Avella Specialty Pharmacy

Oral Chemotherapy Monitoring & Counseling

Medication	Dose / FDA Indication	Monitoring Parameters	Key Counseling Points
Afinitor (everolimus) *2.5, 5, 7.5, 10mg Blister pack: 28 tablets (4 x 7 tabs each)* *Disperz 2, 3, 5mg Blister pack: tablets for oral suspension (4 x 7 tabs each)* **MOA:** mTOR inhibitor	**HR+, HER2- breast cancer** (with exemestane); **pNET; RCC:** 10mg PO daily **SEGA:** Initial 4.5mg/m2, titrate at week 2 to attain trough conc. of 5-15 ng/mL	**BBW:** none **Baseline & periodically:** CBC w/ differentials, SCr, fasting serum glucose/lipids • Liver dysfxn: dose adj. based on Child Pugh score • Dose adj. based on ADE (see PI) • S/sx of infection or new or worsening respiratory symptoms **DDI:** CYP3A4 substrate (major) • ↓ dose to 2.5mg daily with CYP3A4 inhibitor • ↑ risk of angioedema with ACE-inhibitor	**Administration:** Swallow tablet whole, don't crush or chew • Take consistently with regards to food • Avoid grapefruit/juice • Missed dose should be taken if < 6 hours • Hazardous agent, use precautions when handling **ADE:** Stomatitis, N/V/D, cough, dyspnea, peripheral edema, rash, fatigue, decreased appetite, HTN
Alkeran (melphalan) *2 mg* *Bottle: 50 tablets* **MOA:** Alkylating agent	**Ovarian, MM:** Various regimens exist, Typical: 0.2 mg/kg to 10 mg PO daily for up to 7 days	**BBW:** Antineoplastic experienced doctor **Baseline & periodically:** CBC with differentials • Bone Marrow suppression: Infection, bleeding or anemia	**Administration:** Store refrigerated • Take on empty stomach, food ↓ bioavailability • Perform good oral hygiene • Hazardous agent, use precautions when handling **ADE:** Bone marrow suppression, nausea, mouth sores, pulmonary toxicity
Aromatase Inhibitors *(available as daily dose)*		**BBW:** none **Baseline & periodically:** (Anastrozole): LFTs & Bili q3-6 months (↑ frequency with hepatic metastases) **DDI:** w/ Tamoxifen ↓ effectiveness • Not indicated for premenopausal women or women w/ ER- tumors	**Administration** (Exemestane): Take after a meal **ADE:** Hot flashes, peripheral edema, N/V/D, arthralgia & weakness • Thrombosis & hot flashes less common than with Tamoxifen • Does not affect cortisol or aldosterone • Long term effects: Osteoporosis & hypercholesterolemia
anastrozole* (Arimidex)	**Breast Ca:** 1 mg PO daily		
exemestane* (Aromasin)	**Breast Ca:** 25 mg PO daily		
letrozole* (Femara)	**Breast Ca:** 2.5 mg PO daily		
Bicalutamide* (Casodex) *50 mg* *Bottle: 30 tablets* **MOA:** Androgen receptor inhibitor	**Metastatic Prostate in combo with LHRH agonist:** 50mg PO daily	**BBW:** none **Baseline & periodically:** LFTs (d/c if ALT > 2x ULN or patient develops jaundice) • PSA **DDI:** CYP3A4 inhibitor • Monitor INR closely with warfarin	**Administration:** May take with or without food • Usually in combination with LHRH agonist analogs • Hazardous agent, use precautions when handling **ADE:** Hot flashes, gynecomastia, breast tenderness, decreased libido, edema, arthralgia & weakness

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Bosulif (bositinib) *100mg* *Bottle: 120 tablets* *500 mg* *Bottle: 30 tablets* **MOA:** TKI of BCR-ABL	**Chronic, accelerated or blast phase Ph+CML resistant or intolerant to prior therapy:** 500 mg PO once daily (if no CHR by week 8 or CCyR by week 12 ↑ dose to 600 mg daily)	**BBW:** none **Baseline & periodically:** CBC with differential and platelets, SCr, LFT • ↓ dose to 200mg daily (If LFTs rise > 5xULN, hold until < 2.5xULN & resume at 400mg) • CrCl 30-50ml/min: 400mg, <30ml/min: 300mg • Grade 3+ diarrhea or myelosuppression, hold until ≤ Grade 1 & ↓ dose by 100mg **DDI:** CYP3A4 substrate (major)	**Administration:** Swallow tablets whole, don't crush or chew • Take with food • Avoid grapefruit/juice • Missed dose should be taken if < 12 hours • Hazardous agent, use precautions when handling **ADE:** Myelosuppression, N/V/D, abdominal pain, edema, fatigue, headache, rash
capecitabine * (Xeloda) *150mg* *Bottle: 60 tablets* *500mg* *Bottle: 120 tablets* **MOA:** DNA & RNA protein synthesis inhibitor	**Metastatic Breast cancer, refractory; Metastatic Colorectal cancer:** 1250mg/m^2 PO BID x 2 weeks, then 1 week OFF	**BBW:** Warfarin interaction: frequently monitor INR **Baseline & periodically:** CBC with differential, hepatic function, SCr, INR if concomitant warfarin • Dose modify for ADE (see PI) • CrCl 30-50 ml/min ↓ dose by 25%; for CrCl < 30 ml/min: Dose held **DDI:** CYP2C (inhibitor) (strong) • Monitor phenytoin carefully • Avoid > 100% RDA folate → ↑ toxicity	**Administration:** Swallow tablet whole with water • Take within 30 minutes of food **ADE:** Diarrhea, mild N/V, stomatitis, fatigue, hand-foot syndrome
Caprelsa (vandetanib) *100, 300mg* *Bottle: 30 tablets* **MOA:** TKI	**Medullary thyroid cancer, metastatic or locally advanced:** 300mg PO daily	**BBW:** none **Baseline & periodically:** CBC, serum electrolytes, TSH, BP, ECG • Dose adj. based on Grade 3+ ADE (see PI) **DDI:** CYP3A4 substrate (major) • QT prolongation additive effect	**Administration:** Don't crush tablets, can be dispersed in 2oz of water and swallow immediately • May take with or without food • Avoid grapefruit/juice • Missed dose should be taken if < 12 hours **ADE:** HTN, fatigue, rash, N/V/D
chlorambucil* (Leukaran) *2 mg* *Bottle: 50 tablets* **MOA:** Alkylating agent	**CLL, HL, NHL, mycosis fungoides:** 0.03-0.2 mg/kg PO daily	**BBW:** Suppress bone marrow; Teratogenic **Baseline & periodically:** CBCs and platelets weekly, WBC 3-4 days after each weekly CBC • CrCl1: 0-50ml/min = 75% dose, <10ml/min=50%	**Administration:** Store refrigerated • Take on empty stomach 1 hour prior or 2 hours after food • Dose ≤ 0.1 mg/kg/day when lymphocytic infiltration of bone marrow is present (bone marrow is hypoplastic) **ADE:** Bone marrow suppression **Rare ADE:** urticaria, tremors & nausea

