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SPECIAL REPORT


Although its homicide rate is down, falling from 64 per 100,000 people in 2005, violence remains a major public-health problem in Colombia and much of the Latin American region. Mike Ceaser reports from Colombia’s capital city, Bogotá. On a recent Friday night, Omar Suarez found himself in the emergency department of Bogotá’s John Kennedy Public Hospital, having his arm sewn up by a medical student. Suarez, an agronomical engineer, said three youths in their 20s attacked him, grabbing his mobile phone and slicing open his forearm. The Kennedy hospital is located in a sprawling, impoverished, and violent neighbourhood littered with chaotic avenues, dangerous alleys, and cheap nightclubs.


In India, where homoeopathy is a national medical system, the market is growing at 25% a year, and more than 100 million people depend solely on this form of therapy for their health care, the popularity of the dilute remedies shows no signs of abating. Raekha Prasad reports. In the western Indian state of Maharashtra, Shantaram Chavan, a poor farmer diagnosed as HIV positive, responded in desperation to an advertisement in a local newspaper placed by Siddharth Jondhale, a homoeopathic doctor, who said he had found a cure for the virus. For 1 year, Chavan took the drug administered by Jondhale at his private clinic. He sold his tractor to raise the 150 rupees (US$3800) to pay for the so-called miracle cure Jondhale named HIV-SJ. During that year, the farmer’s condition deteriorated. India has the world’s third highest caseload of HIV/AIDS after Nigeria and South Africa.


Health service funding is being stopped for some of the UK’s homoeopathic hospitals, following an active campaign by doctors and scientists. Does this signal the beginning of the end of homoeopathy on the UK’s National Health Service? Udani Samarasekera reports. Homoeopaths in the UK have been feeling under pressure lately. Unfortunately for them, however, the cause of their anxiety is not a heavy workload but an active campaign against homoeopathy, particularly its availability in the UK’s National Health Service (NHS). Over the past 2 years, journalists, doctors, and scientists, who point to the lack of evidence for the effectiveness of homoeopathy, have publicly voiced their criticisms. The latest subject to irk antihomoeopathy campaigners is a symposium on the role of homoeopathy in HIV/AIDS treatment that is taking place in London on Dec 1, organised by the Society of Homeopaths—the largest organisation representing lay homoeopaths in Europe. “The symposium will be looking at different . . .

ARTICLES


A city-wide sanitation intervention was started in Salvador, Brazil, in 1997 to improve sewerage coverage from 26% of households to 80%. Our aim was to investigate the epidemiological effect of this city-wide sanitation programme on diarrhoea morbidity in children less than 3 years of age. The investigation was composed of two longitudinal studies done in 1997–98 before the intervention (the sanitation programme) and in 2003–04 after the intervention had been completed. Each study consisted of a cohort of children (841 in the preintervention study and 1007 in the postintervention study; age 0–36 months at baseline) who were followed up for a maximum of 8 months. Children were sampled from 24 sentinel areas that were randomly chosen to represent the range of environmental conditions in the study site. At the start of each study an individual or household questionnaire was applied by trained fieldworkers; an environmental survey was done in each area before and after introduction of the sanitation programme to assess basic neighbourhood and household sanitation conditions. Daily diarrhoea data were obtained during home visits twice per week. The effect of the intervention was estimated by a hierarchical modelling approach fitting a sequence of multivariate regression models. Diarrhoea prevalence fell by 21% (95% CI 18–25%)—from 9·2 (9·0–9·5) days per child-year before the intervention to 7·3 (7·0–7·5) days per child-year afterwards. After adjustment for baseline sewerage coverage and potential confounding variables, we estimated an overall prevalence reduction of 22% (19–26%). Our results show that urban sanitation is a highly effective health measure that can no longer be ignored, and they provide a timely support for the launch of 2008 as the International Year of Sanitation.

