



Title: Figure 1. Question Flow Diagram.

Legend: Participants were fluent English speakers or Spanish speakers (when a specialist in poison information fluent in Spanish was available) who called one of five poison control centers (PCCs) from February-September 2017. These five PCCs all used the same electronic case management system, ToxSentry®, which allows rule-based, real-time identification of eligible callers and standardized data collection (ToxSentry, Florida/Georgia Poison Center Software Consortium, 2019).

Table 1. Poison Center Calls for Solid Dose Medication Exposures Among Children Aged ≤5 Years, by Study Participation^a

Patient and Case Characteristics	Participants		Non-participants	
	n	%	n	%
Patient Age (Years)				
<1	186	4.1	122	4.4
1	1,192	26.5	706	25.6
2	1,839	40.9	1,052	38.2
3	799	17.8	531	19.3
4	323	7.2	209	7.6
5	156	3.5	125	4.5
Unspecified, ≤5 Years	1	0.0	11	0.4
Patient Gender				
Female	2,140	47.6	1,336	48.5
Male	2,338	52.0	1,402	50.9
Unspecified Gender	18	0.4	18	0.7
No. Implicated Substances				
1	4,172	92.8	2,556	92.7
2	196	4.4	127	4.6
3 or more	128	2.9	73	2.6
Exposure Site				
Own Residence	4,220	93.9	2,622	95.1
Other Residence	200	4.5	91	3.3
Other Exposure Site	57	1.3	18	0.7
Unspecified Exposure Site	19	0.4	25	0.9
Call Site				
Own Residence	3,660	81.4	1,871	67.9
Healthcare Setting ^b	573	12.7	713	25.9
Other Residence	97	2.2	33	1.2
Other Call Site	149	3.3	119	4.3
Unspecified Call Site	17	0.4	20	0.7
Medical Outcome				
No Effect	1,363	30.3	814	29.5
Minor Effect	290	6.5	184	6.7
Moderate Effect	58	1.3	64	2.3
Major Effect	8	0.2	4	0.2
Not Followed	2,769	61.6	1,684	61.1
Judged as Nontoxic	395	8.8	220	8.0
Minimal Effects Possible	2,240	49.8	1,282	46.5
Judged as Potentially Toxic	134	3.0	182	6.6
Unspecified Outcome	8	0.2	6	0.2
Total	4,496	100.0	2,756	100.0

^aData collected from February-September 2017. Categorizations based on standardized definitions of the National Poison Data System of the American Association of Poison Control Centers.

^bIncludes calls from hospitals, emergency departments, outpatient clinics, emergency medical services, and police response.

Table 3. Adjusted Odds Ratios (aORs) for Pediatric Ingestion of Prescription (vs. OTC) Medications		
	aOR (95% CI)	P Value
Patient Age (Years)		
<1	0.76 (0.41-1.4)	0.3745
1	1.02 (0.62-1.68)	0.9308
2	0.99 (0.61-1.62)	0.9798
3	1.00 (0.6-1.66)	0.9893
4	0.88 (0.5-1.56)	0.6624
5	ref	ref
Patient Gender		
Female	0.92 (0.78-1.08)	0.3013
Male	ref	ref
Type of Container		
Removed from Original Packaging	3.36 (2.85-3.97)	<.0001
In Original Packaging	ref	ref
Intended Recipient		
Grandparent	17.92 (10.57-30.38)	<.0001
Parent	4.67 (2.82-7.73)	<.0001
Another Adult	8.28 (4.73-14.49)	<.0001
Another Child	7.87 (4.49-13.79)	<.0001
Anyone in Household	**	**
Child Who Ingested the Medicine	ref	ref
Medical Outcome		
Documented Clinical Effect	3.36 (2.48-4.57)	<.0001
No Effect or Not Followed	ref	ref
Call Site		
Healthcare Setting	3.78 (2.93-4.87)	<.0001
Non-healthcare Setting	ref	ref

OTC=over-the-counter; CI=confidence interval.

**All calls involved only OTC medications.

n=3,632; Excludes cases with other/unspecified values or missing values and cases in which prescription status could not be determined or in which both a medication that is available by prescription only and a medication that is available OTC were implicated.

