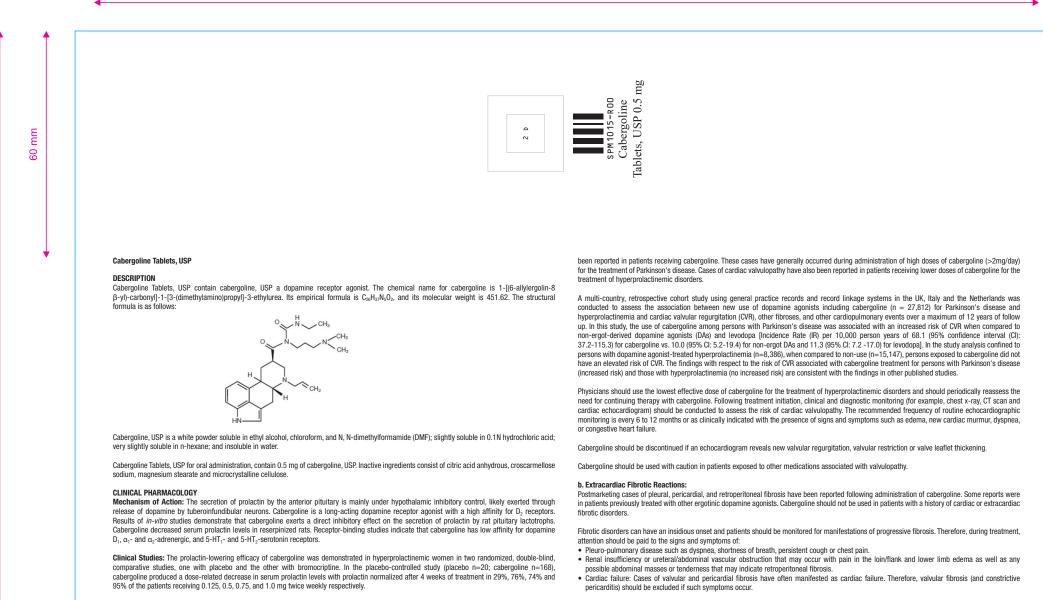
Cabergoline Leaflet KLD. **Front Page**

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In the 8-week, double-blind period of the comparative trial with bromocriptine (cabergoline n=223; bromocriptine n=236 in the intent-to-treat analysis), prolactin was normalized in 77% of the patients treated with cabergoline at 0.5 mg twice weekly compared with 59% of those treated with bromocriptine at 2.5 mg twice daily. Restoration of menses occurred in 77% of the women treated with cabergoline, compared with 70% of those treated with bromocriptine. Among patients with galactorrhea, this symptom disappeared in 73% of those treated with cabergoline compared with 56% of those treated with bromocriptine.

Absorption: Following single oral doses of 0.5 mg to 1.5 mg given to 12 healthy adult volunteers, mean peak plasma levels of 30 to 70 picograms (pg)/mL of cabergoline were observed within 2 to 3 hours. Over the 0.5-to-7 mg dose range, cabergoline plasma levels appeared to be dose-proportional in 12 healthy adult volunteers and nine adult parkinsonian patients. A repeat-dose study in 12 healthy volunteers suggests that steady-state levels following a once-weekly dosing schedule are expected to be twofold to threefold higher than after a single dose. The absolute bioavailability of cabergoline is unknown. A significant fraction of the administered dose undergoes a first-pass effect. The elimination half-life of cabergoline estimated from urinary data of 12 heatthy subjects ranged between 63 to 69 hours. The prolonged prolactin-lowering effect of cabergoline may be related to its slow elimination and long half-life.

