1. J Vasc Surg. 2010 Sep 14. [Epub ahead of print

Prevention of radiation injury from medical imaging.

Mitchell EL, Furey P.

INTRODUCTION: Concerns over radiation safety are valid. Understanding and maintaining safe administration helps patients understand the potential risks during endovascular procedures.

METHODS: X-ray production, units of radiation exposure, and forms of direct and indirect exposures are discussed.

RESULTS: Positioning of the image intensifier as close to the patient as practical, moving the x-ray tube as far from the patient as possible, and using pulse fluoroscopy are all ways to help decrease the radiation dose. Collimation, achievable without the use of fluoroscopy, improves image quality while decreasing the radiation dose. Time, distance, and shielding are the three most productive means of reducing radiation exposure.

CONCLUSION: The best defense against radiation injury to both patient and staff is to minimize the total fluoroscopy time, keep the image intensifier close to the patient, collimate to the region of interest, and use appropriate radiation shielding and monitoring

2. Int J Cardiol. 2010 Sep 14. [Epub ahead of print]

Statintherapy in the primary and the secondary prevention of ischaemic cerebrovascular diseases.

Feher A, Pusch G, Koltai K, Tibold A, Gasztonyi B, Szapary L, Feher G.

INTRODUCTION: Stroke is a major public health problem. It is the third leading cause of death worldwide and results in hospital admissions, morbidity, and long-term disability. Despite the inconsistent or weak association between cholesterol and stroke, statins can reduce the incidence of stroke in high-risk populations and in patients with a stroke or transient ischaemic attack.

METHODS: The aim of our study was to review the efficacy of statin therapy in both primary and secondary stroke prevention. We also reviewed the effectiveness and cost-effectiveness among different statins and we also reviewed the possible effect of treatment added to statin monotherapy.

RESULTS: There is evidence that statin therapy in both primary and secondary prevention significantly reduces subsequent major coronary events but only marginally reduces the risk of stroke recurrence. There is no clear evidence of beneficial effect from statins in those with previous haemorrhagic stroke and it is unclear whether statins should be started immediately post stroke or later. There is a pressing need for direct evidence, from head-to-head trials, to determine whether individual statins provide differing protection from clinically important events in stroke prevention. It is possible that combinations of lipid-lowering agents did not improve clinical outcomes more than high-dose statin monotherapy, although clinical trials are still ongoing.

3. Int J Pediatr Otorhinolaryngol. 2010 Sep 13. [Epub ahead of print]

Acute otitis media: From diagnosis to prevention. Summary of the Italian guideline.

Marchisio P, Bellussi L, Di Mauro G, Doria M, Felisati G, Longhi R, Novelli A, Speciale A, Mansi N, Principi N.

Acute otitis media (AOM) is the most common disease occurring in infants and children and has major medical, social and economic effects. If we consider the Italian pediatric population and the incidence rates in different age ranges it can be calculated that almost one million cases of AOM are diagnosed in Italy every year. Various attempts have been made internationally to clarify the most appropriate ways in which AOM should be managed. In Italy, this has been done at local or regional level but there have so far been no national initiatives. The objective of this guideline is to provide recommendations to pediatricians, general practitioners and otolaryngologists involved in the clinical management of acute otitis media in healthy children aged 2 months to 12 years. After a systematic review and grading of evidences from the literature, the document was drafted by a multidisciplinary panel with identified key clinical questions related to diagnosis, treatment of the acute episode, management of complications and prevention.

4. Eur J Cancer. 2010 Sep;46(14):2593-604.

State of the epidemiological evidence on physical activity and cancer prevention.

Friedenreich CM, Neilson HK, Lynch BM.

BACKGROUND: Physical activity is a modifiable lifestyle risk factor that has the potential to reduce the risk of most major cancer sites.

METHODS: We examined the strength, consistency, dose-response and biological plausibility of an association between physical activity and risk of colon, breast, endometrium, lung, prostate, ovarian, gastric, rectal, pancreatic, bladder, testicular, kidney and haematological cancers. We also estimated the population-attributable risk (PAR) for physical inactivity and cancer in 15 European countries.

RESULTS: There is convincing or probable evidence for a beneficial effect of physical activity on the risk of colon, breast and endometrial cancers. The evidence is weaker for ovarian, lung and prostate cancers and generally either null or insufficient for all remaining cancers. Several hypothesised biological mechanisms include a likely effect of physical activity on insulin resistance, body composition, sex steroid hormones and a possible effect on vitamin D, adipokines, inflammation and immune function. Somewhere between 165,000 and 330,000 cases of the six major cancers (breast, colon, lung, prostate, endometrium and ovarian) could have been prevented in 2008 in Europe alone if the population had maintained sufficient levels of physical activity.

CONCLUSION: There is strong and consistent evidence that physical activity reduces the risk of several of the major cancer sites, and that between 9% and 19% of cancer cases could be attributed to lack of sufficient physical activity in Europe. Public health recommendations for physical activity and cancer prevention generally suggest 30-60min of moderate or vigorous-intensity activity done at least 5d per week.

5. Eur J Cancer. 2010 Sep;46(14):2555-62.

Diet and cancer prevention: Contributions from the European Prospective Investigation into Cancer and Nutrition (EPIC) study.

Gonzalez CA, Riboli E.

