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Self-reporting of symptom development from exposure to radiofrequency fields of wireless smart meters in Victoria, Australia: a case series.

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Sviluppo di sintomi autoriportati da esposizione a campi a radiofrequenza di contatori smart meter senza fili a Victoria, Australia: una serie di casi.

Lamech F.

Abstract

CONTEXT:

In 2006, the government in the state of Victoria, Australia, mandated the rollout of smart meters in Victoria, which effectively removed a whole population's ability to avoid exposure to human-made high-frequency nonionizing radiation. This issue appears to constitute an unprecedented public health challenge for Victoria. By August 2013, 142 people had reported adverse health effects from wireless smart meters by submitting information on an Australian public Web site using its health and legal registers.

Riassunto

CONTESTO:

Nel 2006, il governo dello stato di Victoria, in Australia, ha messo in atto l'utilizzo degli smart meters nello stato di Victoria, che di fatto ha eliminato la capacità di un'intera popolazione di evitare l'esposizione alle radiazioni non ionizzanti ad alta frequenza. Questo problema sembra costituire una sfida di salute pubblica senza precedenti per Victoria. Nell'agosto 2013, 142 persone avevano riportato effetti negativi sulla salute derivanti dagli smart meters senza fili sottoponendo informazioni su un sito Web pubblico australiano utilizzando i registri sanitari e legali.

OBJECTIVE:

The study evaluated the information in the registers to determine the types of symptoms that Victorian residents were developing from exposure to wireless smart meters.

OBIETTIVO:

Lo studio ha valutato le informazioni nei registri per determinare i tipi di sintomi che i residenti dello stato di Vittoria hanno sviluppato a seguito di esposizioni a smart meters senza fili.

DESIGN:

In this case series, the registers' managers eliminated those cases that did not clearly identify the people providing information by name, surname, postal address, and/or e-mail to make sure that they were genuine registrants. Then they obtained consent from participants to have their deidentified data used to compile the data for the case series. The author later removed any individual from outside of Victoria.

PROGETTO:

I gestori dei registri hanno eliminato in questo gruppo di persone quei casi che non identificavano chiaramente le persone per nome, cognome, indirizzo postale, e / o e-mail per assicurarsi che fossero dati confutabili. Hanno ottenuto, poi, il consenso da parte dei partecipanti di utilizzare i loro dati anonimi per compilare i dati per la serie di casi. L'autore ha poi rimosso qualsiasi individuo residente al di fuori dello stato di Victoria.

PARTICIPANTS:

The study included 92 residents of Victoria, Australia.

OUTCOME MEASURES:

The author used her medical experience and judgment to group symptoms into clinically relevant clusters (eg, pain in the head was grouped with headache, tinnitus was grouped with ringing in the ears). The author stayed quite close to the wording used in the original entries. She then calculated total numbers and percentages for each symptom cluster. Percentages were rounded to the nearest whole number.

PARTECIPANTI:

Lo studio ha incluso 92 residenti di Victoria, Australia.

RAGGRUPPAMENTO DEI DATI:

L'autore ha utilizzato la sua esperienza medica e di giudizio per raggruppare i sintomi in cluster clinicamente rilevanti (per esempio, il dolore alla testa è stato raggruppato con il mal di testa, il tinnito è stato raggruppato con ronzio nelle orecchie). L'autore è rimasto molto vicino alle definizioni utilizzate nelle voci originali. Ha poi calcolato il numero totale e le percentuali per ogni cluster. Le percentuali sono state arrotondate al numero intero più vicino.

RESULTS:

The most frequently reported symptoms from exposure to smart meters were (1) insomnia, (2) headaches, (3) tinnitus, (4) fatigue, (5) cognitive disturbances, (6) dysesthesias (abnormal sensation), and (7) dizziness. The effects of these symptoms on people's lives were significant.

RISULTATI:

I sintomi da esposizione a smart meters più frequentemente riportati erano (1) insonnia, (2) mal di testa, (3) acufene, (4) affaticamento, (5) disturbi cognitivi, (6) disestesia (sensazione anomala) e (7) vertigini. Gli effetti di questi sintomi sulla vita delle persone sono stati significativi.

CONCLUSIONS:

Review of some key studies, both recent and old (1971), reveals that the participants' symptoms were the same as those reported by people exposed to radiofrequency fields emitted by devices other than smart meters. Interestingly, the vast majority of Victorian cases did not state that they had been sufferers of electromagnetic hypersensitivity syndrome (EHS) prior to exposure to the wirele the possibility that smart meters may have unique characteristics that lower per symptom development.

