

## Annual report 2017



**Tox Info Suisse is the proper address for private individuals, professionals, organisations and companies for all questions regarding poisoning.**

**Summary of the most important services:**

- Emergency hotline 145
- Information and advice concerning poisoning for private individuals and medical professionals
- Consultations concerning poisons (theoretical enquiries, tel. +41 44 251 66 66)
- Documentation and treatment schemes
- Consultations and services for companies
- Risk assessment and expert opinion
- Poisoning prevention and toxicovigilance of pharmaceuticals
- Postgraduate education for specialist physicians in clinical pharmacology and toxicology
- Research and education

03

## Contents

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Editorial .....	<b>4</b>
Activities 2017 .....	<b>5</b>
Toxicological expertise much in demand	
Highlights .....	<b>6</b>
Chemical safety	
Emergency and information service .....	<b>8</b>
Emergency hotline 145: number of enquiries rising	
General overview of all enquiries .....	8
Human poisoning .....	10
Animal poisoning .....	14
Finances .....	<b>16</b>
Annual financial statement well balanced	
Donations .....	<b>18</b>
Thanks to all donors	
Outlook .....	<b>19</b>
Emergency and information service booming	
Supporting bodies and partners .....	<b>20</b>
The work of Tox Info Suisse enjoys broad support	
Foundation Council, management, staff .....	<b>21</b>
Individuals committed to Tox Info Suisse	
Publications .....	<b>22</b>
Scientific publications	
Imprint .....	<b>23</b>

04



Dear reader,

*We are quite privileged!*

*Many things in life are taken care of. They just exist and they have become natural: stable political relations, an excellent public transport network, high-end education and health system, a fully developed social system, and good working conditions.*

*These are privileges we do not have to worry about; they are simply here and always at our disposal. For this reason, Switzerland is often the envy of the world.*

*This "simply being here" is not a matter of fact, and the possibility for us to use these things free of charge should not be taken for granted! We often forget that behind anything that just exists, there is a substantial amount of personal and financial effort invested. All these achievements are built on solidarity and we can benefit from them only when there is shared awareness and the community sustains them.*

*The 3-digit emergency numbers like number 145 are just available, around the clock, for us all. In an emergency, who even thinks about how these services are organised, let alone financed? Everybody is just glad that they exist.*

*Let us all ensure together that these emergency services will also continue to exist in the future. All of us should consciously contribute and offer our joint support to these organisations!*

A handwritten signature in black ink, appearing to read "F. Anderegg-Wirth".

*Elisabeth Anderegg-Wirth  
President of the Foundation Council of  
Tox Info Suisse*

05

## Toxicological expertise much in demand

Telephone consultations in toxicological emergencies and responding to prevention questions remained the core task of Tox Info Suisse in 2017 as in the past. In addition, the broad expertise of its toxicologists was much in demand in many areas in the public and private domains.

In 2017 the information service of Tox Info Suisse received 40 310 enquiries (+ 1.93% compared to 2016). Two thirds (66.6%) of these enquiries came from the general public, one quarter (25.4%) from medical professionals, and 7.9% from other sources. The website containing up-to-date information regarding poisoning was visited 286 714 times.

### Experts on duty

Besides the telephone emergency service Tox Info Suisse compiles expert reports and case analyses for the industry and authorities. Senior medical staff regularly carries out clinical toxicological consultations at the wards and emergency department of the University Hospital of Zurich. Tox Info Suisse also provides medical emergency advice outside office hours for the pharmaceutical and chemical industry as well as hotline support related to material safety data sheets and international transport of hazardous materials. It also performs emergency unblinding in clinical trials.

### Role in the Swiss antidote network

Mandated by the Swiss Conference of cantonal directors of public health, Tox Info Suisse ensures antidote supply in Switzerland in collaboration with the Swiss Association of Public Health Administration and Hospital pharmacists (GSASA) as well as with the pharmacy of the Swiss Army. Updating the Swiss antidote list and the publication of monographs and leaflets on antidotes are also tasks of Tox Info Suisse.

### Education

Hugo Kupferschmidt contributes to the training of students as lecturer at the school of medicine at the University of Zurich, and in the MSc in Toxicology and MAS in Toxicology programmes at

the Universities of Basel and Geneva. Permanent academic staff regularly gives lectures in clinical toxicology for the postgraduate and continuing education of physicians and other members of the medical profession and professional organisations. Of particular note is the all-day seminar for paramedics offered twice a year in collaboration with the Advanced College for Rescue Service Professions. Structured education rounds are provided to the staff of Tox Info Suisse on a weekly basis.

### Scientific activities

Research projects are conducted under the lead of the scientific services of Tox Info Suisse in line with the association with the University of Zurich. The main focus of the research efforts are the toxicoepidemiology as well as the dose-effect-relationships in human poisoning, in particular related to drug overdose. Part of this work is performed in the context of medical theses. The research results were presented at national and international scientific meetings, including the annual congress of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), the North American Congress of Clinical Toxicology (NACCT), the annual meeting of the Society of Clinical Toxicology (GfKT), the Swiss Society of General Internal Medicine (SSGIM) and the Swiss Society of Clinical Pharmacology and Toxicology. Publications are listed on page 22 and on the website.

06

## Chemical safety

Switzerland has a high level of chemical and drug safety. To achieve and maintain this level, it is necessary to inform the population well, provide advice on poisoning prevention, apply rigorous safety regulations, and label dangerous goods properly. Nevertheless, mishaps and accidents can still occur when using dangerous products. That is why chemical safety does not only consist of poisoning prevention, but also of behaving correctly, applying appropriate measures in case of poisoning and, last but not least, recording and evaluating poisoning events. This annual report plays an important role in this respect. The consultations concerning poisoning events with chemicals (household products, technical and industrial chemicals, agricultural and horticultural products) have increased by 39% over the past twelve years: from 8,372 to 11,620 yearly. The consultations concerning poisoning events with pharmaceuticals have increased by 64%: from 4,593 to 7,531 yearly. In comparison, the population increased only by 13% in the same period of time (fig.1).

