Medtronic submits full data on spinal protein to independent scrutiny

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The company at the centre of an investigation by a US Senate committee into an alleged failure to mention the side effects of a spinal treatment it makes has agreed to fund an independent review into the safety and effectiveness of the product. It is the first time that a medical technology company has agreed to this type of detailed scrutiny.

Medtronic announced in early August that it will give Yale University $2.5m (£1.5m; €1.7m) to review all published and unpublished data on the safety and effectiveness of Infuse Bone Graft, a recombinant bone morphogenetic protein 2 (rhBMP-2) that is used to stimulate bone growth in spine fusion surgery.

In what the company describes as “unprecedented in the medical industry,” academics will be granted access to full patient data possessed by Medtronic—and not just the data summaries that are commonly used in meta-analyses and systematic reviews.

In June a special edition of Spine Journal was dedicated to the product. The publication highlighted the “remarkable absence” of side effects or complications in the original industry sponsored trials and the subsequent emergence of adverse reactions associated with rhBMP-2 in independent studies. An editorial in the journal concluded, “It harms patients when poor publication practices become business as usual” (2011;11:463-8, doi:10.1016/j.spinee.2011.06.001).

The publication prompted members of the Senate Committee on Finance to issue Medtronic with an 11 July deadline to respond to allegations that it had failed to mention side effects or strong financial ties with some of the clinicians involved in the trials of the product (BMJ 2011;343:d4284, doi:10.1136/bmj.d4284). A spokesperson for Medtronic confirmed that it had received a letter from Senators Charles Grassley and Max Baucus and that the company was responding to the allegations.

Harlan Krumholz, professor of medicine and public health at Yale University, approached Medtronic to take part in a transparency programme for industry that he had already set up, after Infuse received widespread negative coverage in the media.

He was motivated to set up the programme because, as he told the BMJ, he was tired of the “lack of community spirit around access to data when there are questions about a drug’s safety and effectiveness.”

He will head a steering committee that will commission two separate organisations with expertise in conducting large systematic reviews to evaluate the data on rhBMP-2. Neither organisation will have access to each other’s review until it is completed.

Professor Krumholz said that Medtronic was already on the point of deciding that it needed an independent evaluation and that he convinced them it would be best to have truly independent academics review its data.

He said they discussed a new model that would involve independent reviews and data release “that could usher in a new approach which would elevate the science, increase the credibility, and restore public confidence in the process.”

Before contacting Medtronic Professor Krumholz had approached Pfizer after CMAJ, the journal of the Canadian Medical Association, published a meta-analysis showing an increased risk in cardiovascular events after use of its smoking cessation product varenicline (doi:10.1503/cmaj.110218). But Pfizer refused to release its data.

“Once we have the model in place and demonstrate that it can be done in a way that’s feasible for both industry and the public, we hope other companies will be willing to provide their data,” said Professor Krumholz.

He added, “No drug is perfect—it is a trade off between the risks and the benefits. But we need all the data on those risks and benefits. Companies should compete on science and not marketing.”

Omar Ishrak, chief executive officer of Medtronic, has reiterated his firm belief in the integrity of the rhBMP-2 data. Although the articles “raised questions about the peer review process and the quality of the physician-industry relationship,” he said, “it is important to note that they did not raise questions about the integrity of the data that Medtronic submitted to the FDA on approval or any of the other subsequent reporting.”

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