Navigating Side Effects: Expert Strategies for Effective Management

Irene Caballes

25th May 2024

OVERVIEW

CML HORIZONS
HYBRID MEETING 2024
Vilnius, Lithuania
24–26 May 2024

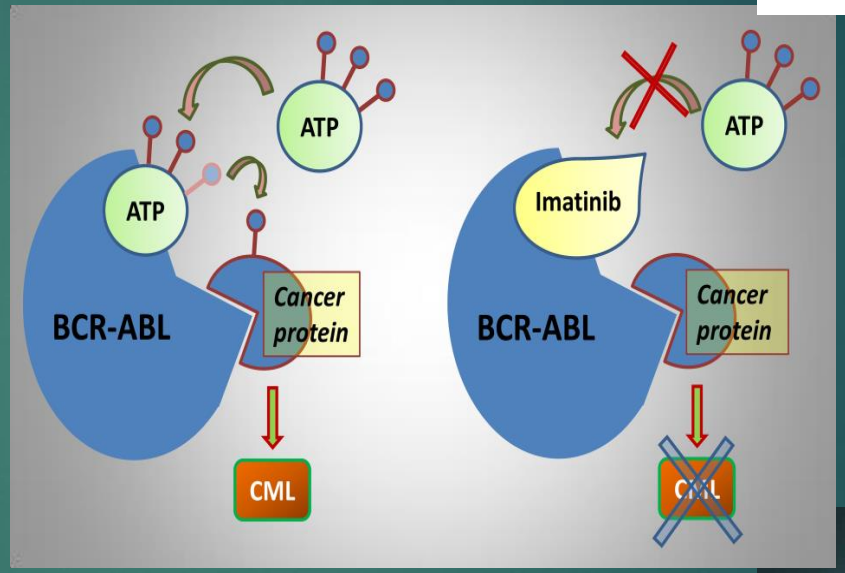
- TKI side effects (SE) can be debilitating
- Side effects are very individual
- Early reporting of SE is vital to allow treatment to continue
- Medication adherence and compliance is important to maintain excellent response to treatment
- Minimising SE symptoms can help achieve better quality of life

CML HORIZONS
HYBRID MEETING 2024
Vilnius, Lithuania
24–26 May 2024

❑ Treatment Options TKIs

- ➢ Imatinib
- ➢ Nilotinib
- ➢ Dasatinib
- ➢ Bosutinib
- ➢ Ponatinib
- ➢ Asciminib
- ➢ SCT transplant
- ➢ Many more in pipeline
  Olverambatinib

“In every treatment there is SE consequence”

