



# From the Clinic to Home: The Shift to Oral Oncolytic Therapy

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# Disclosure

I do not have anything to disclose.



# Objectives

- Oral oncolytics vs IV chemotherapy
- Oral oncolytic use in hematologic vs solid tumor patients
- Psychosocial considerations
- Acquisition of oral oncolytics
- Management of oral oncolytics
- Patient and caregiver safety



# Oral Oncolytic Overview

- Oral oncolytic agents (OOA) were scarcely prescribed in early 2000s
- Rapidly increased over the last 15 years
- More than 80 currently approved agents
- Utilized for both hematologic and solid tumor cancers
  - Cure vs Care
- Monotherapy vs Combination therapy



# Oral Oncolytics vs IV Chemo

- Paradigm shift to the home
- Oral oncolytic agents (OOAs) provide a level of patient convenience
- OOAs bring about different challenges
  - Adherence/Medication management
  - Symptoms and side effects
  - Cost and insurance approval



# Common OOAs for Hematologics

- bosutinib
- dasatinib
- ibrutinib
- idelalisib
- imatinib
- nilotinib
- ponatinib
- ceritinib
- vorinostat
- lenalidomide
- pomalidamide



# OOA Research Studies

- Multiple intervention RCT
  - Patients newly prescribed OOAs
  - Adherence & Symptom management interventions
  - Patients were adherent regardless of the intervention
  - Symptom management intervention worked!
- Patient caregiver focus groups
  - Qualitative study working with informal caregivers (mostly spouses) of patients prescribed OOAs
  - Convenience; safe handling; finances; stress and coping; medication management; and professional support



# Patient Model Case

- 23 year-old male with CML
- Severe toxicities from previous treatment
- Newly prescribed nilotinib
- Impact of social support and informal caregiver
- Difficulties in acquiring OOA
- Continued toxicities
  - Grade 4 diarrhea
  - Required two separate hospitalizations over 1 month



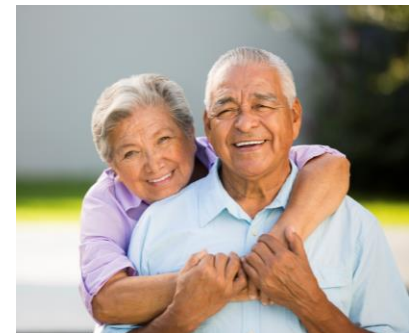


# Psychosocial Impact

- As high as 30-40% of cancer patients have depression or anxiety
- Talk with patients about strategies for mental well-being
  - Music, meditation, yoga, exercise, journaling, mental imagery
- Building a social support system
  - Family, friends, church, activity groups
  - Social support groups with others sharing the same experience

# Psychosocial Impact

- Informal Caregivers
  - Coordinating care and making appointments
  - Transportation
  - Managing disease and medications
  - Nutrition and feeding
  - Caring for the home
  - Keeping records of healthcare, finances, etc.
  - Advocating for patient
- Caregiver burden
  - Provide caregivers with necessary resources





# Paying for Oral Oncolytics

- OOAs can cost over to \$10,000/month
  - Patient example: nilotinib 2 tabs BID
    - \$107 per pill; \$428 per day; \$13,000+ per month; \$156,000 per year
- Insurance approval/coverage is more complex than IV chemotherapy
  - Longer approval times
  - Billed as medications, not as medical service
- Need for financial assistance
  - Through drug company or hospital system/institution
- Patients have to find other sources of income
  - Continuing working or pulling from retirement funds



# Acquisition of Oral Oncolytics

- Not as simple as going to your local pharmacy and picking up your prescription
- Patients will most likely acquire medications through hospital/clinic pharmacy, specialty pharmacy, or mail order pharmacy
- Obtaining refills from pharmacy sources
- With so many steps in the process, delays or errors are not uncommon
- Increased delays can be stressful for patients in a vulnerable disease state
- Following up with patients at subsequent visits



