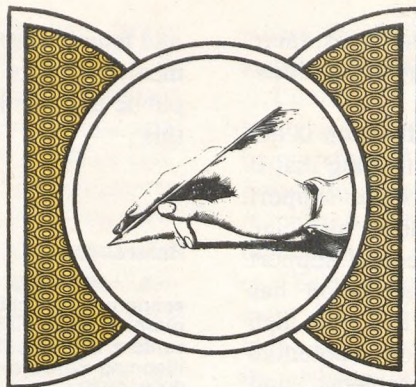


Letters to the Editor



The Journal welcomes Letters to the Editor; if found suitable, they will be published as space allows. Letters should be typed double-spaced, should not exceed 400 words, and are subject to abridgment and other editorial changes in accordance with journal style.

Pediatric Training in Family Practice Residencies

To the Editor:

In evaluating pediatric training in family medicine residency programs, Rabinowitz and Hervada¹ published a formula for calculating "pediatric equivalent months," which was also mentioned in the editorial² in the same issue of *The Journal of Family Practice*. This formula provides a useful measure for determining "specialty equivalents" for all ambulatory specialty training offered in family practice centers (FPC). Use of the formula, however, necessitates use of a reciprocal formula for reducing the time spent by residents in block ro-

tations if you intend to add block rotation time to family practice center equivalent time to determine specialty training time totals. Failure to make this reduction would create the erroneous impression that it is possible to have more than twelve months of training in one year.

I have shown the simple linear relationship for this reduction in Figure 1. Note that a resident who spends 1.6 months in a year (Rabinowitz and Hervada's Year I average) in the family practice center (1.3 half-days/year) will spend 13 percent less than a month on each calendar month block rotation that year. As the days per week in the family practice center increase during the three years of training, this reciprocal adjustment increases in a linear fashion. To illustrate the result of not making this reduction when calculating "pediatric equivalents," look at the 5.6 months of block rotation in pediatric training in Rabinowitz and Hervada's article. If one assumes (the paper does not say) that residents took two thirds of the 5.6 months of pediatric block training in Year I and one third in Year II, then:

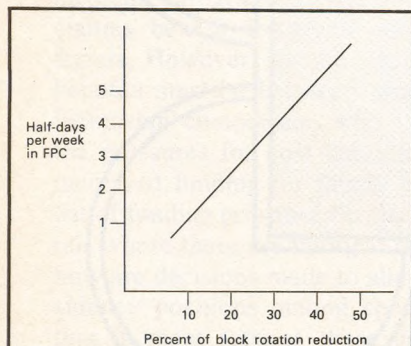


Figure 1. Relationship of time spent in family practice center (FPC) to reduction of time spent on block rotations

Continued on page 811

Choloxin® (Dextrothyroxine Sodium Tablets, NF) FLINT

Indications: This is not an innocuous drug. Strict attention should be paid to the indications and contraindications.

CHOLOXIN (dextrothyroxine sodium) is used for the reduction of elevated serum cholesterol (low density lipoproteins) in euthyroid patients with no known evidence of organic heart disease.

It has not been established whether the drug-induced lowering of serum cholesterol or lipid levels has a detrimental, beneficial, or no effect on the morbidity or mortality due to atherosclerosis or coronary heart disease. Several years will be required before current investigations will yield an answer to this question.

Contraindications: The administration of CHOLOXIN (dextrothyroxine sodium) to euthyroid patients with one or more of the following conditions is contraindicated:

1. Known organic heart disease, including angina pectoris; history of myocardial infarction; cardiac arrhythmia or tachycardia, either active or in patients with demonstrated propensity for arrhythmias; rheumatic heart disease; history of congestive heart failure; and decompensated or borderline compensated cardiac status.
2. Hypertensive states (other than mild, labile systolic hypertension)
3. Advanced liver or kidney disease
4. Pregnancy
5. Nursing mothers
6. History of iodism

Warnings

Drugs with thyroid hormone activity, alone or together with other therapeutic agents, have been used for the treatment of obesity. In euthyroid patients, doses within the range of daily hormonal requirements are ineffective for weight reduction. Larger doses may produce serious or even life-threatening manifestations of toxicity, particularly when given in association with sympathomimetic amines such as those used for their anorectic effects.

