

SYMPTOM MANAGEMENT OF TYROSINE KINASE INHIBITORS

Presented By:
Elizabeth Fontao, PA-C
May 19, 2012



Common Side Effects of Gleevec (Imatinib Mesylate)



Gleevec side effects

- Fatigue
- Nausea/Vomiting
- Diarrhea
- Fluid retention
- Muscle cramping/bone pain
- Abdominal pain
- Rash
- Elevated blood pressure
- Lowering of the blood counts

Gleevec

- Should be taken with food and a large glass of water
- Avoid tylenol, St. John's Wort and coumadin
- Avoid grapefruit juice
- Doses range from 200mg to 800mg daily
- Use birth control to prevent pregnancy

Common Side Effects of Sutent (Sunitinib Malate)



Sutent side effects

- Fatigue
- Nausea/vomiting
- Diarrhea
- Hypothyroidism
- Elevated blood pressure
- Altered taste, burning sensation in tongue, mouth sores
- Hand/Foot syndrome
- Lowering of the blood counts
- Fluid retention
- Muscle cramps

Sutent

- May be taken with or without food
- Avoid St. John's wort, grapefruits or grapefruit juice
- Consult with your physician before starting aspirin or other blood thinners, or OTC supplements
- Doses range from 12.5mg to 50mg daily
- Use reliable birth control to avoid pregnancy

Common Side Effects of Nexavar (Sorafenib)



Nexavar side effects

- Fatigue
- Weight loss, appetite loss
- Nausea/vomiting
- Diarrhea
- Hair loss
- Elevated blood pressure
- Impaired wound healing
- Rash
- Hand/foot syndrome

Nexavar

- Take without food (one hour before or two hours after meals)
- Swallow whole, do not chew, break or crush
- Take with full glass of water
- Doses range from 200 to 800mg daily
- Avoid St.John's wort, grapefruit juice
- Consult with your healthcare provider before using blood thinners and OTC supplements

Common Side Effects of Tasigna (Nilotinib)



Tasigna side effects

- Lowering of the blood counts
- Rash
- Fatigue
- Nausea
- Diarrhea or constipation
- Headache
- Palpitations, cardiac arrhythmias

Tasigna

- Take on an empty stomach. One hour before or two hours after meals.
- Capsules contain lactose
- Take with full glass of water
- Swallow tablet whole. Do not chew, break or crush
- EKG should be done before and 7 days after starting therapy
- Talk with your physician before starting aspirin or other blood thinners, garlic, ginseng, ginkgo or vitamin E
- Avoid St. John's wort or grapefruit juice.
- Use birth control to prevent pregnancy.

Common Side Effects of Sprycel (Dasatinib)



Sprycel side effects

- Swelling
- Lowering of the blood counts
- Feeling lightheaded, sleepy, change in thinking clearly, headache
- Abdominal pain
- Nausea/vomit
- Rash
- Diarrhea
- Fever
- Muscle cramps/muscle pain

Sprycel

- May be taken with or without food
- Do not take anti-acids within 2 hours of this medicine
- Tablets contain lactose. Talk to your physician if you are on a lactose free diet.
- Avoid grapefruit juice
- Talk to your physician before using aspirin or other blood thinners, garlic, ginseng, ginkgo or vitamin E
- Pregnant females should not handle crushed tablets
- Use reliable method of birth control to prevent infection.

Common Side Effects of Votrient (Pazopanib)



Votrient side effects

- Fatigue and weakness
- GI upset, abdominal pain, diarrhea
- Nausea/vomit, loss of appetite
- High blood pressure
- Lightening of hair or skin color
- Impaired wound healing
- Altered taste
- Liver dysfunction
- Allergic reaction, rash
- Abnormal bleeding

Votrient

- Take on an empty stomach. One hour before or two hours after meals
- Swallow tablet whole. Do not crush, chew or break
- Doses range from 200mg to 800mg daily
- Avoid grapefruit juice
- Avoid pregnancy
- Store at room temperature, away from heat and moisture

FATIGUE



What is Fatigue?

- Means feeling tired physically and mentally.
- Fatigue is the most common symptom associated with cancer and cancer treatment.
- Fatigue is characterized as overwhelming, whole body tiredness that is unrelated to activity or exertion.

Warning signs of Fatigue

- A weak feeling over the entire body.
- Waking up tired after sleep.
- Lack of motivation to be physically active.
- Difficulty concentrating.
- Lack of energy.
- Increased irritability, nervousness, anxiety or impatience.