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Cometriq (cabozanitinib) *20, 80mg* *Blister packs: Combo of 20mg & 80mg to make 60mg, 100mg, 140mg/day* **MOA:** TKI	**Medullary thyroid cancer, metastatic:** 140mg PO daily	**BBW:** GI perforations and fistula; Hemorrhage **Baseline & periodically:** CBC & Chem 12, GI perforation, urine UA, BP at each visit & at home • Dose adj. based on ADE (see PI) **DDI:** CYP3A4 substrate (major) • ↓dose by 40mg with strong CYP3A4 inhibitor • ↑dose by 40mg with strong CYP3A4 inducer	**Administration:** Swallow capsules whole • Take on empty stomach 1 hour before or 2 hours after food • Avoid grapefruit/juice • Missed dose should be taken if < 12 hours **ADE:** H-F syndrome, HTN, fatigue, N/V/D, stomatitis, dysphonia
cyclophosphamide* (Cytoxan) *25, 50 mg tablets/ capsules* *Bottle: various counts* **MOA:** Alkylating agent	**Several Indications with other therapy:** 1-5mg/kg PO daily (CMF Regimen for Breast Ca) Range: 1-5 mg/kg/day	**BBW:** none **Baseline & periodically:** CBC w/ differential, SCr • CrCl < 10ml/min or bili 3.1-5ULN: ↓ dose by 25% . **DDI:** CYP3A4 inducer ↑ hepatic conversion to toxic metabolites • ↓ digoxin levels	**Administration:** Swallow capsules whole • May take w/ food to decrease (but empty ↑ bioavailability) • Take tabs in AM & hydrate (3L of fluid) to eliminate of toxic metabolite (acrolein) • Hazardous agent, use precautions when handling **ADE:** Hair loss in 50% of patients (reversal d/c tx), N/V, Leukopenia (dose-limiting toxicity)
Emcyt (estramustine) *140mg* *Bottle: 100 capsules* **MOA:** Antimicrobial agent	**Metastatic Prostate cancer:** 14mg/kg/day PO divided into 3-4 doses	**BBW:** none **Baseline & periodically:** CBC, Tbili, LFTs & Calcium levels, BP, fluid retention, testosterone	**Administration:** Store refrigerated • Take on empty stomach 1 hour before or 2 hours after food • Avoid dosing with calcium products or dairy **ADE:** Moderate emetic- use antiemetic prophylaxis, gynecomastia, musculoskeletal pain, diarrhea, dyspnea
Erivedge (visomoegrib) *150mg* *Bottle: 28 capsules* **MOA:** Hedgehog pathway inhibitor	**Basal cell carcinoma, metastatic or locally advanced:** 150mg PO daily	**BBW:** Embryo fetal death; Severe birth defects **Baseline & periodically:** CBC & Chem-12 • Pregnancy test within 1 week prior to initiation; • Females of reproductive potential: Use effective contraception during and 7 months after last dose; • Males use condoms during and 3 months after **DDI:** No significant interactions	**Administration:** Swallow capsule whole • May take with or without food • Don't donate blood during and for 7 months after final dose **ADE:** Muscle spasms, alopecia, fatigue, N/V/D, constipation, decreased appetite, weight loss, arthralgia, dysgeusia

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etoposide/VP-16* (VePesid) *50 mg* *Package: 2x10 caps* **MOA:** podophyllotoxin der.	**SCLC or testicular Cancer:** 50-100mg/m2 PO daily (Usually 2x IV dose)	**BBW:** Antineoplastic experienced doctor **Baseline & periodically:** CBCs w/ differentials, • Bili (dose adj for TBili > 1.5), • CrCl 15-50% ↓ by 25%, < 10ml/min = ↓ by 50% **DDI:** Monitor INR if on warfarin (hypoprothrombic)	**Administration:** Store refrigerated • May take with or without food • Hazardous agent, use precautions when handling **ADE:** Myelosuppression & mucositis (dose-limiting toxicities) Low-moderate nausea, alopecia, rash
Exjade (deferasirox) *125, 250, 500mg* *Bottle: 30 tablets for suspension* **MOA:** Iron chelator, See also: Jadenu	**Transfusional Iron Overload, ≥ 2 years old:** 20 mg/kg PO daily. ↑ 5-10mg/kg daily to patient response **Non-Transfusion-Dependent Thalassemia:** 10mg/kg PO daily, consider increasing up to 20mg/kg daily based on FIC	**BBW:** Renal failure; Hepatic failure; GI events **Baseline & periodically:** Serum ferritin, CBC with differential, CrCl at baseline & monthly thereafter • Baseline and annual auditory/ophthalmic exam • S/sx GI ulcer or hemorrhage **DDI:** CYP3A4 inducer (weak/moderate) • Avoid aluminum containing antacids	**Administration:** Dissolve tablets completely in water, try to obtain mixer (If tablets not fully dissolved, can cause diarrhea) • Take on an empty stomach, same time each day, at least 30 min before food; maintain adequate hydration (unless instructed to restrict fluid intake) **ADE:** • Abdominal pain, N/V/D, ↑ serum creatinine, rash
Farydak (panobinostat) *10, 15, 20mg* *Blister pack: 6 capsules* **MOA:** HDAC inhibitor	**Multiple myeloma with 2 prior regimens:** 20mg PO every other day for 3 doses each week during weeks 1 & 2 only of 21-day cycle (with dexamethasone & bortezomib) • Take for 8 cycles, consider add. 8 cycles if benefit w/out toxicity	**BBW:** Severe diarrhea; Cardiac toxicities **Baseline & periodically:** CBC with differential and platelets, serum electrolytes, ECG, LFT,GI toxicity • Dose adj. based on ADE (see PI) **DDI**: CYP3A substrate (major), CYP2D6 (mod.) • ↓ dose 10mg daily with strong 3A4 inhib. • QT prolongation additive effect	**Administration:** Swallow capsules whole with cup of water • May take with or without food • Avoid grapefruit/juice • Missed dose should be taken if < 12 hours, don't repeat dose if vomiting occurs, consider anti-emetic • Hazardous agent, use precautions when handling **ADE:** Myelosuppression, fatigue, edema, N/V/D, fever
Gilotrif (afatinib) *20, 30, 40mg* *Bottle: Tablets* **MOA:** TKI of EGFR	**Metastatic NSCLC, EGFR+:** 40mg PO daily	**BBW:** none **Baseline & periodically:** CBC & Chem 12, LFT, SCr, skin toxicity, s/sx interstitial lung disease • Dose adj. based on ADE, renal fxn (see PI) **DDI:** Pgp substrate	**Administration:** Take on empty stomach at least 1 hour before or 2 hours after food • Missed dose should be taken if <12 hours **ADE:** Acneiform rash, diarrhea, stomatitis, nail changes

