

Mandelamine* (methenamine mandelate)

CAUTION: Federal law prohibits dispensing without prescription.

Description. Mandelamine, a urinary antibacterial agent, is the chemical combination of mandelic acid with methenamine.

Indications. Mandelamine (methenamine mandelate) is indicated for the suppression or elimination of bacteriuria associated with pyelonephritis, cystitis, and other chronic urinary tract infections; also for infected residual urine sometimes accompanying neurologic diseases. When used as recommended, Mandelamine is particularly suitable for long-term therapy because of its safety and because resistance to the nonspecific bactericidal action of formaldehyde does not develop. Pathogens resistant to other antibacterial agents may respond to Mandelamine because of the nonspecific effect of formaldehyde formed in an acid urine.

Contraindications. Contraindicated in renal insufficiency.

Precautions. Dysuria may occur (usually at higher than recommended dosage). This can be controlled by reducing the dosage and the acidification. When urine acidification is contraindicated or unattainable (as with some urea-splitting bacteria), the drug is not recommended.

To avoid inducing lipid pneumonia, administer Mandelamine Suspension Forte and Mandelamine Suspension with care to elderly, debilitated or otherwise susceptible patients.

Adverse Reactions. An occasional patient may experience gastrointestinal disturbance or a generalized skin rash.

Dosage and Management. The average adult dosage is 4 grams daily given as 1.0 gram after each meal and at bedtime. Children 6 to 12 should receive half the adult dose and children under 6 years of age should receive 250 mg per 30 lb body weight, four times daily. (See chart.) Since acid urine is essential for antibacterial activity with maximum efficacy occurring at pH 5.5 or below, restriction of alkalinizing foods and medication is thus desirable. If testing of urine pH reveals the need, supplemental acidification should be given.

Mandelamine Dosages	ADULTS	CHILDREN
Tablets and Granules		
1.0 gram	1 tablet q.i.d.	—
	1 packet* q.i.d.	—
0.5 gram	2 tablets q.i.d.	(Ages 6-12) 1 tablet q.i.d.
	—	1 packet* q.i.d.
0.25 gram	—	(Age under 6) 1 tablet per 30 lb body weight q.i.d.
Suspension Forte		
500 mg/5 ml teaspoonful	2 teaspoonfuls (10 ml) q.i.d.	(Ages 6-12) 1 teaspoonful (5 ml) q.i.d.
Suspension		
250 mg/5 ml teaspoonful	—	(Age under 6) 1 teaspoonful (5 ml) per 30 lb body weight q.i.d.

*Contents of packet to be dissolved in 2-4 oz water immediately before using.

Shake Suspensions well before using.

STORE BETWEEN 59° and 86°F (15° and 30°C).

Supplied: 1.0 gm Tablets W/C 172: purple, enteric coated in bottles of 100 (N 0047-0172-51) and 1000 (N 0047-0172-60); also unit dose in 10 x 10 strips (N 0047-0172-11).

Granules (1.0 gm): orange-flavored individual packets; cartons of 56 (N 0047-0176-11).

0.5 gm Tablets W/C 171: brown, enteric coated in bottles of 100 (N 0047-0171-51) and 1000 (N 0047-0171-60); unit dose in 10 x 10 strips (N 0047-0171-11).

Granules (0.5 gm): orange-flavored individual packets; cartons of 56 (N 0047-0177-11).

0.25 gm Tablets W/C 170: brown, enteric coated in bottles of 100 (N 0047-0170-51) and 1000 (N 0047-0170-60).

Suspension Forte: 500 mg/5 ml teaspoonful: pink, cherry-flavored in bottles of 8 fl oz (N 0047-0174-08) and 16 fl oz (N 0047-0174-16). Unit Dose — 10 ml (N 0047-0174-10). U.S. Patent No. 3,077,438.

Suspension: 250 mg/5 ml teaspoonful: cream-colored, coconut-flavored in bottles of 4 fl oz (N 0047-0173-04) and 16 fl oz (N 0047-0173-16).

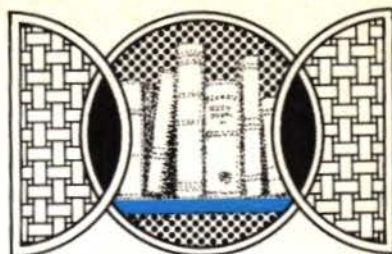
Full information is available on request. M-GP-61-4/e

† Suspensions are in vegetable oil. Shake well before using.



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Book Reviews



Screening in General Practice. Edited by C. R. Hart. Longman Inc., New York, 1975, 338 pp., \$16.00.

This is an up-to-date, comprehensive review of the effectiveness of various screening programs instituted within the United Kingdom. The work should be of reference value to medical students, family practitioners, and administrators of Home Health Agencies interested in detecting treatable, asymptomatic illnesses.

