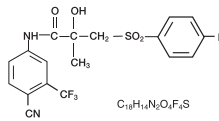
DIMENSIONS 12.125” WIDE X 11.1875” HIGH

8.4. Pediatric Use
The safety and effectiveness of Bicalutamide Tablets, USP in pediatric patients have not been established.
Labeling describing pediatric clinical studies for bicalutamide is approved for AstraZeneca Pharmaceuticals LP’s bicalutamide tablet. However, due to AstraZeneca Pharmaceuticals LP’s marketing exclusivity rights, a description of those clinical studies is not approved for this bicalutamide labeling.
8.5. Geriatric Use
In two studies in patients given 50 or 150 mg daily, no significant relationship between age and steady-state levels of total bicalutamide or the active R-enantiomer has been shown.
8.6. Hepatic Impairment
Bicalutamide Tablets, USP should be used with caution in patients with moderate-to-severe hepatic impairment. Bicalutamide Tablets, USP are extensively metabolized by the liver. Limited data in subjects with severe hepatic impairment suggest that excretion of Bicalutamide Tablets, USP may be delayed and could lead to further accumulation. Periodic liver function tests should be considered for hepatic-impaired patients on long-term therapy *[see Warnings and Precautions (5.1)]*.
No clinically significant difference in the pharmacokinetics of either enantiomer of bicalutamide was noted in patients with mild-to-moderate hepatic disease as compared to healthy controls. However, the half-life of the R-enantiomer was increased approximately 76% (5.9 and 10.4 days for normal and impaired patients, respectively) in patients with severe liver disease (n=4).
8.7. Renal Impairment
Renal impairment (as measured by creatinine clearance) had no significant effect on the elimination of total bicalutamide or the active R-enantiomer.
8.8. Women
Bicalutamide has not been studied in women.
10. OVERDOSAGE
Long-term clinical trials have been conducted with dosages up to 200 mg of Bicalutamide Tablets, USP daily and these dosages have been well tolerated. A single dose of Bicalutamide Tablets, USP that results in symptoms of an overdose considered to be life threatening has not been established.
There is no specific antidote; treatment of an overdose should be symptomatic.
In the management of an overdose with Bicalutamide Tablets, USP, vomiting may be induced if the patient is alert. It should be remembered that, in this patient population, multiple drugs may have been taken. Dialysis is not likely to be helpful since Bicalutamide Tablets, USP are highly protein bound and is extensively metabolized. General supportive care, including frequent monitoring of vital signs and close observation of the patient, is indicated.
11. DESCRIPTION
Bicalutamide Tablets, USP contain 50 mg of bicalutamide, a non-steroidal androgen receptor inhibitor with no other known endocrine activity. The chemical name is propanamide, N [4 cyano-3-(trifluoromethyl)phenyl]-3-[(4-fluorophenyl)sulfonyl]-2-hydroxy-2-methyl-,(+). The structural and empirical formulas are:



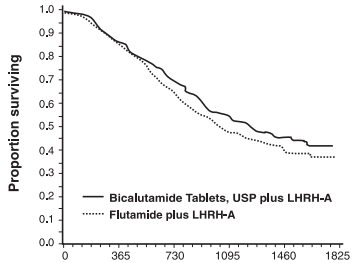
$C_{18}H_{14}N_2O_4F_4S$

Bicalutamide has a molecular weight of 430.37. The pKa’ is approximately 12. Bicalutamide is a fine white to off white powder which is practically insoluble in water at 37°C (5 mg per 1000 mL), slightly soluble in chloroform and absolute ethanol, sparingly soluble in methanol, and soluble in acetone and tetrahydrofuran.
Bicalutamide Tablets, USP are a racemate with its antiandrogenic activity being almost exclusively exhibited by the R-enantiomer of bicalutamide; the S-enantiomer is essentially inactive.
The inactive ingredients of Bicalutamide Tablets, USP are lactose monohydrate, magnesium stearate, povidone, crospovidone, sodium lauryl sulfate, polyethylene glycol, hypromellose, and titanium dioxide.
12. CLINICAL PHARMACOLOGY
12.1. Mechanism of Action
Bicalutamide Tablets, USP are a non-steroidal androgen receptor inhibitor. It competitively inhibits the action of androgens by binding to cytosol androgen receptors in the target tissue. Prostatic carcinoma is known to be androgen sensitive and responds to treatment that counteracts the effect of androgen and/or removes the source of androgen.
When Bicalutamide Tablets, USP are combined with luteinizing hormone releasing hormone (LHRH) analog therapy, the suppression of serum testosterone induced by the LHRH analog is not affected. However, in clinical trials with Bicalutamide Tablets, USP as a single agent for prostate cancer, rises in serum testosterone and estradiol have been noted.
In a subset of patients who have been treated with Bicalutamide Tablets, USP and an LHRH agonist, and who discontinue Bicalutamide Tablets, USP therapy due to progressive advanced prostate cancer, a reduction in Prostate Specific Antigen (PSA) and/or clinical improvement (antiandrogen withdrawal phenomenon) may be observed.
12.3. Pharmacokinetics
Absorption
Bicalutamide is well-absorbed following oral administration, although the absolute bioavailability is unknown. Co-administration of bicalutamide with food has no clinically significant effect on rate or extent of absorption.
Distribution
Bicalutamide is highly protein-bound (96%) *[see Drug Interactions (7)]*.
Metabolism/Elimination
Bicalutamide undergoes stereospecific metabolism. The S (inactive) isomer is metabolized primarily by glucuronidation. The R (active) isomer also undergoes glucuronidation but is predominantly oxidized to an inactive metabolite followed by glucuronidation. Both the parent and metabolite glucuronides are eliminated in the urine and feces. The S-enantiomer is rapidly cleared relative to the R-enantiomer, with the R-enantiomer accounting for about 99% of total steady-state plasma levels.
Pharmacokinetics of the active enantiomer of Bicalutamide Tablets, USP in normal males and patients with prostate cancer are presented in Table 3.
Table 3.

