

Reviews

Reviews of books for this section are welcomed, from osteopathic physicians and from faculty members in osteopathic institutions; see "Information for Contributors" for information on format. A certain number of reviews are invited, for books supplied to JAOA by publishers; persons wishing to be part of this program should write to the editors, giving background and areas of interest.

Complications of fracture management

Edited by Harry R. Gossling and Stephen L. Pillsbury. Pp. 565, with illus. J.B. Lippincott Co., East Washington Square, Philadelphia 19105, 1984. \$67.50.

Complications of fracture management is an excellent book with an illustrious number of contributors. The work is well written and beautifully illustrated. However, I am not sure for whom the book was written. The first five pages provide review of the biology of fracture repair, non-unions, and pseudarthrosis. A thorough history of the bioelectric phenomena in the skeletal system and the electrical management of non-united fractures is included. While this material is well discussed, the authors went into too much detail on the actual physiologic reasons for healing. On the other hand, in certain types of treatment, they oversimplified and promised very high success rates, although it should be noted that they did deal with a large collection of fractures.

The material on shock and metabolism in trauma could serve as a wonderful source for all doctors working in the emergency room. I recommend that this particular aspect of the book be reviewed. The pulmonary and vascular complications of fractures are also explored; however, no startling or new materi-

al is presented. The same holds true for genitourinary complications of fractures, multiple trauma, and infected fractures.

Illustrations of the complications of various fractures are included in the text, but, again, this material can be found elsewhere.

I maintain that this book would not be of any particular value to the physician in family practice. The experienced orthopedic surgeon may refer to this book when dealing with complicated fractures; however, it should be recognized that no particularly new procedures are detailed. *Complications of fracture management* contains material presented previously in many other books and periodicals; no startling developments or new ideas are tendered. The young student of orthopedics or a physician serving an orthopedic residency will find the text beneficial, for it is well illustrated, well defined, and supplemented by a historic review of the various types of fractures discussed.

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Topics in gastroenterology: Volume 11

Edited by D.P. Jewell and H.A. Shepherd. Topics in Gastroenterology series; pp. 339, with illus. Blackwell Scientific Publications, Blackwell Mosby Book Distributors, 11830 Westline Industrial Dr., St. Louis 63141, 1983. \$39.95.

This 339-page book represents a compilation of the material presented at the eleventh annual postgraduate course of the gastroenterology unit at the University of Oxford in January 1983. The course, a review and update, is directed to British physicians who specialize in internal medicine and/or gastroenterology. The course covers the following

six areas: acute upper gastrointestinal tract bleeding; liver failure; hepatitis B; tropical gastroenterology; carcinoma of the colon; and Crohn's disease. There is no apparent attempt to cover these broad areas in depth, but selective aspects of each are well presented by 27 contributors.

The diagnosis of upper gastrointestinal bleeding is reviewed generally in the book's first four chapters; the role of endoscopy and radiology is discussed, the usual diagnoses are listed, and a few unusual diagnostic abnormalities are explored. The importance of appraising the value of various approaches to therapy in this area is noted, indicating that conclusions cannot yet be made. The value and application of visceral angiography in upper gastrointestinal bleeding is presented, and several endoscopic methods of treatment are detailed. The need for randomized studies to prove the value of these therapies is established.

The pathophysiology of hepatic failure is reviewed and updated; however, portal hypertension is excluded from the discussion. The management of chronic hepatic encephalopathy and acute hepatic failure are dealt with fairly completely in separate chapters.

The natural history and management of type B hepatitis (including prophylaxis and relationship to hepatocellular carcinoma) are presented and updated in two chapters.

A good review and update of tropical sprue is provided. The effect of any type of tropical diarrhea on a patient's nutrition is also examined. A third chapter in this area deals with hepatic amebiasis, schistosomiasis, and hydatid cyst of the liver. Abdominal tuberculosis and its varied manifestations is described in another chapter.