Intrapartum and neonatal single-dose nevirapine are essential components of perinatal HIV prevention in resource-constrained settings, but can induce resistance to other non-nucleoside reverse transcriptase inhibitor drugs. We aimed to investigate whether this complication would be reduced with a single peripartum intervention of tenofovir and emtricitabine. We randomly assigned 400 HIV-infected pregnant women who sought care at two public-sector primary health facilities in Lusaka, Zambia. One was excluded, 200 were assigned to receive a single oral dose of 300 mg tenofovir disoproxil fumarate with 200 mg emtricitabine under direct observation, and 199 to receive no study drug. Short-course zidovudine and intrapartum nevirapine were offered to all HIV-infected women, according to the local standard of care. Women who met national criteria for antiretroviral therapy were referred for care and not enrolled. Our primary study outcome was resistance to non-nucleoside reverse transcriptase inhibitors at 6 weeks after delivery. We used standard population sequencing to determine HIV genotypes. Analysis was per protocol. Of the 200 women who were randomly assigned to the intervention, 14 were lost to follow-up or withdrew from the study, two did not take study drug according to protocol, and one specimen was lost; 23 of 199 controls were lost to follow-up or withdrew from the study, and three specimens were lost. Women given the intervention were 53% less likely than controls to have a mutation that conferred resistance to non-nucleoside reverse transcriptase inhibitors at 6 weeks after delivery (20/173 [12%] vs 41/166 [25%]; risk ratio [RR] 0·47, 95% CI 0·29–0·76). We noted postpartum anaemia, the most common serious adverse event in mothers, in four women in each group. 20 of 198 (10%) infants in the intervention group and 23 of 199 (12%) controls had a serious adverse event, mostly due to sepsicaemia (n=22) or pneumonia (n=8); these events did not differ between groups, and none were judged to be caused by the study intervention. A single dose of tenofovir and emtricitabine at delivery reduced resistance to non-nucleoside reverse transcriptase inhibitors at 6 weeks after delivery by half; therefore this treatment should be considered as an adjuvant to intrapartum nevirapine.


Since the prevalence of obesity continues to increase, there is a demand for effective and safe anti-obesity agents that can produce and maintain weight loss and improve comorbidity. We did a meta-analysis of all published randomised controlled trials to assess the efficacy and safety of the newly approved anti-obesity agent rimonabant. We searched The Cochrane database and Controlled Trials Register, Medline via Pubmed, Embase via WebSpirs, Web of Science, Scopus, and reference lists up to July, 2007. We collected data from four double-blind, randomised controlled trials (including 4105 participants) that compared 20 mg per day rimonabant with placebo. Patients given rimonabant had a 4·7 kg (95% CI 4·1–5·3 kg; p<0·0001) greater weight reduction after 1 year than did those given placebo. Rimonabant caused significantly more adverse events than did placebo (OR=1·4; p=0·0007; number needed to harm=25 individuals [95% CI 17–58]), and 1·4 times more serious adverse events (OR=1·4; p=0·03; number needed to harm=59 [27–830]). Patients given rimonabant were 2·5 times more likely to discontinue the treatment because of depressive mood disorders than were those given placebo (OR=2·5; p=0·01; number needed to harm=49 [19–316]). Furthermore, anxiety caused more patients to discontinue treatment in rimonabant groups than in placebo groups (OR=3·0; p=0·03; number needed to harm=166 [47–3716]). Our findings suggest that 20 mg per day rimonabant increases the risk of psychiatric adverse events—ie, depressed mood disorders and anxiety—despite depressed mood being an exclusion criterion in these trials. Taken together with the recent US Food and Drug Administration finding of increased risk of suicide during treatment with rimonabant, we recommend increased alertness by physicians to these potentially severe psychiatric adverse reactions.
Hancock, MJ., Chris G Maher, Jane Latimer, Andrew J McLanchlan, Chris W Cooper, Richard O Day, Megan F Spindler, and James H McAuley. (2007). Assessment of diclofenac or spinal manipulative therapy, or both, in addition to recommended first-line treatment for acute low back pain: a randomised controlled trial. The Lancet, 370(9599), 1638-1643.

