

FEASIBILITY OF TEXT MESSAGING TO IMPROVE ORAL ANTI-CANCER ADHERENCE IN OLDER CANCER PATIENTS

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ABSTRACT

BACKGROUND More than 50 oral chemotherapy agents in pill form are on the market, with projections that in 3 years, 25% of cancer treatment will be in pill form. For oral agents to achieve a therapeutically effective level for cancer treatment, patients must strictly adhere to the regimen. However, adherence is often less than 80%, which may be inadequate for treating the cancer. There are more than 285 million wireless subscribers in the US with an estimated 67.5% of adults owning cell phones and 98% of those phones having text messaging capability. A recent review of 12 trials on interventions for disease prevention or management found that text messaging improved health behaviors.

PURPOSE There are multiple mobile applications and smart phone products to prompt medication adherence, however, few have examined if these prompts improve medication adherence. Adherence is critical among cancer patients who are older and less likely to text message. The cancer medications can be costly, as much as \$800 per pill, and only effective if taken as prescribed. Adherence is complicated by complexity of the dosing and the duration of the prescriptions. Therefore, the purpose of this study is to test the feasibility, usability, and satisfaction with text messages to improve symptoms from side effects of treatment and adherence to oral chemotherapy agents.

METHODS A 10-week, 2-group, prospective trial will enroll 76 patients from cancer centers to examine a 3-week text message intervention to promote oral agent adherence and management of symptoms from side effects of treatment. Descriptive statistics, generalized linear modeling, and generalized estimating equations will be used for analysis.

RESULTS Enrollment is underway and preliminary findings on characteristics, feasibility of text message intervention and its influence on adherence rates will be presented.

CONCLUSION Text messages can easily be tailored to a specific oral agent regimen, making this intervention usable for simple or more complex dosing. Further, delivering the text messages on cell phones makes this intervention readily accessible. Likewise, it is the first study to enroll a cohort of patients who are newly prescribed oral agents. Past research has demonstrated that adherence levels begin to decline 2 months after the initiation of therapy. Therefore, this research could inform initiation of care, where patterns of behavior could be established and carried out through the entire treatment regimen. This type of novel intervention also has the potential to transform and impact other ill populations that require adherence to a medication regimen.