Review: evidence on the effectiveness of interventions to assist patients’ adherence to prescribed medications is limited

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

**QUESTION:** In patients with medical or mental disorders (but not addictions), are interventions designed to assist patients’ adherence to self administered prescribed medications effective?

**Main results**

35 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 counselling (eg, compliance therapy and family intervention); increased convenience of care (eg, provision at the worksite and simplified dosing); involving patients more in their care through self monitoring of their blood pressure, seizures, or respiratory function; reminders (eg, special reminder pill packaging); and reinforcement or rewards for both improved adherence and treatment response (eg, 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 hyperlipidaemia and cardiovascular disease (1 RCT). 3 RCTs examined treatment compliance in short term conditions.

49% (19/39) of interventions tested were associated with statistically significant increases in medication adherence, and 41% (17/39) reported statistically significant improvement in treatment outcome. Adherence interventions that were effective were mainly complex, including combinations of more convenient care, information, counselling, reminders, self monitoring, reinforcement, family therapy, and other forms of additional supervision or attention. Simple interventions that received some support included simplified dosing regimens for patients taking antihypertensive and lipid lowering medications and counselling about the importance of full adherence to antibiotic regimens reinforced by written instructions. Effective interventions were not distinguished from ineffective interventions in terms of number or type of components (behavioural, cognitive, or social).

**Conclusion**

In patients with medical or mental disorders (but not addictions), evidence for the effectiveness of interventions designed to assist patients’ adherence to prescribed medications shows that some interventions may be effective, but no consistent characteristics of effective interventions were identified.