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Gleevec (imatinib) *100mg Bottle: 90 tablets* *400 mg Bottle: 30 tablets* **MOA:** TKI of BCR-ABL	**Ph+CML (chronic phase); MDS/MPD, ASM, HES/CEL; unresectable GIST:** 400mg PO daily **Ph+ALL, refractory; Ph+CML (accelerated or blast phase):** 600mg PO daily	**BBW:** none **Baseline & periodically:** CBC with differential; HOLD if ANC < 1000 or plts < 50,000 • LFT, HOLD for bili >3X ULN (until <1.5 ULN) • HOLD for severe fluid retention **DDI:** CYP3A4 substrate (major) • May enhance anticoagulant effect of warfarin	**Administration:** Swallow tablets whole, may be dispersed in water/ apple juice, stir until dissolved and use immediately • Take with food and large glass of water to ↓ GI irritation • Avoid grapefruit/juice • Doses > 400mg should be administered BID **ADE:** Fluid retention (periorbital or in lower limbs, can be managed with diuretics), muscle cramps, fever, bleeding, diarrhea, fatigue, rash
Hexalen (altretamine) *50mg Bottle: 100 capsules* **MOA:** Alkylating agent	**Persistent or Recurrent Ovarian CA, second line:** 260mg/m2/day PO divided QID for either 14 or 21 days in 28 day cycle	**BBW:** Antineoplastic experienced doctor **Baseline & monthly:** CBC & Chem12 • Neurologic Exam • GI intolerance, ANC < 1000, plt < 75K or neurotoxicity: ↓ dose to 200mg/m2/day **DDI:** Cimetidine ↑ t-half-life	**Administration:** Take four times daily (after meals & at bedtime) **ADE:** N/V/D, peripheral neuropathy, myelosuppresion **Serious ADE:** Neurologic changes (tremor, seizures, vertigo), hepatotoxicity
Hycamtin (topotecan) *0.25, 1 mg Bottle: 10 capsules* **MOA:** Topoisomerase I-inhibitor	**SCLC, relapsed:** 2.3mg/m2 PO daily x 5 days every 21 days *Round to nearest 0.25 mg capsule dose	**BBW:** Myelosuppression **Baseline & monthly:** CBC w/ differentials • SCr (30-39 ml/min ↓dose to 1.8 mg/m2) • If neutropenia (< 500 cells/mm3 or 500-1000 cells/mm3 beyond day 21) ↓ dose by 0.4 mg/m2 **DDI:** Cytotoxic drugs ↑ myelosuppression risk	**Administration:** Swallow capsules whole, if unable, can make solution 1mg/ml with up to 30ml acidic fruit juice • Take with or without food • Hazardous agent, use precautions when handling **ADE:** N/V/D, fatigue, anorexia • Should not treat w/ subsequent course until neutrophils (> 1000 cells/m3), platelets (> 100,000 cells/mm3) & hemoglobin (> 9.0 g/dL) recover
hydroxyurea* (Hydrea) *500 mg Bottle: 100 capsules* **MOA:** unknown	**CML, H&N, Melanoma, Ovarian, or Sickle cell:** 20-80 mg/kg PO daily *Admin at least 7 days prior to initiation of irradiation therapy	**BBW:** Antineoplastic experienced doctor **Baseline & periodically:** WBC & PLT (Hold for WBC < 2500 or PLT < 100,000) • Cause macrocytosis & mask folic acid deficiency; folic acid is recommended during therapy **DDI:** Antiretrovirals can ↑ peripheral neuropathy	**Administration:** Swallow capsules whole with water or dissolve in water and filter • Hazardous agent, use precautions when handling **ADE:** Severe myelosuppression, N/V/D (interrupt dose)

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Ibrance (palbociclib) *75, 100, 125mg* *Bottle: 21 capsules* **MOA:** CDK 4 & 6 inhibitor	**Postmenopausal, ER+, HER2- metastatic breast cancer (with letrozole continuously):** 125mg PO daily for 21 days on and 7 days off	**BBW:** none **Baseline & periodically:** CBC with differential • S/sx of infection & pulmonary embolism • Grade 3+ ADE: Withhold until symptoms resolve to Grade 1/2 & resume at 100mg daily (see PI) **DDI:** CYP3A4 substrate	**Administration:** Swallow capsule whole • Take with food at same time every day • Avoid grapefruit/juice • If missed dose or vomiting occurs, don't take add. dose **ADE:** Myelosuppression, fatigue, N/V/D, stomatitis, alopecia, peripheral neuropathy
Iclusig (ponatinib) *15mg* *Bottle: 30, 60, 180 tablets* *45mg* *Bottle: 30, 90 tablets* **MOA:** TKI of BCR-ABL with mutant T315I	**Ph+CML, T315I+ (chronic, accelerated or blast phase); Ph+ALL + (chronic, accelerated or blast phase):** 45mg PO daily *Consider reducing dose for chronic or accelerated phase if MCR is achieved	**BBW:** Vascular occlusion; Heart failure; Hepatotoxicity **Baseline & periodically:** CBC w/ differential & platelets, LFTs, electrolytes & lipase • Dose interrupt &/or modify on ADE (see PI) • Cardiac function: CHF, HTN, QT prolongation **DDI:** Avoid strong CYP3A4 inducer • ↓ to 30mg with strong CYP3A4 inhibitor	**Administration:** Swallow tablets whole • May be taken with or without food • Avoid grapefruit/juice **ADE:** Myelosuppression, HTN, rash, abdominal pain, fatigue, headache, dry skin, constipation, arthralgia, nausea, pyrexia
Imbruvica (ibrutinib) *140mg* *Bottle: 90, 120 capsule* **MOA:** BTK inhibitor	**CLL, 1 prior therapy; CLL 17p deletion; WM:** 420mg PO daily **MCL, 1 previous therapy:** 560mg PO daily	**BBW:** none **Baseline & periodically:** CBC, renal/hepatic fxn, uric acid • Interrupt for Grade 3+ non-heme/ neutropenia or Grade 4+ hematologic until Grade ≤ 1 • If reoccurs, ↓ dose by 140mg each time **DDI:** CYP3A4 substrate (major) • ↓ dose by 140mg with moderate CYP3A4 inhib.	**Administration:** Swallow capsules whole • Take with or without food with full glass of water • Take missed dose as soon as remembered if on same day • Avoid grapefruit/juice **ADE:** Diarrhea, myelosuppression, fatigue, edema, bruising, dyspnea, N/V, rash
Inlyta (axitinib) *1mg* *Bottle: 180 tablets* *5 mg* *Bottle: 60 tablets* **MOA:** TKI including VEGF	**Advanced RCC, 1 prior therapy:** 5mg PO BID • Dose is titrated to tolerability and if normotensive, up to 10 mg BID if tolerated (see PI)	**BBW:** none **Baseline & periodically:** Hepatic function (LFT & bili), thyroid function, urinalysis, BP, heart function, • S/sx of RPLS, GI bleed **DDI:** CYP3A4 substrate (major) • Avoid use with strong CYP3A4 inhibitors; if needed, ↓ dose by 50% and then adjust	**Administration:** Take with or without food and full glass of water • If missed dose/vomit, an additional dose shouldn't be taken • Avoid grapefruit/juice • Encourage BP monitoring at home **ADE:** N/VD, fatigue, ↓ appetite, dysphonia, H-F syndrome **Serious ADE:** HTN (crisis), hemorrhage, RPLS, thromboembolic events, cardiac failure