The central problem of screening lies in deciding which disease to screen for, and whether recognition of the disease in the symptomless individual will bring mutual benefit to the patient and the doctor. Accordingly, the authors argue that screening is best carried out by the general or family practitioner because of his or her more intimate relationship with and understanding of the patient.

The experience of the authors reveals that the benefits derived from many screening programs carried out in England are questionable. Cost, confining screening to the high-risk group, and follow-up care were considered important parameters in the series studied by the authors.

The investigations adhered to Wilson's Criteria:

1. The condition sought should be an important problem.
2. There should be an accepted treatment for patients with recognized disease.
3. Facilities for diagnosis and treatment should be available.
4. There should be a recognized latent or early symptomatic stage.
5. There should be a suitable test or examination.
6. The test or examination should be acceptable to the population.
7. The natural history of the condition, including its development from latent to declared disease, should be adequately understood.
8. There should be an agreed upon policy as to whom we should treat as patients.

9. The cost of case finding (including diagnosis and subsequent treatment) should be economically feasible.

10. Case-finding should be a continuing process and not a "once for all" project.

Using the above criteria and by means of the age-sex register organized by the British National Health Service, the following groups and specific diseases were screened and evaluated by the authors: (1) the newborn, (2) the pre-school child, (3) the school child, (4) the prenatal clinic, (5) women in middle years, (6) geriatric screening, (7) psycho-geriatric screening, (8) urinary infections, (9) diabetes mellitus, (10) obesity, (11) hypertension, (12) ischemic heart disease, (13) glaucoma, (14) anemia, (15) carcinoma of the breast, and (16) mental illness.

A well-organized, readable presentation has been accomplished, and much information contrary to our general medical knowledge has been uncovered. This text should be well worth an interested physician's time.

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Medical Care of the Adolescent (3rd Edition). Edited by J. Roswell Gallagher, Felix P. Heald and Dale C. Garell. Appleton-Century-Crofts, New York, 1976, 774 pp., \$17.40.

Review of this text presents basic problems since the assumptions around which it was organized and written are not ones with which I agree. The central rationale for the effort which is stated in the Introduction is one which reads like a tongue-in-cheek advertisement for family practice: "[Adolescent] medical care has inevitably fallen between

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Aldactazide®

(spironolactone 25 mg/
hydrochlorothiazide 25 mg)

WARNING

Spironolactone, an ingredient of Aldactazide, has been shown to be a tumorigen in chronic toxicity studies in rats (see *Warnings*). Aldactazide should be used only in those conditions described under *Indications*. Unnecessary use of this drug should be avoided.

Fixed-dose combination drugs are not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual patient. If the fixed combination represents the dosage so determined, its use may be more convenient in patient management. The treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Indications: Cirrhosis of the liver accompanied by edema and/or ascites. Essential hypertension, edema of congestive heart failure and the nephrotic syndrome, when other measures are considered inappropriate.

Contraindications: Anuria, acute renal insufficiency, significant impairment of renal function, hyperkalemia or acute or severe hepatic failure. Allergy to thiazide diuretics or to other sulfonamide-derived drugs.

Warnings: Excessive potassium intake may cause hyperkalemia. Potassium supplements should not be given with Aldactazide. Do not administer concurrently with other potassium-sparing diuretics. Sulfonamide derivatives including thiazides have been reported to exacerbate or activate systemic lupus erythematosus.

Spironolactone has been shown to be a tumorigen in chronic toxicity studies in rats. In one study using 25, 75 and 250 times the usual daily human dose (2 mg/kg) there was a statistically significant dose-related increase in benign adenomas of the thyroid and testes. In female rats there was a statistically significant increase in malignant mammary tumors at the mid-dose only. In male rats there was a dose-related increase in proliferative changes in the liver. At the highest dosage level (500 mg/kg) the range of effects included hepatocytomegaly, hyperplastic nodules and hepatocellular carcinoma; the last was not statistically significant.

Precautions: Patients should be carefully evaluated for possible disturbances of fluid and electrolyte balance. Hyperkalemia may occur in patients with impaired renal function or excessive potassium intake and can cause cardiac irregularities which may be fatal. Hypokalemia may develop as a result of profound diuresis, particularly when Aldactazide is used concomitantly with loop diuretics, glucocorticoids or ACTH. Transient elevation of BUN may occur. Dilutional hyponatremia or rarely low-salt syndrome may develop. Gynecomastia may develop and in rare instances some breast enlargement may persist.

Thiazides may alter the metabolism of uric acid and carbohydrates with possible hyperuricemia, gout and decreased glucose tolerance. Vascular responsiveness to norepinephrine is reduced. Thiazides may also increase the responsiveness to tubocurarine. Thiazides may decrease serum PBI levels and prolonged therapy may induce hypercalcemia and hypophosphatemia.