# Oral Oncolytic Management

- Adherence
  - Factors that impact adherence
    - Patient characteristics
      - Patient beliefs about treatment
    - Social factors
      - Informal caregiver
    - Disease/Treatment factors
      - Chronic conditions and other medications
    - Healthcare system factors
      - Communication with providers

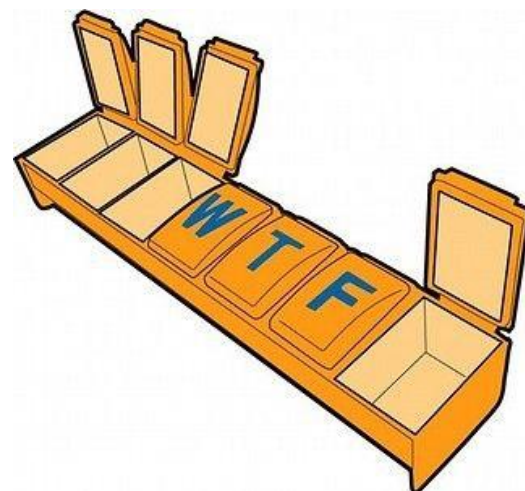


# Oral Oncolytic Management

- How patients should be taking OOAs
  - OOAs are often complex with cycling, multiple doses per day, different number of pills per dose
  - Food and liquid restrictions
  - Interactions with other medications
  - Proper handling
  - What if a patient misses a dose?

# Oral Oncolytic Management

- Strategies to increase adherence
  - Electronic reminder
    - Text message or phone alarm
  - Calendar
  - Pill boxes
  - Medication diary
  - Automated pill bottles





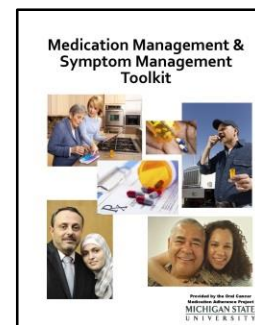
# Oral Oncolytic Management

- OOA regimen modifications are heavily influenced by symptom management
- Common symptoms and side effects:
  - Fatigue, pain, N/V, skin rash, mouth sores, peripheral neuropathy, sleep disturbance, and lack of appetite
- Prepare patients at initial visit for common symptoms with their oral agent
- Reinforce teaching at each visit
- Make patients aware of available resources, such as nurse call lines or online toolkits



# Medication Management & Symptom Management Toolkit

- Assist patients to identify specific strategies for symptom management.
- Provides information and support to manage symptoms.
- Strategies for communication with providers.
- Strategies for communication with family.
- Assist patients to problem solve.
- Guide decisions and select strategies.





# Toolkit Components

## Organized by:

- What is it (the symptom)?
- How do people describe it?
- What causes it?
- How do people cope with it? – the activities
- What can family members and friends do to assist?
- How to talk with family members.
- What should be reported to the doctor immediately?
- Where can more information be obtained?
- Local resources e.g. Mental Health.



# Oral Oncolytic Management

- Much like IV chemo, OOAs may produce severe toxicities and adverse events
- Common toxicities:
  - Anemia, dehydration, diarrhea, decreased blood counts, weight loss, and edema
- These can lead to ER visits, hospitalizations, and treatment regimen modifications
- Inform patients about when they need to see a healthcare provider

# Patient & Caregiver Safety

- Proper handling and administration of OOAs
  - Avoid opening or crushing capsules and tablets
  - Only the patient should be handling OOAs. If caregivers must, gloves should be worn
  - Oral agents should be administered as directed
- Bodily fluids and secretions
  - Urine
  - Partner physical contact
- Proper disposal of medications
  - Do NOT throw out oral agents!!





# Conclusions

- Early and continued education and communication are key
- Patients are getting the same level of toxic medication to take home
- It is your goal to empower patients to be able to be successful at home
- Patients on OOA are in a vulnerable state, be there to guide them and advocate for them



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