We present the main findings observed to date from the European Prospective Investigation into Cancer and Nutrition (EPIC) on dietary factors associated with the most frequent cancer sites. METHODS: EPIC is a multicentre prospective study carried out in 23 centres in 10 European countries: Denmark, France, Germany, Greece, Italy, the Netherlands, Norway, Spain, Sweden and the United Kingdom, including 519,978 participants (366,521 women and 153,457 men), most aged 35-70years. RESULTS: We observed the following significant associations: gastric cancer risk was inversely associated with high plasma vitamin C, some carotenoids, retinol and α-tocopherol, high intake of cereal fibre and high adhesion to Mediterranean diet, while red and processed meat were associated with increased risk. High intake of dietary fibre, fish, calcium, and plasma vitamin D were associated with a decreased risk of colorectal cancer, while red and processed meat intake, alcohol intake, body mass index (BMI) and abdominal obesity were associated with an increased risk. High intake of fruit and vegetables in current smokers were associated with a decreased risk of lung cancer. An increased risk of breast cancer was associated with high saturated fat intake and alcohol intake. In postmenopausal women, BMI was positively and physical activity negatively associated with breast cancer risk. High intake of dairy protein and calcium from dairy products and high serum concentration of IGF-I were associated with an increased risk of prostate cancer. These results contribute to scientific evidence for appropriate public health strategies and prevention activities aimed at reducing the global cancer burden.

6. Eur J Cancer. 2010 Sep;46(14):2525-33.

The effects of the financial crisis on primary prevention of cancer.

Martin-Moreno JM, Alfonso-Sanchez JL, Harris M, Lopez-Valcarcel BG.

The present financial crisis will affect primary cancer prevention through several avenues: personal lifestyle choices, exposure to environmental risk factors, decisions made in the private sector and public policy on cancer prevention. Whilst it is clearly problematic to reach solid conclusions on a direct connection between economic crises and cancer mortality, we can identify trends that provide guidance for further action. For some lifestyle choices such as smoking or diet, we argue that public policy may

channel existing tendencies during times of crisis for clear added value. In other areas, including research and health system investments, we will make the case that the resources not used now for cancer prevention efforts will lead to increased costs (both financial and human) down the road. Policy makers face a clear choice: they can follow a cost contention strategy, which may reduce expenditure in the short-term only to increase it in the long-term, or they can use the financial crisis as an opportunity to make difficult choices in terms of health service rationalisation, whilst at the same time strengthening evidence-based prevention policies. In short, we argue that despite the scarcity of funds and the governmental priorities on economic recovery, cancer prevention is more relevant now than ever.

7. Int Psychogeriatr. 2010 Sep 15:1-8. [Epub ahead of print]

A comparison of the frequencies of risk factors for depression in older black and white participants in a study of indicated prevention.

Sriwattanakomen R, McPherron J, Chatman J, Morse JQ, Martire LM, Karp JF, Houck PR, Bensasi S, Houle J, Stack JA, Woods M, Block B, Thomas SB, Quinn S, Reynolds CF.

BACKGROUND: To compare the frequencies of risk factors, we describe risks for depression as a function of race among consecutively admitted participants in a randomized clinical trial of indicated depression prevention in later life.Methods: Seventy-two black and 143 white participants were screened for risk factors for depression.Results: Black participants were more likely to have fewer years of education and lower household income. They were more likely to be obese, live alone, experience functional disability, have a history of alcohol and drug abuse, and have lower scores on the Mini-mental State Examination and the Executive Interview (EXIT). White participants were not found to have greater prevalence or higher mean score on any risk factor. On average, black participants experienced approximately one more risk factor than white participants ($t(213) = 3.32$, $p = 0.0011$).Conclusions: In our sample, black participants had higher frequencies of eight risk factors for depression and a greater mean number of risk factors compared to white participants.

8. Curr Treat Options Cardiovasc Med. 2010 Aug;12(4):365-80.

Omega-3 Fatty acids for cardiovascular disease prevention.

Defilippis AP, Blaha MJ, Jacobson TA.

OPINION STATEMENT: Major dietary sources of omega-3 fatty acids are fish containing eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), as well as nuts, seeds, and vegetable oils containing α-linolenic acid (ALA). Omega-3 fatty acids, especially those derived from marine sources, may be a useful tool for the primary and secondary prevention of cardiovascular disease. Omega-3s exert their cardioprotective effects through multiple mechanisms, including reducing arrhythmias and altering production of prostaglandins, which reduces inflammation and improves platelet and endothelial function. To date, no serious adverse effects of omega-3s have been identified, despite extensive study. In adults, any potential harm from mercury exposure from consuming fish rich in omega-3s is outweighed by the proven cardiovascular benefits of eating fish. Concerns over increased bleeding complications have not materialized despite the increased concomitant use of aspirin and clopidogrel. We recommend one serving (200-400 g) of fatty fish two times per week and a diet that includes foods rich in ALA for the primary prevention of cardiovascular disease. We recommend one serving (200-400 g) of fatty fish or a fish oil supplement containing 900 mg of EPA + DHA every day and a diet rich in ALA for patients with known cardiovascular disease or congestive heart failure.

9.J Int AIDS Soc. 2010 Sep 14;13(1):36. [Epub ahead of print]

Mothers' knowledge and utilization of prevention of mother to child transmission services in northern Tanzania.