Carcinoma of the colon is re-
continued on page 134/36

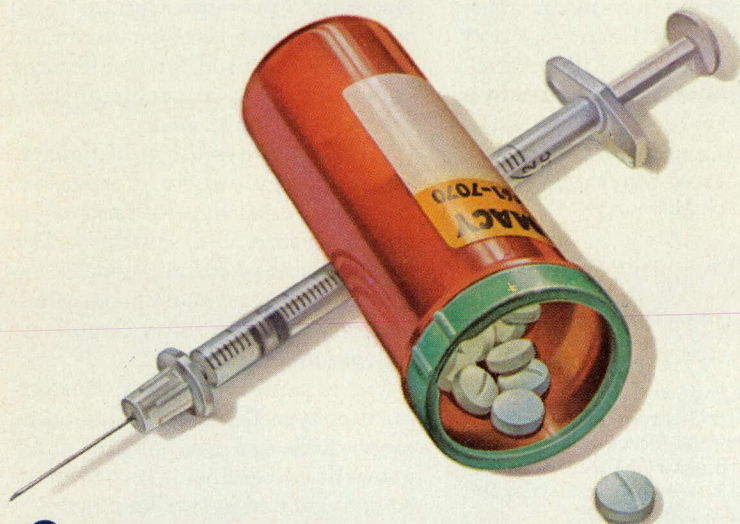
When a type II diabetic patient needs more than diet, unique MICRONASE® Tablets (glyburide) are a logical first choice.

Choosing antidiabetic

1. Micronase—a rational choice in type II diabetes

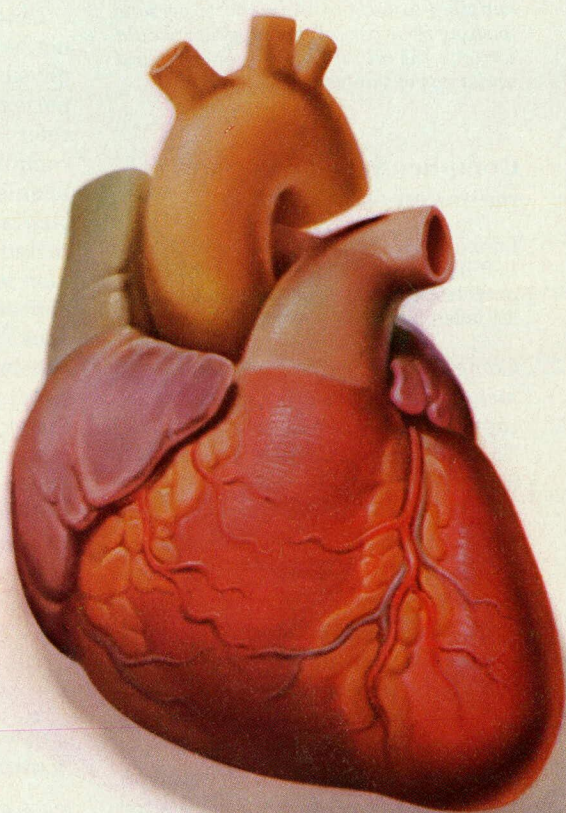
Insulin levels are normal or elevated in most patients with type II diabetes, although insulin action is markedly impaired. MICRONASE helps normalize the tissue response to endogenous insulin.

Initially, MICRONASE helps lower serum glucose in responsive patients by stimulating the release of additional insulin. As therapy continues, MICRONASE is believed to promote peripheral glucose metabolism by helping to correct defects at the cellular receptor and postreceptor levels.



2. Micronase—a single, daily dose provides 24-hour glycemic control

MICRONASE provides 24-hour control of blood glucose with a single, daily, low-milligram dose. MICRONASE may be taken with food, since food intake does not appear to affect its bioavailability.



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This may also be significant for the type II diabetic patient with congestive heart failure. MICRONASE actually causes a mild diuresis.

therapy today

4. Micronase—for the diabetic patient with moderate renal impairment: Control plus unique dual excretion... 50% urine, 50% bile

Elimination of MICRONASE equally in bile and urine reduces the risk of drug accumulation, which may result in hypoglycemia. Plasma clearance of MICRONASE is prolonged only in patients with severe renal impairment.