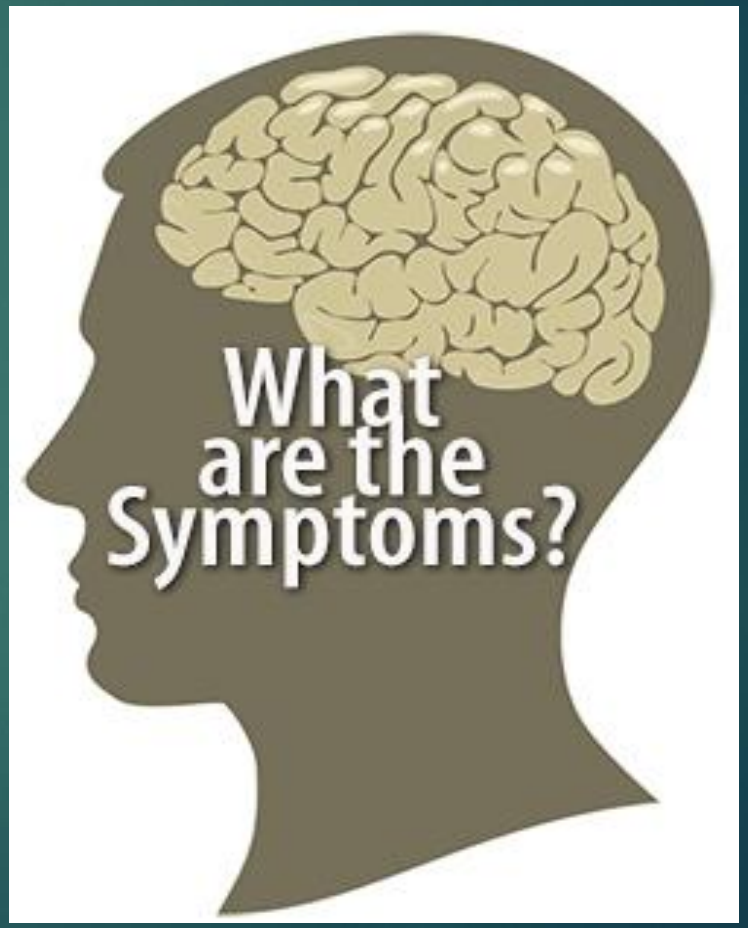


Patient Issues

- Side effect management
- Medication adherence & compliance
- Drug access
- Lifestyle Changes
- Patient Education
- Self Management
- Patient Quality of Life

SE that are common to All TKI's

- Bone pain
- Diarrhoea
- Fatigue
- Fluid retention
- Headaches
- Heartburn/Indigestion
- Joint pains/muscle pain
- Muscle cramps
- Nausea
- Skin rash
- Abnormal blood counts
- Abnormal liver/kidney function



CML HORIZONS
HYBRID MEETING 2024
Vilnius, Lithuania
24–26 May 2024

Specific TKI Side Effects

Imatinib	Dasatinib	Nilotinib	Bosutinib	Ponatinib
Weight gain	Headaches	Skin rash	Diarrhoea	Dry skin
Fluid retention (periorbital oedema)	Abdominal cramps	Increase in blood glucose	Abdominal pain	High blood pressure
Dry gritty eyes	Fluid in lungs (pleural effusion)	Increase in cholesterol levels	Fluid retention (periorbital oedema)	Inflammation of pancreas
Nausea	Low platelets (Thrombocytopenia)	Rare-clots in the arteries of heart, brain and lower legs	Abnormal liver function	Clots in the arteries of the heart, brain and lower legs
Hypopigmentation	Constipation	Constipation	Increase in serum lipase	
Renal impairment	Rare- blood in stool; colitis; pulmonary arterial hypertension	Hair Loss		
Hair loss	Rare – Panniculitis			

Specific TKI Side Effects

Asciminib
Muscle pain
Joint stiffness (arthralgia)
Headache
Nausea
Fatigue
Upper Respiratory Tract infections
Abnormal blood results: Low platelets (Thrombocytopenia) Increased pancreatic enzymes (amylase & lipase

Asciminib
Monitor/Inform haem team:
Low Blood Counts (Myelosuppression) (low blood counts)
Increased amylase and lipase (Pancreatic toxicity)
Abnormal heart beat (QT Prolongation)
Low potassium and magnesium (Hypokalaemia & Hypomagnesemia)
High blood pressure (hypertension)
Unwanted effect on the function of the heart (Torsades de pointes)

Management of SE Symptoms

Symptoms	Practical Management
Bone/muscle pain	Assess pain severity Paracetamol with dose caution NSAID Ibuprofen Warm compress (heat packs) Light to moderate exercises
Constipation	High fibre fruits and vegetables Adequate fluid intake Increase physical activity Mild Laxatives, stool softeners
Diarrhoea	Adequate fluid intake Anti-diarrhoea tablet-Loperamide
Fatigue	Set priorities; ask help if needed Regular exercises-yoga, meditation Daily nap Lifestyle modifications-work, activities

Symptoms	Practical Management
Heartburn/Indigestion	Common to person with GI reflux Avoid overeating Avoid spicy foods Reduce caffeine/alcohol intake Use antacids , H2 blockers, Proton pump inhibitor i.e. Lansoprazole, Omeprazole (be aware of drug interaction)
Abnormal blood counts Neutropenia, Anaemia, Thrombocytopenia	Close monitoring of blood results May require dose interruption or dose reduction Consider transfusions if indicated Consider GCSF (Filgrastim), EPO or TPO agonist Discuss with haematology doctor
Muscle and Joint Pain	Can be difficult to treat if persistent Check Vit D level Paracetamol and NSAID (Ibuprofen) with caution risk of GI bleeding, renal functions

Symptoms	Practical Management
Muscle cramps	Calcium, magnesium and potassium level should be checked Calcium and magnesium supplements Tonic water is effective Adequate fluid intake Dark chocolate
Nausea/Vomiting	Very common during 1st weeks of therapy Be aware of correct TKI intake Anti emetics/Anti nausea-Ondansetron PPI –take away from TKI
Skin itchiness and rash Hypersensitivity Photosensitivity Dermatitis	Apply skin moisturiser Avoid direct sunlight Use high factor sun screen Topical hydrocortisone cream Antihistamines-cetirizine, loraditine Consider steroid tablets in severe cases

