

HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use COLCHICINE CAPSULES safely and ffectively. See full prescribing information for COLCHICINE CAPSULES

COLCHICINE capsules, for oral use Initial U.S. Approval: 1961

...INDICATIONS AND USAGE

$\label{lem:colline} \textbf{Colchicine} \ \textbf{is an alkaloid indicated for prophylaxis of gout flares in adults (1)}.$ Limitations of Use:

- The safety and effectiveness of colchicine capsules for acute treatment of gout flares during prophylaxis has not bee
- Colchicine capsules are not an analgesic medication and should not be used to treat pain from other causes
- ----DOSAGE AND ADMINISTRATION-The recommended dosage is 0.6 mg (one capsule) once or twice daily (2). Maximum dose 1.2 mg/day
 Colchicine capsules are administered orally, without regard to meals (2).
-DOSAGE FORMS AND STRENGTHS

- Patients with renal or hepatic impairment should not be given colchicine capsules in conjunction with drugs that
- Patients with both renal and hepatic impairment should not be given colchicine capsules (4).
-WARNINGS AND PRECAUTIONS.
- Fatal overdoses have been reported with colchicine in adults and children. Keep colchicine capsules out of the
- reach of children (5.1, 10). Blood dyscrasias: Myelosuppression, leukopenia, granulocytopenia, thrombocytopenia, and aplastic anemia have
- Monitor for toxicity and if present consider temporary interruption or discontinuation of colchicine (5.2, 5.3, 5.4

- Drug interaction with dual P-op and CYP3A4 inhibitors: Co-administration of colchicine with dual P-op and ${\it CYP3A4}\ inhibitors\ has\ resulted\ in\ life-threatening\ interactions\ and\ death\ (5.3,7).$ Neuromuscular toxicity: Myotoxicity including rhabdomyolysis may occur, especially in combination with other drugs
- $known \ to \ cause \ this \ effect. \ Consider \ temporary \ interruption \ or \ discontinuation \ of \ colchicine \ capsules \ (5.4,7).$ --- ADVERSE REACTIONS-

The most commonly reported adverse reactions with colchicine are gastrointestinal symptoms, including diarrhea To report SUSPECTED ADVERSE REACTIONS, contact Annora Pharma Private Limited at 1-866-495-1995 or

FDA at 1-800-FDA-1088 or www.fda.gov/medwatch. ... DRUG INTERACTIONS...

- Co-administration of P-gp or CYP3A4 inhibitors or inhibitors of both P-gp and CYP3A4 (e.g., clarithromycin or cyclosporine) have been reported to lead to colchicine toxicity. The pote considered prior to and during therapy.
- Concomitant use of colchicine capsules and inhibitors of CYP3A4 or P-op should be avoided if possible. If coadministration of colchicine capsules and an inhibitor of CYP3A4 or P-gp is necessary, the dose of colchicin capsules should be reduced and the patient should be monitored carefully for colchicine toxicity (7, 12.3).
-USE IN SPECIFIC POPULATIONS... In the presence of renal or hepatic impairment, patients should be monitored closely and dose adjustment should be monitored.considered as necessary (8.6, 8.7).
- Pregnancy: Use only if the potential benefit justifies the potential risk to the fetus (8.1) Lactation: Caution should be exercised when administered to a breastfeeding woman (8.2).
- Females and Males of Reproductive Potential: Advise males that colchicine may rarely and transiently impai
- Geriatric Use: The recommended dosage of colchicine should be based on renal/henatic function (8.5).
- See 17 for PATIENT COUNSELING INFORMATION and Medication Guide

Revised: 07/2024

FULL PRESCRIBING INFORMATION: CONTENTS*

- INDICATIONS AND USAGE
- DOSAGE AND ADMINISTRATION
- DOSAGE FORMS AND STRENGTHS
- CONTRAINDICATIONS
- WARNINGS AND PRECAUTIONS
- 5.2 Blood Dyscrasia: 5.3 Interactions with CYP3A4 and P-gp Inhibitors
 5.4 Neuromuscular Toxicity
- ADVERSE REACTIONS
- DRUG INTERACTIONS
- 7.1 CYP3A4
- 7.3 HMG-CoA Reductase Inhibitors and Fibrates
- 7.4 Drug-Drug Interaction Studies USE IN SPECIFIC POPULATIONS
- Pregnancy
- 8.2 Lactation
- 8.3 Females and Males of Reproductive Potential

