

Swedish Poisons Information Centre Annual Report 2025



Giftinformationscentralen
SWEDISH POISONS INFORMATION CENTRE

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1. Summary

- The number of calls to the Swedish Poisons Information Centre's telephone service continues to increase. In 2025, 117,480 inquiries were answered, representing an increase of 4.9% compared to the previous year. On average, 322 inquiries were answered per day. The largest increase in inquiries comes from the general public and emergency dispatch centers/ambulances.
- There is a worrying increase in calls regarding self-destructive acts among girls and young women between 15 and 19 years old. Since 2019, these calls have more than doubled. Pharmaceutical overdoses are by far the most common in these self-destructive acts. The most frequent are mild analgesics (e.g. ibuprofen, paracetamol), followed by psychoanaleptics.
- The most common poisoning agent is paracetamol, accounting for 6.3% of all inquiries.
- Inquiries from healthcare services account for 41 percent of the calls. During the night, calls from healthcare services dominate (62 percent). The proportion of calls coming from healthcare has shown a rising trend for many years (in 2010, the proportion was 26 percent). Hospital calls often have a higher medical complexity and involve the Swedish Poisons Information Centre's physicians to a greater extent. The Swedish Poisons Information Centre maintains close cooperation with Sweden's emergency care and is actively involved in the care of a very large proportion of all patients treated for acute poisoning.
- The number of inquiries regarding younger children increased by 7.5% compared to the previous year. This included an increase in inquiries about tobacco/nicotine products and plants. During the year the centre received over 28,800 inquiries regarding acute poisoning incidents for children below 10 years. In 89% of these, the poisoning risk was assessed as low, resulting in reassuring information or advice on simple measures at home. The single most common poisoning agent leading to hospitalization in the younger age group was suspected ingestion of a button cell battery.
- During the year, a clear decrease was seen in inquiries related to substance abuse in both the youth and adult groups. A large part of this decrease is due to a drastic drop in inquiries related to nitrous oxide. The decrease is a result of legislation against the use of nitrous oxide for recreational purposes.
- During the year, the center has conducted around 100 lectures in Sweden and several internationally.
- The Swedish Poisons Information Centre regularly participates in various media as part of its remit to inform about and prevent poisonings. According to the media analytics "All Ears", GIC appeared in 574 spoken segments, and according to another media analytics "Retriever", GIC was mentioned 2,036 times in various media during the year.
- In 2025, the Swedish Poisons Information Centre authored or co-authored four scientific articles and four abstracts.

2. The Swedish Poisons Information Centre

The Swedish Poisons Information Centre (Giftinformationscentralen) is a national expert unit in acute toxicology that has existed since 1960. The unit is led by a head of operations and consists of approximately 45 employees, including pharmacists and senior consultants, as well as staff responsible for IT and administration. Since 2009, the Centre has been a part of the Swedish Medical Products Agency.

The Swedish Poisons Information Centre's mandate is to provide expert advice on poisonings and to prevent poisoning incidents, primarily involving pharmaceuticals, chemicals, and biological toxins (such as for example snake venom and poisonous mushrooms).

The primary activity is its telephone advisory service. This is a 24/7 emergency service available to the general public and healthcare providers every day of the year. The telephone line is staffed day and night by specialized pharmacists and senior consultants in anesthesia and intensive care. Calls from healthcare providers are prioritized and usually answered almost immediately. Accessibility is also high for the general public, with an average response time of about one minute. The Swedish Poisons Information Centre also manages "Kemiakuten," a dedicated telephone line for emergency services to use during acute chemical accidents. Furthermore, the organization is responsible for information regarding the stockpiling of antidotes in hospitals via the Antidote Register.

The unit's work includes the development of treatment recommendations. These recommendations are a vital part for the advisory service and form the foundation for the treatment advice published on the Centre's website. The recommendations are continuously revised. New publications on statistics, trends, treatment recommendations, and case reports in acute toxicology are studied ongoingly, and essential information is either added to existing documents or used to produce new ones.

The Centre actively works to spread knowledge about acute poisonings through lectures. These are usually aimed at physicians and other healthcare personnel, but the Centre also share information to the general public through webinars, podcasts, information brochures, and various media outlets. The Swedish Poisons Information Centre also frequently contributes to scientific publications within the field of acute toxicology.

Signal detection is another of the Centre's core tasks. Information from the telephone advisory service (query statistics and specific poisoning cases) is analyzed. If new or significantly increases of poisoning are identified, they are reported within the Medical Products Agency and/or to other authorities, for example the Swedish Chemicals Agency or the National Board of Health and Welfare for potential action. Identified signals may also trigger information campaigns for the medical community and/or the general public where deemed appropriate.

The Swedish Poisons Information Centre is the appointed body referred to in Article 13.6 of EU Regulation (EC) No 1223/2009 on cosmetic products and in Article 45 of EU Regulation (EC) 1272/2008 (CLP) on classification, labelling, and packaging of substances and mixtures.

The Swedish Poisons Information Centre also works preventatively in the field of acute poisonings and collaborates with authorities regarding chemical accidents and disaster toxicology.

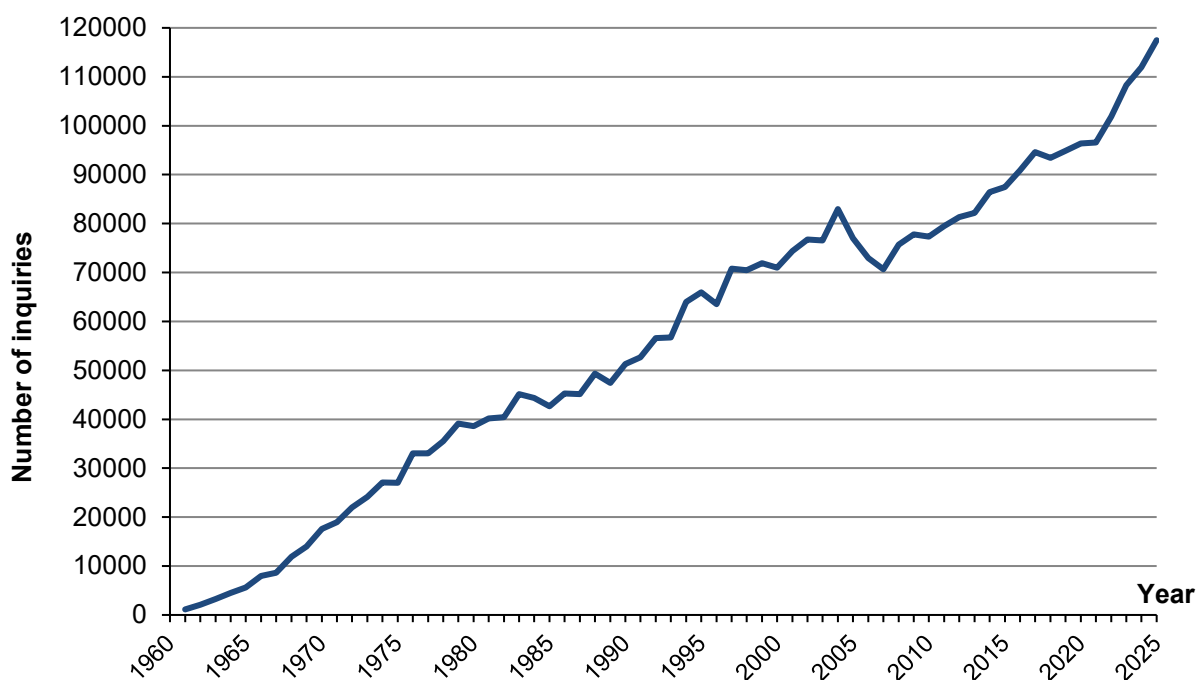
For further information, please visit the Swedish Poisons Information Centre's website at www.giftinformation.se.