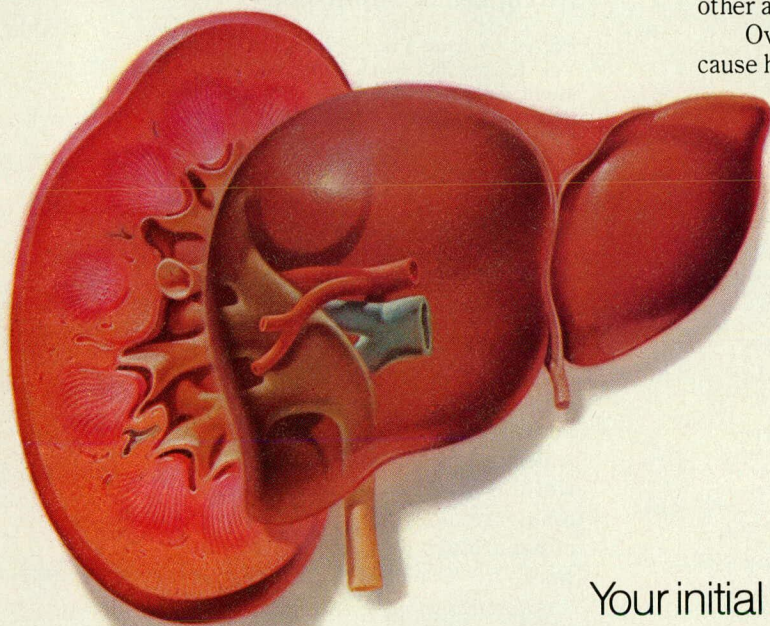
5. Micronase—for the patient who fails on other diabetic therapy: Potency and dosage flexibility

MICRONASE may prove effective when other drugs fail. Five mg of MICRONASE is approximately equivalent to 250 mg of chlorpropamide or 500 mg of acetohexamide in its ability to lower blood glucose. The dosage range of MICRONASE allows for greater dosage flexibility than other agents.

Overdosage of sulfonylureas, including MICRONASE, can cause hypoglycemia. Although the interpretations are controversial, the UGDP study reported in 1970 that the use of tolbutamide, an oral hypoglycemic drug, was associated with increased cardiovascular mortality.

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Your initial Rx in type II diabetes

Micronase[®]
glyburide, **5 mg** Tablets

For brief summary of prescribing information, please turn page.

Micronase®

An advance in diabetes management
brand of glyburide tablets (1.25, 2.5, and 5.0 mg)

Dosage Guide

Although relatively rare, hypoglycemia may occur during the conversion to MICRONASE from other therapy.

Prior therapy or condition	Considerations before starting therapy	Initial MICRONASE dose (mg/day)
Dietary therapy ineffective	No priming necessary	1.25 to 5.0 mg
Oral therapy	Discontinue oral hypoglycemic*	2.5 to 5.0 mg
Insulin therapy (< 40 units/day)	Completely discontinue insulin injections under medical supervision	2.5 to 5.0 mg
Insulin therapy (> 40 units/day)	Gradually discontinue insulin injections under close medical observation or hospitalization	5.0 mg

*See complete prescribing information.

*See package insert for special precautions when transferring patients from chlorpropamide.

INDICATIONS AND USAGE MICRONASE Tablets are indicated as an adjunct to diet to lower the blood glucose in patients with non-insulin-dependent diabetes mellitus (type II) whose hyperglycemia cannot be satisfactorily controlled by diet alone.

CONTRAINDICATIONS MICRONASE Tablets are contraindicated in patients with: 1. Known hypersensitivity or allergy to the drug. 2. Diabetic ketoacidosis, with or without coma. This condition should be treated with insulin. 3. Type I diabetes mellitus, as sole therapy.

SPECIAL WARNING ON INCREASED RISK OF CARDIOVASCULAR MORTALITY. The administration of oral hypoglycemic drugs has been reported to be associated with increased cardiovascular mortality as compared to treatment with diet alone or diet plus insulin. This warning is based on the study conducted by the University Group Diabetes Program (UGDP), a long-term prospective clinical trial designed to evaluate the effectiveness of glucose-lowering drugs in preventing or delaying vascular complications in patients with non-insulin-dependent diabetes. The study involved 823 patients who were randomly assigned to one of four treatment groups (*Diabetes*, 19 (Suppl 2):747-830, 1970).

