

Thyrocil®

Tablets

Propylthiouracil 50 mg

WARNING: Severe liver injury and acute liver failure, in some cases fatal, have been reported in patients treated with propylthiouracil. These reports of hepatic reactions include cases requiring liver transplantation in adult and pediatric patients. Propylthiouracil should be reserved for patients who cannot tolerate methimazole and in whom radioactive iodine therapy or surgery are not appropriate treatments for the management of hyperthyroidism. Because of the risk of fetal abnormalities associated with methimazole, propylthiouracil may be the treatment of choice when an antithyroid drug is indicated during or just prior to the first trimester of pregnancy (see Warnings and Precautions).

Composition:
Each tablet contains:
Active ingredient: propylthiouracil 50 mg
Inactive ingredient: Xelol P1182, Lactose Monohydrate, Croscopollose, Purified talc, Magnesium stearate, Maltose Starch, Pink Colour.

CLINICAL PHARMACOLOGY:
Propylthiouracil inhibits the synthesis of thyroid hormones and thus is effective in the treatment of hyperthyroidism. The drug does not inactivate existing thyroxine and triiodothyronine that are stored in the thyroid or circulating in the blood, nor does it interfere with the effectiveness of thyroid hormones given by mouth or by injection. Propylthiouracil inhibits the conversion of thyroxine to triiodothyronine in peripheral tissues and may therefore be an effective treatment for thyroid storm. Propylthiouracil is orally absorbed and is extensively metabolized. Approximately 55% of the drug is excreted in the urine, in intact and conjugated forms, within 24 hours.

INDICATIONS AND USAGE:

Thyrocil® (propylthiouracil) is indicated:
-In patients with Graves' disease with hyperthyroidism or toxic multinodular goiter who are intolerant of methimazole and for whom surgery or radioactive iodine therapy is not an appropriate treatment option.
-To ameliorate symptoms of hyperthyroidism in preparation for thyroidectomy or radioactive iodine therapy in patients who are intolerant of methimazole.

CONTRAINDICATIONS:
Propylthiouracil is contraindicated in patients who have demonstrated hypersensitivity to the drug or any of the other product components.

WARNINGS:
This product contains lactose. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose- galactose malabsorption should not take this medicine.

Liver Injury:
Liver injury resulting in liver failure, liver transplantation, or death, has been reported with propylthiouracil therapy in adult and pediatric patients. No cases of liver failure have been reported with the use of methimazole in pediatric patients. For this reason, propylthiouracil is not recommended for pediatric patients except when methimazole is not well-tolerated and surgery or radioactive iodine therapy are not appropriate therapies.

Biochemical monitoring of liver function (bilirubin, alkaline phosphatase) and hepatocellular integrity (ALT, AST) is not expected to attenuate the risk of severe liver injury due to its rapid and unpredictable onset. Patients should be informed of the risk of liver failure. Patients should be instructed to report any symptoms of hepatic dysfunction (anorexia, pruritus, right upper quadrant pain, etc.) particularly in the first six months of therapy. When these symptoms occur, propylthiouracil should be discontinued immediately and liver function tests and ALT and AST levels obtained.

Use in pregnancy:
There are cases of liver injury, including liver failure and death, in women treated with propylthiouracil during pregnancy. Two reports of in utero exposure with liver failure and death of a newborn have been reported. If propylthiouracil is used during pregnancy, or if the patient becomes pregnant while taking propylthiouracil, the patient should be warned of the rare potential hazard to the mother and fetus of liver damage.

Propylthiouracil crosses the placenta and can cause fetal goiter and cretinism when administered to a pregnant woman (see Precautions, Pregnancy).
After the first trimester of pregnancy, the use of an alternative antithyroid medication may be advisable (see Precautions, Pregnancy).

Agranulocytosis:
Agranulocytosis occurs in approximately 0.2% to 0.5% of patients and is a potentially life-threatening, side effect of propylthiouracil therapy. Agranulocytosis typically occurs within the first 3 months of therapy. Patients should be instructed to immediately report any symptoms suggestive of agranulocytosis, such as fever or sore throat, leukopenia, thrombocytopenia, and aplastic anemia (pancytopenia) may also occur. Propylthiouracil should be discontinued if agranulocytosis, aplastic anemia (pancytopenia) is suspected, and the patient's bone marrow indices should be obtained.