3. Telephone Service

The information is provided by telephone 24 hours per day, 365 days per year. The telephone service is connected to the national emergency number 112 and is always manned by pharmacists and one anaesthesiologist on duty call. Healthcare professionals and emergency services have access to prioritized consultation lines.

The trends in annual call numbers between 1961 and 2025 are illustrated in Figure 1.

Figure 1. Number of calls to Swedish Poisons Information Centre 1961–2025

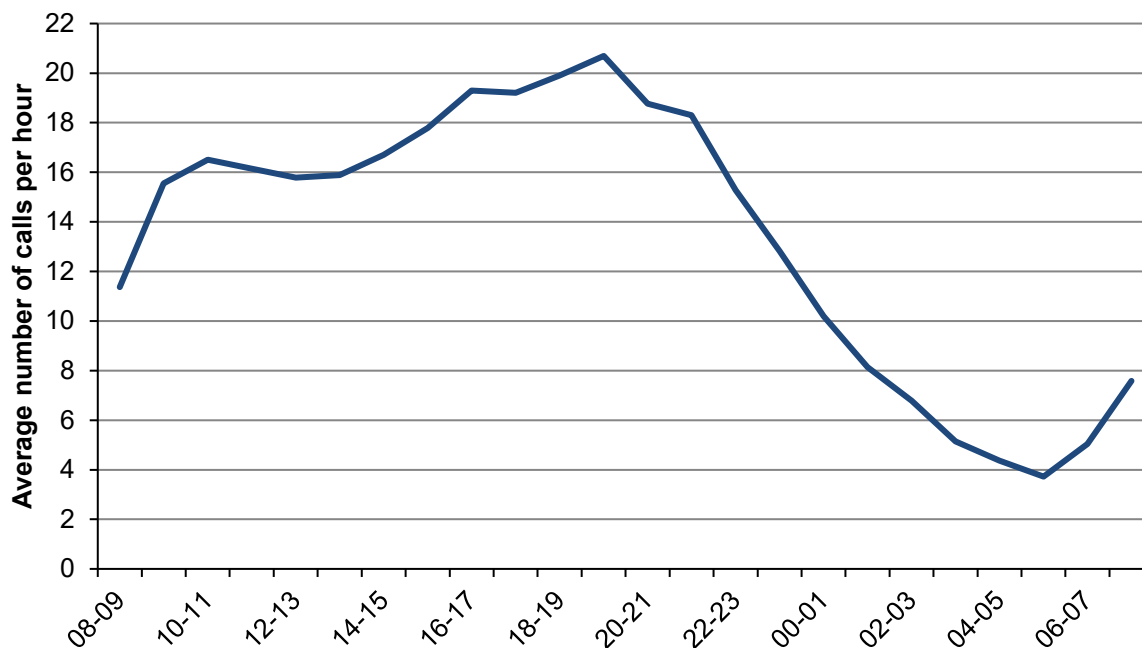


The total number of calls in 2025 was 117 480. This corresponds to a 4.9% increase compared to 2024. Calls from the healthcare services were up 3.5%.

Nearly 40% of the inquiries (45 625) were from the healthcare services. Of these, 66% were from hospitals, 27% from national emergency dispatch center or paramedics and 7% from primary care providers. The inquiries from hospitals are often medically complex and the Poisons Centre's anaesthesiologists are involved in approximately one quarter of these.

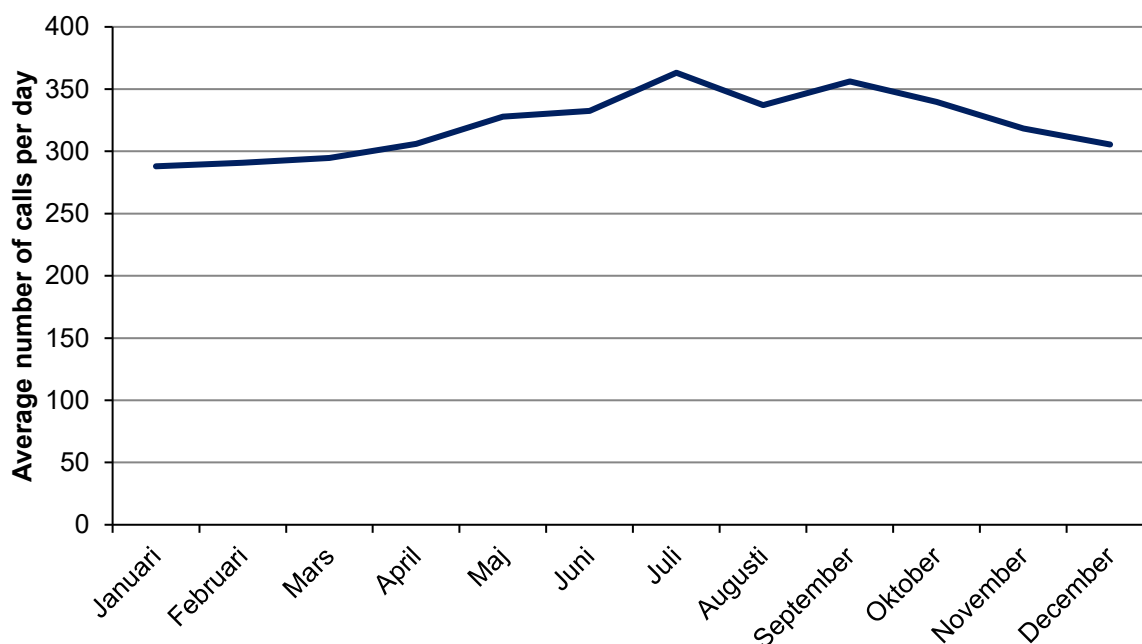
The average number of calls per 24-hour period was 322, with the main peak of incoming calls between 5 and 8 p.m. The 24-hour variation in number of calls is shown in Figure 2.

Figure 2. Average number of calls per hour during the day



Generally, the most intense period for the Poisons Centre is May to October, which can be seen in Figure 3. This is the season when both children and adults are exposed to berries, mushrooms, insects and snakes to a higher extent. However, the seasonal fluctuation has become less pronounced over the years because the predominance of calls about pharmaceuticals, chemicals and substances of abuse has increased. The number of inquiries about mushrooms was above the yearly average (1 712 in total), while inquiries about viper bites were fewer than in recent years (678 in total).

