ACTION: Converted to abiraterone, which inhibits CYP17, the enzyme required for androgen biosynthesis; androgen-sensitive prostate cancer responds to treatment that decreases androgens

USES: Metastatic, castration-resistant prostate cancer in combination with predniSONE

CONTRAINDICATIONS:

Pregnancy, women, children, breastfeeding
Precautions: Adrenal insufficiency, cardiac disease, MI, heart failure, hepatic disease, hypertension, hypokalemia, infection, surgery, ventricular dysrhythmia, stress, trauma

DOSAGE AND ROUTES

• **Adult males: PO** 1000 mg/day with predniSONE 5 mg bid and with GnRH (gonadotropin-releasing hormone analog) or bilateral orchiectomy; with strong CYP3A4 inducers 1000 mg bid

Hepatic dose

• **Adult males (Child-Pugh B, 7-9): PO** 250 mg/day with predniSONE; permanently discontinue if AST/ALT >5 × the upper limit of normal (ULN) or total bilirubin >3 × ULN; Child-Pugh C >10, do not use

Available forms: Tabs 250, 500 mg

Administer:

PO route

• Give whole on empty stomach 2 hr before or 1 hr after meals with full glass of water; do not crush, break, chew

• **Pregnancy:** women who are pregnant or who may become pregnant should not touch tabs without gloves

• Store tabs at room temperature

SIDE EFFECTS

CV: Angina, dysrhythmia exacerbation, atrial flutter/fibrillation/tachycardia, AV block, chest pain, edema, heart failure, MI, hypertension, QT prolongation, sinus tachycardia, supraventricular tachycardia, ventricular tachycardia
ENDO: Hot flashes, adrenocortical insufficiency
GI: Diarrhea, dyspepsia, hepatotoxicity
GU: Increased urinary frequency, nocturia, urinary tract infection
META: Adrenocortical insufficiency, hyperbilirubinemia, hypertriglyceridemia, hypokalemia, hypophosphatemia
MS: Arthralgia, myalgia, fracture
RESP: Cough, upper respiratory infection
SYST: Infection

PHARMACOKINETICS

99% protein binding, converted to abiraterone (active metabolite), half-life 12 hr; excreted 88% (feces), 5% (urine); high-fat food increases effect, give on empty stomach; increased effect in hepatic disease

INTERACTIONS

• **Decrease:** abiraterone effect—CYP3A4 inducers (carBAMazepine, phenytoin, riFAMPin, rifabutin, rifapentine, PHENobarbital); dose may need to be increased

• **Increase:** action of CYP2D6/CYP2C8 substrates—dextromethorphan, thioridazine, pioglitazone; doses of these products should be reduced; avoid concurrent use if possible

Drug/Food

Increase: abiraterone action—must be taken on an empty stomach

Drug/Lab

Increase: ALT, AST, bilirubin, triglycerides, cholesterol, alk phos
Decrease: potassium, phosphate, testosterone, lymphocytes

NURSING CONSIDERATIONS

Assess:

• **Prostate cancer:** monitor prostate-specific antigen (PSA), serum potassium, serum bilirubin baseline and periodically

• **Hepatotoxicity:** monitor liver function tests (AST/ALT) at baseline, every 2 wk for 3 mo, monthly thereafter in patients with no known hepatic disease; interrupt treatment in patients without known hepatic disease at baseline who develop ALT/AST >5 × ULN or total bilirubin >3 × ULN; patients with moderate hepatic disease at baseline, measure ALT, AST, bilirubin before the start of treatment, every wk for 1 mo, every 2 wk for the following 2 mo, monthly thereafter; if elevations in ALT and/or AST >5 × ULN or total bilirubin >3 × ULN occur in patients with moderate hepatic impair-