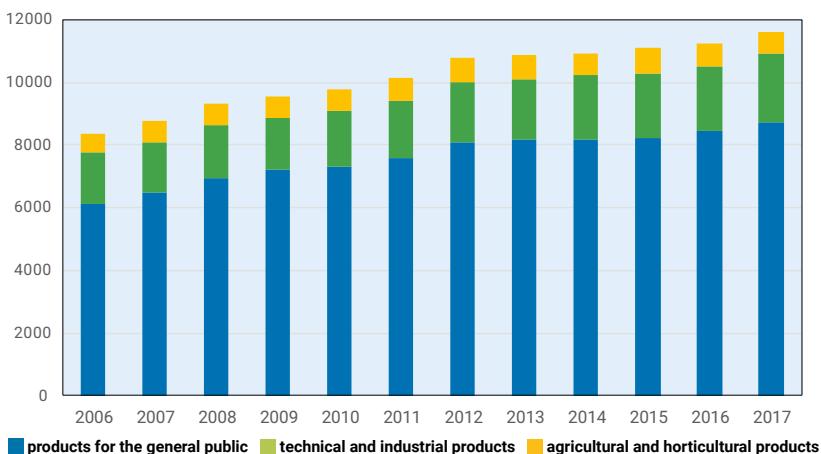
### Child accidents with household corrosive products

Most household products are not very toxic. For this reason, in case of accidents involving children, the all-clear can often be given and children can be observed at home after applying a few simple measures. However, products containing corrosive substances are an important exception: cleaners for oven, grill, fireplace glass, drain, and cleaning

agents for milking machines on farms all fall into this category. Small quantities of these cleaners may already cause serious corrosive injury to the gastrointestinal tract, followed by the formation of scar tissue and tightening of the oesophagus.

Corrosive goods must bear relevant danger symbols, and H-phrases (H stands for hazard) must also appear on labels. These hazard statements describe possible dangers in more detail. With the introduction of hazard labelling according to the GHS (Globally Harmonized System for classification and labelling of chemicals), some substances classified as irritant before are now classified as corrosive. Products, which may cause serious eye damage (H318), now bear the same danger symbol as those causing chemical burns on skin and mucosa (H314). As a result, there are now more products bearing "corrosive" symbols even though there is no change in the danger they represent. Accurately assessing substances and the danger they represent is therefore all the more important.

Fig. 1: Yearly consultations concerning accidental exposures with chemicals in humans



07



Time and again Tox Info Suisse provides consultations in severe poisoning involving corrosive products. In severe pediatric poisoning, where household or industrial products were the cause, a corrosive product was involved in 32 of 65 cases in which the children were between 0 and 16 years old (as of 1997). These children were between 1.2 and 13.5 years old (average 4.1 years old); 30 of the 32 children were under 10 years of age. They were suffering from burns of skin, gullet, stomach or eyes as well as swelling leading to airway obstruction and dysphagia. Scarring in the oesophagus and difficulty swallowing have been described as long-term consequences. The children suffering from these symptoms sometimes need intensive care for months, in some cases even years.

Special emphasis must be placed on three children's accidents with an oven cleaner containing a strong caustic solution, which is marketed directly at home-selling parties. With this form of distribution, the danger of products may be poorly perceived.

## Highlights

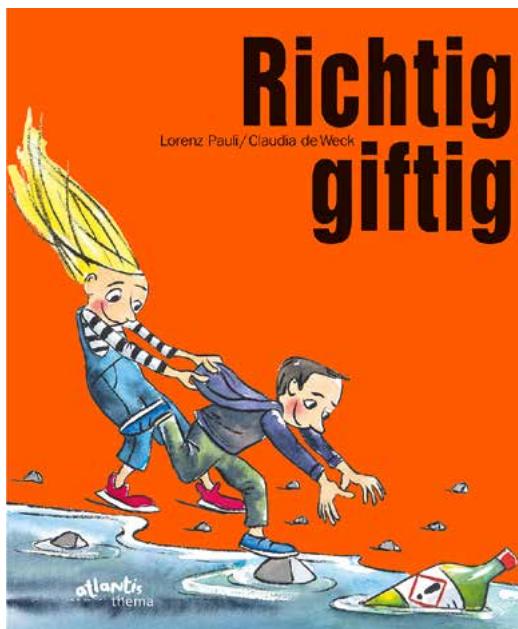
### News in the field of chemical safety

**Prevention:** the new children's book "Richtig giftig" (really poisonous) by Lorenz Pauli and Claudia de Weck, on the initiative of the Federal Office of Public Health (FOPH), playfully explains the dangers of toxic chemicals to children.

**Product identification:** to conduct a toxicological assessment in case of emergency, it is crucial to know the composition of the product involved. The product compositions are reported by the manufacturers or distributing companies to the product register for chemicals (RPC) of the Federal Office of Public Health (FOPH), to which Tox Info Suisse has access. A new video clip produced by the Cantonal Laboratory of the canton of Zurich and Tox Info Suisse explains to companies how important it is to have correct records and keep them updated.

The product involved must be clearly identified before allowing the entry of its composition in the RPC. Its name alone is often not good enough for reliable identification. Sending a picture of the label or an EAN code via the Tox Info Suisse app helps further. In addition, the CLP Regulation\* of the EU introduces a unique formula identifier (UFI) and categorization of chemical products.

**Medications:** the substantial increase of consultations for poisoning cases involving medications allows us to conclude that there is a weakness in drug safety which must be investigated more closely. The insufficient recording of these incidents must be improved in the frame of pharmacovigilance.



"Richtig giftig" (really poisonous) by Lorenz Pauli and Claudia de Weck playfully explains the dangers of toxic chemicals to children.

The CLP Regulation\* (Regulation on classification, labelling and packaging of substances and mixtures, Nr. 1272/2008) is part of the European Chemicals Legislation and transposes the Globally Harmonized System (GHS) of the UNO for classification and labelling of chemicals. The Swiss analogue is the Chemicals Act (ChemA) and its regulations.

08

## Emergency hotline 145: number of enquiries rising

Every year Tox Info Suisse receives more and more calls. In 2017 this figure was 20.81% higher than 10 years ago. This shows that a personal medical consultation cannot be replaced by the internet.

The core service of Tox Info Suisse is the free telephone emergency consultation for the general public and for medical professionals in all situations of acute or chronic poisoning. Tox Info Suisse also answers theoretical calls without exposure and thus significantly contributes to the prevention of accidental poisoning. All enquiries are electronically recorded in a database which is the basis for this annual report and for scientific analyses. Medical confidentiality and data protection are respected.

### General overview of all enquiries

#### Number of enquiries

In 2017 Tox Info Suisse received 40,310 enquiries. This represents a 1.93 % increase in comparison with the previous year.

