

2019 Annual Report of the Kansas Poison Control Center at The University of Kansas Health System

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ABSTRACT

Introduction. This is the 2019 Annual Report of the Kansas Poison Control Center (KSPCC) at The University of Kansas Health System. The KSPCC is one of 55 certified poison control centers in the United States and serves the state of Kansas 24-hours a day, 365 days a year with certified specialists in poison information and clinical and medical toxicologists. The KSPCC receives calls from the public, law enforcement, health care professionals, and public health agencies. All calls to the KSPCC are recorded electronically in the Toxicall® data management system and uploaded in near real-time to the National Poison Data System (NPDS) which is the data repository for all poison control centers in the United States.

Methods. All encounters reported to the KSPCC from January 1, 2019 through December 31, 2019 were analyzed. Data recorded for each exposure includes caller location, age, weight, gender, exposure substance, nature of exposure, route of exposure, interventions, medical outcome, disposition, and location of care. Encounters were classified as human exposure, animal exposure, confirmed non-exposure, or information call (no exposure reported).

Results. The KSPCC logged 20,589 total encounters in 2019, including 19,406 human exposure cases. The KSPCC received calls from every county in Kansas. A slim majority of human exposure cases (50.5%, $n = 9,790$) were female. Approximately 61% ($n = 11,876$) of human exposures involved a child (defined as 19 years of age or less). Most encounters occurred at a residence (91.6%, $n = 17,780$) and most cases (64.9%, $n = 12,599$) originated from a residence. The majority of human exposures (85.5%, $n = 16,589$) were acute cases (exposures occurring over 8 hours or less). Ingestion was the most common route of exposure documented (85.3%, $n = 16,548$). The most commonly reported substance in pediatric (children ≤ 5) encounters was cosmetics/personal care products ($n = 959$) followed closely by household cleaning products ($n = 943$). For adult encounters, analgesics ($n = 1,296$) and sedative/hypnotics/antipsychotics ($n = 1,084$) were the most frequently involved substances. Unintentional exposures were the most common reason for exposures (75.4%, $n = 14,634$). Most encounters (65.9%, $n = 12,780$) were managed in a non-healthcare facility (i.e., a residence). Among human exposures, 14,591 involved exposures to pharmaceutical agents while 9,439 involved exposure to non-pharmaceuticals. Medical outcomes were 26.4% ($n = 5,116$) no effect, 18.8% ($n = 3,652$) minor effect, 9.3% ($n = 1,813$) moderate effect, and 3.1% ($n = 603$) major

effects. There were 14 deaths in 2019 reported to the KSPCC. Cases from healthcare facilities and cases with moderate or major medical outcomes increased in 2019 compared to 2018. The number of deaths reported to the KSPCC increased in 2019 to 14 from 7 in 2018.

Conclusions. The results of the 2019 Kansas Poison Control Center's annual report demonstrated that cases were received from the entire state of Kansas totaling over 19,400 human exposures per year. While pediatric exposures remained the most common encounter, there continued a trend of increasing number of cases from healthcare facilities and for cases with serious outcomes. The experience of the KSPCC is comparable to national data. This report supported the continued value of the KSPCC to both public and acute health care in the state of Kansas.

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INTRODUCTION

This is the 2019 Annual Report of Kansas Poison Control Center at The University of Kansas Health System (KSPCC). The KSPCC is a 24-hour 365 day/year health care information resource serving the state of Kansas. It was founded in 1982 and is one of the 55 poison control centers certified by the American Association of Poison Control Centers (AAPCC) in the United States. The KSPCC is staffed by 10 certified specialists in poison information who are either critical care trained nurses or Doctors of Pharmacy. There is 24-hour back-up provided by five board-certified clinical and medical toxicologists.

The KSPCC receives calls from the public, law enforcement, health care professionals, and public health agencies. Encounters may involve an exposed animal or human (Exposure Call) or a request for information with no known exposure (Information Call). The KSPCC follows all cases to make management recommendations, monitor case progress, and document medical outcome. This information is recorded electronically in the Toxicall® data management system and uploaded in near real-time to the National Poison Data System (NPDS).

NPDS is the data warehouse for all the nation's poison control centers.¹ The average time to upload data for all poison centers is 7.72 [6.90, 12.00] (median [25%, 75%]) minutes creating a near real-time national exposure database and surveillance system. The KSPCC has the ability to share NPDS real time surveillance with state and local health departments and other regulatory agencies. The analysis and summary of all encounters reported to the KSPCC from January 1, 2019 to December 31, 2019 is reported below.