- Pediatric Use 8.5 Geriatric Use
- Renal Impairme
- Hepatic Impairment
- DRUG ABUSE AND DEPENDENCE 10 OVERDOSAGE
- DESCRIPTION
- 12 CLINICAL PHARMACOLOGY 12.1 Mechanism of Action 12.3 Pharmacokinetics
- 13 NONCLINICAL TOXICOLOGY
- 14 CLINICAL STUDIES
- HOW SUPPLIED/STORAGE AND HANDLING
 - 16.2 Storage
- 17 PATIENT COUNSELING INFORMATION

FULL PRESCRIBING INFORMATION

INDICATIONS AND USAGE Colchicine capsules are indicated for prophylaxis of gout flares in adults

The safety and effectiveness of colchicine capsules for acute treatment of gout flares during prophylaxis has not been

Colchicine capsules are not an analgesic medication and should not be used to treat pain from other causes 2 DOSAGE AND ADMINISTRATION 2.1 Recommended Dosage for Gout Prophylaxis

For prophylaxis of gout flares, the recommended dosage of colchicine capsules is 0.6 mg once or twice daily. The ximum dose is 1.2 mg per day.

Colchicine capsules are administered orally, without regard to meals

DOSAGE FORMS AND STRENGTHS 0.6 mg capsules - Size '4' hard gelatin capsules with green opaque cap imprinted with "V1" in white color and light green

opaque body imprinted with "85" in white color filled with white to off white colored granular powde

4 CONTRAINDICATIONS Patients with renal or hepatic impairment should not be given colchicine capsules with drugs that inhibit both P glycoprotein and CYP3A4 inhibitors/see Drug Interactions (7)). Combining these dual inhibitors with colchicine in patients with renal or hepatic impairment has resulted in life-threatening or fatal colchicine toxicity.

Patients with both renal and hepatic impairment should not be given colchicine capsule

5.3 Interactions with CYP3A4 and P-gp Inhibitors

5.1 Fatal Overdose

Fatal overdoses, both accidental and intentional, have been reported in adults and children who have ingested colchicing

5.2 Blood Dyscrasias

Myelosuppression, leukopenia, granulocytopenia, thrombocytopenia, pancytopenia, and aplastic anemia have been reported with colchicine used in therapeutic doses.

Because colchicine is a substrate for both the CYP3A4 metabolizing enzyme and the P-glycoprotein efflux transporter, inhibition of either of these pathways may lead to colchicine-related toxicity. Inhibition of both CYP3A4 and P-gp by dual

inhibitors such as clarithromycin has been reported to produce life-threatening or fatal colchicine toxicity due to significant increases in systemic colchicine levels. Therefore, concomitant use of colchicine capsules and inhibitors of

CYP3A4 or P-glycoprotein should be avoided (see Drug Interactions (7)). If avoidance is not possible, reduced daily dose should be considered and the nationt should be monitored closely for colchicine toxicity. Use of colchicine capsules in conjunction with drugs that inhibit both P-gp and CYP3A4 is contraindicated in patients with renal or hepatic impairment [see Contraindications (4)]. 5.4 Neuromuscular Toxicity
Neuromuscular toxicity and rhabdomyolysis have been reported from chronic treatment with colchicine in therapeutic

doses, especially in combination with other drugs known to cause this effect. Patients with impaired renal function and elderly patients (even those with normal renal and hepatic function) are at increased risk. Once colchicine treatment is ceased, the symptoms generally resolve within 1 week to several months. 6 ADVERSE REACTIONS

Castrointestinal disorders are the most common adverse reactions with colchicine. They are often the first signs of toxicity and may indicate that the colchicine dosage needs to be reduced or therapy stopped. These include diarrhea, nausea, vomiting, and abdominal pain.

Colchicine has been reported to cause neuromuscular toxicity, which may present as muscle pain or weakness [see Toxic manifestations associated with colchicine include myelosuppression, disseminated intravascular coagulation, and injury to cells in the renal, hepatic, circulatory, and central nervous system. These most often occur with excessive accumulation or overdosage /see Overdosage (10)).

