

NOTE

NOTE FROM THE INTERNATIONAL COMMISSION ON NON-IONIZING RADIATION PROTECTION (ICNIRP) ON THE INTERPHONE PUBLICATION*

Munich, 18.05.2010

The possibility that mobile phone use might increase the risk of brain tumours has received public attention for several years. If there were such a risk it would be of great importance given the vast number of users worldwide. Hence the publication of the Interphone study, by far the largest study of this issue to date, has been keenly awaited.

ICNIRP is the international body, recognized by WHO, that constructs guidelines for exposure limits for non-ionizing radiation, including radiofrequency fields emitted by mobile phones, and publishes reviews of the health effects of such exposures. ICNIRP has therefore closely considered the Interphone publication.

The Interphone study was conducted in 13 countries, and has now reported on the assessment of the potential risk of glioma and meningioma – the two main forms of brain tumour – in relation to mobile phone use. The data were collected between 2000 and 2004, and the study was therefore only able to analyse the effects of less than 15 years of mobile phone use. Overall, the study did not find an increase in the risks of glioma or meningioma in relation to mobile phone use. There was an apparent decreased risk of these brain tumours in people who regularly used mobile phones compared with non- or non-regular users, which ICNIRP believes is likely to be a methodological artefact rather than a real beneficial effect of mobile phone use. No raised risk of brain tumours was found among people who reported the largest number of calls, but an apparent raised risk was observed in people in the highest of ten categories of reported cumulative hours of mobile phone use. This category included a number of people who were recorded with highly improbable hours of use, presumably reflecting erroneous reports, and there was no general dose-response gradient of increasing risk with increasing amount of use. A very large number of analyses of subgroups were conducted, results of which included both increased risks and decreased risks with respect to lobe of the brain, and to side of use. There are serious methodological limitations inherent in studies of this type, which depend on study participants trying to remember and report their entire lifetime use of mobile phones. Such recall is problematic particularly for brain tumour patients. ICNIRP agrees with the Interphone authors that the biases and errors in the study preclude a causal interpretation of the results.

ICNIRP recently published a review of the scientific evidence on the health effects of radiofrequency exposure from mobile phones. We found the existing evidence did not support an increased risk of brain tumours in mobile phone users within the duration of use yet investigated. The subsequent publication of the Interphone study has added greatly to the volume of evidence available. ICNIRP believes on preliminary review of the results, however, that they do not change the overall conclusions. ICNIRP therefore considers that the results of the Interphone study give no reason for alteration of the current guidelines. As part of its continuing scientific review process, ICNIRP will publish, in due course, an



updated detailed scientific evaluation of the epidemiology of mobile phones and brain tumours, including the Interphone results.

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* Reference

Cardis E, et al. Brain tumour risk in relation to mobile telephone use: results of the INTERPHONE international case-control study. *Int. J. Epi.* 2010; 1-20 doi:10.1093/ije/dyq079 8 (published online 18.05.2010).