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Intron A (interferon alfa-2b) *10,18, 50MIU/ml, Solution/Powder vial* **MOA:** Intracellular activity	**Malignant Melanoma, adjuvant to surgery at high risk for systemic recurrence:** **Induction:** 20MIU/m2 IV over 20min x 5day/ week **Maintenance:** 10MIU/m2 SQ 3day/ week	**BBW:** Cause/aggravate life-threatening disorders **Baseline & periodically:** CBC with differential & platelets, LFT weekly at induction, then monthly • Hold for severe ADE and reinitiate at 50% dose **DDI:** CYP3A4 inhibitor (weak)	**Administration:** Not recommended for IV admin • Powder for inj doesn't have a preservative • Use 25-30 gauge needle for SQ shot, sterile technique **ADE:** Flu-like symptoms (headache, fever, chills, myalgia, & fatigue)
Iressa (gefitinib) *250mg* *Bottle: 30 tablets* **MOA:** TKI of EGFR	**Metastatic NSCLC, EGFR+:** 250mg PO daily	**BBW:** none **Baseline & periodically:** Withhold for up to 14 days for s/ sx pulmonary/ ocular disorder, Grade 2+ diarrhea, Grade 3+ skin rxn. Resume if ≤ Grade 1 • D/C if ILD, severe hepatic impairment, GI perforation, persistent ulcerative keratitis **DDI:** CYP3A4 substrate (major) • CYP3A4 strong inducer: ↑ to 500mg daily • Take 12 hr before/after PPI, 6hr before/after H2RA or antacid	**Administration:** Swallow whole or immerse tablet in 4-8oz of water, stir for ~ 15min and immediately drink • May take with or without food • Missed dose should be taken if <12 hours • Monitor INR if on warfarin **ADE:** Skin reactions, diarrhea, vomiting, stomatitis, ↓ appetite
Jadenu (Deferasirox) *90, 180, 360 mg* *Bottle: 30 tablets* **MOA:** Iron chelator, see also: Exjade	**Transfusional Iron Overload, ≥ 2 years old:** 14mg/kg PO daily, max: 28mg/kg daily **Non-Transfusion-Dependent Thalassemia:** 7mg/kg PO daily, max: 14mg/ kg daily • From Exjade to Jadenu should be ↓ ~ 30% (nearest whole tab)	**BBW:** Renal/hepatic failure; GI hemorrhage **Baseline & periodically:** Serum ferritin, CBC with differential, SCr, CrCl at baseline and monthly thereafter. Adjust dose q3-6 months. • Baseline and annual auditory and ophthalmic exam **DDI:** CYP3A4 inducer (weak/moderate) • Avoid aluminum containing antacids	**Administration:** Swallow tablets whole with water • Take on an empty stomach or with light meal (> 7% fat content and approximately 250 calories) at same time each day **ADE:** (based on Exjade studies): • Abdominal pain, nausea, vomiting, diarrhea, ↑ serum creatinine, skin rash (typiwcally resolves within 1 week)

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Jakafi (ruxolitinib) *5, 10, 15, 20, 25mg* *Bottle: 60 tablets* **MOA:** JAK1 and JAK2 inhibitor	**Int-high risk Myelofibrosis:** 5-20mg PO BID, may ↑ dose by 5mg BID to a max dose of 25mg BID **Polycythemia vera, after hydroxyurea therapy:** 10mg PO BID, dose titrated based on Hg and platelet count (see PI)	**BBW:** none **Baseline & periodically:** CBC, renal and hepatic function, S/sx of infection • Modify dose for thrombocytopenia, titrate dose based on efficacy and safety (see PI) • Skin lesions **DDI:** CYP3A4 substrate (major) • Modify dose with CYP3A4 strong inhibitor	**Administration:** Take with or without food • If patient has feeding tube: mix each tablet with 40 mL of water, stir for 10 min (give within 6 hrs. of mixing), flush feeding tube with water before and after medication is given • Avoid grapefruit/juice • When d/c therapy, taper by 5mg PO BID each week **ADE:** Myelosuppression, bruising, dizziness, headache, weight gain
lomustine* (CeeNu) *10, 40, 100 mg* *Bottle: 20 capsules* **MOA:** DNA/RNA synthesis inhibitor	**HL, Malignant glioma:** 100-130 mg/m2 PO once q6wks	**BBW:** Antineoplastic experienced doctor **Baseline & periodically:** CBC w/ differentials (dose adjust for platelets < 75,000), • CrCl 10-50ml/min = ↓ by 25% dose **DDI:** CYP2D6 substrate (minor), 3A4 inhibitor (weak)	**Administration:** Take on empty stomach as a single dose as bedtime, about 30 min after an antiemetic • Hazardous agent, use precautions when handling **ADE:** Myelosuppression (dose-limiting & delayed), pulmonary toxicity, Mod emetogenic potential, use antiemetic
Matulane (procarbazine HCl) *50mg* *Bottle: 100 capsules* **MOA:** RNA, DNA, protein synthesis inhibitor	**Stage III & IV HL:** 2-6mg/kg/ day **(MOPP regimen):** 100mg/m2	**BBW:** Antineoplastic experienced doctor **Baseline & periodically:** CBC w/ differentials, Platelet & reticulocyte count, Urinalysis, LFTs, SCr **DDI:** • Anticoagulant effect may be ↑ • CNS depressant effect may be ↑	**Administration:** Take with or after meals once daily or in 2-3 divided doses • High emetic potential, antiemetic's are recommended • Hazardous agent, use precautions when handling **ADE:** N/V, myelosuppression, CNS depression, hypotension, musculoskeletal pain, rash, generalized allergic rxn, jaundice
Mekinist (trametinib) *0.5, 1, 2mg* *Bottle: 30 tablets* **MOA:** MEK inhibitor (downstream of BRAF)	**Unresectable or metastatic melanoma with BRAF V600E or BRAF V600K mutation:** 2mg PO daily *FDA approved monotherapy or in combo with dabrafenib)	**BBW:** none **Baseline & periodically:** CBC, LFTs, LVEF, ophthalmological evaluation if visual disturbance • S/sx of bleed, pulmonary or derm toxicity, secondary infections, BP, diarrhea • Dose adj. based on ADE (see PI) **DDI:** CYP2C8 inhibitor (weak),CYP3A4 inducer (weak/moderate)	**Administration:** Take on empty stomach 1 hour before or 2 hours after meal • Store refrigerated in original container • Missed dose should be taken if < 12 hours • Hazardous agent, use precautions when handling **ADE:** Rash, myelosuppression, diarrhea, stomatitis, lymphedema, HTN, ↑ AST/ALT