Falnes EF, Tylleskar T, de Paoli MM, Manongi R, Engebretsen IM.

BACKGROUND: More than 90% of children living with HIV have been infected through mother to child transmission. The aims of our present study were to: (1) assess the utilization of the prevention of mother to child transmission (PMTCT) services in five reproductive and child health clinics in Moshi, northern Tanzania, after the implementation of routine counselling and testing; (2) explore the level of knowledge the postnatal mothers had about PMTCT; and (3) assess the quality of the counselling given.

METHODS: This study was conducted in 2007 and 2008 in rural and urban areas of Moshi in the Kilimanjaro region of Tanzania. Mixed methods were used. We interviewed 446 mothers when they brought their four-week-old infants to five reproductive and child health clinics for immunization. On average, the urban clinics included in the study had implemented the programme two years earlier than the rural clinics. We also conducted 13 in-depth interviews with mothers and nurses, four focus group discussions with mothers, and four observations of mothers receiving counselling.

RESULTS: Nearly all mothers (98%) were offered HIV testing, and all who were offered accepted. However, the counselling was hasty with little time for clarifications. Mothers attending urban antenatal clinics tended to be more knowledgeable about PMTCT than the rural attendees. Compared with previous studies in the area, our study found that PMTCT knowledge had increased and the counsellors had greater confidence in their counselling.

CONCLUSIONS: Routine counselling and testing for HIV at the antenatal clinics was greatly accepted and included practically every mother in this time period. However, the counselling was suboptimal due to time and resource constraints. We interpret the higher level of PMTCT knowledge among the urban as opposed to the rural attendees as a result of differences in the start up of the PMTCT programme and, thus, programme maturation. After comparison with earlier studies conducted in this setting, we conclude that when the programme has had time to get established, both its acceptance and the understanding of the topics dealt with during the counselling increases.

10. Public Health Nurs. 2010 Sep;27(5):450-8.

Health promotion and disease prevention among nurses working in local public health organizations in montréal, Québec.

Richard L, Gendron S, Beaudet N, Boisvert N, Sauvé MS, Garceau-Brodeur MH.

ABSTRACTObjective: This study investigates conceptualizations of disease prevention and health promotion (DPHP) among nurses from local public health organizations in Montréal, Québec. Design and Sample: A collaborative qualitative study was conducted among a purposive sample of 41 nurses. Measures: Semi-structured interviews investigated two themes: meanings attributed to DPHP as well as nurses' recent DPHP activities. Results: Although the meaning attributed to prevention referred to standard definitions, health promotion was often defined as large-scale health education oriented toward the attainment of positive results, such as health and well-being. Almost completely absent from participants' discourse were central notions such as empowerment and health determinants, including socioenvironmental dimensions of health. With regard to activity descriptions, there was a very partial coverage of the full spectrum of DPHP. Participants rarely went beyond traditional health education activities aimed at an individual target. Finally, a sizeable number of participants appeared to be unable to provide a clear distinction between the terms "health promotion" and "prevention." Conclusions: The results are consistent with a conclusion frequently drawn by commentators and researchers alike that highlight a narrow range of DPHP nursing practices.

11. Orthopedics. 2010 Sep 1;33(9):27-32. doi: 10.3928/01477447-20100722-64.

New oral antithrombotic agents for the prevention of deep venous thrombosis and pulmonary embolism in orthopedic surgery.

Merli GJ.

As the population ages and medical care, along with a functional life style, continues to improve the health of this group, the number of joint replacement surgeries will continue to rise each year in the United States. This growing volume carries with it the risk of venous thromboembolism associated with joint replacement surgery. The American College of Chest Physicians and the American Academy of Orthopedic Surgery have provided guidelines for preventing this complication with the use of warfarin, low molecular weight heparins, pentasaccharides, and aspirin. These agents have had variable efficacy and safety preventing postoperative and out-of-hospital venous thromboembolism. New classes of oral agents, which inhibit Factor II or Factor X, have been shown to be an effective and safe class of anticoagulants that do not require monitoring or have food and drug interactions. This paper will review the current data on the new oral anticoagulants in joint replacement surgery.

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12. Z Gastroenterol. 2010 Sep;48(9):1126-1132. Epub 2010 Sep 13.

Knowledge about HBV, Prevention Behaviour and Treatment Adherence of Patients with Chronic Hepatitis B in a Large Referral Centre in Germany.

Lutgehetmann M, Meyer F, Volz T, Lohse AW, Fischer C, Dandri M, Petersen J.

BACKGROUND: The incidence of chronic hepatitis B in Germany is approximately 0.5 %. Data regarding knowledge about HBV, prevention behaviour and treatment adherence in patients with chronic HBV are scarce.

METHODS: In this prospective study 201 consecutive patients with CHB infection were studied from a large urban academic outpatient clinic at the University Medical Centre in Hamburg. Patients were interviewed with a questionnaire that contained 47 questions covering social demographic dates, knowledge about HBV, treatment adherence and prevention. The success rate of interviews was 100 % with free translation service offered.