Table 4. Poison Center Calls for Solid Dose Medication Exposures Among Children Aged ≤5 Years, Major Effects Reported^a					
Case No.	Patient Age (Years)	Patient Gender	Implicated Medication(s)	Type of Container from which Medications Were Accessed	Intended Recipient
1	1	Female	Clonazepam	No Container	Other Recipient
2	1	Female	Clonidine	No Container	Unspecified Recipient
3	<1	Female	Methadone	Unspecified Container	Parent
4	1	Female	Morphine	Alternate Container	Other Recipient
5	1	Male	Oxycodone	No Container	Unspecified Recipient
6	1	Female	Tramadol	Unspecified Container	Grandparent
7	3	Female	Acetaminophen/Oxycodone; Acetaminophen/Hydrocodone	No Container	Grandparent
8	1	Male	Clonidine; Quetiapine; Divalproex; Methylphenidate	Alternate Container	Another Adult

^aData collected from February-September 2017.

Table 6. Adjusted Odds Ratios (aORs) for Pediatric Ingestion of Medications Which Were Removed from Original Packaging (vs. In Original Packaging)

	aOR (95% CI)	P Value
Patient Age (Years)		
<1	2.8 (1.56-5.05)	0.0006
1	1.69 (1.03-2.77)	0.0385
2	1.14 (0.7-1.86)	0.6088
3	1.15 (0.69-1.92)	0.5877
4	1.2 (0.68-2.11)	0.537
5	ref	ref
Patient Gender		
Female	1.16 (1-1.35)	0.0498
Male	ref	ref
Prescription Status		
<i>Prescription Only</i>	3.39 (2.87-4.00)	<.0001
Available OTC Only	ref	ref
Intended Recipient		
Grandparent	10.25 (5.85-17.95)	<.0001
Parent	5.08 (2.96-8.71)	<.0001
Another Adult	10.15 (5.64-18.26)	<.0001
Another Child	8.79 (4.87-15.84)	<.0001
Anyone in Household	2.85 (1.43-5.67)	0.003
Child Who Ingested the Medicine	ref	ref
Medical Outcome		
Documented Clinical Effect	0.82 (0.62-1.08)	0.1613
No Effect or Not Followed	ref	ref
Call Site		
Healthcare Setting	0.78 (0.62-0.99)	0.0423
Non-healthcare Setting	ref	ref

CI=confidence interval; OTC=over-the-counter.

n=3,632; Excludes cases with other/unspecified values or missing values and cases in which prescription status could not be determined or in which both a medication that is available by prescription only and a medication that is available OTC were implicated.

Table 7. Adjusted Odds Ratios (aORs) for Pediatric Ingestion of Prescription (vs. OTC) Medications, with Intended Recipient Categorized as Adult vs. Child

	aOR (95% CI)	P Value
Patient Age (Years)		
<1	0.93 (0.52-1.68)	0.8137
1	1.33 (0.82-2.14)	0.2481
2	1.31 (0.82-2.09)	0.2636
3	1.15 (0.7-1.88)	0.5758
4	0.98 (0.57-1.7)	0.9455
5	ref	ref
Patient Gender		
Female	0.96 (0.82-1.11)	0.5599
Male	ref	ref
Type of Container		
Removed from Original Packaging	4.25 (3.63-4.98)	<.0001
In Original Packaging	ref	ref
Intended Recipient		
Adult	1.69 (1.34-2.14)	<.0001
Child	ref	ref
Medical Outcome		
Documented Clinical Effect	3.64 (2.72-4.88)	<.0001
No Effect or Not Followed	ref	ref
Call Site		
Healthcare Setting	3.98 (3.12-5.07)	<.0001
Non-healthcare Setting	ref	ref

OTC=over-the-counter; CI=confidence interval.

n=3,459; Excludes cases with other/unspecified values or missing values, cases in which prescription status could not be determined or in which both a medication that is available by prescription only and a medication that is available OTC were implicated, and cases involving medication intended for anyone in the household.