CHOLOXIN (dextrothyroxine sodium) may potentiate the effects of anticoagulants on prothrombin time; the dosage of anticoagulants should be reduced up to one-third upon initiation of CHOLOXIN (dextrothyroxine sodium) therapy and readjusted on the basis of prothrombin time. The prothrombin time should be observed at least weekly during the first few weeks of treatment, thereafter as frequently as necessary.

Consider withdrawal of the drug two weeks prior to surgery if the use of anticoagulants during surgery is contemplated. Withdrawal prior to surgery is also advisable since the possibility of precipitating cardiac arrhythmias during surgery is greatest in patients treated with thyroid hormones.

CHOLOXIN (dextrothyroxine sodium) may increase blood sugar levels in diabetic patients, requiring an upward adjustment of antidiabetic drug dosage and subsequent readjustment if the drug is later withdrawn.

Precautions: If signs or symptoms of iodism develop during CHOLOXIN (dextrothyroxine sodium) therapy, the drug should be discontinued.

A few children with familial hypercholesterolemia have been treated with CHOLOXIN (dextrothyroxine sodium) for periods of one year or longer with no adverse effects on growth; it is recommended that the drug be continued only if a significant serum cholesterol-lowering effect is observed.

The 2 mg and 6 mg tablets of CHOLOXIN (dextrothyroxine sodium) contain FD & C Yellow No. 5 (tartrazine) which may cause allergic-type reactions (including bronchial asthma) in certain susceptible individuals. Although the overall incidence of FD & C Yellow No. 5 (tartrazine) sensitivity in the general population is low, it is frequently seen in patients who also have aspirin hypersensitivity.

Adverse Reactions: The side effects attributed to dextrothyroxine sodium therapy are, for the most part, due to increased metabolism, and may be minimized by following the recommended dosage schedule.

In the absence of known organic heart disease, some cardiac changes may be precipitated during dextrothyroxine sodium therapy. In addition to angina pectoris, arrhythmia consisting of extrasystoles, ectopic beats, or supraventricular tachycardia, ECG evidence of ischemic myocardial changes and increase in heart size have been observed. Myocardial infarctions, both fatal and non-fatal, have occurred, but these are not unexpected in untreated patients in the age groups studied. It is not known whether any of these infarcts were drug related.

Changes in clinical status that may be related to the metabolic action of the drug include the development of insomnia, nervousness, palpitations, tremors, loss of weight, lid lag, sweating, flushing, hyperthermia, hair loss, diuresis, and menstrual irregularities. Gastrointestinal complaints during therapy have included dyspepsia, nausea and vomiting, constipation, diarrhea, and decrease in appetite.

Other side effects reported to be associated with CHOLOXIN (dextrothyroxine sodium) therapy include the development of headache, changes in libido (increase or decrease), hoarseness, tinnitus, dizziness, peripheral edema, malaise, tiredness, visual disturbances, psychic changes, parosmia, muscle pain, and various bizarre subjective complaints. Skin rashes, including a few which appeared to be due to iodism, and itching have been attributed to dextrothyroxine sodium by some investigators. Gallstones have been discovered in occasional dextrothyroxine-treated patients and cholestatic jaundice has occurred in one patient, although its relationship to CHOLOXIN (dextrothyroxine sodium) therapy was not established.

In several instances, the previously existing conditions of the patient appeared to continue or progress during the administration of CHOLOXIN (dextrothyroxine sodium); a worsening of peripheral vascular disease, senescence, exophthalmos and retinopathy have been reported.

Dosage and Administration: For adult euthyroid hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (dextrothyroxine sodium) is 4 to 8 mg per day. The initial daily dose should be 1 to 2 mg to be increased in 1 to 2 mg increments at intervals of not less than one month to a maximal level of 4 to 8 mg daily, if that dosage level is indicated to effect the desired lowering of serum cholesterol.

