Working With Patients to Enhance Medication Adherence

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Helping patients take medications effectively is a key clinical undertaking. Optimal medication adherence improves clinical outcomes and can even lower health care costs by reducing morbidity and decreasing health care use.[1] Benefits are especially striking in patients with diabetes.[2,3] Across chronic illnesses, patients take only ~ 50% of medications prescribed for those conditions.[4,5] Similar patterns are seen in patients with diabetes,[6] particularly in those who also have depressive symptoms. Among depressed patients with diabetes, for example, nonadherence to hypoglycemic and antihypertensive agents is even lower than among nondepressed patients with diabetes.[7,8] Even among nondepressed patients, levels of medication adherence may be significantly lower than desired because of side effects and lack of motivation to take the medications as prescribed.

Patients, health care providers, and health care systems all play a role in creating this quality and outcome gap between current reality and optimal diabetes management.[9,10] Barriers to effective use of medicines for diabetes care include: *1*) poor provider-patient communication; *2*) inadequate knowledge about a drug and its use (in both patients and clinicians); *3*) psychological insulin resistance;[11] *4*) complex regimens that require numerous medications with varying dosing schedules; *5*) lack of follow-up to monitor treatment response; *6*) lack of treatment titration to achieve optimal outcomes; and *7*) cost and access barriers.[9,12,13]

The current lack of provider time and shortage of clinic resources to support good chronic illness care for diabetes further widens the quality gap. Additional health care system supports are necessary to reduce cost and access barriers and to enhance appropriate intensification of treatment and follow-up (barriers 5–7). Nevertheless, primary care physicians and teams can use evidence-based approaches for increasing collaboration with their patients as a way for improving adherence and clinical outcomes. The following clinical actions summarize systematic reviews of the literature and combine patient-centered approaches aimed at achieving better medication adherence and diabetes outcomes.[9,12,14–16]

Introduce a collaborative approach by clarifying the patient-physician/team partnership.
Diabetes-related choices that patients make each day may have more impact than physicians' recommendations alone on how well diabetes is managed. Nevertheless, at the time of health care visits, offering information, education, and steps to motivate patients about their diabetes self-care behaviors—glucose monitoring, healthy nutrition, physical activity, and medication taking—is key for optimal management. In other words, patients are in charge of managing their diabetes, but clinicians are important advisors and can provide assistance and support. Thus, providers have an important role that is best accomplished in a patient-provider or patient-health team partnership.

Explain key information when prescribing a medicine.[12]
If possible, include family members and audiovisual aids at the time of initial prescribing of a medication. Address the key information (what, why, when, how, and how long) as follows:

- Name of the medicine
- Its purpose and potential role in reducing diabetes complications
- The number of tablets or units per injection of a dose and the frequency of dosing
- Its duration, daily and in the long term
- Common side effects or adverse effects

Simple written information and instructions, in addition to verbal instructions, are necessary. Large preprinted labels can be affixed to the medication container for easy reference (Figure 1).

Assess adherence.

- Anticipate that patients often do not "take medication as prescribed."

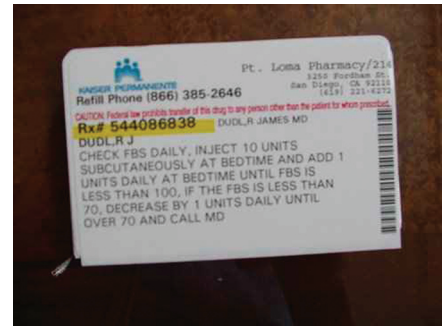

Figure 1. Sample preprinted label. Photo courtesy of J. Dudl, Kaiser Permanente Care Management Institute for Diabetes.

- Express understanding or empathy that "taking medication as prescribed" is often difficult and may not be possible for many patients.
- Recognize likely red flags of nonadherence (e.g., lack of response to treatment, missed appointments, and missed refills).
- Ask patients in a nonjudgmental manner how often they miss taking doses of medicine and about their actual medication taking (e.g., "How many tablets are you taking and when?").

Simplify medication-taking.
- Minimize the number of doses/injections to once daily whenever possible.
- Minimize the number of pills per day.
- Synchronize simultaneous dosing of different medicines unless contraindicated.
- Select more forgiving medications (e.g., those that lead to fewer hypoglycemic reactions).

Keep in mind that reducing the frequency of dosing is more important than the number of pills in a dose.

Identify difficulties and barriers related to medication-taking.
- Identify patient fears and beliefs, such as those related to psychological insulin resistance[17] (e.g., many patients view starting insulin as a sign of their failure to control diabetes or as a sign of impending death).
- Identify and seek solutions to cost and access barriers to taking medications.

Provide behavioral support.
- Help to identify daily reminders. Collaborate with patients to identify a daily action in their routine that serves as a prompt to take medicine (e.g., brushing teeth or turning out the light at bedtime).
- Suggest aids. Medication sets that can be prefilled provide easy, organized, and ready access to a weekly supply of medications. A variation on this theme is the "bubble pack," which is a sealed set of medications with daily medications that is customized by the patient's pharmacy (Figures 2 and 3).

Figure 2. Medication "bubble pack."

Figure 3. Medication sets to organize a week's supply of medications. Photos courtesy of E. Lin, Center for Health Studies, Group Health Cooperative.

Schedule follow-up contact.
- Assess treatment response.
- Reassess adherence and difficulties with medication-taking.
- Problem-solve difficulties using patients' preferences and solutions.
- Adjust treatment to achieve optimal outcome.
- Facilitate medication refills and follow-up care.

Summary

Optimal diabetes care is achievable if clinicians collaborate with patients in managing diabetes and if health care systems support systematic patient response monitoring and enhance treatment titration to achieve favorable diabetes outcomes with minimal complications. A first step in working with patients is recognizing that not "taking medications as directed" is common. Useful clinical encounters and approaches include a nonjudgmental assessment of medication-taking, clear explanations about how to use medications, simplified regimens, and scheduled follow-up visits or telephone calls to monitor progress and adjust treatment. Such practical approaches are ones that health care providers and patients can use in a busy primary care setting.

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