Distribution: In animals, based on total radioactivity, cabergoline (and/or its metabolites) has shown extensive tissue distribution. Radioactivity in the pituitary exceeded that in plasma by >100-fold and was eliminated with a half-life of approximately 60 hours. This finding is consistent with the Iong-lasting prolactin-lowering effect of the drug. Whole body autoradiography studies in pregnant rats showed no fetal uptake but high levels in the uterine wall. Significant radioactivity (parent plus metabolites) detected in the milk of lactating rats suggests a potential for exposure to nursing infants. The drug is extensively distributed throughout the body. Cabergoline is moderately bound (40% to 42%) to human plasma proteins in a concentration-independent manner. Concomitant dosing of highly protein-bound drugs is unlikely to affect its disposition

Metabolism: In both animals and humans, cabergoline is extensively metabolized, predominately via hydrolysis of the acylurea bond or the urea moiety. Cytochrome P-450 mediated metabolism appears to be minimal. Cabergoline does not cause enzyme induction and/or inhibition in the rat. Hydrolysis of the acylurea or urea moiety abolishes the prolactin-lowering effect of cabergoline, and major metabolites identified thus far do not contribute to the apeutic effect

Clinical and diagnostic monitoring such as erythrocyte sedimentation rate, chest-x ray, serum creatinine measurements, and other investigations should be considered at baseline and as necessary while patients are treated with cabergoline

Following diagnosis of pleural effusion or pulmonary fibrosis, the discontinuance of cabergoline was reported to result in improvement of signs and

PRECAUTIONS

General: Initial doses higher than 1.0 mg may produce orthostatic hypotension. Care should be exercised when administering cabergoline with other dications known to lower blood pres

Postpartum Lactation Inhibition or Suppression: Cabergoline is not indicated for the inhibition or suppression of physiologic lactation. Use of bromocriptine, another dopamine agonist for this purpose, has been associated with cases of hypertension, stroke, and seizures.

Hepatic Impairment: Since cabergoline is extensively metabolized by the liver, caution should be used, and careful monitoring exercised, when istering cabergoline to patients with hepatic impairment

Psychiatric: Impulse control/compulsive behaviors, including pathological gambling, increased libido, and hypersexuality have been reported in patients treated with dopamine agonists including cabergoline. This has been generally reversible upon reduction of the dose or treatment discontinuation (S Postmarketing Surveillance data). Prescribers should consider dose reduction or stopping the medication if a patient develops such urges while taking cabergoline

Information for Patients: Patients should be instructed to notify their physician if they suspect they are pregnant, become pregnant, or intend to become pregnant during therapy. A pregnancy test should be done if there is any suspicion of pregnancy and continuation of treatment should be discussed with their physician.

Excretion: After oral dosing of radioactive cabergoline to five healthy volunteers, approximately 22% and 60% of the dose was excreted within 20 days in the urine and feces, respectively. Less than 4% of the dose was excreted unchanged in the urine. Nonrenal and renal clearances for cabergoline are about 3.2 L/min and 0.08 L/min, respectively, Urinary excretion in hyperprolactinemic patients was similar.

Special Populations

Renal Insufficiency: The pharmacokinetics of cabergoline were not altered in 12 patients with moderate-to-severe renal insufficiency as assessed by creatinine clearance

Hepatic Insufficiency: In 12 patients with mild-to-moderate hepatic dysfunction (Child-Pugh score \leq 10), no effect on mean cabergoline C_{max} or area under the plasma concentration curve (AUC) was observed. However, patients with severe insufficiency (Child-Pugh score >10) show a substantial increase in the mean cabergoline C_{max} and AUC, and thus necessitate caution.

Elderly: Effect of age on the pharmacokinetics of cabergoline has not been studied

Food-Drug Interaction

In 12 healthy adult volunteers, food did not alter cabergoline kinetics.

Pharmacodynamics

Dose response with inhibition of plasma prolactin, onset of maximal effect, and duration of effect has been documented following single cabergoline doses to healthy volunteers (0.05 to 1.5 mg) and hyperprolactinemic patients (0.3 to 1 mg). In volunteers, prolactin inhibition was evident at doses >0.2 mg, while doses ≥ 0.5 mg caused maximal suppression in most subjects. Higher doses produce prolactin suppression in a greater proportion of subjects and with an earlier onset and longer duration of action. In 12 healthy volunteers, 0.5, 1, and 1.5 mg doses resulted in complete prolact inhibition, wi a maximum effect within 3 hours in 92% to 100% of subjects after the 1 and 1.5 mg doses compared with 50% of subjects after the 0.5 mg dose.

