PREVENTION PROTOCOLS FOR WORKERS IN MAGNETIC RESONANCE IMAGING DEPARTMENTS IN HEALTH CARE AND RESEARCH IN THE NETHERLANDS

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Objectives This study aims at evaluating how MRI-related risks are addressed in health care and research workplaces in The Netherlands. Concordance of current prevention protocols with expert recommendations was also evaluated.

Methods In the context of an inventory of the population of workers exposed to electromagnetic fields (EMF) around MRI scanners, a questionnaire was sent to all hospitals, clinics, animal clinics and research institutions with an MRI scanner in 2009. Respondents were asked about exposure to EMF of MRI-scanners and about general safety protocols for health risks, and in particular concerning pregnant workers. Types of protocols were compared with regard to organisation, size of departments and presence of workers around scanners during image acquisition.

Results Overall response rate was high at 95% (145 departments). Most departments reported having no protocol for pregnant workers. Among 56 locations having a protocol, 44% were concordant with Dutch recommendations. Hospitals were more likely than other organisations to have a protocol for pregnant workers. Other MRI-related risks, especially safety risks of ferromagnetic objects attraction, distortion of electric devices, and risk of hearing impairment, appeared to be better addressed.

Conclusions The observed situation reflects current lack of knowledge and authority regarding MRI and pregnancy safety issues. For other more established risks, protocols or standardised instructions are more common. A field survey would be necessary to know how protocols are actually applied, and to establish if appropriate measures are taken where risks really stand.