Figure 3. Seasonal variation, average number of calls per day



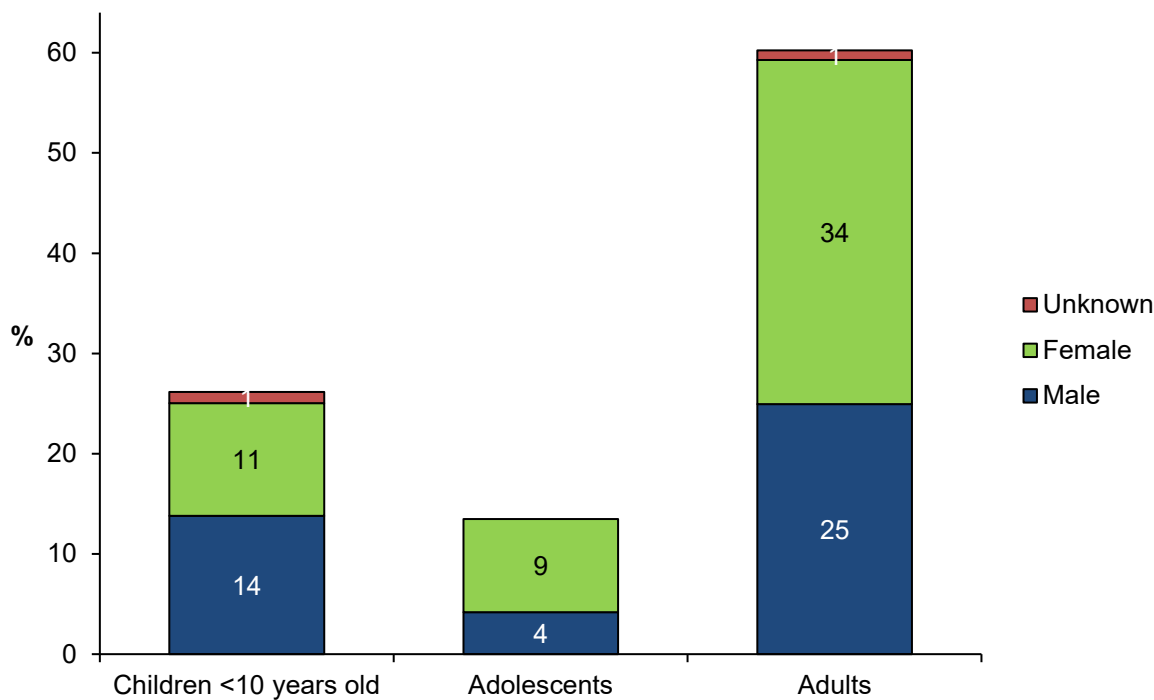
Of the 117 480 calls the Centre received during 2025, 110 245 concerned human poisonings or exposures. The remainder was requests for general information (6 352 calls) or concerned animals (883 calls).

3.1. Human Poisonings/Exposures

A majority of the 110 245 calls concerning human poisonings/exposures came from the general public (57%), 41% from healthcare professionals and only a few percent from other callers. Calls from the public increased more than those from healthcare professionals in 2025, but the long-term trend is a rising proportion of calls from healthcare professionals.

60% of the inquiries concerned adults, 14% adolescents (10–19 years) and 26% children below 10 years. In 2025 calls about children increased by 7.5% and adolescents by 7%. Inquiries about adults were up 4%. The distribution is illustrated in Figure 4.

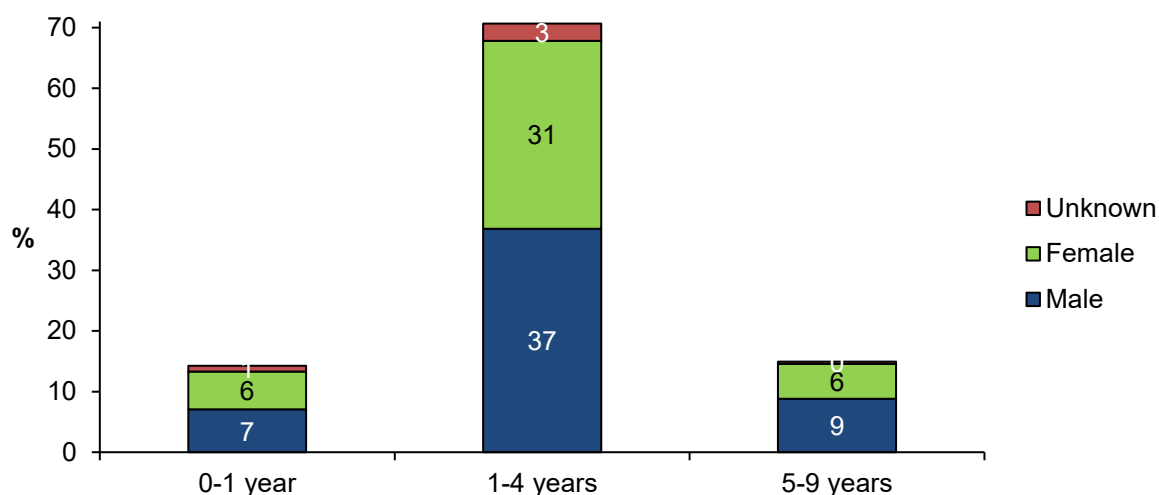
Figure 4. Age and gender (%), inquiries about human poisonings/exposures (n=110 245)



3.1.1. Poisonings/exposures in children <10 years

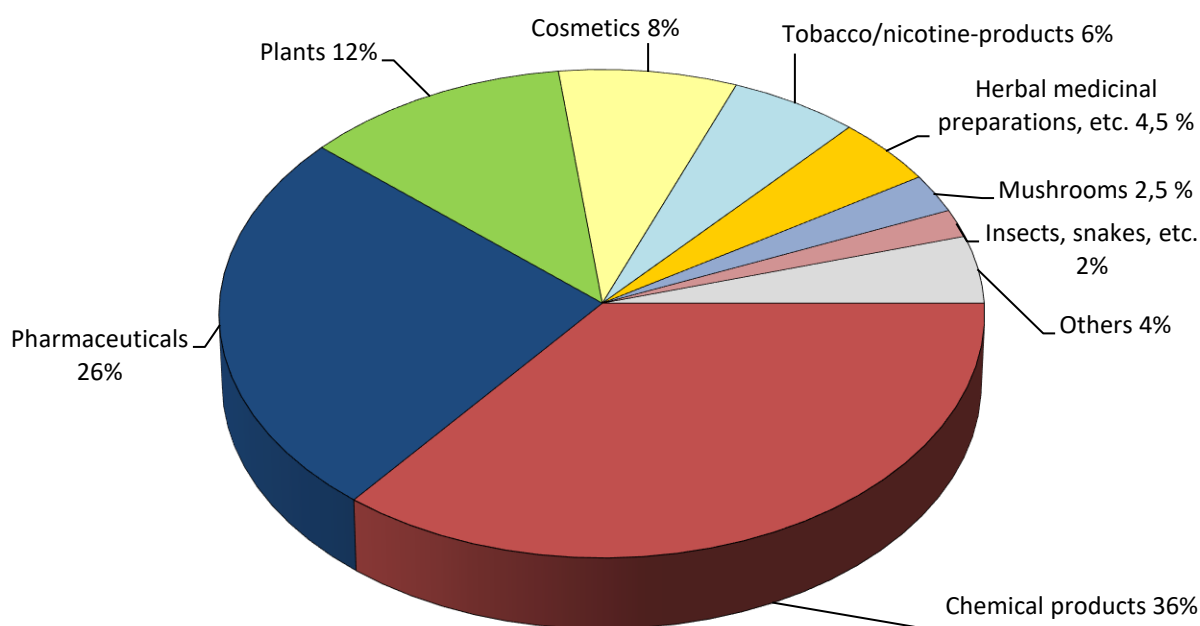
The Poisons Centre received 28 842 calls concerning children <10 years. 71% of these inquiries involved children aged 1–4 years, with a slight male predominance (Figure 5). Most of the poisoning incidents occurred at home, with ingestion being the main route of exposure (86% of cases).

Figure 5. Age/gender (%), children <10 years (n=28 842)



44% of the inquiries concerned children who were exposed to chemicals, mainly household products or products for personal care. Pharmaceuticals were implicated in 26% of cases and plants in 12%. The remainder included tobacco, mushrooms, insects and snakes (Figure 6).

Figure 6. Poisoning agent (%), children <10 years (n=28 842)



3.1.1.1. Chemicals/chemical products, children <10 years

The chemicals/chemical products most frequently involved in poisoning incidents among children <10 years are listed below (% of total number of inquiries about chemical products in brackets)

- Cleaning products: 35%, e.g., dishwasher detergents (10%), toilet bowl cleaners, all-purpose cleaners, laundry powder, and washing-up liquids (3–4% each).
- Household products: 8%, e.g., acetic acid (4%), table salt (3%).

