VENTURA COUNTY HEALTH CARE AGENCY

Black Box Warning - Medication Guideline

2020

Drug Name	VCMC/SPH Formulary Restriction	Summary of Boxed Warning	Physician Actions to Consider	RN Actions to Consider	Pharmacist Actions to Consider
Amiodarone (oral tablet)	None	Pulmonary, hepatic, and cardiac toxicity. Restrict use of amiodarone to indicated life-threatening arrhythmias	Use approved PowerPlans for IV amiodarone bolus and maintenance dosing. Use with caution: may cause pulmonary toxicity, hepatotoxicity and proarrhythmic effects. Amiodarone is an anti-arrhythmic and patient may convert to sinus rhythm. Systemic anti-coagulation needs must be assessed.	Monitor patient for sinus bradycardia or heart block.	Watch for drug interactions with Hepatitis C medications. Monitor for total load and notify the prescriber if necessary
<u>Aminoglycosides</u> **amikacin** **gentamicin** **tobramycin**	None	Risk for neurotoxicity, ototoxicity, and nephrotoxicity which increases with impaired renal function, advanced age, dehydration, high doses, and long durations of therapy, and concomitant nephrotoxic drugs.	Use approved PowerPlans for aminoglycoside dosing and monitoring. Order serum creatinine prior to initiating therapy. Obtain peaks and troughs during treatment.	Monitor UOP, auditory function, and eighth cranial nerve damage such as ataxia, vertigo, nausea and vomiting. Report findings to physician immediately. Document exact time of administration on eMAR for accurate interpretation of levels.	Pharmacist reviews dosing and monitors serum creatinine,creatinine clearance, levels, and assists the prescriber in dose adjustments.
amphotericin B deoxycholate Conventional	Restricted	Risk of medication error and potential for overdose when confused with LASA Amphotericin B Liposomal (AmBisome®)	Use the approved PowerPlan PHA Amphotericin Adult, for safe dosing and monitoring. Verify indication for use is primarily for progressive potentially life-threatening invasive fungal infections.. Verify product name and dose is less than 1.5 mg/kg. Use caution in renal failure. Consider pre-medications to reduce infusion related reactions.	Monitor patient's renal function including accurate Ins and Outs. Monitor the patient for infusion related reactions. May require pre-medications with acetaminophen and diphenhydramine.	Careful product selection at time of order verification to avoid LASA mix-up. Pharmacist verification double check of the dose and notify the prescriber for all doses that exceed 1.5 mg/kg.

VENTURA COUNTY HEALTH CARE AGENCY

Black Box Warning - Medication Guideline

2020

Drug Name	VCMC/SPH Formulary Restriction	Summary of Boxed Warning	Physician Actions to Consider	RN Actions to Consider	Pharmacist Actions to Consider
Benzodiazepines **ALPRAZ**olam (PO) clonazepam (PO) diazepam (PO) **LOR**azepam midazolam temazepam (PO)	None	Risk of respiratory depression, sedation, coma and death with concomitant opioid use.	Reserve concomitant prescribing with opioids for use in patients for whom alternative treatment options are inadequate. Limit dosages and durations to the minimum required. For midazolam inj and oral, use only in setting that can provide continuous monitoring of respiratory and cardiac function.	Monitor for signs/symptoms of respiratory depression or sedation in patients using concomitant opioids. Midazolam inj should not be administered by rapid inj in the neonatal population due to reports of severe hypotension and seizures	
Carbamazepine **(Tegretol)**	None	Aplastic anemia, Agranulocytosis Serious Dermatologic Reactions, increased risk in patients with HLA-B*1502 allele	Obtain pre-treatment hematological testing and periodically monitor CBC. Discontinue medication if significant bone marrow depression develops.	Monitor for dermatological reactions.	Check CBC with new orders.
epoetin alfa (Epogen/Procrit)	NICU	Increased risk of death and serious cardiovascular events (thromboembolic events) in patients with chronic kidney disease, surgery or when administered to target Hgb>11 g/dL. Increased mortality and/or tumor progression in cancer patients.	Do not initiate if Hgb ≥ 10 g/dL Use lowest sufficient dose. DVT prophylaxis should be considered when erythropoiesis-stimulating agents are used preoperatively	Hold dose if hemoglobin exceeds 12 g/dL and notify prescriber	Hold dose if hemoglobin exceeds 12 g/dL or rises by 1 g/dL in any 2 week period.
epoetin alfa-epbx (Retacrit)	None				
divalproex sodium and Derivatives	None	Hepatic failure resulting in fatalities has occurred in patients receiving valproic acid and its derivatives. Children under the age of two years are at a considerably increased risk of developing fatal hepatoxicity. Increased risk of pancreatitis. May cause teratogenic effects and/or neuronal tube defects. May also cause life-threatening pancreatitis.	Check LFTs prior to therapy and frequent intervals thereafter, especially during the first 6 months	Monitor for signs and symptoms of pancreatitis.	Check LFTs