Symptoms	Practical Management
Weight gain	Regular physical exercises Healthy eating habits/reduced calorie intake Decrease sodium intake Monitor thyroid function
Abnormal Liver/Renal Functions/Blood Glucose Transaminitis	Close monitoring of blood results May require dose interruption or dose reduction Discuss with haematology doctor Consider oral steroids when clinically indicated
Pleural Effusions (Fluid in the lung) i.e. shortness of breath, cough, chest pain	Chest X-ray STOP Dasatinib Diuretics (water tablet) Severe Cases-fluid drainage and steroids
Eye Weeping/Dryness	Hypromellose Eye Drops; See eye specialist (Ophthalmologist)

❑ Simoneau, C (2013). Treating Chronic Myeloid Leukaemia: Improving Management Through Understanding of Patient Experience. *Clinical Journal of Oncology Nursing*: 17 (1): E13-E20.

Reminder How to take TKI

CML HORIZONS
HYBRID MEETING 2024
Vilnius, Lithuania
24–26 May 2024

IMATINIB
Once daily. To be taken with a tall glass of water and a meal

BOSUTINIB
Once a day with food. Should be taken whole with a glass of water

NILOTINIB
To be taken on empty stomach
Do not eat food for at least 2 hours before the dose and for at least 1 hour after the dose at least 12 hours apart

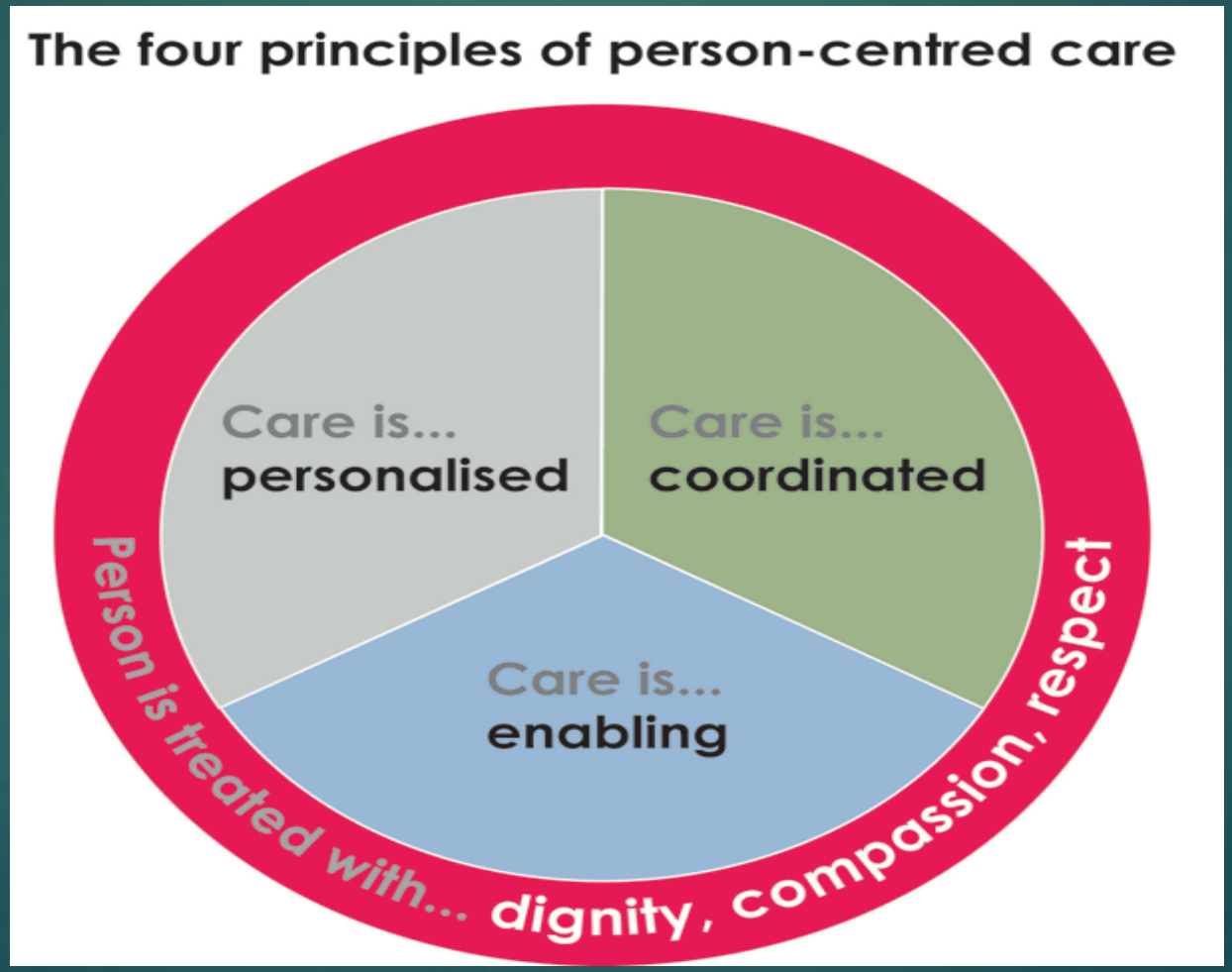
PONATINIB
Take the tablet whole with a glass of water once a day with or without food

