age cut off used by the quality measure) (adjusted relative risk 0.35, 95% confidence interval 0.30 to 0.40). A veteran who was aged 75 and unhealthy (in whom life expectancy might be limited and screening more likely to result in net burden or harm) was significantly more likely to undergo screening than a veteran aged 76 and healthy (unadjusted relative risk 1.64, 1.36 to 1.97). CONCLUSIONS: Specification of a quality measure can have important implications for clinical care. Future quality measures should focus on individual risk/benefit to ensure that patients who are likely to benefit from a service receive it (regardless of age), and that those who are likely to incur harm are spared unnecessary and costly care.

34. **ARTÍCULO Nº: 4137**

Doran T, Kontopantelis E, Reeves D, Sutton M, Ryan AM. ***Setting performance targets in pay for performance programmes: what can we learn from QOF?*** BMJ. 2014; 348: g1595

35. **ARTÍCULO Nº: 4138**

Baum FE, Laris P, Fisher M, Newman LA, MacDougall C. ***Dear health minister: tend the garden but make sure you fence the crocodiles***. J.Epidemiol.Community Health. 2014; 68(4): 295-296.

This paper offers lessons to in-coming health ministers on how they can act to reduce inequities and take action on social determinants. It draws on an interview study of twenty former Australian State, Territory and Federal health ministers about the extent to which they were able to do these things during their tenure. In order to take effective health equity action the health ministers advised: ensure evidence is used to develop a strong party policy platform for health equity; install policy entrepreneurs for health equity and social determinants in the health ministry; build popular constituencies through processes of deliberative democracy; establish context appropriate cross-department mechanisms to co-ordinate action on social determinants; and be elected in the context of a political party which values social justice and redistribution.

36. **ARTÍCULO Nº: 4139**

Lopez-Picazo Ferrer JJ, Tomas GN, Cubillana Herrero JD, Gomez Company JA, de Dios Canovas GJ. ***[Classification and monitoring of the appropriateness of emergency admissions in a tertiary hospital]***. Rev.Calid.Asist. 2014; 29(1): 10-16.

OBJECTIVE: To measure the appropriateness of hospital admissions, to classify its Clinical Services (CS) according to the level of inappropriateness, and to determine the usefulness of applying rapid assessment techniques (lot quality assurance sampling) in these types of measurements. MATERIAL AND METHODS: A descriptive, retrospective study was conducted in a tertiary hospital to assess the clinical records of emergency admissions to the 12 CS with a higher volume of admissions, using the Appropriateness Evaluation Protocol (AEP). A four-level (<<A>> to <<D>>) increasingly inadequate admissions scale was constructed setting both standard and threshold values in every stratum. Every CS was classified in one of them using lot quality assurance sampling (LQAS). A total of 156 cases (13 cases from every CS) were assessed. The assessment effort (devoted time) was also estimated. RESULTS: There were 22.4+/-6.3% of inadequate admissions. In the CS classification, 9 (75%) got a good or acceptable appropriateness level, and only 1 (8%) got an inacceptable level. The time devoted was estimated at 17 hours. CONCLUSIONS: AEP is useful to assess the admission appropriateness and may be included in the <<Emergencies>> process management, although its variability prevents the use for external comparisons. If both LQAS and the appropriateness classification level and the global estimation (by unifying lot samples) are combined, the monitoring is affordable without a great effort. To extend these tools to other quality indicators requiring direct observation or clinical records, manual assessment could improve the monitoring efficiency.

37. **ARTÍCULO Nº: 4140**

Nebot-Marzal CM, Mira-Solves JJ, Guilabert-Mora M, Perez-Jover V, Pablo-Comeche D, Quiros-Morato T et al. ***[A set of quality and safety indicators for hospitals of the "Agencia Valenciana de Salud"]***. Rev.Calid.Asist. 2014; 29(1): 29-35.

OBJECTIVES: To prepare a set of quality and safety indicators for Hospitals of the <<Agencia Valenciana de Salud>>. MATERIAL AND METHODS: The qualitative technique Metaplan(R) was applied

in order to gather proposals on sustainability and nursing. The catalogue of the <<Spanish Society of Quality in Healthcare>> was adopted as a starting point for clinical indicators. Using the Delphi technique, 207 professionals were invited to participate in the selecting the most reliable and feasible indicators. Lastly, the resulting proposal was validated with the managers of 12 hospitals, taking into account the variability, objectivity, feasibility, reliability and sensitivity, of the indicators. RESULTS: Participation rates varied between 66.67% and 80.71%. Of the 159 initial indicators, 68 were prioritized and selected (21 economic or management indicators, 22 nursing indicators, and 25 clinical or hospital indicators). Three of them were common to all three categories and two did not match the specified criteria during the validation phase, thus obtaining a final catalogue of 63 indicators. CONCLUSIONS: A set of quality and safety indicators for Hospitals was prepared. They are currently being monitored using the hospital information systems.