Table 8. Adjusted Odds Ratios (aORs) for Pediatric Ingestion of Prescription (vs. OTC) Medications, with Intended Recipient Categorized as Grandparent vs. Other Recipient

	aOR (95% CI)	P Value
Patient Age (Years)		
<1	0.89 (0.49-1.6)	0.686
1	1.17 (0.73-1.88)	0.5098
2	1.14 (0.72-1.82)	0.5679
3	1.06 (0.65-1.72)	0.8242
4	0.87 (0.51-1.5)	0.6195
5	ref	ref
Patient Gender		
Female	0.94 (0.8-1.1)	0.4176
Male	ref	ref
Type of Container		
Removed from Original Packaging	4.01 (3.41-4.71)	<.0001
In Original Packaging	ref	ref
Intended Recipient		
Grandparent	3.99 (3.26-4.87)	<.0001
Other Recipient	ref	ref
Medical Outcome		
Documented Clinical Effect	3.59 (2.68-4.81)	<.0001
No Effect or Not Followed	ref	ref
Call Site		
Healthcare Setting	3.57 (2.8-4.54)	<.0001
Non-healthcare Setting	ref	ref

OTC=over-the-counter; CI=confidence interval.

n=3,632; Excludes cases with other/unspecified values or missing values and cases in which prescription status could not be determined or in which both a medication that is available by prescription only and a medication that is available OTC were implicated.

Table 9. Adjusted Odds Ratios (aORs) for Pediatric Ingestion of Medications Which Were Transferred to Alternate Containers (vs. Not Transferred to Alternate Containers)

	aOR (95% CI)	P Value
Patient Age (Years)		
<1	0.39 (0.13-1.14)	0.0854
1	0.79 (0.37-1.72)	0.5549
2	1.24 (0.58-2.64)	0.5743
3	1.27 (0.58-2.77)	0.5549
4	1.01 (0.42-2.43)	0.9781
5	ref	ref
Patient Gender		
Female	1.19 (0.95-1.49)	0.1241
Male	ref	ref
Prescription Status		
Prescription Only	2.7 (2.1-3.47)	<.0001
Available OTC Only	ref	ref
Intended Recipient		
Grandparent	2.63 (2.02-3.42)	<.0001
Parent	ref	ref
Another Adult	1.76 (1.2-2.58)	0.004
Another Child	0.91 (0.56-1.48)	0.6995
Anyone in Household	0.32 (0.1-1.02)	0.0536
Child Who Ingested the Medicine	0.36 (0.17-0.8)	0.0112
Medical Outcome		
Documented Clinical Effect	0.84 (0.57-1.25)	0.3901
No Effect or Not Followed	ref	ref
Call Site		
Healthcare Setting	1.13 (0.82-1.55)	0.4498
Non-healthcare Setting	ref	ref

CI=confidence interval; OTC=over-the-counter.

n=3,632; Excludes cases with other/unspecified values or missing values and cases in which prescription status could not be determined or in which both a medication that is available by prescription only and a medication that is available OTC were implicated.

Table 10. Reasons Why Medications Had Been Removed From Original Packaging Prior to Solid Dose Medication Exposures Among Children Aged ≤5 Years, By Intended Recipient^a

Reasons Medications Removed From Original Container/Packaging	Intended Recipient									
	Parent		Grandparent		Another Adult		Child ^b		Other/Unspecified Recipient	
	n	%	n	%	n	%	n	%	n	%
Transferred To Alternate Container										
To remember to take it	66	36.5	99	56.3	18	36.7	6	18.8	16	31.4
To make it easier to travel with it	62	34.3	19	10.8	8	16.3	15	46.9	16	31.4
Another reason	12	6.6	8	4.6	4	8.2	3	9.4	2	3.9
Unspecified reason	41	22.7	50	28.4	19	38.8	8	25.0	17	33.3
Total Transferred	181	100.0	176	100.0	49	100.0	32	100.0	51	100.0
Not In Any Container										
Accidentally dropped or left out	166	38.0	106	50.2	53	50.0	21	20.4	80	53.7
Someone was getting ready to take it	150	34.3	59	28.0	25	23.6	67	65.1	36	24.2
Another reason	73	16.7	21	10.0	17	16.0	13	12.6	8	5.4
Unspecified reason	48	11.0	25	11.9	11	10.4	2	1.9	25	16.8
Total Not In Any Container	437	100.0	211	100.0	106	100.0	103	100	149	100.0

^aData collected from February-September 2017.

^bIncludes medications intended for the child who ingested the medicine and those intended for another child.