IMACO®
(IMATINIB)

Indications:
□ Acute Lymphoblastic Leukemia
Indicated for adults with relapsed or refractory Philadelphia chromosome positive (Ph+) acute lymphoblastic leukemia (ALL)
□ Myelodysplastic/Myeloproliferative Diseases
Indicated in adults with myelodysplastic/ myeloproliferative diseases -associated with platelet-derived growth factor receptor gene re-arrangements as determined with an FDA-approved test
□ ypereosinophilic Syndrome/Eosinophilic Leukemia
Indicated for adults with hypereosinophilic syndrome and/or chronic eosinophilic leukemia who have the FIP1L1-PDGFR-alpha fusion kinase (mutational analysis or FISH demonstration of CHIC2 allele deletion) and for patients with HES and/or CEL who are FIP1L1-PDGFR-alpha fusion kinase negative or unknown
□ Chronic Myeloid Leukemia
□ Dermatofibrosarcoma Protuberans
Indicated for adults with unresectable, recurrent and/or metastatic dermatofibrosarcoma protuberans
□ Mastocytosis
□ Gastrointestinal Stromal Tumors
Pharmacological Category:
Antineoplastics, Tyrosine Kinase Inhibitor

Pregnancy:
Manufacturer advises avoid unless potential benefit outweighs risk, effective contraception required during treatment

Lactation:
Discontinue breast-feeding

Side effects:
Common adverse effects are as follow:
□ Cardiovascular: Edema includes aggravated edema, anasarca, ascites, pericardial effusion, peripheral edema, pulmonary edema, and superficial edema), facial edema, chest pain, hypotension
□ Central nervous system: Fatigue, pain, headache, dizziness, insomnia, depression, taste disorder, rigors, anxiety, paresthesia, chills
□ Dermatologic: Skin rash, dermatitis, pruritus, night sweats, alopecia, diaphoresis
□ Endocrine & metabolic: Increased lactate dehydrogenase, weight gain, decreased serum albumin, hypokalemia
□ Gastrointestinal: Nausea, diarrhea, vomiting, abdominal pain, anorexia, dyspepsia, flatulence, abdominal distension, constipation, stomatitis
□ Hematologic & oncologic: Hemorrhage, leukopenia, hypoproteinemia, anemia, neutropenia, thrombocytopenia
□ Hepatic: Increased serum AST, increased serum ALT, increased alkaline phosphatase, increased serum bilirubin, increased serum transaminases
□ Infection: Influenza
□ Neuromuscular & skeletal: Muscle cramps, musculoskeletal pain, arthralgia, myalgia, weakness, back pain, limb pain, ostealgia
□ Ophthalmic: Periorbital edema, increased lacrimation, eyelid edema, blurred vision
□ Renal: Increased serum creatinine
□ Respiratory: Nasopharyngitis, cough, upper respiratory traet infection, dyspnea, pharyngolaryngeal pain, rhinitis, pharyngitis, flu-like symptoms, pneumonia, sinusitis
□ Miscellaneous: Fever
Contraindications:
Hypersensitivity to imatinib or any component of the formulation

Interactions:
Cobimetinib, conivaptan, dihydroergotamine, eliglustat, flibanserin, ivabradine, lomitapide, lurasidone, naloxegol, regorafenib, venetoclax, ado-trastuzumab emtansine, avanafil, axitinib, bedaquiline, bosutinib, brigatinib, cabazitaxel, cabozantinib, ceritinib, dabrafenib, daclatasvir, fentanyl, hydrocodone, ibrutinib, idelalisib, ivacaftor, macitentan, midostaurin, neratinib, olaparib, osimertinib, oxycodone, palbociclib, pimavanserin, pomalidomide, ponatinib, quinidine, ribociclib, riociguat, ruxolitinib, sonidegib, suvorexant, tamsulosin, thioridazine, tofacitinib, trabectedin, vemurafenib, vilazodone, vorapaxar, warfarin

