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Use of clozapine for the management of treatment-resistant aggression in an adolescent with fetal alcohol spectrum disorder: A case report and framework

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Background

- FASD is a common neurodevelopmental condition
- Aggression can be a significant clinical challenge
- Evidence supporting pharmacological management is limited
- Clozapine may be an option in selected cases of treatment-resistant aggression

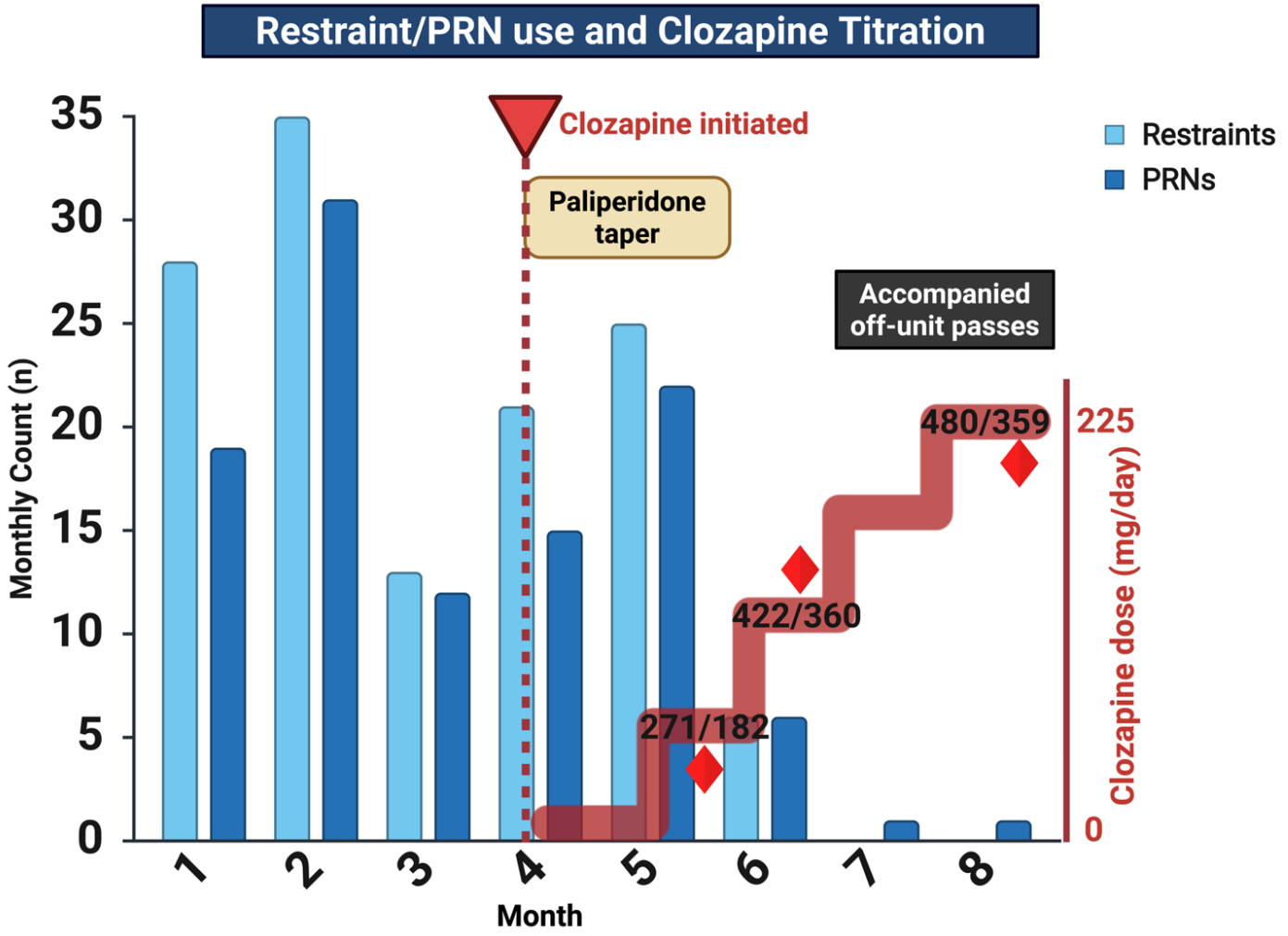
Objectives

- Identify current pharmacological options for managing aggression in FASD.
- Describe considerations for operationalizing treatment-resistant aggression in FASD
- Discuss key considerations for Pediatric clozapine use including dose-titration, and adverse-effect monitoring