We aimed to investigate whether the addition of non-steroidal anti-inflammatory drugs or spinal manipulative therapy, or both, would result in faster recovery for patients with acute low back pain receiving recommended first-line care. 240 patients with acute low back pain who had seen their general practitioner and had been given advice and paracetamol were randomly allocated to one of four groups in our community-based study: diclofenac 50 mg twice daily and placebo manipulative therapy (n=60); spinal manipulative therapy and placebo drug (n=60); diclofenac 50 mg twice daily and spinal manipulative therapy (n=60); or double placebo (n=60). The primary outcome was days to recovery from pain assessed by survival curves (log-rank test) in an intention-to-treat analysis. Neither diclofenac nor spinal manipulative therapy appreciably reduced the number of days until recovery compared with placebo drug or placebo manipulative therapy (diclofenac hazard ratio 1.09, 95% CI 0.84-1.42, p=0.516; spinal manipulative therapy hazard ratio 1.01, 95% CI 0.77-1.31, p=0.955). 237 patients (99%) either recovered or were censored 12 weeks after randomisation. 22 patients had possible adverse reactions including gastrointestinal disturbances, dizziness, and heart palpitations. Half of these patients were in the active diclofenac group, the other half were taking placebo. One patient taking active diclofenac had a suspected hypersensitivity reaction and ceased treatment. Patients with acute low back pain receiving recommended first-line care do not recover more quickly with the addition of diclofenac or spinal manipulative therapy.


Combined oral contraceptives are classified by the International Agency for Research on Cancer as a cause of cervical cancer. As the incidence of cervical cancer increases with age, the public-health implications of this association depend largely on the persistence of effects long after use of oral contraceptives has ceased. Information from 24 studies worldwide is pooled here to investigate the association between cervical carcinoma and pattern of oral contraceptive use. Individual data for 16?573 women with cervical cancer and 35?509 without cervical cancer were reanalysed centrally. Relative risks of cervical cancer were estimated by conditional logistic regression, stratifying by study. Among current users of oral contraceptives the risk of invasive cervical cancer increased with increasing duration of use (relative risk for 5 or more years’ use versus never use, 1.90 [95% CI 1.69–2.13]). The risk declined after use ceased, and by 10 or more years had returned to that of never users. A similar pattern of risk was seen both for invasive and in-situ cancer, and in women who tested positive for high-risk human papillomavirus. Relative risk did not vary substantially between women with different characteristics. The relative risk of cervical cancer is increased in current users of oral contraceptives and declines after use ceases. 10 years’ use of oral contraceptives from around age 20 to 30 years is estimated to increase the cumulative incidence of invasive cervical cancer by age 50 from 7.3 to 8.3 per 1000 in less developed countries and from 3.8 to 4.5 per 1000 in more developed countries.


Laser treatment for diabetic retinopathy is often associated with visual field reduction and other ocular side-effects. Our aim was to assess whether long-term lipid-lowering therapy with fenofibrate could reduce the progression of retinopathy and the need for laser treatment in patients with type 2 diabetes mellitus. The Fenofibrate Intervention and Event Lowering in Diabetes (FIELD) study was a multinational randomised trial of 9795 patients aged 50–75 years with type 2 diabetes mellitus. Eligible patients were randomly assigned to receive fenofibrate 200 mg/day (n=4895) or matching placebo (n=4900). At each clinic visit, information concerning laser treatment for diabetic retinopathy—a prespecified tertiary endpoint of the main study—was gathered. Adjudication by ophthalmologists masked to treatment allocation defined instances of laser treatment for macular oedema, proliferative retinopathy, or other eye conditions. In a substudy of 1012 patients, standardised retinal photography was done and...
Treatment adherence support, and intervention involved a psychoeducational group, or usual care (n=116). The multicomponent to either a multicomponent intervention (n=114) attending postnatal clinics were randomly allocated Santiago, Chile. 230 mothers with major depression in primary-care clinics in low-income mothers in primary-care clinics in developing countries is uncertain. We compared the treatment of postnatal depression in developing Rojas, G., Rosemarie Fritsch, Jaime Solis, Enrique Jardesic, Cristobal Castillo, Marco Gonzales, Viviana Guajardo, Glyn Lewis, Tim J Peter, and Ricardo Araya. (2007). Treatment of postnatal depression in low-income mothers in primary-care clinics in Santiago, Chile: a randomised controlled trial. The Lancet, 370(9599), 1629-1637.