In hyperprolactinemic patients (N=51), the maximal prolactin decrease after a 0.6 mg single dose of cabergoline was comparable to 2.5 mg bromocriptine; however, the duration of effect was markedly longer (14 days vs. 24 hours). The time to maximal effect was shorter for bromocriptine than cabergoline (6 hours vs. 48 hours).

In 72 healthy volunteers, single or multiple doses (up to 2 mg) of cabergoline resulted in selective inhibition of prolactin with no apparent effect on other anterior pituitary hormones (GH, FSH, LH, ACTH, and TSH) or cortisol.

INDICATIONS AND USAGE

Cabergoline tablets are indicated for the treatment of hyperprolactinemic disorders, either idiopathic or due to pituitary adenomas.

CONTRAINDICATIONS

Cabergoline tablets are contraindicated in patients with:

- Uncontrolled hypertension or known hypersensitivity to ergot derivatives.
 History of cardiac valvular disorders, as suggested by anatomical evidence of valvulopathy of any valve, determined by pre-treatment evaluation including echocardiographic demonstration of valve leaflet thickening, valve restriction, or mixed valve restriction- stenosis, (See WARNINGS) • History of pulmonary, pericardial, or retroperitoneal fibrotic disorders. (See WARNINGS)

WARNINGS

1. Pregnancy: Dopamine agonists in general should not be used in patients with pregnancy-induced hypertension, for example, preeclampsia, eclampsia, and post partum hypertension, unless the potential benefit is judged to outweigh the possible risk.

2. Fibrotic Complications

a. Cardiac Valvulopathy:

All patients should undergo a cardiovascular evaluation, including echocardiogram to assess the potential presence of valvular disease. If valvular disease is detected, the patient should not be treated with cabergoline. (See CONTRAINDICATIONS) Postmarketing cases of cardiac valvulopathy have extremities

Patients should be alerted to the possibility that patients may experience intense urges to spend money uncontrollably, intense urges to gamble, increased sexual urges, and other intense urges and the inability to control these urges while taking cabergoline. Advise patients to inform their healthcare provider if they develop new or increased uncontrolled spending, gambling urges, sexual urges, or other urges while being treated with cabergoline (See PRECAUTIONS)

Drug Interactions: Cabergoline should not be administered concurrently with D2-antagonists, such as phenothiazines, butyrophenones, thioxanthenes, or metoclopramide

Carcinogenesis, Mutagenesis, Impairment of Fertility: Carcinogenicity studies were conducted in mice and rats with cabergoline given by gavage at doses up to 0.98 mg/kg/day and 0.32 mg/kg/day, respectively. These doses are 7 times and 4 times the maximum recommended human dose calculated on a body surface area basis using total mg/m²/week in rodents and mg/m²/week for a 50 kg human.

There was a slight increase in the incidence of cervical and uterine leiomyomas and uterine leiomyosarcomas in mice. In rats, there was a slight malignant tumors of the cervix and uterus and interstitial cell adenomas. The occurrence of tumors in female rodents may be related to the increase ir prolonged suppression of prolactin secretion because prolactin is needed in rodents for the maintenance of the corpus luteum. In the absence of prolactin, the estrogen/progesterone ratio is increased, thereby increasing the risk for uterine tumors. In male rodents, the decrease in serum prolactin levels was associated with an increase in serum luteinizing hormone, which is thought to be a compensatory effect to maintain testicular steroid synthesis. Since these hormonal mechanisms are thought to be species-specific, the relevance of these tumors to humans is not known

The mutagenic potential of cabergoline was evaluated and found to be negative in a battery of in vitro tests. These tests included the bacterial mutation (Ames) test with Salmonella typhimurium, the gene mutation assay with Schizosaccharomyces pombe P1, and V79 Chinese hamster cells, DNA damage and repair in Saccharomyces cerevisiae D4, and chromosomal aberrations in human lymphocytes. Cabergoline was also negative in the bone marrow micronucleus test in the mous

In female rats, a daily dose of 0.003 mg/kg for 2 weeks prior to mating and throughout the mating period inhibited conception. This dose represents nended human dose calculated on a body surface area basis using total mg/m²/week in rats and mg/r for a 50 kg human.

cy: Reproduction studies have been performed with cabergoline in mice, rats, and rabbits administered by gavage

(Multiples of the maximum recommended human dose in this section are calculated on a body surface area basis using total mg/m²/week for animals and mg/m²/week for a 50 kg human.)