<http://www.ncbi.nlm.nih.gov/pubmed/25478801>

CONCLUSIONI:

La revisione di alcuni studi chiave, sia recenti e passati (1971), ha rivelato che i sintomi dei partecipanti erano gli stessi di quelli riportati dalle persone esposte a campi a radiofrequenza emessi dagli smart meters. È interessante notare che la stragrande maggioranza dei casi dello stato di Vittoria non si riconoscevano malati da sindrome da ipersensibilità elettromagnetica (EHS) prima dell'esposizione agli smart meters senza fili, ciò indica la possibilità che gli smart meters possono avere caratteristiche uniche che abbassano, nella popolazione, la soglia per lo sviluppo dei sintomi .

<http://www.ncbi.nlm.nih.gov/pubmed/25478801>

World's First Medical Study Of Smart-Meter Health Complaints

Posted in What's Happening Around the World? Written by André Fauteux

Initially, Montrealer Pierre Lepage was glad to receive the letter Hydro-Québec mailed him in 2011. It announced the upcoming replacement of the six electric meters located in his basement apartment's kitchen, by wireless "smart" meters that communicate with radiofrequency microwaves (RF/MWs). "I told myself, thanks to remote metering, I won't have to fill out meter-reading cards anymore. But I was ignorant", Lepage said in a 2012 interview after writing Quebec's Energy Board to complain that those meters harmed his family's health. About two weeks after they were installed, Lepage, his wife, father and teenage son all developed flue-like symptoms : dizziness, headaches, fatigue, nausea and loss of appetite. "We thought we caught a virus, but the symptoms lasted for weeks. Later, I developed heart palpitations and high blood pressure for the first time in my life", the 36-year-old man said. He later covered the meters' glass globes with four layers of aluminum foil to reduce their RF/MW emissions, as recommended by Villeray Refuse, the first citizen's group to oppose mandatory installation of smart meters. "Three days later we felt much better", Lepage wrote in his letter to the Energy Board.

Health authorities say smart meters are safe because their average RF/MW emissions are thousands of times weaker than those from cellphones. But experts in electromagnetic fields (EMFs) health effects say research is needed because it seems that smart meters' 24/7, intermittent and unpredictable pulses may be disrupting the synchronized electrical impulses in body cells. Evidence submitted in 2013 to the British Parliament stated smart meters "have triggered thousands of complaints of ill health and disabling symptoms worldwide", according to the first study¹ on smart meter health complaints published this week in a peer-reviewed medical journal. Its author, Dr Frederica Lamech, found that the main symptoms reported by some people exposed meters are the same as those related to other wireless devices for more than 60 years.

Lamech is a family physician practicing in Melbourne, capital of the Australian State of Victoria. In 2013, she evaluated the symptoms reported by Victorians on a public website after rollout of smart meters in Australian homes which began in 2006. Her case series study analyzes the symptoms experienced by 92 Victorians (87 adults and 5 children). "The most frequently reported symptoms from exposure to smart meters were (1) insomnia, (2) headaches, (3) tinnitus, (4) fatigue, (5) cognitive disturbances, (6) dysesthesias (abnormal sensation), and (7) dizziness", she wrote in her study published in the November/December 2014 issue of *Alternative Therapies in Health and Medicine*.

These symptoms, Dr Lamech wrote, "almost completely overlap" with those a bibliography of more than 2,300 studies on the biological effects of RF/MW exposures written in 1971-72 by US Navy scientist Zorach Glaser. They are also the most common symptoms mentioned in the 2012 Austrian Medical Association's Guideline for the Diagnosis and Treatment of EMF-related Health Problems and "This syndrome was first described by Russian researchers in the 1950s, who call sickness," Lamech noted before concluding : The "hypothesis that some people

from exposure to the radiofrequency fields of wireless smart meters (...) cannot be disproven without further assessment of the affected individuals and the electromagnetic fields [EMFs] in which they live”.

Many of Lamech’s participants said their smart meter’s emissions had profound effects on their life : being unable to use part of one’s house, spending a lot of money on shielding products or having to move, experiencing financial and relationship problems, being unable to work, etc. Forty percent reported having four or more symptoms and a man who suffered from a single but serious symptom — chronic, severe nerve pain — had to go on disability leave. The majority “described clear alleviation of symptom(s) when they moved away from the smart meter(s) or when shielded from the smart meter(s).” Only seven people (8% of cases) stated they suffered from such electromagnetic hypersensitivity (EHS) prior to their smart meter exposure and 27 (29%) — most had opted for a non-RF-emitting meter — claimed their symptoms were triggered by their neighbor’s smart meter. Lamech said the symptoms were unlikely caused by another form of pollution located in a specific area since : her participants’ place of residence — 67% in Melbourne or its suburbs and 23% in rural areas —almost perfectly correlated to Melbourne’s population.