The following reactions have been reported with colchicine. These have been generally reversible by interrupting treatment or lowering the dose of colchicine:

Digestive: abdominal cramping, abdominal pain, diarrhea, lactose intolerance, nausea, vomiting Neurological: sensory motor neuropathy

Dermatological: alopecia, maculopapular rash, purpura, rash

Hematological: leukopenia, granulocytopenia, thrombocytopenia, pancytopenia, aplastic anemia Hepatobiliary: elevated AST, elevated ALT

Musculoskeletal: myopathy, elevated CPK, myotonia, muscle weakness, muscle pain, rhabdomyolysis Reproductive: azoospermia, oligospermia

DRUG INTERACTIONS Colchicine is a substrate of the efflux transporter P-glycoprotein (P-gp), and the CYP3A4 metabolizing enzyme. Fatal drug and the CYP3A4 metabolizing enzyme and the CYP3A4 metabolizing enzyme and the CYP3A4 metabolizing enzyme. Fatal drug and the CYP3A4 metabolizing enzyme and the CYP3A4 metabolizing enzyme and the CYP3A4 metabolizing enzyme. Fatal drug and the CYP3A4 metabolizing enzyme and the CYP3A4 metabolizing enzyme and the CYP3A4 metabolizing enzyme. Fatal drug and the CYP3A4 metabolizing enzyme and the CYP3A4 metabolizing enzyme and the CYP3A4 metabolizing enzyme. Fatal drug and the CYP3A4 metabolizing enzyme and the CYP3A4 metainteractions have been reported when colchicine is administered with clarithromycin, a dual inhibitor of CYP3A4 and P glycoprotein. Toxicities have also been reported when colchicine is administered with inhibitors of CYP3A4 that may not be potent inhibitors of P-gp (e.g., grapefruit juice, erythromycin, verapamil), or inhibitors of P-gp that may not be potent inhibitors of CYP3A4 (e.g., cyclosporine).

Patients with renal or hepatic impairment should not be given colchicine capsules with drugs that inhibit both Pglycoprotein and CYP3A4 [see Contraindications (4]]. Combining these dual inhibitors with colch with renal and hepatic impairment has resulted in life-threatening or fatal colchicine toxicity.

Physicians should ensure that patients are suitable candidates for treatment with colchicine capsules and remain alert for the suitable candidates for treatment with colchicine capsules and remain alert for the suitable candidates for treatment with colchicine capsules and remain alert for the suitable candidates for the suitable candsigns and symptoms of toxic reactions associated with increased colchicine exposure due to drug interactions. Signs and mptoms of colchicine toxicity should be evaluated promptly and, if toxicity is suspected, colchicine capsules should be

The concomitant use of colchicine capsules and CYP3A4 inhibitors (e.g., clarithromycin, ketoconazole, grapefruit juice, erythromycin, verapamil, etc.) should be avoided due to the potential for serious and life-threatening toxicity /se Warnings and Precautions (5.3) and Clinical Pharmacology (12)].

If co-administration of colchicine capsules and a CYP3A4 inhibitor is necessary, the dose of colchicine capsules should be adjusted by either reducing the daily dose or reducing the dose frequency, and the patient should be monitored carefully for colchicine toxicity (see Clinical Pharmacology (12)).

The concomitant use of colchicine capsules and inhibitors of P-glycoprotein (e.g. clarithromycin, ketoconazole

If co-administration of colchicine capsules and a P-gp inhibitor is necessary, the dose of colchicine capsules should be adjusted by either reducing the daily dose or reducing the dose frequency, and the patient should be monitored carefully for colchicine toxicity [see Clinical Pharmacology (12)].

cyclosporine, etc.) should be avoided due to the potential for serious and life-threatening toxicity [see Warnings and

Some drugs such as HMG-CoA reductase inhibitors and fibrates may increase the risk of myopathy when combined with colchicine capsules. Complaints of muscle pain or weakness could be an indication to check serum creatinine kinase level

Precautions (5.3) and Clinical Pharmacology (12)].