Vasculitis:
Cases of vasculitis resulting in severe complications and death have been reported in patients receiving propylthiouracil therapy. The cases of vasculitis include: glomerulonephritis, leukocytoclastic cutaneous vasculitis, alveolar/pulmonary hemorrhage, cerebral angitis, and ischemic colitis. Most cases were associated with anti-neutrophilic cytoplasmic antibodies (ANCA) positive vasculitis. In some cases, vasculitis resolved/improved with drug discontinuation; however, more severe cases required treatment with additional measures including corticosteroids, immunosuppressant therapy, and plasmapheresis. If vasculitis is suspected, discontinue therapy and initiate appropriate intervention.

Hyperthyroidism:
Propylthiouracil can cause hypothyroidism necessitating routine monitoring of TSH and free T4 levels with adjustments in dosing to maintain a euthyroid state. Because the drug readily crosses placental membranes, propylthiouracil can cause fetal goiter and cretinism when administered to a pregnant woman (see Precautions, Pregnancy).

PRECAUTIONS:

General:
Patients should be instructed to report any symptoms of hepatic dysfunction (anorexia, pruritus, jaundice, light colored stools, dark urine, right upper quadrant pain, etc.) particularly in the first six months of therapy. When these symptoms occur, measurement should be made of liver function (bilirubin, alkaline phosphatase) and hepatocellular integrity (ALT/AST levels).

Patients who receive propylthiouracil should be under close surveillance and should be counseled regarding the necessity of immediately reporting any evidence of illness, particularly sore throat, skin eruptions, fever, headache, or general malaise. In such cases, while blood cell and differential counts should be obtained to determine whether agranulocytosis has developed. Particular care should be exercised with patients who are receiving concomitant drugs known to be associated with agranulocytosis.

Patients should be advised that if they become pregnant or intend to become pregnant while taking an antithyroid drug, they should contact their physician immediately about their therapy.

Patients should report immediately any evidence of illness, in particular sore throat, skin eruptions, fever, headache, or general malaise. They also should report symptoms suggestive of hepatic dysfunction (anorexia, pruritus, right upper quadrant pain, etc.).

Inform patients that cases of vasculitis resulting in severe complications and death have occurred with propylthiouracil. Inform patients to promptly report symptoms that may be associated with vasculitis including new rash, hematuria or decreased urine output, dyspnea or hemoptysis (see WARNINGS and ADVERSE REACTIONS).

Laboratory Tests:
Because propylthiouracil may cause hypoproteinthemia and bleeding, monitoring of prothrombin time should be considered during therapy with the drug, especially before surgical procedures.

Thyroid function tests should be monitored periodically during therapy. Once clinical evidence of hyperthyroidism has resolved, the finding of an elevated serum TSH indicates that a lower maintenance dose of propylthiouracil should be employed.

Drug Interactions:
Anticoagulant (s): Due to the potential inhibition of vitamin K activity by propylthiouracil, the activity of oral anticoagulants (e.g., warfarin) may be increased; additional monitoring should be considered, especially before surgical procedures.

Beta-adrenergic blocking agents: Hyperthyroidism may cause an increased clearance of beta blockers with a high extraction ratio. A reduced dose of beta-adrenergic blockers may be needed when a hyperthyroid patient becomes euthyroid.

Digoxin: digoxin: Serum digoxin levels may be increased when hyperthyroid patients on a stable digoxin glycoside regimen become euthyroid; a reduced dose of digoxin glycoside may be needed.

Theophylline: Theophylline clearance may decrease when hyperthyroid patients on a stable theophylline regimen become euthyroid; a reduced dose of theophylline may be needed.

Pregnancy:
Pregnancy Category D.
See WARNINGS.