38. **ARTÍCULO Nº: 4141**

Garcia-Continente X, Perez-Gimenez A, Lopez MJ, Nebot M. ***[Potential selection bias in telephone surveys: landline and mobile phones]***. Gac.Sanit. 2014; 28(2): 170-172.

The increasing use of mobile phones in the last decade has decreased landline telephone coverage in Spanish households. This study aimed to analyze sociodemographic characteristics and health indicators by type of telephone service (mobile phone vs. landline or landline and mobile phone). Two telephone surveys were conducted in Spanish samples (February 2010 and February 2011). Multivariate logistic regression analyses were performed to analyze differences in the main sociodemographic characteristics and health indicators according to the type of telephone service available in Spanish households. We obtained 2027 valid responses (1627 landline telephones and 400 mobile phones). Persons contacted through a mobile phone were more likely to be a foreigner, to belong to the manual social class, to have a lower educational level, and to be a smoker than those contacted through a landline telephone. The profile of the population that has only a mobile phone differs from that with a landline telephone. Therefore, telephone surveys that exclude mobile phones could show a selection bias.

39. **ARTÍCULO Nº: 4142**

Usandizaga M ***[The iceberg of caesarean deliveries without indication]***. Gac.Sanit. 2014; 28(2): 178

40. **ARTÍCULO Nº: 4143**

Redondo A, Saez M, Oliva P, Soler M. ***[Response: what do we know about cesarean deliveries on maternal request?]***. Gac.Sanit. 2014; 28(2): 178-179.

41. **ARTÍCULO Nº: 4144**

Kahn KL, Mendel P, Weinberg DA, Leuschner KJ, Gall EM, Siegel S. ***Approach for conducting the longitudinal program evaluation of the US Department of Health and Human Services National Action Plan to prevent healthcare-associated infections: roadmap to elimination***. Med.Care. 2014; 52(2 Suppl 1): S9-16.

BACKGROUND: In response to mounting evidence about skyrocketing morbidity, mortality, and costs associated with healthcare-associated infections (HAIs), in 2009, the US Department of Health and Human Services (HHS) issued the HHS HAI Action Plan to enhance collaboration and coordination and to strengthen the impact of national efforts to address HAIs. To optimize timely understanding of the Action Plan's approach and outcomes, as well as improve the likely success of this effort, HHS requested an independent longitudinal and formative program evaluation. OBJECTIVES: This article

describes the evaluation approach to assessing HHS's progress and the challenges encountered as HHS attempted to transform the national strategy to HAI elimination. RESEARCH DESIGN: The Context-Input-Process-Product (CIPP) model, a structured-yet-flexible formative and summative evaluation tool, supported the assessment of: (1) the Context in which the Action Plan developed, (2) the Inputs and decisions made about selecting activities for implementation, (3) Processes or implementation of selected activities, and (4) Products and outcomes. MEASURES: A system framework consisting of 4 system functions and 5 system properties. RESULTS: The CIPP evaluation model provides a structure for tracking the components of the program, the relationship between components, and the way in which components change with time. The system framework allows the evaluation team to understand what the Action Plan is doing and how it aims to facilitate change in the healthcare system to address the problem of HAIs. CONCLUSIONS: With coordination and alignment becoming increasingly important among large programs within healthcare and other fields, program evaluations like this can inform the policy community about what works and why, and how future complex large-scale programs should be evaluated.

42. **ARTÍCULO Nº: 4145**

Cataife G, Weinberg DA, Wong HH, Kahn KL. ***The effect of Surgical Care Improvement Project (SCIP) compliance on surgical site infections (SSI)***. Med.Care. 2014; 52(2 Suppl 1): S66-S73.

BACKGROUND: The Surgical Care Improvement Project (SCIP) has developed a set of process compliance measures in an attempt to reduce the incidence of surgical site infections (SSIs). Previous research has been inconclusive on whether compliance with these measures is associated with lower SSI rates. OBJECTIVES: To determine whether hospitals with higher levels of compliance with SCIP measures have lower incidence of SSIs and to identify the measures that are most likely to drive this association. DATA AND METHODS: Analysis of linked SCIP compliance rates and SSIs on 295 hospital groups observed annually over the study period 2007-2010. A hospital group comprises all hospitals sharing identical categories for location by state, teaching status, bed size, and urban/rural location. We used a generalized linear model regression with logistic link and binomial family to estimate the association between 3 SCIP measures and SSI rates. RESULTS: Hospital groups with higher compliance rates had significantly lower SSI rates for 2 SCIP measures: antibiotic timing and appropriate antibiotic selection. For a hospital group of median characteristics, a 10% improvement in the measure provision of antibiotic 1 hour before intervention led to a 5.3% decrease in the SSI rates ($P<0.05$). Rural hospitals had effect sizes several times larger than urban hospitals ($P<0.05$). A third-core measure, Timely Antibiotic Stop, showed no robust association. CONCLUSIONS: This analysis supports a clinically and statistically meaningful relationship between adherence to 2 SCIP measures and SSI rates, supporting the validity of the 2 publicly available healthcare-associated infection metrics.

