In Hypertension*...When You Need to Conserve K⁺

Every Step of the Way

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

STEP 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K⁺ supplement or K⁺-sparing agent), and a maintenance phase (a diuretic alone or in combination with a K⁺ supplement or K⁺-sparing agent).

EFFECTIVE STEP 1 DIURETIC THERAPY† (when the combination represents previously titrated dosage)
A Cornerstone of Step-Care Therapy

The step-care approach to management of high blood pressure is widely accepted as a rational, practical and sound therapeutic program and has recently been substantiated by the results of the HDFP five-year study. Thiazides play an integral role in step-care therapy and offer significant benefits during each phase of the program: (1) they achieve satisfactory control, when used alone, in approximately 50% of all hypertensives; (2) they enhance the antihypertensive effects of other drugs and often permit dosage reductions; and (3) they correct Na⁺ retention induced by other antihypertensive agents.

DYAZIDE

Over 15 Years of Confidence

As the hydrochlorothiazide in ‘Dyazide’ lowers blood pressure, the triamterene component limits potassium loss. There is seldom a need to complicate the maintenance regimen with potassium-rich foods or multiple daily doses of potassium salts, a significant benefit to patients receiving two or more drugs for their primary disease. In fact, potassium salts should not be given with ‘Dyazide’ except in the rare patient in whom hypokalemia develops or dietary potassium is markedly impaired. So when potassium loss interferes with patient adherence to the therapeutic program or compromises patient status, it makes sense to prescribe ‘Dyazide’.

Serum K⁺ and BUN Should Be Checked Periodically particularly in the elderly, diabetics and those with suspected or confirmed renal insufficiency (see Warnings). Elevated serum potassium levels can occur because of the K⁺-sparing effect of triamterene, but they are rare in patients with normal renal function. If hyperkalemia develops, substitute a thiazide alone.

Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

**WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the optimal dosage for the patient, its use may be more convenient in patient management. If combination therapy fails to achieve or maintain sodium or blood pressure control, one or both agents should be withdrawn and another, more effective drug or dose combination should be tried. If potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If serum potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and it has been associated with cardiac irregularities if it is present in the severely ill, elderly or diabetics with suspected or confirmed renal insufficiency. Periodically, serum K⁺ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K⁺ intake, associated ORS complexes or arrhythmia requires prompt additional therapy. Thyroid nodules may develop in the absence of a history of allergy or bronchial asthma. Possible exanthemas have been reported with this agent. Hyperkalemia can occur, dietary or otherwise, unless hypokalemia develops or dietary potassium is markedly impaired. So when potassium loss interferes with patient adherence to the therapeutic program or compromises patient status, it makes sense to prescribe ‘Dyazide’.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. In insulin-dependent diabetics, signs of impending coma in severe liver disease. If potassium depletion is used concomitantly, determine serum K⁺ frequency, both can cause K⁺ retention and elevated serum K⁺. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded). Serum electrolytes were not properly monitored. Assess pH regularly for possible blood dyscrasias, liver damage, other electrolyte reactions. Blood dyscrasias may have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, aplastic anemia have been reported with this agent. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhosis with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperkalemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout. Digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. Dyazide interferes with serum potassium levels determined. Do not use potassium-containing cathartics. Serum Potassium levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. ‘Dyazide’ should be withdrawn before conducting tests for parathyroid function. Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

**Adverse Reactions**: Muscle cramps, weakness, dizziness, headache, dry mouth, anorexia, rash, urticaria, photosensitivity, purpura, other dermatological conditions, nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, pericarditis, encephalitis, psychosis, xanthochromia, and rarely, an idiosyncratic reaction have occurred with this agent. Dyazide should be withdrawn before conducting tests for parathyroid function.

**Supplied**: Bottles of 1000 capsules, Single Unit Packages (unit-dose) of 100 (intended for institutional use only), in Patient Pak Units of use bottles of 100.
Baumanometer®
standard for blood pressure

standard (stand'ard), n. Something established as a basis for comparison in measuring quantity, quality, value.

The true gravity manometer is a simple instrument for pressure determination—universally accepted as a reference by which other pressure instruments are calibrated. The Baumanometer® is a true gravity manometer set apart from others as standard for blood pressure by a simple principle—devotion to uncompromising quality.

This ad is the first in a series to show specifically how this high degree of excellence is achieved—and what it means to you.

The Baum cartridge tube

The qualities of glass remain unequaled by other materials and this is why we use it for our calibrated cartridge tube. The tube is optically clear, smooth, easy to clean, and dimensionally stable. It resists scratching, will not warp, and has very little affinity for mercury.