There were maternotoxic effects but no teratogenic effects in mice given cabergoline at doses up to 8 mg/kg/day (approximately 55 times the maximum recommended human dose) during the period of organogenesis

A dose of 0.012 mo/kg/day (approximately 1/7 the maximum recommended human dose) during the period of organogenesis in rats caused an increase in post-implantation embryofetal losses. These losses could be due to the prolactin inhibitory properties of cabergoline in rats. At daily doses of 0.5 mg/kg/day (approximately 19 times the maximum recommended human dose) during the period of organogenesis in the rabbit, cabergoline caused maternotoxicity characterized by a loss of body weight and decreased food consumption. Doses of 4 mg/kg/day (approximately 150 times the maximum recommended human dose) during the period of organogenesis in the rabbit caused an increased occurrence of various malformations. However, in another study in rabbits, no treatment-related malformations or embryofetotoxicity were observed at doses up to 8 mg/kg/day (approximately 300 times the maximum recommended human dose).

In rats, doses higher than 0.003 mg/kg/day (approximately 1/28 the maximum recommended human dose) from 6 days before parturition and throughout the lactation period inhibited growth and caused death of offspring due to decreased milk secretion

There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of

Optimus	s [‡] Artv	vork Deta	ils Sekhmet
Artwork Component	Leaflet	Layout Number	NA
Product Name	Cabergoline Tablets USP 0.5 mg	Artwork Language	English
Artwork Code	SPM1015-R00	CDR Version	21
Material Code	SPM1015	Leaflet Type	Pre Folded Folded With Glue 🖌
Open Size:	260 L x 350 H mm	Pharma Code	60
Folding Size:	32 x 32 mm	Colour	Black
Specifications	40 gsm Bible Paper		
Note: For Any Clarification / D	eviation Please Contact Optimus Artwork Coordinate	er, No Changes Should be Done by	y Printer, Should Verify E-proof Against Approved Artwork.

Cabergoline Leaflet KLD. Back Page

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mm 09 human response, this drug should be used during pregnancy only if clearly needed. Cabergoline (n=221) Bromocriptin Adverse Event* (n=231) Nursing Mothers: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk and because of the potential for serious adverse reactions in nursing infants from cabergoline, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother. Use of cabergoline for the inhibition or suppression of physiologic lactation is Number (percent) Cardiovascular not recommended (see PRECAUTIONS section). Hot flashes 6 (3) 3 (1) Hypotension 3 (1) 4 (2) The prolactin-lowering action of cabergoline suggests that it will interfere with lactation. Due to this interference with lactation, cabergoline should not Dependent edema 2 (1) be given to women postpartum who are breastfeeding or who are planning to breastfeed. Palpitation 5 (2) 2 (1) Reproductive - Female Pediatric Use: Safety and effectiveness of cabergoline in pediatric patients have not been established. Breast pain 5 (2) 8 (3) Geriatric Use: Clinical studies of cabergoline did not include sufficient numbers of subjects aged 65 and over to determine whether they respond Dysmenorrhea 2 (1) differently from younger patients. Other reported clinical experience has not identified differences in responses between the elderly and younger Skin and Appendages patients. In general, dose selection for an elderly patient should be cautious, usually starting at the low end of the dosing range, reflecting the greater Acne 3 (1) 0 frequency of decreased hepatic, renal, or cardiac function, and of concomitant disease or other drug therapy. Pruritus 2 (1) Musculoskeletal ADVERSE REACTIONS Pain 4 (2) 6 (3) The safety of cabergoline tablets has been evaluated in more than 900 patients with hyperprolactinemic disorders. Most adverse events were mild or Arthralgia 2 (1) moderate in severity. Respiratory Rhinitis In a 4-week, double-blind, placebo-controlled study, treatment consisted of placebo or cabergoline at fixed doses of 0.125, 0.5, 0.75, or 1.0 mg twice 9 (4) 2 (1) weekly. Doses were halved during the first week. Since a possible dose-related effect was observed for nausea only, the four cabergoline treatment Vision groups have been combined. The incidence of the most common adverse events during the placebo-controlled study is presented in the following table Abnormal vision 2 (1) 2 (1) Incidence of Reported Adverse Events During the 4-Week, Double-Blind, Placebo- Controlled Trial *Reported at ≥1% for cabergoline Г Cabergoline Other adverse events that were reported at an incidence of <1.0% in the overall clinical studies follow. Body As a Whole: facial edema, influenza-like symptoms, malaise Cardiovascular System: hypotension, syncope, palpitations Digestive System: dry mouth, flatulence, diarrhea, anorexia Metabolic and Nutritional System: weight loss, weight gain Nervous System: somnolence, nervousness, paresthesia, insomnia, anxiety Respiratory System: nasal stuffiness, epistaxis Skin and Appendages: acne, pruritus Special Senses: abnormal vision Urogenital System: dysmenorrhea, increased libido The safety of cabergoline has been evaluated in approximately 1,200 patients with Parkinson's disease in controlled and uncontrolled studies at

