Less than a quarter of hospitals stock antidotes required for immediate use

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Less than a quarter of hospitals in England, Wales and Northern Ireland stock all of the recommended antidotes for immediate use in emergency departments, reveals an audit published in the online journal the *European Journal of Hospital Pharmacy*.

National guidelines for the treatment of poisoned patients were revised in 2013 by The Royal College of Emergency Medicine and National Poisons Information Service. These were updated following an audit in 2010 that found significant variable stocking and timing of antidotes.

To assess if the availability and stock levels of antidotes have improved since the revised guidelines, a team of researchers sent questionnaires to the Chief Pharmacists of all 215 acute hospitals in England, Wales and Northern Ireland.

Questions were asked about antidote availability within the recommended time, and whether recommended stock levels were held, and time to availability if not stocked.

Overall, there were 169 (78.6%) responses. The number of hospitals stocking antidotes within the recommended time increased for 20 of the 22 category A and B antidotes.

However, less than a quarter of hospitals stocked every category A antidote - these are required for immediate use in the emergency department for treatment of poisoning with drugs - such as paracetamol

and opioid painkillers, and chemicals such as cyanide.

All hospitals stocked at least one of the four required antidotes for cyanide poisoning - an improvement compared with the previous audit which found that 4.6% hospitals did not.

The authors explain that the variable availability of antidotes "has significant implications for the optimum management of poisoned patients."

For example, "cyanide poisoning antidotes are used in the management of critically unwell patients and delays in antidote administration could result in mortality."

All category B antidotes - required within 1 hour by guidelines, and therefore to be stocked in the hospital - were available in (17.6%) hospitals, and 62 (36.7%) of hospitals had all category B antidotes.

There was an improvement in the stocking of fomepizole, for example, recommended for toxic alcohol poisoning, from the 2010 audit - up from 16.8% hospitals in 2010 to 73.4% hospitals in the current audit.

However, "there remains a small number with no appropriate antidote stocked for treating this important and potentially serious life threatening poisoning," say the authors.

Reasons for poor stocking include the high cost of some antidotes along with the need to replace stock, which may expire before use. However, these do not account for activated charcoal which is relatively cheap and easily available, they explain.

There was significant variability of the availability of category C antidotes - antidotes that are recommended to be stocked supraregionally

- even though this improved since the 2010 audit.

Sodium calcium edetate, suggested for lead poisoning, is a rare diagnosis but prompt treatment is required. Yet only 16.8% of hospitals stocked this antidote. Of those that did not, 44% were unable to provide information on where it could be sourced from.

More work is "urgently needed" to ensure hospitals have "plans in place to source those antidotes when required," say the authors, and they suggest a national mechanism to improve and ensure availability of these antidotes through sharing of information and accessibility between hospitals.

More information: Taking stock: UK national antidote availability increasing, but further improvements are required, ejhp.bmj.com//lookup/doi/10.11 … ejhpharm-2015-000802

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