43. **ARTÍCULO Nº: 4146**

Kahn KL, Mendel P, Baker DP. ***Lessons learned and future directions: the national response for preventing healthcare-associated infections***. Med.Care. 2014; 52(2 Suppl 1): S97-S100.

44. **ARTÍCULO Nº: 4147**

Olsho LE, Spector WD, Williams CS, Rhodes W, Fink RV, Limcangco R et al. ***Evaluation of AHRQ's on-time pressure ulcer prevention program: a facilitator-assisted clinical decision support intervention for nursing homes***. Med.Care. 2014; 52(3): 258-266.

BACKGROUND: Pressure ulcers present serious health and economic consequences for nursing home residents. The Agency for Healthcare Research & Quality, in partnership with the New York State

Department of Health, implemented the pressure ulcer module of On-Time Quality Improvement for Long Term Care (On-Time), a clinical decision support intervention to reduce pressure ulcer incidence rates. OBJECTIVE: To evaluate the effectiveness of the On-Time program in reducing the rate of in-house-acquired pressure ulcers among nursing home residents. RESEARCH DESIGN AND SUBJECTS: We employed an interrupted time-series design to identify impacts of 4 core On-Time program components on resident pressure ulcer incidence in 12 New York State nursing homes implementing the intervention (n=3463 residents). The sample was purposively selected to include nursing homes with high baseline prevalence and incidence of pressure ulcers and high motivation to reduce pressure ulcers. Differential timing and sequencing of 4 core On-Time components across intervention nursing homes and units enabled estimation of separate impacts for each component. Inclusion of a nonequivalent comparison group of 13 nursing homes not implementing On-Time (n=2698 residents) accounts for potential mean-reversion bias. Impacts were estimated via a random-effects Poisson model including resident-level and facility-level covariates. RESULTS: We find a large and statistically significant reduction in pressure ulcer incidence associated with the joint implementation of 4 core On-Time components (incidence rate ratio=0.409; P=0.035). Impacts vary with implementation of specific component combinations. CONCLUSIONS: On-Time implementation is associated with sizable reductions in pressure ulcer incidence.

45. **ARTÍCULO Nº: 4148**

Wyatt KD, Stuart LM, Brito JP, Carranza LB, Domecq JP, Prutsky GJ et al. ***Out of context: clinical practice guidelines and patients with multiple chronic conditions: a systematic review***. Med.Care. 2014; 52 Suppl 3: S92-S100.

BACKGROUND: Poor fidelity to practice guidelines in the care of people with multiple chronic conditions (MCC) may result from patients and clinicians struggling to apply recommendations that do not consider the interplay of MCC, socio-personal context, and patient preferences. OBJECTIVE: The objective of the study was to assess the quality of guideline development and the extent to which guidelines take into account 3 important factors: the impact of MCC, patients' socio-personal contexts, and patients' personal values and preferences. RESEARCH DESIGN: We conducted a systematic search of clinical practice guidelines for patients with type 2 diabetes mellitus published between 2006 and 2012. Ovid Medline In-Process & Other Non-Indexed Citations, Ovid MEDLINE, Ovid EMBASE, Scopus, EBSCO CINAHL, and the National Guideline Clearinghouse were searched. Two reviewers working independently selected studies, extracted data, and evaluated the quality of the guidelines. RESULTS: We found 28 eligible guidelines, which, on average, had major methodological limitations (AGREE II mean score 3.8 of 7, SD=1.6). Patients or methodologists were not included in the guideline development process in 20 (71%) and 24 (86%) guidelines, respectively. There was a complete absence of incorporating the impact of MCC, socio-personal context, and patient preferences in 8 (29%), 11 (39%), and 16 (57%) of the 28 guidelines, respectively. When mentioned, MCC were considered biologically, but not as contributors of complexity or patient work or as motivation to focus on patient-centered outcomes. CONCLUSIONS: Extant clinical practice guidelines for one chronic disease sometimes consider the context of the patient with that disease, but only do so narrowly. Guideline panels must remove their contextual blinders if they want to practically guide the care of patients with MCC.

46. **ARTÍCULO Nº: 4149**

Catala-Lopez F, Tobias A. ***[Meta-analysis of randomized trials, heterogeneity and prediction intervals]***. Med.Clin.(Barc.). 2014; 142(6): 270-274.

47. **ARTÍCULO Nº: 4150**

Faden RR, Beauchamp TL, Kass NE. ***Informed consent, comparative effectiveness, and learning health care***. N.Engl.J.Med. 2014; 370(8): 766-768.

48. **ARTÍCULO Nº: 4151**

Bianchi DW, Parker RL, Wentworth J, Madankumar R, Saffer C, Das AF et al. ***DNA sequencing versus standard prenatal aneuploidy screening***. N.Engl.J.Med. 2014; 370(9): 799-808.