The safety of capergoline has been evaluated in approximately 1,200 patients with Parkinson's disease in controlled and uncontrolled studies at dosages of up to 11.5 mg/day which greatly exceeds the maximum recommended dosage of cabergoline for hyperprolactinemic disorders. In addition to the adverse events that occurred in the patients with hyperprolactinemic disorders, the most common adverse events in patients with Parkinson's disease were dyskinesia, hallucinations, confusion, and peripheral edema. Heart failure, pleural effusion, pulmonary fibrosis, and gastric or duodenal ulcer occurred rarely. One case of constrictive pericarditis has been reported.

Postmarketing Surveillance data: The following events have been reported in association with cabergoline: cardiac valvulopathy and extracardiac fibrotic reactions, (See WARNINGS, Cardiac Valvulopathy and Extracardiac Fibrotic Reactions).

Other events have been reported in association with cabergoline: impulse control/compulsive behavior symptoms, including hypersexuality, increased libido and pathological gambling (See **PRECAUTIONS, Psychiatric**). In addition, cases of alopecia, aggression and psychotic disorder have been reported in patients taking cabergoline. Some of these reports have been in patients who have had prior adverse reactions to dopamine agonist products.

To report SUSPECTED ADVERSE REACTIONS, contact Somerset Therapeutics, LLC at 1-800-417-9175 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch

OVERDOSAGE

Overdosage might be expected to produce nasal congestion, syncope, or hallucinations. Measures to support blood pressure should be taken if necessary.

DOSAGE AND ADMINISTRATION

Adverse Event*	(n=168) 0.125 to 1 mg two times a week	Placebo (n=20)		
	Number (percent)			
Gastrointestinal				
Nausea	45 (27)	4 (20)		
Constipation	16 (10)	0		
Abdominal pain	9 (5)	1 (5)		
Dyspepsia	4 (2)	0		
Vomiting	4 (2)	0		
Central and Peripheral Nervous System				
Headache	43 (26)	5 (25)		
Dizziness	25 (15)	1 (5)		
Paresthesia	2 (1)	0		
Vertigo	2 (1)	0		
Body As a Whole				
Asthenia	15 (9)	2 (10)		
Fatigue	12 (7)	0		
Hot flashes	2 (1)	1 (5)		
Psychiatric				
Somnolence	9 (5)	1 (5)		
Depression	5 (3)	1 (5)		
Nervousness	4 (2)	0		
Autonomic Nervous System				
Postural hypotension	6 (4)	0		
Reproductive – Female				
Breast pain	2 (1)	0		
Dysmenorrhea	2 (1)	0		
Vision				
Abnormal vision	2 (1)	0		

*Reported at >1% for cabergoline

In the 8-week, double-blind period of the comparative trial with bromocriptine, cabergoline (at a dose of 0.5 mg twice weekly) was discontinued because of an adverse event in 4 of 221 patients (2%) while bromocriptine (at a dose of 2.5 mg two times a day) was discontinued in 14 of 231 patients (6%). The most common reasons for discontinuation from cabergoline were headache, nausea and vomiting (3, 2 and 2 patients respectively); the most common reasons for discontinuation from bromocriptine were nausea, vomiting, headache, and dizziness or vertigo (10, 3, 3, and 3 patients respectively). The incidence of the most common adverse events during the double-blind portion of the comparative trial with bromocriptine is presented in the following table.