- Disinfectants: 5%, e.g., products containing ethanol/isopropanol.
- Air fresheners: 4%, e.g., fragrance sticks, room sprays.
- Batteries: 4%, e.g., button (disc) batteries, cylindrical batteries.
- Pesticides: 4%, e.g., mosquito repellants, insecticides, rodenticides.
- Writing and drawing materials: 3%, e.g. pens, crayons.
- Paints: 3%, e.g., interior paints.

The number of paediatric poisoning incidents involving chemical products was 10 316. The estimated risk was minor in 87% of paediatric cases and could be dealt with at the accident site. The remaining 13% of cases were referred to medical care, or advice was provided directly to healthcare personnel treating the patient.

The most common specific product that caused a recommendation to seek medical care was swallowing button disc batteries, which can cause severe damage if they become lodged in the oesophagus or stomach.

In 32% of the calls that led to a recommendation to seek medical care, the child had ingested a corrosive product, e.g., 24% household acetic acid, drain cleaners, bleaching/cleaning agents with hypochlorite, and descaling products. Accidents with acetic acid are still numerous while children's accidents with corrosive drain cleaners that required medical care were 82% fewer in 2025 compared to 2022. From January 1, 2025, it became illegal to sell drain cleaners with caustic soda for private use without a special permit. However, strongly alkaline products with sodium hydroxide for other purposes remain available, such as oven cleaners and grease removers.

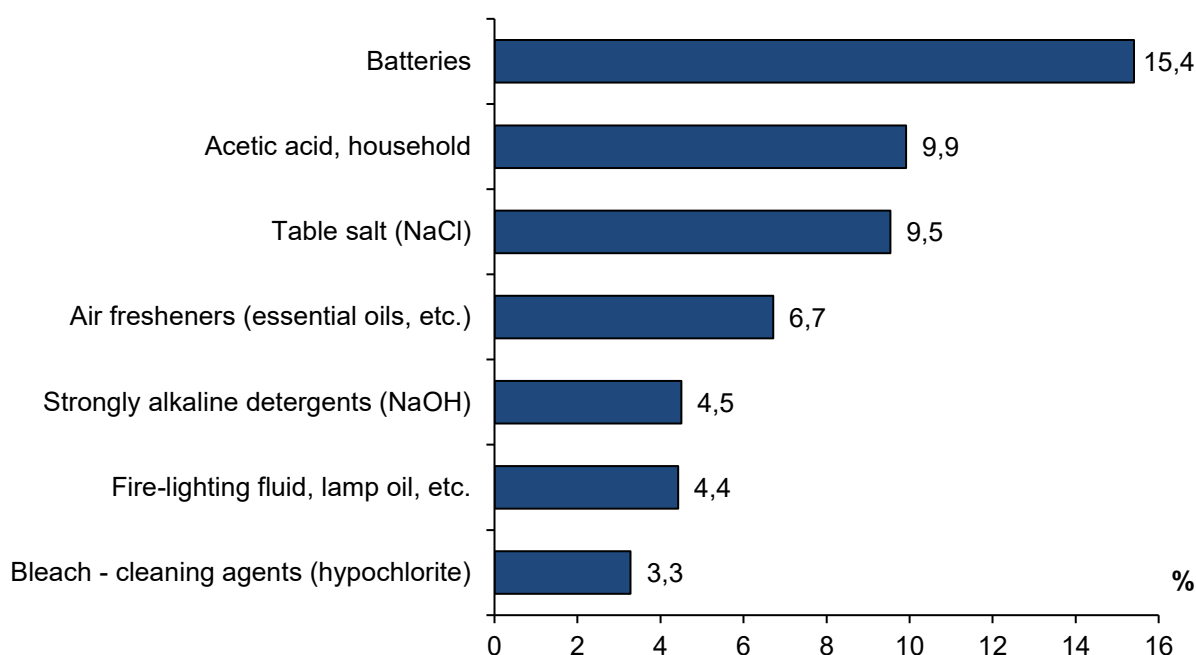
Another common type of product that often requires hospital care among children is petroleum distillates (e.g., fire lighting fluid, lamp oil, fuel, white spirit), which can cause chemical pneumonitis if aspirated. However, these cases have decreased by around 80% since the beginning of the 2000s.

On the contrary, air fresheners (e.g. "scent sticks"), which may contain essential oils among other ingredients, have become more popular in recent years. Approximately one fifth of child-related inquiries concerning air fresheners were assessed to involve some risk of poisoning.

Another common reason for contact with the Poisons Information Centre is children that get hold of table salt and require medical check up because of difficulties to determine the amount the child has ingested. However, this very rarely results in a dangerous poisoning.

The most common chemical products with the potential for a serious medical outcome are listed in Figure 7.

Figure 7. Most common chemicals/chemical agents leading to medical care (% of total number of chemical products leading to medical care) among children <10 years (n=1 311)



Among incidents with cosmetics and products for personal care, e.g. skin lotions, liquid soap/shampoo and dental care products (2 264 inquiries in total), 93% were considered harmless. Among the cases requiring medical care, wart-removing agents were the most commonly-involved type of product accounting for one fourth of those cases.

3.1.1.2. Pharmaceuticals, children <10 years

The pharmaceuticals that were most frequently involved in poisoning incidents in children <10 years are listed below (% of total number of inquiries about pharmaceuticals in brackets).

- Analgesics, including anti-inflammatory and anti-rheumatic pharmaceuticals: 26%, e.g., paracetamol (15%), ibuprofen (7%).
- Psychoanaleptics including ADHD pharmaceuticals, antidepressants: 8%, e.g., methylphenidate, sertraline, lisdexamfetamine.
- Cardiovascular drugs: 7%, e.g., guanfacine, beta blockers.
- Dermatological preparations: 6%, e.g., hydrocortisone.
- Antihistamines for systemic use: 6%, e.g., desloratadine.
- Nasal preparations: 5%, e.g., nasal decongestants.

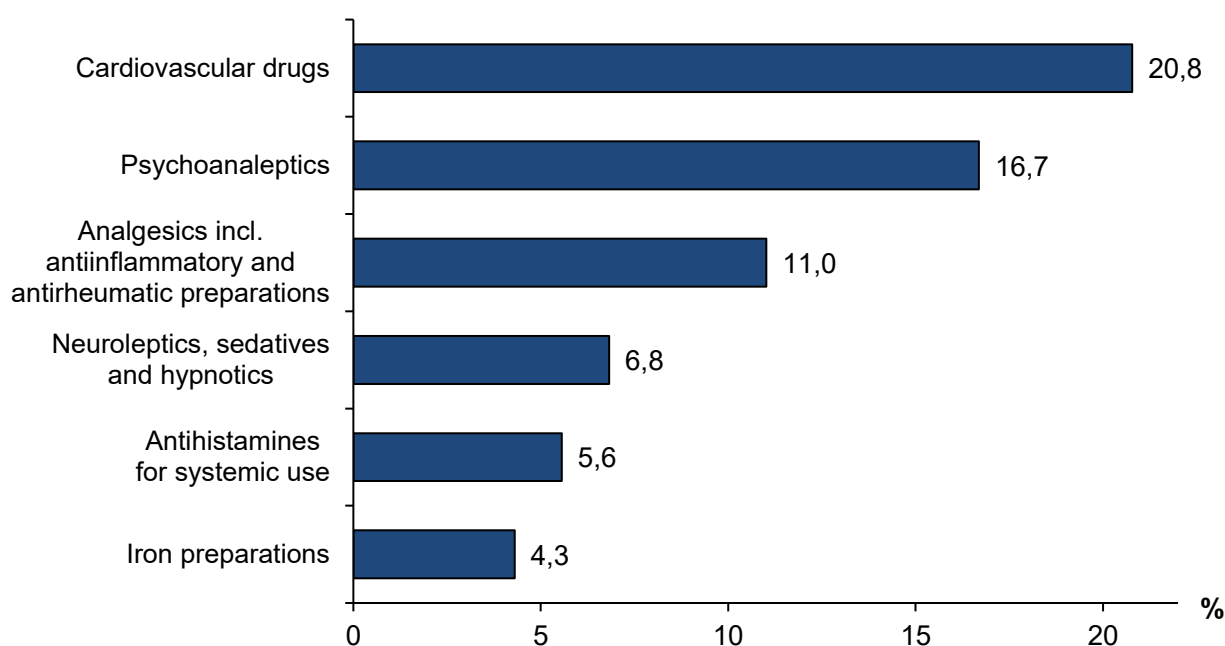
7 392 inquiries related to pharmaceuticals and children were received in 2025. In addition, there were 1 291 inquiries about herbal preparations and food supplements, mainly vitamins (not included in the above list).

