

# Interventions to Support Adherence to Oral Anticancer Medications: Systematic Review and Meta-Analysis

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**PROBLEM IDENTIFICATION:** This systematic review compared the efficacy of interventions to usual care on adherence to oral anticancer regimens.

**LITERATURE SEARCH:** Embase®, PubMed®, and CINAHL® were searched for eligible comparative studies published between January 2000 and May 2021. Outcomes of interest included adherence, cancer-related morbidity, quality of life, patient satisfaction, and other patient-specific outcomes.

**DATA EVALUATION:** Reviewers assessed risk of bias using the Cochrane Risk of Bias 2 tool and Risk of Bias in Nonrandomized Studies of Interventions. Certainty of evidence was assessed using the GRADE framework.

**SYNTHESIS:** Risk assessment, ongoing or periodic assessment, proactive follow-up, motivational interviewing, or structured programs may improve adherence. Education or coaching interventions may improve or have little to no effect on adherence. Technological interventions may improve adherence, but interactive compared to noninteractive technology may have little to no effect.

**IMPLICATIONS FOR RESEARCH:** As more cancer treatments move to oral formulations, work remains to identify the most effective interventions to support people receiving oral anticancer regimens.

**KEYWORDS** oral anticancer medications; adherence; technology; risk assessment; motivational interviewing  
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Oral anticancer medications (OAMs) provide patients with recommended treatment in a less invasive, more convenient form than traditional cancer therapies and are transforming how cancer care is delivered. The transition of treatment from IV to oral methods of delivery has been a change for both patients and providers. The National Comprehensive Cancer Network estimates that as many as 25% of all new cancer treatments are being developed in oral formulations (Weingart et al., 2008). The shift from patients receiving care at infusion centers to managing their treatment at home has changed how clinicians educate, monitor, and follow up with patients. Patients and their care partners are being asked to understand and manage complex regimens at home without active assistance from healthcare professionals. Adherence to therapy has emerged as a primary concern with this shift in treatment (Weingart et al., 2008).

Adherence has been defined broadly through a collaborative approach to decision-making as agreement on choice and manner of treatment and, more specifically, as the extent to which patients take their medications as prescribed (Atkinson et al., 2016; Greer et al., 2016). Rates of adherence to OAMs have been reported to vary widely depending on population, cancer type, regimen, and measurement of adherence, with many patients reporting difficulty taking OAMs as prescribed (Greer et al., 2016; Milata et al., 2016; Salgado et al., 2017). The relationship between adherence and patient outcomes is well documented. Patients who report nonadherence have a lower likelihood of response to treatment and higher mortality (Greer et al., 2016). This underscores the