For pediatric hypercholesterolemic patients, the recommended maintenance dose of CHOLOXIN (dextrothyroxine sodium) is approximately 0.1 mg (100 mcg) per kilogram. The initial daily dosage should be approximately 0.05 mg (50 mcg) per kilogram to be increased in up to 0.05 mg (50 mcg) per kilogram increments at monthly intervals. The recommended maximal dose is 4 mg daily, if that dosage is indicated to effect the desired lowering of serum cholesterol.

If new signs or symptoms of cardiac disease develop during the treatment period, the drug should be withdrawn.

How Supplied: CHOLOXIN (dextrothyroxine sodium) is supplied in prescription packages of scored 1, 2, 4 and 6 mg tablets.

References:

1. Data on file at Flint Laboratories.

FLINT LABORATORIES
DIVISION OF TRAVENOL LABORATORIES, INC.
Deerfield, Illinois 60015

19-3-605AA August 1979

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PRO-BANTHINE® (propantheline bromide)
Tablets, 7½ mg. and 15 mg.

INDICATION: Pro-Banthine is effective as adjunctive therapy in the treatment of peptic ulcer.

CONTRAINDICATIONS: Glaucoma, obstructive disease of the gastrointestinal tract, obstructive uropathy, intestinal atony, severe ulcerative colitis or toxic megacolon, hiatal hernia associated with reflux esophagitis, unstable cardiovascular adjustment in acute hemorrhage, or myasthenia gravis.

WARNINGS: Heat prostration can occur with use of the drug in hot weather.

Diarrhea, especially in an ileostomy or colostomy patient, may indicate obstruction, and this possibility should be considered before administering Pro-Banthine.

Pro-Banthine may produce drowsiness or blurred vision.

With overdosage, a curare-like action may occur, i.e., neuromuscular blockade leading to muscular weakness and possible paralysis.

Use with caution in patients with severe cardiac disease if an increase in heart rate is undesirable.

Safe use in pregnancy has not been established. Use during pregnancy only when the benefits outweigh any possible risk.

Uncontrolled data derived from marketing experience do not suggest that significant quantities of Pro-Banthine are secreted in breast milk.

Safety and efficacy in children have not been established.

PRECAUTIONS: Varying degrees of urinary hesitancy may be evidenced by patients with prostatic hypertrophy. Urinary retention may be avoided if such patients are advised to micturate before taking the medication.

Use with caution in the elderly and in all patients with autonomic neuropathy, hepatic or renal disease, hyperthyroidism, coronary heart disease, congestive heart failure, cardiac tachyarrhythmias, or hypertension.

Large doses should be avoided or the drug discontinued in patients with ulcerative colitis.

ADVERSE REACTIONS: Varying degrees of drying of salivary secretions may occur as well as decreased sweating, blurred vision, mydriasis, cycloplegia, and increased ocular tension. Other reported adverse reactions include urinary hesitancy and retention, tachycardia, palpitations, loss of the sense of taste, headache, nervousness, mental confusion, drowsiness, weakness, dizziness, insomnia, nausea, vomiting, constipation, bloated feeling, impotence, suppression of lactation, and allergic reactions or drug idiosyncrasies including anaphylaxis, urticaria and other dermal manifestations.

OVERDOSAGE: The symptoms of Pro-Banthine overdosage include CNS disturbances, circulatory changes, respiratory failure, paralysis and coma. See complete prescribing information for appropriate treatment.

DOSAGE AND ADMINISTRATION: The usual initial adult dose of Pro-Banthine tablets is 15 mg. taken 30 minutes before each meal and 30 mg. at bedtime (a total of 75 mg. daily). Subsequent dosage adjustment should be made according to the patient's individual response and tolerance.

The administration of one 7½-mg. tablet three times a day is convenient for patients with mild manifestations and for geriatric patients and for those of small stature.