BACKGROUND: In high-risk pregnant women, noninvasive prenatal testing with the use of massively parallel sequencing of maternal plasma cell-free DNA (cfDNA testing) accurately detects fetal autosomal aneuploidy. Its performance in low-risk women is unclear. METHODS: At 21 centers in the United States, we collected blood samples from women with singleton pregnancies who were undergoing standard aneuploidy screening (serum biochemical assays with or without nuchal translucency measurement). We performed massively parallel sequencing in a blinded fashion to determine the chromosome dosage for each sample. The primary end point was a comparison of the false positive rates of detection of fetal trisomies 21 and 18 with the use of standard screening and cfDNA testing. Birth outcomes or karyotypes were the reference standard. RESULTS: The primary series included 1914 women (mean age, 29.6 years) with an eligible sample, a singleton fetus without aneuploidy, results from cfDNA testing, and a risk classification based on standard screening. For trisomies 21 and 18, the false positive rates with cfDNA testing were significantly lower than those with standard screening (0.3% vs. 3.6% for trisomy 21, P<0.001; and 0.2% vs. 0.6% for trisomy 18, P=0.03). The use of cfDNA testing detected all cases of aneuploidy (5 for trisomy 21, 2 for trisomy 18, and 1 for trisomy 13; negative predictive value, 100% [95% confidence interval, 99.8 to 100]). The positive predictive values for cfDNA testing versus standard screening were 45.5% versus 4.2% for trisomy 21 and 40.0% versus 8.3% for trisomy 18. CONCLUSIONS: In a general obstetrical population, prenatal testing with the use of cfDNA had significantly lower false positive rates and higher positive predictive values for detection of trisomies 21 and 18 than standard screening. (Funded by Illumina; ClinicalTrials.gov number, NCT01663350.).

49. **ARTÍCULO Nº: 4152**

Bill-Axelson A, Holmberg L, Garmo H, Rider JR, Taari K, Busch C et al. ***Radical prostatectomy or watchful waiting in early prostate cancer***. N.Engl.J.Med. 2014; 370(10): 932-942.

BACKGROUND: Radical prostatectomy reduces mortality among men with localized prostate cancer; however, important questions regarding long-term benefit remain. METHODS: Between 1989 and 1999, we randomly assigned 695 men with early prostate cancer to watchful waiting or radical prostatectomy and followed them through the end of 2012. The primary end points in the Scandinavian Prostate Cancer Group Study Number 4 (SPCG-4) were death from any cause, death from prostate cancer, and the risk of metastases. Secondary end points included the initiation of androgen-deprivation therapy. RESULTS: During 23.2 years of follow-up, 200 of 347 men in the surgery group and 247 of the 348 men in the watchful-waiting group died. Of the deaths, 63 in the surgery group and 99 in the watchful-waiting group were due to prostate cancer; the relative risk was 0.56 (95% confidence interval [CI], 0.41 to 0.77; P=0.001), and the absolute difference was 11.0 percentage points (95% CI, 4.5 to 17.5). The number needed to treat to prevent one death was 8. One man died after surgery in the radical-prostatectomy group. Androgen-deprivation therapy was used in fewer patients who underwent prostatectomy (a difference of 25.0 percentage points; 95% CI, 17.7 to 32.3). The benefit of surgery with respect to death from prostate cancer was largest in men younger than 65 years of age (relative risk, 0.45) and in those with intermediate-risk prostate cancer (relative risk,

0.38). However, radical prostatectomy was associated with a reduced risk of metastases among older men (relative risk, 0.68; P=0.04). CONCLUSIONS: Extended follow-up confirmed a substantial reduction in mortality after radical prostatectomy; the number needed to treat to prevent one death continued to decrease when the treatment was modified according to age at diagnosis and tumor risk. A large proportion of long-term survivors in the watchful-waiting group have not required any palliative treatment. (Funded by the Swedish Cancer Society and others.).

50. **ARTÍCULO Nº: 4153**

Gonzalez-Garcia A, Montero Perez-Barquero M, Formiga F, Gonzalez-Juanatey JR, Quesada MA, Epelde F et al. ***Has Beta-blocker Use Increased in Patients With Heart Failure in Internal Medicine Settings? Prognostic Implications: RICA Registry.*** Rev.Esp.Cardiol. 2014; 67(3): 196-202.

INTRODUCTION AND OBJECTIVES: Underuse of beta-blockers has been reported in elderly patients with heart failure. The aim of this study was to evaluate the current prescription of beta-blockers in the internal medicine setting, and its association with morbidity and mortality in heart failure patients. METHODS: The information analyzed was obtained from a prospective cohort of patients hospitalized for heart failure (RICA registry database, patients included from March 2008 to September 2011) with at least one year of follow-up. We investigated the percentage of patients prescribed beta-blockers at hospital discharge, and at 3 and 12 months, and the relationship of beta-blocker use with mortality and readmissions for heart failure. Patients with significant valve disease were excluded. RESULTS: A total of 515 patients were analyzed (53.5% women), with a mean age of 77.1 (8.7) years. Beta-blockers were prescribed in 62.1% of patients at discharge. A similar percentage was found at 3 months (65.6%) and 12 months (67.9%) after discharge. All-cause mortality and the composite of all-cause mortality and readmission for heart failure were significantly lower in patients treated with beta-blockers (hazard ratio=0.59, 95% confidence interval, 0.41-0.84 vs hazard ratio=0.64, 95% confidence interval, 0.49-0.83). This decrease in mortality was maintained after adjusting by age, sex, ejection fraction, functional class, comorbidities, and concomitant treatment. CONCLUSIONS: The findings of this study indicate that beta-blocker use is increasing in heart failure patients (mainly elderly) treated in the internal medicine setting, and suggest that the use of these drugs is associated with a reduction in clinical events. Full English text available from:www.revespcardiol.org/en.