According to Australian Associate Professor of neurosurgery Vini G. Khurana, wireless smart meters may cause “adverse neurological effects in people who sustain close proximity to the meters, especially under 10 feet (3 metres)”. These meters communicate with other meters and utility ‘smart grids’ via two antennas using frequencies (900 MHz to 2.4 GHz) similar to cordless phones and cell tower. They emit “millisecond-long RF bursts on average 9,600 times a day with a maximum of 190,000 daily transmissions and a peak level emission two and a half times higher than the stated safety signal, as the California utility Pacific Gas & Electric recognized before that State’s Public Utilities Commission, according to Dr David O. Carpenter, former founding dean of Albany University (New York)’s School of Public Health. Thus people in proximity to a smart meter are at risk of significantly greater aggregate of RF/microwave exposure than with a cell phone, not to mention the cumulative exposure received by people living near multiple meters mounted together, pole-mounted routers or utility collector meters using a third antenna to relay RF signals from 500 to 5,000 homes.” Quoting the BioInitiative Working Group Report coedited by Dr Carpenter, Dr Lamech wrote that such unpredictable pulses disrupt the synchronized biological oscillations within cells.

RF radiation was classified as “possibly carcinogenic” in 2011 by the International Agency for Research on Cancer, based on higher risk of brain cancer in people using a cell or regular cordless phone 30 minutes a day for at least 10 years. But according to Dr Carpenter, a world-renowned expert on EMF health effects since the 1980s, cumulative exposure to smart meter emissions can be greater and more noxious than those from a cellphone used prudently (limiting the number and length of calls, using the speaker mode or a headset, etc.). “The report by Lamech is valuable for several reasons, Carpenter said. It provides support for the possibility that a sudden increase in RF exposure — in this case from smart meters — results in the development of EHS. This observation is consistent with [other] reports ... and suggests that the syndrome can be triggered in susceptible individuals by an unusual or intense exposure to EMFs and perhaps to electric current. The Lamech report also raises the important question of what meters, compared with other sources of RF, may be responsible for provoking E

But the former head of epidemiological studies at Canada's National Cancer Institute in Toronto, Dr Anthony B. Miller says Dr Lamech's study needs to be reproduced more rigorously. "A case series produces very weak evidence. In spite of what the author feels, the subjects may have been influenced in their reporting by extraneous information - their answers may have been influenced by recall bias. I certainly agree that more studies into this issue should be funded, but they need to be carefully designed, and preferably based upon defined questionnaires administered by trained interviewers, with the case subjects carefully matched to controls." The emeritus professor of public health at the University of Toronto believes children's exposure to RF/MWs needs to be reduced because the most recent studies justify their rather being classified as "probably carcinogenic".

At Quebec's National Institute of Public Health scientific advisor Mathieu Gauthier said the study's design is flawed. "The method of selection of participants, the type of questions asked, the lack of a control group and lack of exposure measurements greatly limit the contribution of this study. In addition, we expected that the discussion would have mentioned the many other published research on this topic in recent years."

In her paper, Dr Lamech said while a case series cannot prove a causal relationship, "it is nevertheless a vital and often essential first step in formulating a new hypothesis". Suspecting clinicians are only seeing the tip of the iceberg, she echoed other calls by scientists recommending a moratorium on smart meter and smart grid deployment until they are proven safe. "An evidence-based approach, such as the one used in all other areas of medicine, must be applied, which would mean the establishment of a postrollout surveillance study and funding for further research into the particular effects of wireless smart meters... Living in a wireless smart meter grid makes the Austrian Medical Association's recommendation to "take all reasonable measures to reduce exposure to electromagnetic fields" impossible to implement." She told us by email her report is aimed at informing health clinicians because they and their patients generally lack knowledge about the effects of wireless technologies.

Montrealer Jocelyne Lachapelle, who lives in a condominium and is suing Hydro-Quebec and her neighbors who refuse to opt out of the smart meter program, hopes Dr Lamech's study will inspire others. "Hopefully various specialists (physicians, biologists and engineers) will join forces to develop multidisciplinary studies on the effects of smart meters."

Dr Anthony B. Miller is an advisor to Canadians for Safe Technology (C4ST), a pressure group founded by the former president of Microsoft Canada, Frank Clegg. C4ST just launched a petition demanding that Health Canada put "a process in place to receive and respond to reports of adverse reactions to electromagnetic radiation emitting devices".

1. Self-reporting of symptom development from exposure to radiofrequency fields of wireless smart meters in Victoria, Australia: a case series.

In this email, Dr Lamech's explains how her study came about

On 2014-12-12 à 04:04, Federica Lamech <lamech.federica@yahoo.com.au> wrote :

Hi Mr Fauteux,

Thank you for your interest in the article recently published in the peer reviewed US clinical journal 'Alternative Therapies in Health and Medicine' (Nov/Dec '14 issue) When wireless smart meters were made 'compulsory' here in Victoria and their rollout gathered momentum as a result, they were very controversial here, with the ETU (Electrical Trades Union) making public statements about their worries regarding their safety and the safety of having them installed by people who were generally not qualified electricians, the media covering episodes of alleged smart meter related house fires and of people reporting a number of adverse health effects after a smart meter was installed at their home or their neighbours' home.