DASATINIB
Same time daily with or without food. Must be taken whole with a glass of water

ASCIMINIB
Wait at least 2 hours after eating; take the tablet and wait 1 hour before eating again

Patient Centred Care

CML HORIZONS
HYBRID MEETING 2024
Vilnius, Lithuania
24–26 May 2024



Who can help to manage SE?

- Haematology Consultant, Doctors, GP
- Clinical Nurse Specialist
- Pharmacist
- Clinical Psychologist
- Relatives/family member
- Support groups - CML advocates Hammersmith Hospital Patient Support Group

Quality of Life

CML HORIZONS
HYBRID MEETING 2024
Vilnius, Lithuania
24–26 May 2024

The Way Forward

CML HORIZONS
HYBRID MEETING 2024
Vilnius, Lithuania
24–26 May 2024

- *Proactive monitoring and patient education is vital*
- *Determination and resiliency can help achieve best possible outcome*
- *Monitoring response to TKI therapy is a critical component*
- *Optimization medication adherence, side effect management and improve quality of life is a priority*
- *Collaborative partnership between patient and healthcare professional is essential*

CML HORIZONS
HYBRID MEETING 2024
Vilnius, Lithuania
24–26 May 2024

Things will get harder before they get better !!!

CML Links and Resources

CML HORIZONS
HYBRID MEETING 2024
Vilnius, Lithuania
24–26 May 2024

CML SUPPORT
https://www.cmlsupport.org.uk/

Blood cancer UK
https://bloodcancer.org.uk/

CML Advocates Network
For Chronic Myeloid Leukemia Patient Group Advocates
http://www.cmladvocates.net/

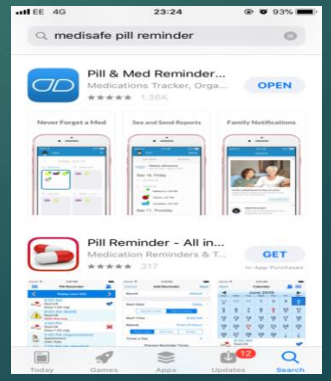
Leukaemia Care
YOUR Blood Cancer Charity
http://www.leukaemiacare.org.uk/

ELN European LeukemiaNet
https://www.leukemia-net.org/

WE ARE MACMILLAN. CANCER SUPPORT
https://www.macmillan.org.uk/

iCMLf International Chronic Myeloid Leukemia Foundation
https://www.cml-foundation.org/

THE NATIONAL CML SOCIETY
http://www.nationalcmlsociety.org/



Medisafe pill reminder app

CANCER RESEARCH UK
http://www.cancerresearchuk.org/

NHS
Imperial College Healthcare
NHS Trust

CML HORIZONS
HYBRID MEETING 2024
Vilnius, Lithuania
24–26 May 2024

Acknowledgement

CML Team:

- Prof Jane Apperley
- Prof Dragana Milojkovic
- Dr Simone Claudiani
- Dr Andrew Innes
- Dr Fiona Fernando
- Patience Mungozi, CNS

CML HORIZONS
HYBRID MEETING 2024
Vilnius, Lithuania
24–26 May 2024

Thank You for your Attention!