Parameter	Mean	Standard Deviation
Normal Males (n=30)		
Apparent Oral Clearance (L/hr)	0.320	0.103
Single Dose Peak Concentration (µg/mL)	0.768	0.178
Single Dose Time to Peak Concentration (hours)	31.3	14.6
Half-life (days)	5.8	2.29
Patients with Prostate Cancer (n=40)		
C_{ss} (µg/mL)	8.939	3.504

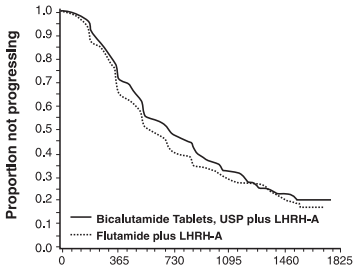
13. NONCLINICAL TOXICOLOGY
13.1. Carcinogenesis, Mutagenesis, Impairment of Fertility
Two-year oral carcinogenicity studies were conducted in both male and female rats and mice at doses of 5, 15 or 75 mg/kg/day of bicalutamide. A variety of tumor target organ effects were identified and were attributed to the antiandrogenicity of bicalutamide, namely, testicular benign interstitial (Leydig) cell tumors in male rats at all dose levels (the steady-state plasma concentration with the 5 mg/kg/day dose is approximately 2/3 human therapeutic concentrations*) and uterine adenocarcinoma in female rats at 75 mg/kg/day (approximately 1 1/2 times the human therapeutic concentrations*). There is no evidence of Leydig cell hyperplasia in patients; uterine tumors are not relevant to the indicated patient population.
A small increase in the incidence of hepatocellular carcinoma in male mice given 75 mg/kg/day of bicalutamide (approximately 4 times human therapeutic concentrations*) and an increased incidence of benign thyroid follicular cell adenomas in rats given 5 mg/kg/day (approximately 2/3 human therapeutic concentrations*) and above were recorded. These neoplastic changes were progressions of non-neoplastic changes related to hepatic enzyme induction observed in long-term toxicity studies. Enzyme induction has not been observed following bicalutamide administration in man. There were no tumorigenic effects suggestive of genotoxic carcinogenesis.
A comprehensive battery of both *in vitro* and *in vivo* genotoxicity tests (yeast gene conversion, Ames, E. coli, CHO/HGPRT, human lymphocyte cytogenetic, mouse micronucleus, and rat bone marrow cytogenetic tests) has demonstrated that Bicalutamide Tablets, USP does not have genotoxic activity.
Administration of Bicalutamide Tablets, USP may lead to inhibition of spermatogenesis. The long-term effects of Bicalutamide Tablets, USP on male fertility have not been studied.
In male rats dosed at 250 mg/kg/day (approximately 2 times human therapeutic concentrations*), the precoital interval and time to successful mating were increased in the first pairing but no effects on fertility following successful mating were seen. These effects were reversed by 7 weeks after the end of an 11-week period of dosing. No effects on female rats dosed at 10, 50 and 250 mg/kg/day (approximately 2/3, 1 and 2 times human therapeutic concentrations, respectively*) or their female offspring were observed. Administration of bicalutamide to pregnant females resulted in feminization of the male offspring leading to hypospadias at all dose levels. Affected male offspring were also impotent.
*Based on a maximum dose of 50 mg/day of bicalutamide for an average 70 kg patient.
14. CLINICAL STUDIES
14.1. Bicalutamide Tablets, USP 50 mg Daily in Combination with an LHRH-A
In a multicenter, double-blind, controlled clinical trial, 813 patients with previously untreated advanced prostate cancer were randomized to receive Bicalutamide Tablets, USP 50 mg once daily (404 patients) or flutamide 250 mg (409 patients) three times a day, each in combination with LHRH analogs (either goserelin acetate implant or leuprolide acetate depot).
In an analysis conducted after a median follow-up of 160 weeks was reached, 213 (52.7%) patients treated with Bicalutamide Tablets, USP -LHRH analog therapy and 235 (57.5%) patients treated with flutamide-LHRH analog therapy had died. There was no significant difference in survival between treatment groups (see Figure 1). The hazard ratio for time to death (survival) was 0.87 (95% confidence interval 0.72 to 1.05).

Figure 1 - The Kaplan-Meier probability of death for both antiandrogen treatment groups.



There was no significant difference in time to objective tumor progression between treatment groups (see Figure 2).
Objective tumor progression was defined as the appearance of any bone metastases or the worsening of any existing bone metastases on bone scan attributable to metastatic disease, or an increase by 25% or more of any existing measurable extraskeletal metastases. The hazard ratio for time to progression of Bicalutamide Tablets, USP plus LHRH analog to that of flutamide plus LHRH analog was 0.93 (95% confidence interval, 0.79 to 1.10).

Figure 2 - Kaplan-Meier curve for time to progression for both antiandrogen treatment groups.



