

United States Senate

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February 5, 2016

Alex Gorsky
Chairman and Chief Executive Officer
Johnson & Johnson
One Johnson & Johnson Plaza
New Brunswick, NJ 08933

Omar Ishrak
Chairman and Chief Executive Officer
Medtronic
710 Medtronic Parkway
Minneapolis, MN 55432

John Flannery
President and Chief Executive Officer
GE Healthcare
500 West Monroe Street
Chicago, IL 60661

Brent Shafer
Chief Executive Officer
Philips North America
3000 Minuteman Road
Andover, MA 01810

Eric A. Spiegel
President and Chief Executive Officer
Siemens USA
300 New Jersey Avenue NW, Suite 1000
Washington, DC 20001

Dear Mr. Gorsky, Mr. Flannery, Mr. Spiegel, Mr. Ishrak, and Mr. Shafer:

I am writing to express serious concerns that the cybersecurity vulnerabilities in medical devices are putting the health and safety of patients in California and across the country at risk.

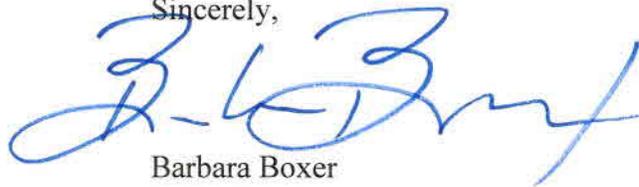
This past spring, an independent security researcher disclosed a vulnerability in certain drug infusion pumps used in hospitals all across the country. The weakness allowed the researcher to infect the device software with malicious code and manipulate the pump's drug dosage levels. If this vulnerability had been discovered by a bad actor, thousands of patients could have been put at risk.

I am encouraged that in January, the Food and Drug Administration (FDA) took an important step and released draft guidance, titled "Postmarket Management of Cybersecurity in Medical Devices." It is estimated that 36 billion devices will be connected to the Internet by the year 2020, and it is likely that many of these will be located in our nation's hospitals. As networked medical devices become increasingly ubiquitous, conducting vulnerability testing on these devices throughout the product lifecycle will be an absolutely critical component to ensuring patient safety.

As you know, your companies jointly control more than one-quarter of the global medical device market. The actions your companies take to reduce medical device vulnerabilities exponentially reduce the global risk of medical device cyberattacks and send a powerful signal to the entire industry of the importance of good cybersecurity practices.

Thank you for your attention to this important matter. In your response to this letter, please indicate the steps your companies are taking, or plan to take, to address the growing threat of medical device cybersecurity vulnerabilities.

Sincerely,

A handwritten signature in blue ink, appearing to read 'B. Boxer', with a stylized flourish at the end.

Barbara Boxer
United States Senator