METHODS

All KSPCC encounters recorded electronically in the Toxicall® data management system from January 1, 2019 to December 31, 2019 were analyzed. Cases were first classified as either an exposure or suspected exposure (human exposure, animal exposure, non-exposure confirmed cases) or a request for information with no reported exposure (information call). Extracted data included caller location, age, weight, gender, exposure substance, number of follow-up calls, nature of exposure (i.e., unintentional, recreational, or intentional), exposure scenario, route of exposure (oral, dermal, parenteral), interventions, medical outcome (no effect, minor, moderate, severe, or death), disposition (admitted to noncritical care unit, admitted to critical care

unit, admitted to psychiatry unit, lost to follow-up, or treated and released) and location of care (non-health care facility or health care facility). For this analysis, a pediatric case was defined as any patient 19 years of age or less. This was consistent with NPDS methodology. Similarly, NPDS descriptions of the medical outcomes of cases were used: minor - minimally bothersome symptoms, moderate - more pronounced symptoms, usually requiring treatment, and major - life threatening signs and symptoms. Data were analyzed using Microsoft Excel (Microsoft Corp, Redmond, WA).

RESULTS

The KSPCC logged 20,589 total calls in 2019. This was a decrease of 483 calls (2.3%) compared to 2018. Among the calls in 2019 were 19,406 human exposure cases, 62 non-exposure confirmed cases, 125 animal exposure cases, and 996 information calls. For information calls, drug information (n = 327) was most common reason for calling. Table 1 describes the encounter types.

The KSPCC made 33,724 follow-up calls in 2019. Follow-up calls were done in 58.2% of human exposure cases. One follow-up call was made in 23.7% of human exposure cases and multiple follow-up calls (range 2 - 48) were made in 34.5% of cases. For human exposure cases which required a follow-up call, an average of three follow-up calls were performed per case. This was a 7% increase in the number of follow-up calls performed compared to 2018.

The KSPCC received calls from all 105 counties and every hospital in Kansas. The county with the largest number of calls was Sedgwick County with 3,115. In addition, calls were received from all 50 states, and the District of Columbia.

Table 1. Encounter type.

	Number	%
Exposure		
Human exposure	19,406	99.36
Animal exposure	125	0.64
Subtotal	19,531	94.86
Non-exposure confirmed cases		
Human non-exposure	62	100.00
Subtotal	62	0.30
Information call		
Drug information	327	32.83
Drug identification	81	8.13
Environmental information	71	7.13
Medical information	24	2.41
Occupational information	1	0.10
Poison information	94	9.44
Prevention/safety/education	9	0.90
Teratogenicity information	2	0.20
Other information	43	4.32
Substance abuse	8	0.80
Administrative	22	2.21
Caller referred	314	31.53
Subtotal	996	4.84
Total	20,589	100.00

Overall, a slim majority of human exposure cases (50.5%, n = 9,790) were female. In children younger than 13 years of age a majority were male, but this gender distribution was reversed in teenagers and adults. In fact, in the age group involving children 13-19 years of age, 61.3% of cases were female. Approximately 61.2% (n = 11,876) of human exposures involved a child (defined as age 19 years or less).

Table 2 illustrates distribution of human exposures by age and gender. Patients one year of age were the most common age group involved in encounters reported to the KSPCC. For adults, the age group of 20 - 29 years old was most encountered. Seventy exposures occurred in pregnant women (0.4% of all human exposures). Of these exposures, 28.6% occurred in the first trimester, 35.7% occurred in the second trimester, and 34.2% occurred in the third trimester. Most exposures in pregnant women (68.6%) were unintentional exposures with 30% resulting from intentional exposures. There was one reported death to KSPCC in a pregnant woman in 2019.

For human exposures, 64.9% (n = 12,599) of calls originated from a residence (own or other), while 91.6% (n = 17,780) of these exposures occurred at a residence (own or other). Calls from a health care facility accounted for 25.8% (n = 5,168) of human exposure encounters. Table 3 further details the origin of human exposure cases and the site of the exposure. The majority of human exposures, 85.5% (n = 16,589) were acute cases defined as exposures occurring over 8 hours or less. Chronic exposures defined as exposures occurring over > 8 hours accounted for 2.3% (453) of all human exposures. Acute on chronic exposures defined as single exposure that was preceded by a chronic exposure over > 8 hours totaled 2,258 (11.6%). Ingestion was the most common route of exposure (85.3%, n = 16,548) documented in all cases (Table 4).