Fatigue Assessment

- Fatigue is rarely an isolated symptom and most commonly occurs with other symptoms.
- Potential causes:
 - Anemia
 - Poor nutrition
 - Pain
 - Depression
 - Sleep Disturbances
 - Hypothyroidism
 - Other medications.

What can be done to prevent Fatigue?

- Prioritize activities
- Place things within easy reach
- Drink 8-12 glasses of fluid daily
- Eat a balanced diet that includes protein
- Exercise
- Balance rest and activities
- Reduce stress
- Keep a fatigue journal
- Keep mind active

Rash



Rash

- Non-itchy rash, flat or raised
- Dryness in skin leading to excessive scratching
- More frequent in females
- Appears to be dose dependant

Mild treat with antihistamines or topical steroids

Moderate treats with oral steroids

Severe may require dose adjustment

Hand-Foot Syndrome



Symptoms of Hand-Foot Syndrome

- Tingling or burning
- Redness
- Flaking
- Swelling
- Small blisters
- Small sores
- Pain

Prevention

- Reduce exposure of hands and feet to friction and heat by avoiding the following:
 - Hot water (washing dishes, long showers, hot baths)
 - Impact on your feet (jumping, aerobics, walking, jumping).
 - Using tools that require you to squeeze your hands (garden tools, kitchen knives)

Treatment

- Hand-Foot syndrome is first treated by reducing the dose or stopping treatment until it improves. Others managing approaches include:
- Keratolytic Emollient creams
- Vitamin B6: A small clinical trial has shown that treatment with vitamin B6 can reduce the symptoms of hand-foot syndrome.
- Corticosteroids: Steroids work by reducing inflammation. Topical or oral.

What can I do?

- Cool with ice packs for 15 min at a time
- Elevate hands and feet
- Apply antibiotic ointment on open sores
- Apply moisturizers sparingly, X Viate cream, Eucerin
- Avoid constricting clothing or jewelry

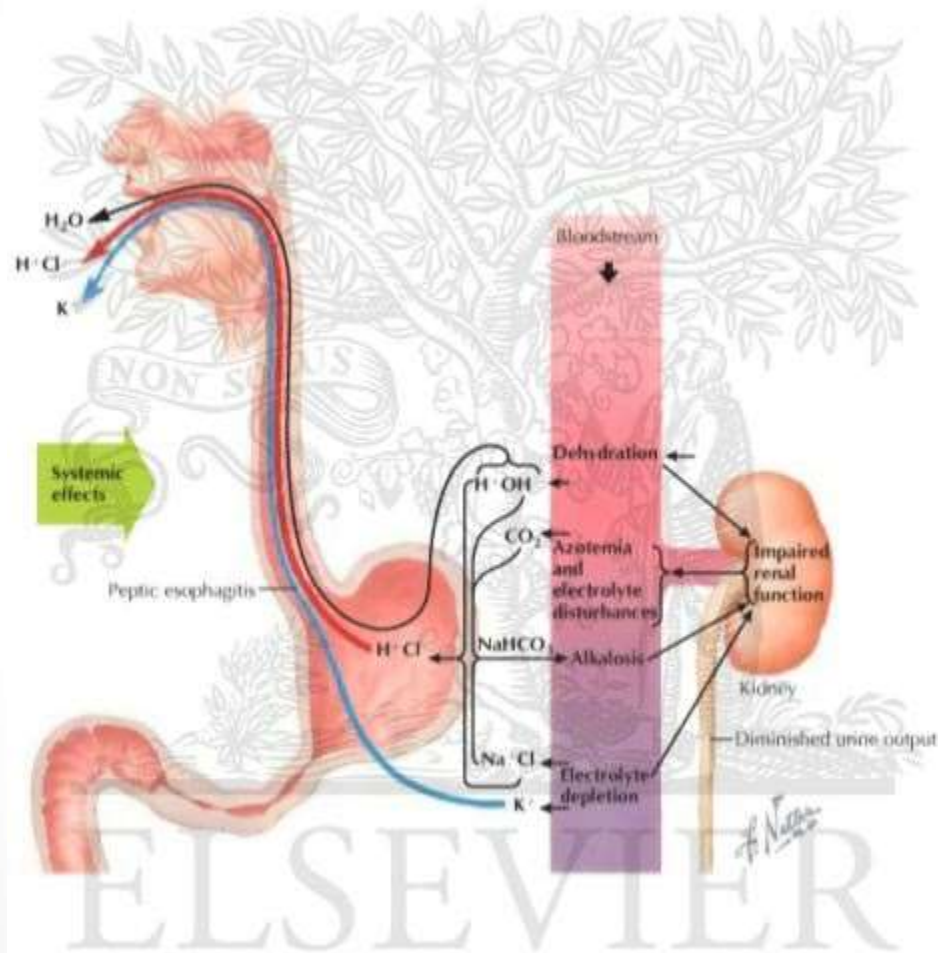
Loss of Appetite



Loss of appetite

- Cannot rely on hunger mechanism as a signal to eat
- Eat by the clock
- Snack between meals
- Choose high caloric foods
- Be cautious of smells
- Make meals pleasant
- Make foods visually appealing