#### Origin of enquiries

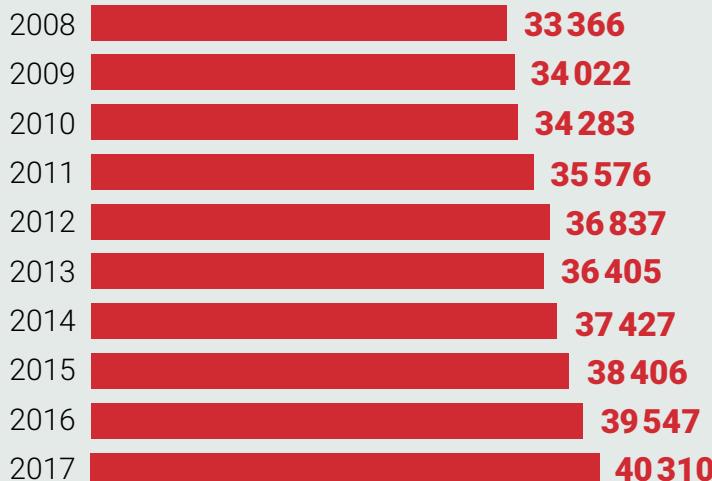
The largest number of enquiries came from the general public, which reflects its need for information and the growing reputation of Tox Info Suisse. Physicians used our services 8,750 times. The majority of these enquiries originated from hospital physicians, which corresponds to the trend that emergency care is increasingly provided by hospitals. Veterinarians accounted for 987 enquiries. Pharmacists submitted 518 enquiries to Tox Info Suisse.

In addition, Tox Info Suisse answered 147 requests for information from the media (newspapers, radio and television). 3,049 enquiries were received from organisations such as emergency services (+10.7 %), nursery homes, industry, poisons centres abroad and unspecified organisations.

#### Enquiries with or without toxic exposure

Calls can be subdivided into enquiries without exposure and enquiries where an exposure has taken place. Among the 3,090 theoretical enquiries without exposure, information was provided on drugs and antidotes, the toxicity of plants to children and pets as well as the risk of poisoning from spoilt food, household products and chemicals, as well as venomous animals. These recommendations of Tox Info Suisse are predominantly of a preventive nature. This subcategory also includes advice and reports for authorities, media, private individuals and various organisations as well as the distribution of fact sheets and referring enquiries to appropriate experts.

The 37,217 enquiries with toxic exposures concerned 35,158 humans and 2,059 animals. In three cases, the individuals affected were unknown.



This represents a 20.81 % increase over the last ten years.

09

## Origin of enquiries by cantons and population groups

Canton	Population	General public	Hospital physicians	Practitioners	Veterinarians	Pharmacists	Various	Total	Calls/1000 inhabitants		Calls/1000 inhabitants
									public	physicians	
AG	663 462	2 162	553	75	74	56	195	3 115	3,3	1,1	
AI	16 003	47	–	–	1	–	1	49	2,9	0,1	
AR	54 954	186	58	11	2	1	33	291	3,4	1,3	
BE	1 026 513	3 590	928	139	127	62	413	5 259	3,5	1,2	
BL	285 624	915	201	46	37	11	88	1 298	3,2	1,0	
BS	193 070	576	337	36	13	22	108	1 092	3,0	2,0	
FR	311 914	835	163	26	22	26	87	1 159	2,7	0,7	
GE	489 524	1 149	353	78	27	43	126	1 776	2,3	0,9	
GL	40 147	93	26	9	5	–	7	140	2,3	1,0	
GR	197 550	491	203	38	31	3	57	823	2,5	1,4	
JU	73 122	133	85	5	4	8	13	248	1,8	1,3	
LU	403 397	1 166	305	62	25	11	170	1 739	2,9	1,0	
NE	178 567	435	89	12	24	23	57	640	2,4	0,7	
NW	42 556	120	19	6	1	–	6	152	2,8	0,6	
OW	37 378	151	22	11	3	4	13	204	4,0	1,0	
SG	502 552	1 463	399	79	50	10	194	2 195	2,9	1,1	
SH	80 769	240	87	11	11	1	42	392	3,0	1,3	
SO	269 441	854	209	39	27	8	85	1 222	3,2	1,0	
SZ	155 863	389	116	23	52	9	44	633	2,5	1,2	
TG	270 709	854	249	39	50	9	81	1 282	3,2	1,2	
TI	354 375	592	372	51	22	18	35	1 090	1,7	1,3	
UR	36 145	64	34	4	–	–	11	113	1,8	1,1	
VD	784 822	2 108	391	99	106	58	229	2 991	2,7	0,8	
VS	339 176	818	164	33	28	24	79	1 146	2,4	0,7	
ZG	123 948	351	78	14	16	8	55	522	2,8	0,9	
ZH	1 487 969	5 899	1 571	280	183	97	780	8 810	4,0	1,4	
FL	37 810	84	11	8	4	1	12	120	2,2	0,6	
foreign	–	272	475	14	39	1	101	902	–	–	
unknown	–	822	–	4	3	4	74	907	–	–	
<b>Total</b>	<b>8 457 360</b>	<b>26 859</b>	<b>7 498</b>	<b>1 252</b>	<b>987</b>	<b>518</b>	<b>3 196</b>	<b>40 310</b>	<b>3,2</b>	<b>1,2</b>	
%	–	66,6	18,6	3,1	2,4	1,3	7,9	100	–	–	

## Human poisoning

### Children below 5 years of age most frequently involved

The highest number of cases involved children below five years of age (45.4%). Overall, children (55.7%) were more frequently involved in toxic

exposures than adults (44.0%). Boys were more frequently represented amongst the children (50.8% vs 47.9%) and women amongst the adults (57.9% vs 41.5%). This distribution has hardly changed in comparison with the previous year.

## Age and gender of human cases with toxic exposure

		Age		female	male	unknown	Total	
<b>Children</b>		8 723	47,9 %	9 257	50,8 %	237	18 217	55,7 %
<b>Age</b>	< 5 years	7 048	80,8 %	7 687	83,0 %	122	14 857	
	5 – < 10 years	738	8,5 %	861	9,3 %	15	1 614	
	10 – < 16 years	631	7,2 %	422	4,6 %	3	1 056	
	unknown	306	3,5 %	287	3,1 %	97	690	
<b>Adults</b>		8 348	57,9 %	5 979	41,5 %	85	14 412	44,0 %
<b>Age</b>	16 – < 20 years	537	6,4 %	333	5,6 %	1	871	
	20 – < 40 years	1 588	19,0 %	1 291	21,6 %	3	2 882	
	40 – < 65 years	1 229	14,7 %	1 045	17,5 %	4	2 278	
	65 – < 80 years	333	4,0 %	243	4,1 %	2	578	
	80+ years	199	2,4 %	157	2,6 %	–	356	
	unknown	4 462	53,4 %	2 910	48,7 %	75	7 447	
<b>unknown</b>		19	21,1 %	13,0 %	14,4 %	58	90	0,3 %
<b>Total</b>		<b>17 090</b>	<b>52,2 %</b>	<b>15 249</b>	<b>46,6 %</b>	<b>380</b>	<b>32 719</b>	<b>100 %</b>

Most toxic exposures are accidental, in other words non-intentional. Small children are mainly involved.

