

## NEWS

## Anticoagulants cause the most serious adverse events, finds US analysis

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A report by a watchdog group has concluded that prescribed medicines are “one of the most significant perils to human health resulting from human activity.” The group based their conclusion on their analysis of the US Food and Drug Administration’s database of serious adverse events.

The report was published on 31 May in *QuarterWatch*, a publication of the Institute for Safe Medication Practices, a non-profit organisation dedicated to “medication error prevention and safe medication use” based in Horsham, Pennsylvania.<sup>1</sup> It calculated that in 2011 prescription drugs were associated with two to four million people in the US experiencing “serious, disabling, or fatal injuries,” including 128 000 deaths.

According to the US Centers for Disease Control and Prevention, 48% of the US population were taking a prescription medicine in any given month and 11% were taking five or more prescribed medicines.

The FDA estimates that the number of reports it receives represent only the “tip of the iceberg,” and the report authors based their estimates on 179 855 reports of serious injuries, including 30 385 deaths submitted to FDA in 2011. Of those reports, 88% were written and submitted by manufacturers and 12% were submitted directly to the FDA by health professionals and patients. The authors considered 30% of the death reports to be “nearly useless” since the only event information supplied was the single term, “Death.” Ninety nine per cent of the low quality death reports were submitted by manufacturers, who omitted critical patient information in their reports such as the cause of death or age of the patient.

The top five drugs most often reported by healthcare providers and patients were (in order of frequency): the anticoagulant drugs warfarin and dabigatran; the antibiotic levofloxacin; the cancer drug carboplatin; and the antihypertensive lisinopril.

David Cundiff, lead author of a Cochrane review of anticoagulant treatment for venous thromboembolism, told the *BMJ* that deaths from anticoagulation associated internal

bleeding have been ignored for too long—a point underscored by the report authors who write that “In the sobering arithmetic of anticoagulation, warfarin prevents ischemic strokes in approximately 1% of high risk patients a year, but causes major bleeding in an estimated 3%.”

George Lundberg, former editor in chief of *JAMA*, told the *BMJ* that he was not surprised to see anticoagulants topping the list. He said that overprescribing is partly to blame and that “a balance needs to be reached between the benefits and harms of anticoagulants.” Lundberg cautioned against the routine use of anticoagulants for patients in hospital and those with stroke in an editorial in *MedPage Today*, where he is editor at large.<sup>2</sup>

The authors monitored FDA reports submitted by lawyers separately and found that the top five drugs resulting in litigation were the anti-nausea drug metoclopramide, birth control pills containing drospirenone, the diabetes drug rosiglitazone, the smoking cessation aid varenicline, and the acne drug isotretinoin.

Thomas Moore, one of the report authors and senior scientist at the institute, told the *BMJ* that important signals are obtained from both healthcare provider and attorney reports, and that for a drug to result in a lawsuit it must meet a different standard than for a clinical report. For example, he said, even though angioedema can be life threatening, it often won’t result in a lawsuit because the patient may be treated and not suffer permanent harm. And haemorrhagic strokes from warfarin may not be reported because bleeding is a well known side effect. Moore said, “But, if you take metoclopramide and develop tardive dyskinesia, or you take [drospirenone] and have a stroke, there may be a compensable injury.”

1 Monitoring FDA MedWatch Reports: Anticoagulants the Leading Reported Drug Risk in 2011, 31 May 2012, <http://www.ismp.org/quarterwatch/pdfs/2011Q4.pdf>.

2 Lundberg G. Stop Routinely Anticoagulating Hospital Patients. <http://www.medpagetoday.com/Columns/At-Large/30403>.

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