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## Agents of Exposure in Transgender Patient Cases Managed by a Toxicologist: An Analysis of the Toxicology Investigator's Consortium (ToxIC) Registry

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# Agents of Exposure in Transgender Patient Cases Managed by a Toxicologist: An Analysis of the Toxicology Investigator's Consortium (ToxIC) Registry

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### Introduction

- 2010: Toxicology Investigators Consortium (ToxIC) database was created by the American College of Medical Toxicology (ACMT) to compile data recorded by medical toxicologists.
- Emergency Medicine (EM) researchers convened at the Academic Emergency Medicine's 2014 Consensus Conference "Gender Specific Research in Emergency Care" to develop a sex- and genderbased medicine agenda.
  - Serves to guide emergency care research into the expanding influence that sex and gender have on the delivery of clinical care, healthcare utilization, disease presentation, and treatment responses and outcomes
- This study informs and contributes to the ongoing effort in the field of EM to study the effect that sex and gender have on patient care and outcomes.
- January of 2017: the data field for transgender was added to the ToxIC form.
- Little is currently known regarding trends in poisonings within the transgender community, and information in this area could be beneficial for developing future poisoning prevention practices.

## Problem Statement

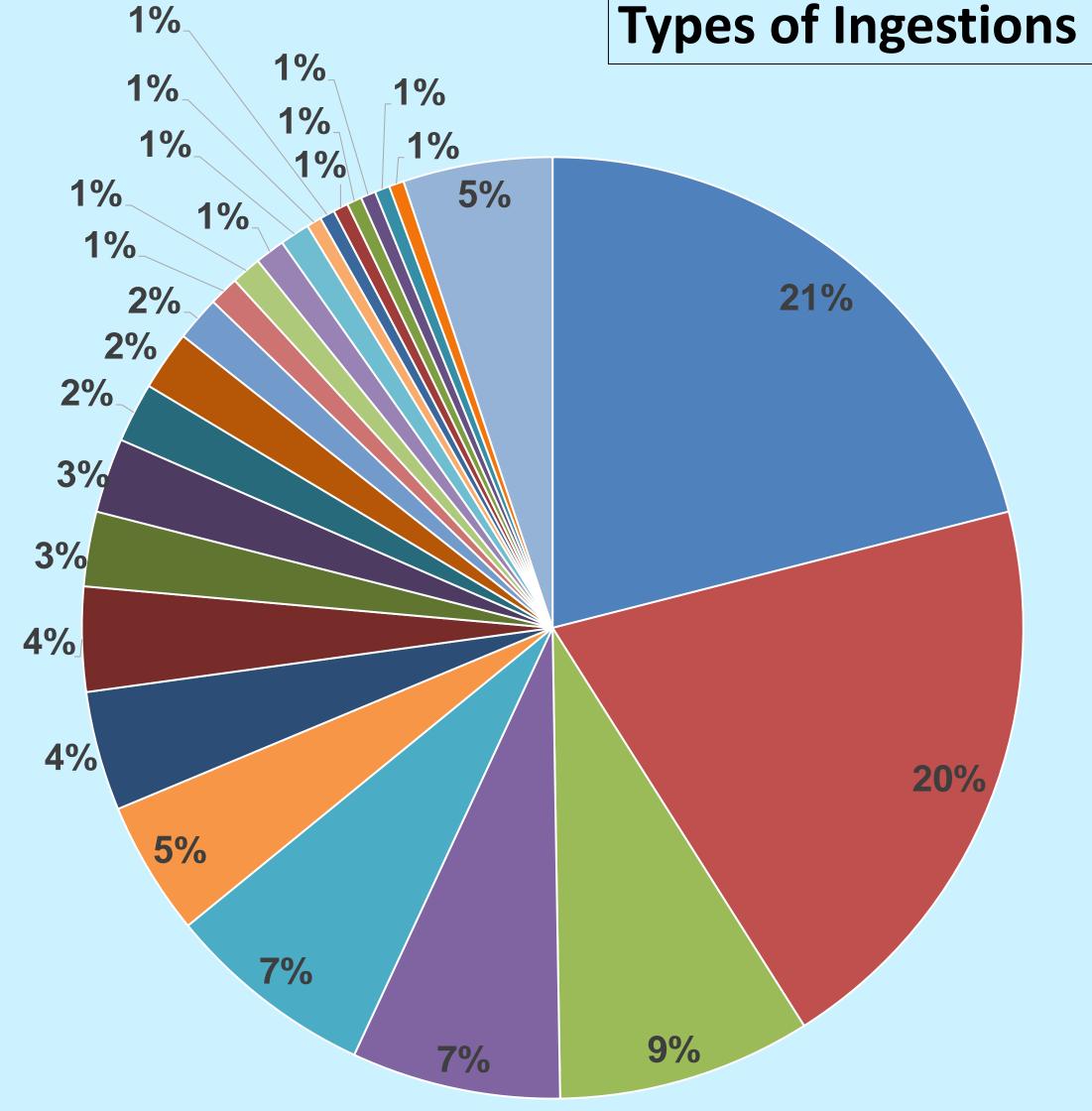
We set out to review medical encounters managed by a medical toxicologist and provide descriptive data in trends among types of exposures within the transgender demographic.

