Furadantin brand of nitrofurantoin : for the treatment of bacterial infections of the urinary tract.

Contributors

Duncan, Flockhart & Co.

Publication/Creation

[approximately 1955]

Persistent URL

https://wellcomecollection.org/works/f5y3hgnd

License and attribution

Conditions of use: it is possible this item is protected by copyright and/or related rights. You are free to use this item in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s).

wellcome collection

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

furadantin*

brand of nitrofurantoin

for the treatment of
bacterial infections of the
urinary tract

*REGISTERED TRADE MARK

Furadantin is manufactured by
a Registered User of the trade mark under
licence from The Norwich Pharmacal Company
(Eaton Laboratories Division)

SOLE DISTRIBUTORS IN THE U.K.

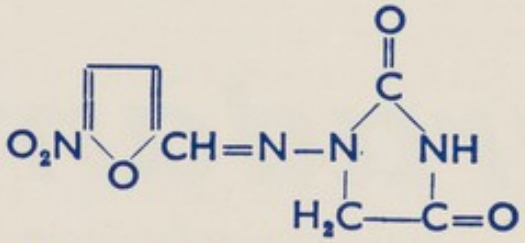
DUNCAN, FLOCKHART & CO LTD

16 Wheatfield Rd., Edinburgh, 11. 4 Carlos Pl., London, W.1

FURADANTIN

for the treatment of bacterial infections of the urinary tract

FURADANTIN (systematic name, N-(5-nitro-2-furfurylidene)-1-aminohydantoin; trivial name, nitrofurantoin) is a synthetic antibacterial agent belonging to the nitrofuran family of compounds.



N-(5-nitro-2-furfurylidene)-1-aminohydantoin

Furadantin is a yellow, crystalline compound that will darken on exposure to light or alkali. Its solubility in aqueous solutions varies according to the *p*H and the temperature. Supersaturated solutions are readily formed, and following oral administration of recommended doses, concentrations up to 400 mcg./ml. are present in the urine. As supersaturated solutions are stable, crystalluria is not to be feared. Approximately 40 per cent of the Furadantin given by mouth is excreted in the urine as the active form of the drug. Only 4 per cent appears in the faeces. The remainder of the drug is metabolized to brown, inactive compounds that may tint the urine.

Clinical results indicate Furadantin to have a broad spectrum of antibacterial action and to be especially valuable in stubborn infections, including those caused by *Proteus*, and *Aerobacter*, and those resistant to other drugs in common use. Some cases of *Pseudomonas* infection may respond to Furadantin.

INDICATIONS

Pyelonephritis, pyelitis, and cystitis, caused by bacteria sensitive to Furadantin: these include *Staphylococcus*, *Streptococcus*, *Escherichia coli*, *Aerobacter aerogenes*, *Proteus* (most strains),

Pseudomonas (some strains only), and *Enterococcus*. Diagnostic Tablets for bacterial sensitivity tests are available gratis on request: each contains 10 mg. Furadantin.

DOSAGE

The usual total daily dosage of Furadantin is from 5 to 8 mg. per kg. (2.2 to 3.6 mg. per lb.) body weight per 24 hours. The drug is given by mouth as 50 mg. tablets. The daily dosage is administered in four divided doses. Each dose is given **with** food. Food or cold milk should be given with the last dose at night.

For refractory infections (e.g. *Proteus* and *Pseudomonas*), the dosage may be increased to the maximum of 10 mg. per kg. (4.5 mg. per lb.) per 24 hours.

Do not administer more than 10 mg. or less than 5 mg. per kg. per day. Accurate dosage is necessary in order to avoid nausea. If nausea occurs, reduce dosage by one step in the dosage table (see p. 4). Mistura Magnesii Trisilicatis B.P. may be helpful if given with the dose of Furadantin.

Continue the administration of Furadantin for at least 3 days after sterility of the urine is attained.

Infection that persists despite treatment suggests the need for radiological studies of the urinary tract. The use of Furadantin cannot replace surgery when the latter is indicated. In the case of an infection of recent onset, if there is no sign of clinical response within 7 days the drug should usually be discontinued, but a stubborn or long-standing infection may require 2 to 3 weeks' treatment. A limited number of reports on more than 3 weeks' treatment has appeared. Such long courses seem to be necessary for results in some cases, and have not been attended by ill-effects; but when a long course of treatment is given, or courses are repeated frequently, although no effect of Furadantin on blood cells has been shown, examinations of the blood may be carried out as a routine precaution.

Sensitization to Furadantin remains unproven; if a rash should appear during treatment, withdrawal of the drug may result in its disappearance.

On general principles, the administration of Furadantin to a patient who would be expected to

excrete little of it in his urine, would seem pointless, and the drug is to be regarded as contraindicated in cases of oliguria, anuria, or severe renal damage.

Where an infection has produced considerable impairment of renal function and Furadantin is being given, special caution is needed, just as with any other potent antibacterial substance in such circumstances, lest the drug accumulate in the body and reach toxic levels.

Experience of the administration of Furadantin to infants and small children is not extensive as yet. When such patients receive it, they should be watched with particular care for this reason.

Animal toxicity studies show an oral LD_{50} in mice of 895 mg. per kg. body weight. Chronic toxicity involves the seminiferous tubules alone, and only if doses are very high: other organs remain healthy.

PACKS

Grooved tablets of Furadantin are available in bottles of 25 × 50 mg. and 250 × 50 mg.

Diagnostic Tablets for bacterial sensitivity tests (*not for administration*) are available gratis on request in bottles of 25 × 10 mg.

REFERENCES

British

Heffernan, S. J., Kippax, P. W., and Pamplin, W. A. V. (1955), *J. clin. Path.*, **8,** 123.

Annotation (1955), *Lancet*, **ii,** 182.

Annotation (1955), *Brit. med. J.*, **ii,** 897.

American and other references

These number over one hundred. Abstracts from the more important papers have been collected in a booklet which will be supplied on request.

GUIDE TO AVERAGE DOSES (Six-hourly)

Body Weight		Average dose every six hours or with each meal and at bedtime
Pounds	*Kilogrammes*	*Number of tablets*
60–84	27–38	1
85–114	39–51	1½
115–139	52–63	2
140–169	64–76	2½
170–224	77–101	3
225–250	102–113	4