Dose:
Adult:
□ Acute Lymphoblastic Leukemia
600 mg PO once daily
□ Myelodysplastic/Myeloproliferative Diseases
400 mg PO once daily
□ Hypereosinophilic Syndrome/Eosinophilic Leukemia
400 mg PO once daily
In patients with demonstrated F1P1L1-PDGFR-alpha fusion kinase: 100 mg PO once daily; may increase to 400 mg once daily in the absence of adverse drug reactions if assessments demonstrate an insufficient response to therapy
□ Chronic Myeloid Leukemia
Chronic phase
• Newly diagnosed adult and pediatric patients with Philadelphia chromosome positive (Ph+) chronic myeloid leukemia (CML) in chronic phase
• 400 mg PO once daily
• Chronic phase after failure of interferon-alpha therapy: May increase to 600 mg/day in the absence of severe adverse drug reaction and severe non-leukemia related neutropenia or thrombocytopenia in the following circumstances: disease progression (at any time), failure to achieve a satisfactory hematologic response after at least 3 months of treatment, failure to achieve a cytogenetic response after 6-12 months of treatment, or loss of a previously achieved hematologic or cytogenetic response
Accelerated phase or blast crisis
• 600 mg PO once daily
• May increase to 400 mg PO q12hr in the absence of severe adverse drug reaction and severe non-leukemia related neutropenia or thrombocytopenia in the following circumstances: disease progression (at any time), failure to achieve a satisfactory hematologic response after at least 3 months of treatment, failure to achieve a cytogenetic response after 6-12 months of treatment, or loss of a previously achieved hematologic or cytogenetic response
□ Dermatofibrosarcoma Protuberans
400 mg PO q12hr
□ Mastocytosis
Indicated for adults with aggressive systemic mastocytosis without the D816V c-Kit mutation as determined with an FDA-approved test or with c-Kit mutational status unknown
Without D816V c-Kit mutation: 100 mg PO once daily
c-Kit mutational status unknown: 400 mg PO once daily if not responding to other therapies
ASM associated with eosinophilia (aclonal hematological disease related to the fusion kinase FIP1L1-PDGFR-alpha): 100 mg PO once daily initially, may increase to 400 mg/day in absence of adverse effects if-response to therapy is insufficient
□ Gastrointestinal Stromal Tumors
Unresectable and/or metastatic malignant GIST

• 400 mg PO once daily; may increase to 400 mg q12hr in patients showing clear signs or symptoms of disease progression at a lower dose and in the absence of severe adverse drug reactions
Adjuvant treatment following complete gross resection of GIST
• 400 mg PO once daily x3 years

Pediatric:

 Chronic Myeloid Leukemia
Indicated for newly diagnosed adult and pediatric patients with Philadelphia chromosome positive (Ph+) chronic myeloid leukemia (CML) in chronic phase
<1 year: Safety and efficacy not established
≥1 year: 340 mg/m²/day PO; not to exceed 600 mg/day
 Acute Lymphoblastic Leukemia
Indicated for treatment of newly diagnosed children with Philadelphia chromosome positive (Ph+) acute lymphoblastic leukemia (ALL)
<1 year: Safety and efficacy not established
≥1 year: 340 mg/m²/day PO; not to exceed 600 mg/day
Administration:
 Take with meal and large glass of water.
 Imatinib is associated with a moderate emetic potential; antiemetics may be recommended to prevent nausea and vomiting.
 Avoid grapefruit juice.
Dosage Forms:
100 & 400 mg oral capsules

References:

1) British National Formulary 68, September 2014- March 2015, pages 603-604
2) Lexicomp,s Drug Reference Handbooks, American Pharmacists Association, 20th edition, pages 884-887
3)https://www.drugs.com/ppa/imatinib.html
4)http://www.pdr.net/drug-summary/Gleevec-imatinib-mesylate-433
5)http://reference.medscape.com/drug/gleevec-imatinib-342239