51. **ARTÍCULO Nº: 4154**

Kahn SR, Shapiro S, Wells PS, Rodger MA, Kovacs MJ, Anderson DR et al. ***Compression stockings to prevent post-thrombotic syndrome: a randomised placebo-controlled trial.*** Lancet. 2014; 383(9920): 880-888.

BACKGROUND: Post-thrombotic syndrome (PTS) is a common and burdensome complication of deep venous thrombosis (DVT). Previous trials suggesting benefit of elastic compression stockings (ECS) to prevent PTS were small, single-centre studies without placebo control. We aimed to assess the efficacy of ECS, compared with placebo stockings, for the prevention of PTS. METHODS: We did a multicentre randomised placebo-controlled trial of active versus placebo ECS used for 2 years to prevent PTS after a first proximal DVT in centres in Canada and the USA. Patients were randomly assigned to study groups with a web-based randomisation system. Patients presenting with a first symptomatic, proximal DVT were potentially eligible to participate. They were excluded if the use of compression stockings was contraindicated, they had an expected lifespan of less than 6 months, geographical inaccessibility precluded return for follow-up visits, they were unable to apply stockings, or they received thrombolytic therapy for the initial treatment of acute DVT. The primary outcome was PTS diagnosed at 6 months or later using Ginsberg's criteria (leg pain and swelling of >/=1 month

duration). We used a modified intention to treat Cox regression analysis, supplemented by a prespecified per-protocol analysis of patients who reported frequent use of their allocated treatment. This study is registered with ClinicalTrials.gov, number NCT00143598, and Current Controlled Trials, number ISRCTN71334751. FINDINGS: From 2004 to 2010, 410 patients were randomly assigned to receive active ECS and 396 placebo ECS. The cumulative incidence of PTS was 14.2% in active ECS versus 12.7% in placebo ECS (hazard ratio adjusted for centre 1.13, 95% CI 0.73-1.76; p=0.58). Results were similar in a prespecified per-protocol analysis of patients who reported frequent use of stockings. INTERPRETATION: ECS did not prevent PTS after a first proximal DVT, hence our findings do not support routine wearing of ECS after DVT. FUNDING: Canadian Institutes of Health Research.

52. **ARTÍCULO Nº: 4155**

Meddings J, Rogers MA, Krein SL, Fakih MG, Olmsted RN, Saint S. ***Reducing unnecessary urinary catheter use and other strategies to prevent catheter-associated urinary tract infection: an integrative review***. BMJ Qual.Saf. 2014; 23(4): 277-289.

BACKGROUND: Catheter-associated urinary tract infections (CAUTI) are costly, common and often preventable by reducing unnecessary urinary catheter (UC) use. METHODS: To summarise interventions to reduce UC use and CAUTIs, we updated a prior systematic review (through October 2012), and a meta-analysis regarding interventions prompting UC removal by reminders or stop orders. A narrative review summarises other CAUTI prevention strategies including aseptic insertion, catheter maintenance, antimicrobial UCs, and bladder bundle implementation. RESULTS: 30 studies were identified and summarised with interventions to prompt removal of UCs, with potential for inclusion in the meta-analyses. By meta-analysis (11 studies), the rate of CAUTI (episodes per 1000 catheter-days) was reduced by 53% (rate ratio 0.47; 95% CI 0.30 to 0.64, p<0.001) using a reminder or stop order, with five studies also including interventions to decrease initial UC placement. The pooled (nine studies) standardised mean difference (SMD) in catheterisation duration (days) was -1.06 overall (p=0.065) including a statistically significant decrease in stop-order studies (SMD -0.37; p<0.001) but not in reminder studies (SMD, -1.54; p=0.071). No significant harm from catheter removal strategies is supported. Limited research is available regarding the impact of UC insertion and maintenance technique. A recent randomised controlled trial indicates antimicrobial catheters provide no significant benefit in preventing symptomatic CAUTIs. CONCLUSIONS: UC reminders and stop orders appear to reduce CAUTI rates and should be used to improve patient safety. Several evidence-based guidelines have evaluated CAUTI preventive strategies as well as emerging evidence regarding intervention bundles. Implementation strategies are important because reducing UC use involves changing well-established habits.

53. **ARTÍCULO Nº: 4156**

Taylor MJ, McNicholas C, Nicolay C, Darzi A, Bell D, Reed JE. ***Systematic review of the application of the plan-do-study-act method to improve quality in healthcare***. BMJ Qual.Saf. 2014; 23(4): 290-298.