RESULTS: 20.4 % of the CHB patients were born in Germany, but the majority of the patients were immigrants (80.6 %). 51 % of the patients had a good, 34 % a moderate and 15 % a poor knowledge about HBV. 89 % of the patients knew that HBV can be transmitted through blood contacts, but 34 % believed that inadequate hygienic conditions and 24 % that food products may transmit the virus. 96 % of the patients had knowledge about the existence of an HBV vaccine. Furthermore, 82 % considered a vaccination of all persons in the household important. Despite the knowledge of the existence and importance of a vaccine, only 61,7 % of the 300 affected children/siblings of HBV-positive family members were vaccinated. However, the child vaccination rate was significantly higher among patients with knowledge about the protective effect of the vaccine ($p < 0.001$), the free of charge vaccination program for children up to 18 years ($p < 0.001$) and higher school education ($p < 0.001$). Migrants with poor German language skills had lower knowledge scores ($p < 0.001$) and showed lower vaccination rates ($p = 0.016$) compared to immigrants with good German language skills. 43 % of all patients were treated with nucleot(s)ide analogues with a median treatment duration of 2 - 5 years. 65 % of these patients declared to never have missed a dose and 27 % missed less than one dose per month. 90 % of the patients tolerated the antiviral drugs very well and between patients with or without side effects there was no significant difference in quality of life.

CONCLUSION: Chronic hepatitis B in Germany is characterised by awareness problems and language barriers. More attention is needed for HBV-infected immigrants in the form of multilingual information about CHB and awareness campaigns.

13. Ann Surg Oncol. 2010 Sep 14. [Epub ahead of print]

Effects of Intraperitoneal Chemotherapy with Mitomycin C on the Prevention of Peritoneal Recurrence in Colorectal Cancer Patients with Positive Peritoneal Lavage Cytology Findings.

Noura S, Ohue M, Shingai T, Kano S, Ohigashi H, Yano M, Ishikawa O, Takenaka A, Murata K, Kameyama M.

BACKGROUND: The detection of intraperitoneal free cancer cells in colorectal cancer (CRC) patients is associated with a poorer prognosis. The aim of this study was to investigate the effects of intraperitoneal chemotherapy (IPC) with mitomycin C (MMC) on preventing peritoneal recurrence in CRC patients with positive peritoneal lavage cytology findings.

METHODS: A total of 52 CRC patients who had no clinically confirmed peritoneal dissemination and whose status of peritoneal lavage cytology was positive were investigated. Conventional peritoneal lavage cytology was performed. Overall, 31 of the 52 patients (59.6%) were administered IPC with MMC. Before closure of the abdomen, 4 silicon catheters were inserted into peritoneal cavity. After closure, the perfusate (diluting 20 mg MMC with 500 ml saline) was instilled from the catheter, and all catheters were clumped. All catheters were opened 1 h later.

RESULTS: The mean follow-up period was 83.1 months. According to univariate analyses of all 52 patients and the subgroup of 36 patients with stage II or III tumors, patients with IPC had a significantly better peritoneal recurrence-free survival and cancer-specific survival than patients who did not receive IPC ($P < 0.005$). In multivariate analysis, IPC remained an independent prognostic factor for peritoneal recurrence-free survival in all patients.

CONCLUSIONS: It appears that IPC with MMC is an effective treatment to prevent peritoneal recurrence and prolong the cancer-specific survival in CRC patients without peritoneal dissemination,

but who have positive peritoneal lavage cytology. It is necessary to verify the effectiveness of IPC with MMC in a prospective trial.

14. J Strength Cond Res. 2010 Sep 9. [Epub ahead of print]

Prevention of Falling Risk in Elderly People: The Relevance of Muscular Strength and Symmetry of Lower Limbs in Postural Stability.

Pizzigalli L, Filippini A, Ahmaidi S, Jullien H, Rainoldi A.

Pizzigalli, L, Filippini, A, Ahmaidi, S, Jullien, H, and Rainoldi, A. Prevention of falling risk in elderly people: the relevance of muscular strength and symmetry of lower limbs in postural stability. J Strength Cond Res 24(X): 000-000, 2010-Falls are one of the major health problems affecting the quality of life among older adults. The aging process is associated with decreasing muscle strength and an increasing risk of falling. The variables and techniques adopted to quantify muscular strength and postural stability were different in each protocol; a great number of reports analyzed the risk factors and predictors of falls, but the results appear still uncertain. To date, there is no clear, definitive statement or review that has examined the effect of the quadriceps strength on static balance performances in different sensory conditions. This contribution aims to provide an overview of experimental works to increase the comprehension and prevention of falls and fall-related injuries in the elderly. Based on a review of the literature, this work was designed to explore the relationship among risk of falls, postural stability, and muscular strength of lower limbs in older adults.

15. Caries Res. 2010 Sep 13;44(5):453-458. [Epub ahead of print]

Mutans Streptococci and Caries Prevalence in Children after Early Maternal Caries Prevention: A Follow-Up at Eleven and Fifteen Years of Age.

Köhler B, Andréen I.

