For the treatment of acute, uncomplicated cystitis in females over the age of 12[6]

Monuril®

Fosfomycin (as Trometamol)

Adult 3g

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Adult 3g

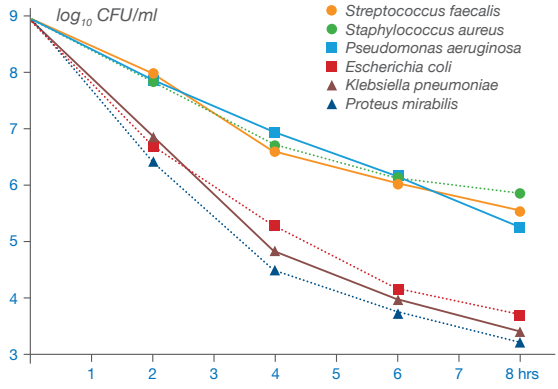
is indicated for:

- **The treatment of acute, uncomplicated cystitis in women and female adolescents (>12 years of age).**
- **Perioperative antibiotic prophylaxis for transrectal prostate biopsy in adult men.[6]**

An established and clinically proven bactericidal action

- The addition of Trometamol salt makes the antibiotic highly soluble and provides greatly improved bioavailability.[1]
- Fosfomycin Trometamol is primarily excreted unchanged in the urine.[2]
- Fosfomycin Trometamol is as effective and tolerable as both Trimethoprim and Nitrofurantoin. [3]

Eradication of different bacterial species using Monuril.[4]



- **At 4 hours, the number of E.coli, Klebsiella pneumonia and Proteus mirabilis drops by 50%**
- **At 8 hours, more than 90% is destroyed with just ONE single dose**

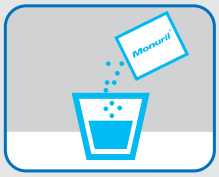
Eradication of different bacterial species using Monuril.

World Wide Resistance remains rare (~2%)

Fosfomycin Trometamol is a first line choice for the treatment of acute, uncomplicated cystitis in women in Europe, according to the antimicrobial guidelines[8]

Administration in Females

Ideally, should be taken on an empty stomach, at bed time



Dissolve one sachet into a glass of water, 2-3 hours after your last meal/drink

Swallow solution

Advantages of Monuril	Females	Male Adults
One dose treatment	✓	✗
Two dose treatment	✗	✓
For treatment of acute uncomplicated cystitis	✓	✗
Unique mechanism of Bactericidal Action	✓	✓
Suitable with creatinin clearance > 10ml/min	✓	✓
Used in Pregnancy and Lactation, if clearly necessary	✓	✗
Adolescents > 12 years	✓	✗
Recurrent uncomplicated cystitis	✓	✗

