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**ATC code:**
G02CB03

**Classification:**
PNP - Probably not porphyrinogenic

**Substance:**
Cabergoline

**Rationale for risk classification:**
Cabergoline is not listed as an inhibitor or an inducer of any major CYP enzymes.
Risk for gastrointestinal adverse events in the form of nausea, obstipation, dyspepsia and vomiting motivates vigilance against insufficient intake of food, especially of carbohydrate.

**Chemical description:**
Cabergoline is a dopaminergic ergoline derivative with potent and long-lasting dopamine D2 receptor agonist properties.

**Therapeutic characteristics:**
Cabergoline is indicated for the treatment of Parkinsons.
A very common side effect that can be potentially porphyrinogenic through reduction in carbohydrate intake and that also can be confused with an acute porphyria attack is nausea. Other common side effects are obstipation, dyspepsia, vomiting, confusion, hallucinations, dizziness and dyskinesia.

**Metabolism and pharmacokinetics:**
Cabergoline is extensively metabolised via hydrolysis in the liver. CYP450-mediated metabolism is in one study regarded to be minimal (Del Dotto 2003). The elimination half-life is between 63-109 hours (Del Dotto 2003).
When co-administrated, clarithromycin increased the plasma concentration of cabergoline about 2.7 times. The authors suggest that the concentration of cabergoline might be increased both through the inhibition of P-glycoprotein and CYP3A4 (Nakatsuka 2006).
Christensen (2002) suggests that itraconazole inhibits the metabolism of cabergoline via CYP3A4, based on two case reports where the patients got marked improvement on their Parkinson symptoms when the two drugs were co-administered.
The plasma concentration of cabergoline increased approximately 1.7 times when grapefruit juice (a MBI of CYP3A4) was taken together with cabergoline and this indicates that CYP3A4 contributes to metabolize cabergoline (Nagai 2005).

Cabergoline is not listed as an inducer or inhibitor of any major CYP enzymes (FDA, Hisaka 2010, Isoherranen 2009 and Pelkonen 2008) and no drug-drug interaction with cabergoline as a perpetrator has been reported in the literature.

**Summary of other guidance on prescribing (porphyria drug lists):**

European Porphyria Network: not listed.

Porphyria South Africa: avoid: high risk.

**EPNET drug reports:**

Uneventful use reported in 1 patient with acute porphyria.

**References:**


http://www.legemiddelverket.no/ Last edition: 08.04.2013


U.S Food and Drug Administration (FDA).

http://www.fda.gov/drugs/developmentapprovalprocess/developmentresources/druginteractionslabeling/ucm0