Identifying and overcoming barriers to hepatitis C medication adherence is an essential component to treatment strategies, according to study results published online by Annals of Internal Medicine.

Patients being treated for chronic hepatitis C become less likely to take their medications over time, the study suggests. The researchers also demonstrated that treatment responses are better when the medications are taken correctly, a finding that should prompt health care providers to assess their patients for barriers to medication adherence and to develop strategies to help them stay on track.

“Our findings are particularly timely since many chronic hepatitis C patients are now being prescribed direct-acting antiviral drugs”—the hepatitis C protease inhibitors Incivek (telaprevir) and Victrelis (boceprevir) are examples—“which have a complex dosing regimen that may be even harder for patients to maintain than the two-drug standard therapy,” said lead author Vincent Lo Re, MD, of the Perelman School of Medicine at the University of Pennsylvania in Philadelphia in an accompanying press release. “These data show us that we need to develop and test interventions to help patients be more successful at taking their medicine and have the best chance at being cured.”

Literacy issues, financial hurdles and socioeconomic problems such as unstable living situations can all hamper patients’ abilities to properly maintain their drug regimen. The authors suggest that refilling patients’ pill boxes for them, creating easy-to-follow dosing and refill schedules, and helping them set alarms to remind them to take their medicine may all help improve adherence.

Lo Re’s group studied 5,706 people living with hepatitis C who had been prescribed the standard treatment for the virus—once-weekly pegylated interferon injections and twice-daily ribavirin—using pharmacy refill data and test results for virologic response during treatment. The researchers found that patients who refilled their prescriptions on time had a higher likelihood of being cured of the infection. However, over the course of patients’ treatment, adherence waned—and more often for ribavirin.
That pattern, the authors note, is similar to that among patients taking drugs for other chronic conditions, such as HIV, during which patients often develop so-called “pill fatigue.”

The newer, more powerful direct-acting antiviral drugs, which must be taken every eight hours, will add to the complexity, and cost, of hepatitis C treatment. In addition, if the newer direct-acting antiviral drugs aren’t taken properly, the hepatitis C virus may become resistant to treatment, compromising the chance of a cure.

Monitoring for and treating drug-related side effects may also be a key factor in boosting adherence, the authors conclude. The study results showed that patients who received medication for thyroid dysfunction, anemia or low white blood cell counts—common side effects associated with hepatitis C treatment—were more likely to remain adherent to their antiviral therapy.

“We know that a major barrier to adherence is side effects of these drugs. People don’t feel good when they’re on them,” Lo Re said. “If we can identify those problems and treat them when they occur, patients may be more motivated and feel well enough to continue with their prescribed regimen.”