Incidence of Reported Adverse Events During the 8-Week, Double-Blind Period of the Comparative Trial With Bromocriptine

Adverse Event*	Cabergoline (n=221)	Bromocriptine (n=231)		
-	Number (percent)			
Gastrointestinal				
Nausea	63 (29)	100 (43)		
Constipation	15 (7)	21 (9)		
Abdominal pain	12 (5)	19 (8)		
Dyspepsia	11 (5)	16 (7)		
Vomiting	9 (4)	16 (7)		
Dry mouth	5 (2)	2 (1)		
Diarrhea	4 (2)	7 (3)		
Flatulence	4 (2)	3 (1)		
Throat irritation	2 (1)	0		
Toothache	2 (1)	0		
Central and Peripheral Nervous System				
Headache	58 (26)	62 (27)		
Dizziness	38 (17)	42 (18)		
Vertigo	9 (4)	10 (4)		
Paresthesia	5 (2)	6 (3)		
Body As a Whole				
Asthenia	13 (6)	15 (6)		
Fatigue	10 (5)	18 (8)		
Syncope	3 (1)	3 (1)		
Influenza-like symptoms	2 (1)	0		
Malaise	2 (1)	0		
Periorbital edema	2 (1)	2 (1)		
Peripheral edema	2 (1)	1		
Psychiatric				
Depression	7 (3)	5 (2)		
Somnolence	5 (2)	5 (2)		
Anorexia	3 (1)	3 (1)		
Anxiety	3 (1)	3 (1)		
Insomnia	3 (1)	2 (1)		
Impaired concentration	2 (1)	1		
Nervousness	2 (1)	5 (2)		

The recommended dosage of cabergoline tablets for initiation of therapy is 0.25 mg twice a week. Dosage may be increased by 0.25 mg twice weekly up to a dosage of 1 mg twice a week according to the patient's serum prolactin level. Before initiating treatment, cardiovascular evaluation should be performed and echocardiography should be considered to assess for valvular disease.

Dosage increases should not occur more rapidly than every 4 weeks, so that the physician can assess the patient's response to each dosage level. If the patient does not respond adequately, and no additional benefit is observed with higher doses, the lowest dose that achieved maximal response should be used and other therapeutic approaches considered. Patients receiving long term treatment with cabergoline should undergo periodic assessment of their cardiac status and echocardiography should be considered.

After a normal serum prolactin level has been maintained for 6 months, cabergoline may be discontinued, with periodic monitoring of the serum prolactin level to determine whether or when treatment with cabergoline should be reinstituted. The durability of efficacy beyond 24 months of therapy with cabergoline has not been established.

HOW SUPPLIED

Cabergoline Tablets, USP are white to off-white, scored, oval-shaped, flat face, beveled edge tablet, debossed with the letter "c" and the number "05" on either side of the break line and plain on the other side.

Cabergoline Tablets, USP are available as follows:

Bottles of 8 tablets NDC 70069-824-08

STORAGE

Store at 20°C to 25°C (68°F to 77°F) [See USP Controlled Room Temperature]. Dispense in a tight, light-resistant container as defined by USP.

Rx only

Manufactured for: Somerset Therapeutics, LLC. Somerset, NJ 08873

Manufactured by:

Made in India M.L.: TS/DRUGS/22/2017

Revised: 06/2024

SPM1015-R00

Optimus	Artv	vork Deta	ils	Sekhmet Pharmaventures
Artwork Component	Leaflet	Layout Number	NA	
Product Name	Cabergoline Tablets USP 0.5 mg	Artwork Language	English	
Artwork Code	SPM1015-R00	CDR Version	21	
Material Code	SPM1015	Leaflet Type	Pre Folded	Folded With Glue 🖌
Open Size:	260 L x 350 H mm	Pharma Code	60	
Folding Size:	32 x 32 mm	Colour	Black	
Specifications	40 gsm Bible Paper	·	·	