UGDP reported that patients treated for 5 to 8 years with diet plus a fixed dose of tolbutamide (1.5 grams per day) had a rate of cardiovascular mortality approximately 2½ times that of patients treated with diet alone. A significant increase in total mortality was not observed, but the use of tolbutamide was discontinued based on the increase in cardiovascular mortality, thus limiting the opportunity for the study to show an increase in overall mortality. Despite controversy regarding the interpretation of these results, the findings of the UGDP study provide an adequate basis for this warning. The patient should be informed of the potential risks and advantages of MICRONASE and of alternative modes of therapy.

Although only one drug in the sulfonylurea class (tolbutamide) was included in this study, it is prudent from a safety standpoint to consider that this warning may apply to other oral hypoglycemic drugs in this class, in view of their close similarities in mode of action and chemical structure.

PRECAUTIONS General Hypoglycemia: All sulfonylureas are capable of producing severe hypoglycemia. Proper patient selection and dosage and instructions are important to avoid hypoglycemic episodes. Renal or hepatic insufficiency may increase the risk of serious hypoglycemic reactions. Elderly, debilitated or malnourished patients, and those with adrenal or pituitary insufficiency, are particularly susceptible to the hypoglycemic action of glucose-lowering drugs. Hypoglycemia may be difficult to recognize in the elderly and in people who are taking beta-adrenergic blocking drugs. Hypoglycemia is more likely to occur when caloric intake is deficient, after severe or prolonged exercise, when alcohol is ingested, or when more than one glucose lowering drug is used.

Loss of Control of Blood Glucose: In diabetic patients exposed to stress such as fever, trauma, infection or surgery, a loss of control may occur. It may then be necessary to discontinue MICRONASE and administer insulin. Adequate adjustment of dose and adherence to diet should be assessed before classifying a patient as a secondary failure.

Information for Patients: Patients should be informed of the potential risks and advantages of MICRONASE and of alternative modes of therapy. They also should be informed about the importance of adherence to dietary instructions, of a regular exercise program, and of regular testing of urine and/or blood glucose. The risks of hypoglycemia, its symptoms and treatment, and conditions that predispose to its development should be explained to patients and responsible family members. Primary and secondary failure should also be explained. **Laboratory Tests** Response to MICRONASE Tablets should be monitored by frequent urine glucose tests and periodic blood glucose tests. Measurement of glycosylated hemoglobin levels may be helpful in some patients. **Drug Interactions** The hypoglycemic action of sulfonylureas may be potentiated by certain drugs including nonsteroidal anti-inflammatory agents and other drugs that are highly protein bound, salicylates, sulfonamides, chloramphenicol, probenecid, coumarins, monoamine oxidase inhibitors, and beta-adrenergic blocking agents. Certain drugs tend to produce hyperglycemia and may lead to loss of control. These drugs include the thiazides and other diuretics, corticosteroids, phenothiazines, thyroid products, estrogens, oral contraceptives, phenytoin, nicotinic acid, sympathomimetics, calcium channel blocking drugs, and isoniazid. **Carcinogenesis, Mutagenesis, and Impairment of Fertility** Studies in rats at doses up to 300 mg/kg/day for 18 months showed no carcinogenic effects. Glyburide is nonmutagenic when studied in the Salmonella microsome test (Ames test) and in the DNA damage/alkaline elution assay. **Pregnancy** **Teratogenic Effects:** Pregnancy Category B. Reproduction studies in rats and rabbits have revealed no evidence of impaired fertility or harm to the fetus due to glyburide. There are no adequate and well controlled studies in pregnant women. This drug should be used during pregnancy only if clearly needed. Insulin should be used during pregnancy to maintain blood glucose as close to normal as possible.

Nonteratogenic Effects: Prolonged severe hypoglycemia (4 to 10 days) has been reported in neonates born to mothers who were receiving a sulfonylurea drug at the time of delivery. MICRONASE should be discontinued at least two weeks before the expected delivery date. **Nursing Mothers** Some sulfonylurea drugs are known to be excreted in human milk. Insulin therapy should be considered. **Pediatric Use** Safety and effectiveness in children have not been established.