The risk of poisoning was considered minor in 87% of the incidents with pharmaceuticals among children. In 13% of inquiries the caller was recommended to seek medical care or advice was given directly to healthcare personnel treating the patient. The most common pharmaceuticals in these cases

are listed in Figure 8. Some rather toxic pharmaceuticals, such as anti-malarials, do not appear in this figure, as the total number of poisoning cases in this category was low.

Cardiovascular drugs were the most frequently-occurring class of drugs among children referred to hospital in 2025. However, one third of these cases concerned guanfacine, a medication classified as a cardiovascular drug but mainly used for ADHD. Medications for ADHD such as lisdexamfetamine and methylphenidate also constitute a large portion of the psychoanaleptic drugs, together with antidepressants such as sertraline and amitriptyline.

Figure 8. Most common pharmaceuticals leading to medical care (%) among children < 10 years (n=953)



3.1.1.3. Plants, children <10 years

Child poisoning cases involving plants are usually harmless. In 4% of the 3 372 inquiries the caller was recommended to seek medical care or advice was given directly to healthcare personnel treating the patient. Before 2025, the number of inquiries concerning plants has decreased for many years, especially those about harmless plants. A contributing factor might be that information about plants on the website of the Poisons Centre is considered sufficient in many cases. However, in 2025 there was a 22% increase in inquiries about plants and children.

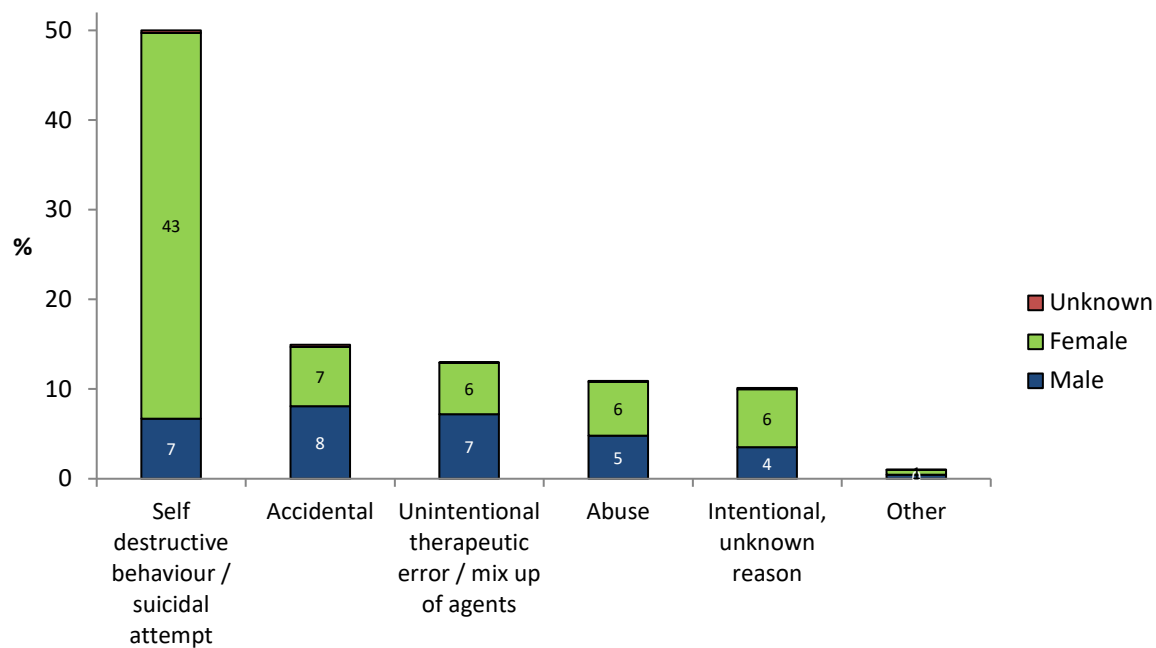
The most common inquiries with poisonous plants involved lily of the valley, foxglove, and laburnum flower. Other cases that caused symptoms, although not poisonings, were cases where children had ingested plants with irritating sap (e.g., *Zamioculcas*) or had got irritating sap in their eyes.

3.1.2. Poisonings/exposures in adolescents 10–19 years old

The total number of inquiries to the poisons centre concerning adolescents 10–19 years was 14 986. Of these inquiries, 50% related to attempted suicide or self-harm, in most cases with pharmaceuticals and with a large female predominance (86%). In additionally 10% of the cases the overdose was

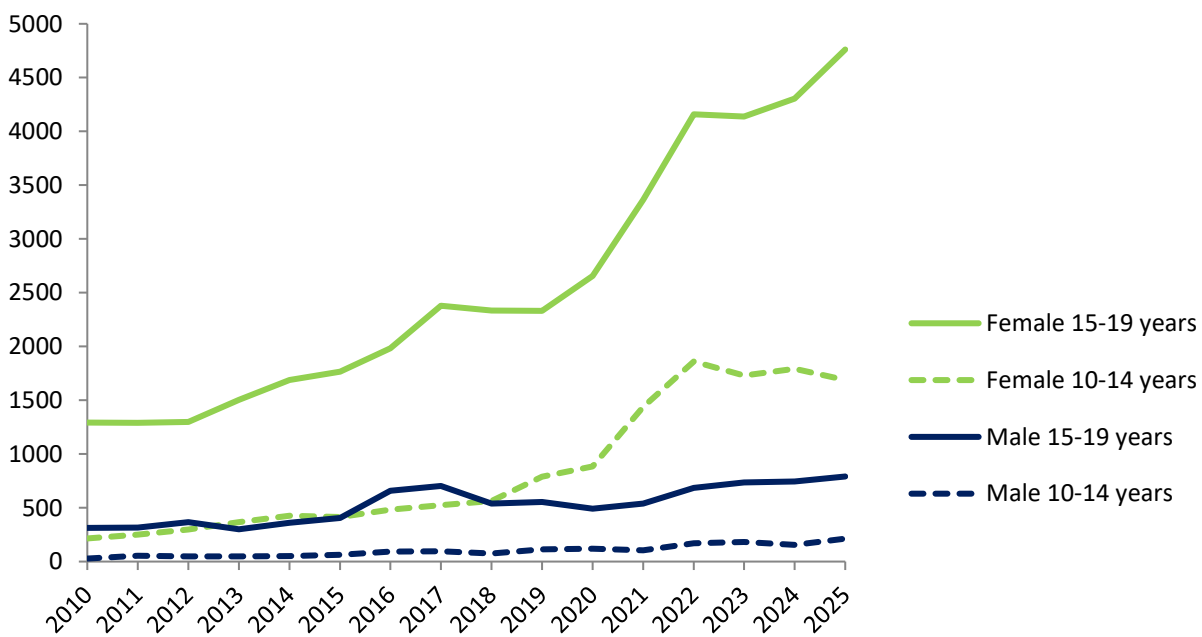
intentional, but with unclear purpose. 28% of the inquiries were due to accidents (including unintentional therapeutic errors) and 11% to abuse. Figure 9 shows the different reasons for poisoning.