Aim: The efficacy of early maternal caries prevention in children was evaluated. Methods: First-time mothers selected on the basis of a high level of salivary mutans streptococci (MS) and mothers excluded at screening due to a low level of MS ('low') were recalled when their children were 11 years old. The salivary MS level was determined in the mothers. Their children were examined for salivary MS and lesion prevalence (decayed and filled surfaces, DFS) at the ages of 11 and 15 years. Results: More 'high control' mothers displayed ≥10(6) MS than the 'high interventional' and 'low control' mothers and, vice versa, more 'interventional' and 'low control' mothers had MS counts of <3 × 10(5) than 'high control' mothers. More of 'interventional' and 'low control' children had <10(5) MS/ml as compared with the 'high control' children. All the 'high control' children had detectable MS. MS were undetected in 5 'interventional' and 5 'low control' children at 15 years. Significantly fewer 'high control' than 'interventional' and 'low control' children were caries free at 11 and 15 years of age. Non-MS-colonised children at 3 years of age, irrespective of group identity, displayed statistically lower MS counts and less DFS at 15 years than those colonised at 3 years of age. Children with clinical caries/fillings at 15 years had had a significantly higher level of MS at 11 years of age than those without clinical caries/fillings. Conclusion: The clinical trial, focusing on the mothers, resulted in long-term benefits for their children. Children colonised by MS at an early stage developed more caries than those colonised at a later stage.

16. Age Ageing. 2010 Sep 10. [Epub ahead of print]

Cost-effectiveness of a day hospital falls prevention programme for screened community-dwelling older people at high risk of falls.

Irvine L, Conroy SP, Sach T, Gladman JR, Harwood RH, Kendrick D, Coupland C, Drummond A, Barton G, Masud T.

BACKGROUND: multifactorial falls prevention programmes for older people have been proved to reduce falls. However, evidence of their cost-effectiveness is mixed.

DESIGN: economic evaluation alongside pragmatic randomised controlled trial. Intervention: randomised trial of 364 people aged ≥70, living in the community, recruited via GP and identified as high risk of falling. Both arms received a falls prevention information leaflet. The intervention arm were also offered a (day hospital) multidisciplinary falls prevention programme, including physiotherapy, occupational therapy, nurse, medical review and referral to other specialists.

MEASUREMENTS: self-reported falls, as collected in 12 monthly diaries. Levels of health resource use associated with the falls prevention programme, screening (both attributed to intervention arm only) and other health-care contacts were monitored. Mean NHS costs and falls per person per year were estimated for both arms, along with the incremental cost-effectiveness ratio (ICER) and cost effectiveness acceptability curve.

RESULTS: in the base-case analysis, the mean falls programme cost was £349 per person. This, coupled with higher screening and other health-care costs, resulted in a mean incremental cost of £578 for the intervention arm. The mean falls rate was lower in the intervention arm (2.07 per person/year), compared with the control arm (2.24). The estimated ICER was £3,320 per fall averted.

CONCLUSIONS: the estimated ICER was £3,320 per fall averted. Future research should focus on adherence to the intervention and an assessment of impact on quality of life.

17. J Pharmacol Exp Ther. 2010 Sep 10. [Epub ahead of print]

Comparison of prostaglandin EP4 agonist and sulfasalazine in mouse colitis prevention and treatment.

Jiang GL, Im WB, Donde Y, Wheeler LA, Allergan, Inc.

Prodrugs of 5-aminosalicylic acid (5-ASA), such as sulfasalazine, have been the mainstay for treatment and maintenance of inflammatory bowel disease (IBD) for decades, attributable to their anti-adaptive immune activity. However, 5-ASA compromises regeneration of intestinal epithelia and induces apoptosis. The majority of patients eventually undergo colectomy. Recently, agonists for the EP4 receptor of PGE(2) have been shown to protect epithelial barrier against colitis-inducing agents, and could be valuable alternatives for sulfasalazine. Here we compared sulfasalazine and a novel EP4 agonist for their abilities to prevent colitis induction and to relieve symptoms of established colitis in dextran sulfate sodium (DSS)-indomethacin (IND) mouse model. The EP4 agonist dose-dependently alleviated weight loss in colitis mice. When compared to sulfasalazine at 100 mg/kg on colitis induction model, the EP4 agonist at 0.2 mg/kg was superior in reducing colitis symptoms, preventing increase of innate immune cells and ameliorating inflammation in colon. In mice with established colitis, sulfasalazine quickly reversed weight loss but with fading efficacy. The EP4 agonist, in contrast, had slow but sustained effects on body weight gain, and was more efficacious in the epithelial regeneration. Such temporal differences between sulfasalazine and the EP4 agonist actions seemingly led to no additive effect in combination therapy. In conclusion, the EP4 agonist would be more efficacious in maintenance of remission because of both anti-innate immune responses and epithelial regeneration activity; while sulfasalazine would be more suitable for induction of remission due to its rapid onset of anti-adaptive inflammation action.

18. Clin Trials. 2010 Sep 10. [Epub ahead of print]

Prospective evaluation of two recruitment strategies for a randomized controlled cancer prevention trial.

Chlebowski RT, Menon R, Chaisanguanthum RM, Jackson DM.

PURPOSE: To evaluate two recruitment strategies used during the full-scale randomized, placebo-controlled Selenium and Vitamin E Cancer Prevention Trial (SELECT) at one clinical center.

BACKGROUND: Recruitment of participants to cancer prevention trials is challenging and costly and more efficient methods are needed.