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mercaptopurine/ 6-MP* (Purinethol) *50 mg* *Bottle: 25 or 250 tablets* **MOA:** HGPRTase	**ALL** (as part of a combo regimen): Various regimens exist Typical: 1.5-2.5mg/kg PO daily	**BBW:** none **Baseline & periodically:** CBC w/ differentials, LFTs & bili, serum uric acid • CrCl < 50 mL/min interval adjustment: q 48h **DDI:** allopurinol (need to ↓ dose of 6-MP by 75%), warfarin, & other hepatotoxic medications	**Administration:** Take on empty stomach, suspension shake well for 30 sec • Hazardous agent, use precautions when handling **ADE:** Myelosuppression, stomatitis, mucositis, rash, photosensitivity, nausea (low emetogenic potential) **Serious ADE:** Hepatotoxicity: jaundice & hyperbilirubinemia occur after 1-2 months & can be dose limiting
methotrexate* (Trexall) *Generic 2.5 mg only* *Bottle: 10, 36, 100 tablets* **MOA:** Dihydrofolic acid reductase inhibitor	**Several indications:** 15-30 mg/m2 PO weekly	**BBW:** High dose regimens require close monitor **Baseline & periodically:** CBC with differentials, LFTs in patients receiving prolonged tx, uric acid • SCr (dose adj for CrCl < 80 ml/min) **DDI:** Avoid drugs that increase MTX levels (i.e. salicylates, sulfas, probenecid, PCNs, vitamin C)	**Administration:** Leucovorin rescue • Important to keep hydrated to reduce risk of renal damage **ADE:** Myelosuppresion, mucositis, pulmonary pneumonitis, alopecia, stomatitis, N/V, D (report to MD, may be signs of toxicities)
Nexavar (sorafenib) *200mg* *Bottle: 120 tablets* **MOA:** multi-TKI	**Unresectable HCC; Advanced RCC; Differentiated Thyroid cancer:** 400mg PO BID	**BBW:** none **Baseline & periodically:** CBC with differential, electrolytes, LFTs, BP, thyroid function • ECG if at risk for QTc prolongation • ↓ dose for ADE, renal, hepatic dysfxn (see PI) **DDI:** CYP3A4 substrate (minor), CYP2C9 inhibitor (moderate) • May enhance anticoagulant effect of warfarin	**Administration:** Take on empty stomach 1 hour before or 2 hours after food • Avoid grapefruit/juice • Hazardous agent, use precautions when handling **ADE:** H-F syndrome, rash, N/V/D, HTN, fatigue, alopecia, myelosuppression, bleeding
Pomalyst (pomalidomide) *1,2,3mg* *Bottle: 21, 100 capsules* **MOA:** Immunomodulator with antineoplastic activity	**MM (with dexamethasone), after 2 prior therapies:** 4mg PO daily on days 1-21 of 28 day cycle *POMALYST REMS: Patient, prescriber and pharmacy must be enrolled	**BBW:** Embryo-fetal toxicity, Thromboembolism **Baseline & periodically:** CBC with differential & platelet, SCr, LFTs, TSH • S/sx of thromboembolism and neuropathy • Dose modify for hematologic toxicity (see PI) **DDI:** CYP1A2, 3A4 substrate (major) • ↓ dose by 50% with strong CYP3A4+1A2 inhibitor	**Administration:** Swallow capsule whole with water • Take on empty stomach 1 hour before or 1 hour after food • Pregnancy test before and during treatment • Contraception or abstain from heterosexual sex during and 4 weeks after therapy **ADE:** Myelosuppression, fatigue, dyspnea, edema, fever, N/V/D, musculoskeletal pain, UTI, dizziness, rash

Medication	Dose / FDA Indication	Monitoring Parameters	Key Counseling Points
Promacta (eltrombopag) *12.5, 25, 50, 75mg* *Bottle: 30 tablets* **MOA:** TPO-receptor agonist	**Aplastic anemia, severe; Chronic hepatitis C infection-associated thrombocytopenia; Chronic ITP > 6 yr old:** 50mg PO daily initially; max dose 75 mg daily • 25 mg daily for patients of East-Asian ethnicity	**BBW:** Hepatic decompensation (if HCV+) **Baseline & periodically:** CBC with differential & platelet, Monthly LFTs • ↑ by 25mg to maintain platelet > 50k, if ineffective after 4 weeks, d/c • Bone marrow biopsy with staining for fibrosis • Ophthalmic exam at baseline & during treatment **DDI:** Cations ↓ serum concentration	**Administration:** Take on an empty stomach at least 1 hour before or 2 hours after food • Separate from antacids, foods high in calcium, or minerals such as iron, calcium, aluminum, magnesium, and zinc by at least four hours • Food, esp. DAIRY may ↓ absorption **ADE:** N/V/D, fatigue, headache, cataracts, hepatotoxicity (jaundice)
Revlimid (lenalidomide) *2.5, 5, 10mg* *Bottle: 28, 100 capsules* *15, 20, 25mg* *Bottle: 21, 100 capsules* **MOA:** Immunomodulator with antineoplastic activity	**MCL, after 2 therapies; MM (with dexa):** 25mg PO daily on days 1-21 of 28 day cycle **MDS w/ 5q deletion:** 10mg PO daily *REVLIMID REMS: Patient, prescriber and pharmacy must be enrolled	**BBW:** Embryo-fetal risk toxicity; Hematologic toxicity; Thromboembolism **Baseline & periodically:** CBC with differential, SCr, LFT • S/sx of thromboembolism, infection • Dose modify for hematologic toxicity (see PI) **DDI:** Pgp substrate • Additive immunosuppressive	**Administration:** Swallow capsule whole with water • Take on empty stomach 1 hour before or 1 hour after food • Pregnancy test before and during treatment • Contraception or abstain from heterosexual sex during and 4 weeks after therapy **ADE:** Myelosuppression, N/V/D, fatigue, rash, dyspnea, fever, musculoskeletal pain, dizziness, UTI
Sprycel (dasatinib) *20, 50, 70 mg* *Bottle: 60 tablets* *80, 100, 140mg* *Bottle: 30 tablets* **MOA:** TKI including BCR-ABL	**Ph+CML (chronic phase):** 100mg PO daily (↑140 mg daily*) **Ph+ALL, refractory; Ph+CML (accelerated or blast phase):** 140mg PO daily (↑ 180 mg daily*) *if not achieving hematologic or cytogenic response)	**BBW:** none **Baseline & periodically:** CBC with differential • Bone marrow biopsy q 3 months • LFT, electrolytes (Ca, Phos, Mag) • ECG monitoring if at risk for QTc prolongation • S/sx fluid retention, cardiac function **DDI:** CYP3A4 substrate (major) • Avoid PPIs and H2RA (if needed may consider antacid 2 hr before or 2 hr after dose) • QT prolongation additive effect • ↑ anticoagulant effect of antiplatelet drugs	**Administration:** Swallow tablet whole, don't crush or chew • Take with or without food • Take with a full glass of water • Avoid grapefruit/juice **ADE:** • Myelosuppression, CNS or GI hemorrhage, fluid retention (including pleural effusion), skin rash, N/V/D, fatigue