Spironolactone may and hydrochlorothiazide does cross the placental barrier. Use in pregnant women requires that the anticipated benefit be weighed against possible hazards to the fetus. Breast feeding should be discontinued when Aldactazide is being used.

Adverse Reactions:

Associated with spironolactone: Gynecomastia is observed not infrequently. Gastrointestinal symptoms including cramping and diarrhea, drowsiness, lethargy, headache, maculopapular or erythematous cutaneous eruptions, urticaria, mental confusion, drug fever, ataxia, inability to achieve or maintain erection, irregular menses or amenorrhea, postmenopausal bleeding, hirsutism and deepening of the voice. Carcinoma of the breast has been reported but a cause-and-effect relationship has not been established.

Associated with thiazides: Gastrointestinal symptoms (anorexia, nausea, vomiting, diarrhea, abdominal cramps), purpura, thrombocytopenia, leukopenia, agranulocytosis, dermatologic symptoms (cutaneous eruptions, pruritus, erythema multiforme), paresthesia, acute pancreatitis, jaundice, dizziness, vertigo, headache, xanthopsia, photosensitivity, necrotizing angitis, aplastic anemia, orthostatic hypotension, muscle spasm, weakness and restlessness.

Adverse reactions are usually reversible upon discontinuation of Aldactazide.

Dosage and Administration

Edema in adults: The usual maintenance dose is one tablet four times daily but may range from one to eight tablets daily depending on the response to the initial titration.

Edema in children: The usual daily maintenance dose should be that which provides 0.75 to 1.5 mg of spironolactone per pound of body weight (1.65 to 3.3 mg/kg).

Essential hypertension: Usually two to four tablets daily depending on results of the titration of the individual ingredients.

SEARLE

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the two stools of internal medicine and pediatrics." The proposed corrective for this neglect is to urge the specialization of physicians in the area of adolescent medicine and the establishment of clinics for the care and study of adolescents. Once having decided that the cure for a symptomatic expression of specialization is subspecialization, the stage is set for the organization that follows.

The book is divided into 20 parts representing general organ systems or topics, and 69 chapters, mostly dealing with specific disease entities. It reproduces, then, much of what would be available in traditional texts of medicine, pediatrics or surgery, attempting to stress those areas with particular relevance to adolescence. This creates an occasional awkwardness such as that found in the chapter on nocturnal enuresis, when the rationalization for writing about childhood enuresis is said to be that "... the best way to treat adolescent bed-wetting is to treat it early in childhood..." The text is well-written with adequate graphics where needed. There is an excellent section on the legal status of adolescents with a state-by-state breakdown of relevant statutes and an addendum that attempts to update the information to the time of publication.

The book suffers from the usual, perhaps unavoidable, problem of a text authored by multiple writers in that much is repetitive and some is contradictory. For example, in Chapter 5, "The Psychology of Adolescence," anorexia nervosa is attributed to displacement of pleasure-seeking from sex to food, while in Chapter 25 it is ascribed to disturbance in body image and perception. Certainly alternative viewpoints deserve to be voiced, but there is no acknowledgment that such a difference exists elsewhere in the text. The area of most concern to this reviewer, however, is the absence of the "family medicine"¹ perspective generally. To a disturbing extent, the adolescent patient is seen from an intrapsychic orientation with minimal attention to the family's role in a systems or contextual way. Thus, problems of asthma, diabetes mellitus, and anorexia nervosa have chapters devoted to their discussion without reference to the important work of the

Philadelphia Child Guidance Clinic.^{2,3,4} In these studies, the origin and treatment of these diseases is related to the family structure and dynamics in a manner that suggests vital significance to the practicing family physician.

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Principles of Genetic Counseling.
Edmond A. Murphy and Gary A. Chase. Year Book Medical Publishers, Chicago, 1975, 391 pp., \$22.95.

This volume seeks to serve as a source of thorough and readily accessible information on genetic counseling. It is, in general, tightly written and well organized, although there is inevitable recourse, in the more technical chapters, to mathematical formulae whose formats are sufficiently forbidding as to discourage the average practitioner from further encounters. Explanatory charts and diagrams are clear and well laid out.

The authors have provided in the first 100 pages a very logical and clear development of the elements of good genetic counseling, as well as the basic genetic principles and probability theory which underly this process. This section of the book, taken alone, should prove to be of substantial assistance to the practitioner seeking to refresh his prior knowledge of genetics and counseling strategies.

Overall, the text tends to emphasize the more technical considerations in genetic counseling. As a result, it would appear to be of relatively little utility as a day-to-day reference volume for the practicing physician.

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