METHODS: SELECT participants were males ≥60 years old who were solicited with two recruitment strategies. In the control strategy, potential participants, identified through purchased mailing lists, were sent a SELECT invitation letter. In the 'spouse' strategy, letters were sent to married postmenopausal women already participating in the Women's Health Initiative (WHI) at our clinical center asking them to provide an enclosed SELECT invitation letter (identical to the one in the control strategy) to the 'man in her life'. Our hypothesis was that SELECT recruitment of men would be enhanced by this indirect mailing to their spouses already participating in a similar program.

RESULTS: In the control strategy, 183,315 invitation letters were mailed to 60,000 men; cumulative response was 2.16%; 600 men ultimately enrolled in SELECT (15.1% of respondents) for a mailing recruitment cost of $259 per participant. In the spouse strategy, 800 women participating in WHI clinical studies had husbands; of the 2214 invitation letters mailed to this group of women, cumulative response was 2.75%; 34 men ultimately enrolled in SELECT (55.7% of respondents) for a mailing

recruitment cost of $59 per participant.Limitation Process information on how invitation letters were handled in the spouse strategy was not collected.

CONCLUSION: A direct mail recruitment strategy was successful in recruiting men to a cancer prevention trial. A recruitment strategy involving indirect mailing to married women participating in a similar research program in the same center did not increase initial response substantially, but a higher proportion of respondents ultimately entered the prevention trial.

19. J Am Pharm Assoc (2003). 2010 Sep-Oct;50(5):e116-25.

Role of antihypertensive therapy with angiotensin-converting enzyme inhibitors or angiotensin II receptor blockers in combination with calcium channel blockers for stroke prevention.

Talbert RL.

Objective: To review the available literature on the effects of angiotensin-converting enzyme inhibitors (ACEIs), angiotensin II receptor blockers (ARBs), and calcium channel blockers (CCBs) or combinations of these agents on stroke outcomes in hypertensive patients.Data sources: A Medline search was conducted using the search terms stroke and antihypertensives, calcium channel blockers, angiotensin-converting enzyme inhibitors, or angiotensin II receptor blockers from 1985 to August 17, 2009.Study selection: Randomized controlled clinical trials with at least 400 randomized patients were selected if at least one of the treatment arms used a CCB, ACEI, or ARB to evaluate stroke outcomes in hypertensive patients.Data synthesis: The prevalence of stroke is high in the United States, accounting for approximately 150,000 deaths per year. Early identification and treatment of hypertension to quickly achieve blood pressure reduction is critical in the prevention of stroke. Many trials have provided evidence that CCBs, ACEIs, and ARBs are effective in stroke prevention. Most patients require two or more antihypertensive drugs to achieve blood pressure goals. Because of their complementary actions, combination antihypertensive therapy with a renin-angiotensin-aldosterone system (RAAS) blocker and a CCB may help reduce stroke incidence to a greater extent than either of the monotherapies.Conclusion: A growing body of clinical trial data suggest that aggressive combination antihypertensive therapy, including a RAAS blocker and CCB, may help reduce stroke incidence. Fixed-dose combination therapy is an important consideration in optimizing blood pressure control and patient adherence to therapy in stroke prevention.

20. Lancet Neurol. 2010 Sep 10. [Epub ahead of print]

Cilostazol for prevention of secondary stroke (CSPS 2): an aspirin-controlled, double-blind, randomised non-inferiority trial.

Shinohara Y, Katayama Y, Uchiyama S, Yamaguchi T, Handa S, Matsuoka K, Ohashi Y, Tanahashi N, Yamamoto H, Genka C, Kitagawa Y, Kusuoka H, Nishimaru K, Tsushima M, Koretsune Y, Sawada T, Hamada C; for the CSPS 2 group.

BACKGROUND: The antiplatelet drug cilostazol is efficacious for prevention of stroke recurrence compared with placebo. We designed the second Cilostazol Stroke Prevention Study (CSPS 2) to establish non-inferiority of cilostazol versus aspirin for prevention of stroke, and to compare the efficacy and safety of cilostazol and aspirin in patients with non-cardioembolic ischaemic stroke.

METHODS: Patients aged 20-79 years who had had a cerebral infarction within the previous 26 weeks were enrolled at 278 sites in Japan and allocated to receive 100 mg cilostazol twice daily or 81 mg aspirin once daily for 1-5 years. Patients were allocated according to a computer-generated randomisation sequence by means of a dynamic balancing method using patient information obtained at registration. All patients, study personnel, investigators, and the sponsor were masked to treatment allocation. The primary endpoint was the first occurrence of stroke (cerebral infarction, cerebral haemorrhage, or subarachnoid haemorrhage). The predefined margin of non-inferiority was an upper 95% CI limit for the hazard ratio of 1·33. Analyses were by full-analysis set. This trial is registered with ClinicalTrials.gov, number NCT00234065.

FINDINGS: Between December, 2003, and October, 2006, 2757 patients were enrolled and randomly allocated to receive cilostazol (n=1379) or aspirin (n=1378), of whom 1337 on cilostazol and 1335 on aspirin were included in analyses; mean follow-up was 29 months (SD 16). The primary endpoint occurred at yearly rates of 2·76% (n=82) in the cilostazol group and 3·71% (n=119) in the aspirin group (hazard ratio 0·743, 95% CI 0·564-0·981; p=0·0357). Haemorrhagic events (cerebral

haemorrhage, subarachnoid haemorrhage, or haemorrhage requiring hospital admission) occurred in fewer patients on cilostazol (0·77%, n=23) than on aspirin (1·78%, n=57; 0·458, 0·296-0·711; p=0·0004), but headache, diarrhoea, palpitation, dizziness, and tachycardia were more frequent in the cilostazol group than in the aspirin group.