Quality of life was assessed with self-administered patient questionnaires on pain, social functioning, emotional well being, vitality, activity limitation, bed disability, overall health, physical capacity, general symptoms, and treatment related symptoms. Assessment of the Quality of Life questionnaires did not indicate consistent significant differences between the two treatment groups.
14.2 Safety Data from Clinical Studies using Bicalutamide Tablets, USP 150 mg
Bicalutamide Tablets, USP 150 mg are not approved for use either alone or with other treatments.
Two identical multicenter, randomized, open-label trials comparing Bicalutamide Tablets, USP 150 mg daily monotherapy to castration were conducted in patients that had locally advanced (T3-4, NX, M0) or metastatic (M1) prostate cancer.
Monotherapy — M1 Group
Bicalutamide Tablets, USP 150 mg daily is not approved for use in patients with M1 cancer of the prostate. Based on an interim analysis of the two trials for survival, the Data Safety Monitoring Board recommended that Bicalutamide Tablets, USP treatment be discontinued in the M1 patients because the risk of death was 25% (HR 1.25, 95% CI 0.87 to 1.81) and 31% (HR 1.31, 95% CI 0.97 to 1.77) higher in the Bicalutamide Tablets, USP treated group compared to that in the castrated group, respectively.
Locally Advanced (T3-4, NX, M0) Group
Bicalutamide Tablets, USP 150 mg daily are not approved for use as therapy for patients with localized prostate cancer who are candidates for watchful waiting. Data from a planned subgroup analysis of two of these trials in 1627 patients with localized prostate cancer who were under watchful waiting, revealed a trend toward decreased survival in the Bicalutamide Tablets, USP arm after a median follow-up of 7.4 years. There were 294 (37.7%) deaths in the Bicalutamide Tablets, USP treated patients versus 279 (32.9%) deaths in the placebo treated patients (localized watchful waiting group) for a hazard ratio of 1.16 (95% CI 0.99 to 1.37).
16. HOW SUPPLIED/STORAGE AND HANDLING
Bicalutamide Tablets, USP, 50 mg are white, round, biconvex, film-coated tablets with “BCM 50” debossed on one side. They are supplied as follows:
NDC 63672-0005-1, Bottles of 30
16.1. Storage and Handling
Store at controlled room temperature, 20° to 25°C (68° to 77°F). Excursions permitted to 15° to 30° C (59° to 86°F). See USP Controlled Room Temperature.
17. PATIENT COUNSELING INFORMATION
Patients should be informed that therapy with Bicalutamide Tablets, USP and the LHRH analog should be started at the same time and that they should not interrupt or stop taking these medications without consulting their physician.
During treatment with Bicalutamide Tablets, USP, somnolence has been reported, and those patients who experience this symptom should observe caution when driving or operating machinery.
Patients should be informed that diabetes, or loss of glycemic control in patients with pre-existing diabetes has been reported during treatment with LHRH agonists. Consideration should therefore be given to monitoring blood glucose in patients receiving Bicalutamide Tablets, USP in combination with LHRH agonists.

Manufactured for:
Synthon Pharmaceuticals, Inc.
Research Triangle Park, NC 27709

Manufactured by:
Synthon Hispania S.L.
Barcelona, Spain
Made in Spain

Revised: 06/2009

PI-4003-1

Tear here at perforation.

Bicalutamide Tablets, USP can cause serious side effects.

Get medical help right away, if you have:

- trouble breathing with or without a cough or fever. Some people who take Bicalutamide Tablets, USP get an inflammation in the lungs called interstitial lung disease.
- **An allergic reaction.** Symptoms of an allergic reaction include: itching of the skin, hives (raised bumps), swelling of the face, lips, tongue, throat, or trouble swallowing.
- Yellowing of the skin and eyes (jaundice), dark urine, right upper stomach pain, nausea, vomiting, tiredness, loss of appetite, chills, fever, whole body pain. These may be symptoms of liver damage.
- Poor blood sugar control can happen in people who take Bicalutamide Tablets, USP in combination with LHRH medicines.
- enlargement of breast (gynecomastia) and breast pain

The most common side effects of Bicalutamide Tablets, USP include:

- hot flashes, or short periods of feeling warm and sweating
- whole body pain in your back, pelvis, stomach
- feeling weak
- constipation
- infection
- nausea
- swelling in your ankles, legs or feet
- diarrhea
- blood in your urine
- waking from sleep to urinate at night
- a decrease in red blood cells (anemia)
- feeling dizzy

Tell your healthcare provider if you have any side effect that bothers you or that does not go away.

These are not all the possible side effects of Bicalutamide Tablets, USP. For more information, ask your healthcare provider or pharmacist.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

HOW SHOULD I STORE BICALUTAMIDE TABLETS, USP?

Store Bicalutamide Tablets, USP between 20°C to 25°C (68°F to 77°F).

Keep Bicalutamide Tablets, USP and all medicines out of the reach of children.

General information about the safe and effective use of Bicalutamide Tablets, USP.

Medicines are sometimes prescribed for purposes other than those listed in a patient information leaflet. Do not use Bicalutamide Tablets, USP for a condition for which it was not prescribed. Do not give Bicalutamide Tablets, USP to other people, even if they have the same symptoms that you have. It may harm them.

This patient information leaflet summarizes the most important information about Bicalutamide Tablets, USP. If you would like more information about Bicalutamide Tablets, USP talk with your healthcare provider. You can ask your healthcare provider or pharmacist for information about Bicalutamide Tablets, USP that is written for health professionals. For more information call 1-919-493-6006.

What are the ingredients in Bicalutamide Tablets, USP?

Active ingredients include: bicalutamide

Inactive ingredients include: lactose monohydrate, magnesium stearate, povidone, crospovidone, sodium lauryl sulfate, polyethylene glycol, hypromellose, titanium dioxide.

Manufactured for:
Synthon Pharmaceuticals, Inc.
Research Triangle Park, NC 27709

Manufactured by:
Synthon Hispania S.L.
Barcelona, Spain

Made in Spain

Revised: 06/2009

PPI-4020-1

Tear here at perforation.

Bicalutamide Tablets, USP can cause serious side effects.

Get medical help right away, if you have:

- trouble breathing with or without a cough or fever. Some people who take Bicalutamide Tablets, USP get an inflammation in the lungs called interstitial lung disease.
- **An allergic reaction.** Symptoms of an allergic reaction include: itching of the skin, hives (raised bumps), swelling of the face, lips, tongue, throat, or trouble swallowing.
- Yellowing of the skin and eyes (jaundice), dark urine, right upper stomach pain, nausea, vomiting, tiredness, loss of appetite, chills, fever, whole body pain. These may be symptoms of liver damage.
- Poor blood sugar control can happen in people who take Bicalutamide Tablets, USP in combination with LHRH medicines.
- enlargement of breast (gynecomastia) and breast pain

The most common side effects of Bicalutamide Tablets, USP include:

- hot flashes, or short periods of feeling warm and sweating
- whole body pain in your back, pelvis, stomach
- feeling weak
- constipation
- infection
- nausea
- swelling in your ankles, legs or feet
- diarrhea
- blood in your urine
- waking from sleep to urinate at night
- a decrease in red blood cells (anemia)
- feeling dizzy

Tell your healthcare provider if you have any side effect that bothers you or that does not go away.