BACKGROUND: Plan-do-study-act (PDSA) cycles provide a structure for iterative testing of changes to improve quality of systems. The method is widely accepted in healthcare improvement; however there is little overarching evaluation of how the method is applied. This paper proposes a theoretical framework for assessing the quality of application of PDSA cycles and explores the consistency with which the method has been applied in peer-reviewed literature against this framework. METHODS: NHS Evidence and Cochrane databases were searched by three independent reviewers. Empirical studies were included that reported application of the PDSA method in healthcare. Application of PDSA cycles was assessed against key features of the method, including documentation

characteristics, use of iterative cycles, prediction-based testing of change, initial small-scale testing and use of data over time. RESULTS: 73 of 409 individual articles identified met the inclusion criteria. Of the 73 articles, 47 documented PDSA cycles in sufficient detail for full analysis against the whole framework. Many of these studies reported application of the PDSA method that failed to accord with primary features of the method. Less than 20% (14/73) fully documented the application of a sequence of iterative cycles. Furthermore, a lack of adherence to the notion of small-scale change is apparent and only 15% (7/47) reported the use of quantitative data at monthly or more frequent data intervals to inform progression of cycles. DISCUSSION: To progress the development of the science of improvement, a greater understanding of the use of improvement methods, including PDSA, is essential to draw reliable conclusions about their effectiveness. This would be supported by the development of systematic and rigorous standards for the application and reporting of PDSAs.

54. **ARTÍCULO Nº: 4157**

Treadwell JR, Lucas S, Tsou AY. ***Surgical checklists: a systematic review of impacts and implementation***. BMJ Qual.Saf. 2014; 23(4): 299-318.

BACKGROUND: Surgical complications represent a significant cause of morbidity and mortality with the rate of major complications after inpatient surgery estimated at 3-17% in industrialised countries. The purpose of this review was to summarise experience with surgical checklist use and efficacy for improving patient safety. METHODS: A search of four databases (MEDLINE, CINAHL, EMBASE and the Cochrane Database of Controlled Trials) was conducted from 1 January 2000 to 26 October 2012. Articles describing actual use of the WHO checklist, the Surgical Patient Safety System (SURPASS) checklist, a wrong-site surgery checklist or an anaesthesia equipment checklist were eligible for inclusion (this manuscript summarises all but the anaesthesia equipment checklists, which are described in the Agency for Healthcare Research and Quality publication). RESULTS: We included a total of 33 studies. We report a variety of outcomes including avoidance of adverse events, facilitators and barriers to implementation. Checklists have been adopted in a wide variety of settings and represent a promising strategy for improving the culture of patient safety and perioperative care in a wide variety of settings. Surgical checklists were associated with increased detection of potential safety hazards, decreased surgical complications and improved communication among operating staff. Strategies for successful checklist implementation included enlisting institutional leaders as local champions, incorporating staff feedback for checklist adaptation and avoiding redundancies with existing systems for collecting information. CONCLUSIONS: Surgical checklists represent a relatively simple and promising strategy for addressing surgical patient safety worldwide. Further studies are needed to evaluate to what degree checklists improve clinical outcomes and whether improvements may be more pronounced in particular settings.

55. **ARTÍCULO Nº: 4158**

Ullstrom S, Andreen SM, Hansson J, Ovretveit J, Brommels M. ***Suffering in silence: a qualitative study of second victims of adverse events***. BMJ Qual.Saf. 2014; 23(4): 325-331.

INTRODUCTION: The term 'second victim' refers to the healthcare professional who experiences emotional distress following an adverse event. This distress has been shown to be similar to that of the patient-the 'first victim'. The aim of this study was to investigate how healthcare professionals are affected by their involvement in adverse events with emphasis on the organisational support they need and how well the organisation meets those needs. METHODS: 21 healthcare professionals at a Swedish university hospital who each had experienced an adverse event were interviewed. Data from semi-structured interviews were analysed by qualitative content analysis using QSR NVivo software for

coding and categorisation. RESULTS: Our findings confirm earlier studies showing that emotional distress, often long-lasting, follows from adverse events. In addition, we report that the impact on the healthcare professional was related to the organisation's response to the event. Most informants lacked organisational support or they received support that was unstructured and unsystematic. Further, the formal investigation seldom provided adequate and timely feedback to those involved. The insufficient support and lack of feedback made it more difficult to emotionally process the event and reach closure. DISCUSSION: This article addresses the gap between the second victim's need for organisational support and the organisational support provided. It also highlights the need for more transparency in the investigation of adverse events. Future research should address how advanced support structures can meet these needs and provide learning opportunities for the organisation. These issues are central for all hospital managers and policy makers who wish to prevent and manage adverse events and to promote a positive safety culture.

56. **ARTÍCULO Nº: 4159**

Franklin BA. ***Preventing exercise-related cardiovascular events: is a medical examination more urgent for physical activity or inactivity?*** Circulation. 2014; 129(10): 1081-1084.