The most commonly reported substance in those less than six years of age was cosmetics/personal care products (n = 959), followed closely by household cleaning products (n = 943). Table 5 lists the substances most frequently involved in exposures for those ≤ 5 years old. For adult cases (> 19 years of age), analgesics (n = 1,296) and sedative/hypnotics/antipsychotics (n = 1,084) were the most frequently involved substances as seen in Table 6. Among all encounters, analgesics (n = 2,805, 11.6%) were the most frequently encountered substance category. Table 7 (available online only at "journals.ku.edu/kjm") is a summary log for all exposures categorized by category and sub-category of substance.

In 2019, there was a total of 331 plant exposures reported to the KSPCC. The single most common plant exposure encountered was to pokeweed (*Phytolacca Americana*; n = 28). Table 8 lists the top 5 most encountered plants.

Table 2. Distribution of human exposures by age and gender.

Age (yrs)	Male		Female		Unknown gender		Total		Cumulative total	
	N	% of age group total	N	% of age group total	N	% of age group total	N	% of total exposure	N	%
< 1 year	525	55.09	426	44.70	2	0.21	953	4.91	953	4.91
1 year	1,479	53.51	1,282	46.38	3	0.11	2,764	14.24	3,717	19.15
2 years	1,463	54.94	1,199	45.02	1	0.04	2,663	13.72	6,380	32.88
3 years	742	58.94	517	41.06	0	0.00	1,259	6.49	7,639	39.36
4 years	385	58.07	277	41.78	1	0.15	663	3.42	8,302	42.78
5 years	202	55.04	145	39.51	20	5.45	367	1.89	8,669	44.67
Unknown ≤ 5 years	0	0.00	0	0.00	1	100.00	1	0.01	8,670	44.68
Child 6 - 12 years	637	49.30	540	41.80	115	8.90	1,292	6.66	9,962	51.33
Teen 13 - 19 years	736	38.57	1,169	61.27	3	0.16	1,908	9.83	11,870	61.17
Unknown child	3	50.00	2	33.33	1	16.67	6	0.03	11,876	61.20
Subtotal	6,172	51.97	5,557	46.79	147	1.24	11,876	61.20	11,876	61.20
20 - 29 years	893	45.72	1,058	54.17	2	0.10	1,953	10.06	13,829	71.26
30 - 39 years	791	47.56	872	52.44	0	0.00	1,663	8.57	15,492	79.83
40 - 49 years	450	40.14	670	59.77	1	0.09	1,121	5.78	16,613	85.61
50 - 59 years	420	40.15	624	59.66	2	0.19	1,046	5.39	17,659	91.00
60 - 69 years	307	40.66	447	59.21	1	0.13	755	3.89	18,414	94.89
70 - 79 years	240	43.32	314	56.68	0	0.00	554	2.85	18,968	97.74
80 - 89 years	102	38.49	163	61.51	0	0.00	265	1.37	19,233	99.11
≥ 90 years	26	40.00	39	60.00	0	0.00	65	0.33	19,298	99.44
Unknown adult	42	45.65	44	47.83	6	6.52	92	0.47	19,390	99.92
Subtotal	3,271	43.53	4,231	56.31	12	0.16	7,514	38.72	19,390	99.92
Unknown age	5	31.25	2	12.50	9	56.25	16	0.08	19,406	100.00
Total	9,448	48.69	9,790	50.45	168	0.87	19,406	100.00	19,406	100.00

Table 3. Origin of call and site of exposure for human exposure cases.

Site	Origin of call		Site of exposure	
	N	%	N	%
Residence				
Own	12,257	63.16	17,170	88.48
Other	342	1.76	610	3.14
Workplace	282	1.45	476	2.45
Health care facility	5,195	26.77	111	0.57
School	37	0.19	468	2.41
Restaurant/food service	1	0.01	49	0.25
Public area	70	0.36	173	0.89
Other	1,208	6.22	223	1.15
Unknown	14	0.07	126	0.65

Table 4. Route of human exposures.*

Route	Human exposures		
	N	% of All Routes	% of All Cases
Ingestion	16,548	79.97	85.27
Dermal	1,583	7.65	8.16
Inhalation/Nasal	1,231	5.95	6.34
Ocular	754	3.64	3.89
Bite/Sting	184	0.89	0.95
Parenteral	172	0.83	0.89
Unknown	164	0.79	0.85
Aspiration (with ingestion)	23	0.11	0.12
Otic	14	0.07	0.07
Other	13	0.06	0.07
Vaginal	5	0.02	0.03
Rectal	2	0.01	0.01
Total Number of Routes	20,693	100.00	106.63

*Some cases may have multiple routes of exposure documented.