Searle & Co.
San Juan, Puerto Rico 00936

Address medical inquiries to:
G.D. Searle & Co.
Medical Communications Department
Box 5110, Chicago, Illinois 60680

SEARLE

Continued from page 808

Year I (1.3 half-days/week in FPC)
 $5.6 \times \frac{2}{3} = 3.7 \times 0.13$ (Figure 1) = 0.5
3.7 (uncorrected) - 0.5 correction
= 3.2 months

Year II (3.0 half-days/week in FPC)
 $5.6 \times \frac{1}{3} = 1.9 \times 0.30 = 0.6$
1.9 (uncorrected) - 0.6 correction
= 1.3 months

3.2 months plus 1.3 months = 4.5 months
(corrected) block time

Residents thus spend 4.5, not 5.6, months in block pediatric training if adjustment is made for time spent in the family practice center. Since I feel the "specialty equivalent" calculation is a useful one that will and should be used, I draw your attention to the necessary reciprocal adjustment when total training time (FPC plus block rotation) is calculated. Obviously, this reduction is necessary only for block rotational programs.

David M. Holden, MD

Director

Wesley Medical Center Family

Practice Residency Program

Professor of Family Medicine

& Pediatrics

University of Kansas

School of Medicine-Wichita

Wichita, Kansas

References

1. Rabinowitz HK, Hervada AR: Pediatric training in family medicine residency programs. *J Fam Pract* 11:575, 1980
2. Geyman, JP: Pediatric training in family practice residencies. *J Fam Pract* 11:531, 1980

The preceding letter was forwarded to Dr. Rabinowitz, who responds as follows:

I thank Dr. Holden for his interest and perceptive comments. In

our study, we became aware that a number of family medicine residency programs have full-time block rotations in the family practice center ("x" number of months per year), while others utilize longitudinal training in the family practice center ("x" number of half-days per week). In addition, some residency programs have pediatric block rotations where family practice residents spend longitudinal time (eg, one half-day per week) in the family practice center, while other programs have pediatric block rotations where family practice residents do not spend longitudinal time in the family practice center (because of distance or other factors). Most programs have a combination of the above; however, because our questionnaire did not anticipate these results, we were unable to accurately separate out these variables. Dr. Holden's reciprocal formula, while accurate, applies only to those pediatric block rotations where family practice residents spend longitudinal time in the family practice center. In addition, Dr. Holden's calculations assume that all family practice residents spend only longitudinal time in the family practice center (eg, he assumes that the 1.6 months the first year resident spends in the family practice center is calculated entirely on a longitudinal basis, but in fact for some programs a portion of this time occurs on family practice center block rotations). Dr. Holden's calculations, therefore, would reduce somewhat our total training time, but less than the 1.1 months that he suggests, since it applies only to a portion (unknown) of the programs.

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Using the number of months of training in describing the pediatric component of family practice residency training programs is a valuable first estimate. The effect of variables in addition to Dr. Holden's reciprocal formula, such as vacation time and night call while on pediatric and family practice rotations (which could either increase or decrease total training time), were not controlled in our study. Nevertheless, even when these minor effects are controlled in order to increase precision, our conclusions would not change.

Howard K. Rabinowitz, MD
Assistant Professor of
Family Medicine
Clinical Instructor in Pediatrics
Jefferson Medical College
Philadelphia, Pennsylvania

Management of Hyperlipoproteinemias

To the Editor:

I feel compelled to comment on the article "The Hyperlipoproteinemias" by Dr. Thomas F. Wayne, Jr. (*J Fam Pract* 11:789, 1980). I feel there are a number of deficiencies in the author's management of hyperlipoproteinemias that ought to be recognized, particularly since this article appears in a major journal of family practice.

Nowhere is it mentioned that reduction to ideal body weight would be beneficial in the treatment of hyperlipoproteinemias, whereas this is a mainstay of management in Types IIb, III, IV, and V. In addition, the role of complex carbohydrates as opposed to simple carbo-

hydrates is not mentioned. L'Heureux (personal communication of a paper presented to The North American Primary Care Research Group, 1979) has determined that total cholesterol levels in lacto-ovo-vegetarians are significantly lower than their nonvegetarian siblings, and Sacks and his colleagues¹ have noted significantly lower cholesterol, low density lipoprotein (LDL) and very low density lipoprotein (VLDL) levels, and slightly lower high density lipoprotein (HDL) and triglyceride levels in vegetarians as opposed to nonvegetarian controls. In addition, there was one person with an intermediate density lipoprotein (IDL) type of hyperlipoproteinemia who was phenotypically normal while on a vegetarian diet and abnormal while eating a regular diet.

