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LIST of ABSTRACTS

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Occurrence of active implanted and wearable devices among workers exposed to electromagnetic fields

Conference Sessions - Session*Research Data Abstract Form***Gasparini Rebecca**

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Background

The risk of interference with Active Implanted Medical Devices (AIMD) and Active Wearable Medical Devices (AWMD) shall be assessed at any level of exposure to electromagnetic fields (EMF). For instance, EMF can interfere with cardiac pacemaker (PM) or implantable cardioverter-defibrillator (ICD), causing an inappropriate stimulation or affecting the sensing function or the setting of the devices.

Methods/Approach

The diffusion of AIMD/AWMD among EMF-exposed workers was explored through a survey conducted among Occupational Physicians (OPs) in charge of the workers' health surveillance in several Italian hospitals and companies. A 15-item online survey was collected, focusing on nine types of devices, including AIMD (PMs, ICDs, loop-recorders, cochlear implants and auditory brainstem implants, central nervous system/peripheral nerve stimulators) and AWMD (active prosthesis, wearable pumps for drugs/hormones, hearing aids). The study is funded by the Italian Workers' Compensation Institute (i.e. INAIL) within the project BRIC22 ID36.

Results

A total of 131 OPs, in charge of the health surveillance for an overall population of ~170,000, responded. Preliminary results of the survey indicate that the most common devices were: i) hearing

aids (79% reported at least 1 worker with the device in the last year), ii) drug/hormone infusion pumps (76%), iii) ICDs (64%) and iv) PMs (61%).

Conclusions and next steps

Considering the overall population of workers followed by the OPs and the reported proportions of subjects with AIMD/AWMD, we estimated that >700 individuals, i.e., 0.5% of the total workers followed, utilize AIMDs (mainly PMs and ICDs), while >900 have AWMD (mainly hormone/drug pumps and hearing aids). Therefore, based on our estimates, approximately the 1-1.5% of the working population can be at risk for interference to medical devices from EMF exposure at the workplace. Adequate health surveillance and fitness-for-work evaluation of these workers must be carefully implemented to reduce this risk. Device manufacturers should be consulted in specific situations.

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The ethical imperative for deradicalization: A unified field theory

Conference Sessions - Session

Policy Discussion Abstract Form

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Background or Purpose

The demands to provide humanitarian aid to a population that until now has been incited and indoctrinated to carry out mass murder and atrocities pose ethical questions. How do you go about doing this?

Content

Humanitarian aid must be delivered. It should be accompanied by strong indoctrination and education programs, as well as legislation and political changes. These measures aim to shape embedded mindsets, beliefs, attitudes, and modes of behaviors that cause hatred, dehumanization, and demonization. The role model for such changes comes from the denazification programs of the US, British, and French imposed on Nazi Germany after WW2. These programs aimed to eliminate deeply embedded mindsets in heavily indoctrinated populations. These programs were accompanied by public health measures such as supplying water, food, shelter, basic security, sanitation, vaccination, and health care.

Implications for addressing the issue

It is suggested that these models apply to the deradicalization of any extremist population or movement