INTERPRETATION: Cilostazol seems to be non-inferior, and might be superior, to aspirin for prevention of stroke after an ischaemic stroke, and was associated with fewer haemorrhagic events. Therefore, cilostazol could be used for prevention of stroke in patients with non-cardioembolic stroke.

FUNDING: Otsuka Pharmaceutical.

21. Diabetes Res Clin Pract. 2010 Sep 10. [Epub ahead of print]

Perceived risk and the willingness to enroll in a diabetes prevention lifestyle intervention in Arab-Americans.

Pinelli NR, Herman WH, Brown MB, Jaber LA.

The purpose was to examine whether self-reported perceived risk predicts willingness to enroll in DPP-adapted lifestyle intervention in Arab-Americans. Results document a positive relationship between perceived risk and willingness to engage in diabetes prevention activities. These findings imply that educational interventions communicating risk may improve adoption of diabetes preventative efforts.

22. Appl Ergon. 2010 Sep 10. [Epub ahead of print]

Ergonomics contribution to chemical risks prevention: An ergotoxicological investigation of the effectiveness of coverall against plant pest risk in viticulture.

Garrigou A, Baldi I, Le Frious P, Anselm R, Vallier M.

The purpose of this article is to present the contribution of a trans-disciplinary approach focused on ergonomics and chemical risk control. We shall more precisely discuss how such an approach carried out in the field of agricultural work has made it possible to highlight serious shortcomings in the effectiveness of the coveralls that are supposed to protect vineyard workers from pesticides. The study results, as well as the whistle-blow that followed have questioned the control and prevention measures used until then. The aforementioned trans-disciplinary approach gathers knowledge and methods from epidemiology, industrial hygiene, occupational health and safety and ergonomics. Ergonomics were central in the development of the approach as it connected task and activity analysis with contamination measurements. Lastly, the first results that were obtained have been confirmed and reused by the AFSSET (Agence Française de Sécurité Sanitaire Environnement et Travail, the French governmental agency in charge of environmental health and occupational health and safety issues) regarding the agricultural sector but also for all other situations in which workers use coveralls as protection against chemical risks.

23. J Dermatol Sci. 2010 Aug 10. [Epub ahead of print]

The potential use of protein kinase D inhibitors for prevention/treatment of epidermal tumors.

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BACKGROUND: The serine/threonine kinase protein kinase D (PKD) has been proposed to be a pro-proliferative, anti-differentiative signal in epidermal keratinocytes. Indeed, the phorbol ester tumor promoter, 12-O-tetradecanoylphorbol 13-acetate (TPA) induces biphasic PKD activation, which mirrors the biphasic response of initial differentiation followed by proliferation and tumor promotion seen in TPA-treated keratinocytes in vitro and epidermis in vivo.

OBJECTIVE: Our objective was to test the idea that PKD's pro-proliferative and/or anti-differentiative effects in keratinocytes contribute to TPA-induced tumorigenesis.

METHODS: Using western analysis and assays of keratinocyte proliferation and differentiation, we investigated the effect of inhibitors of PKD on keratinocyte function.

RESULTS: We found that overexpression of a constitutively active PKD mutant increased, and of a dominant-negative PKD mutant decreased, keratinocyte proliferation. A recently described selective PKD inhibitor showed low potency to inhibit keratinocyte proliferation or PKD activation. Therefore, we tested the ability of known only relatively selective PKD inhibitors on keratinocyte function and protein kinase activation. H89 {N-[2-(p-bromocinnamylamino) ethyl]-5-isoquinoline-sulfonamide}, a

reported inhibitor of PKD and cAMP-dependent protein kinase, enhanced the effect of a differentiating agent on a marker of keratinocyte differentiation. Another reported non-selective PKD inhibitor, resveratrol stimulated differentiation and inhibited proliferation. The protein kinase C/PKD inhibitor Gö6976 blocked the increase in proliferation (as measured by DNA specific activity) induced by chronic TPA without affecting the initial TPA-elicited differentiation.

CONCLUSION: Our results support the idea that relatively selective PKD inhibitors, such as Gö6976, H89 and resveratrol, might be useful for preventing/treating epidermal tumorigenesis without affecting keratinocyte differentiation.

24. Public Health. 2010 Sep 9. [Epub ahead of print]

Injury prevention: A strategic priority for environmental health?

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Injury results from the acute transfer of energy (or the acute lack of a vital element) from the environment to human tissue. It is thus, ipso facto, an 'environmental health' issue par excellence. This paper argues that injury consequently deserves consideration as a major strategic priority by environmental health professionals. Two international agreements concerning children's health and the environment have major implications for safety. The Children's Environmental Health Action Plan for Europe (CEHAPE) and the European Environmental Health Strategy make reference to the need for improved evidence and greater co-operation between the environmental and health sectors. CEHAPE is particularly relevant to safety as it focuses on four regional priority goals, the second of which refers to the prevention and reduction of health consequences from injuries by promoting safe, secure and supportive human settlements for all children. The natural strategic 'home' for injury prevention may therefore lie within environmental health, a domain from which it has generally been excluded. In support of this assertion, Scotland's recent policy initiative on the environment and human health 'Good Places, Better Health' is cited, where injury in children up to 8 years of age is one of four child health priorities being tackled during its initial implementation. An important test of the initiative may be its capacity to inform policy, practice and research in the field of injury prevention and safety promotion. If successful, it will help to validate the environmental health approach to a field that remains relatively neglected by public agencies, policy makers, practitioners and researchers.

