

Recognizing Toxicities from Oral Chemotherapies

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Oral Chemotherapy: Is it really easier?

-2206
CAUTION: Federal law prohibits the transfer of this drug to any person other than the patient for whom it was prescribed.
BIRTHDAY***

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Objectives

- Recognize the impact of oral chemotherapy
- Discuss the complexity of evaluating toxicities in combination treatment regimens.
- Formulate a complete plan to assess patients for toxicities on oral chemotherapy.
- Discriminate between symptoms of disease and drug toxicities.
- Review importance of patient education in adherence.

Importance of Oral Chemotherapy

- Oral chemotherapy represents an important addition to cancer treatment.
- Targeted therapies have shifted treatments away from traditional chemotherapy.
- Oral oncolytics have added to the complexity of treatment and recognition of treatment related toxicities.
- Approximately 25% of cancer patients are on some form of oral chemotherapy.
- People 65 years or older is the fastest growing population in the US. By 2030 that age group will be >20% of the US population.

Evaluating Toxicities

- Complexity of treatment regimens
- Importance of baseline: It is vital to have an accurate baseline
- Use a comprehensive grading tool
 - CTCAE (Common Terminology Criteria for Adverse Events)
 - Always compare to baseline
- Patients must have a plan to manage any potential toxicities.
- Ongoing process
- Open, honest atmosphere
- Potential drug interactions

National Cancer Institute: Common Terminology Criteria for Adverse Events, version 5.0. Available at https://ctep.cancer.gov/protocoldevelopment/electronic_applications/docs/ctcae_v5_quick_reference_8.5x11.pdf. Accessed December 2, 2022.

Laboratory Toxicities

- Hematologic toxicities
 - WBC
 - Platelets
 - Hemoglobin
 - Increased risk for sepsis in patients with hematologic malignancies
 - Consider patient risk factors
- Organ function
 - Renal function
 - Hepatic function
 - Large tumor burden increases chance of Tumor Lysis Syndrome

Laboratory Toxicities(continued)

- Organ Function(continued)
 - Thyroid
 - Pancreas
 - Pituitary
 - Adrenal
- Electrolytes
- Blood sugar
- Triglycerides/lipids

Cardiac Toxicities

- Understand patient's cardiac health history. Who manages cardiac issues?
- Set up regular monitoring schedules depending on appropriate FDA recommendations.
- Hypertension
- Atrial fibrillation
- Electrical issues:
 - Monitor EKG
 - Monitor electrolytes
- Mechanical Issues:
 - Echocardiograms

Gastrointestinal Toxicities

- Nausea
- Vomiting
- Dyspepsia
- Anorexia
- Constipation
- Diarrhea
- Stomatitis
- Ensure patient has a management plan for potential toxicities.

Andreyev HJN, Lalji A, Mohammed K, et al: The FOCCUS study: A prospective evaluation of the frequency, severity and treatable causes of gastrointestinal symptoms during and after chemotherapy. Support Care Cancer. 29:1443-1453, 2021.

Dermatologic Toxicities

- Paronychial issues
 - Skin fissures
 - Nail infections
 - Hangnails
- Rash
 - Steven Johnson Syndrome
- Acne form rash
- Dry skin
- Pruritis
- Secondary malignancies- ensure regular dermatology exams
- Alopecia

Ra, H.S., Shin, S.J., Kim, J.H., Lim, H., Cho, B.C. and Roh, M.R. (2013) The Impact of Dermatological Toxicities of Anti-Cancer Therapy on the Dermatological Quality of Life of Cancer Patients. *The Journal of the European Academy of Dermatology and Venereology*, 27, e53-e59.

Miscellaneous Toxicities

- Hypersensitivity
- Functional Toxicities
 - Fatigue
 - Arthralgias/myalgias
 - Headaches
 - Weakness
- Pulmonary
 - Interstitial lung disease
 - Pneumonitis
- Tumor Lysis Syndrome
 - Flu like symptoms
 - Monitor labs closely
 - Increase fluids
- Dedifferentiation Syndrome

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6783590/>

Dangers of Oral Oncolytic Treatment

- + Some drugs can cause serious birth defects or harm to an unborn fetus.
- + REMS program
- + Reliable birth control is a **MUST!!**
- + Sperm banking
- + Ovarian preservation
- + Egg retrieval

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6594853/>
<https://www.fda.gov>whats-rems>



Steroid Toxicities

- Steroids are frequently the backbone of many treatment regimens for hematologic malignancies.
- Muscle wasting
- Skin changes
 - Acne
 - Thin skin
 - Bruising
- Delayed wound healing
- Bone loss
- Sleep Issues
- Mood changes
 - Anxiety
 - Jitteriness
 - Aggression
 - Depression

<https://www.mayoclinic.org>steroids>

<https://www.hoafredericksburg.com>prednisolone>

Financial Toxicity

- NCCN recommends assessing each patient for financial toxicity.
 - Many studies indicate more than half of cancer patients suffer from financial toxicity.
- Material consequences of treatment
 - Out-of-pocket expenses
 - Debt
 - Decreased income
- Explore various assistance options
 - Pharmaceutical company programs
 - Grants
 - Other assistance programs
 - Include social services

<https://education.nccn.org/node/90902>

<https://www.cancer.gov/about-cancer/managing-care>



Adherence and Persistence

- Patient education is vital.
 - Dosing complexity
 - Side effects
 - Misinterpretation of instructions
- Spend some time understanding the patient.
 - Set patients up for success
 - Education is a continual process
- Importance of assessing for financial toxicity
 - Out of pocket cost

Talens, A., Guilabert, M., Lumbreras, B., Aznar, M.T., & Lopez-Pintor, E. (2021) Medication experience and adherence to oral chemotherapy. A qualitative study of patients' and health professionals' perspectives. *International Journal of Environmental Research and Public Health*. 18(8), 4266. <https://doi.org/10.3390/ijerph18084266>

Drug-Drug Interactions

- Evaluate for polypharmacy
- Potential for drug-drug interactions
 - CYP3A4 inhibitors and inducers
 - Gastric acid suppression
 - Prolongation of the cardiac QT interval
 - Anticoagulant medications
 - Food, herbs, vitamins and supplements