Figure 9. Reason for poisoning, adolescents 10–19 years old (n=14 986)



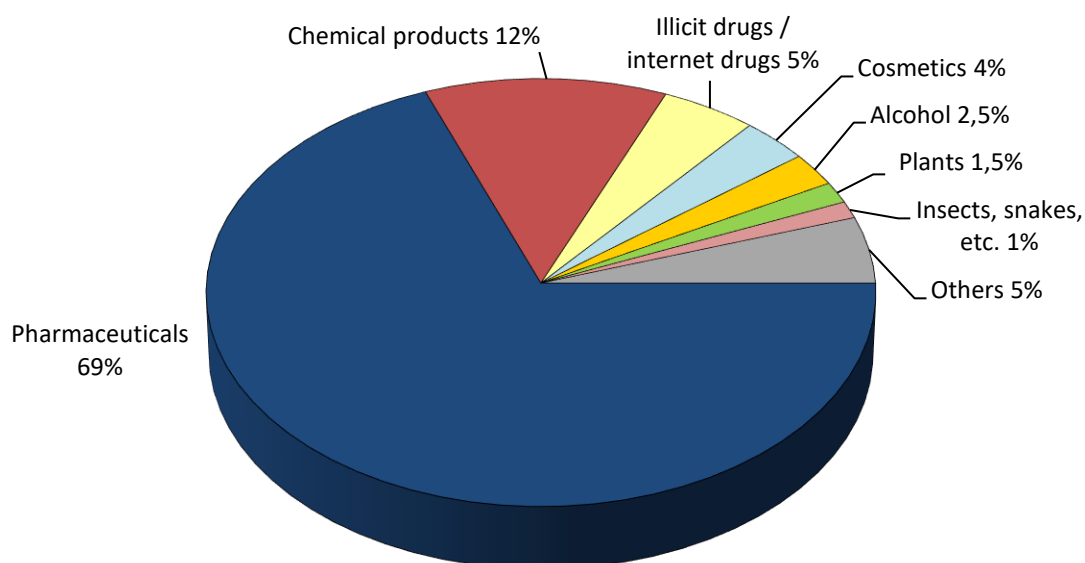
A large increase of inquiries concerning self-destructive poisonings in female adolescents is notable compared to 2020, also among younger girls (10–14 years). However, the upward trend has leveled off in this age group in the past few years while still continuing among older teenage girls (15-19 years). The number of calls about self-destructive poisonings in male adolescents is notably lower but increasing as well. Figure 10 shows the annual number of these inquiries since 2010.

Figure 10. Inquiries 2010–2025, self-destructive behaviour and suicidal attempts, adolescents 10–19 years



In the adolescent group, poisoning with pharmaceuticals was most common and amounted to 69% of the inquiries. Chemicals/chemical products accounted for 12% of the calls and illicit drugs/internet drugs for 5% whereas other poisoning agents were less common (Figure 11).

Figure 11. Poisoning agent (%), adolescents 10–19 years old (n=14 986)



3.1.2.1. Pharmaceuticals, adolescents 10–19 years

Pharmaceuticals most frequently involved in poisoning incidents among adolescents 10-19 years old are listed below (% of total number of inquiries about pharmaceuticals in brackets):

- Analgesics, including anti-inflammatory drugs and anti-rheumatics: 34%, e.g., paracetamol (20%), ibuprofen (5%), pregabalin, tramadol.
- Psychoanaleptics, including ADHD pharmaceuticals and antidepressants: 29%, e.g., sertraline (7%), methylphenidate (6%), lisdexamfetamine (6%), fluoxetine.
- Neuroleptics, sedatives, hypnotics: 11%, e.g., melatonin, propiomazine, hydroxyzine, quetiapine.
- Antihistamines for systemic use: 10%, e.g., promethazine (7%), alimemazine.
- Cardiovascular drugs: 5%, e.g. guanfacine (3%), although mainly used for ADHD.

There were 10 362 inquiries about adolescents who had overdosed pharmaceuticals in 2025. This was 8% more than the year before but corresponds to a nearly 70% increase since 2020. A large majority (80%) was deliberate overdoses. 74% were recommended to seek medical care or advice was given directly to healthcare personnel treating the patient. For the remaining 26% the risk was low. The pharmaceuticals listed above were also those most frequently causing a need for hospital care.

The total number of inquiries regarding illicit drugs and internet drugs in this age group amounted to 721, a 14% decrease compared to 2024. Of those, 93% were recommended to seek medical care or advice was given directly to healthcare personnel treating the patient. Ecstasy, cannabis, amphetamine and cocaine were most commonly involved.

3.1.2.2. Chemicals/chemical products, adolescents 10–19 years

The chemicals/chemical products most frequently involved in poisoning incidents among adolescents 10-19 years old are listed below (% of total number of inquiries about chemical products in brackets).

- Gases: 19%, e.g., nitrous oxide (8%), propane/butane (5%), exhaust gases, fire gases.
- Cleaning products: 15%, e.g., all-purpose cleaners, washing-up liquids, bleach containing hypochlorite, pool chemicals.
- Disinfectants: 10%, e.g., products containing ethanol/isopropanol.
- Household products: 9%, e.g., acetic acid (4%), table salt.
- Fuel: 8%, e.g., petrol/gasoline (6%).
- Car products: 5%, e.g., antifreeze.

The risk of poisoning was considered minor in 51% of the 1 830 inquiries and could be addressed at the site of the incident. The remaining 49% of inquiries resulted in a recommendation to seek medical care, or advice was given directly to healthcare personnel treating the patient.

Of the calls concerning chemical products that lead to medical attendance, 16% concerned nitrous oxide (2024: 25%). Other common products were cleaning agents and disinfectants with ethanol/isopropanol. Inquiries about nitrous oxide (laughing gas) were markedly reduced after new legislation came into force on July 1, 2025. It is now prohibited to sell nitrous oxide to minors and purchase for private use is limited to 18 grams per occasion.

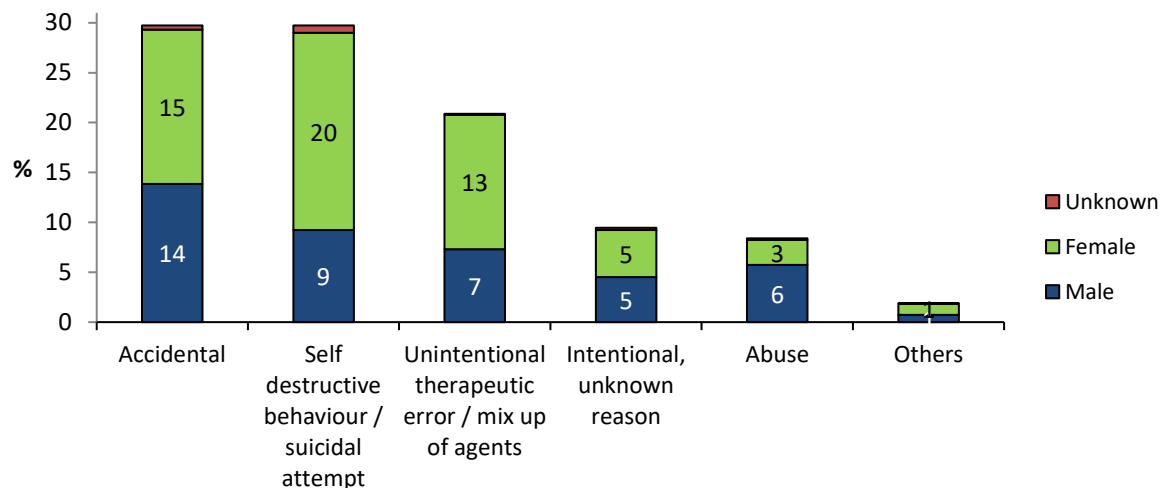
A majority of the incidents with chemicals was accidental. 40% of the accidental cases were by ingestion, 28% were eye exposure and 18% inhalation. 38% of the cases were intentional. Ingestion was common among intentional exposures (61%), but also inhalation (35%), mostly due to the large number of nitrous oxide exposures during the first half of 2025.

