Junk Science Kills

By ACSH Staff — February 4, 2010


The media gave big headlines to this week's stories on a prestigious British medical publication's retraction of an article that had claimed to show a causal link between standard childhood vaccinations (measles, mumps and rubella) and autism.

Yet the coverage of the Lancet affair didn't truly convey the outrageousness of the original publication or the gravity of its consequences -- consequences long festering, since the paper was published not last week but twelve years ago.

Many of us in the scientific community recognized the "study" as junk when it appeared in 1998. Even before we learned of then-unknown ethical failings by its lead author, we knew the study was based on a tiny population of only twelve children. More, it relied on a novel methodology that assumed some bizarre, previously unheard of, association between children's autism and their manifestation of intestinal problems.

Nonetheless, the media back then seized on this story from a prestigious medical source -- and the scare picked up steam when TV appearances by actress Jenny McCarthy and a Rolling Stone article by Robert Kennedy Jr. blared word of the putative dangers of vaccines.

When criticism of the paper intensified in the days after publication, Lancet editor-in-chief Dr. Richard Horton defended his decision to publish what he acknowledged as an inferior study by claiming it would generate debate on the autism/vaccine issue. Even when ten of the original thirteen authors withdrew their names from the article, Horton still refused to withdraw the study.

Nor did he take such action when multiple studies subsequently appeared showing no link between vaccines and autism. Nor even in 2004 -- when it was revealed that the lead author, Dr. Andrew Wakefield, had been paid, in part, by lawyers for parents seeking to sue vaccine makers, claiming adverse health consequences.

All the publicity led many parents to forgo these vital infant immunizations: Vaccination rates in Britain, especially, plummeled. And since then, hundreds of unvaccinated children have been hospitalized in Britain with the measles. Some died of the illness.

Here in America, more than 1,000 children have died from H1N1 flu over the last year -- numbers that would surely be smaller had not so many parents been frightened away from getting flu shots by the general Wakefield-induced paranoia over vaccines.
In other words, a medical journal triggered a chain of events that led to preventable disease -- and some child deaths.

Some will argue the *Lancet* piece was an aberration: Most peer-reviewed journals publish only carefully reviewed, well-conducted studies. But there is a disturbing trend in recent years: publication of small, uncontrolled, isolated findings -- which the media immediately present as fact, under alarming headlines.

And health and environmental activists have founded their own cliquish "peer review" journals: Small groups of ideologically fueled scientists publish the manuscripts compatible with their activist mission.

In the specific case of vaccines, a cottage industry of conspiracy theorists, "investigative journalists" and (understandably) desperate parents of sick children in search of explanations also stands ready to pounce on any apparent indictment of vaccines -- and spread the word.

All of which makes it all the more important for serious journals, as the *Lancet* claims to be, to avoid junk science -- not promote it.

Nor did the journal's editors, after twelve years, finally independently come to their senses and vote to retract. Horton finally pulled the trigger on the retraction only after a British medical panel (the General Medical Council) concluded that Wakefield had been dishonest, violated basic research ethics rules and showed a "callous disregard" for the suffering of children following his spurious publication.

Even with the retraction, the widespread rumors of a vaccine-autism link will prevail: The broader anti-vaccine movement is alive and well, albeit without a shred of evidence to support their case. As the chief of Infectious Disease at Philadelphia Children's Hospital, Dr. Paul Offit, reflected sadly, "This retraction by *Lancet* came far too late. It's very easy to scare people; it's very hard to unscare them."

Horton has made no effort whatsoever to apologize or take editorial responsibility for this egregious error. He should step forward and say, "I regret the needless suffering and death for which I am partly responsible."

This incident leads to one very unsettling but unavoidable conclusion: Even a study in a top-notch, peer-reviewed medical journal may still be scientific garbage. Imagine how many other false (if less controversial) reports glide by under the radar -- undetected but still destructive to good science and public health.

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