### Accidental poisonings prevail over intentional poisonings

A distinction must be made between the circumstances of poisoning which can be divided into three categories: accidental (non-intentional) poisonings, intentional poisonings and adverse drug reactions. Accidental poisonings occur at

home (private housing and garden), occupational (workplace) and environmental (caused by human activities, via food, drinking water or breathing air). Intentional poisonings are suicides, attempted suicides, drug abuse and criminal poisonings (by a third party).

## Circumstances of toxic exposures in humans

Circumstances of toxic exposures		Acute poisoning (exposure ≤8h)		Chronic poisoning (exposure >8h)
accidental domestic	23 706	72,5 %	485	1,5 %
accidental occupational	1 119	3,4 %	76	0,2 %
accidental environmental	12	0,0 %	11	0,03 %
accidental others	1 558	4,8 %	78	0,2 %
<b>Total accidental</b>	<b>26 395</b>	<b>80,7 %</b>	<b>650</b>	<b>2,0 %</b>
intentional suicide	3 124	9,5 %	64	0,2 %
intentional abuse	486	1,5 %	73	0,2 %
intentional criminal	79	0,2 %	11	0,03 %
intentional others	811	2,5 %	161	0,5 %
<b>Total intentional</b>	<b>4 500</b>	<b>13,8 %</b>	<b>309</b>	<b>0,9 %</b>
<b>Total accidental and intentional</b>	<b>30 895</b>	<b>94,4 %</b>	<b>959</b>	<b>2,9 %</b>
<b>Total acute and chronic</b>		<b>31 854</b>		<b>97,4 %</b>
<b>adverse drug reactions</b>		<b>240</b>		<b>0,7 %</b>
<b>unclassifiable /others</b>		<b>625</b>		<b>1,9 %</b>
<b>Total</b>		<b>32 719</b>		<b>100 %</b>

In both groups of toxic exposures it is necessary to distinguish between acute poisoning (exposure ≤ 8 hours) and chronic poisoning (exposure > 8 hours). Repeated single exposures happening over a short

period of time are often difficult to classify. In addition, there are adverse drug reactions defined as toxic reactions in the context of a therapeutic drug administration.

## 12

### Agents

For analysis, the agents (toxins) involved were split into 12 groups. The distribution has not changed significantly in comparison to the previous year.

A supplement with details to the individual agent groups is available on [www.toxinfo.ch](http://www.toxinfo.ch).

### Frequency of agent groups in all cases of human poisoning

Agents / Age groups	Adults	Children	Age unknown	Total
Pharmaceuticals	5 861	5 461	18	11 340
Household products	2 735	5 847	24	8 606
Plants	611	2 149	3	2 763
Cosmetics and personal care products	355	2 008	2	2 365
Technical and industrial products	1 691	417	12	2 120
Food and beverages (excl. mushrooms and alcohol)	826	693	9	1 528
Recreational drugs and alcohol	578	487	2	1 067
Agricultural and horticultural products	368	355	–	723
Mushrooms	346	243	4	593
Venomous animals	290	120	2	412
Veterinary drugs	72	55	–	127
other or unknown agents	679	382	14	1 075
<b>Total</b>	<b>14 412</b>	<b>18 217</b>	<b>90</b>	<b>32 719</b>
				<b>100 %</b>

### Severity of poisoning

8,538 enquiries from physicians (97.6% of all medical enquiries) were related to cases of expected or already established poisoning. In these cases, the treating physicians received a summary of the telephone consultation, together with a request for feedback on the clinical outcome. Tox Info Suisse received a report on the outcome in 70.3% of these cases. Thus Tox Info Suisse receives medically qualified information on symptoms, clinical outcome and treatment of acute and chronic poisonings which is entered and analysed in our in-house database.

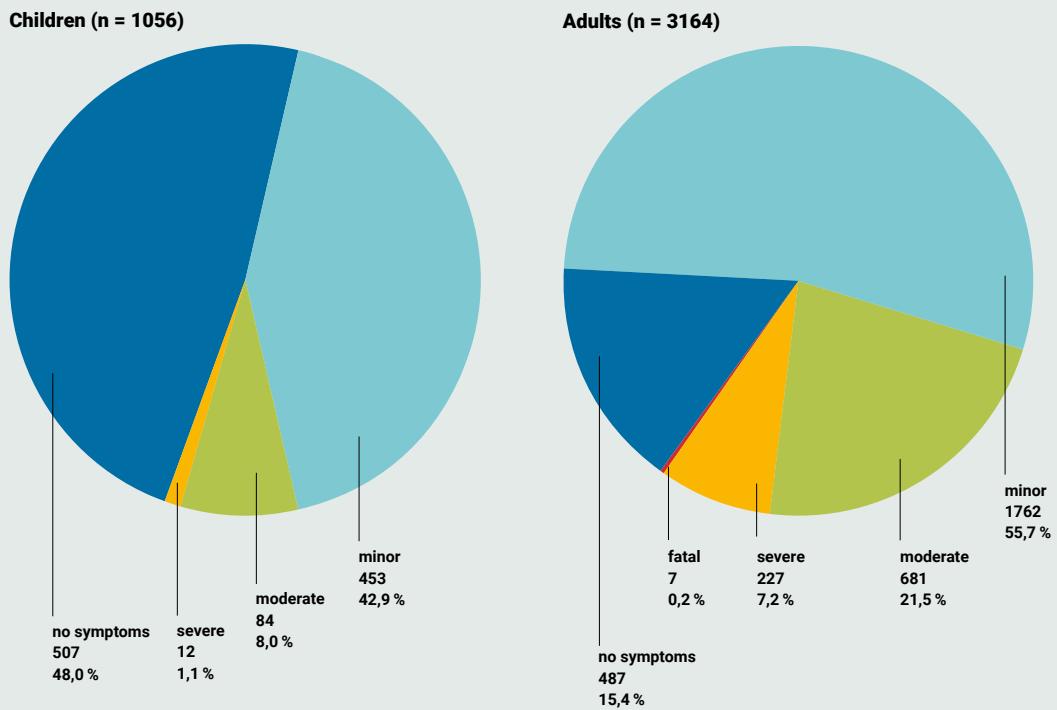
Data capture and evaluation are standardised according to circumstances, causality and severity of poisoning. Severity is categorised as follows: no symptoms, minor, moderate, severe, or fatal. Minor symptoms typically require no treatment, moderate symptoms usually require treatment, and cases with severe symptoms must invariably be treated.