If propylthiouracil is used during pregnancy, or if the patient becomes pregnant while taking propylthiouracil, the patient should be warned of the rare potential hazard to the mother and fetus of liver damage.
Because propylthiouracil readily crosses placental membranes and can induce goiter and cretinism in the developing fetus, it is important that a sufficient, but not excessive, dose be given during pregnancy. In many pregnant women, the thyroid dysfunction diminishes as the pregnancy proceeds; consequently a reduction of dosage may be possible. In some instances, antithyroid may be discontinued several weeks or months prior to delivery.
Since methimazole may be associated with the rare development of fetal abnormalities, propylthiouracil may be the preferred agent during the first trimester of pregnancy. Given the potential for maternal hepatotoxicity from propylthiouracil, it may be preferable to switch from propylthiouracil to methimazole for the second and third trimesters during pregnancy.

Nursing Mothers:
Propylthiouracil is present in breast milk to a small extent and therefore likely results in clinically insignificant doses to the nursing infant. In one study, nine lactating women were administered 400 mg of propylthiouracil by mouth. The mean amount of propylthiouracil excreted during 4 hours after drug administration was 0.025% of the administered dose.

Pediatric Use:
Postmarketing reports of severe liver injury including hepatic failure requiring liver transplantation or resulting in death have been reported in the pediatric population (see WARNINGS). No such reports have been observed with methimazole. As such, propylthiouracil is not recommended for use in the pediatric population except in rare instances in which methimazole is not well-tolerated and surgery or radioactive iodine therapy are not appropriate.

When used in children, parents and patients should be informed of the risk of liver failure. If patients taking propylthiouracil develop lethargy, nausea, anorexia, fever, pharyngitis, or malaise, propylthiouracil should be discontinued immediately by the patient, a physician should be contacted, and a white blood cell count, liver function tests, and transaminase levels obtained.

ADVERSE REACTIONS:
The following adverse reactions have been reported with the use of propylthiouracil. Because these events generally come from voluntary reporting from a population of uncertain size, it is not possible to reliably estimate their frequency or establish a causal relationship to drug response.

Severe adverse reactions include liver injury presenting as hepatitis, liver failure necessitating liver transplantation or resulting in death (see WARNINGS). Inhibition of myeloperoxidase (agranulocytosis, granulopenia, aplastic anemia, and thrombocytopenia), drug fever, a lupus-like syndrome (including splenomegaly and vasculitis), periarthritis, hypothyroidism, and bleeding have been reported. Nephritis, glomerulonephritis, interstitial pneumonitis, exfoliative dermatitis, and erythema nodosum have also been reported.

There are reports of a vasculitis associated with the presence of anti-neutrophilic cytoplasmic antibodies (ANCA), resulting in severe complications and death (see WARNINGS). There have been rare reports of serious hypersensitivity reactions (e.g., Stevens Johnson syndrome and toxic epidermal necrolysis) in patients treated with propylthiouracil. Other adverse reactions include skin rash, urticaria, nausea, vomiting, epigastric distress, arthralgia, paresthesias, loss of taste, taste perversion, abnormal loss of hair, myalgia, headache, pruritus, dizziness, neuritis, edema, vertigo, skin pigmentation, jaundice, saladenopathy, and lymphadenopathy.

OVERDOSEAGE:
Signs and Symptoms
Nausea, vomiting, epigastric distress, headache, fever, arthralgia, pruritus, edema, and pancytopenia. Agranulocytosis is the most serious effect. Rarely, exfoliative dermatitis, hepatitis, neuropathies or CNS stimulation or depression may occur. No information is available on the following 1956: concentration of propylthiouracil in biologic fluids associated with toxicity and/or death; the amount of drug in a single dose usually associated with symptoms of overdose; or the amount of propylthiouracil in a single dose likely to be life-threatening.

Treatment:
To obtain up-to-date information about the treatment of overdose, a good resource is the certified Regional Poison Control Center. In managing overdosage, consider the possibility of multiple drug overdoses, interaction among drugs, and unusual drug kinetics in the patient.

In the event of an overdose, appropriate supportive treatment should be initiated as dictated by the patient's medical status.