25. Cost Eff Resour Alloc. 2010 Sep 10;8(1):17. [Epub ahead of print]

Cost-effectiveness of injury prevention - a systematic review of municipality based interventions.

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BACKGROUND: Injuries are a major cause of mortality and morbidity which together result in avoidable societal costs. Due to limited resources, injury prevention interventions need to demonstrate cost-effectiveness to justify their implementation. However, the existing knowledge in this area is limited. Consequently, a systematic review is needed to support decision-making and to assist in the targeting of future research. The aim of this review is to critically appraise the published economic evidence of injury prevention interventions at the municipal level.

METHODS: A search strategy was developed to focus a literature search in PubMed, Embase, Cochrane and NHS EED. Studies were eligible for inclusion if they were economic evaluations of injury prevention interventions that could be implemented by municipalities; had a relevant comparison group; did not include any form of medication or drug use; and were assessed as having at least an acceptable quality from an economic point of view. Articles were screened in three steps. In the final step, studies were critically appraised using a check-list based on Drummond's check-list for assessing economic evaluations.

RESULTS: Of 791 potential articles 20 were accepted for inclusion. Seven studies showed net savings; four showed a cost per health score gained; six showed both savings and a cost per health score gained but for different time horizons and populations; and three showed no effect. The interventions targeted a range of areas such as traffic safety, fire safety, hip fractures, and sport injuries. One studied a multi-targeted community-based program. Only six articles used effectiveness data generated within the study.

CONCLUSIONS: The results indicate that there are injury prevention interventions that offer good use of societal resources. However, there is a lack of economic evidence surrounding injury prevention

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interventions. This lack of evidence needs to be met by further research about the economic aspects of injury prevention interventions to improve the information available for decision-making.

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27. Nurs Stand. 2010 Aug 11-17;24(49):49-57; quiz 58.

Prevention of deterioration in acutely ill patients in hospital.

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The shift towards providing critical care in general wards has changed the way acutely ill patients are identified, treated and managed in hospital. This requires the expertise of knowledgeable, informed and capable staff. Effective education and appropriate knowledge and skills are required to aid identification of the deteriorating patient and provide prompt, timely and appropriate intervention to prevent further deterioration and possibly death. This article provides information about a systematic approach that will enable healthcare professionals to intervene to prevent deterioration in acutely ill patients.

28. Lancet. 2010 Sep 11;376(9744):895-902. Epub 2010 Aug 20.

Efficacy and safety of a recombinant hepatitis E vaccine in healthy adults: a large-scale, randomised, double-blind placebo-controlled, phase 3 trial.

Zhu FC, Zhang J, Zhang XF, Zhou C, Wang ZZ, Huang SJ, Wang H, Yang CL, Jiang HM, Cai JP, Wang YJ, Ai X, Hu YM, Tang Q, Yao X, Yan Q, Xian YL, Wu T, Li YM, Miao J, Ng MH, Shih JW, Xia NS.

BACKGROUND: Seroprevalence data suggest that a third of the world's population has been infected with the hepatitis E virus. Our aim was to assess efficacy and safety of a recombinant hepatitis E vaccine, HEV 239 (Hecolin; Xiamen Innovax Biotech, Xiamen, China) in a randomised, double-blind, placebo-controlled, phase 3 trial.

METHODS: Healthy adults aged 16-65 years in, Jiangsu Province, China were randomly assigned in a 1:1 ratio to receive three doses of HEV 239 (30 microg of purified recombinant hepatitis E antigen adsorbed to 0.8 mg aluminium hydroxide suspended in 0.5 mL buffered saline) or placebo (hepatitis B vaccine) given intramuscularly at 0, 1, and 6 months. Randomisation was done by computer-generated permuted blocks and stratified by age and sex. Participants were followed up for 19 months. The primary endpoint was prevention of hepatitis E during 12 months from the 31st day after the third dose. Analysis was based on participants who received all three doses per protocol. Study participants, care givers, and investigators were all masked to group and vaccine assignments. This trial is registered with ClinicalTrials.gov, number NCT01014845.

FINDINGS: 11,165 of the trial participants were tested for hepatitis E virus IgG, of which 5285 (47%) were seropositive for hepatitis E virus. Participants were randomly assigned to vaccine (n=56,302) or placebo (n=56,302). 48,693 (86%) participants in the vaccine group and 48,663 participants (86%) in the placebo group received three vaccine doses and were included in the primary efficacy analysis. During the 12 months after 30 days from receipt of the third dose 15 per-protocol participants in the placebo group developed hepatitis E compared with none in the vaccine group. Vaccine efficacy after three doses was 100.0% (95% CI 72.1-100.0). Adverse effects attributable to the vaccine were few and mild. No vaccination-related serious adverse event was noted.

INTERPRETATION: HEV 239 is well tolerated and effective in the prevention of hepatitis E in the general population in China, including both men and women age 16-65 years.