This annual report only includes poisonings where causality was confirmed or likely. Confirmed means that the toxin has been analytically detected in the body, the time course and symptoms are compatible with the toxin, and the symptoms could not be explained by an underlying illness or any other cause. Likely causality fulfils the same criteria, but the agent has not been detected in the body.

4,220 human cases both asymptomatic and symptomatic with sufficient evidence of causality were analysed further with regard to clinical course (−7.56% compared to 2016).

13

## Clinical outcome of poisoning in children and adults



## Frequency of agent groups and severity of human poisoning in cases where medical feedback was received and analysed

Agent groups	Adults					Children					Total
	N	Mi	Mo	S	F	N	Mi	Mo	S	F	
<b>Severity of poisoning</b>											
Pharmaceuticals	360	1 060	402	153	4	309	205	46	6	—	2 545 60,3 %
Household products	42	159	28	13	—	90	115	11	2	—	460 10,9 %
Technical and industrial products	34	230	40	10	1	11	29	3	2	—	360 8,5 %
Recreational drugs and alcohol	15	135	129	34	1	11	14	8	2	—	349 8,3 %
Plants	11	31	12	4	—	23	15	2	—	—	98 2,3 %
Cosmetics and personal care products	8	23	3	1	—	23	34	5	—	—	97 2,3 %
Mushrooms	3	33	32	2	—	10	6	4	—	—	90 2,1 %
Food and beverages (excl. mushrooms and alcohol)	3	12	10	2	1	7	11	2	—	—	48 1,1 %
Venomous animals	3	18	8	2	—	—	9	2	—	—	42 1,0 %
Agricultural and horticultural products	3	10	6	—	—	8	6	—	—	—	33 0,8 %
Veterinary drugs	2	3	3	1	—	1	2	—	—	—	12 0,3 %
other or unknown agents	3	48	8	5	—	14	7	1	—	—	86 2,0 %
<b>Total</b>	<b>487</b>	<b>1 762</b>	<b>681</b>	<b>227</b>	<b>7</b>	<b>507</b>	<b>453</b>	<b>84</b>	<b>12</b>	<b>—</b>	<b>4 220 100 %</b>

Severity of poisoning: N = no symptoms, Mi = minor, Mo = moderate, S = severe, F = fatal

## Animal poisoning

### Animals involved

2059 enquiries relating to 2 005 cases concerned a large variety of animals also in 2017: 1468 dogs, 432 cats, 36 equines (donkeys, horses, ponies), 20 lagomorphs (hares, rabbits), 18 bovines (cattle, cows, goats, sheep), 14 rodents (chinchillas, guinea pigs, hamster, mouse, rats), 7 birds (bearded vulture, chickens, duck, 1 unknown bird), 4 reptiles (saurian, tortoises), 1 alpaca, 1 ferret, 1 hedgehog, 1 llama, 1 pig, and 1 unknown animal.

### Frequency of agent groups in all cases of animal poisoning

Agent groups	No. of cases	%
Pharmaceuticals	396	19,8 %
Plants	353	17,6 %
Food and beverages (excl. mushrooms and alcohol)	341	17,0 %
Agricultural and horticultural products	305	15,2 %
Household products	241	12,0 %
Veterinary drugs	122	6,1 %
Technical and industrial products	45	2,2 %
Cosmetics and personal care products	40	2,0 %
Recreational drugs and alcohol	27	1,3 %
Venomous animals	21	1,0 %
Mushrooms	21	1,0 %
other or unknown agents	93	4,6 %
<b>Total</b>	<b>2 005</b>	<b>100 %</b>

15

### Severity of poisoning

Veterinarians were also asked to submit clinical follow-up reports on animal poisoning. Tox Info Suisse received a total of 386 reports which could be analysed.

## Frequency of agent groups and severity of animal poisoning in cases where medical feedback was received and analysed

Agent groups	Severity of poisoning	Outcome					Total
		N	Mi	Mo	S	F	
Pharmaceuticals		72	25	8	1	–	106 27,5 %
Food and beverages (excl. mushrooms and alcohol)		40	15	2	1	2	60 15,5 %
Plants		33	18	7	1	–	59 15,3 %
Agricultural and horticultural products		41	9	4	1	3	58 15,0 %
Veterinary drugs		20	17	3	2	–	42 10,9 %
Household products		20	7	–	–	1	28 7,3 %
Recreational drugs and alcohol		4	1	3	–	–	8 2,1 %
Cosmetics and personal care products		4	–	1	1	–	6 1,6 %
Technical and industrial products		3	2	–	–	–	5 1,3 %
Venomous animals		–	3	–	1	–	4 1,0 %
Mushrooms		2	2	–	–	–	4 1,0 %
other or unknown agents		1	3	2	–	–	6 1,6 %
<b>Total</b>		<b>240</b>	<b>102</b>	<b>30</b>	<b>8</b>	<b>6</b>	<b>386 100 %</b>

Severity of poisoning: N = no symptoms, Mi = minor, Mo = moderate, S = severe, F = fatal

