

In other journals

2 JULY

MOTHER TO CHILD

Poor access to antiretroviral medication and suboptimal uptake of antenatal HIV testing may lead to an imminent epidemic of HIV infection in children in Pacific Island countries, according to New Zealand researchers. The prevalence of HIV in Papua New Guinea has increased rapidly over the past decade to greater than 150 per 100000, whereas the disease has been less widespread in other Pacific Island countries and territories. A survey of the region's health care workers reveals that access to HIV antibody testing was limited to sexual health clinics and hospitals and that approximately half of the Pacific Island countries had a national policy recommending routine testing of pregnant women for HIV. Perinatal prophylaxis for HIV was not readily available in PNG until 2005, and several countries had no protocols in place to treat maternal HIV.

Intern Med J 2007; 37: 216-223

9/11 ... THE LEGACY

Respiratory illness in people exposed to dust from the collapse of the World Trade Center towers continues to be a source of controversy 5 years after the event on September 11, 2001, reports a US editorial. Analysis of the dense cloud of dust resulting from the collapse, subsequent fires and clean-up operation showed a combination of building materials, asbestos, and combustion-related carcinogens. The risks of exposure to the dust are related to the particle size, with particles less than 5µm able to penetrate the lungs by bypassing the upper airways. Some firefighters have apparently developed a syndrome described as "World Trade Center cough", and exposure to the dust appears to be associated with substantial and possibly permanent loss of respiratory function. Despite follow-up of workers involved in the rescue effort, and medical monitoring of part of the exposed population, many uncertainties persist. Some questions may never be answered, such as the actual causal contribution of Ground Zero dust to future malignant and non-malignant respiratory disease in the exposed population.

N Engl J Med 2007; 356: 2233-2236

CILIA AND CILIA

Motile cilia in epithelia are responsible for fluid flow in several mammalian organ systems, the skin of amphibians, and the surface of some unicellular organisms. The developmental mechanisms that polarise cilia along the axis of the epithelium, allowing coordinated function, have been shown to be partially dependent on environmental positive feedback, according to US biologists. Researchers studied embryonic development of cilia in frog skin and determined that a refinement process during development is dependent on the directional fluid flow created as embryonic cilia begin to function. Primary ciliary dyskinesia, or immotile cilia syndrome, is characterised by abnormal ciliary flow and impaired mucociliary clearance, resulting in respiratory infections, hydrocephalus, and infertility. A common phenotype shows polar disorientation of cilia, suggesting that factors influencing polarity during development are important in the genesis of disease.

Nature 2007; 447: 97-101

AAA — REPAIRING THE DAMAGE

Endovascular repair of unruptured abdominal aortic aneurysm (AAA) appears to be associated with lower operative mortality than open repair, according to a US systematic review. Researchers studied randomised trials comparing treatment options for AAA, including endovascular repair, open repair and observation alone. No improvement in survival was shown with endovascular repair for those patients who were unsuitable for open repair. The results also suggest that there is no benefit in surgically treating small aneurysms less than 5.5cm in diameter. The study is limited by the small number of trials available for comparison, and the small size of the published trials.

Ann Intern Med 2007; 146: 735-741

CERVICAL CYTOLOGY — LIQUID VS CONVENTIONAL

Liquid-based cytology (LBC) appears to show no significant difference in overall sensitivity compared with conventional cytology for detection of cervical intraepithelial neoplasia (CIN) of grade 2 or more. A large, Italian randomised controlled trial involving over 45000 women aged between 25 and 60 years allocated participants at random either to conventional cytology or to LBC and testing for human papillomavirus. The primary end point was histologically confirmed CIN detected as a result of abnormal cytology. Results suggest that LBC detects more cervical intraepithelial lesions of grade 1 or more and that this increase is more significant for women aged 25–34 years. At higher levels of CIN (grade 3 or more), LBC does not appear to detect more lesions than conventional cytology. The proportion of women with at least one unsatisfactory cytology result was significantly reduced with LBC. Limitations of the study include the relative lack of experience with LBC of the laboratories involved. The authors comment that despite the widespread use of LBC, there are very few high-quality studies of the diagnostic accuracy of the method.

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Dr Tanya Grassi, MJA