VENTURA COUNTY HEALTH CARE AGENCY

Black Box Warning - Medication Guideline

2020

Drug Name	VCMC/SPH Formulary Restriction	Summary of Boxed Warning	Physician Actions to Consider	RN Actions to Consider	Pharmacist Actions to Consider
enoxaparin (Lovenox)		Spinal/Epidural hematoma risk with spinal catheter.	See Enoxaparin protocol and VCMC Clinical Practice Guideline for Anticoagulant Management around Epidural/Intrathecal/Lumbar Puncture.	Monitor for bleeding and vital signs and monitor neurologic status. See CPG.56 Management of Bleeding Associated with Anticoagulants and Antiplatelet Therapies	Be aware of epidural orders with patient prescribed enoxaparin. Avoid therapeutic or BID dosing if catheter is in place.
fentanyl transdermal (Duragesic)	Management of chronic pain in opioid- tolerant patients (dose 60mg/day of morphine or equivalent for 7 days). Do not use for acute, intermittent, or mild pain.	High abuse potential for addiction, abuse, and misuse. Serious, life-threatening, or fatal respiratory depression may occur. Risks: accidental exposure, neonatal opioid withdrawal syndrome, cytochrome P450 3A4 Interaction, increased absorption with application of external heat, concomitant use of benzodiazepaines or other CNS depressents.	See Fentanyl Patch Protocol. Use fentanyl transdermal patches when clinically appropriate. Do not use in opioid-naïve patients. Do not use for acute or break through pain. On rare occasion, fentanyl patch may be used outside of fentanyl patch protocol but requires both attending physican and pharmacy director (or designee) approval.	Monitor respiratory function, heart rate while on medication. Do not apply heat to patch area as this may increase fentanyl absorption. Destroy used patches by folding upon itself and placing in the pharmaceutical waste container.	Pharmacist to complete Fentanyl Patch Policy checklist and assessment for appropriate use: Do not use in opiate naïve patients. Do not use for acute or break through pain including post-operative pain control. Caution if opiate use is concurrent with benzodiazepines.
<u>Fluoroquinolone antibiotics</u> **ciprofloxacin** **levofloxacin**	None	Associated with an increased risk of tendonitis, tendon rupture, peripheral neuropathy, CNS effects and exacerbation of Myasthenia Gravis.	Use fluoroquinolones when clinically appropriate. Stop therapy if patient experiences any of these serious adverse reactions. Adjust dose in renal impairment. Limit the use and prescribing of fluoroquinolones for patients who do NOT have other available treatment options.	Monitor for complaints of tendon pain, and swelling. Notify physician immediately.	Pharmacist to check patient's renal function and adjust dose. Review patient's age andpast medical history.

Black Box Warning - Medication Guideline

2020

Drug Name	VCMC/SPH Formulary Restriction	Summary of Boxed Warning	Physician Actions to Consider	RN Actions to Consider	Pharmacist Actions to Consider
fondaparinux (Arixtra)	Heparin Induced Thrombocyto-penia	Spinal/Epidural hematoma risk with spinal catheter	See Enoxaparin protocol and VCMC Clinical Practice Guideline for Anticoagulant Management around Epidural/Intrathecal/Lumbar Puncture.	Monitor for bleeding. Monitor vital signs and monitor neurologic status. See CPG.56 Management of Bleeding Associated with Anticoagulants and Antiplatelet Therapies	Check renal function and weight for dose adjustments, Be aware of epidural orders with patients prescribed fondaparinux. Avoid prophylactic or therapeutic doses if catheter is in place. See clinical practice guideline.
haloperidol (Haldol) IM	None	Increased mortality in elderly patients with dementia related psychosis There is a higher risk of QT-interval prolongation and torsade de pointes when administered by IV route or in high doses, but cases have been reported in the absence of predisposing factors.	Not approved for dementia-related psychosis. Consider beginning with the lowest clinically appropriate dose and titrate cautiously according to symptoms. Haloperidol inj is not FDA approved for IV administration; if given IV, an ECG should be monitored for QT prolongation and arrhthmias	Fall risk assessment	Assess for age-appropriateness and route. Haldoperidol injection is not FDA approved for IV administration; if given IV, an ECG should be checked at baseline and periodically during therapy to monitor for QT prolongation and arrhythmias.