These are not all the possible side effects of Bicalutamide Tablets, USP. For more information, ask your healthcare provider or pharmacist.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

HOW SHOULD I STORE BICALUTAMIDE TABLETS, USP?

Store Bicalutamide Tablets, USP between 20°C to 25°C (68°F to 77°F).

Keep Bicalutamide Tablets, USP and all medicines out of the reach of children.

General information about the safe and effective use of Bicalutamide Tablets, USP.

Medicines are sometimes prescribed for purposes other than those listed in a patient information leaflet. Do not use Bicalutamide Tablets, USP for a condition for which it was not prescribed. Do not give Bicalutamide Tablets, USP to other people, even if they have the same symptoms that you have. It may harm them.

This patient information leaflet summarizes the most important information about Bicalutamide Tablets, USP. If you would like more information about Bicalutamide Tablets, USP talk with your healthcare provider. You can ask your healthcare provider or pharmacist for information about Bicalutamide Tablets, USP that is written for health professionals. For more information call 1-919-493-6006.

What are the ingredients in Bicalutamide Tablets, USP?

Active ingredients include: bicalutamide

Inactive ingredients include: lactose monohydrate, magnesium stearate, povidone, crospovidone, sodium lauryl sulfate, polyethylene glycol, hypromellose, titanium dioxide.

Manufactured for:
Synthon Pharmaceuticals, Inc.
Research Triangle Park, NC 27709

Manufactured by:
Synthon Hispania S.L.
Barcelona, Spain

Made in Spain

Revised: 06/2009

PPI-4020-1

Tear here at perforation.

Bicalutamide Tablets, USP can cause serious side effects.

Get medical help right away, if you have:

- trouble breathing with or without a cough or fever. Some people who take Bicalutamide Tablets, USP get an inflammation in the lungs called interstitial lung disease.
- **An allergic reaction.** Symptoms of an allergic reaction include: itching of the skin, hives (raised bumps), swelling of the face, lips, tongue, throat, or trouble swallowing.
- Yellowing of the skin and eyes (jaundice), dark urine, right upper stomach pain, nausea, vomiting, tiredness, loss of appetite, chills, fever, whole body pain. These may be symptoms of liver damage.
- Poor blood sugar control can happen in people who take Bicalutamide Tablets, USP in combination with LHRH medicines.
- enlargement of breast (gynecomastia) and breast pain

The most common side effects of Bicalutamide Tablets, USP include:

- hot flashes, or short periods of feeling warm and sweating
- whole body pain in your back, pelvis, stomach
- feeling weak
- constipation
- infection
- nausea
- swelling in your ankles, legs or feet
- diarrhea
- blood in your urine
- waking from sleep to urinate at night
- a decrease in red blood cells (anemia)
- feeling dizzy

Tell your healthcare provider if you have any side effect that bothers you or that does not go away.

These are not all the possible side effects of Bicalutamide Tablets, USP. For more information, ask your healthcare provider or pharmacist.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

HOW SHOULD I STORE BICALUTAMIDE TABLETS, USP?

Store Bicalutamide Tablets, USP between 20°C to 25°C (68°F to 77°F).

Keep Bicalutamide Tablets, USP and all medicines out of the reach of children.

General information about the safe and effective use of Bicalutamide Tablets, USP.

Medicines are sometimes prescribed for purposes other than those listed in a patient information leaflet. Do not use Bicalutamide Tablets, USP for a condition for which it was not prescribed. Do not give Bicalutamide Tablets, USP to other people, even if they have the same symptoms that you have. It may harm them.

This patient information leaflet summarizes the most important information about Bicalutamide Tablets, USP. If you would like more information about Bicalutamide Tablets, USP talk with your healthcare provider. You can ask your healthcare provider or pharmacist for information about Bicalutamide Tablets, USP that is written for health professionals. For more information call 1-919-493-6006.

What are the ingredients in Bicalutamide Tablets, USP?

Active ingredients include: bicalutamide

Inactive ingredients include: lactose monohydrate, magnesium stearate, povidone, crospovidone, sodium lauryl sulfate, polyethylene glycol, hypromellose, titanium dioxide.

Manufactured for:
Synthon Pharmaceuticals, Inc.
Research Triangle Park, NC 27709

Manufactured by:
Synthon Hispania S.L.
Barcelona, Spain

Made in Spain

Revised: 06/2009

PPI-4020-1

Bicalutamide Tablets, USP 50 mg

T-E004-Id

1.375” 1.375”

FOLD AT 6.0625”

.125" margin either side of the perf
(Total .25" between columns)

Tear here at perforation.

Patient Information

Bicalutamide Tablets, USP

[pronounced bi-cal-oo-ta-mide]

Read the Patient Information that comes with Bicalutamide Tablets, USP before you start taking it and each time you get a refill. There may be new information. This leaflet does not take the place of talking with your healthcare provider about your medical condition or your treatment.

What are Bicalutamide Tablets, USP?

Bicalutamide Tablets, USP are a prescription medicine called an androgen receptor inhibitor, used in combination with lutenizing hormone-releasing hormone (LHRH) medicines to treat stage D2 metastatic prostate cancer. It is not known if Bicalutamide Tablets, USP are safe and effective in children.

Who should not take Bicalutamide Tablets, USP?

Do not take Bicalutamide Tablets, USP if:

- you are a woman.
- you are allergic to any of the ingredients in Bicalutamide Tablets, USP. See the end of this leaflet for a complete list of ingredients

What should I tell my healthcare provider before taking Bicalutamide Tablets, USP?