57. **ARTÍCULO Nº: 4160**

Whitfield GP, Pettee Gabriel KK, Rahbar MH, Kohl HW, III. ***Application of the American Heart Association/American College of Sports Medicine Adult Preparticipation Screening Checklist to a Nationally Representative Sample of US Adults Aged >=40 Years From the National Health and Nutrition Examination Survey 2001 to 2004***. Circulation. 2014; 129(10): 1113-1120.

BACKGROUND: Although the American Heart Association/American College of Sports Medicine's Preparticipation Questionnaire (AAPQ) is a recommended preexercise cardiovascular screening tool, it has never been systematically evaluated. The purpose of this research is to provide preliminary evidence of its effectiveness among adults aged >/=40 years. METHODS AND RESULTS: Under the assumption that participants would respond to AAPQ items as they responded to a general health survey, we calculated the sex- and age-specific proportions of adult participants in the National Health and Nutrition Examination Survey 2001 to 2004 who would receive a recommendation for physician consultation based on AAPQ referral criteria. Additionally, we compared recommended AAPQ referrals to a similar assessment using the Physical Activity Readiness Questionnaire in the study sample. AAPQ referral proportions were higher with older age. Across all age groups >/=40 years, 95.5% (94.3% to 96.8%) of women and 93.5% (92.2% to 94.7%) of men in the United States would be advised to consult a physician before exercise. Prescription medication use and age were the most commonly selected items. When referral based on AAPQ was compared with that of the Physical Activity Readiness Questionnaire, the 2 screening tools produced similar results for 72.4% of respondents. CONCLUSIONS: These results suggest that >90% of US adults aged >/=40 years would receive a recommendation for physician consultation by the AAPQ. Excessive referral may present an unnecessary barrier to exercise adoption and stress the healthcare infrastructure.

58. **ARTÍCULO Nº: 4161**

Pande AN, Jacobs AK. ***In-hospital ST-segment-elevation myocardial infarction: an inside-out approach***. Circulation. 2014; 129(11): 1193-1195.

59. **ARTÍCULO Nº: 4162**

Roger VL. ***The quality of quality: is it time for new tools?*** Circulation. 2014; 129(12): 1270-1272.

60. **ARTÍCULO Nº: 4163**

Sanchez DP, Guillen JJ, Torres AM, Sanchez FI. ***[Analysis of medications dispensed to control the main cardiovascular risks in the Murcia Region: are there gender differences?]***. Aten.Primaria. 2014; 46(3): 147-155.

OBJECTIVES: To estimate the use of cardiovascular medicines and its distribution by age and sex. DESIGN: Observational study. SETTING: Region of Murcia. MAIN MEASUREMENTS: Daily doses of cardiovascular drugs prescribed and dispensed in all the pharmacies of the Region per 1,000 inhabitants-day (DHD). A comparison was made of consumption rates (DHD) by age and sex. RESULTS: The probability of receiving antiplatelet drugs increases with age, with the proportion of men being higher. The use of beta-blockers and angiotensin II increases with age up to 79 years, with an increased consumption in men up to 65 years. The probability of receiving treatment with calcium channel blockers, ACE inhibitors, or statins, linearly increases with age, and the proportion of men under treatment exceeds that of women in the early ages, tending to equalize beyond 80 years. CONCLUSIONS: This study shows that the cardiovascular disease prevention focuses on people aged 40 to 74 years. Access by women to cardiovascular therapy occurs with a delay of 3-5 years, depending on the treatment subgroup. Changes should be promoted to encourage rational and equitable access and use of the drugs.

61. **ARTÍCULO Nº: 4164**

Curry SJ, Grossman DC, Whitlock EP, Cantu A. ***Behavioral counseling research and evidence-based practice recommendations: U.S. Preventive Services Task Force perspectives***. Ann.Intern.Med. 2014; 160(6): 407-413.

The U.S. Preventive Services Task Force (USPSTF) makes recommendations on which preventive services to routinely incorporate into primary care for specific populations. Behavioral counseling interventions are preventive services designed to help persons engage in healthy behaviors and limit unhealthy ones. The USPSTF's evaluation of behavioral counseling interventions asks 2 primary questions: Do interventions in the clinical setting influence persons to change their behavior, and does changing health behavior improve health outcomes with minimal harms?This article discusses challenges encountered by the USPSTF in aggregating the behavioral counseling intervention literature to develop guidelines. The challenges relate broadly to study populations, intervention protocols, assessment of outcomes, and linking behavior changes to health outcomes. Recommendations to address these challenges include use of the PRECIS (Pragmatic-Explanatory Continuum Indicator Summary) tool as a guide for the development of feasible, replicable, and generalizable behavioral counseling interventions; improved reporting of study methods and results; consensus measures for key behavioral outcomes; and use of existing data sets to link behavior change and clinical outcomes.