Medication	Dose / FDA Indication	Monitoring Parameters	Key Counseling Points
Stivarga (regorafenib) *40mg* *3 Bottles of 28: 84 tablets* **MOA:** Multi-TKI	**Metastatic colorectal cancer after failure of Folfox/Folfiri, bevacizumab & cetuximab; GIST, advanced or metastatic:** 160mg PO daily on days 1-21 of 28 day cycle	**BBW:** Hepatotoxicity **Baseline & periodically:** CBC with differential & platelets, LFTs, BP • Dose modify for ADE (see PI) **DDI:** CYP3A4 substrate (major) • Warfarin may ↑ toxicity of Stivarga and bleeding	**Administration:** Swallow tablet whole with water • Take with meal < 30% fat and < 600 calories **ADE:** Fatigue, anorexia, N/V/D, fever, GI and abdominal pain, dysphonia, H-F syndrome, mucositis, HTN, **Serious ADE:** GI perforation, hemorrhage, hepatotoxicity
Sutent (sunitinib) *12.5, 25, 37.5, 50mg* *Bottle: 28 capsules* **MOA:** Multi-TKI	**GIST, after imatinib tx; RCC, advanced:** 50mg PO daily x 4 weeks on then 2 weeks off **Metastatic or advanced pNET:** 37mg PO daily continuously	**BBW:** Hepatotoxicity **Baseline & periodically:** Electrolytes, LVEF, ECG, LFTs, BP, UA • S/sx thyroid, hypoglycemia • Dose modify by 12.5mg based on tolerability **DDI:** CYP3A4 substrate (major), Pgp inhibitor • Avoid strong 3A4 inhibitors, if can't ↓ 12.5mg/day • Avoid strong 3A4 inducers, if can't ↑ 12.5 mg/day • QT prolongation additive effect	**Administration:** • Take with or without food • Avoid grapefruit/juice **ADE:** Myelosuppression, peripheral edema, N/V/D, electrolyte changes, fatigue, HTN, dizziness, H-F syndrome, alopecia, cough, ↑ AST/ALT, arthralgia, UTI
Sylatron (peginterferon alfa2-b) *296 mcg x 4 vial* *444 mcg x 4 vial* *888 mcg x 4 vial* **MOA:** Intracellular activity	**Melanoma with nodal involvement, adjuvant tx:** 6 mcg/kg/week SQ for 8 doses, followed by 3 mcg/kg SQ for up to 5 years	**BBW:** Depression & suicide ideation **Baseline & periodically:** CBC with differential & platelets, electrolytes, LFT, serum glucose • S/sx by depression • CrCl 30-50ml/min= initial 4.5mg/kg & 2.25mg/kg • ↓ dose for toxicity (see PI) **DDI:** CYP1A2 & 2D6 inhibitor	**Administration:** Dissolve lyophilized powder • Visually inspect the solution and discard if particulates • Withdraw no more than 0.5ml reconstituted solution • Premedicate w/APAP 500 - 1000 mg PO 30 minutes prior to first dose & prn for subsequent doses **ADE:** Fatigue, pyrexia, headache, anorexia, myalgia, N/V, ↑ AST/ALT
Tafinlar (dabrafenib) *50, 75mg* *Bottle: 120 capsules* **MOA:** BRAF inhibitor	**Unresectable or metastatic melanoma with BRAF V600E or BRAF V600K mutation:** 150mg PO BID *FDA approved monotherapy or in combo with trametinib)	**BBW:** none **Baseline & periodically:** Electrolytes, glucose, SCr • S/sx derm, infection, uveitis, hemolytic anemia • Dose modify for ADE (see PI) **DDI:** CYP3A4 & 2C8 substrate (major) • GI acid reducers may ↓ effect, monitor therapy • QT prolongation additive effect	**Administration:** Swallow tablet whole, don't crush or chew • Take on empty stomach 1 hour before or 2 hours after food • Missed dose should be taken if < 6 hours • Hazardous agent, use precautions when handling **ADE:** Fatigue, hyperkeratosis, alopecia, H-F syndrome, rash, musculoskeletal pain, fever, headache, **Serious ADE:** Secondary malignancy

Medication	Dose / FDA Indication	Monitoring Parameters	Key Counseling Points
tamoxifen* (Nolvadex) *10, 20 mg tablets* *Bottle: various* **MOA:** Antiestorgen	**Breast Ca prophylaxis & treatment:** 20 - 40 mg PO daily	**BBW:** Uterine malignancies; Stroke; PE in Ductal carcinoma in situ/high risk breast ca setting **Baseline & periodically:** CBC & platelets, LFTs • Gynecological exam: breast, mammogram **DDI:** ↑ INR in patients on Warfarin • QT prolongation additive effect	**Administration:** Swallow tablet whole • Take with or without food • Dose > 20 mg/day should be divided BID **ADE:** Flush, altered menses, fluid retention, hot flashes, nausea • Risk of endometrial & uterine cancer
Tarceva (erlotinib) *25, 100, 150mg* *Bottle: 30 tablets* **MOA:** TKI of EGFR	**NSCLC (refractory; maintenance; EGFR+ first line):** 150mg PO daily **Pancreatic Ca** (with gemcitabine): 100mg PO daily	**BBW:** none **Baseline & periodically:** LFTs, SCr, electrolytes • If both AST/ALT & TBili > 1.5 x UNL, or ADE consider ↓ dose (see PI) • S/sx pulmonary toxicity **DDI:** CYP3A4 substrate (major) • May need to ↑ or ↓ dose with strong CYP3A4 inducer/inhibitor • Avoid PPI; separate H2RA 10 hr after & 2 hr before; separate antacids by several hours • Consider max dose 300mg if smoker & tolerating	**Administration:** Swallow tablets whole, may be dissolved in 100ml water • Take on empty stomach 1 hour before or 2 hours after food • Avoid grapefruit/juice • Hazardous agent, use precautions when handling **ADE:** Rash, diarrhea, asthenia, cough, dyspnea, ↓appetite
Targretin (bexarotene) *75mg* *Bottle: 100 capsules* *1%* *Gel: 60mg/60g tube* **MOA:** Activates retinoid X receptor	**CTCL, refractory:** (oral): 300mg/m2/day to nearest whole tablet (can ↑ to 400mg/m2 if no tumor response after 8 weeks) (topical): Apply gel sufficiently to lesions once every other day x 1 week, ↑ frequency up to 4x day	**BBW:** Birth defects assoc. with retinoids **Baseline & periodically:** CBC with differential, LFTs, lipid panel, thyroid function • ↓ dose for toxicity (see PI) **DDI:** CYP3A4 substrate (minor), inducer • Multivitamin (ADEK, folate, iron) may ↑toxicity	**Administration:** Take with food • Do not take if pregnant • Hazardous agent, use precautions when handling **ADE (oral):** Lipid abnormalities, hypothyroidism, headache, asthenia, rash, myelosuppression, nausea, edema, abdominal pain, dry skin **ADE (topical):** rash, pruritus, pain
Tasigna (nilotinib) *150, 200mg* *Blister Pack: 28, 112 capsules* *(4x28 blister packs)* **MOA:** TKI including BCR-ABL	**Ph+CML, newly diagnosed:** 300mg PO BID **Ph+CML, resistant or intolerant:** 400mg PO BID	**BBW:** QT Prolongation; Sudden Deaths **Baseline & periodically:** CBC with differential, LFTs, ECG, electrolytes, serum lipase • Bone marrow biopsy q 3 months • Dose modify for ADE (see PI) **DDI:** CYP3A4 substrate (major) • Avoid PPIs; H2RA: 10 hours before & 2 hours; Antacids: 2 hours after dose • QT prolongation additive effect	**Administration:** Swallow capsules whole or disperse contents in 1 tsp of applesauce • Take on empty stomach 1 hour before or 2 hours after food with a full glass of water • Avoid grapefruit juice **ADE:** Myelosuppression, rash, pruritus, headache, N/V/D, fatigue, alopecia, abdominal pain, myalgia, edema, dry skin