7.4 Drug-Drug Interaction Studies Four pharmacokinetic studies evaluated the effects of co-administration of voriconazole (200 mg BID), fluconazole (200 mg QD), cimetidine (800 mg BID), and propafenone (225 mg BID) on systemic levels of colchicine. Colchicine can be administered with these drugs at the tested doses without a need for dose adjustment. However, these results should not be extrapolated to

ered drugs/see Drug-Drug Interactions (7.1, 7.2) and Pharmacokinetics (12.3)]. USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Risk Summary

Available data from published literature on colchicine use in pregnancy over several decades have not identified any drug associated risks for major birth defects, miscarriage, or other adverse maternal or fetal outcomes (see Data). Colchicing crosses the human placenta. Although animal reproductive and developmental studies were not conducted with colchicine, published animal reproduction and development studies indicate that colchicine causes embryofetal toxicity, teratogenicity, and altered postnatal development at exposures within or above the clinical therapeutic The background risk of major birth defects and miscarriage for the indicated population is unknown. All pregnancies have

a background risk of birth defect, loss or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2 to 4% and 15 to 20%, respectively.

Data Available data from published observational studies, case series, and case reports over several decades do not suggest an

increased risk for major birth defects or miscarriage in pregnant women with rheumatic diseases (such as rheumatoid arthritis, Behcet's disease, or Familial Mediterranean Fever (FMF)) treated with colchicine at therapeutic doses during pregnancy. Limitations of these data include the lack of randomization and inability to control for confounders such as underlying maternal disease and maternal use of concomitant medications.

Risk Summary

Colchicine is present in human milk (see Data). Adverse events in breastfed infants have not been reported in the published literature after administration of colchicine to lactating women. There are no data on the effects of colchicine on milk production. The developmental and health henefits of breastfeeding should be considered along with the mother's clinical need for colchicine and any potential adverse effects on the breastfed child from colchicine or from the underlyin maternal condition.

Limited published data from case reports and a small lactation study demonstrate that colchicine is present in breastmille natic review of literature reported no adverse effects in 149 breastfed children. In a prosp cohort study, no gastrointestinal or other symptoms were reported in 38 colchicine-exposed breastfed infants.

8.3 Females and Males of Reproductive Potential Infertility

Case reports and epidemiology studies in human male subjects on colchicine therapy indicated that infertility from colchicine is rare and may be reversible.

8.4 Pediatric Use

Court is rare in pediatric patients; the safety and effectiveness of colchicine capsules in pediatric patients has not beer evaluated in controlled studies. 8.5 Geriatric Use

Because of the increased incidence of decreased renal function in the elderly population, and the higher incidence of other co-morbid conditions in the elderly population requiring the use of other medications, reducing the dosage of colchicine when elderly patients are treated with colchicine should be carefully considered. 8.6 Renal Impairment

No dedicated pharmacokinetic study has been conducted using colchicine capsules in patients with varying degrees of

renal impairment. Colchicine is known to be excreted in urine in humans and the presence of severe renal impairment has

been associated with colchicine toxicity. Urinary clearance of colchicine and its metabolites may be decreased in patients

with impaired renal function. Dose reduction or alternatives should be considered for the prophylaxis of gout flares in

patients with severe renal impairment. Colchicine is not effectively removed by hemodialysis. Patients who are undergoing hemodialysis should be monitored carefully for colchicine toxicity.

- Colchicine capsules can be taken with or without food.
- If you take too much colchicine call your healthcare provider or go to the nearest hospital emergency room right away.
- provider tells you to.
- the same time.

Artwork information			
Customer	Camber	Market	USA
Dimensions (mm)	280 x 420 mm	Non Printing Colors	Die cut
Pharma Code No.	Front-744 & Back-745		
Printing Colours	Black		

Others: Pharma code position and Orientation are tentative, will be changed based on folding size.

Medication Guide Colchicine (kol' chi seen) Capsules Rx only

What is the most important information I should know about colchicine capsules?

Colchicine capsules can cause serious side effects or death if levels of colchicine capsules are too high in your body.

- Taking certain medicines with colchicine capsules can cause your level of colchicine capsules to be too high, especially if you have kidney or liver problems.
- Tell your healthcare provider about all your medical conditions, including if you have kidney or liver problems. Your dose of colchicine capsules may need to be changed.
- Even medicines that you take for a short period of time, such as antibiotics, can interact with colchicine capsules and cause serious side effects or death.

What are colchicine capsules?

Colchicine capsules are a prescription medication used to prevent gout

It is not known if colchicine capsules are safe and effective for the treatment of:

acute gout flares

Colchicine capsules are not a pain medicine and it should not be taken to treat pain related to other conditions unless specifically for those

It is not known if colchicine capsules are safe and effective in children.

