

Adherence to Oral Cancer Drugs:

Drugs are only as good as patient adherence to therapy



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Oral forms of chemotherapy are the focus of development by today's pharmaceutical manufacturers. The endeavour to offer drugs that can be delivered more easily has yielded both novel oral agents as well as oral forms of drugs traditionally administered intravenously. The magnitude of the movement toward oral agents is best demonstrated by the fact that 25% of the 400 new anti-neoplastic agents under development are expected to be in oral form.

Improved cancer drugs not only prolong life but also improve quality of life. As a result, cancer is fast becoming a chronic condition. Products that can hold cancer in check for long periods of time with a reasonable quality of life will mean that patients may be taking cancer treatment drugs and supportive care for 5, 10 or even 20 years—far longer than today.

The surge in the number of currently available oral oncology therapies and the concomitant improvement in treatment options has been met with numerous obstacles. An important one is that of patient adherence with therapy. Contrary to general perception, studies suggest that the high mortality of cancer alone is not enough to improve adherence relative to other chronic diseases. In fact, suboptimal adherence may prove to be the greatest barrier to the effective use of new oral oncology agents.¹

In general, adherence to chronic therapies is a considerable problem. Estimates suggest that over 30% of prescribed medication in chronic

illnesses is not taken as directed.² In addition, the economic costs to Canada's health-care system of prescription medication non-adherence and inappropriate use have been estimated to be as high as \$7.9 billion annually.³ Although few studies of cancer patients have evaluated the relationship between adherence levels and achievement of the treatment goal, one such study in breast cancer patients found that patients who received 85% or less of their prescribed adjuvant chemotherapy had shorter relapse-free and total survival times than those who received more complete treatment.⁴

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Strategies to improve adherence

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Interventions should play an important role in any oral oncology therapy. A study in patients with newly diagnosed hematologic malignancies showed that intervention techniques increased adherence to daily therapy from 44% to 48%, up from 16.8%.⁵ Interventions in this particular chemotherapy study included educational programs, behavioural modification techniques (such as practice pill taking) and use of reminder systems and cues.

Even more encouraging numbers come from a chemoprevention study. Compared to standard care, telephone counseling was more than twice as effective at increasing mammography adherence, whereas in-person counseling resulted in almost three times the mammography adherence post intervention.¹ Therefore, combining multiple vectors of intervention, in particular human intervention with any long-term oral chemotherapy regimen, is critical for adherence success.

Few patients receive adherence-enhancing interventions. Several barriers include the time constraint of health-care professionals and overly generalized, rather than individualized, printed information. Ideally, health-care professionals would work with each patient to:

1. Ensure patients understand their disease;
2. Determine patient attitude (what will change their attitude);
3. Ensure patients understand the value of their medication;
4. Reinforce the importance of taking medication as directed by physician/consequences of non-adherence; and
5. Test the understanding of 3 and 4.

In considering success factors of an intervention program the following factors are important:

- Multi-faceted interventions appear to be more effective than simple strategies for improving adherence and clinical outcomes.⁶
- While adherence has little relation to socio-demographic factors, such as age, gender, race, intelligence and education, patients do

tend to miss appointments and drop out of care when there are long waiting times at clinics or long time lapses between appointments.

- Adherence decreases as the complexity, cost and duration of the regimen increase.⁶

Taken together, these points underscore the importance of a well-designed, customized intervention program. In order to achieve long-term success, therefore, oral cancer drugs must be combined with optimized adherence practices. With patient-administered anti-cancer therapies, the drug is only one component of the therapy. Consistent long-term patient adherence is the new paradigm for recognizing the best possible patient outcomes and consequently maximizing a formulation's greatest market potential. **CPM**

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