Medication	Dose / FDA Indication	Monitoring Parameters	Key Counseling Points
temozolomide* (Temodar) *5, 20, 100, 180, 250mg* *Bottle: capsules* **MOA:** Alkylating agent	**Glioblastoma multiforme (newly diagnosed):** 75mg/m2 daily x 42 days with radiotherapy, followed by maintenance: 150mg/mg2 daily days 1-5 of 28 day cycle for 6 cycles **Anaplastic astrocytoma (refractory):** 150mg/mg2 daily days 1-5 of 28 day cycle	**BBW:** none **Baseline & periodically:** CBC with differentials & platelets, LFTs • Dose ↑ 200mg/mg2 Cycle 2-6 based on ANC & platelets **DDI:** Valproic acid ↓ clearance by 5%	**Administration:** Swallow capsule whole with water • Take consistently with or without food • N/V is decreased on an empty stomach or at bedtime, don't repeat if vomiting occurs • Missed dose: skip dose **ADE:** Myelosuppression, N/V, constipation, anorexia, headache
Thalomid (thalidomide) *50, 100, 150, 200mg* *Blister pack: 28 capsules* **MOA:** Immunomodulator with antineoplastic activity	**MM** (with dexamethasone): 200mg PO daily *THALOMID REMS: Patient, prescriber and pharmacy must be enrolled	**BBW:** Embryo-fetal risk toxicity; Thromboembolism **Baseline & periodically:** CBC with differential, platelets • S/Sx neuropathy, thromboembolism **DDI:** Additive immunosuppressive	**Administration:** Swallow capsule whole with water • Take preferably at bedtime 1 hour after evening meal • Pregnancy test before and during treatment • Contraception or abstain from heterosexual sex during and 4 weeks after therapy **ADE:** Confusion, constipation, dyspnea, edema, neuropathy, rash
thioguanine/6TG* (Tabloid) *40mg* *Bottle: 25 tablets* **MOA:** Purine analogue	**AML, induction or consolidation:** 2 mg/kg PO daily, after 4 weeks ↑ to 3mg/kg daily if tolerated	**BBW:** none **Baseline:** CBC, Chem12 & LFTs, then weekly for first month, then monthly once stable • May require TLS prevention w/allopurinol **DDI:** Cross resistance between mercaptopurine	**Administration:** Take on empty stomach for absorption • Compounded oral solution formula available • Hazardous agent, use precautions when handling **ADE:** Nausea, Mucositis, myelosuppression **Serious ADE:** GI perforation, hepatotoxicity
tretinoin* (Vesanoid) *10mg* *Bottle: 100 capsules* **MOA:** ↓ proliferation of APL cells	**APL (FAB M3) after anthracycline failure or toxicity:** 45mg/m2/day PO divided BID -d/c therapy 30 days after CR or after 90 days	**BBW:** Retinoic acid-APL syndrome **Baseline & periodically:** CBC, lipids, LFTs • Ensure negative pregnancy test prior to initiation • Monitor for Retinoic Acid Syndrome **DDI:** CYP 3A4, 2C8, 2E implications	**Administration:** Swallow capsules whole • Take total dose divided evenly twice daily **ADE:** Edema, ↑ LFTs, bone pain, neuropathy, visual changes, pain • RA-APL Syndrome: Severe fluid retention, swelling, chest discomfort, difficulty breathing, respiratory compromise

Medication	Dose / FDA Indication	Monitoring Parameters	Key Counseling Points
Tykerb (lapatinib) *250mg* *Bottle: 150 tablets* **MOA:** TKI of EGFR & HER2	**Metastatic HER2+ Breast cancer (in combo w/ capecitabine or letrozole):** 1250-1500mg PO daily	**BBW:** Hepatotoxicity **Baseline & periodically:** CBC with differential, electrolytes, ECG, LFTs • ↓ dose w/ Child-Pugh Class C or ADE ≥ Grade 2 • D/C if LVEF > Grade 2 • S/sx of ILD, fluid retention, diarrhea, derm toxicity **DDI:** CYP3A4 substrate (major) • Avoid CYP3A4 strong inhibitor/inducer • QT prolongation additive effect	**Administration:** • Take on empty stomach 1 hour before or 1 hour after food with a full glass of water • Avoid grapefruit/juice **ADE:** N/V/D, dyspepsia, myelosuppression, stomatitis, rash, H-F syndrome, fatigue, xerosis, LVEF reduction (60%), fatigue, ↑ AST/ALT
Valchlor (mechlorethamine) *0.016%* *Tube: 60g gel* **MOA:** Alkylating agent	**CTCL, received prior skin-directed therapy:** Apply thin film once daily to affected areas of intact skin	**BBW:** none **Baseline & periodically:** Dermatologic toxicity- Skin ulcers, blistering, dermatitis (mod-severe) **DDI:** No known interaction	**Administration:** Apply area within 30 min of removal from refrigerator and return to refrigerator promptly after each use • Allow contents to dry 4 hr before or 30 min after washing and 5-10 min before covering with clothes • May apply emollient 2 hr before or after application • Avoid fire, flame, smoking until dried **ADE:** Dermatitis, pruritus, bacterial skin infection
Votrient (pazopanib) *200 mg* *Bottle: 120 tablets* **MOA:** mulit-TKI	**Advance RCC; Advanced STS, refractory:** 800mg PO daily	**BBW:** Hepatotoxicity **Baseline & periodically:** LFTs, UA, thyroid function, electrolytes, ECG, LVEF • Mod hepatic impair: 200mg daily • S/sx GI perforation **DDI:** CYP3A4 substrate (major) • Avoid strong CYP3A4 inducer /inhibitor (if needed, ↓ dose to 400mg daily with monitoring) • QT prolongation additive effect	**Administration:** Swallow tablet whole with water • Take on empty stomach 1 hour before or 2 hours after food Avoid grapefruit/juice • Maintain adequate hydration and nutrition • Missed dose should be taken if < 12 hours **ADE:** HTN, fatigue, N/V/D, headache, electrolyte changes, anorexia, hair discoloration, H-F syndrome, ↑ AST/ALT
Xalkori (crizotinib) *200, 250mg* *Bottle: 60 capsules* **MOA:** TKI of ALK	**Metastatic NSCLC, ALK+:** 250mg PO BID	**BBW:** none **Baseline & periodically:** CBC with differential, LFT, SCr, heart rate, BP • S/sx pulmonary • ↓ dose with ADE Grade 3/4 **DDI:** CYP3A4 substrate (major) • QT prolongation additive effect	**Administration:** Swallow capsules whole • Take with or without food • Missed dose should be taken if < 6 hours • Avoid grapefruit/juice **ADE:** N/V/D, edema, rash, fatigue, myelosuppression, neuropathy, ↑ ALT/AST, visual disturbance