My own clinical experience has been that familial Type IV hyperlipoproteinemia can be successfully managed by a combination of weight reduction and a complex carbohydrate diet. I feel that the article in question pays far too much attention to drug treatment and far too little attention to lifestyle modification. In addition, there is only brief mention made of controlling the other associated cardiovascular risk factors, such as smoking and hypertension.

I have also begun to question the usefulness of using the Fredrickson classification in the management of hyperlipoproteinemia, since dietary management may be remarkably similar for many of the different types of hyperlipoproteinemias, and drug therapy is more aptly chosen on the basis of whether the drug has its major effect on the triglycerides fraction or the chole-

Continued on page 815

V6Sol® Otic Solution

(acetic acid-nonaqueous 2%)

V6Sol® HC Otic Solution

(hydrocortisone 1%, acetic acid-nonaqueous 2%)

Description: V6Sol is a non-aqueous solution of acetic acid (2%), in a propylene glycol vehicle containing propylene glycol diacetate (3%), benzethonium chloride (0.02%), and sodium acetate (0.015%). V6Sol HC also contains hydrocortisone (1%) and citric acid (0.2%).

Action: V6Sol is antibacterial, antifungal, hydrophilic, has an acid pH and a low surface tension.

V6Sol HC is, in addition, anti-inflammatory and antipruritic.

Indications: (V6Sol only)

Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

Effective: For the treatment of superficial infections of the external auditory canal caused by organisms susceptible to the action of the antimicrobial. "Possibly" effective: For prophylaxis of otitis externa in swimmers and susceptible subjects.

Final classification of the less-than-effective indication requires further investigation.

Indications: (V6Sol HC only) For the treatment of superficial infections of the external auditory canal caused by organisms susceptible to the action of the antimicrobial, complicated by inflammation.

Contraindications: These products are contraindicated in those individuals who have shown hypersensitivity to any of their components; perforated tympanic membranes are frequently considered a contraindication to the use of external ear canal medication. V6Sol HC is contraindicated in vaccinia and varicella.

Precautions: V6Sol HC: As safety of topical steroids during pregnancy has not been confirmed, they should not be used for an extended period during pregnancy. Systemic side effects may occur with extensive use of steroids.

V6Sol and V6Sol HC: If sensitization or irritation occurs, medication should be discontinued promptly.

Dosage and Administration: Carefully remove all cerumen and debris to allow V6Sol (or V6Sol HC) to contact infected surfaces immediately. To promote continuous contact, insert a V6Sol (or V6Sol HC) saturated cotton wick in the ear with instructions to the patient to keep wick moist for the next 24 hours by occasionally adding a few drops on the wick. Remove wick after first 24 hours and continue to instill 5 drops of V6Sol (or V6Sol HC) three or four times daily thereafter.

During treatment, to prevent infection of the other ear, use V6Sol in unaffected ear 3 times daily. To help prevent otitis externa in swimmers and susceptible subjects, instill two drops of V6Sol each morning and evening.

How Supplied: V6Sol Otic Solution, in 15 ml (NDC 0037-3611-10) and 30 ml (NDC 0037-3611-30) measured-drop, safety-tip plastic bottles.

V6Sol HC Otic Solution, in 10 ml measured-drop, safety-tip plastic bottle (NDC 0037-3811-12).

Rev. 8/78



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SYNTHROID®
(Levothyroxine Sodium Tablets, USP)
FLINT

Indications
SYNTHROID (levothyroxine sodium) Tablets serve as specific replacement therapy for reduced or absent thyroid function of any etiology.

Contraindications
Relative contraindications include acute myocardial infarction, uncorrected adrenal insufficiency and thyrotoxicosis. (See WARNINGS)

Warnings
Drugs with thyroid hormone activity, alone or together with other therapeutic agents, have been used for the treatment of obesity. In euthyroid patients, doses within the range of daily hormonal requirements are ineffective for weight reduction. Larger doses may produce serious or even life threatening manifestations of toxicity, particularly when given in association with sympathomimetic amines such as those used for their anorectic effects.