Case Presentation

- Pediatric patient diagnosed with FASD
- Severe persistent aggression requiring multiple prolonged inpatient hospitalizations
- Behavioural interventions and multiple psychotropics trialed
- Significant safety concerns requiring frequent restraint and PRN medications

Treatment Course



Discussion – Evidence Gap & Clozapine

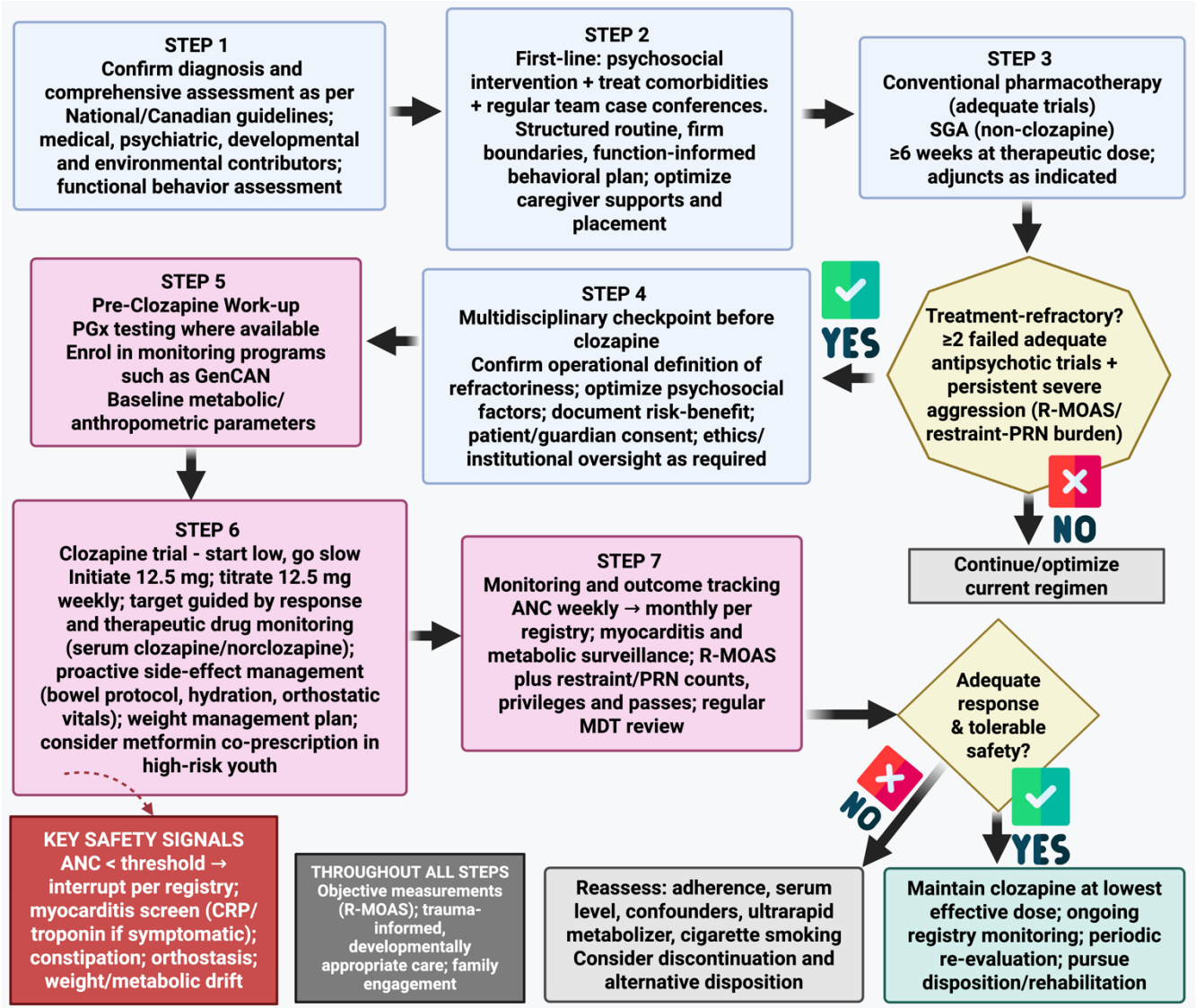
Evidence Gap:

- Guiding pharmacological management of severe aggression in FASD
- Frameworks don't define treatment-resistant aggression or a pathway to clozapine

Clinical Implications:

- Clozapine has demonstrable anti-aggression effects in neurodevelopmental and psychiatric disorders
- May warrant use in carefully selected individuals following inadequate response to conventional treatment

Proposed Clozapine Framework

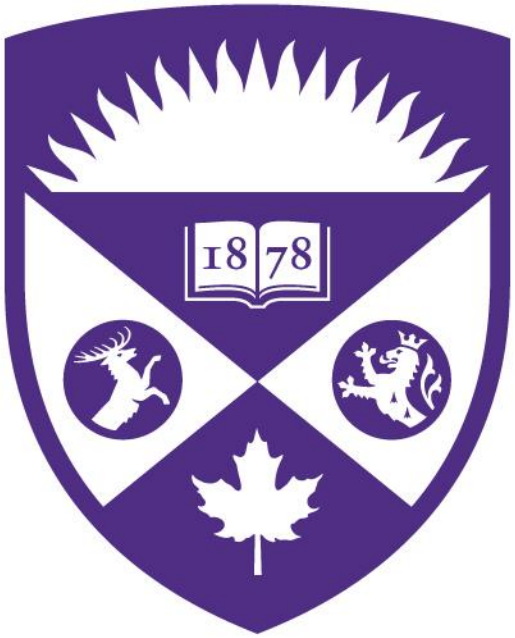


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Selected References

- Lange S, Probst C, Gmel G, Rehm J, Burd L, Popova S. Global Prevalence of Fetal Alcohol Spectrum Disorder Among Children and Youth: A Systematic Review and Meta-analysis. JAMA Pediatr. 2017 Oct 1;171(10):948–56. doi:10.1001/jamapediatrics.2017.1919
- Wrath AJ, Mela M, Le T, Durr M, DesRoches A, Nomani S, et al. Psychotropic medication usage in individuals with Fetal Alcohol Spectrum Disorder (FASD) and Psychiatric co-morbidities in Canada. J Fetal Alcohol Spectr Disord. 2022;4(SP1):e70–90. doi:10.22374/jfasd.v4iSP1.21
- Popova S, Lange S, Shield K, Mihic A, Chudley AE, Mukherjee RAS, et al. Comorbidity of fetal alcohol spectrum disorder: a systematic review and meta-analysis. The Lancet. 2016 Mar 5;387(10022):978–87. doi:10.1016/S0140-6736(15)01345-8
- Mela M, Okpalauwaekwe U, Anderson T, Eng J, Nomani S, Ahmed A, et al. The utility of psychotropic drugs on patients with Fetal Alcohol Spectrum Disorder (FASD): a systematic review. Psychiatry Clin Psychopharmacol. 2018 Oct 2;28(4):436–45. doi:10.1080/24750573.2018.1458429
- Mela M, Hanlon-Dearman A, Ahmed AG, Rich SD, Densmore R, Reid D, et al. Treatment algorithm for the use of psychopharmacological agents in individuals prenatally exposed to alcohol and/or with diagnosis of fetal alcohol spectrum disorder (FASD). J Popul Ther Clin Pharmacol. 2020 Jul 16;27(3):e1–13. doi:10.15586/jptcp.v27i3.681
- Durr MRR, Petryk S, Mela M, DesRoches A, Wekerle M, Newaz S. Utilization of psychotropic medications in children with FASD: a retrospective review. BMC Pediatr. 2021 Nov 16;21:512. doi:10.1186/s12887-021-02986-5 PubMed PMID: 34784904; PubMed Central PMCID: PMC8594190.
- Howes OD, McCutcheon R, Agid O, De Bartolomeis A, Van Beveren NJM, Birnbaum ML, et al. Treatment-Resistant Schizophrenia: Treatment Response and Resistance in Psychosis (TRRIP) Working Group Consensus Guidelines on Diagnosis and Terminology. Am J Psychiatry. 2017 Mar;174(3):216–29. doi:10.1176/appi.ajp.2016.16050503



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