### Methods

- The ACMT ToxIC group maintains a prospective case registry of all patients that have been managed at the bedside by medical toxicologists from 38 consulting groups covering 69 different institutions in the US, Canada and Israel.
- The ToxIC Registry provided a retrospective, deidentified data set for analysis of the research question.
- Data in the ToxIC Registry was been stripped of all identifying data and cannot be linked back to the subjects from which it was originally collected through any means.
- A retrospective ToxIC database review of deidentified transgender cases including descriptive demographics was performed for all cases between January 2017 and December 2020.
- **Inclusion Criteria:** 
  - All transgender patient cases submitted to the ACMT ToxIC database between January 2017 and December 2020
- **Exclusion Criteria:** 
  - All cases in which the patient was not identified as transgender

## Results (N=195)

Gender	Frequency (n)	Ethnicity	Frequency (n)	Age	Frequency (n)
Female to Male	61.5% (120)	Latino/Hispanic	7.2% (14)	7-12 years	3.1% (6)
Male to Female	32.8% (64)	Not Latino/Hispanic	62.6% (122)	13-18 years	49.7% (97)
Gender Non- Conforming	5.6% (11)	Unknown	30.2% (59)	19-65 years	46.2% (90)
				66-89 years	1% (2)
	Race		Frequency (n)		
	Caucasian		63.1% (123)		
	Black/African American		6.2% (12)		
	Asian Mixed Race		3.6% (7)		
			2% (4)		
	American Indian/Alaskan Native		1% (2)		
	Native Hawaiian or Pacific Islander		0.5% (1)		
	Unknown		23.6% (46)		



- Analgesics
- Antidepressants
- Anti-cholinergic/Anti-histamines
- Antipsychotics
- Anticonvulsants/Mood stabilizers
- Cardiovascular Medications
- Opioids
- Ethanol
- Sympathomimetics
- Houshold Substances Cough and Cold
- Sedative/Hypnotic/Muscle Relaxants Other Pharmaceuticals
- Psychoactive Substances
- Diabetic Medications
- Caustic Ingestions Toxic Alcohols
- Metals
- Herbals/Dietary supplements/Vitamins
- GI Medications
- Envenomations
- **■** Chemotherapeutic/Immune medications
- Antimicrobials
- Anticoagulants
- Unknown

# Conclusions

- Among transgender patients with poisonings reported to the ToxIC registry, the majority were adolescent Caucasians who ingested either analgesic or psychotropic medications.
- These data may be helpful to develop poisoning prevention practices in this vulnerable population.
- Limitations of this study include:
  - Data is collected by the toxicologists treating the patients rather than the patients themselves.
    - This could influence subjective components of demographic data.
  - The data is from 69 different institutions across 3 countries and may not be representative of the global population.
  - Data forms may not be completed in their entirety for every transgender patient who presents to the Emergency Department with a toxic ingestion even at the 69 participating institutions.
- Further studies could investigate the interventions provided by toxicologists and the outcomes of the toxic ingestions in the transgender population.
- Beyond the need to fill gaps in sex and gender research in EM, the clinical practice of EM still faces gaps in the integration of sex and gender aspects of patient assessment and treatment.
- This study is particularly relevant to the SELECT competency of Values Based Patient Centered Care.
  - Determined baseline data to understand gaps in equitable care.
  - Exploring differences related to toxic ingestions that exist in this vulnerable and often marginalized population can contribute to resolving disparities in treatment.
- Self-Directed Learning was critical throughout this process.
  - Self-Assessment via reflection on personal strengths and weaknesses related to the research process.
  - Searching for and critically appraising literature relevant to the content of the study.

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