# THE DEMOGRAPHIC, CLINICAL AND PSYCHOSOCIAL PROFILE OF PEDIATRIC ACUTE POISONING CASES IN A TERTIARY HOSPITAL, A FIVE YEAR RETROSPECTIVE STUDY


## Rochelle R. Pamaran, MD

### Baguio General Hospital and Medical Center (BGHMC), Baguio City, Philippines


## Introduction

Acute poisoning is a major cause of morbidity and mortality worldwide and this represents a major public health threat particularly in children and accounts for 3% of hospital referrals with continuous increasing incidence. In 2015, there were 244 poisoning cases seen and admitted in BGHMC, a tertiary hospital that caters to referrals from around Northern Philippines, among of which 28% were of the pediatric age group with a case fatality rate for all age group of 3.28%. Conducting a study on the demographic, clinical and psychosocial profile of pediatric acute poisoning cases will help formulate recommendations to policy makers to strengthen existing rules and regulations in the usage distribution and marketing of commonly encountered toxicants considering the advancement in innovations in drug therapy and chemical usage in the homes and the environment.

## Aim / Objective

To determine the profile of acute poisoning cases in the pediatric population in a tertiary hospital from 2012 to 2016

## Materials & Methods

The study is a retrospective cross-sectional study on acute poisoning cases among the pediatric population. Review of hospital records was done upon approval of Ethics Review Board. Random sampling was done. Data was analyzed using Epi Info. Chi Square tool was used for data analysis.

## Results & Discussion

☐ Among the sample size of 128, majority were 15 to 18 years old. Females were more affected than males. Most of the cases were from Baguio City & Benguet, Philippines , an agriculture-based in economy.
☐ A greater number of the cases had Intentional Poisoning (54%) with 15 to 18 years old age group and females being more affected. Most patients who had intentional poisoning were diagnosed to have adjustment disorder with depress mood. Unintentional/accidental poisoning was observed more among children aged 1 to 9 years old.
☐ Most of the cases had medical social work classification C3 and D and they represent the population with lower socio-economic status.
☐ The agents more commonly ingested were over the counter drugs, organophosphates, caustic chemicals, and herbicides. Most cases presented w/ gastrointestinal symptoms followed by neurologic & generalized signs & symptoms. There were three mortalities, one from nitrite poisoning and 2 from paraquat poisoning (banned herbicide)
☐ The association of age, sex and medical social classification with the nature of incident as well as the association of time interval to hospitalization is not statistically significant, but percentage shows a remarkable difference in the number of cases. The total number of 211 is higher by 35% compared to previous study in 1997 to 2002.

## Conclusion

Acute poisoning is indeed one of the health problems at present because of the increasing availability of toxic agents as product of modern innovations in pharmacotherapy and chemical use in the environment. It is recommended to concerned agencies to strengthen existing rules and regulations in usage, distribution and marketing of commonly encountered toxicants especially those that caused mortality, including those that are banned.

## Tables

**TABLE 1: CLINICAL PROFILE OF ACUTE POISONING CASES**

| CLINICAL PROFILE OF ACUTE POISONING CASES | No | % |
|---|---|---|
| A. Nature of Incident | | |
| Intentional | 69 | 53.9 |
| Unintentional | 59 | 46.0 |
| B. Type of Poisoning Agent (Top 10) | | |
| Drug (Mefenamic Acid, Neozep, Paracetamol, Acetaminophen, FeSO4, Antacid, Phenobarbital, Neozep, Ibuprofen, Aspirin, Amlodipine, Metformin, and Tramadol, salicylate) | 28 | 21.9 |
| Caustic (Muriatic Acid, Hydrochloric acid, Liquid Sosa, Tile cleanser, Sodium hypochlorite, zonrox, clorox, bleach) | 16 | 12.5 |
| Food | 16 | 12.5 |
| Organophosphate | 16 | 12.5 |
| Hydrocarbon (Kerosene and Paint thinner) | 12 | 9.4 |
| Herbicide (Paraquat- 8, glyphosate) | 10 | 7.8 |
| Mushroom | 6 | 4.7 |
| Rodenticide | 4 | 3.1 |
| Cyanide | 3 | 2.3 |
| Naphthalene Ball | 3 | 2.3 |

**TABLE 2: TYPE OF AGENT INTENTIONALLY INGESTED**

| TYPE OF AGENT | No | % |
|---|---|---|
| Drug | 26 | 37.6 |
| Organophosphate | 14 | 20.2 |
| Caustic | 11 | 15.9 |
| Herbicide | 9 | 13.0 |
| Cyanide | 2 | 2.9 |
| Fungicide | 2 | 2.9 |
| Rodenticide | 2 | 2.9 |
| Dietary Supplement | 1 | 1.4 |
| Glutathione | 1 | 1.4 |
| Isopropyl alcohol | 1 | 1.4 |


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