## Annual financial statement well balanced

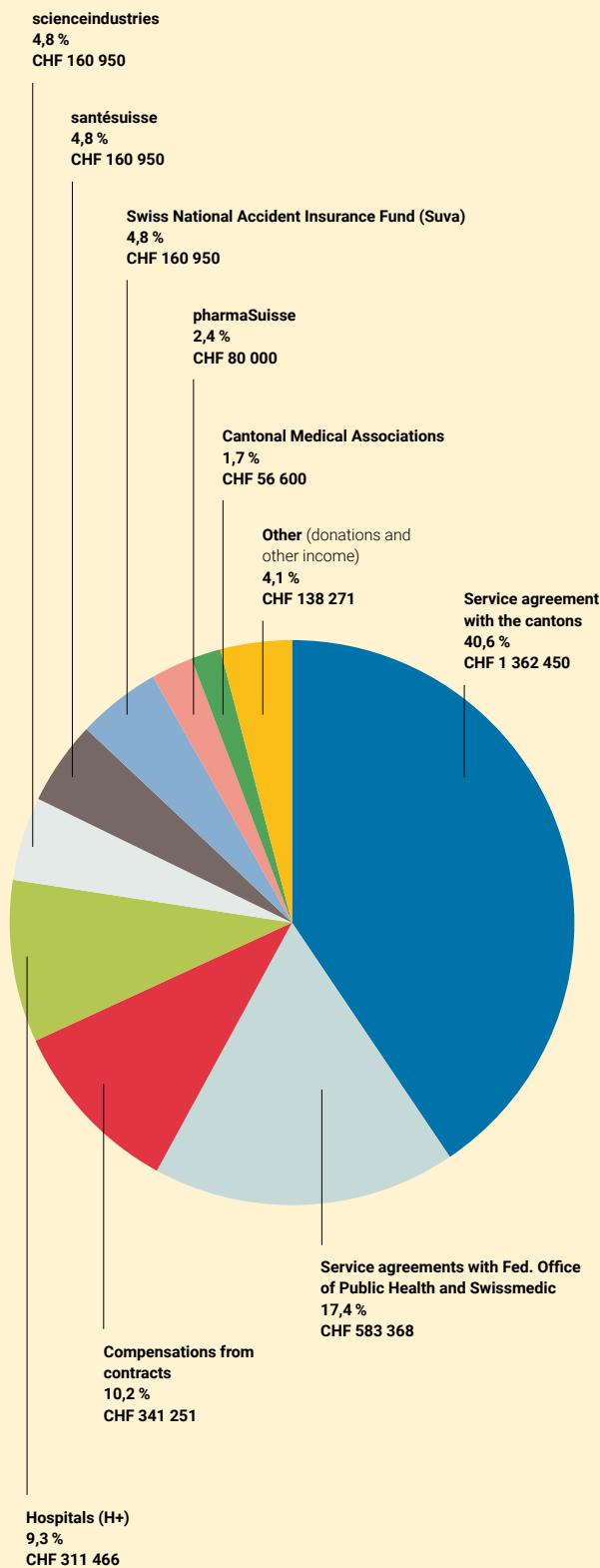
### Income statement 2017

Income	CHF
Contributions from supporting bodies	619 450
Income from contracts	
Confederation	583 368
Cantons	1 362 450
others	341 251
Hospitals (H+)	311 466
Honoraria and expert opinions	7 928
Research projects	36 282
Donations	76 095
other income (anniversary)	120
Interest and benefits from equity	17 726
Provision anniversary 2016	120
<b>Total Income</b>	<b>3 356 256</b>
Expenses	
Staff costs	2 800 155
Facilities	137 745
Furniture and equipment	15 035
IT costs	252 388
Office and administration costs	26 911
Communication	12 443
Literature and archiving costs	8 588
Research and education costs	4 000
Bank charges, interest	228
Telephone, postage, facsimile	27 021
other expenses	6 967
Provision to assure long-term liquidity	60 000
Provision for the year 2016 jubilee	120
<b>Total expenses</b>	<b>3 351 601</b>
<b>Net profit</b>	<b>4 655</b>

### Balance as at 31.12.2017

Assets	CHF
Current assets	
cash	3 413 957
trade accounts receivable	413 353
account EAPCCT	9 133
other short-term receivables	1 351
prepaid expenses and accrued income	17 121
<b>Total assets</b>	<b>3 854 915</b>
Liabilities	
Short-term liabilities	
trade accounts payable	67 872
other short-term payables	55 776
accrued expenses and deferred income	259 169
provisions anniversary 2016	138 793
Provisions	
Provisions	2 460 808
foundation capital and general reserves	800 400
profit carried forward	67 442
Profit	4 655
<b>Total liabilities</b>	<b>3 854 915</b>

## Source of income



## Auditor's report



In the Council of  
**Foundation Tox Info Suisse**  
Zurich, Switzerland

### Auditor's report on the limited examination 2017

As statutory auditors we have examined the financial statements (balance sheet, income statement and notes) of Foundation Tox Info Suisse for the year ended December 31, 2017.

These financial statements are the responsibility of the board of directors. Our responsibility is to perform a limited statutory examination on these financial statements. We confirm that we meet the licensing and independence requirements as stipulated by Swiss law.

We conducted our examination in accordance with the Swiss Standard on the Limited Examination. This standard requires that we plan and perform a limited examination to identify material misstatements in the financial statements. A limited examination consists primarily of inquiries of company personnel and analytical procedures as well as detailed tests of company documents as considered necessary in the circumstances. However, the testing of operational processes and the internal control system, as well as inquiries and further testing procedures to detect fraud or other legal violations, are not within the scope of this examination.

Based on our limited examination, nothing has come to our attention that causes us to believe that the financial statements do not comply with Swiss law and the rules of the foundation.

Swiss Revision AG

Cornelia Baerlocher  
Licensed Audit Expert  
Swiss Certified Accountant  
Audit in Charge

Matthias Scherrer  
Licensed Audit Expert  
Swiss Certified Accountant

Zurich, May 15, 2018 - CB-MD

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## Thanks to all donors!

Tox Info Suisse is a charitable non-profit making private foundation. It is partly funded by donations from companies, organisations and private individuals. The donations are used exclusively to support the poisons information service.

### Donations 2017 of and above CHF 1000

Each contribution to the donation account supports the future of the poisons information service! We thank all donors in advance for their payment to:

PostFinance:  
IBAN CH20 0900 0000 8002 6074 7  
or  
Crédit Suisse:  
IBAN CH24 0483 5018 3570 3000 0

Online donations can be made on our website.

Coop Genossenschaft	10 000
Genossenschaft Krankenkasse SLKK	5 000
SC Johnson GmbH	5 000
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Pfizer AG	3 000
Procter & Gamble Switzerland SARL	3 000
The Swiss Cosmetic and Detergent Association	3 000
Unilever Schweiz GmbH	3 000
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Dr. med. Markus Frey	1 000
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Ideal Chimic SA	1 000
IVF Hartmann AG	1 000
Syngenta Agro AG	1 000
Zambon Svizzera SA	1 000

Smaller contributions not listed here are frequent and very welcome.  
We extend grateful thanks to all donors.

## Emergency and information service booming

In 2017 the number of consultations given by Tox Info Suisse continued to head in one direction only: upwards. Population growth, on the one hand, inevitably leads to an increase of poisoning cases, and, on the other hand, there is more willingness from the population to use the emergency and information service of Tox Info Suisse. This shows that these consulting services are appreciated and necessary.

