

Use of PSYCKES Contributes to Significant Reductions in Antipsychotic Polypharmacy

The following is an extract of:

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Bottom Line:

- After implementation of PSYCKES, South Beach Psychiatric Center experienced a 33% reduction in overall rates of antipsychotic polypharmacy.
- Reductions in overall rates of antipsychotic polypharmacy were significant, as were reductions in percentages of psychiatrists' caseloads on two or more concurrent antipsychotics.
- Psychiatrists whose caseloads at baseline had higher percentages of patients on antipsychotic polypharmacy achieved significantly greater reductions.
- PSYCKES, when combined with a quality improvement effort, was effective in facilitating the reduction of antipsychotic polypharmacy among inpatients.

To facilitate medication treatment review and promote Best Practices, the New York State Office of Mental Health developed the Psychiatric Services and Clinical Knowledge Enhancement System (PSYCKES). PSYCKES was initially implemented in NYS inpatient mental health hospitals. This paper looks at the implementation of PSYCKES at South Beach Psychiatric Center (SBPC), an inpatient mental health facility located in Staten Island, NY. PSYCKES contributed to significant reductions in overall rates of antipsychotic polypharmacy at SBPC. Psychiatrists whose caseloads at baseline had higher percentages of antipsychotic polypharmacy showed significantly greater reductions of their caseloads on two or more concurrent antipsychotics. These results suggest that the use of PSYCKES, when combined with a quality improvement effort, is effective in reducing antipsychotic polypharmacy among inpatients.

Study Background

PSYCKES was implemented at SBPC beginning in January, 2004. Training involved individual and classroom sessions, with an initial, intensive training period in the first six months. One-on-one training was also conducted at each psychiatrist's work station. Two senior supervising psychiatrists provided clinical supervision. A designated clinical applications specialist provided technical support. The purpose of this study was to determine if the PSYCKES implementation met one of its primary goals: reducing the percent of caseloads and overall number of patients on two or more antipsychotics.

Study Details

This study was conducted from January 2004 to March 2005. The sample consisted of 134 patients at the study's initiation and 295 patients at its conclusion. PSYCKES quality indicators were used to evaluate the numbers and drug classes of prescribed medications at psychiatrist, ward and facility levels. The analyses were focused at two levels: the percentage of psychiatrist caseloads that had regimen changes, and the overall number of patients who had regimen changes. These changes were compared to baseline and evaluated over time.

Results and Limitations

Facility wide, the percentage of patients on two or more concurrent antipsychotics declined from 54% in January 2004, to 36% in March 2005, representing a 33% decrease in rates of polypharmacy. SBPC psychiatrists achieved significant ($p<0.01$) reductions in the proportions of their caseloads on two or more concurrent antipsychotics. The reduction in overall number of patients on antipsychotic polypharmacy was also significant ($p<0.01$). Psychiatrists who had higher percentages of their caseloads on antipsychotic polypharmacy at study initiation showed significantly greater reductions ($p<0.01$) by the end of the study. The odds of a randomly selected patient being on a single antipsychotic rather than polypharmacy were 2.10 greater in March 2005 than in January 2004.

Limitations include: the non-empirical design of this study precluded randomization to PSYCKES use and non-use, which makes determination of causality difficult. Cases were also merged into the system over time as state identification numbers were corrected, which may have affected observed reductions in percentages.

Clinical Implications

The use of PSYCKES was successful in reducing use of two or more concurrent antipsychotics in the inpatient setting at SBPC. This system is generalizable to other complex state mental health authorities, local care systems, and non-governmental entities. Reductions in the prescription of concurrent antipsychotics and other quality concerns can be expected to continue as PSYCKES is expanded throughout the NYS-OMH system of care. No conflicts of interest were reported for this study.