## TeleSCOPE: A Real-World Study of Telehealth for the Detection and Treatment of Drug-Induced Movement Disorders

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## Abstract

**Introduction.** As a result of COVID-19, patients and clinicians rapidly shifted to telehealth. An observational survey study, Real-World Tele-Health Evaluation of Tardive Dyskinesia (TD) Symptoms Communication/Observation Procedure Evaluation in Outpatient Clinical Settings (TeleSCOPE), was conducted to better understand how this shift affected the evaluation of drug-induced movement disorders (DIMDs), including TD.

**Methods.** Twenty-minute online quantitative surveys were conducted with neurology and psychiatry specialists (physicians and advanced practice providers) who met the following criteria: ≥3 years of practice with ≥70% of time spent in a clinic; prescribed a vesicular monoamine transporter 2 (VMAT2) inhibitor or benztropine for DIMD at least once in the past 6 months; and conducted telehealth visits with ≥15% of their patients from December 2020 to January 2021.

**Results.** Respondents included 277 clinicians (neurology = 109, psychiatry = 168). Telehealth visits increased after COVID-19, with significantly greater increases in psychiatry vs neurology: phone (38% vs 21%); video (49% vs 42%). Across both specialties, top drivers/prompts for further DIMD evaluation were as follows: mention of tics or movements by family members or others (86%); trouble with gait, falls, walking, or standing (82%); difficulty swallowing or eating (74%); and difficulty writing, using phone, computer (71%). However, in the 6 months prior to June 2021, virtual evaluation, diagnosis, and monitoring of patients were challenging. For both specialties, many at-risk patients (ie, taking a dopamine receptor blocking agent) were not evaluated for DIMDs via video-based visits (psychiatry = 45%, neurology = 70%) or phone-only visits (psychiatry = 76\%, neurology = 91%). Clinicians listed evaluation of gait/falls/walking/ standing as the most challenging aspect of virtual assessment for phone-only visits (psychiatry = 53%, neurology = 57%) and video-based visits (psychiatry = 26%, neurology = 31%). Additional challenges included limited access to computers, insufficient training for clinicians and staff, and greater difficulty obtaining reimbursements (especially for complex telehealth visits). Patients without a participating caregiver, along with lower functioning patients, were at the highest risk of a missed DIMD diagnosis.

**Conclusions.** During the COVID-19 pandemic, telehealth significantly reduced clinicians' ability or willingness to evaluate, diagnose, and monitor DIMDs. Clinicians stated multiple factors increased the risk of a missed or incorrect diagnosis. Challenges to optimal telehealth effectiveness included lack of patient access to computers, need for more clinician/staff training, lack of awareness of coverage, need for sufficient fee reimbursement. In-person evaluation continues to be the gold standard for assessing and treating DIMDs. However, if telehealth is necessary, the use of specific questions and directions is recommended for better communication and more accurate assessments. **Funding.** Neurocrine Biosciences, Inc.

## Incarceration: An Unrecognized Public Health Crisis

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## Abstract

**Background.** The current study involved decades of research and a Systematic Literature Review.

**Methods.** Six hundred and seventy-two former prisoners were interviewed, shortly upon release from incarceration. Multiple variables experienced while incarcerated were reviewed. Animal models around overcrowding and sustained levels of stress were also considered. The neurological underpinnings and relatedness to the concept of hypervigilance, thought to be an effective survival technique and PTSD were comprehensively researched. Hypervigilance is a well-regarded survival technique that is likened to the marine in a forward foxhole who hears a twig snap in the middle of the night and responds directly and decisively. The loading placed on the neuronal pathways and related brain regions is seen as a precursor to PTSD and otherwise burdensome to the overstimulated nervous system attempting to maintain an emotional equilibrium.

**Results.** A particular area of inquiry was around the presence of early parental/adult absence, recognized as a precursor to Complex PTSD (see World Health Organization ICD 11). But not delineated in DSM 5 (American Psychiatric Association). Significant rates of PTSD symptoms were identified in individuals experiencing early developmental trauma. All subjects met the criteria for Subthreshold PTSD at a minimum, and others (193) Posttraumatic Stress Disorder. Complex PTSD was descriptive of the findings of 179 of 193 subjects diagnosed with PTSD. These findings suggest that preexisting subthreshold Complex PTSD prior to incarceration predicts the development of Complex PTSD while incarcerated.

**Conclusion.** The social cost of American Corrections incubates PTSD and subthreshold PTSD, releasing to society individuals more at risk to themselves and society than prior to the Correctional experience is incalculable. A philosophical reconsideration