

## Effect of the HIV epidemic on liver cancer in Africa

The timely Comment by Pierre Hainaut and Peter Boyle (Feb 2, p 367)<sup>1</sup> makes surprisingly little mention of the potential effect of the HIV epidemic on the future burden of liver cancer in Africa, particularly the leading cause in sub-Saharan Africa, chronic hepatitis B virus (HBV) infection.

With the HIV epidemic still rampant, such cancer is likely to become more common. Just one reason for this is that HIV/HBV co-infected individuals exhibit higher HBV DNA levels and higher rates of HBeAg carriage than those who are HIV negative; both variables are predictors of hepatocellular carcinoma risk.<sup>2</sup>

Vaccination is the cornerstone of plans for global control of HBV, yet HIV infection also threatens to diminish the effect of vaccination programmes: blunted response to hepatitis B vaccine is evident among HIV-infected children<sup>3</sup> and adults,<sup>4</sup> and vaccine-escape viral mutants have been detected among people receiving long-term antiviral therapy.<sup>5</sup> Widespread transmission of vaccine-escape mutants could threaten the effectiveness of vaccination.

Beyond vaccination, the inclusion of HBV suppressive agents in antiretroviral rollout programmes (lamivudine, emtricitabine, and tenofovir) has the potential to have a positive effect on the incidence of HBV-related liver cancer. However, with only lamivudine widely available in Africa, it is possible that as rollout of antiretroviral therapy reduces AIDS deaths, chronic liver disease including hepatocellular carcinoma will become increasingly common, as has been seen in cohorts from developed nations. Greater understanding of HBV/HIV interactions in Africa should be a high priority.

We declare that we have no conflict of interest.

\*Richard J Lessells, Graham S Cooke  
rlessells@africacentre.ac.za

Africa Centre for Health and Population Studies, Somkhele, KwaZulu-Natal 3935, South Africa (RJL, GSC); and Imperial College, London, UK (GSC)

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## Regulation of smokeless tobacco products

Harm reduction by use of buccal-absorption tobacco products (smokeless tobacco) is at the centre of the debate among health professionals dealing with tobacco-related issues, but uncertainties prevail. John Britton and Richard Edwards (Feb 2, p 441)<sup>1</sup> suggest the establishment of a national nicotine regulatory authority.

Nicotine replacement therapies reduce cigarette consumption,<sup>2,3</sup> but we still do not know whether and to what extent smoking reduction, with or without nicotine replacement therapies,<sup>4</sup> or cigarette substitution by other tobacco products decreases smoking-related morbidity and mortality compared with cessation. Reduction of harm from smoking can and should be seen as a recognition of the failure to get smokers off their drug.

Britton and Edwards' proposal raises some concerns because of the lack of definitive answers to a large number of questions. They list some of them, but miss the following: what are the specific populations in which these products have to be contraindicated? How do we control for adverse reactions?

These products exist somewhere between being medicines and unregu-

lated commercial products with unknown health risk. For medicinal products, we tolerate a certain risk level in exchange for a demonstrated health benefit. For smokeless tobacco, the benefit/risk ratio is yet to be established.<sup>5</sup> Therefore, before thinking about implementing a regulatory authority controlling smokeless tobacco, these products should undergo extensive assessment in term of individual and public-health benefits in the same way as medicinal products. This should be a mandatory condition of the establishment of any other regulatory-type intervention. One might also suggest that smokeless tobacco be regulated by national or wider-level drug agencies, as for medicinal products whose marketing authorisation is based on rigorous benefit/risk assessments.

We declare that we have no conflict of interest.

\*Ivan Berlin, Annie J Sasco  
ivan.berlin@psl.aphp.fr

Hôpital Pitié-Salpêtrière, Université Pierre & Marie Curie, Faculté de médecine, INSERM U677, 7513 Paris, France (IB); and Epidemiology for Cancer Prevention, INSERM U897, Victor Segalen Bordeaux 2 University, Bordeaux, France (AJS)

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## Department of Error

Bernstein S, Say L, Chowdhury S. *Sexual and reproductive health: completing the continuum*. *Lancet* 2008; **371**: 1225–26. In this Comment (April 12), the acknowledgments should have included the following disclaimer: "The views contained in this article are those of the individual authors and they do not necessarily represent the decisions or the stated policies of their institutions."



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