Won't or don't: Studying medication adherence

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Hypertension is a quizzical disease. It inflicts a high disease burden in that it is highly prevalent and leads to considerable multisystem morbidity and mortality. Although hypertension is a chronic disease, it is by and large easily diagnosed and monitored. Multiple therapies that have been shown to reduce morbidity and mortality are available. Yet despite the human suffering, economic toll from the disease and available treatment, it remains poorly controlled worldwide. The most common cause of refractory hypertension is the lack of patient adherence to medications. Formerly known as 'medication compliance', the term has largely fallen out of favour because it implies a passive acceptance of the physician's directives and removes the responsibility for partnership in care. Preferred terminology includes 'adherence', 'persistence' and 'patient concordance'. A 'poorly compliant' patient also becomes stigmatized by health care providers and may be denied therapies required in the future course of the disease.

The global pandemic of chronic illness and consequences of poor patient adherence have been recognized by the World Health Organization. Central to the issue is the understanding that nonadherence stems not only from patient factors, but also from physician-based factors and the health care system. Only after this is understood can physicians move away from 'blaming the patient' and toward designing interventions to improve adherence. However, even before strategies for improving adherence can be considered, it is important to detect and measure it.

Loosely defined, adherence is the extent to which a patient takes a prescribed medication. Although this most often ranges between 0% and 100%, some patients may actually take more than the prescribed dose. Satisfactory medication adherence varies according to the disease studied and, ultimately, on the ability to achieve cure or persistent control. For HIV antiretroviral therapy, adherence must exceed 95% to reduce viral replication and prevent drug resistance. For hypertension, 80% has been advocated to achieve control (1).

Modes to detect poor adherence are imperfect. Self-reporting frequently underestimates rates of adherence. Pill counts are prone to patient manipulation. Even directly observed therapy, an approach long used in the treatment of tuberculosis, can be inaccurate if patients hide pills in their mouth. Measuring drug metabolites in blood is fraught with error because patients can simply take the medication only when they are due to be tested. This is known as 'white coat adherence'. Detection must be combined with prediction in enhancing rates of adherence. Major predictors include some readily identifiable ones familiar to most clinicians. These include depression, cognitive impairment, complexity of treatment regimen, side effects and cost. Other predictors that are not as apparent and do not receive the same consideration are the patient's lack of belief in the benefit of treatment, lack of insight into illness, missed appointments, poor follow-up arrangements and a poor physician-patient relationship. Indeed, the very diagnosis of hypertension may provoke a denial response if it is perceived as an economic or social threat through loss of job or loss of sexual potency.

Preventing poor adherence by ensuring adequate follow-up and addressing patient concerns and barriers are the ultimate goals. Rectifying the problem requires a non-judgemental disposition by the health care provider. All stakeholders have the responsibility and unique talents to enhance adherence. These individuals include pharmacists, family members and community support services. Medication nonadherence is nonselective and may also apply to comorbidities such as hyperlipidemia and the need for lifestyle modification. Recognizing and targeting poor adherence in one area may yield great benefits in the global disease burden.

REFERENCE

1. Osterberg L, Blaschke T. Adherence to medication. *N Engl J Med* 2005;353:487-97.

Selected sites on medication adherence

1. World Health Organization. The Observatory on Health Care for Chronic Conditions <www.who.int/chronic_conditions/en> 2. Adherence to long-term therapies: Evidence for action <www.who.int/chronic_conditions/adherencereport/en>	3. The Canadian Hypertension Society <www.hypertension.ca/index2.html> 4. McGill University Continuing Medical Education. Clinical assesment of adherence: An international experience. <ww2.medicine.mcgill.ca/cme/php/pre.php?id=324>

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