Inquiries about cosmetics and products for personal care (509 inquiries among adolescents) most commonly involved products for nail, hair or skin care. In 2025, 22% of the 509 inquiries involved deliberate inhalation of dry shampoo or deodorant sprays which can lead to serious consequences. Accidental exposures for these products are on the other hand mostly harmless, but for instance eye exposure involving nail glue or hair colouring may constitute a risk.

3.1.3. Poisonings/exposures in adults

Among adults, nearly half of the 66 417 inquiries concerned intentional exposures, including suicide attempts and abuse, mainly with pharmaceuticals or illicit drugs/internet drugs (Figure 12). A large majority of the serious poisonings belongs to this category.

Figure 12. Reason for poisoning (%), adults (n= 66 417)

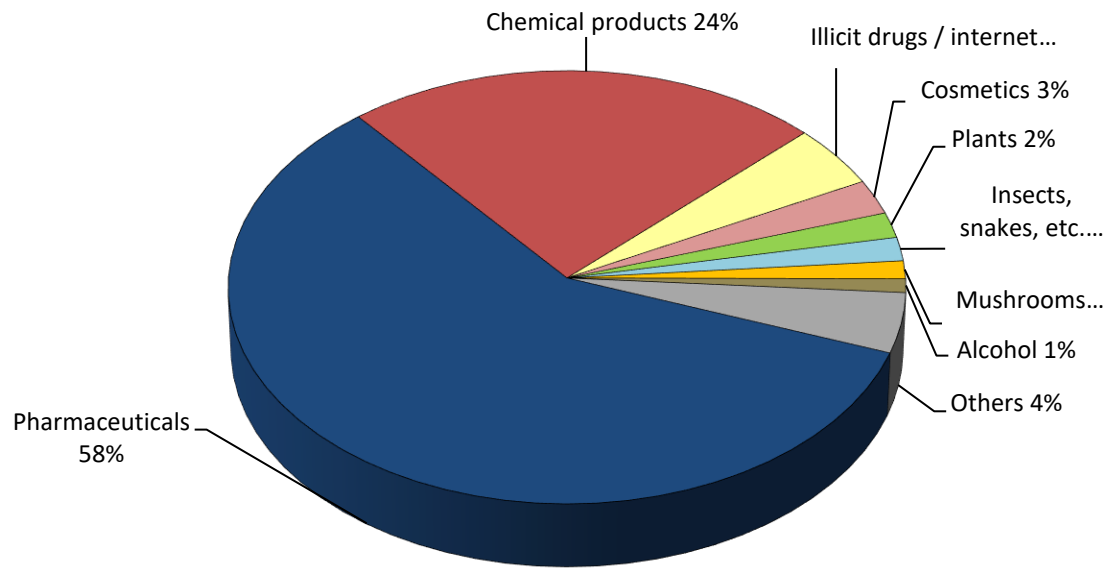


29% of the inquiries concerned various types of accidental exposures, including workplace accidents and incidents during do-it-yourself activities, and 21% concerned therapeutic errors/mix up of agents. In this group, unintentional overdosing of pharmaceuticals at home dominated (mostly double dose), which rarely results in poisoning.

In total, there was a 4% increase in inquiries about adults during the year. The largest increases were among inquiries about therapeutic errors (+10%) and accidents (+6%). Inquiries related to abuse or recreational use were fewer than during 2024 in total (-3%). However, aside of nitrous oxide (which dropped significantly during 2025), there was an increase of 4%. Self-destructive poisonings where also up 4%.

Over half (58%) of all adult poisoning inquiries were related to pharmaceuticals. Inquiries about chemicals/chemical products constituted 24%, illicit drugs/internet drugs 5%, whereas plants, cosmetics, insects, snakes and mushrooms constituted a minority of all incidents (Figure 13).

Figure 13. Poisoning agent (%), adults (n= 66 417)



3.1.3.1. Pharmaceuticals, adults

The pharmaceuticals most frequently involved in poisoning incidents among adults are listed below (% of total number of questions about pharmaceuticals in brackets)

- Analgesics, including anti-inflammatory and anti-rheumatic pharmaceuticals: 24%, e.g., paracetamol (11%), pregabalin (3%), tramadol, oxycodone, ibuprofen.
- Neuroleptics, sedatives, hypnotics: 20%, e.g., zopiclone (4%), propiomazine (3%), quetiapine, lithium, alprazolam.
- Psychoanaleptics, including antidepressants, ADHD pharmaceuticals: 14%, e.g., sertraline, bupropion, lisdexamfetamine, venlafaxine.
- Cardiovascular drugs: 10%, e.g., amlodipine, metoprolol.
- Antihistamines for systemic use: 8%, e.g., promethazine (4%), alimemazine (3%).
- Antiepileptics: 3%, e.g., lamotrigine.

Among the 38 813 inquiries concerning adults who had ingested pharmaceuticals, 62% were recommended to seek medical care, or advice was given directly to healthcare personnel treating the patient. In this group (of which 89% were intentional) there were many serious cases of overdosing. For the remaining 38%, the risk of poisoning was considered relatively low. Many of the harmless incidents were related to persons who accidentally had taken a double dose of a medicine.

In adults, the number of inquiries related to illicit drugs or internet drugs amounted to 3 073, marginally fewer than the previous year. Of these, 91% were recommended to seek medical care or advice was given directly to medical personnel treating the patient. In 64% of the cases, the drugs involved were well-known stimulant and hallucinogenic drugs: amphetamine, cocaine, ecstasy, and LSD. Inquiries about newer “designer drugs” or not controlled substances amounted to 19% of the cases. Most common among these were 3-CMC, muscimol, and cannabinoids.

3.1.3.2. Chemicals/chemical products – adults

The chemicals/chemical products most frequently involved in poisoning incidents among adults are listed below (% of total number of questions about chemical products in brackets):

- Cleaning products: 26%, e.g., cleaning/bleaching agents with hypochlorite (4%), washing-up liquid, dishwasher detergents, descaling agents with acid, drain cleaners with NaOH.
- Gases: 16%, e.g., nitrous oxide (3%), fire gases, carbon monoxide/exhaust fumes.
- Disinfectants: 9%, e.g., products containing ethanol/isopropanol.
- Car products: 7%, e.g., antifreeze/brake fluids, lubricants.
- Industrial chemicals: 7%, e.g., acids, sodium hydroxide, ammonia.
- Fuel: 5%, e.g., petrol/gasoline, fire-lighting fluid/lamp oil.
- Household products: 4%, e.g., household acetic acid.

The risk of poisoning was considered relatively low in 61% of the 15 853 inquiries about adult exposures and care at the incident site was sufficient. For the remaining 39% the caller was recommended to seek medical care, or advice was given directly to healthcare personnel treating the patient.

The chemicals that most frequently required medical care corrosive products (cleaning/bleaching agents with hypochlorite, drain cleaners, acetic acid, alkaline cleaning agents, descaling agents), gases

(e.g., nitrous oxide, fire gases, carbon monoxide/exhaust fumes), and products containing ethanol/isopropanol (e.g., disinfectants, solvents).