Before you take Bicalutamide Tablets, USP, tell your healthcare provider about all your medical conditions including if you:

- are a woman (see who should not take Bicalutamide Tablets, USP)
- are pregnant or think you may be pregnant
- have liver problems
- take a medicine to thin your blood. Ask your healthcare provider or pharmacist if you are not sure if your medicine is a blood thinner.
- have diabetes (poor blood sugar control has been reported in people taking Bicalutamide Tablets, USP in combination with LHRH medicines)

Tell your healthcare provider about all the medicines you take, including prescription and non-prescription medicines, vitamins and herbal supplements. Bicalutamide Tablets, USP and other medicines may affect each other causing side effects. Bicalutamide Tablets, USP may affect the way other medicines work, and other medicines may affect how Bicalutamide Tablets, USP works.

Know the medicines you take. Keep a list of your medicines with you to show your healthcare providers when you get a new medicine.

How should I take Bicalutamide Tablets, USP?

- Take Bicalutamide Tablets, USP exactly as prescribed.
- Take Bicalutamide Tablets, USP at the same time everyday.
- Your treatment with Bicalutamide Tablets, USP should start at the same time as your treatment with the LHRH medicine
- If you miss a dose do not take an extra dose, take the next dose at your regular time. Do not take 2 doses at the same time.
- Bicalutamide Tablets, USP can be taken with or without food.
- If you take too much Bicalutamide Tablets, USP, call your healthcare provider or Poison Control Center or go to the nearest hospital emergency room right away.
- Do not stop taking Bicalutamide Tablets, USP unless your healthcare provider tells you.
- Your healthcare provider may do blood tests while you take Bicalutamide Tablets, USP
- Your prostate cancer may get worse while taking Bicalutamide Tablets, USP in combination with LHRH medicines. Regular monitoring of your prostate cancer with your healthcare provider is important to determine if your disease is worse.

What should I avoid while taking Bicalutamide Tablets, USP?

Driving and operating machinery. Do not drive, operate machinery, or do other dangerous activities until you know how Bicalutamide Tablets, USP affects you.

What are the possible side effects of Bicalutamide Tablets, USP?

Tear here at perforation.

Patient Information

Bicalutamide Tablets, USP

[pronounced bi-cal-oo-ta-mide]

Read the Patient Information that comes with Bicalutamide Tablets, USP before you start taking it and each time you get a refill. There may be new information. This leaflet does not take the place of talking with your healthcare provider about your medical condition or your treatment.

What are Bicalutamide Tablets, USP?

Bicalutamide Tablets, USP are a prescription medicine called an androgen receptor inhibitor, used in combination with lutenizing hormone-releasing hormone (LHRH) medicines to treat stage D2 metastatic prostate cancer. It is not known if Bicalutamide Tablets, USP are safe and effective in children.

Who should not take Bicalutamide Tablets, USP?

Do not take Bicalutamide Tablets, USP if:

- you are a woman.
- you are allergic to any of the ingredients in Bicalutamide Tablets, USP. See the end of this leaflet for a complete list of ingredients

What should I tell my healthcare provider before taking Bicalutamide Tablets, USP?

Before you take Bicalutamide Tablets, USP, tell your healthcare provider about all your medical conditions including if you:

- are a woman (see who should not take Bicalutamide Tablets, USP)
- are pregnant or think you may be pregnant
- have liver problems
- take a medicine to thin your blood. Ask your healthcare provider or pharmacist if you are not sure if your medicine is a blood thinner.
- have diabetes (poor blood sugar control has been reported in people taking Bicalutamide Tablets, USP in combination with LHRH medicines)

Tell your healthcare provider about all the medicines you take, including prescription and non-prescription medicines, vitamins and herbal supplements. Bicalutamide Tablets, USP and other medicines may affect each other causing side effects. Bicalutamide Tablets, USP may affect the way other medicines work, and other medicines may affect how Bicalutamide Tablets, USP works.

Know the medicines you take. Keep a list of your medicines with you to show your healthcare providers when you get a new medicine.

How should I take Bicalutamide Tablets, USP?

- Take Bicalutamide Tablets, USP exactly as prescribed.
- Take Bicalutamide Tablets, USP at the same time everyday.
- Your treatment with Bicalutamide Tablets, USP should start at the same time as your treatment with the LHRH medicine
- If you miss a dose do not take an extra dose, take the next dose at your regular time. Do not take 2 doses at the same time.
- Bicalutamide Tablets, USP can be taken with or without food.
- If you take too much Bicalutamide Tablets, USP, call your healthcare provider or Poison Control Center or go to the nearest hospital emergency room right away.
- Do not stop taking Bicalutamide Tablets, USP unless your healthcare provider tells you.
- Your healthcare provider may do blood tests while you take Bicalutamide Tablets, USP
- Your prostate cancer may get worse while taking Bicalutamide Tablets, USP in combination with LHRH medicines. Regular monitoring of your prostate cancer with your healthcare provider is important to determine if your disease is worse.

What should I avoid while taking Bicalutamide Tablets, USP?

Driving and operating machinery. Do not drive, operate machinery, or do other dangerous activities until you know how Bicalutamide Tablets, USP affects you.

What are the possible side effects of Bicalutamide Tablets, USP?

Tear here at perforation.

Patient Information

Bicalutamide Tablets, USP

[pronounced bi-cal-oo-ta-mide]

Read the Patient Information that comes with Bicalutamide Tablets, USP before you start taking it and each time you get a refill. There may be new information. This leaflet does not take the place of talking with your healthcare provider about your medical condition or your treatment.

What are Bicalutamide Tablets, USP?

Bicalutamide Tablets, USP are a prescription medicine called an androgen receptor inhibitor, used in combination with lutenizing hormone-releasing hormone (LHRH) medicines to treat stage D2 metastatic prostate cancer. It is not known if Bicalutamide Tablets, USP are safe and effective in children.

Who should not take Bicalutamide Tablets, USP?

Do not take Bicalutamide Tablets, USP if:

- you are a woman.
- you are allergic to any of the ingredients in Bicalutamide Tablets, USP. See the end of this leaflet for a complete list of ingredients

What should I tell my healthcare provider before taking Bicalutamide Tablets, USP?

