

TOXICOVIGILANCE 2023 Thematic Activity Report

Investigate, evaluate, protect

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The French Agency for Food, Environmental and Occupational Health & Safety (ANSES) coordinates the toxicovigilance scheme and the vigilance activities of French poison control centres (PCCs). The purpose of toxicovigilance is to monitor and assess the acute or chronic toxic effects of exposure to natural or synthetic products available on the market or found in the environment, and which do not fall within the scope of other regulated national vigilance schemes (in particular, it excludes human medicine). It relies on data from the network of eight French PCCs, saved in SICAP (the information system shared by all the PCCs) following calls to their emergency telephone hotlines, as well as on toxicovigilance schemes in the French overseas territories.

ANSES is supported in this work by the Toxicovigilance Coordination Committee and its operational unit, as well as by the Strategic Committee for PCC Vigilance Activities. Groups of experts (vigilance working groups) led by ANSES use PCC data to document risk situations for people and recommend preventive measures.

ANSES also receives and processes toxicovigilance signals and alerts.

KEY FIGURES

13 ALERTS ISSUED BY ANSES AND RELAYED ON SOCIAL MEDIA

- 19 December Four tips for a risk-free festive season
- 5 December The health authorities reiterated their warning on the dangers of using
- banned insecticides to tackle cockroaches, bed bugs, etc.
- 5 December Carbon monoxide poisoning can be fatal and concerns everyone: you can reduce the risks by adopting the right practices
- 30 November Nicotine and tobacco pouches pose a risk to young people
- 31 October This year again, beware of inedible gourds!
- 13 October Mushroom season: poisoning on the rise!
- 11 October Head lice treatments: never use products for animals on children
- 7 September Beware of burns to children from disinfectants used in schools
- 31 August Mushroom-picking season has already begun: be vigilant!
- 24 April Home-made weedkillers: never mix bleach and vinegar
- 19 April Confusion between autumn crocus and wild garlic can lead to fatal poisoning
- 30 March Only consume liquorice occasionally and in moderation
- 10 March Processionary caterpillars: stinging caterpillars that should not be touched or approached

5 STUDY REPORTS PRODUCED BY THE VIGILANCE WORKING GROUPS

- ANSES (2023). Exposure to SNIPER 1000 EC DDVP®. Retrospective study of observations recorded by the French poison control and toxicovigilance centres from 1 January 2018 to 30 June 2023 (Request No 2023-AUTO-0160). Maisons-Alfort: ANSES, 28 p.
- ANSES (2023). Tobacco products, related products and flavourings. Review of cases reported to poison control centres from 1 January 2017 to 31 December 2022 (Internal Request No 2023-AUTO-0121). ANSES. Maisons-Alfort. 40 p
- ANSES (2023). Seasonal monitoring of accidental mushroom poisoning cases in metropolitan France: Review of cases recorded by poison control centres between 1 July and 31 December 2022. Toxicovigilance study report. ANSES. Maisons-Alfort. 36 p.
- ANSES (2023). Cases of confusion between autumn crocus and wild or many-flowered garlic: Review of cases registered by poison control centres from 2020 to 2022. Toxicovigilance study report. Internal Request No 2023-AUTO-0039. ANSES. Maisons-Alfort. 43 p.
- ANSES (2022). Study of skin disorders in children associated with the use of disinfectants in community facilities. Retrospective study of observations recorded by the French poison control and toxicovigilance centres from 1 January 2017 to 31 December 2022 (Request No 2022-AUTO-0051). Maisons-Alfort: ANSES, 26 p.

6 CONTRIBUTIONS TO ANSES OPINIONS OR REPORTS

- ANSES (2023). State of knowledge on the health effects associated with the professions of flight crew members and on air quality in aircraft cabins (Request No 2019-SA-0075). Maisons-Alfort: ANSES, 357 p.
- ANSES (2023). Risks to human health associated with the proliferation of Ostreopsis spp. on the Basque coast (Request No 2021-SA-0212). Maisons-Alfort: ANSES, 244 p.
- ANSES (2023). Opinion of the French Agency for Food, Environmental and Occupational Health & Safety on the analysis of the health risks associated with exposure to caterpillars with stinging hairs, and the formulation of management recommendations (Request No 2020-SA-0005). Maisons-Alfort: ANSES, 27 p.
- Contribution to the phytopharmacovigilance fact sheet on cyazofamid.
- Contribution to the phytopharmacovigilance fact sheet on clopyralid.
- Contribution to the phytopharmacovigilance fact sheet on cypermethrin.

