Review: Evidence on the effectiveness of interventions to assist patient adherence to prescribed medications is limited

McDonald HR, Garg AX, Haynes RB. Interventions to enhance patient adherence to medication prescriptions: scientific review. JAMA. 2002;288:2868-79.

**Question**
In nonaddicted patients with medical or mental disorders, are interventions designed to assist adherence to self-administered prescribed medications effective?

**Data Sources**
Studies were identified by searching MEDLINE, CINAHL, PsycLIT, SOCIOFILE, IPA, EMBASE/Excerpta Medica, and the Cochrane Library (all from 1967 to August 2001). Bibliographies of relevant articles were reviewed, and authors of included studies were contacted for additional trials.

**Study Selection**
Studies were selected if they were unconfounded randomized controlled trials (RCTs) of interventions to improve adherence with self-administered prescribed medications for a medical or psychiatric disorder, measured both medication adherence and treatment outcome, had ≥80% follow-up of each group studied, and the duration of follow-up for studies with positive initial findings was ≥6 months.

**Data Extraction**
Data were extracted on sample size, details of intervention strategies for adherence, details of treatment for the underlying medical or mental disorder, study quality, and outcomes (adherence rates and patient outcomes).

**Main Results**
33 RCTs met the selection criteria. These trials evaluated 39 unconfounded interventions. Adherence interventions were tested alone and in combination, with common themes such as more instruction for patients (oral and written material and programmed learning); increased communication and counseling (e.g., compliance therapy and family intervention); increased convenience of care (e.g., provision at the worksite and simplified dosing); more involvement of patients in their care through self-monitoring of disease status; reminders (e.g., reminder pill packaging); and reinforcement or rewards for both improved adherence and treatment response (e.g., reduced frequency of visits and partial payment for blood pressure monitoring equipment). Conditions studied included hypertension (8 RCTs); schizophrenia or acute psychosis (8 RCTs); asthma, chronic obstructive pulmonary disease, or both (5 RCTs); depression (2 RCTs); human immunodeficiency virus (2 RCTs); diabetes (2 RCTs); rheumatoid arthritis (1 RCT); epilepsy (1 RCT); and hyperlipidemia and cardiovascular disease (1 RCT).

**Conclusion**
In patients with medical or mental disorders, limited evidence suggests that several interventions designed to assist patients’ adherence to prescribed medications may be effective.

**References**