Black Box Warning - Medication Guideline

2020

Drug Name	VCMC/SPH Formulary Restriction	Summary of Boxed Warning	Physician Actions to Consider	RN Actions to Consider	Pharmacist Actions to Consider
ketorolac Injectable (Toradol)	Inpatient treatment not to exceed 5 days.	Indicated for short term management of acute, moderate to severe pain Maximum dose based on age and weight, increased dose will increase risk of adverse events. Increased risk of serious cardiovascular thrombotic events, myocardial infarction, and stroke, which may be fatal. Patients with cardiovascular disease may be at greater risk. Increased risk of serious gastrointestinal adverse events including bleeding, ulceration, and perforations of the stomach and intestines, which may be fatal. Contra-indicated in advanced renal impairment, in suspected or confirmed head bleed, labor/delivery risk due to its effect on fetal circulation.	Assess renal function and adjust dose based on renal function, age, and weight. Treatment not to exceed 5 days. Concomitant NSAID use is contraindicated. Not for intrathecal/epidural use due to alcohol content. Prescribers are recommended to limit use especially in patients on concomitant nephrotoxic agents.	Treatment not to exceed 5 days.	Assess dose appropriateness based on age, weight, and renal function Review the patient's profile for concomitant potentially nephrotoxic agents prior to verifying orders for ketorolac. Treatment not to exceed 5 days.
lamotrigine (Lamictal)	None	Serious rashes requiring hospitalization including Stevens Johnson Syndrome (SJS) and death. Toxic Epidermal Necrolysis (TEN)	The rate of SJS/TEN is higher in pediatric patients. Other risk factors for rash include co-administration with valproate, exceeding recommended initial dose, or exceeding recommended dose escalation.	Monitor for signs/symptoms of rash or skin disorder. Discontinue at first sign of rash, unless the rash is not lamotrigine related.	Monitoring of lamotrigine levels may be helpful as incidence of toxicity increases significantly with levels >15 mg/dL.

Black Box Warning - Medication Guideline

2020

Drug Name	VCMC/SPH Formulary Restriction	Summary of Boxed Warning	Physician Actions to Consider	RN Actions to Consider	Pharmacist Actions to Consider
metformin (Glucophage) and combinations	Avoid in hepatic insufficiency, critical illness, and/or unstable renal function.	Lactic acidosis is a rare, but serious metabolic complication that may occur due to metformin accumulation. Risk factors include renal and hepatic dysfunction, age 65 years or greater, contrast, surgery or other procedures, hypoxic states, and excessive alcohol. When it occurs, it is fatal in approximately 50% of cases.	Contra-indicated in GFR< 30 ml/min. Not recommended with GFR 30-45 mL/min. See CPG.57 IV Contrast guidelines for guidance on metformin.	See CPG.57 IV Contrast guidelines for guidance on metformin.	Assess for hepatic insufficiency, critical illness, and/or unstable renal function prior to verification.
methadone	Restricted Methadone 10 mg/mL oral is for NICU use only	High abuse potential for addiction, abuse, and misuse. Incomplete cross tolerance with other opioids. Use extreme caution during conversion from other opioids. Can cause life threatening respiratory depression. May cause cardiac conduction effects, prolonged QT interval, serious arrhythmias and Torsades de Pointes. Risk of accidental exposure by children can result in fatal overdoses. Use caution when used with benzodiazepines, respiratory depression and death can occur.	Check ECG for conduction abnormalities most common with high doses. See policy 100.059 Methadone Prescribing for Adults	Monitor respiratory rate, level of sedation and hypotension. Monitor for fall precautions.	Review indication and ensure compliance with policy 100.059 Review medication profile for drug interactions and other drugs that may contribute to QT prolongation. Caution if opiate use is concurrent with benzodiazepines.