Patients with cardiovascular diseases warrant particular attention. In such cases, low initial dosage increased slowly by small increments is indicated. Occasionally, the cardiovascular capacity of the patient is so compromised that the metabolic demands of the normal thyroid state cannot be met. Clinical judgment will then dictate either a partial restoration of thyroid status or reduction in thyroid dosage.

Symptoms associated with diabetes mellitus, adrenal insufficiency (Addison's disease), hypopituitarism and diabetes insipidus may be diminished or obscured by hypothyroidism. SYNTHROID (levothyroxine sodium) therapy may aggravate the intensity of previously obscured symptoms and require appropriate adjustment of therapeutic measures directed at these concomitant disorders.

Thyroid replacement may potentiate the effects of anticoagulants. Such patients should have frequent prothrombin determinations to assess the need to reduce anticoagulant dosage.

Precautions
Overdosage with any thyroid drug may produce the signs and symptoms of thyrotoxicosis. With SYNTHROID (levothyroxine sodium) Tablets, the relatively slow onset of action minimizes the risk of overdose but close observation in the weeks following institution of a dosage regimen is advised. Treatment of thyroid hyperactivity induced by oral medication is confined to interruption of therapy for a week, followed by reinstitution of daily therapy at an appropriately reduced dosage.

The 100 mcg (0.1 mg) and 300 mcg (0.3 mg) tablets of SYNTHROID (levothyroxine sodium) contain FD & C Yellow No. 5 (tartrazine) which may cause allergic-type reactions (including bronchial asthma) in certain susceptible individuals. Although the overall incidence of FD & C Yellow No. 5 (tartrazine) sensitivity in the general population is low, it is frequently seen in patients who also have aspirin hypersensitivity.

Adverse reactions
Adverse reactions are due to overdose and are those of induced hyperthyroidism.

Dosage and administration
A final adult dosage of 100 mcg (0.1 mg) to 200 mcg (0.2 mg) of SYNTHROID (levothyroxine sodium) Tablets daily will usually restore normal thyroid function.


The concomitant appearance of other diseases, especially cardiovascular diseases, usually dictates a replacement regimen with initial doses smaller than 100 mcg/day (0.1 mg). In otherwise healthy adults with relatively recent onset of hypothyroidism, full replacement dose of 150 mcg (0.15 mg) or 200 mcg (0.2 mg) has been instituted immediately without untoward effect and with good therapeutic response. However, in view of the possible presence of subclinical disorders of the cardiovascular system or endocrinopathies, a more cautious approach is recommended.

In the elderly patient with long standing disease, evidence of myxedematous infiltration and symptomatic, functional or electrocardiographic evidence of cardiovascular dysfunction, the starting dose may be as little as 25 mcg (0.025 mg) per day. Further incremental increases of 25 mcg (0.025 mg) per day may be instituted at three to four week intervals depending on patient response. Conversely, otherwise healthy adults may be started at higher daily dosage and raised to the full replacement dosage in two to three weeks.

In infants and children, the following dose/kg schedule is recommended: 1-6 months, 10 µg/kg; 6-12 months, 8 µg/kg; 1-5 years, 6 µg/kg; 5-10 years, 4 µg/kg; 10-15 years, 3 µg/kg; 15-20 years, 2.5 µg/kg.

How supplied
SYNTHROID (levothyroxine sodium) Tablets are supplied as scored, color-coded tablets in 6 concentrations: 25 mcg (0.025 mg) — orange... 50 mcg (0.05 mg) — white... 100 mcg (0.1 mg) — yellow... 150 mcg (0.15 mg) — blue... 200 mcg (0.2 mg) — pink... 300 mcg (0.3 mg) — green. 8-19-19-426AA October 1980

Reference:
1. Wartofsky L, Burman KD: Hypothyroidism, in Conn HF (ed): *Current Therapy*. Philadelphia, WB Saunders Company, 1979, pp 469-473.

 **FLINT LABORATORIES**
DIVISION OF TRAVENOL LABORATORIES, INC.
Deerfield, Illinois 60015

LETTERS TO THE EDITOR

Continued from page 812

terol fraction. Although I have no data to back me up on this, I feel that the use of lipoprotein electrophoresis or ultracentrifugation as a diagnostic screening procedure is probably not cost effective, and that measurement of total cholesterol, triglycerides, and perhaps HDL cholesterol and examination of blood supernatant provide sufficient information for diagnosis and management of most of the hyperlipoproteinemias seen in a family practice.