Our accurately interchangeable tubes have tooled ends which form collars for precise fit in tube sockets. End faces are then glazed to prevent chipping.

The ceramic graduation marks are fused to the glass for permanence and the entire tube is carefully annealed to eliminate both longitudinal and ring strain.

The bore of our tubes is 5mm–25% greater than required by Federal Specifications; this prevents separation of mercury and erroneous readings. The generous column of mercury moves freely with changes in pressure—less affected by friction than in a narrow bore tube.

W. A. Baum Co., Inc.
Copiague, NY 11726

Since 1916 originator and maker of accurate blood pressure apparatus exclusively
Instructions to Contributors

Original Communications

Manuscripts reporting original research, Letters to the Editor, Case Reports, and Brief Reviews are considered for publication on the condition that they are contributed solely to Hypertension. They should be sent to Harriet P. Dustan, M.D., Editor-in-Chief, Hypertension, University of Alabama Medical Center, Dental Building Box 47, Birmingham, Alabama 35294.

All manuscripts must be accompanied by a letter containing the following statement: "I (we) the undersigned author(s) hereby transfer, assign, or otherwise convey all copyright ownership of my (our) article (. . . .) to the American Heart Association if this article is published in Hypertension."

Manuscripts

Manuscripts, tables, and illustrations must be submitted in triplicate. Manuscripts should be typewritten on good quality nonerasable paper, one side of the page only, with double or triple spacing and liberal margins on all four sides. The title should be informative of the manuscript's contents and should not exceed 83 characters, including spaces. Title page should include the authors' names, degrees, hospital and academic affiliations; the address for mailing proofs; a short title to be used as a running head; and from three to eight Key Words, which should be words or short phrases not used in the title. References, figure legends, tables, and figures should follow the text in that order. Page numbering should begin with the title page, followed by the summary (abstract) as page 2, etc. The Council of Biology Editors Style Manual, ed. 4, 1978, should be followed for recommended abbreviations (American Institute of Biological Sciences, 3900 Wisconsin NW, Washington, D.C. 20016). Abbreviations should be defined at first appearance in the summary, text, tables, and figures. Generic names of drugs should be given.

Summary (Abstract)

The author's summary is printed at the beginning of each article. It should be concise (not more than 250 words), informative, and suitable for use by abstracting services.

References

References should be typed, double-spaced, at the end of the article in numerical sequence. The reference style of this journal follows that of Index Medicus. Personal communications, unpublished data, or manuscripts in preparation may not be included in the references, but may be inserted in the text in parentheses. If such a citation is from someone other than the authors, a letter should be submitted in which the direct quotation is given with the signature of the original author. Abstracts may be cited only if they are the sole source, and must be identified in references as (Abstract). The following are samples showing this journal's style:


The editors require that authors be responsible for submitting references that are accurate and complete. All authors to articles should be cited.

Illustrations

Figures should be enclosed in a separate envelope, backed by cardboard; no clips should be used. The back of each figure should have an arabic number, names of authors, title of manuscript, and top of figure indicated. Figure legends should be compiled in a separate list. To insure clear reproduction, good glossy photographic prints (unmounted) should be submitted in sizes that have a close relationship to the width of one column of this journal (3/4 inches). Original drawings should be prepared with black India ink; no typewriter or computer type should be used. The lettering should be of a size such that, when reduced, the height of the characters will be 1.5-1.75 mm (2.5-3.0 mm on halftones). Photographs of the original drawings should be submitted. The editor, in some cases, will recommend reduction and/or cropping of illustrations, or deletion of unnecessary figures.

Tables

Tables should be given an arabic number and a brief, informative title. Horizontal rules should be drawn above and below the column headings and at the bottom of the table; elsewhere they should be omitted and extra space used instead to delineate sections. No vertical rules should be used. Each table should be typed on a separate sheet of paper. Footnotes should be designated within the table and explained below it in this order: *, †, ‡, §, ¶, and then doubled as necessary.

Case Reports

Case reports must add significant new information to clinical experience. They should be brief, and negative information should not be detailed. The length should not exceed 12 double-spaced pages, including references. The review process for determining suitability for publication in Hypertension will be the same as that for research reports.