Like many other Victorians, and also prompted by concerns about mine and my family's health, I then researched information on smart meters on the internet and came across an Australian website –Stop Smart Meters Australia - that had a lot of information and also a lot of anecdotes of people relating their experience of ill health from wireless smart meters. Apart from one case, the anecdotes available did not have enough identifying information to have much value from an epidemiological perspective.

I then also noticed that the website had opened a 'Health Register' and 'Legal Register' where people could register their story and details confidentially. My curiosity led me to email the website's managers and explain that I was a medical doctor and was interested in the data they were receiving to their registers.

I was pleasantly surprised to find that one of the 2 managers was a person with a bachelor of science in biochemistry and microbiology, who had researched the effects of non ionising radiation for 12 months prior to me making contact with him. I knew then that I could get effective co-operation in terms of the report's methodology from him, given his knowledge of science and research methods. The report's methodology is extensively explained in the full report.

The manager's name is Steve Weller and he has given me permission to mention his name to you. He states to me that he set up the 'health register' on the Stop Smart Meters Australia website, for a number of reasons. He had registered his own adverse health effects from smart meters with ARPANSA (Australian Radiation Protection and Nuclear Safety Agency) and had received no follow up; he felt that the numbers of 'affected' people supplied to him by ARPANSA were not accurate; he had contacted a number of Victorian government ministers, but their responses had made him conclude that they were in denial and he wanted to take steps to find out the truth. When I approached him with my idea for a 'Case Series', he was very happy to co-operate.

Besides the AAEM statement about the report, I received (privately) a number of positive and supportive comments on an earlier draft of the report from a number of scientists from Australia, Canada and the UK, including comment on the excellent quality of the references used.

Here's a more recent comment by Dr David Carpenter:

"The report by Lamech is valuable for several reasons. It provides support for the possibility that a sudden increase in RF exposure — in this case from smart meters — results in the development of EHS [Electrohypersensitivity]. This observation is consistent with [other] reports ... and suggests that the syndrome can be triggered in susceptible individuals by an unusual or intense exposure to EMFs and perhaps to electric current. The Lamech report also raises the important question of what characteristics of smart meters, compared with other sources of RF, may be responsible for provoking EHS."[*] Reference: "Excessive Exposure to Radiofrequency Electromagnetic Fields May Cause the Development of Electrohypersensitivity,"

by David O. Carpenter, (Altern Ther Health Med. 2014;20(6):pp 40-42.)

Refer to: <http://www.ncbi.nlm.nih.gov/pubmed/25478802#>.

With regards to Anthony Miller's comments, I do not completely disagree with him, in fact my full report contains a paragraph headed 'Limitations of Current Study' in which I discuss the issues raised by Dr Miller. Although a case series can only make limited statements on the causality of correlations observed, it is, nevertheless a vital and often essential first step in formulating a new hypothesis. My conclusion is to offer a new hypothesis that 'some people can develop symptoms from exposure to the radiofrequency fields of wireless smart meters' and to call for the 'establishment of a postrollout surveillance study and funding for further research into the particular effects of wireless smart meters, in conjunction with research into the short-term and long-term consequences of EMR exposure'. The study also challenges the view that smart meters are not harmful, especially when considering the symptoms described. Although often considered a nuisance effect, nevertheless " Annoyance or discomfort may not be pathological per se but, if substantiated, can affect the physical and mental well being of a person and the resultant effect should be considered as a potential health hazard." (ICNIRP 2002 statement). Because the registers were established and active while the rollout was actually happening, references to how people felt were based on very recent experiences, which meant that recall bias was not likely to have occurred (as it does with retrospective type studies/questionnaires). With regards to the issue of confounding factors, I have dealt with that issue at length in the report. If By 'extraneous information' Dr Miller is referring to people reading some concerning reports and suffering anxiety as a result (nocebo effect), a number of studies suggest that the prevalence of health complaints for sensitive people cannot be fully explained by attributions, concerns or risk perceptions (Blettner M et al, Nov 2008) and (Levallois P et al, Aug 2002.)

Finally, I take this opportunity to point out that the way the report is written and its publication in a clinical journal is aimed at informing clinicians, be they doctors, nurses, physios, chiros or naturopaths, that have direct patient contact. Issues regarding health effects of nonionizing radiation have been known and discussed for more than half a century now and failure to consider the impact of this environmental factor on human health has the potential to lead to misdiagnosis and inappropriate management of patients, which, in turn would have considerable adverse human and social consequences, as well as being detrimental to the economies of health care.

<http://c4st.org/news/what-s-happening-around-the-world/a-first-clinical-study-documents-the-harmful-effects-of-smart-meters.html>