from Novo Nordisk and MPS Pasteur Sanofi (distributors of HPV vaccinations). D.G. declares no conflict of interest.

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# RE: Anal cancer: different epidemiological and clinical definitions

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We would like to thank Drs Renehan and Gilbert for their interest in our article[1] which presented results of a collaborative study between the International Agency for Research on Cancer and the American Cancer Society.[2] We agree with them that the epidemiology and aetiology of anal squamous cell carcinoma and anal adenocarcinoma are somewhat heterogeneous due to differences in cellular origin (as stated in our Introduction). In reply to their statements: 'In describing "all anal cancers", Islami and colleagues combined anal squamous cell carcinoma (ASCC) and anal adenocarcinoma (AAC)' and later, 'the combination of ASCC and AAC may mistakenly be interpreted that …', we should emphasize that we have reported incidence rates and trends and provided results of join point analysis for ASCC and AAC separately throughout the article. Our discussion and conclusions are also based on rates and trends by histological subtype. We provided results for all anal cancers combined only as supplementary material for the readers who might be interested in examining those results.

We recognize potential problems associated with classification of AACs, although we would suggest that they are unlikely to have substantial effects on our conclusions given that the changing trends in our analysis were largely confined to ASCC. We only included data that met the International Agency for Research on Cancer's strict standards of completeness and validity. In addition, although rates were often derived from sub-national as opposed to national cancer registries, consistent trends were observed in neighbouring countries within a region, implying that the local data were likely to be reasonably representative of national trends. We certainly do agree with Drs Renehan and Gilbert on the need for robust surveillance data on anal cancer, given that such datasets are not available in many countries worldwide.

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# Integration of water, sanitation and hygiene intervention delivery at health facilities with a reactive ring vaccination programme to reduce cholera

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Globally there are estimated to be 2.8 million cholera cases annually, resulting in 95 000 deaths.[1] Ali and colleagues recently reported results on the spatiotemporal risk for cholera and estimated overall and indirect cholera vaccine effectiveness of a ring vaccination programme, by analysing data from an oral cholera vaccine (OCV) trial in Kolkata, India.[2] Cohorts in close proximity to a cholera case had a 5–11 times higher risk of cholera during the 1-month period after the onset of case illness when compared with cohorts not exposed to a case. High OCV coverage for populations within 25 m of a cholera case resulted in an overall and indirect vaccine efficacies of 91% and 93%, respectively, during this 1-month high-risk period when compared with low-vaccine coverage areas. These promising findings show the high level of protection that could potentially be achieved if a reactive ring vaccination programme was conducted around identified cholera cases. This is of particular importance given the limited supply of OCV globally.

Consistent with this study, previous studies have found household contacts of cholera patients to have a 130–150 times higher risk of developing a cholera infection than the general population during the 1-week period after onset of illness in the index patient.[1,3–5] This high risk is likely due to a shared contaminated environmental source or secondary transmission from infected household members.[3,4] Most recently Debes and colleagues expanded on these previous studies by investigating the risk for cholera for all those living in close proximity to an index case in rural Matlab, Bangladesh. The authors reported that those living within 50 m of an index case were at a 20 times higher risk of cholera during the 1-week period after the onset of case illness compared with those living near controls.[6]

The protective immunity conferred by OCV takes several days to develop. Therefore the 1-week period when those living in close proximity to a cholera case are at highest risk of cholera is the time when little or no vaccine protection would be conferred by a ring vaccination programme. In an effort to develop a targeted intervention for this high-risk population during the 1-week period when they are most susceptible, the Cholera-Hospital-Intervention-for-7-Days (CHoBI7) was developed.[7] Chobi mean picture in Bangla, for the pictorial modules provided as part of this intervention. This intensive handwashing with soap and water treatment intervention is delivered by a promoter to cholera patients and their accompanying household contacts at the time of admission to a health facility, and is reinforced through home visits. CHoBI7's pictorial modules emphasize the importance of water treatment with chlorine and handwashing with soap during the 1-week high-risk period for cholera after onset of patient illness. In Bangladesh, this intervention included the distribution of chlorine tablets, soapy water made of water and detergent powder (a low-cost alternative to bar soap), a handwashing station, and a drinking water vessel with lid and tap.

The recent randomized controlled trial of the CHoBI7 intervention in Dhaka, Bangladesh, found that delivery of this targeted water, sanitation and hygiene (WASH) intervention resulted in a significant reduction in symptomatic cholera among household contacts of cholera patients during the 1-week high-risk period after onset of case illness.[7] Furthermore, delivery of this 1-week intervention resulted in

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