2 CONTRIBUTIONS TO EUROPEAN STUDIES

- European Joint Action on Tobacco Control (JATC2): contribution to the questionnaire on European harmonisation of reporting of adverse health effects from the use of novel tobacco products and e-cigarettes.
- Note to the CARACAL expert group of 04/07/2023: Follow-up of the CARACAL CLP of 4 July 2023. Information from the French Competent Authority for CLP and the French poison control centres on incidents related to single-dose dishwasher pods with liquids.

6 MEASURES TAKEN BY THE COMPETENT AUTHORITIES FOLLOWING ALERTS

- **SNIPER 1000** is a product designed to combat cockroaches and bed bugs. It contains dichlorvos, a substance that is banned in Europe. Press release, withdrawal/recall notice on the Signal-Conso.fr portal, numerous product seizures from retailers.
- Trex tea: a range of slimming herbal infusions and capsules containing sibutramine, an amphetamine that is banned in France. Measures taken by the ANSM against websites selling them. Alert referred to European level.
- **Mushrooms labelled as morels**: three people poisoned. The packaging recommended simply reheating the dish in a pan. As morels are toxic when raw, the products were withdrawn from sale and the company was asked to relabel the product to indicate a longer cooking time.
- **Mothballs**: three reports concerned the sale to the public of naphthalene-based mothballs, which have been banned in Europe since August 2008. Recall/withdrawal notice on the Signal-Conso.fr portal and withdrawal of the product references in question from e-commerce sites.
- **Bubble solutions**: withdrawal of bottles whose labelling incorrectly advised people to drink water in the event of accidental ingestion. Bottles of this commercial product were required to be relabelled before being placed on the market again.
- **Aphrodisiac honeys containing sildenafi**l: investigation and seizure of products by the Directorate General for Competition Policy, Consumer Affairs and Fraud Control (DGCCRF).

MAJOR PROJECTS

Assessment of the method for determining causality

A method developed by the poison control centres was used to estimate the probability of a link between exposure and clinical effects, for cases recorded in the PCCs' shared database (SICAP). It has not been published in a scientific journal as it has not yet been fully validated. The aim of the work undertaken was therefore to validate the method and enable it to be published. A study protocol was drawn up in the first half of 2022 and approved by ANSES's Scientific Board on Environmental and Occupational Health.

Then in 2023, 86 records were selected at random from SICAP, corresponding to the main reasons for calling the PCCs, whether frequent or rarer and according to the route of exposure or the circumstances. Causality in each case was validated by an expert committee and regarded as the gold standard for the record in question. Following this, 19 toxicologists from the PCCs, who were not involved in initially selecting the records, performed their own causality calculations for these records. The analyses focused on the agreement between the toxicologists' estimates and the gold standard (sensitivity and specificity of the method), as well as that between each toxicologist's estimates (inter-rater reliability). The study was expected to be finalised in mid-2024.

Quality indicators

An initiative to improve the quality of PCC data was undertaken with the support of the Working Group on "Poison Control Centre Data Quality and Analysis Methodology". This approach is part of a virtuous circle of improved coding in each centre, compared with itself and with all the centres as a whole. During 2023, indicators were developed for monitoring the coding of exposure agents and exposures. This is because information on the product responsible for the poisoning needs to be sufficiently precise to enable action to be taken where necessary. In addition, the description of the patient's symptoms and their progression should enable the severity of poisoning to be assessed. The selected indicators will be applied and monitored throughout 2024.

