[ID-P#023] Clinical Profile and Management Outcomes of Patients Referred to the UP-PGH National Poison Management and Control Center (NPMCC) for Methamphetamine Toxicity from January 1,2015 to December 31, 2018

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Background: The Philippines has been identified as having a methamphetamine (MAP) abuse rate of 2.1%, making it the highest among countries in East Asia. Abusers ranged from 15 to 64 years old. A structured survey showed almost similar reasons for using the drug, which include giving them strength, confidence and helping them perform many income generating activities. The reported profiles of patients with methamphetamine abuse include: individuals engaging in risky behaviors, family history of drug use, single, male, unemployed, cigarette smoker, alcoholic beverage drinker, marijuana user and Individuals with comorbidity of personality disorder. The University of the Philippines-Philippine General Hospital, National Poison Management and Control Center (UP-PGH NPMCC) annual census reports revealed methamphetamine as one of the top agents of poisoning among adult population. This study aims to determine the clinical profile and management outcomes of urine MAP positive patients referred to NPMCC from 2015 to 2018.

Methodology: A retrospective cross-sectional study was done. All cases referred to UP-PGH, NPMCC with positive bedside urine drug screen result from January 1, 2015 to December 31, 2018 were included. Records review was conducted to determine the sociodemographic and clinical profiles. Treatment outcomes were compared using Chi-square, ANOVA and T-test.

Results: A total of 426 cases matched the inclusion criteria from the 721 cases referred to UP-NPMCC for methamphetamine toxicity – Figure 1. Eighty-five percent of 426 cases were males, single (51%), high school level (21%), and had blue collar jobs (41%). Age ranged from 0 to 63 years old (median= 37 years). The most affected age group were 26 to 40 years old. Seventy-eight percent were current smokers, 57% were occasional alcoholic beverage drinkers, 9% had history of marijuana use, and 28% were chronic methamphetamine users for more than 10 years. The predominant chief complaints were difficulty of breathing (15%), chest pain (10%), behavioral change (10%) and left or right-sided weakness (9%). Most of the effects of methamphetamine intoxication were still observable even up to 120 hours from last methamphetamine use. Most cases were noted to have moderate methamphetamine intoxication (through MAP hyperactivity rating scale which is +2 and +3).

A subgroup analysis (using T-test Two-Sample Assuming Unequal Variances) of patients (n=125) that consulted within the first day after MAP exposure was studied. The group with intervention [Multiple Dose Activated Charcoal (MDAC) + Ascorbic acid] had a shorter mean number of days to achieve a negative urine MAP test with a significant difference at a p-value of 0.01. Death is highest (almost 10% of 125 cases) at the first day of MAP exposure and most of the underlying cause are intracerebral bleed and cardiogenic shock from decompensated chronic heart disease.

Conclusion: The incidence of death was better for those with MDAC and ascorbic acid detoxification (for enhancing elimination) and diazepam (for sedation and control of agitation) intervention compared to those patients who were not given intervention.