VENTURA COUNTY HEALTH CARE AGENCY

Black Box Warning - Medication Guideline

2020

Drug Name	VCMC/SPH Formulary Restriction	Summary of Boxed Warning	Physician Actions to Consider	RN Actions to Consider	Pharmacist Actions to Consider
metoclopramide (Reglan)	None	Risk of developing tardive dyskinesia (TD)	Caution in hepatic and renal impairment. Avoid prolonged use (>12 weeks). Discontinue if signs and symptoms of TD develop.	Monitor for signs and symptoms of TD.	Review for renal and hepatic dose adjustment.
Monoclonal Antibodies Examples: Infliximab-dyyb Rituximab Tocilizumab	Restricted Infliximab – restricted to treatment of refractory Chrohn's disease and rheumatoid arthritis Toclizumab – outpatient oncology only	Infliximab-dyyb and tocilizumab – increased risk of serious infection leading to hospitalization or death. Rituximab -- fatal infusion related reactions may occur within 24 hours of an infusion.	Prescriber to be a specialist in hematology, oncology, rheumatology or GI. Confirm the patient has no active infections at time of initiation. Confirm no active TB with a TB skin test.	Monitor the infusion carefully by following of the titration schedule and watching for infusion related reactions. Report any ADRs.	Confirm the prescriber is a specialist with the correct dosing for the indication.
morphine ER (MS Contin) **oxycodone ER (OxyCONTIN)**		High abuse potential for addiction, abuse, and misuse Fatal respiratory depression may occur especially upon initiation of therapy and upon dose increase. Use caution when used with concomitant benzodiazepines and other CNS depressants as respiratory depression and death can occur. For oxycodone: Use caution when used with concomitant cP450 3A inhibitors as an increase in oxycodone concentration could potentiate adverse reactions.	Not intended for PRN use. Only prescribe full-dosage forms (no partial dosages). Use an alternate agent if patient requires oral dosages to be crushed or chewed (e.g. NG tube). Extended release products are not interchangeable with immediate release products.	Do not crush, chew, or break. Monitor for fall precautions.	Assess appropriateness especially upon therapy initiation or upon dose increase. Be alert to orders that involve the need to crush, chew, or break this dosage form. Extended release products are not interchangeable with immediate release products. Assess for drug-drug interactions (DDI) with benzodiazepines and CNS depressants For oxycodone: assess for DDI with cP450 3A inhibitors.

VENTURA COUNTY HEALTH CARE AGENCY

Black Box Warning - Medication Guideline

2020

Drug Name	VCMC/SPH Formulary Restriction	Summary of Boxed Warning	Physician Actions to Consider	RN Actions to Consider	Pharmacist Actions to Consider
olanzapine pamoate (Zyprexea Relprevv)	Restricted	Restricted distribution program due to post-injection delirium and sedation syndrome risk (including coma)	Physicians and healthcare facilities must register prior to prescribing.	Observe the patient for at least three hours post injection.	This drug is not approved for dementia related psychosis.
tacrolimus (Prograf)	None	Increased risk for developing serious infections and malignancies that may lead to hospitalization and death	Caution in renal and hepatic impairment, monitor for thrombocytopenia, leucopenia, nephrotoxicity and seizures. May cause QT prolongation and torsades de pointes.	Monitor renal function and report any signs or symptoms of new infections.	Review concurrent use of other nephrotoxic agents.
warfarin (Coumadin)	None	Risk of major bleeding	Check Hgb/Hct and PT/INR at initiation of therapy and at regular intervals thereafter, per protocol. Ensure that dietician reviews patient diet for inpatients.	Monitor for signs/symptoms of bleeding or excessive bruising. Ensure that dietician reviews and educates the patient for diet avoidance. Avoid IM injection while on anticoagulants.	Review EHR for severe drug-drug interactions. Check PT/INR Follow anticoagulation protocol.
Direct Oral Anticoagulant (DOAC) dabigatran (Pradaxa) apixaban (Eliquis) rivaroxaban (Xarelto)	None	Increased risk of thrombotic events if discontinued prematurely. Spinal/epidural hematoma risk with spinal catheter.	If anticoagulation must be discontinued for reasons other than bleeding or completion of therapy, consider coverage with another anticoagulant. See policy 100.087 Anticoagulation management for CPG for DOACs and for management around epidurals/Intrathecal/Lumbar puncture.	Monitor for signs and symptoms of bleeding . See CPG.56 Management of Bleeding Associated with Anticoagulants and Antiplatelet Therapies	Assess renal function and indication and recommend dose adjustment if indicated. Be aware of epidural orders with patient prescribed a DOAC