Accidental poisoning of children under 15 years of age

Preventing accidental poisoning in children is a major public health issue. With the help of *Santé Publique France* and experts from an ANSES working group, national data from PCCs and from the permanent survey on everyday accidents (EPAC¹), along with data on emergency department admissions (OSCOUR[®] network²), hospital admissions (PMSI³) and mortality (CépiDc⁴), were studied to obtain an overview of cases of accidental poisoning of children under 15 years of age in France between 2014 and 2020.

Poisoning from cleaning and maintenance products, human medicines and carbon monoxide were the three main categories, in terms of both frequency and severity of poisoning. Cannabis poisoning, which is becoming increasingly common and serious, as well as poisoning caused by button batteries, are also of great concern. The risks of poisoning differed according to the age group. In young children who are able to walk (aged between one and five years), poisoning was mainly due to the fact that they can access products that are not intended for them. It is essential to keep all small objects and hazardous products out of the reach of children, wherever they may be. In toddlers under one year of age, poisoning was linked to their relatives and carers. Lastly, analysis of data from North American and European PCCs showed that paediatric exposures in other countries were comparable to those reported in the French PCC data.

¹ Permanent survey on everyday accidents, conducted by Santé Publique France

² Organisation of coordinated emergency surveillance, led by Santé Publique France

³ French Programme for the Medicalisation of Information Systems

⁴ Epidemiology Centre on Medical Causes of Death

KEY EVENTS

A data manager at the Nancy PCC

The quality of the data in the poison control centres' information system (SICAP) is fundamental to toxicovigilance. To improve this quality, indicators need to be collected and monitored over time and between PCCs. Coding recommendations also need to be drawn up to ensure that the situations encountered are coded in a uniform way that does not depend on the individual centre. The long-awaited recruitment of a data manager was finally completed on 1 January 2023. Based at the Nancy PCC, the new data manager will work for the entire PCC network, in close collaboration with ANSES and the Working Group on "Poison Control Centre Data Quality and Analysis Methodology".

Closure of the national Synapse portal and reporting via the European Poison Centre Notification (PCN) portal

The Déclaration-Synapse portal, managed by the National Research and Safety Institute (INRS), closed on 1 January 2023. Starting from this date, manufacturers, importers and downstream users of chemicals must declare any new composition via the centralised European Poison Centre Notification (PCN) portal, managed by the European Chemicals Agency (ECHA). For declarations of compositions concerning France, the Nancy PCC, which manages the national database on products and compositions (BNPC), has been assigned to receive all reports from this portal.

Transfer of responsibilities between the DGCCRF and the DGAL

Since 1 January 2023, the Directorate General for Food (DGAL) has been responsible for all food and feed safety regulations covering humans and animals. Food supplements in particular now come under the authority of the DGAL instead of the Directorate General for Competition, Consumer Affairs and Fraud Control (DGCCRF).

On the other hand, the DGCCRF remains in charge of monitoring the quality and reliability of food products: ensuring compliance with rules on labelling, composition and designation of goods, and combatting unfair practices relating to product origin, quality and claims.

OUTLOOK AND FUTURE PROJECTS

Establishment of a weekly automated query on poisonings by plant protection products

Poison control centres are often contacted by people who have been exposed to plant protection products; some of these cases may also be of interest for phytopharmacovigilance. In order to be able to identify the most relevant cases for this ANSES scheme, a weekly query of SICAP will extract all records on exposure to or poisoning by a product identified as a plant protection product. The data, especially on the circumstances of exposure (accidents, misuse), will be analysed by ANSES's Health Alerts & Vigilance Department. Moderate to high severity poisonings will be reviewed by a PCC toxicologist, in order to determine whether the observed effects can be attributed to the product. An identical system has already been put in place for the nutrivigilance and veterinary pharmacovigilance schemes.

Asian hornet (Vespa velutina)

Vespa velutina is an invasive hornet from Asia that has gradually become established in France over the last couple of decades. A predator of many insects, including honeybees, its stings can cause severe allergic or toxic reactions. The most recent report on Asian hornet stings recorded by the PCCs dates back more than ten years and will be updated, to include details of the circumstances and the temporal and geographical trends in these exposures. These data will be compared with those on the stings of native Hymenoptera (European hornets, bees, wasps, etc.).