Before you take Bicalutamide Tablets, USP, tell your healthcare provider about all your medical conditions including if you:

- are a woman (see who should not take Bicalutamide Tablets, USP)
- are pregnant or think you may be pregnant
- have liver problems
- take a medicine to thin your blood. Ask your healthcare provider or pharmacist if you are not sure if your medicine is a blood thinner.
- have diabetes (poor blood sugar control has been reported in people taking Bicalutamide Tablets, USP in combination with LHRH medicines)

Tell your healthcare provider about all the medicines you take, including prescription and non-prescription medicines, vitamins and herbal supplements. Bicalutamide Tablets, USP and other medicines may affect each other causing side effects. Bicalutamide Tablets, USP may affect the way other medicines work, and other medicines may affect how Bicalutamide Tablets, USP works.

Know the medicines you take. Keep a list of your medicines with you to show your healthcare providers when you get a new medicine.

How should I take Bicalutamide Tablets, USP?

- Take Bicalutamide Tablets, USP exactly as prescribed.
- Take Bicalutamide Tablets, USP at the same time everyday.
- Your treatment with Bicalutamide Tablets, USP should start at the same time as your treatment with the LHRH medicine
- If you miss a dose do not take an extra dose, take the next dose at your regular time. Do not take 2 doses at the same time.
- Bicalutamide Tablets, USP can be taken with or without food.
- If you take too much Bicalutamide Tablets, USP, call your healthcare provider or Poison Control Center or go to the nearest hospital emergency room right away.
- Do not stop taking Bicalutamide Tablets, USP unless your healthcare provider tells you.
- Your healthcare provider may do blood tests while you take Bicalutamide Tablets, USP
- Your prostate cancer may get worse while taking Bicalutamide Tablets, USP in combination with LHRH medicines. Regular monitoring of your prostate cancer with your healthcare provider is important to determine if your disease is worse.

What should I avoid while taking Bicalutamide Tablets, USP?

Driving and operating machinery. Do not drive, operate machinery, or do other dangerous activities until you know how Bicalutamide Tablets, USP affects you.

What are the possible side effects of Bicalutamide Tablets, USP?

HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use Bicalutamide Tablets, USP safely and effectively. See full prescribing information for Bicalutamide Tablets, USP.

Bicalutamide Tablets, USP for Oral use

Initial U.S. Approval: 1995

----------INDICATIONS AND USAGE----------

- Bicalutamide Tablets, USP 50 mg are an androgen receptor inhibitor indicated for use in combination therapy with a luteinizing hormone-releasing hormone (LHRH) analog for the treatment of Stage D_2 metastatic carcinoma of the prostate.
- Bicalutamide Tablets, USP 150 mg daily are not approved for use alone or with other treatments. (1)

----------DOSAGE AND ADMINISTRATION----------

The recommended dose for Bicalutamide Tablets, USP therapy in combination with an LHRH analog is one 50 mg tablet once daily (morning or evening). (2)

----------DOSAGE FORMS AND STRENGTHS----------

50 mg tablets (3)--

----------CONTRAINDICATIONS----------

- Hypersensitivity (4.1)
- Women (4.2)
- Pregnancy (4.3 and 8.1)

----------WARNINGS AND PRECAUTIONS----------

- Severe hepatic changes and hepatic failure have been observed rarely. Monitor serum transaminase levels prior to starting treatment with Bicalutamide Tablets, USP, at regular intervals for the first four months of treatment and periodically thereafter, and for symptoms or signs suggestive of hepatic dysfunction. Use Bicalutamide Tablets, USP with caution in patients with hepatic impairment. (5.1)
- Gynecomastia and breast pain have been reported during treatment with Bicalutamide Tablets, USP 150 mg when used as a single agent. (5.2)
- Bicalutamide Tablets, USP are used in combination with a LHRH agonist. LHRH agonists have been shown to cause a reduction in glucose tolerance in males. Consideration should be given to monitoring blood glucose in patients receiving Bicalutamide Tablets, USP in combination with LHRH agonists. (5.3)
- Monitoring Prostate Specific Antigen (PSA) is recommended. Evaluate for clinical progression if PSA increases. (5.4)

----------ADVERSE REACTIONS----------

Adverse reactions that occurred in more than 10% of patients receiving Bicalutamide Tablets, USP plus an LHRH-A were: hot flashes, pain (including general, back, pelvic and abdominal), asthenia, constipation, infection, nausea, peripheral edema, dyspnea, diarrhea, hematuria, nocturia and anemia. (6.1)

To report SUSPECTED ADVERSE REACTIONS, contact Synthon Pharmaceuticals, Inc. at 1-919-483-6006 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch

----------DRUG INTERACTIONS----------

- R-bicalutamide is an inhibitor of CYP 3A4; therefore, caution should be used when Bicalutamide Tablets, USP are co-administered with CYP 3A4 substrates. (7)
- Prothrombin times should be closely monitored in patient already receiving coumarin anticoagulants who are started on Bicalutamide Tablets, USP. (7)

USE IN SPECIFIC POPULATIONS

- Pediatric patients: Labeling describing pediatric clinical studies for bicalutamide is approved for AstraZeneca Pharmaceuticals LP's bicalutamide tablets. However, due to AstraZeneca Pharmaceuticals LP's marketing exclusivity rights, a description of those clinical studies is not approved for this bicalutamide labeling. (8.4)

See 17 for PATIENT COUNSELING INFORMATION

Proposed Patient Labeling Provided

Revised: 06/2009

FULL PRESCRIBING INFORMATION: CONTENTS*

* Sections or subsections omitted from the full prescribing information are not listed

FULL PRESCRIBING INFORMATION

1. INDICATIONS AND USAGE

Bicalutamide Tablets, USP 50 mg daily are indicated for use in combination therapy with a luteinizing hormone-releasing hormone (LHRH) analog for the treatment of Stage D_2 metastatic carcinoma of the prostate.