Nausea and Vomiting



Nausea and Vomiting

- Unpleasant feeling in stomach, might or might not result in vomit
- Causes poor appetite and it could lead to dehydration
- Eat bland foods and drink clear liquids
- Avoid spicy foods, drink with straw to reduce smell
- Eat smaller more frequent meals and eat slowly
- Avoid an empty stomach
- Take anti emetics as prescribed, compazine, zofran or marinol
- Consult with your doctor before starting anti acids

Diarrhea



DIARRHEA

Is like a storm raging inside you.

Diarrhea

- Increased frequency, more liquid bowel movements
- Risk is dehydration, depletion of fluids worsens if vomiting at the same time
- Emphasize importance of oral fluids
- Eat smaller more frequent meals, bland foods.
- Avoid spicy, greasy foods
- Include soluble fiber in diet, metamucil to bulk stool
- Avoid exercise after eating
- Discuss use of anti-diarrhea medication with doctor.

Muscle Cramps



Muscle Cramps

- May occur in hands, feet and legs
- Occasional in nature
- Increase with prolonged therapy
- Increase oral fluid intake, sport supplements, gatorade, powerade with electrolytes
- Pickle juice, Olive juice
- Exercise regularly
- Tonic water with quinine
- Ivory soap at the foot of the bed

Edema



Edema

- Lower extremity and upper extremity
- Around eyes more common with Gleevec
- Shortness of breath if around the lungs
- Increase in abdominal girth
- Weight gain

Management of Edema

- Weigh daily
- Be alert to changes of your body
- Limit salt intake
- Diuretics
- Preparation H around the eyes for puffiness.

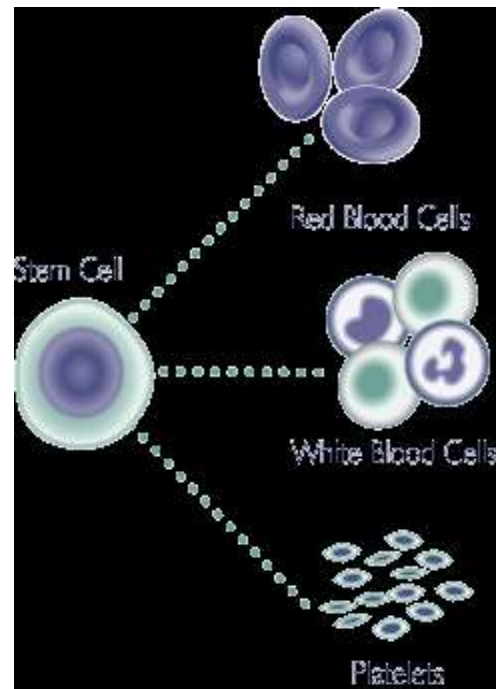
Hypertension



Hypertension

- Mechanism of action causes blood pressure to rise
- Symptoms include headache, dizziness, nosebleeds and shortness of breath
- Become familiar with what the numbers mean
- Get blood pressure machine and take daily readings, keep log.
- Take blood pressure medicine as prescribed
- Consult with Primary Care Physician while taking TKI therapy since BP med doses might need adjustment

Low Blood Counts



Low Red Cell Count Anemia

- Red cells carry oxygen to tissues of the body
- May appear pale
- May feel tired
- May feel short of breath
- May have increased heart rate
- May require transfusions or growth factors (procrit, aranesp)
- Lab work to include iron studies and full anemia panel
- Replace whatever is low

Low White Blood Cells

Neutropenia

- White cells protect body against infection
- May run fever
- May feel tired
- Avoid sick contacts
- Avoid crowds
- Always wear shoes
- Bathe daily
- Avoid enemas or suppositories
- Use growth factor if necessary (neupogen)

Low Platelet Count Thrombocytopenia

- Platelets help the body in the clotting of blood
- Low platelets results in easy bruising
- Tiny red dots may appear under skin
- Gums may bleed
- Avoid suppositories or enemas
- Avoid aspirin or blood thinners
- Avoid vigorous activities, such as contact sports

Thank you!