Product decanting

Each year, PCCs receive more than 6000 calls about accidents due to decanting, i.e. transferring a product into a container other than the original one that is not intended for this purpose. A toxicovigilance study will be carried out on calls received between 1 January 2017 and 31 December 2021, in order to describe the types of products most often involved, the poisoning cases and their severity. It will pay particular attention to two scenarios: ammonia decanted for the purposes of substance abuse, and decanted professional or industrial products reported at accident scenes.

Poisoning by banned plant protection products

Although certain products have been banned from sale because they contain substances that are not (or are no longer) authorised, unfortunately this does not prevent them from being found in homes and businesses and causing poisoning. Some users may have chosen to keep these products at home instead of destroying them, while others have purchased them through unofficial channels, such as direct sales or the internet. Analysing calls to poison control centres concerning exposure to banned plant protection products provides information on the circulation of these products within the country and helps determine the preventive measures to be taken. A report on poisoning in these circumstances between 2012 and 2016 had been published in 2019. This work will be repeated for the period 2017 to 2022, and will cover products that have been banned since 2014.

Focus

Improperly used disinfectants responsible for skin burns in young children

After receiving several reports of severe skin disorders, ANSES analysed 118 accidents between 2017 and 2022 involving young children in community settings and linked to the use of biocidal disinfectants. Most of these accidents, which were more common during the COVID-19 pandemic, occurred in nursery schools when toilets were being disinfected. They mainly concerned young girls who had sat down on the toilet seat after it had been disinfected and whose buttocks had been burnt. There were several possible reasons for errors in product use. In some cases, the conditions of use had simply not been complied with. The fact that the same product can be used in different ways depending on the surface to be treated (for example, dilution or drying required for some surfaces but not others) can be misleading for the professional user, particularly if the labelling on the bottle is not clear. ANSES issued recommendations to reduce the risk of accidents in the future.

Wild garlic

In 2020, after a person died, ANSES and the PCCs warned of the risks of confusing autumn crocus (*Colchicum autumnale*), a toxic and even deadly plant, with wild garlic (*Allium ursinum*), an edible wild plant that is popular in salads or home-made pesto.

Following this alert, PCCs recorded 28 cases between 2020 and 2022 of poisoning caused by confusion between autumn crocus and wild garlic or, more rarely, many-flowered garlic (*Allium polyanthum*), another edible plant. Half of the poisoning victims had pronounced or prolonged symptoms, which were sometimes life-threatening; two of them died. ANSES and the PCCs reiterated their recommendations for avoiding such confusion.

Don't use banned products to eradicate cockroaches, bed bugs and other pests!

In May 2023, ANSES received a report of a serious case of poisoning involving an infant who had ingested a third of a bottle of SNIPER 1000 EC DDVP®, an insecticide that is banned in France as it contains dichlorvos. The family had purchased the product at a market north of Paris. Dichlorvos has not been authorised as an insecticide in Europe since 2013. Several minor cases of poisoning by this same insecticide had already been reported to ANSES in 2019. ANSES and the PCCs analysed the cases occurring between January 2018 and June 2023, focusing particularly on the places where this insecticide was purchased (internet, markets and local shops most of the time), in order to alert the competent authorities to the circulation of a dangerous banned product in France and guide them on the management measures to be taken where applicable. Following the publication of an article on this subject in Vigil'Anses, the media and social networks relayed the alert. The DGCCRF published a recall/withdrawal notice on its Signal-Conso.fr website and seized batches of bottles from small retailers.

Tobacco products, related products and flavourings

The market for tobacco products, related products (that contain nicotine rather than tobacco) and flavourings to add fragrance is constantly expanding. A toxicovigilance study was carried out on five categories of these products: heated tobacco, chewing tobacco, snus⁵, nicotine sachets and flavour beads. Between 1 January 2017 and 31 December 2022, 295 calls were analysed: 12 for heated tobacco, 98 for chewing tobacco, 47 for snus and nicotine sachets, and 138 for flavour beads. The numbers for snus, nicotine sachets and flavour beads have risen steadily since 2020. Young children were most affected by accidental ingestions of heated tobacco, chewing tobacco and flavour beads. Cases involving adolescents concerned the intentional consumption of snus or nicotine sachets. The most serious cases of poisoning involved nicotine syndrome. Particular attention needs to be paid to nicotine sachets, as they are not regulated in France or Europe and their sale, promoted on social media, targets a young population that underestimates the risks of acute poisoning or medium- and long-term dependence

⁵ A small pouch of tobacco to be placed between the lip and gum.