Bicalutamide Tablets, USP 150 mg daily are not approved for use alone or with other treatments *[see Clinical Studies (14.2)]*.

2. DOSAGE AND ADMINISTRATION

The recommended dose for Bicalutamide Tablets, USP therapy in combination with an LHRH analog is one 50 mg tablet once daily (morning or evening), with or without food. It is recommended that Bicalutamide Tablets, USP be taken at the same time each day. Treatment with Bicalutamide Tablets, USP should be started at the same time as treatment with an LHRH analog.

2.1. Dosage Adjustment in Renal Impairment

No dosage adjustment is necessary for patients with renal impairment *[see Use in Specific Populations (8.7)]*.

2.2. Dosage Adjustment in Hepatic Impairment

No dosage adjustment is necessary for patients with mild to moderate hepatic impairment. In patients with severe liver impairment (n=4), although there was a 76% increase in the half-life (5.9 and 10.4 days for normal and impaired patients, respectively) of the active enantiomer of bicalutamide no dosage adjustment is necessary *[see Use in Specific Populations (8.6)]*.

3. DOSAGE FORMS & STRENGTHS

Bicalutamide Tablets, USP 50 mg Tablets for oral administration.

4. CONTRAINDICATIONS

4.1. Hypersensitivity

Bicalutamide Tablets, USP are contraindicated in any patient who has shown a hypersensitivity reaction to the drug or any of the tablet's components. Hypersensitivity reactions including angioneurotic edema and urticaria have been reported *[see Adverse Reactions (6.2)]*.

4.2. Women

Bicalutamide Tablets, USP have no indication for women, and should not be used in this population.

4.3. Pregnancy

Bicalutamide Tablets, USP may cause fetal harm when administered to a pregnant woman. Bicalutamide Tablets, USP are contraindicated in women, including those who are or may become pregnant. There are no studies in pregnant women using Bicalutamide Tablets, USP. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be appraised of the potential hazard to the fetus *[see Use in Specific Populations (8.1)]*.

5. WARNINGS AND PRECAUTIONS

5.1. Hepatitis

Rare cases of death or hospitalization due to severe liver injury have been reported post-marketing in association with the use of Bicalutamide Tablets, USP. Hepatotoxicity in these reports generally occurred within the first three to four months of treatment. Hepatitis or marked increases in liver enzymes leading to drug discontinuation occurred in approximately 1% of Bicalutamide Tablets, USP patients in controlled clinical trials.

Serum transaminase levels should be measured prior to starting treatment with Bicalutamide Tablets, USP, at regular intervals for the first four months of treatment, and periodically thereafter. If clinical symptoms or signs suggestive of liver dysfunction occur (e.g., nausea, vomiting, abdominal pain, fatigue, anorexia, "flu-like" symptoms, dark urine, jaundice, or right upper quadrant tenderness), the serum transaminases, in particular the serum ALT, should be measured immediately. If at any time a patient has jaundice, or their ALT rises above two times the upper limit of normal, Bicalutamide Tablets, USP should be immediately discontinued with close follow-up of liver function.

5.2. Gynecomastia and Breast Pain

In clinical trials with Bicalutamide Tablets, USP 150 mg as a single agent for prostate cancer, gynecomastia and breast pain have been reported in up to 38% and 39% of patients, respectively.

5.3. Glucose Tolerance

A reduction in glucose tolerance has been observed in males receiving LHRH agonists. This may manifest as diabetes or loss of glycemic control in those with pre-existing diabetes. Consideration should therefore be given to monitoring blood glucose in patients receiving Bicalutamide Tablets, USP in combination with LHRH agonists.

5.4. Laboratory Tests

Regular assessments of serum Prostate Specific Antigen (PSA) may be helpful in monitoring the patient's response. If PSA levels rise during Bicalutamide Tablets, USP therapy, the patient should be evaluated for clinical progression. For patients who have objective progression of disease together with an elevated PSA, a treatment-free period of antiandrogen, while continuing the LHRH analog, may be considered.

6. ADVERSE REACTIONS

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

6.1. Clinical Trials Experience

In patients with advanced prostate cancer treated with Bicalutamide Tablets, USP in combination with an LHRH analog, the most frequent adverse reaction was hot flashes (53%).

In the multicenter, double-blind, controlled clinical trial comparing Bicalutamide Tablets, USP 50 mg once daily with flutamide 250 mg three times a day, each in combination with an LHRH analog, the following adverse reactions with an incidence of 5% or greater, regardless of causality, have been reported.

Table 1. Incidence of Adverse Reactions (≥ 5% in Either Treatment Group) Regardless of Causality