Table 5. Substance categories most frequently involved in exposures for age ≤ 5 years old.

Substance category	Previous year rank	All substance	%	Single substance exposures	%
Cosmetics/personal care products	1	959	10.48	929	11.12
Cleaning substances (household)	2	943	10.31	903	10.81
Analgesics	3	827	9.04	747	8.94
Foreign bodies/toys/miscellaneous	4	533	5.83	517	6.19
Antihistamines	5	503	5.50	463	5.54
Dietary supplements/herbals/homeopathic	6	496	5.42	464	5.55
Topical preparations	8	382	4.17	377	4.51
Vitamins	7	378	4.13	326	3.90
Pesticides	9	349	3.81	327	3.91
Gastrointestinal preparations	10	217	2.37	181	2.17
Cardiovascular drugs	12	216	2.36	121	1.45
Plants	15	199	2.17	193	2.31
Hormones and hormone antagonists	16	197	2.15	123	1.47
Electrolytes and minerals	17	185	2.02	168	2.01
Essential oils	13	176	1.92	165	1.97

Table 6. Substance categories most frequently involved in exposures of adults (> 19 years).

Substance category	All substances	%	Single substance exposures	%
Analgesics	1,296	11.83	551	9.72
Sedative/hypnotics/antipsychotics	1,084	9.89	337	5.94
Antidepressants	945	8.63	325	5.73
Cardiovascular drugs	757	6.91	244	4.30
Alcohols	601	5.49	67	1.18
Antihistamines	476	4.34	209	3.69
Cleaning substances (household)	444	4.05	356	6.28
Pesticides	434	3.96	334	5.89
Anticonvulsants	410	3.74	118	2.08

Table 6. Substance categories most frequently involved in exposures of adults (> 19 years). *continued.*

Substance category	All substances	%	Single substance exposures	%
Hormones and hormone antagonists	342	3.12	186	3.28
Stimulants and street drugs	335	3.06	149	2.63
Fumes/gases/vapors	295	2.69	268	4.73
Chemicals	294	2.68	254	4.48
Muscle relaxants	236	2.15	90	1.59
Cold and cough preparations	228	2.08	106	1.87

Table 8. Top 5 most frequent plant exposures.

Botanical name or category	N
Oxalates (species unspecified)	38
Plants: non-toxic	33
Phytolacca Americana (L.) (botanic name)	28
Cherry (species unspecified, wild & domesticated)	22
Plants-general-unknown	11
Spathiphyllum species (botanic name)	10
Poison ivy/oak	9
Philodendron (species unspecified)	7
Total of all plant calls	331

Unintentional exposures were the most common reason for exposures (75.4%, n = 14,634) while intentional exposures accounted for 21.3% (n = 4,127) of exposures. Table 9 lists reasons for human exposures. Most unintentional exposures, 58.8% (n = 8,609) occurred in the ≤5-years-old age group. In patients less than 13 years of age, 97.8% (n = 9,745) of ingestions were unintentional. However, in the age 13 to 19-years-old group, intentional exposure was most common (67.2%, n = 1,283). In total, suspected suicide attempts accounted for 16.5% (n = 3,201) of human encounters. When a therapeutic error was the reason for exposure, a double dose was the most common scenario, 32.2% (n = 756).

Most encounters (65.9%, n = 12,780) were managed in a non-health care facility (i.e., a residence). Of the 6,368 encounters managed at a health care facility, 45% (n = 2,863) were admitted. Table 10 lists the management site of all human encounters.

Among human exposures, 14,591 involved exposures to pharmaceutical agents while 9,439 involved exposure to non-pharmaceuticals. Because an encounter could include numerous pharmaceutical agents and non-pharmaceutical agents, this total was greater than the total number of encounters. However, 86% (n = 16,683) of all human exposures were exposed to only a single substance. Among these single substance exposures, the reason for exposure was intentional in 25.6% (n = 2,160) of pharmaceutical-only cases compared to 3.8% (n = 316) of non-pharmaceutical single substance exposures.