KEY DATES

1 January closure of the national Synapse portal and declaration via the European PCN portal

1 January new responsibilities for the DGAL

2 January recruitment of a data manager at Nancy University Hospital for SICAP data

9 March adoption of the DDADUE Act concerning various provisions for adapting to European Union law. Its implementing regulations will establish secure access to SICAP product compositions for labour inspectors and engineers from the French occupational health and pension insurance funds (CARSATs), and will in particular provide for access via the National Research and Safety Institute (INRS) for occupational health and safety officers

16 March "Opinion proposing harmonised classification and labelling at EU level of dinitrogen oxide" adopted by the Risk Assessment Committee of the European Chemicals Agency

30 June closure of consultations of data reported via the Synapse portal

19 July Order setting the maximum quantity that can be sold to private individuals of products containing nitrous oxide mentioned in Article L. 3611-1 of the Public Health Code

20 December Decree No. 2023-1224 on adding a statement to each packaging unit of products containing only nitrous oxide

MAIN PUBLICATIONS

(In addition to the ANSES reports listed above)

GREILLET, C., PUSKARCZYK, E. 2023. Beware of the risks to children from liquid detergent pods for dishwashers. Vigil'Anses 21: 2–4

CARE, W., LANGRAND, J., SOLAL, C. 2023. Tobacco products, related products and cigarette flavourings: minors increasingly exposed to the risk of poisoning. Vigil'Anses 21: 5–10

GREILLET, C., LABORDE-CASTEROT, H. 2023. Don't use banned products to eradicate cockroaches, bed bugs and other pests! Vigil'Anses 21: 11–14

SINNO-TELLIER, S., PARET, N., TOURNOUD, C. 2023. Confusion between autumn crocus and wild garlic: it's no nursery rhyme! Vigil'Anses 20: 2–6

GREILLET, C. 2023. Many mushroom poisoning cases reported in 2022. Vigil'Anses 20: 7-11

GREILLET, C., CREUSAT, G., NISSE, P. 2023. Improperly used disinfectants responsible for skin burns in young children. Vigil'Anses 20: 12–15

DEGUIGNE, M., BLOCH, J. 2023. Never use a mixture of bleach and vinegar for weed control. Vigil'Anses 20: 2–5

SINNO-TELLIER, S., VODOVAR, D. 2023. Fuel shortages at the pump and increased risk of siphoning accidents. Vigil'Anses 20: 6–9

CARE, W., VODOVAR, D., BLOCH, J., LANGRAND, J., PUSKARCZYK E. Chemical risk management: What place for poison control centers? Volume 8158, Issue 3, 09/2023, Pages 171-228, ISSN 1279- 8479, http://dx.doi.org/10.1016/j.pxur.2023.05.002

SINNO-TELLIER S, ABADIE E, GUILLOTIN S, BOSSEE A, NICOLAS M and DELCOURT N (2023) Human shellfish poisoning: Implementation of a national surveillance program in France. Front. Mar. Sci. 9:1089585. doi: 10.3389/fmars.2022.1089585

SINNO-TELLIER, S., EVRARD, M., NARDON, A., , BOELS, D., LANGRAND, J., AZZOUZ, R., NGUYEN, K-A., DE HARO, L., TOURNOUD, C. Intoxications accidentelles pédiatriques enregistrées par les centres antipoison de 2014 à 2020, Toxicologie Analytique et Clinique, Volume 35, Issue 3, Supplément, 2023, Pages S82-S83, ISSN 2352-0078, https://doi.org/10.1016/j.toxac.2023.08.031



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