Who should not take colchicine capsules?

Do not take colchicine capsules if you have liver and kidney problems and you take certain other medicines. Serious side effects, including death, have been reported in these people even when taken as directed. See "What is the most important information I should know about colchicine capsules?"

What should I tell my healthcare provider before taking colchicine capsules?

Before you take colchicine capsules, tell your healthcare provider:

- · about all of your medical conditions
- if you have kidney or liver problems
- if you are pregnant or plan to become pregnant. It is not known if colchicine capsules can harm your unborn baby. Talk to your healthcare provider if you are pregnant or plan to become pregnant.
- if you are breastfeeding or plan to breastfeed. Colchicine can pass into your breast milk and may harm your baby. Talk to your healthcare provider about the best way to feed your baby if you take colchicine capsules.
- if you are a male with a female partner who can become pregnant. Receiving treatment with colchicine capsules may be related to infertility in some men that is reversible when treatment is stopped.

Tell your healthcare provider about all the medicines you take, including prescription, over-the-counter medicines, vitamins, or herbal

- Using colchicine capsules with certain other medicines can affect each other causing serious side effects and/or death.
- Do not take colchicine capsules with other medicines unless your healthcare provider tells you to.
- Know the medicines you take. Keep a list of your medicines with you to show your healthcare provider and pharmacist each time you get a new medicine.
- Especially tell your healthcare provider if you take:

· cyclosporine (Neoral, Gengraf, Sandimmune)

- medicines that may affect how your liver works (CYP3A4
- cholesterol lowering medicines antibiotics

Ask your healthcare provider or pharmacist if you are not sure if you take any of the medicines listed above. This is not a complete list of all the medicines that can affect colchicine capsules.

How should I take colchicine capsules?

- Take colchicine capsules exactly as your healthcare provider tells
- Do not stop taking colchicine capsules unless your healthcare
- If you miss a dose of colchicine capsules, take it as soon as you remember. If it is almost time for your next dose, skip the missed dose. Take the next dose at your regular time. Do not take 2 doses at

 If you have a gout flare while taking colchicine capsules, tell your healthcare provider.

What should I avoid while taking colchicine capsules?

 Avoid eating grapefruit or drinking grapefruit juice while taking colchicine capsules. It can increase your chances of getting serious side effects.

What are the possible side effects of colchicine capsules?

Colchicine capsules can cause serious side effects or death. See "What is the most important information I should know about colchicine capsules?"

Get medical help right away, if you have:

- unusual bleeding or bruising
- increased infections
- weakness or fatigue
- muscle weakness or pain
- numbness or tingling in your fingers or toes
- pale or gray color to your lips, tongue, or palms of your hands
- severe diarrhea or vomiting

The most common side effects of colchicine capsules include abdominal pain, diarrhea, nausea, and vomiting.

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

These are not all of the possible side effects of colchicine capsules. 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 colchicine capsules?

- Store colchicine capsules at room temperature between 68° to 77°F (20° to 25°C).
- Keep colchicine capsules out of the light and away from

Keep colchicine capsules and all medicines out of the reach of children.

General information about the safe and effective use of colchicine capsules.

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not take colchicine capsules for a condition for which it was not prescribed. Do not give colchicine capsules to other people, even if they have the same symptoms that you have. They may harm them.

This Medication Guide summarizes the most important information about colchicine capsules. If you would like more information, talk to your pharmacist or healthcare provider for information about colchicine capsules that is written for health professionals.

For more information, call Annora Pharma Private Limited at 1-866-495-

What are the ingredients in colchicine capsules?

Active Ingredient: Colchicine, USP

Inactive Ingredients: anhydrous lactose, colloidal silicon dioxide, magnesium stearate, microcrystalline cellulose, and sodium starch glycolate. The capsule shell contains FD&C blue No. 1, FD&C yellow No. 6, gelatin, iron oxide yellow and titanium dioxide.

The capsules are imprinted with white ink containing ammonia solution, potassium hydroxide, propylene glycol, shellac and titanium dioxide.

Medication Guide available at http://camberpharma.com/medication-guides

CAMBER

Manufactured for: Camber Pharmaceuticals, Inc. Piscataway, NJ 08854.

