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The poisonings chart

EDITORIAL

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The evidence base on acute poisonings is assembled piece by piece.

This issue of the Journal of the Norwegian Medical Association brings an important contribution to our knowledge on poisonings in Norway – in a study based on reimbursement claims to the health economics administration, Sandvik and Hunskår at the National Centre for Emergency Primary Health Care find that the incidence of contacts with out-of-hours services because of poisonings is increasing all over the country (1). The increase can be observed among adolescents and young adults, as well as among men in their fifties. Children aged 1–2 years stand out – among these, a welcome decline is observed. Among young adults weekend drunkenness predominates, equally distributed among men and women. In addition, young women stand out in having frequent contacts because of poisoning by a medical agent. Alcohol poisoning predominates among men in their fifties, and this group also includes a number of recurring patients.

Similar studies from hospitals complete this general picture (2). However, data from out-of-hours services are not directly comparable to those from hospitals. Which of these locations that treat poisonings may vary from one place to another, and many patients are treated at both levels. In some places, people with poisoning are brought directly to the hospital emergency department by the ambulance services. Where the hospital is far away, most patients will be attended to by the local out-of-hours services. The proportion to be transported onward is decided by what can be dealt with locally. In Oslo, most patients with

poisoning by substances of abuse are treated at a primary care emergency outpatient clinic. In Bergen, the same group of patients are taken care of by the specialist health services, in a department co-located with a primary care emergency outpatient clinic.

Registry studies can provide good indicators of tendencies and general incidence rates, and we need this knowledge to tailor our services. Insufficient precision in the coding of diagnoses nevertheless imposes some limitations on the accuracy with which we can estimate the incidence of various types of poisonings (1, 3). Prospective clinical studies are better suited for this purpose, but more resource-intensive. Such studies have been conducted in Oslo (4), but in general such data are scarce, including in Europe as a whole (5).

The recreational drug panorama is changing rapidly, and 400 new drugs have been reported to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) over the last five years (6). The need to monitor the incidence of poisonings from new drugs spurred the establishment of a new European collaboration on mapping of recreational drug poisonings, the European Drug Emergencies Network (EuroDEN) (7), which also has two centres in Norway. The EuroDEN centres are not representative; they have rather sprung up where suitable research communities already existed. However, the EuroDEN network is facing the same challenge as Sandvik and Hunskår, since the diagnosis will invariably be based on the clinical assessment made by the doctor treating the patient. This reflects the real clinical situation. The treatment options for the patient are decided on the basis of the clinical picture, since laboratory diagnostics of poisoning agents are rarely available in time to influence the assessment there and then.

A further restriction on laboratory diagnostics of poisoning agents is that we only find what we are looking for. This is still the best measure available of what the patient has taken, provided that we seek widely with sensitive methods. Doing this from time to time is a necessary supplement and corrective to clinical diagnostics. When we seek, we often find that the patient has taken what we thought they had taken – and a great deal else besides (8).

Knowledge on poisonings is based on all these methods, as well as others: forensic toxicology tests from different settings, autopsy material, surveys in selected groups and the population in general, analyses of waste water, internet data, material impounded by the police, inquiries to poison information centres, clinical studies and laboratory tests *in vitro*, *in vivo* and *in silico* (9). The sum total of all this will hopefully, through suitable summaries, manuals and treatment recommendations, find its way to the doctor who is about to treat a patient suffering from acute poisoning. Over decades, the Oslo Accident and Emergency Outpatient Clinic has developed a procedure for assessing patients with poisoning by substances of abuse, in the form of a systematic clinical examination as a basis for making decisions regarding treatment and hospitalisation (10). This procedure can also be applied elsewhere. The scope of what can be handled by primary care emergency services will nevertheless vary from one place to another. Long distances to hospital may be an argument in

favour of handling more patients locally, while this also calls for vigilance: those who need specialist care must reach the hospital reception before things go wrong.

LITERATURE

1. Sandvik H, Hunskår S. Legevaktkontakter på grunn av forgiftning i Norge 2006-15. Tidsskr Nor Legeforen 2017; 137: 876 - 80.

2. Andrew E, Tellerup M, Termälä AM et al. Poisonings in the Nordic countries in 2007: a 5-year epidemiological follow-up. Clin Toxicol (Phila) 2012; 50: 210 - 4. [PubMed][CrossRef]

3. Muan B, Heyerdahl F, Lindås R et al. Kodepraksis ved forgiftningsdødsfall. Tidsskr Nor Legeforen 2010; 130: 1601 - 5. [PubMed][CrossRef]

4. Heyerdahl F, Hovda KE, Bjornaas MA et al. Pre-hospital treatment of acute poisonings in Oslo. BMC Emerg Med 2008; 8: 15. [PubMed][CrossRef]

5. Heyerdahl F, Hovda KE, Giraudon I et al. Current European data collection on emergency department presentations with acute recreational drug toxicity: gaps and national variations. Clin Toxicol (Phila) 2014; 52: 1005 - 12. [PubMed][CrossRef]

6. European monitoring centre for drugs and drug addiction (EMCDDA). European Drug Report 2016. Trends and developments. Lisboa: EMCDDA, 2016.

7. Euro-DEN Research Group. Acute recreational drug and new psychoactive substance toxicity in Europe: 12 months data collection from the European Drug Emergencies Network (Euro-DEN). Clin Toxicol (Phila) 2015; 53: 893 - 900. [PubMed][CrossRef]

8. Vallersnes OM, Persett PS, Øiestad EL et al. Underestimated impact of novel psychoactive substances: laboratory confirmation of recreational drug toxicity in Oslo, Norway. Clin Toxicol (Phila) 2017; 1 - 9. [PubMed][CrossRef]

9. Wood DM, Dargan PI. Understanding how data triangulation identifies acute toxicity of novel psychoactive drugs. J Med Toxicol 2012; 8: 300 - 3. [PubMed][CrossRef]

10. Vallersnes OM, Jacobsen D, Ekeberg Ø et al. Outpatient treatment of acute poisoning by substances of abuse: a prospective observational cohort study. Scand J Trauma Resusc Emerg Med 2016; 24: 76. [PubMed][CrossRef]

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