ADVERSE REACTIONS **Hypoglycemia:** See Precautions and Overdosage sections. **Gastrointestinal Reactions:** Cholestatic jaundice may occur rarely; MICRONASE Tablets should be discontinued if this occurs. Gastrointestinal disturbances, e.g., nausea, epigastric fullness, and heartburn are the most common reactions, having occurred in 18% of treated patients during clinical trials. They tend to be dose related and may disappear when dosage is reduced. **Dermatologic Reactions:** Allergic skin reactions, e.g., pruritis, erythema, urticaria, and morbilliform or maculopapular eruptions occurred in 1.5% of treated patients during clinical trials. These may be transient and may disappear despite continued use of MICRONASE; if skin reactions persist, the drug should be discontinued. Porphyrria cutanea tarda and photosensitivity reactions have been reported with sulfonylureas. **Hematologic Reactions:** Leukopenia, agranulocytosis, thrombocytopenia, hemolytic anemia, aplastic anemia, and pancytopenia have been reported with sulfonylureas. **Metabolic Reactions:** Hepatic porphyria and disulfiram-like reactions have been reported with sulfonylureas; however, hepatic porphyria has not been reported with MICRONASE and disulfiram-like reactions have been reported very rarely.

OVERDOSAGE Overdosage of sulfonylureas, including MICRONASE Tablets, can produce hypoglycemia. If hypoglycemic coma is diagnosed or suspected, the patient should be given a rapid intravenous injection of concentrated (50%) glucose solution. This should be followed by a continuous infusion of a more dilute (10%) glucose solution at a rate which will maintain the blood glucose at a level above 100 mg/dL. Patients should be closely monitored for a minimum of 24 to 48 hours, since hypoglycemia may recur after apparent clinical recovery.

DOSAGE AND ADMINISTRATION There is no fixed dosage regimen for the management of diabetes mellitus with MICRONASE Tablets. **Usual Starting Dose** The usual starting dose is 2.5 to 5.0 mg daily, administered with breakfast or the first main meal. Those patients who may be more sensitive to hypoglycemic drugs should be started at 1.25 mg daily. (See Precautions Section for patients at increased risk.) **Maximum Dose** Daily doses of more than 20 mg are not recommended. **Dosage Interval** Once-a-day therapy is usually satisfactory. Some patients, particularly those receiving more than 10 mg daily, may have a more satisfactory response with twice-a-day dosage.

Caution: Federal law prohibits dispensing without prescription.

For additional product information see your Upjohn representative.

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viewed in four chapters; epidemiology, experimental carcinogenesis, and surgical and chemotherapeutic management are explored. A fifth chapter discusses natural history and management of metastatic colon carcinoma; this area is updated reasonably well.

The natural history and function of immunologic mechanisms in the pathophysiology of Crohn's disease, along with the role of split ileostomy in treatment, are analyzed as well.

In total, *Topics in gastroenterology: Volume 11*, maintains the reputation of its 10 predecessors. The work is a concise, well-written, gastroenterology conference report. I recommend the book specifically to primary physicians and nongastroenterologists who wish to update and review their knowledge of gastroenterology.

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Advances in nephrology

Edited by Jean-Pierre Grünfeld, et al.
Vol. 13, pp. 383, with illus. Year Book Medical Publishers, Inc., 35 E. Wacker Dr., Chicago 60601, 1984. \$57.95.

This volume is one of a continuing series of books published by Year Book Medical Publishers over the past 13 years. All of the material emanated from Necker Hospital in Paris, France. This edition's French editors include Jean-Francois Bach, M.D., D.Sc.; Jean Crosnier, M.D.; Jean-Louis Funck-Bretano, M.D., and Jean-Pierre Grünfeld, M.D. The American editor is Morton H. Maxwell, M.D. A series of articles on renal physiology and clinical aspects of nephrology are presented in the work.

Advances in nephrology is very interesting and it contains many entertaining articles. The articles are footnoted, and adequate references are provided for review. Unfortunately, however, there is no order to the articles to provide a cohesive outline of the book. The articles themselves are nicely outlined in the table of contents, and an index is provided.

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