62. **ARTÍCULO Nº: 4165**

Moyer VA. ***Screening for gestational diabetes mellitus: U.S. Preventive Services Task Force recommendation statement***. Ann.Intern.Med. 2014; 160(6): 414-420.

DESCRIPTION: Update of the 2008 U.S. Preventive Services Task Force (USPSTF) recommendation on screening for gestational diabetes mellitus (GDM). METHODS: The USPSTF reviewed the evidence on the accuracy of screening tests for GDM, the benefits and harms of screening before and after 24 weeks of gestation, and the benefits and harms of treatment in the mother and infant. POPULATION: This recommendation applies to pregnant women who have not been previously diagnosed with type

1 or 2 diabetes mellitus. RECOMMENDATION: The USPSTF recommends screening for GDM in asymptomatic pregnant women after 24 weeks of gestation. (B recommendation)The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for GDM in asymptomatic pregnant women before 24 weeks of gestation. (I statement).

63. **ARTÍCULO Nº: 4166**

Tamblyn R, Eguale T, Huang A, Winslade N, Doran P. ***The incidence and determinants of primary nonadherence with prescribed medication in primary care: a cohort study***. Ann.Intern.Med. 2014; 160(7): 441-450.

BACKGROUND: Primary nonadherence is probably an important contributor to suboptimal disease management, but methodological challenges have limited investigation of it. OBJECTIVE: To estimate the incidence of primary nonadherence in primary care and the drug, patient, and physician characteristics that are associated with nonadherence. DESIGN: A prospective cohort of patients and all their incident prescriptions from primary care electronic health records between 2006 and 2009 linked to provincial drug insurer data on all drugs dispensed from community-based pharmacies were assembled. SETTING: Quebec, Canada. PATIENTS: 15 961 patients in a primary care network of 131 physicians. MEASUREMENTS: Primary nonadherence was defined as not filling an incident prescription within 9 months. Multivariate alternating logistic regression was used to estimate predictors of nonadherence and account for patient and physician clustering. RESULTS: Overall, 31.3% of the 37 506 incident prescriptions written for the 15 961 patients were not filled. Drugs in the upper quartile of cost were least likely to be filled (odds ratio [OR], 1.11 [95% CI, 1.07 to 1.17]), as were skin agents, gastrointestinal drugs, and autonomic drugs, compared with anti-infectives. Reduced odds of nonadherence were associated with increasing patient age (OR per 10 years, 0.89 [CI, 0.85 to 0.92]), elimination of prescription copayments for low-income groups (OR, 0.37 [CI, 0.32 to 0.41]), and a greater proportion of all physician visits with the prescribing physician (OR per 0.5 increase, 0.77 [CI, 0.70 to 0.85]). LIMITATION: Patients' rationale for choosing not to fill their prescriptions could not be measured. CONCLUSION: Primary nonadherence is common and may be reduced by lower drug costs and copayments, as well as increased follow-up care with prescribing physicians for patients with chronic conditions. PRIMARY FUNDING SOURCE: Canadian Institutes of Health Research.

64. **ARTÍCULO Nº: 4167**

Hartung DM, Zarin DA, Guise JM, McDonagh M, Paynter R, Helfand M. ***Reporting Discrepancies Between the ClinicalTrials.gov Results Database and Peer-Reviewed Publications***. Ann.Intern.Med. 2014; 160(7): 477-483.

BACKGROUND: ClinicalTrials.gov requires reporting of result summaries for many drug and device trials. PURPOSE: To evaluate the consistency of reporting of trials that are registered in the ClinicalTrials.gov results database and published in the literature. DATA SOURCES: ClinicalTrials.gov results database and matched publications identified through ClinicalTrials.gov and a manual search of 2 electronic databases. STUDY SELECTION: 10% random sample of phase 3 or 4 trials with results in the ClinicalTrials.gov results database, completed before 1 January 2009, with 2 or more groups. DATA EXTRACTION: One reviewer extracted data about trial design and results from the results database and matching publications. A subsample was independently verified. DATA SYNTHESIS: Of 110 trials with results, most were industry-sponsored, parallel-design drug studies. The most common inconsistency was the number of secondary outcome measures reported (80%). Sixteen trials (15%) reported the primary outcome description inconsistently, and 22 (20%) reported the primary outcome value inconsistently. Thirty-eight trials inconsistently reported the number of individuals with a serious

adverse event (SAE); of these, 33 (87%) reported more SAEs in ClinicalTrials.gov. Among the 84 trials that reported SAEs in ClinicalTrials.gov, 11 publications did not mention SAEs, 5 reported them as zero or not occurring, and 21 reported a different number of SAEs. Among 29 trials that reported deaths in ClinicalTrials.gov, 28% differed from the matched publication. LIMITATION: Small sample that included earliest results posted to the database. CONCLUSION: Reporting discrepancies between the ClinicalTrials.gov results database and matching publications are common. Which source contains the more accurate account of results is unclear, although ClinicalTrials.gov may provide a more comprehensive description of adverse events than the publication. PRIMARY FUNDING SOURCE: Agency for Healthcare Research and Quality.