Nurse-Led Screening of Movement Disorders in Inpatient Psychiatry

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Background

Dopamine receptor blocking agents (DRBAs) are frequently prescribed to treat psychosis or augment medications used for mood, and they do so successfully. For patients taking DRBAs, movement disorders such as tardive dyskinesia (TD), akathisia, dystonic reaction, and drug-induced Parkinsonism (DIP) can collectively affect up to a third of patients over their lifetime, depending on the class of medication selected, and modifiable and non-modifiable risk factors. If ignored, abnormal movements can result in substantial reductions in quality of life, contribute to medication nonadherence, and break trust with healthcare clinicians.

Aims of the Project

Periodic screening for movement disorders and education of patients about side effects is key to preventing, recognizing, and minimizing side effects of DRBAs. The Abnormal Involuntary Movement Scale (AIMS) is an evidence-based screening tool nurses can incorporate into the workflow. As nurses screen patients, they can educate about movement disorders, and communicate findings to providers.

Using the IHI Model for Improvement:

1. More than 90% of psychiatric nurses will participate in competency training to acquire skills necessary to screen, recognize movement disorders, communicate pertinent findings, and educate patients about DRBA side effects.
2. At admission and within one week prior to discharge, psychiatric nurses, with the support of rounds nurses, will screen and educate more than 80% of patients taking DRBAs.

Intervention Description

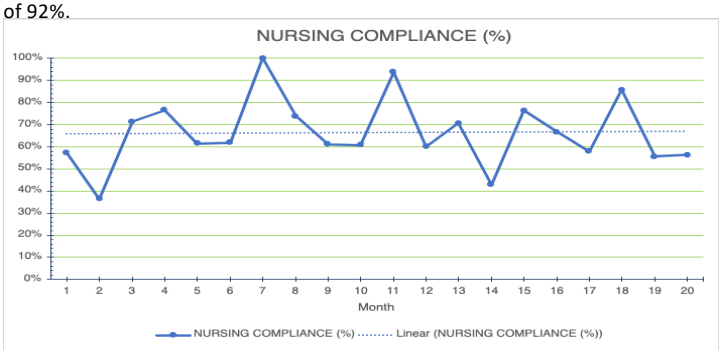
1. In April 2020, nurses were trained, tested, and coached on use of the AIMS to screen for tardive dyskinesia. In July 2021, training was expanded to include screening for other common movement disorders (akathisia, drug-induced parkinsonism, and dystonic reaction). Day shift nurses who were employed after July 2021 were trained individually as part of orientation.
2. Patients taking DRBAs were screened at admission and again prior to discharge. Patient education was included during final screen.

Data Collection and Analysis

Retrospective clinical documentation and competency audits were conducted monthly for a 20-month period, from September 2020 to May 2022. Process measures included 1) percentage of unit nurses who completed competency training (checked biannually; cumulative total of 34/37 nurses trained), and 2) percentage of patients discharged on a DRBA (356 total) with at least one AIMS screening completed within one week of discharge.

Outcomes Measures or Results

Over a 20-month period, in which nurses first began using a new screening tool, compliance with AIMS screening rose to 66% and remained steady over the duration of the project. During biannual audits of core nursing staff and unit orientation of new hires, the unit maintained an overall nurse competency of 92%.



Discussion

Several factors affect nurse compliance with screening scales, particularly low frequency tasks. They include patient willingness, rushed discharge, unavailability of electronic order sets or "Brain" prompts, and missed opportunities during nurse huddles to cue the need for screening and education. While this unit did not reach its goal of 80%, it represents an important developing norm. Midway through the project, this unit expanded training to include screening for all common drug-induced movement disorders. Although the AIMS is specific to tardive dyskinesia, it engages the nurse in focused assessment of overall movement, and this has enriched discussion within the multidisciplinary team about treatment optimization. Some nurses expressed hesitancy about educating patients on movement disorders, out of a concern this would add to medication nonadherence. A video education module is currently in development to formally become part of the orientation process. It includes guidance on the use of motivational interviewing and teach-back to enhance partnership with patients.

References

Carbon, M., Kane, J. M., Leucht, S., & Correll, C. U. (2018). Tardive dyskinesia risk with first- and second-generation antipsychotics in comparative randomized controlled trials: a meta-analysis. *World Psychiatry, 17*(3), 330 340. https://doi.org/10.1002/wps.20579

Musco, S., McAllister, V., & Caudle, I. (2020). Dopamine-receptor blocking agent-associated akathisia: A summary of current understanding and proposal for a rational approach to treatment. *Therapeutic Advances in Psychopharmacology, 10,* 204512532093757. https://doi.org/10.1177/2045125320937575

Rekhi, G., Tay, J., & Lee, J. (2022). Impact of drug-induced Parkinsonism and tardive dyskinesia on health-related quality of life in schizophrenia. *Journal of Psychopharmacology, 36*(2), 183 190. https://doi.org/10.1177/02698811211055812