When medical outcomes were analyzed, 26.4% (n = 5,116) of human exposures had no effect, 18.8% (n = 3,652) had minor effect, 9.3% (n = 1,813) had moderate effect, and 3.1% (n = 603) had major

effects. Moderate effects were more common in the 13 to 19-year-old group while major effects were more common in those over 20 years of age. Moderate and major effects were most common in those with intentional encounters. More serious outcomes were related to single-substance pharmaceutical exposures, accounting for 35.7% (n = 5) of the fatalities. Table 11 lists all medical outcomes by age and Table 12 lists outcomes by reason for exposure.

Use of decontamination and specific therapies, including antidotal therapy, is detailed in Tables 13a and 13b (tables available online only at “journals.ku.edu/kjm”). There were 14 deaths in 2019 reported to the KSPCC. All deaths involved patients 20 years of age or older, and 11 of the deaths involved intentional exposures. Table 14 details the 14 reported deaths (available online only at “journals.ku.edu/kjm”).

Table 15 compares key statistics from 2015 to 2019. Overall case volumes have declined since 2016, however, the percentage of calls from healthcare facilities, and cases with moderate or major outcomes have increased steadily from 2015 to 2019. The number of deaths doubled from 2018 to 2019.

DISCUSSION

The ongoing importance of the KSPCC is reflected in trends that have seen rates of poisonings and overdoses increase at an alarming rate over the last decade. According to the Annual Surveillance Report of Drug-Related Risks and Outcomes, drug poisoning-related hospitalizations in the United States have increased 26% in over the last two years that data are available.^{1,2} The National Center for Health Statistics noted over 67,000 overdose related deaths in 2018.³

Table 9. Reasons for human exposure cases.

Unintentional	Exposures	% of Total
Unintentional - general	9,242	47.6
Unintentional - therapeutic error	2,342	12.1
Unintentional - misuse	1,705	8.8
Unintentional - environmental	630	3.2
Unintentional - occupational	379	2.0
Unintentional - bite/sting	184	0.9
Unintentional - food poisoning	124	0.6
Unintentional - unknown	28	0.1
Subtotal	14,634	75.4
Intentional		
Intentional - suspected suicide	3,201	16.5
Intentional - misuse	474	2.4
Intentional - abuse	375	1.9
Intentional - unknown	77	0.4
Subtotal	4,127	21.3
Adverse Reaction		
Adverse reaction - drug	301	1.6
Adverse reaction - food	70	0.4
Adverse reaction - other	61	0.3
Subtotal	432	2.2
Unknown		
Unknown reason	121	0.6
Subtotal	121	0.6
Other		
Other - malicious	73	0.4
Other - withdrawal	14	0.1
Other - contamination/tampering	5	0.0
Subtotal	92	0.5
Total	19,406	100.0

Table 10. Management site of human exposures.

Site of management	N	%
Managed in healthcare facility		
Treated/evaluated and released	3,241	16.7
Admitted to critical care unit	1,421	7.3
Admitted to noncritical care unit	836	4.3
Admitted to psychiatric facility	606	3.1
Patient lost to follow-up/left AMA	264	1.4
Subtotal (managed in healthcare facility)	6,368	32.8
Managed on site, non-healthcare facility	12,780	65.9
Other	30	0.2
Refused referral	217	1.1
Unknown	11	0.1
Total	19,406	100.0

Similarly, the KSPCC consistently has seen an increase in the number of cases from healthcare facilities and cases with moderate or major medical outcomes. Over the last five years, calls from healthcare facilities have increased by 22% while moderate/major outcomes increased by 43%. Cases from healthcare facilities account for more than 25% of the cases reported to the KSPCC.^{4,6} While the number of deaths doubled from 7 in 2018 to 14 in 2019, this more closely reflects previous years' exposure-related fatalities with 15 and 16 deaths documented in 2016 and 2017, respectively.^{4,5}

The 2019 Kansas Poison Control Center at The University of Kansas Health System's statistics continued to mirror those seen nationally by the other 54 accredited poison control centers nationwide. In 2018, 2,530,238 encounters were logged by poison control, including 2,099,751 human exposures.⁷ Overall encounters showed a 2.96% (n = 77,175) decline from 2017 to 2018, though healthcare facility human exposure cases decreased by only 0.261% from 2017. More serious outcomes (moderate, major, or death) continued to increase. Nationwide, the five substance classes most frequently involved in adult exposures were analgesics, sedative/hypnotics/antipsychotics, antidepressants, cardiovascular drugs, and cleaning substances (household), while the top five most common exposures in children age five years or less were cosmetics/personal care products, household cleaning substances, analgesics, foreign bodies/toys/miscellaneous, and topical preparations. There were 3,111 exposure-related fatalities reported nationwide in 2018.