**Networking in areas of public health which will become more relevant in the future is crucial for Tox Info Suisse. Such areas include chemical safety, drug safety, suicide prevention, and civil protection. Tox Info Suisse is able to contribute significantly in all these fields, and all should bring financial support to the Tox.**

### Toxicology is important

Reports on current toxicological topics or toxicologically relevant events appear in the media every day. New substances are constantly synthesised and new active principles are discovered and developed, which entail unknown risks of adverse effects. But old threats suddenly resurface, like the return of chemical weapons shows. This represents a challenge not only in toxicology research but also in clinical toxicology as to the question of the treatment and medical management of poisoning cases. Here, the meaning and usefulness of poisons centres remain the same, not only in emergency consultation but also in research and education.

### Evolution of the emergency and information service

The physicians specialised in toxicology, who were working in various institutions years ago, are all gone now. This emphasises the utility and responsibility of the poisons centres like Tox Info Suisse. The physicians of Tox Info Suisse provide sound medical knowledge on questions such as the effects of harmful substances in humans and animals around the clock.

The evolution of society, science and technology always poses new challenges for the emergency and information service. The potential benefit of new information technologies must always be examined and analysed. The complexity of these new technologies brings a wealth of promising possibilities, but it also creates new risks. Internet telephony is just one recent example.

Electronic networking among healthcare partners and personalised medicine create new demands and requirements for the emergency and information service. In addition, new legal regulations such as the new European data protection regulation not only bring undeniable progress but their implementation requires considerable effort.

Civil protection and pharmacovigilance of drug overdoses are two areas which can be developed in future. There is no doubt that the telephone emergency service of Tox Info Suisse will be used in case of chemical hazards, disasters, terrorism, and mass accidents where poisons are involved. However, a clear mandate and role assignments lack in this area today. In the field of pharmacovigilance, great significance must be attached to poisonings due to drug overdoses, which is also what the figures of Tox Info Suisse show. That is why recording and evaluating these cases by poisons centres, and providing relevant reports to the authorities is important. This data can serve as the basis for preventive measures.

20

## The work of Tox Info Suisse enjoys broad support

Tox Info Suisse is a private foundation. It was established in 1966 and is based on a private-public partnership.

### Supporting bodies



pharmaSuisse is the Swiss pharmacists' Association. It is the founder of the Swiss Toxicological Information Centre in 1966, now Tox Info Suisse.



scienceindustries is the Swiss business association for the chemical, pharmaceutical and biotech industries. It is the co-founder of the Swiss Toxicological Information Centre in 1966, now Tox Info Suisse.



The KKA is the Conference of the Cantonal Medical Associations



santésuisse is the inter-trade organisation of Swiss health insurance companies in the domain of social health insurance.



Suva is the biggest institution in the field of compulsory accident insurance in Switzerland.

### Partner



Tox Info Suisse is an Associated Institute of the University of Zurich in the domains of research and education.



Tox Info Suisse is involved with the European Association of Poisons Centres and Clinical Toxicologists ([www.eapcct.org](http://www.eapcct.org)).



Tox Info Suisse collaborates closely with the Society of Clinical Toxicology (Gesellschaft für Klinische Toxikologie, GfKT) which is the professional society of the German-speaking poisons information centres and of clinical toxicologists.



Swiss Centre for Applied Human Toxicology  
Schweizerisches Zentrum für Angewandte Humantoxikologie  
Centre Suisse de Toxicologie Humaine Appliquée  
Centro Svizzero di tossicologia Umana Applicata

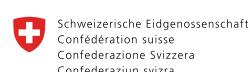
Tox Info Suisse is represented in the foundation council of the SCAHT.

### Service Level Agreements



GDK Schweizerische Konferenz der kantonalen Gesundheitsdirektorinnen und -direktoren  
CDS Conférence suisse des directrices et directeurs cantonaux de la santé  
CDS Conferenza svizzera delle direttrici e dei direttori cantonali della sanità

The services for the general population in Switzerland are regulated by a service level agreement with the Swiss Conference of Cantonal Directors of Public Health (GDK).



Eidgenössisches Departement des Innern EDI  
Bundesamt für Gesundheit BAG

By order of the Swiss Federation, and on the basis of the law and ordinance on chemicals, Tox Info Suisse contributes significantly to emergency consultation and poisoning prevention.



DIE SPITALER DER SCHWEIZ  
LES HÔPITAUX DE SUISSE  
GLI OSPEDALI SVIZZERI

H+ is the national central association of public and private hospitals, infirmaries, and nursing homes.

### Swissmedic

By order of the Swiss Agency for Therapeutic Products (Swissmedic) Tox Info Suisse provides toxicovigilance in the domain of pharmaceuticals.

## Individuals committed to Tox Info Suisse

### Foundation Council

**President:** Elisabeth Anderegg-Wirth, pharmaSuisse

**Vice President:** Marcel Sennhauser, scienceindustries

**Members:** Prof. Michael Arand, University of Zurich / Dr. Roland Charrière, Federal Office of Public Health / Dominique Jordan, pharmaSuisse / Dr. Aldo Kramis, Conference of the Cantonal Medical Associations (as of 1.1.2017) / Dr. Martin Kuster, scienceindustries / Marion Matousek, pharmaSuisse / Verena Nold, santésuisse / Dr. Claudia Pletscher, Suva / **Cantonal Government Councilor Petra Steimen**, GDK / Dr. Samuel Steiner, GDK / Dr. Bernhard Wegmüller, H+ / Dr. Thomas Weiser, scienceindustries

**Honorary President:** Dr. Dr. h.c. Attilio Nisoli

**Honorary member:** Dr. Franz Merki

### Management

**Director:** Hugo Kupferschmidt, M.D., EMBA-HSG

**Head physician and deputy director:** Christine Rauber-Lüthy, M.D.

**Senior physicians:** Cornelia Reichert, M.D. / Katharina Hofer, M.D. / Colette Degrandi, M.D.

**Head of scientific services:** vacant

**Head Administration:** Elfi Blum

### Advisors

Numerous experts from hospitals, institutes, state and federal organisations act as honorary advisers, most notably **Jean-Pierre Lorent** (former Director of the Tox) and **Professor Martin Wilks** M.D., PhD (SCAHT).