Body System Adverse Reaction	Treatment Group Number of Patients (%) Bicalutamide Tablets, USP Plus LHRH Analog (n=401)	 Flutamide Plus LHRH Analog (n=407)
Body as a Whole		
Pain (General)	142 (35)	127 (31)
Back Pain	102 (25)	105 (26)
Asthenia	89 (22)	87 (21)
Pelvic Pain	85 (21)	70 (17)
Infection	71 (18)	57 (14)
Abdominal Pain	46 (11)	46 (11)
Chest Pain	34 (8)	34 (8)
Headache	29 (7)	27 (7)
Flu Syndrome	28 (7)	30 (7)
Cardiovascular		
Hot Flashes	211 (53)	217 (53)
Hypertension	34 (8)	29 (7)
Digestive		
Constipation	87 (22)	69 (17)
Nausea	62 (15)	58 (14)
Diarrhea	49 (12)	107 (26)
Increased Liver Enzyme Test †	30 (7)	46 (11)
Dyspepsia	30 (7)	23 (6)
Flatulence	26 (6)	22 (5)
Anorexia	25 (6)	29 (7)
Vomiting	24 (6)	32 (8)
Hemic and Lymphatic		
Anemia ††	45 (11)	53 (13)
Metabolic and Nutritional		
Peripheral Edema	53 (13)	42 (10)
Weight Loss	30 (7)	39 (10)
Hyperglycemia	26 (6)	27 (7)
Alkaline Phosphatase Increased	22 (5)	24 (6)
Weight Gain	22 (5)	18 (4)
Musculoskeletal		
Bone Pain	37 (9)	43 (11)
Myasthenia	27 (7)	19 (5)
Arthritis	21 (5)	29 (7)
Pathological Fracture	17 (4)	32 (8)
Nervous System		
Dizziness	41 (10)	35 (9)
Paresthesia	31 (8)	40 (10)
Insomnia	27 (7)	39 (10)
Anxiety	20 (5)	9 (2)
Depression	16 (4)	33 (8)
Respiratory System		
Dyspnea	51 (13)	32 (8)
Cough Increased	33 (8)	24 (6)
Pharyngitis	32 (8)	23 (6)
Bronchitis	24 (6)	22 (3)
Pneumonia	18 (4)	19 (5)
Rhinitis	15 (4)	22 (5)
Skin and Appendages		
Rash	35 (9)	30 (7)
Sweating	25 (6)	20 (5)
Urogenital		
Nocturia	49 (12)	55 (14)
Hematuria	48 (12)	26 (6)
Urinary Tract Infection	35 (9)	36 (9)
Gynecomastia	36 (9)	30 (7)
Impotence	27 (7)	35 (9)
Breast Pain	23 (6)	15 (4)
Urinary Frequency	23 (6)	29 (7)
Urinary Retention	20 (5)	14 (3)
Urinary Impaired	19 (5)	15 (4)
Urinary Incontinence	15 (4)	32 (8)

† Increased liver enzyme test includes increases in AST, ALT or both.
†† Anemia includes anemia, hypochromic-and iron deficiency anemia.

Other adverse reactions (greater than or equal to 2%, but less than 5%) reported in the Bicalutamide Tablets, USP-LHRH analog treatment group are listed below by body system and are in order of decreasing frequency within each body system regardless of causality.

Body as a Whole: Neoplasm; Neck Pain; Fever; Chills; Sepsis; Hernia; Cyst

Cardiovascular: Angina Pectoris; Congestive Heart Failure; Myocardial Infarct; Heart Arrest; Coronary Artery Disorder; Syncope

Digestive: Melena; Rectal Hemorrhage; Dry Mouth; Dysphagia; Gastrointestinal Disorder; Periodontal Abscess; Gastrointestinal Carcinoma

Metabolic and Nutritional: Edema; BUN Increased; Creatinine Increased; Dehydration; Gout; Hypercholesteremia

Musculoskeletal: Myalgia; Leg Cramps

Nervous: Hypertonia; Confusion; Somnolence; Libido Decreased; Neuropathy; Nervousness

Respiratory: Lung Disorder; Asthma; Epistaxis; Sinusitis

Skin and Appendages: Dry Skin; Alopecia; Pruritus; Herpes Zoster; Skin Carcinoma; Skin Disorder

Special Senses: Cataract specified

Urogenital: Dysuria; Urinary Urgency; Hydronephrosis; Urinary Tract Disorder

Abnormal Laboratory Test Values:

Laboratory abnormalities including elevated AST, ALT, bilirubin, BUN, and creatinine and decreased hemoglobin and white cell count have been reported in both Bicalutamide Tablets, USP-LHRH analog treated and flutamide-LHRH analog treated patients.

6.2. Postmarketing Experience

The following adverse reactions have been identified during postapproval use of Bicalutamide Tablets, USP. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

Uncommon cases of hypersensitivity reactions, including angioneurotic edema and urticaria *[see Contraindications (4.1)]*, and uncommon cases of interstitial lung disease, including interstitial pneumonitis and pulmonary fibrosis, have been reported with Bicalutamide Tablets, USP.

Reduction in glucose tolerance, manifesting as diabetes or a loss of glycemic control in those with pre-existing diabetes, has been reported during treatment with LHRH agonists.

7. DRUG INTERACTIONS

Clinical studies have not shown any drug interactions between bicalutamide and LHRH analogs (goserelin or leuprolide). There is no evidence that bicalutamide induces hepatic enzymes.

In vitro studies have shown that R-bicalutamide is an inhibitor of CYP 3A4 with lesser inhibitory effects on CYP 2C9, 2C19 and 2D6 activity. Clinical studies have shown that with co-administration of Bicalutamide Tablets, USP, mean midazolam (a CYP 3A4 substrate) levels may be increased 1.5 fold (for C_{max}) and 1.9 fold (for AUC). Hence, caution should be exercised when Bicalutamide Tablets, USP are co-administered with CYP 3A4 substrates.

In vitro protein-binding studies have shown that bicalutamide can displace coumarin anticoagulants from binding sites. Prothrombin times should be closely monitored in patients already receiving coumarin anticoagulants who are started on Bicalutamide Tablets, USP and adjustment of the anticoagulant dose may be necessary.

8. USE IN SPECIFIC POPULATIONS

8.1. Pregnancy

PREGNANCY CATEGORY X *[see Contraindications (4.3)]*. Based on its mechanism of action, Bicalutamide Tablets, USP may cause fetal harm when administered to a pregnant woman. Bicalutamide Tablets, USP are contraindicated in women, including those who are or may become pregnant. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to a fetus.

While there are no human data on the use of Bicalutamide Tablets, USP in pregnancy and Bicalutamide Tablets, USP are not for use in women, it is important to know that maternal use of an androgen receptor inhibitor could affect development of the fetus.

In animal reproduction studies, male offspring of rats receiving doses of 10 mg/kg/day (approximately 2/3 of clinical exposure at the recommended dose) and above, were observed to have reduced anogenital distance and hypospadias. These pharmacological effects have been observed with other antiandrogens. No other teratogenic effects were observed in rabbits receiving doses up to 200 mg/kg/day (approximately 1/3 of clinical exposure at the recommended dose) or rats receiving doses up to 250 mg/kg/day (approximately 2 times the clinical exposure at the recommended dose).

8.3. Nursing Mothers

Bicalutamide Tablets, USP are not indicated for use in women.