Several important limitations must be noted when interpreting poison center data. Reporting exposures to the KSPCC is voluntary and the KSPCC is not contacted regarding all poisonings in the state of Kansas. Furthermore, in most cases, there is no objective confirmation of exposure.

CONCLUSIONS

The 2019 KSPCC annual report demonstrated that the center received over 20,000 total calls, including more than 19,000 human exposures. While pediatric exposures remain the most common, there continues to be an increasing trend in the number of calls from healthcare facilities and for cases with serious outcomes. In this regard, the experience of the KSPCC is similar to national data. This report supported the continued value of the KSPCC to both public and acute healthcare in the state of Kansas.

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Table 11. Medical outcome of human exposure cases by patient age.

Outcome	≤ 5 years		6 - 12 years		13 - 19 years		≥ 20 years		Unknown child		Unknown adult		Unknown age		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
No effect	2,931	33.81	402	31.11	435	22.80	1,331	17.93	1	16.67	11	11.96	5	31.3	5,116	26.36
Minor effect	957	11.04	239	18.50	589	30.87	1,854	24.98	0	0.00	13	14.13	0	0.0	3,652	18.82
Moderate effect	85	0.98	42	3.25	396	20.75	1,285	17.31	0	0.00	4	4.35	1	6.3	1,813	9.34
Major effect	18	0.21	7	0.54	97	5.08	479	6.45	0	0.00	2	2.17	0	0.0	603	3.11
Death	0	0.00	0	0.00	0	0.00	14	0.19	0	0.00	0	0.00	0	0.0	14	0.07
No follow-up, nontoxic	310	3.58	30	2.32	10	0.52	20	0.27	1	16.67	2	2.17	0	0.0	373	1.92
No follow-up, minimal toxicity	4,019	46.36	518	40.09	283	14.83	1,717	23.13	2	33.33	31	33.70	3	18.8	6,573	33.87
No follow-up, potentially toxic	220	2.54	31	2.40	64	3.35	355	4.78	2	33.33	28	30.43	7	43.8	707	3.64
Unrelated effect	130	1.50	23	1.78	34	1.78	367	4.94	0	0.00	1	1.09	0	0.0	555	2.86
Death, indirect report	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.0	0	0.00
Total	8,670	100.00	1,292	100.00	1,908	100.00	7,422	100.00	6	100.00	92	100.00	16	100.00	19,406	100.00

Table 12. Medical outcome by reason for exposure in human exposures.

Outcome	Unintentional		Intentional		Other		Adverse reaction		Unknown		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Death	3	0.02	11	0.27	0	0.00	0	0.00	0	0.00	14	0.07
Death, indirect report	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Major effect	75	0.51	489	11.85	0	0.00	13	3.01	26	21.49	603	3.11
Minor effect	2,392	16.35	1,105	26.77	18	19.57	119	27.55	18	14.88	3,652	18.82
Moderate effect	483	3.30	1,253	30.36	9	9.78	41	9.49	27	22.31	1,813	9.34
No effect	4,191	28.64	871	21.10	9	9.78	31	7.18	14	11.57	5,116	26.36
No follow-up, nontoxic	364	2.49	5	0.12	1	1.09	2	0.46	1	0.83	373	1.92
No follow-up, minimal toxicity	6,288	42.97	153	3.71	19	20.65	106	24.54	7	5.79	6,573	33.87
No follow-up, potentially toxic	461	3.15	180	4.36	18	19.57	35	8.10	13	10.74	707	3.64
Unrelated effect	377	2.58	60	1.45	18	19.57	85	19.68	15	12.40	555	2.86
Total	14,634	100.00	4,127	100.00	92	100.00	432	100.00	121	100.00	19,406	100.00

Table 15. 2015 to 2019 comparison of select statistics.

	2015	2016	2017	2018	2019
Total cases	20,109	21,965	21,431	21,072	20,589
Calls from healthcare facility	4,267	4,514	4,892	5,224	5,195
Moderate or major outcomes	1,688	1,971	2,170	2,340	2,416
Deaths	13	15	16	7	14

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