Despite efforts by clinicians and pharmaceutical manufacturers to encourage adherence to oral agents for cancer (OACs), adherence rates are suboptimal (Bassan et al., 2014; Streeter, Schwartzberg, Husain, & Johnsrud, 2011). Evidence suggests that adherence to OACs is a significant clinical problem that may affect treatment success (Bozic et al., 2013; Gebbia, Bellavia, Ferràü, & Valerio, 2012; Mitchell, Porter, & Manias, 2014; Puts et al., 2013). This article will report on methods to assess and measure medication adherence by patients with cancer to inform clinical practice.

Defining Medication Adherence

Adherence needs to be defined prior to assessment and measurement. For the current review, the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) definition was used: the degree or extent of conformity to the recommendations about day-to-day treatment by the provider with respect to the timing, dosage, and frequency for the duration of time from initiation to discontinuation of therapy (Cramer et al., 2008).

This allows underadherence—taking less medication than prescribed (e.g., missing a daily dose, not starting a cyclical drug on the day prescribed)—and overadherence—taking more medication than prescribed (e.g., doubling up on doses on the day after a missed dose, taking more pills than prescribed, taking the medication when off cycle) or taking doses too close together—to be examined. ISPOR’s definition of adherence provides a means to assess and measure all dimensions of treatment with OACs.

Maintaining Therapeutic Dosing

The U.S. Food and Drug Administration (2014) guidelines provide a therapeutic OAC dosage to be prescribed for each