

### ***Title of Project***

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Improving Continuity of Care and Medication Management when Nursing Home Residents are Discharged to and Admitted from the Hospital: An Intervention Study

### ***PI/Project Director***

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### ***Nursing Homes Involved***

The Jewish Home and Hospital Lifecare System

### ***Description of Intervention***

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The objective of the project was to 1) examine the completeness/accuracy of information transferred between nursing home and hospital and 2) test the efficacy of an intervention instrument designed to improve continuity of medication prescribing during transfer and reduce the incidence of transition drug risk.

For each hospitalized nursing home resident, a nursing home pharmacist obtained pre-hospitalization prescribing information. After the resident returned, the pharmacist listed the pre- and post-hospitalization medication regimes in side-by-side columns on the intervention instrument and highlighted any discrepancies (dosage changes, new medications, omissions). Also included were sections for medications not recommended for use in older adults and formulary changes. The completed instrument was distributed to the nursing home attending physicians, who signed the form and indicated whether alterations in prescribing were made as a result of reviewing the document.

### ***Research Design***

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Research Method – Single group design with repeated measures (12-month baseline and 12-month intervention phase). It was hypothesized that the intervention would increase continuity of care and reduce transition drug risk and adverse drug events associated with inter-institutional transfer, thereby improving quality of life.

Sample – 163 residents of the Jewish Home who were admitted to Mt. Sinai Medical Center during either phase of the study. Potential subjects were identified daily as those admitted within the last 24 hours according to the nursing home admission/discharge roster (who stayed in the hospital for at least one day and were discharged back to the home). Informed consent was provided by residents or legal surrogates.

Measures – Baseline/intervention data (collected for the duration of hospitalization and for two months after nursing home readmission) were abstracted from medical charts. In addition to documenting medication changes at each stage of transfer, two research clinicians independently rated adverse drug reactions related to inter-agency transfer and transition drug risk. Transfer documentation was evaluated for its completeness/inclusion of 25 key items, and alterations in prescribing were obtained directly from the intervention instrument. Cognitive/physical functioning of residents was also assessed via MDS data.

Analysis Approach – In addition to summary statistics, transfer documentation in each direction of transfer was compared using t-tests and chi-square tests. This documentation was also compared before/after HIPAA regulations were implemented to see if completion was influenced. A variable was created for whether or not the intervention instrument was completed, and transition drug risk/provider drug prescribing were examined in relation to this use.

### ***Results***

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Transfer documentation was significantly more complete for nursing home to hospital transfers than vice versa ( $p \leq .05$ ), and overall completion was unaffected by the implementation of HIPAA. Among 140 cases for which the intervention form was completed, the mean number of drug discrepancies entered was 6.6 (sd 3.9). Physicians' prescribing changes were found to correspond with 10% of recorded discrepancies, which held the potential to reduce transition drug risk by an average of 2.1 points (sd 3.2). This clinically equates to catching and adjusting an additional drug with potential to cause an adverse drug event.

### ***Contact Information***

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