By: Annora Pharma Pvt. Ltd. Sangareddy - 502313, Telangana, India.

This Medication Guide has been approved by the U.S. Food and Drug

Revised: 07/2024

8.7 Henatic Impairment

acokinetic study using colchicine capsules has been conducted in patients with varying degrees of hepatic impairment. Colchicine is known to be metabolized in humans and the presence of severe hepatic impairment has been associated with colchicine toxicity. Hepatic clearance of colchicine may be significantly reduced and plasma half-life Dose reduction or alternatives should be considered for the prophylaxis of gout flares in patients with severe hepatic

DRUG ABUSE AND DEPENDENCE

Ichicine has not been reported

10 OVERDOSAGE

The dose of colchicine that would induce significant toxicity for an individual is unknown. Fatalities have been reported in patients after ingesting a dose as low as 7 mg over a 4-day period, while other patients have reportedly survived after ingesting more than 60 mg. A review of 150 patients who overdosed on colchicine found that those who ingested less than 0.5 mg/kg survived and tended to have milder adverse reactions, such as gastrointestinal symptoms, whereas those who ingested from 0.5 to 0.8 mg/kg had more severe adverse reactions, including myelosuppression. There was 100% $\,$ mortality among patients who ingested more than 0.8 mg/kg.

- The first stage of acute colchicine toxicity typically begins within 24 hours of ingestion and includes gastrointestinal symptoms such as abdominal pain, nausea, vomiting, diarrhea, and significant fluid loss, leading to volume depletion. Peripheral leukocytosis may also be seen.
- $\bullet \ \, \text{Life-threatening complications occur during the second stage, which occurs 24 to 72 hours after drug}$ administration, attributed to multi-organ failure and its associated consequences. Death usually results from administration, activated to instruction that is associated unsaquented. Death states it respiratory depression and cardiovascular collapse. If the patient survives, recovery of multi-organ injury may be accompanied by rebound leukocytosis and alopecia starting about 1 week after the initial ingestion.
- Treatment of colchicine overdose should begin with gastric layage and measures to prevent shock. Otherwise. ent is symptomatic and supportive. No specific antidote is known. Colchicine is not effectively removed by

11 DESCRIPTION

Colchicine, USP is an alkaloid obtained from the plant colchicum autumi

 $The \ chemical \ name \ for \ colchicine, \ USP \ is \ (N-[(7\mathcal{S})-(5,6,7,9-tetrahydro-1,2,3,10-tetramethoxy-9-oxobenzo[a]heptalender \ and \ begin{picture}(1,0) \put(0,0) \put$ 7yl] acetamide with a molecular formula of $C_{22}H_{26}NO_{8}$ and a molecular weight of 399.44. The structural formula of

Colchicine, USP consists of pale yellow to pale greenish-yellow crystalline powder; is odorless or nearly so, and darkens on exposure to light. Colchicine is freely soluble in alcohol, in chloroform and soluble in water

Colchicine capsules, USP are supplied for oral administration. Each capsule contains 0.6 mg colchicine, USP and the following inactive ingredients: anhydrous lactose, colloidal silicon dioxide, magnesium stearate, microcrystalline cellulose and sodium starch glycolate. The capsule shell contains FD&C blue No. 1, FD&C yellow No. 6, gelatin, iron oxide yellow $\frac{1}{2}$

The capsules are imprinted with white ink containing ammonia solution, potassium hydroxide, propylene glycol, shellad

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

Colchicine's effectiveness as a treatment for gout has been postulated to be due to its ability to block neutrophil-mediated inflammatory responses induced by monosodium urate crystals in synovial fluid. Colchicine disrupts the polymerization of β-tubulin into microtubules, thereby preventing the activation, degranulation, and migration of neutrophils to sites of inflammation. Colchicine also interferes with the inflammasome complex found in neutrophils and monocytes that mediates interleukin-1ß (IL-1ß) activation

12.3 Pharmacokineti

In healthy adults, colchicine capsules when given or ally reached a mean C_{\max} of 3 ng/mL in 1.3 h (range 0.7 to 2.5 h) after

Absolute bioavailability is reported to be approximately 45%

Administration with food has no effect on the rate or extent of colchicine absorption

Colchicine is not effectively removed by hemodialysis.