### Staff

**Natascha Anders**, nurse / **Alexandra Bloch**, dipl. pharm. / **Danièle Chanson**, executive secretary / **Trudy Christian**, secretary / **Katrin Faber**, M.D. / **Anna Fall**, secretary (as of 1.3.2017) / **Joanna Farmakis**, cleaning service / **Andrea Felsler**, PhD / **Joan Fuchs**, M.D. / **Mirjam Gessler**, med. pract. / **Andrea Gretener**, secretary (until 31.3.2017) / **Karen Gutscher**, M.D. / **Rose-Marie Hauser**, management secretary / **Theresa Hiltmann**, M.D. / **Jawid Jalal**, med. pract. / **Noëmi Jöhl**, med. pract. / **Irene Jost-Lippuner**, M.D. / **Seraina Kägi**, M.D. / **Kirill Karlin**, med. pract. / **Helen Klingler**, M.D. / **Sandra Koller-Palenzona**, M.D. / **Birgit Krueger**, med. pract. / **Jacqueline Kupper**, vet.D. / **Saskia Lüde**, PhD / **Nadine Martin**, M.D. / **Franziska Möhr-Spahr**, secretary / **Katharina Schenk**, M.D. / **Stefanie Schulte-Vels**, med. pract. / **Joanna Stanczyk Feldges**, M.D. / **Jolanda Tremp**, secretary / **Sonja Tscherry**, nurse / **Claudia Umbricht**, IT co-worker (as of 1.5.2017) / **Margot von Dechend**, M.D. / **Karin Zuber**, secretary.

**Medical students:** Debbie Maurer (until 15.9.2017), **Patrick Fischler** (as of 16.9.2017), **Mateusz Niedzwiecki** (until 31.5.2017), **Mathilde Spiess**, **Yves Waser** (as of 1.6.2017), **Anna Zurfluh**.

## Scientific publications

The list of the scientific publications, doctoral theses and master theses can also be found on the website [www.toxinfo.ch](http://www.toxinfo.ch).

Some of the listed papers can be downloaded from our website [www.toxinfo.ch](http://www.toxinfo.ch). All others are accessible through scientific libraries. Leaflets about first aid and poisoning prevention are also available in German, French and Italian.

### Concomitant use of ciprofloxacin and tizanidine leading to an increased risk of excessive hypotension and sedation: a retrospective analysis of the WHO Pharmacovigilance Database [abstract].

Dahmke H, Jetter A, Kupferschmidt H, Kullak-Ublick GA, Weiler S. Primary Hosp Care 2017; suppl. 17: 39.

### A verified bite by *Heteroscodra maculata* (Togo starburst or ornamental baboon tarantula) resulting in long-lasting muscle cramps.

Fuchs J, Martin NC, Rauber-Lüthy C. Clin Toxicol 2017 [early online]. (Clin Toxicol 2018; 56: 675-76).

### Expired antivenom: good efficacy in a severely envenomed cat bitten by *Sistrurus miliaris miliaris* (Carolina Pigmy Rattle-snake).

Fuchs J, Casado Diaz JI, Jud Schefer R, Rauber-Lüthy C. Clin Toxicol 2017; 55: 613-14.

### War das «Insekt» wirklich eine Schlange oder doch ein Insekt?

Fuchs J, Meyer A, Rauber-Lüthy C. Swiss Med Forum 2017; 17: 564.

### Fatal poisoning by pharmaceuticals and illicit drugs: comparison of cases reported to a Poisons Centre with official death certificates [abstract].

Gessler M, Reichert C, Rauber-Lüthy C, Junker C, Kupferschmidt H. Clin Toxicol 2017; 55: 493.

### Medication incidents in primary care medicine: a prospective study in the Swiss Sentinel Surveillance Network (Sentinella).

Gnädinger M, Conen D, Herzog L, Puhan MA, Staehelin A, Zoller M, Ceschi A. BMJ Open 2017; 7: e013658.

### Acute toxicity associated with the recreational use of the novel psychoactive benzofuran N-methyl-5-(2 aminopropyl)benzofuran.

Hofer KE, Faber K, Müller DM, Hauffe T, Wenger U, Kupferschmidt H, Rauber-Lüthy C. Ann Emerg Med 2017; 69: 79-82.

### Favorable acute toxicity profile of morclofone in children [abstract].

Hofer KE, Kupferschmidt H, Rauber-Lüthy C. Clin Toxicol 2017; 55: 460.

### Methemoglobinemia in children reported to Tox Info Suisse: a retrospective case series [abstract].

Hofer KE, Faber K, Rauber-Lüthy C. Swiss Med Wkly 2017; 147(Suppl 222): 41.

### Die Beurteilung asymptomatischer Patienten mit akuten Vergiftungen.

Kupferschmidt H. Swiss Med Forum 2017; 17: 64-65.

### Koma bei exogenen Intoxikationen.

Kupferschmidt H. In: Battegay E. Differenzialdiagnose Innerer Krankheiten – vom Symptom zur Diagnose. 21. Aufl. Georg Thieme Verlag, Stuttgart 2017; 645-49.

### Vergiftungen in der Schweiz.

#### Zur Beratungstätigkeit 2015 von Tox Info Suisse.

Kupferschmidt H, Rauber-Lüthy C. Schweiz Aerzteztg 2017; 98: 332-36.

### Vergiftungen in der Schweiz.

#### Zur Beratungstätigkeit 2016 von Tox Info Suisse.

Kupferschmidt H, Rauber-Lüthy C. Schweiz Aerzteztg 2017; 98: 1406-10.

### Vergiftungen mit Kohlenmonoxid.

Kupferschmidt H, Degrandi C, Rauber-Lüthy C. Swiss Med Forum 2017; 17: 471-75.

### Sechs tödliche Vergiftungen aufgrund von Medikamenten.

Lüde S, Hofer K, Schenk-Jäger K, Rauber-Lüthy C. pharmaJournal 2017; 23: 29-31.

### Massive coagulopathy caused by the bite of a *Crotalus basiliscus* snake.

Meyer S, Hartmann F, Stein P, Lenherr R, Fuchs J, Spahn DR. Anaesth Cases 2017; 2017-0046.

### Vigilance der Tierarzneimittel: Gemeldete unerwünschte Wirkungen im Jahr 2016.

Müntener CR, Kupper J, Naegeli H, Gassner B. Schweiz Arch Tierheilkd 2017; 159: 581-85.

### No clinically relevant effects in children after accidental ingestion of *Panaeolina foenisecii* (lawn mower's mushroom).

Schenk-Jäger KM, Hofer-Lentner KE, Plenert B, Eckart D, Haberl B, Schulze G, Borchert-Avalone J, Stedtler U, Pfab R. Clin Toxicol 2017; 55: 217-20.

### Intake of potentially toxic medications, natural toxins and chemicals during pregnancy: analysis of data from Tox Info Suisse [abstract].

Vogel T, Lüde S, Rauber-Lüthy C, Simões-Wüst AP. Annual Congress gynécologie suisse 2017; P-I/16.

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