Medication	Dose / FDA Indication	Monitoring Parameters	Key Counseling Points
Xtandi (enzalutamide) *40mg* *Bottle: 120 capsules* **MOA:** Androgen receptor inhibitor	**Metastatic castration-resistant prostate cancer:** 160mg PO daily	**BBW:** none **Baseline & periodically:** CBC with differential, LFTs, BP • ADE ≥ Grade3, hold dose x1 wk or ≤ Grade2 • S/sx of seizure **DDI:** CYP2C8, CYPA3A4 substrate (major) • Avoid CYP2C8 strong inducer/inhibitor (if needed ↓ dose to 80mg daily)	**Administration:** Swallow capsules whole • Take with or without food • Avoid grapefruit/juice **ADE:** Fatigue, back pain, constipation, arthralgia, diarrhea, hot flush, UTI, edema, HTN, musculoskeletal pain, dizziness
Zelboraf (vemurafenib) *240mg* *Bottle: 112, 120 tablets* **MOA:** BRAF kinase inhibitor	**Unresectable or metastatic melanoma with BRAF V600E:** (not for wild type BRAF melanoma): 960mg PO Q12 hr	**BBW:** none **Baseline & periodically:** ECG, electrolytes, LFTs, bilirubin, derm evaluation **DDI:** CYP3A4 substrate (major), Pgp inhibitor, CYP1A2 inhibitor (mod) • QT prolongation additive effect • May ↑ concentration of warfarin, monitor therapy	**Administration:** • Take with or without food • If vomiting occurs do not repeat a dose • Avoid grapefruit/juice • Missed dose should be taken if < 6 hours **ADE:** Arthralgia, rash, alopecia, fatigue, photosensitivity reaction, nausea, pruritus, cSCC, uveitis
Zolinza (vorinostat) *100mg* *Bottle: 120 capsules* **MOA:** HDAC inhibitor	**CTCL, progressive, persistent, or recurrent** after 2 systemic therapies: 400mg daily	**BBW:** none **Baseline & periodically:** CBC, electrolytes, SCr • ↓ dose to 300mg if intolerant or bili 1-3×ULN or AST > ULN **DDI:** Monitor INR more frequently concurrent with coumarin derivatives	**Administration:** Swallow capsules whole • Take with food **ADE:** Fatigue, N/V/D, dysgeusia, alopecia, dry mouth, myelopsuppression, chills, anorexia
Zydelig (idelalisib) *100mg, 150mg* *Bottle: 60 tablets* **MOA:** PI3Kδ kinase inhibitor	**CLL, relapsed; Follicular B-cell NHL, relapsed; SLL, relapsed:** 150mg PO BID	**BBW:** Hepatotoxicity; Diarrhea/colitis, Pneumonitis, Intestinal perforation **Baseline & periodically:** CBC & LFT q2wk x3mo, q4wk next 3mo, q 1-3 mo thereafter • Dose modify for ADE (see PI) • S/sx diarrhea/colitis, intestinal perforation, derm **DDI:** CYP3A4 substrate (major), inhibitor (strong)	**Administration:** Swallow tablets whole, don't crush or chew • May take with or without food • Missed dose should be taken if < 6 hours • Avoid grapefruit/juice **ADE:** Myelosuppression, pyrexia, N/V/D, headache, ↑ ALT/AST, rash, arthralgia

Medication	Dose / FDA Indication	Monitoring Parameters	Key Counseling Points
Zykadia (ceritinib) *150mg* *Bottle: 70 capsules* **MOA:** TKI of ALK	**Metastatic NSCLC, ALK+, intolerant to crizotinib:** 750mg PO daily	**BBW:** none **Baseline & periodically:** CBC, Scr, LFT, cardiac • S/sx GI and pulmonary toxicity • Dose modify for ADE (see PI) **DDI:** CYP3A4 substrate (major), inhibitor (mod) • Avoid strong CYP3A4 inducer/inhibitor (if needed, ↓ dose by 1/3) • QT prolongation additive effect	**Administration:** Swallow capsules whole • Take on empty stomach 2 hour before or 2 hour after food • If vomiting occurs do not repeat a dose **ADE:** Fatigue, N/V/D, constipation, ↓ appetite, neuropathy, ↑ ALT/AST, visual disturbance,
Zytiga (abiraterone) *250mg* *Bottle: 120 tablets* **MOA:** CYP17 inhibitor	**Metastatic castration-resistant prostate cancer** (with prednisone 5mg PO BID): 1000mg PO daily	**BBW:** none **Baseline & periodically:** ALT/AST, bili q2wks x 3mo, then monthly thereafter; BP, edema monthly • S/sx of mineralcorticoid insufficiency **DDI:** CYP3A4 substrate (major), CYP2C9 (mod) inhibitor	**Administration:** • Take on empty stomach **ADE:** Fatigue, edema, mineralocorticoid excess, HTN, joint swelling, myalgia

***GENERIC AVAILABLE**

The risk of live vaccine-induced adverse reactions may be increased by co-administration of medications on this list

DEFINITIONS

- CBC w/ differentials: WBC, ANC, H/H, Plts
- Myelosuppression: including but not limited to neutropenia, thrombocytopenia, anemia
- CYP450 metabolism: A key pathway for drug metabolism and excretion from the body

ABBREVIATION GLOSSARY

ALL= acute lymphocytic leukemia
(Ph+ALL=Philadelphia chromosome-positive ALL)
AML= acute myelogenous leukemia
APL= acute promyelocytic leukemia
CEL= chronic eosinophilic leukemia
CLL= chronic lymphocytic leukemia
CMF= Cytoxan, methotrexate, fluorouracil
CLL= Chronic lymphocytic leukemia
CML= Chronic myelogenous leukemia
CTCL= Cutaneous T-Cell lymphoma
DVT= deep vein thrombosis
GIST= gastrointestinal stromal tumors
HCC= Hepatocellular carcinoma
HL= Hodgkin's lymphoma
ITP= Idiopathic thrombocytopenic purpura
LVEF= left ventricular ejection fraction
MCL= Mantle Cell Lymphoma
MDS= myelodysplastic syndrome
MM= Multiple myeloma
NHL= Non-Hodgkin's Lymphoma
NSCLC=Non-Small Cell Lung Cancer
mCRPC= metastatic Castrate Resistant Prostate Cancer
PE= pulmonary embolism
pNET= Pancreatic Neuroendocrine tumor
RCC= renal cell carcinoma
SEGA= Subependymal Giant Cell Astrocytoma
SCLC= Small Cell Lung Cancer
STS= Soft Tissue Sarcoma
XRT= radiation therapy
WM= Waldenstrom macroglobulenmia

REFERENCE: Package insert of individual medications and NCCN guidelines