Colchicine has a mean apparent volume of distribution in healthy young volunteers of approximately 5 to 8 L/kg. Colchicine binding to serum protein is about 39%, primarily to albumin. Colchicine crosses the placenta and distributes into breast milk (see Pregnancy (8.1) and Lactation (8.2)).

Metabolism A published *in vitro* human liver microsome study showed that about 16% of colchicine is metabolized to 2-0-demethylcolchicine and 3-0-demethylcolchicine (2- and 3-DMC, respectively) by CYP3A4. Glucuronidation is also believed to be a metabolic pathway for colchicine.

Excretion In a nublished study in healthy volunteers. 40 to 65% of the total absorbed dose of colchicine (1 mg administered orally) was recovered unchanged in urine. Enterohepatic recirculation and biliary excretion are also believed to play a role in colchicine elimination. Colchicine is a substrate of P-gp and P-gp efflux is postulated to play an important role in colchicine

disposition. Elimination half-life in humans was found to be 31 h (range 21.7 to 49.9 h) Special Populations

 $\textit{Pediatric Patients:} \ Pharmacokinetics \ of \ colchicine \ was \ not \ evaluated \ in \ pediatric \ patients.$

Elderly: Pharmacokinetics of colchicine have not been determined in elderly patients. A published report described the $pharmacokinetics\ of\ 1\ mg\ or al\ colchicine\ tablet\ in\ four\ elderly\ women\ compared\ to\ six\ young\ healthy\ males.\ The\ mean\ age$ of the four elderly women was 83 years (range 75 to 93), mean weight was 47 kg (38 to 61 kg) and mean creatining clearance was 46 mL/min (range 25 to 75 mL/min). Mean peak plasma levels and AUC of colchicine were two times highe in elderly subjects compared to young healthy males. It is possible that the higher exposure in the elderly subjects was du

Renal impairment: Pharmacokinetics of colchicine in patients with mild and moderate renal impairment is not known. A published report described the disposition of colchicine (1 mg) in young adult men and women patients who had end-stage renal disease requiring dialysis compared to patients with normal renal function. Patients with end-stage renal disease had 75% lower colchicine clearance (0.17 vs. 0.73 L/hr/kg) and prolonged plasma elimination half-life (18.8 hrs vs. 4.4 hrs) as compared to subjects with normal renal function [see Renal Impairment (8.6)].

Hepatic impairment: Published reports on the pharmacokinetics of intravenous colchicine in patients with severe chronic liver disease, as well as those with alcoholic or primary biliary cirrhosis, and normal renal function suggest wide inter-patient variability. In some subjects with mild to moderate cirrhosis, the clearance of colchicine is significantly reduced and plasma half-life prolonged compared to healthy subjects. In subjects with primary biliary cirrhosis, no consistent trends were noted [see Hepatic Impairment (8.7]]. No pharmacokinetic data are available for patients with severe hepatic impairment (Child-Pugh C).

Pharmacokinetic studies evaluating changes in systemic levels of colchicine when co-administered with CYP3A4 inhibitors in healthy volunteers have been conducted with colchicine capsules. While voriconazole 200 mg BID for 5 days initiations in rearry victoriates have been considered with considered a strong CYPSA4 inhibitor) and cimetidine 800 mg BID for 5 days (considered a weak CYPSA4 inhibitor) and not cause any changes in colchicine systemic levels, fluconazole 200 mg QD for 4 days with a 400 mg loading dose (considered a moderate CYP3A4 inhibitor) increased colchicine AUC by 40%. As voriconazole, cimetidine, and fluconazole are known as CYP3A4 inhibitors that do not inhibit P-gp, these studies show that CYP3A4 inhibition by itself may not lea to clinically significant increases in colchicine systemic levels in humans, and P-gp inhibition in addition to CYP3A4 the imbittion may be necessary for clinically meaningful interactions of colchicine. However, based on published case reports that indicate the presence of colchicine toxicity when colchicine is co-administered with strong to moderate CYP3A4 inhibitors such as clarithromycin, erythromycin, grapefruit juice, etc., as well as the 40% increase in systemic levels of colchicine observed with concomitantly administered fluconazole (a moderate CYP3A4 inhibitor that is not known to inhibit P gp) in a drug-drug interaction study, the drug-drug interaction potential of colchicine with strong or moderate CYP3A4 inhibitors that do not inhibit P-qp cannot be ruled out completely.