DOSEAGE AND ADMINISTRATION:

Thyrocil® (Propylthiouracil) is administered orally. The total daily dosage is usually given in 3 equal doses at approximately 8-hour intervals.

Adults:
The initial dose is 500 mg daily. In patients with severe hyperthyroidism, very large patients, or both, the initial dose may be increased to 400 mg daily; an occasional patient will require 600 to 900 mg daily initially. The usual maintenance dose is 100 to 150 mg daily.

Pediatric Use:
Propylthiouracil is generally not recommended for use in the pediatric patient population except in rare instances in which other alternative therapies are not appropriate options. Studies evaluating appropriate dosing regimen have not been conducted in the pediatric population although general practice would suggest initiation of therapy in patients 6 years or older at a dosage of 50 mg daily with careful upward titration based on clinical response and evaluation of TSH and free T4 levels. Although cases of severe liver injury have been reported with doses as low as 50 mg/day, most cases were associated with doses of 300 mg/day and higher.

Geriatric Use:
Clinical studies of propylthiouracil did not include sufficient numbers of subjects aged 65 and over to determine whether they respond differently from younger subjects. Other reported clinical experience has not identified differences in responses between the elderly and younger patients.

In general, dose selection for an elderly patient should be cautious, reflecting the greater frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy.

HOW SUPPLIED:
Carton Box containing 125 (AL)Opaque PVC strips each of 10 tablets + insert leaflet.

Storage Condition:
Store at temperature not exceeding 30°C, in dry place.

Keep all medicaments out of reach of children

Product of:
AMOUN

AMOUN PHARMACEUTICAL Co. S.A.E.
El-Obour City, Al Qalyubia, Egypt.

ثيروسيل®

أقراص

بروبيل ثيوبوراسيل ٥٠ مجم

تحذير: تم تسجيل حدوث حالات إصابة شديدة وفشل الكبد الحاد، أدت إلى الوفاة، في المرضى الذين تناولوا بروبيسيل ثيوبوراسيل. و هذه التقارير عن حدوث رد فعل الكبد شاملا حالات تتطلب زرع الكبد في المرضى البالغين والأطفال. وينبغي أن يحفظ العلاج بروبيسيل ثيوبوراسيل للمرضى الذين لا يستطيعون تحمل الميثيمازول والذين ليس ملاتهم لهم العلاج باليود المشع أو إجراء علاج حرط نشاط الغدة الدرقية. بسبب خطر تشوهات الجنين المرتبطة بالميثيمازول، قد يكون البروبيل ثيوبوراسيل العلاج الأمثل عند الأخشاح إلى دواء مضاد للغدة الدرقية خلال أو قبل الأشهر الثلاثة الأولى من الحمل (انظر التحذيرات والأخطائات).

أقراص الفعالة،

يحتوي كل قرص **ثيروسيل®** على ٥٠ مجم بروبيل ثيوبوراسيل .

أقراص الغير فعالة،

البيسيل PH 102. لا تكون متوفرة، كقرص بوليدين، تلك، سترات المغنيسيوم، نشاء البذر، لون وردي.

• يجب قراءة هذه النشرة جيداً قبل استعمال بروبيل ثيوبوراسيل وعند تكرار الاستعمال.

• هذه النشرة لا تغني عن تعليمات الطبيب الخاصة باستعمال الدواء.

ماهي اهم المعلومات التي يجب معرفتها عن ثيروسيل®؟

قد يسبب **ثيروسيل®** بعض الأعراض الجانبية الهامة مثل:

• بعض الأعراض الشخيرة في الكبد. وهذا قد يؤدي في بعض الأحيان إلى فشل الكبد. ويصل لزراعة كبد أو الوفاة.

• توقف عن تناول **ثيروسيل®** وأتصل بطبيبك في حالة حدوث هذه الأعراض.

– حمى.

– الرغبة في القيء.

– تعب.

– ألم في الجزء العلوي من المعدة.

– إن أصبح البراز زائفاً فاتحاً.

– مضمار الجلد أو العين.

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