The optimum way to improve the recognition and treatment of postnatal depression in developing countries is uncertain. We compared the effectiveness of a multicomponent intervention with usual care to treat postnatal depression in low-income mothers in primary-care clinics in Santiago, Chile. 230 mothers with major depression attending postnatal clinics were randomly allocated to either a multicomponent intervention (n=114) or usual care (n=116). The multicomponent intervention involved a psychoeducational group, treatment adherence support, and pharmacotherapy if needed. Usual care included all services normally available in the clinics, including antidepressant drugs, brief psychotherapeutic interventions, medical consultations, or external referral for specialty treatment. The primary outcome measure was the Edinburgh postnatal depression scale (EPDS) score at 3 and 6 months after randomisation. Analysis was by intention to treat. 208 (90%) of women randomly assigned to treatment groups completed assessments. The crude mean EPDS score was lower for the multicomponent intervention group than for the usual care group at 3 months (8·5 [95% CI 7·2–9·7] vs 12·8 [11·3–14·1]). Although these differences between groups decreased by 6 months, EPDS score remained better in multicomponent intervention group than in usual care group (10·9 [9·6–12·2] vs 12·5 [11·1–13·8]). The adjusted difference in mean EPDS between the two groups at 3 months was -4·5 (95% CI -6·3 to -2·7; p<0·0001). The decrease in the number of women taking antidepressants after 3 months was greater in the intervention group than in the usual care group (multicomponent intervention from 60/101 [59%; 95% CI 49–69%] to 38/106 [36%; 27–46%]; usual care from 18/108 [17%; 10–25%] to 11/102 [11%; 6–19%]). Our findings suggest that low-income mothers with depression and who have newly born children could be effectively helped, even in low-income settings, through multicomponent interventions. Further refinements to this intervention are needed to ensure treatment compliance after the acute phase.

SEMINAR


In the UK, about one in 200 infants is stillborn, and rates of stillbirth have recently slightly increased. This recent rise might reflect increasing frequency of some important maternal risk factors for stillbirth, including nulliparity, advanced age, and obesity. Most stillbirths are related to placental dysfunction, which in many women is evident from the first half of pregnancy and is associated with fetal growth restriction. There is no effective screening test that has clearly shown a reduction in stillbirth rates in the general population. However, assessments of novel screening methods have generally failed to distinguish between effective identification of high-risk women and successful intervention for such women. Future research into stillbirth will probably focus on understanding the pathophysiology of impaired placentation to establish screening tests for stillbirth, and
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Most developing countries do not have fully effective civil registration systems to provide necessary information about population health. Interim approaches—both innovative strategies for collection of data, and methods of assessment or estimation of these data—to fill the resulting information gaps have been developed and refined over the past four decades. To respond to the needs for data for births, deaths, and causes of death, data collection systems such as population censuses, sample vital registration systems, demographic surveillance sites, and internationally-coordinated sample survey programmes in combination with enhanced methods of assessment and analysis have been successfully implemented to complement civil registration systems. Methods of assessment and analysis of incomplete information or indirect indicators have also been improved, as have approaches to ascertainment of cause of death by verbal autopsy, disease modelling, and other strategies.