Co-administration of colchicine capsules with propafenone (a P-gp inhibitor) at 225 mg BID for 5 days, in a pharmacokinetic study in healthy volunteers, did not cause any changes in systemic levels of colchicine. This indicates that propafenone can be administered with colchicine capsules without any dose adjustment. However, these results should not be extrapolated to other P-gp inhibitors as colchicine is known to be a substrate for P-gp and case reports of colchicine toxicity associated with the co-administration of P-gp inhibitors such as cyclosporine have been published.

13 NONCLINICAL TOXICOLOGY

Carcinogenesis

nicity studies of colchicine have not been conducted. Due to the potential for colchicine to produce aneuploid cells (cells with an unequal number of chromosomes), colchicine presents a theoretical increased risk of malignancy

mutagenessis

Published studies demonstrated that colchicine was negative for mutagenicity in the bacterial reverse mutation assay.

However, in vitro chromosomal aberration assays demonstrated the formation of micronuclei following colchicine treatment. Because published studies demonstrated that colchicine induces an euploidy through the process of mitotic nondisjunction without structural DNA changes, colchicine is not considered clastogenic, although micronuclei are formed.

There were no studies of the effects of colchicine capsules on fertility. However, published nonclinical studies have demonstrated that colchicine-induced disruption of microtubule formation affects meiosis and mitosis. Published reproductive studies with colchicine reported abnormal sperm morphology and reduced sperm counts in males, and interference with sperm penetration, second meiotic division, and normal cleavage in females. Case reports and epidemiology studies in human male subjects on colchicine therapy indicate that infertility from epidemiology studies in female subjects on colchicine therapy have not established a clear relationship between colchicine use and female infertility

14 CLINICAL STUDIES

The evidence for the efficacy of colchicine in patients with chronic gout is derived from the published literature. Two randomized clinical trials assessed the efficacy of colchicine 0.6 mg twice a day for the prophylaxis of gout flares in patients with gout initiating treatment with urate lowering therapy. In both trials, treatment with colchicine decreased the frequency of gout flares.

16 HOW SUPPLIED/STORAGE AND HANDLING

16.1 How Supplied

Colchicine capsules, 0.6 mg are Size '4' hard gelatin capsules with Green opaque Cap imprinted with "V1" in white color and light green opaque Body imprinted with "85" in white color filled with white to off white colored granular powder

NDC 31722-099-30 Bottle of 30 Capsules Bottle of 100 Capsules NDC 31722-099-01

Store at 20° to 25°C (68° to 77°F) [See USP Controlled Room Temperature]. Protect from light and moisture 17 PATIENT COUNSELING INFORMATION

Advise the patient to read the FDA-approved patient labeling (Medication Guide).

16.2 Storage

Dosing Instructions If a dose of colchicine capsules is missed, advise the patient to take the dose as soon as possible and then return to the

normal dosing schedule. However, if a dose is skipped, the patient should not double the next dose.

Advise the patient that fatal overdoses, both accidental and intentional, have been reported in adults and children who

have ingested colchicine. Colchicine capsules should be kept out of the reach of children

Blood Dyscrasias Advise patients that bone marrow depression with agranulocytosis, aplastic anemia, and thrombocytopenia may occur

with colchicine capsules Drug and Food Interactions

Advise patients that many drugs or other substances may interact with colchicine capsules and some interactions could be fatal. Therefore, nationts should report to their healthcare provider all of the current medications they are taking, and check with their healthcare provider before starting any new medications, including short-term medications such as antibiotics. Patients should also be advised to report the use of non-prescription medication or herbal products. Grapefrui and granefruit juice may also interact and should not be consumed during treatment with colchicine ca

Neuromuscular Toxicity

Advise patients that muscle pain or weakness, tingling or numbness in fingers or toes may occur with colchicine capsules alone or when it is used with certain other drugs. Patients developing any of these signs or symptoms must discontinue

Advise males of reproductive potential that colchicine capsules may rarely and transiently impair fertility (see Use in Specific Populations (8.3)].

CAMBER

Camber Pharmaceuticals, Inc. Piscataway, NJ 08854.

By: Annora Pharma Pvt. Ltd. Sangareddy - 502313, Telangana, India

Revised: 07/2024 2103407