Monuril®
Fosfomycin (as Trometamol) Adult 3g

Abbreviated Prescribing Information

NAME OF MEDICINAL PRODUCT: Monuril 3g granules for oral solution. Each single-dose sachet contains 5.631 g fosfomycin – trometamol (1:1) equivalent to 3g fosfomycin. It is a white granular powder for oral solution with a characteristic odour and flavour of mandarin. **THERAPEUTIC INDICATIONS:** Monuril is indicated for; the treatment of acute, uncomplicated cystitis in women and female adolescents and perioperative antibiotic prophylaxis for transrectal prostate biopsy in adult man. **POSOLOGY AND ADMINISTRATION: Posology:** Acute, uncomplicated cystitis in women and female adolescents (>12 years of age): 3 g fosfomycin once Perioperative antibiotic prophylaxis for transrectal prostate biopsy: 3 g fosfomycin 3 hours prior to the procedure and 3 g fosfomycin 24 hours after the procedure. **Renal impairment:** Use of Monuril is not recommended in patients with renal impairment (creatinin clearance < 10 ml/min, see section 5.2 of the SmPC). **Paediatric population:** The safety and efficacy of Monuril in children aged below 12 years of age have not been established. **CONTRAINDICATIONS:** Hypersensitivity to the active substance or to any of the excipients listed in section 6.1 of the SmPC. **WARNINGS AND SPECIAL PRECAUTIONS FOR USE: Hypersensitivity reactions**, including anaphylaxis and anaphylactic shock, may occur during fosfomycin treatment and may be life-threatening (see section 4.8 of the SmPC). If such reaction occurs, fosfomycin should never be re-administered and an adequate medical treatment is required. ***Clostridioides difficile*-associated diarrhea**, *Clostridioides difficile*-associated colitis and pseudo-membranous colitis have been reported with fosfomycin and may range in severity from mild to life-threatening (see section 4.8 of the SmPC). Therefore, it is important to consider this diagnosis in patients who present with diarrhea during or subsequent to the administration of fosfomycin. Discontinuation of therapy with Fosfomycin and the administration of specific treatment for *Clostridioides difficile* should be considered. Medicinal products that inhibit peristalsis should not be given. **Paediatric population**, The safety and efficacy of Monuril in children below 12 years of age have not been established. Therefore, this medicine should not be used in this age group (see section 4.2 of the SmPC). **Persistent infections and male patients**, In case of persistent infections, a thorough examination and a re-evaluation of the diagnosis is recommended as this is often due to complicated urinary tract infections or the prevalence of resistant pathogens (e.g. *Staphylococcus saprophyticus*, see section 5.1 of the SmPC). In general, urinary tract infections in male patients have to be considered as complicated UTIs for which this medicinal product is not indicated (see section 4.1 of the SmPC). **INTERACTIONS: Metoclopramide:** Concomitant administration of metoclopramide has been shown to lower serum and urinary concentrations of fosfomycin and should be avoided. Other medicinal products that increase gastrointestinal motility may produce similar effects. **Food effect:** Food may delay the absorption of fosfomycin, with consequent slight decrease in peak plasma levels and urinary concentrations. It is therefore preferable to take the medicinal product on an empty stomach or about 2 – 3 hours after meals. **Specific problems concerning the alteration in INR:** Numerous cases of increased oral anticoagulant activity have been reported in patients receiving antibiotic therapy. Risk factors include severe infection or inflammation, age and poor general health. Under these circumstances, it is difficult to determine whether the alteration in INR is due to the infectious disease or its treatment. However, certain classes of antibiotics are more often involved and in particular: fluoroquinolones, macrolides, cyclins, cotrimoxazole and certain cephalosporins. **Paediatric population:** Interaction studies have only been performed in adults. **FERTILITY, PREGNANCY AND LACTATION: Pregnancy:** Only limited data on the safety of fosfomycin treatment during 1st trimester of pregnancy (n=152) are available. These data do not raise any safety signal for teratogenicity so far. Fosfomycin crosses the placenta. Animal studies do not indicate direct or indirect harmful effects with respect to reproductive toxicity (see section 5.3 of the SmPC). Monuril should only be used during pregnancy, if clearly necessary. **Breast-feeding:** Fosfomycin is excreted in human milk in low quantities. If clearly necessary, a single dose of oral fosfomycin can be used during breast-feeding. **Fertility:** No data in humans are available. **DRIVING AND USING MACHINERY:** Monuril oral solution to date, has had no influence on the ability to drive and use machines but patients should be informed that dizziness has been reported. **UNDESIRABLE EFFECTS: COMMON** (1/100 to <1/10): Headache, Dizziness, Diarrhea, Nausea, Vulvovaginitis, Dyspepsia, abdominal pain. **UNCOMMON** (1/1,000 to <1/100): Vomiting, rash, Uritcaria, Pruritus. **NOT KNOWN:** (<1/10,000) Anaphylactic reactions: including anaphylactic shock & hypersensitivity, Antibiotic-associated colitis, Angioedema. **OVERDOSE:** Experience regarding the overdose of oral fosfomycin is limited. Cases of hypotonia, somnolence, electrolytes disturbances, thrombocytopenia and hypoprothrombinemia have been reported with parenteral use of fosfomycin. In the event of overdose, the patient must be monitored (particularly for plasma/serum electrolyte levels), and treatment should be symptomatic and supportive. Rehydration is recommended to promote urinary elimination of the active substance. Fosfomycin is effectively cleared from the body by haemodialysis with a mean elimination half-life of approximately 4 hours.

Legal category: POM
MARKETING AUTHORISATION HOLDER: Zambon S.p.A. via Lillo del duca, 10 20091-Bresso, Milano, Italy
MARKETING AUTHORISATION NUMBER: PA1441/2/2
MARKETED IN IRELAND BY: FANNIN LTD, FANNIN HOUSE, LEOPARDSTOWN, DUBLIN 18

Reporting of suspected adverse reactions
For a copy of the SmPC or further medical information, please contact medical@dccvital.com

Adverse events should be reported. Reporting forms and information can be found on the HPRA website (www.hpra.ie) or by emailing medsafety@hpra.ie. Adverse events should also be reported to Fannin Ltd, Tel 01 1290 7000. Alternatively, send via email to medical@dccvital.com

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References:
1. Ferrari V, Bonanomi L, Borgia M, Lodola E, Marca G. A new fosfomycin derivative with much improved bioavailability by oral route. Chemioterapia Antiiicrobica 1981 ; 4: 59-63.
2. Raz. R. Fosfomycin: an old-new antibiotic. Clinical Microbiology and infection. 2011 Jan:18(1):4-7.
3. Stein GE, Comparison of single-dose fosfomycin and a 7-day course of nitrofurantoin in female patients with uncomplicated urinary tract infection. Clin Ther 1999 Nov, 21(11): 11864-72.
4. Cornaglia G et al., Antibacterial Activity of Fosfomycin Trometamol in an in vitro Model of the Urinary Bladder. Int. Symp., Rome, 1987, pp. 255-260 (Karger Basel 1988).
5. Reynaert, J. Van Eyck, D. Vandepitte, J. (1990) Single dose fosfomycin trometamol versus multiple dose norfloxacin over three days for uncomplicated UTI in general practice. Infection, (18:2) pp S77–S79.
6. Monuril Summary of Product Characteristics
7. Zhanel G.G et al. Fosfomycin: A first-line Oral Therapy for acute Uncomplicated Cystitis Canadian Journal of Infectious Diseases and Medical Microbiology Vol 26.
8. Europe: Guidelines on Urological infections (2015) M. Grabe, R. Bartoletti, T.E. Bjerklund Johansen, T. Cai, M. Cek, B. Koves, K.G. Naber, R.S Pickard, P. Tenke, F. Wageniehner, B. Wullt. European Association of Urology.

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