Regimen Reference Order – LEUK – bosutinib

ARIA: LEUK – [bosutinib]

Planned Course: **Once daily until disease progression or unacceptable toxicity (1 cycle = 30 days)**
Indication for Use: **Chronic Myelogenous Leukemia**

Proceed with treatment if:

Blood work at provider's discretion: not required to proceed with treatment

SEQUENCE OF MEDICATION ADMINISTRATION

Pre-treatment Requirements

Drug	Dose	CCMB Administration Guideline
allopurinol*	300 mg	Orally once daily for 10 days to begin 3 days prior to start of bosutinib and at provider's discretion for additional length of time **(Self-administered at home)** * Only patients at risk of tumor lysis syndrome will be prescribed allopurinol

Treatment Regimen – LEUK - bosutinib

Drug	Dose	CCMB Administration Guideline
bosutinib	500 mg	Orally once daily with food Swallow whole **(Self-administered at home)**
bosutinib (Bosulif®) available dosage strengths: 100 mg and 500 mg tablets **Classification: Cytotoxic, Hazardous**		

REQUIRED MONITORING

Baseline

- CBC, serum creatinine, urea, liver enzymes, electrolytes and lipase as per Physician Orders
- Patient weight
- Hepatitis B Antigen and hepatitis B core Antibody (if not done previously) as reactivation of hepatitis B virus (HBV) has occurred in patients who are chronic carriers
- RT-Q-PCR for BCR-ABL

EKG

- At baseline, and
- Repeat as clinically indicated during therapy

Month 1

- Week 1: CBC, serum creatinine, urea, liver enzymes, electrolytes and lipase
- Weeks 2 to 4: CBC, serum creatinine, urea, liver enzymes and electrolytes as per Physician Orders
- Patient weight at each clinic visit (monitor for fluid retention)

Months 2 and 3

- CBC, serum creatinine, urea, liver enzymes, electrolytes and lipase once a month as per Physician Orders
- Patient weight at each clinic visit (monitor for fluid retention)

Month 4 and Onwards

- CBC, serum creatinine, urea, liver enzymes, electrolytes and lipase as per Physician Orders (frequency to be determined by hematologist)
- Patient weight at each clinic visit (monitor for fluid retention)

Recommended Support Medications

Drug	Dose	CCMB Administration Guideline
loperamide	2 – 4 mg	Orally as directed below

INSTRUCTIONS FOR PATIENT

- Patients should be encouraged to maintain adequate hydration
- Instruct patient to report skin rash
- Patients should notify clinic prior to starting any new medication. bosutinib has potential for drug-drug interactions
- Long term suppression of gastric acid with H2 Receptor Antagonists or proton pump inhibitors (PPIs) may reduce systemic exposure to bosutinib
- Avoid grapefruit and grapefruit juice, Seville oranges (i.e. orange marmalade), pomegranate and starfruit
- Patients should be instructed to purchase loperamide at their retail pharmacy
- Mild to moderate diarrhea (less than 4 loose stools per day):
    - Patients should take loperamide 4 mg (two 2 mg tablets) orally immediately if they have loose bowel movement and then take 2 mg (one 2 mg tablet) after each liquid bowel movement
    - Patients should not exceed a maximum of 8 tablets in a 24-hour period
    - Patient should contact their cancer team if more than 3 loose bowel movements in a 24-hour period
- Moderate diarrhea (4 to 6 loose stools per day or night-time diarrhea):
    - Take loperamide 4 mg (two 2 mg tablets) orally immediately; then
    - During the day: take 2 mg (one 2 mg tablet) orally every 2 hours
    - During the night: Take 4 mg (two 2 mg tablets) orally at bedtime and then every 4 hours until morning
    - STOP loperamide once no bowel movement has occurred (i.e. diarrhea-free) for 12 hours
    - If diarrhea has not stopped despite taking 12 tablets (24 mg) of loperamide over a 24-hour period, please contact your clinic for further instructions. If this occurs after clinic hours, please call the Medical Oncologist on-call and/or report to the nearest emergency room/urgent care centre. Please note that 24 mg per 24 hours is higher than the usual “over the counter” dose for loperamide
- Reinforce applicable safe handling precautions of medications, blood and body fluids while on bosutinib

ADDITIONAL INFORMATION

- QT prolongation has been associated with bosutinib
- bosutinib has been associated with fluid retention, including pleural effusion, pulmonary edema and pericardial effusion
- bosutinib has been associated with hepatic toxicity, cardiac toxicity and hemorrhage