## Achieving Equitable Health Care Outcomes in Cannabis Hyperemesis Syndrome

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## **Brief background:**

Cannabis hyperemesis syndrome (CHS) is a common cannabis-related presentation to the ED. Since the identification of CHS in 2004, prevalence in the pediatric population has increased from 2.3 to 13.3 per 100,000 ED visits annually in the US. Within NYP-Morgan Stanley Children's Hospital, in ages 12-24 there have been 32 cases coded as CHS in the last 12 months (2020-2021), which is likely an underestimate given the variability in coding this disorder, provider knowledge, and heterogeneity of presentation. Furthermore, the role of health equity in the outcomes of CHS is not well documented, though access to treatment of cannabis use disorders for marginalized communities is well appreciated.

#### Aims:

Hypothesis #1: Patient time to diagnosis, treatment plans, and outcomes will differ based on demographics – and thus will portray a need to create a standardized and equitable approach to the diagnosis, management, and follow-up for CHS.

Hypothesis #2: other than specialists or providers who have specifically worked with patients with CHS, there will be little knowledge, several inherent biases, and practices that are not aligned with evidence-based care.

Hypothesis #3: multi-modal educational modules will be well-received by learners of all levels.

Hypothesis #4: Provider knowledge will improve and attitudes towards CHS and practices will be less biased and more standardized after education about CHS.

# Methodology:

We will be evaluating clinical characteristics, demographic variables, medical interventions, and care outcomes for adolescents who were seen in the MSCH ED and then admitted to the inpatient side for CHS from 2020-2021 via a chart review. Selection criteria will include those who had a diagnosis of CHS at discharge.

We will be assessing the baseline knowledge of providers at various levels via a questionnaire. Then we will create and deliver educational modules about the diagnosis and treatment of CHS for students, residents, fellows, and faculty. Lastly, we will compare provider knowledge, attitudes, and practices after education about CHS to baseline data via a post-education questionnaire. Participant data will be deidentified, and a chi-square analysis will be done to compare each individual's pre and post –education questionnaire.

## **Goals:**

Create and implement an evidence-based clinical pathway for the management and treatment of CHS.

### References

Shen, J.J., et al., Trends and Related Factors of Cannabis-Associated Emergency Department Visits in the United States: 2006-2014. J Addict Med, 2019. 13(3): p. 193-200.

Wang, G.S., et al., Marijuana exposures in Colorado, reported to regional poison centre, 2000-2018. Inj Prev, 2020. 26(2): p. 184-186.

Whitehill, J.M., et al., Incidence of Pediatric Cannabis Exposure Among Children and Teenagers Aged 0 to 19 Years Before and After Medical Marijuana Legalization in Massachusetts. JAMA Netw Open, 2019. 2(8): p. e199456.

Administration, S.A.a.M.H.S., Key substance use and mental health indicators in the United States: Results from the 2018 National Survey on Drug Use and Health. 2019, Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration: Rockville, MD.

Bollom, A., et al., Emergency Department Burden of Nausea and Vomiting Associated With Cannabis Use Disorder: US Trends From 2006 to 2013. J Clin Gastroenterol, 2018. 52(9): p. 778-783.

Alegria, M., et al., Disparities in treatment for substance use disorders and co-occurring disorders for ethnic/racial minority youth. J Am Acad Child Adolesc Psychiatry, 2011. 50(1): p. 22-31.

Saloner, B., N. Carson, and B. Le Cook, Explaining racial/ethnic differences in adolescent substance abuse treatment completion in the United States: a decomposition analysis. J Adolesc Health, 2014. 54(6): p. 646-53.

Austin A, W.E., Correlates of treatment retention among multi-ethnic youth with substance use problems: initial examination of ethnic group differences. Journal of Child and Adolescent Substance Abuse, 2006. 15(3): p. 105-128.