Robert M. Bernstein, MD, PhD
Ottawa, Ontario

Reference

1. Sacks FM, Castelli WP, Donner A, et al: Lipids and lipoproteins in vegetarians and controls. *N Engl J Med* 292:1148, 1975

The preceding letter was forwarded to Dr. Whayne, who responds as follows:

I concur with Dr. Bernstein's point that familial Type IV hyperlipoproteinemia can be managed by weight reduction and complex carbohydrate diet and simple carbohydrate restriction. In fact, my paper included a specific statement regarding diet as the cornerstone of management. My article was intended as an overview, and both diet and drug treatment were discussed. Concerning the treatment of hyperlipoproteinemia, it is specifically emphasized that "if the clinician accepts cholesterol reduc-

tion in patients as worthwhile, then the following describes a rational therapeutic approach." I then proceeded to outline diet and drug management, but always with the proviso that the individual clinician must look at the prevention and regression data and convince himself that there is benefit in lipid reduction. I believe that the evidence points to the fact that there is benefit, but I always carefully qualify that it is not rigidly proven and that each responsible clinician must look at the data himself.

Dr. Bernstein makes a comment that there is only brief mention of controlling other associated cardiovascular risk factors, such as smoking and hypertension; this is a trivial and inappropriate observation. The purpose of my article was to discuss the hyperlipoproteinemias and not the management of multiple risk factors. I, of course, concur with him in the importance of this and emphasize this very strongly in my busy cardiovascular practice.

Dr. Bernstein also questions the usefulness of using the Fredrickson classification for the management of hyperlipoproteinemias. As stated in my paper, I believe that the typing system is only a language for communication. It is appropriate to continue to use this system, which is now understood by most clinicians and represents a convenient way to communicate. The key point is to understand that it does not imply underlying mechanisms or genetics. It appears to me rather ridiculous that some investigators in the field are now trying to tear down this system and substitute other terminology that does not say any-

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thing different but makes for further controversy, and does not contribute new knowledge or a significant new classification system.

Dr. Bernstein comments on the lack of data to back him up but states that he feels the use of lipoprotein electrophoresis or ultracentrifugation as a diagnostic screening procedure is probably not cost

effective. I state specifically regarding electrophoresis on page 791 that it is of no value in the assessment of the hyperlipoprotein with the ultracentrifuge. I object strongly to laboratories that use electrophoresis alone and charge a high fee for a test that contributes nothing. I do concur that in this situation the measurement of total cholesterol and triglycerides is very valuable, coupled with the observation of the serum overnight as outlined on pages 792 and 793 under simple office procedures. However, to specifically diagnose Types IIb, III, and IV precisely, the ultracentrifuge is essential, unless one has available a specific research methodology involving immunoprecipitation techniques. Using the simple office procedure approach, it is possible to estimate this sufficiently to make a clinical trial of diet and specific medication. Especially in the case of Type III, specific typing is essential, most specifically in regard to benefit from clofibrate as the drug of choice. At the Lexington Clinic, we charge \$25.00 for a complete lipoprotein ultracentrifuge analysis by the Beckman Airfuge system, which includes the complete analysis plus the total cholesterol and triglycerides. The methodology is much more precise than precipitating the VLDL and LDL to determine the HDL cholesterol, followed by extrapolation by inaccurate formulas. Also, the ultracentrifuge will diagnose Type III disease. Obviously, it is possible to offer this service at a very reasonable price, and I suspect at a level charged by some laboratories for HDL cholesterol, total cholesterol, and triglycerides alone.

*Thomas F. Wayne, Jr., MD
Cardiology Section
Lexington Clinic
Lexington, Kentucky*

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DEBROX® Drops gently softens excess earwax for easy removal.

When Debrox comes in contact with impacted earwax, it forms a dense foam, which softens the accumulation with a chemomechanical cleansing, debriding action. Any remaining earwax may be removed by flushing with warm water, using a soft rubber bulb ear syringe. Avoid excessive pressure.

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