Inhalation was the most common route of exposure to chemicals among adults (33%). Also ingestion (30%) and eye contact (24%) were common.

Intentional poisoning accounted for 15% of the inquiries. Disinfectants containing ethanol were implicated in 24% of deliberate poisoning with chemicals. These products had in many cases been consumed as a substitute for alcohol. Nitrous oxide (laughing gas) accounted for another 22% of all cases of deliberate exposure to chemicals. Many of the inquiries were from hospitals calling about patients with symptoms of neurotoxicity following long-term recreational use of nitrous oxide. However, inquiries dropped by approximately 75% after the new restrictive legislation took effect on July 1, 2025.

Inquiries about cosmetics/products for personal care (1 716 calls in total) mostly involved skin care products, hair products (e.g., colouring agents) and nail care products. Incidents with these products are mostly harmless, but anti-wart agents can be corrosive, and eye exposure to hair colouring or some nail care products may constitute a risk.

4. Advisory Roles and Publications

Below are some of the national and international assignments and roles represented by the staff of the Swedish Poisons Information.

4.1. National Assignments

- Representative in the Swedish National Board of Health and Welfare's medical expert group for C-chemical warfare agents and chemicals.
- Representative in the Swedish National Board of Health and Welfare's Expert and Research Council for the assessment of research projects from national knowledge centers in disaster medicine.
- Representative in the Equalis expert group for pharmaceuticals and toxicology.
- Representative in the Network for the Current Drug Situation in Scandinavia (NADIS).
- Healthcare information in RIB (SiRIB), which is a database managed by the Swedish Civil Defence and Resilience Agency (MCF), intended for use by emergency services, ambulance personnel, and police. The information is developed and updated through collaboration between the Swedish National Board of Health and Welfare, MCF, and the Swedish Poisons Information Centre, describing symptoms and recommending first-aid measures. The database is updated and supplemented annually with new chemicals (new UN numbers).
- Inter-agency collaboration regarding Sweden's emergency preparedness.

4.2. The Antidote Registry

The Swedish Poisons Information Centre is tasked with ensuring that information regarding the stockpiling of antidotes in Swedish hospitals is available. Through collaboration with the country's hospitals and hospital pharmacies, a well-functioning organization for antidotes is maintained. A list

of the antidotes that the Swedish Poisons Information Centre recommends for acute care hospitals stock, as well as the appropriate quantities, is available in the Antidote List. The Swedish Poisons Information Centre also administers a database where antidotes are registered.

4.3. Kemiakuten (Chemical Emergency Response Centre)

Since 1995, the Swedish Poisons Information Centre has operated Kemiakuten, a dedicated telephone line that emergency services and others can utilize during acute chemical accidents. In addition to providing information on acute health risks of chemicals and first-aid advice, the centre also provides information on environmental risks, decontamination, recommended firefighting measures, and more, as required. This information is conveyed from the products' safety data sheets, which are provided to the Swedish Poisons Information Centre by participating companies. When necessary, the caller is referred to expertise within the chemical industry for further information. The service is funded by the chemical industry's trade organization IKEM (Innovations and Chemical Industries in Sweden) and is operated in close collaboration with both IKEM and the Swedish Civil Defence and Resilience Agency (MCF).

4.4. International Assignments

Staff from the Swedish Poisons Information Centre were represented in various forums during 2025:

- Representative in the EAPCCT (European Association of Poisons Centres and Clinical Toxicologists) Working Group on Poisons Centre Activities / EU legislation and the Working Group on Education and Accreditation.
- Approximately ten "referee" assignments for domestic and international journals.
- Representative in the European Chemical Industry Council (CEFIC) ICE Integration Group, driven by the collaboration with Innovations- och kemiindustrierna i Sverige AB (IKEM).
- Representatives and President in the leadership of NAPC—the Nordic and Baltic Association of Poisons Centres.
- Active participation with several presentations, including abstracts and oral presentations, at NAPC (the Nordic meeting for toxicologists) and EAPCCT (the European equivalent).

4.5. Lectures and Courses

Staff from the Swedish Poisons Information Centre are in high demand to give lectures and training sessions and consequently participate in a wide range of contexts. During 2025, the Centre's staff gave 184 hours of lectures across various forums. Priority groups include physicians undergoing basic, specialist, and continuing medical education, pharmacists in training, toxicologists, emergency dispatch personnel (SOS), and personnel training in disaster medicine. Examples from the year include lectures at a national conference for anesthesia and intensive care physicians, lectures at the European conference for clinical toxicology (EAPCCT), and extensive lectures—both on-site and via Teams—for mixed units from across the country, from Region Skåne to Region Norrbotten.

In the spring of 2025, in collaboration with Uppsala University's commissioned education programs, the centre held a three-day course on acute poisonings for specialist and resident physicians in emergency medicine, internal medicine, anesthesia and intensive care, and pediatrics.

The Swedish Poisons Information Centre is part of the faculty for a Swedish AHLS course (Advanced Hazmat Life Support), a standardized training program for the management of persons exposed to toxic chemicals. This is a US-based course format operated through collaboration between the Swedish Poisons Information Centre, Karolinska Institutet, and the Disaster Medicine Center in Linköping.

During the year, the Swedish Poisons Information Centre also hosted ten specialist physicians who manage poisonings in their daily clinical practice for week-long auscultations, as well as ambulance personnel from the CBRNE unit for continuing education.

4.6. Publications

Publications in journals, magazines, and abstracts from international conferences:

4.6.1. Journal Publications

1. Lindeman E, Sommer T, Leffler M, Sekine S, Elmér E, Sjövall F, Wallquist W. Runaway uncoupling in 2,4-dinitrophenol poisoning: Clinical and mitochondrial observations from two cases. *Toxicol Rep.* 2025 Dec 8;16:102183. doi: 10.1016/j.toxrep.2025.102183
2. Tyr A, Lindeman E, Tamsen F, Thiblin I, Zilg B. Incidents of sudden death during restraint of agitated individuals in Sweden between 1992 and 2024. *J Forensic Sci.* 2025 Nov 25. doi: 10.1111/1556-4029.70237
3. Hallengren J, Lindeman E, Söderberg C, K Jönsson A, Thunander Sundbom L, Nordmark Grass J. Livshotande tillstånd vid överdos av antidepressiva läkemedel [Poisonings with antidepressants]. *Lakartidningen.* 2025 Sep 2;122:24117
4. Lindeman E, Bång Arhammar J, Tydén J, Nordmark Grass J. Olanzapine as an antidote in serotonin toxicity. *Br J Clin Pharmacol.* 2025 Mar;91(3):923-924. doi: 10.1111/bcp.16364.

4.6.2. Abstracts

1. Ström A, Lindeman E. Death from a single swig of amphetamine oil mistaken for beer. *Clinical Toxicology* 2025;63(sup2): 9 (abstract 15). doi: 10.1080/15563650.2025.2481800.
2. Hultén P, Lindeman E. 2,4-Dinitrophenol poisonings in Sweden 2010–2024: still here, still deadly. *Clinical Toxicology* 2025;63(sup2): 61 (abstract 123). doi: 10.1080/15563650.2025.2481800.
3. Kader A. Analysis of 3-Chlorometcathinone (3-CMC) Poisonings Reported to the Swedish Poisons Information Centre: A Review of Hospital Inquiries (2015–May 2024). *Clinical Toxicology* 2025;63(sup2): 24 (abstract 46). doi: 10.1080/15563650.2025.2481800.
4. Nordmark Grass J, Strömvall R, Hernandez P. Ingestion of household acetic acid - A lot of acetate resulted in an unusual toxicological fate. *Clinical Toxicology* 2025;63(sup2): 118 (abstract 252). doi: 10.1080/15563650.2025.2481800.

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