Brief Reviews

In addition to reports of original research, Hypertension will publish Brief Reviews, which will summarize the present state of knowledge concerning a particular aspect of hypertension. These reviews should be evenhanded, and cover all relevant knowledge, including the contributions of other workers in the field as well as the authors'. The length should not exceed 24 double-spaced pages. The evaluation process to determine suitability of a Brief Review for publication in Hypertension will be the same as that for research reports.
Instructions to Contributors (Continued)

Nomenclature
Authors are requested to follow the nomenclature approved by the Executive Committee of the Council for High Blood Pressure Research of the American Heart Association in April, 1978, and published in Hypertension (Vol. 1, No. 1, p. 61) in February, 1979, as follows:

**Goldblatt Hypertension**
- One-kidney, one clip hypertension
- Two-kidney, one clip hypertension
- Two-kidney, two clip hypertension

**Page Hypertension**
- One-kidney, one wrapped hypertension
- Two-kidney, one wrapped hypertension
- Two-kidney, two wrapped hypertension

**Grollman Hypertension**
- One-kidney, one figure-8 hypertension
- Two-kidney, one figure-8 hypertension
- Two-kidney, two figure-8 hypertension

One-kidney, one clip hypertension means one kidney has been removed and the other clipped. Two-kidney, one clip hypertension indicates that both kidneys are intact but one is clipped. Two-kidney, two clip hypertension follows logically.

Reprints
Reprints of articles will be furnished to contributors when ordered in advance of publication. An order form, showing costs of reprints, is sent to the author with galley proofs.

Business Communications
All communications regarding advertising, subscriptions, change of address, and permissions should be addressed to the Publishing Director, American Heart Association, 7320 Greenville Avenue, Dallas, Texas 75231. Remittance for subscriptions should be made by check, draft, post office, or express money order payable to the American Heart Association. The Publishing Director should be advised of change of address 30 days before date of issue, with both the subscriber's old and new address given. Advertising space is given only to copy passed upon by a special committee of the American Heart Association. Forms close on the first day of the month preceding the date of issue. Advertising rates and page sizes appear on the application.
CORGARD
nadolol tablets

The first and only beta-blocker with once-a-day dosage
Cardioprotective in the control of hypertension

SQUIBB

See last page of this advertisement for brief summary.
When your advice as an expert on hypertension is requested...

As a specialist in cardiology, no doubt you are consulted frequently about problems encountered with antihypertensive therapy. And these days you are probably being asked more and more about the use of beta-blockers, most recently about the one that offers 24-hour extended protection with a single daily dosage. Here are what some of your colleagues are saying about Corgard® (nadolol tablets), the first beta-blocker with once-a-day dosage:
The beta-blocker "Nadolol... has a unique pharmacological property in that it has the longest plasma half-life of any known beta-blocking drug, and can be administered once daily."2

Often effective alone, without a diuretic

On the basis of a double-blind clinical study with 34 hypertensive adults, the conclusion was reached that "nadolol is an effective antihypertensive agent in a once-a-day dosage regimen when used as a single agent."3

As effective, once a day, as propranolol, four times a day

Citing other investigators, one researcher states: "Nadolol, administered in once-daily doses, has been shown to be as effective as equivalent doses of propranolol given four times a day in reducing blood pressure in mild and moderate cases of hypertension."4

Proven effective in long-term hypertensive therapy

Sixteen patients on long-term treatment for a period ranging from 17 to 28 months "have been maintained on the [same] dose level... and the therapeutic response has been sustained over this period of time."5

CORGARD [nadolol tablets]
can be the answer.

The only once-a-day beta-blocker

"Nadolol... has a unique pharmacological property in that it has the longest plasma half-life of any known beta-blocking drug, and can be administered once daily."2

Proven effective in long-term hypertensive therapy

Sixteen patients on long-term treatment for a period ranging from 17 to 28 months "have been maintained on the [same] dose level... and the therapeutic response has been sustained over this period of time."5

Prescribe CORGARD®
nadolol tablets
40 mg, 80 mg, and 120 mg tablets
The common-sense beta-blocker

Please see brief summary on next page of this advertisement.
Alpha Stimulation
Central Control of Blood Pressure

"The Family of Man" by Roberto Moretti, a statuary in crystal symbolizing the broad range of hypertensive patients eligible for therapy with Catapres.
Advantage:

• Unlike beta blockers, Catapres® has no contraindications.
• Catapres can be useful even in these patients with:

  Congestive heart failure  Allergic rhinitis
  Ventricular hypertrophy  Hepatic disease
  Hyperglycemia            Hyperuricemia
  Diabetes mellitus        Gouty arthritis
  Bronchial asthma         Sulfonamide hypersensitivity

Like any antihypertensive, use with caution in severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease or chronic renal failure.

work/play—normal hemodynamic responses to exercise maintained.
love—low incidence of impotence and/or loss of libido:
2.8% in 1,923 patients studied.1

cardiac output—tends to return to control values during long-term therapy.
blood flow—preserved in kidney.

No Single Advantage Determines Drug Choice.
Other factors must include:

The drug's effectiveness in a given patient, its side effects, warnings, precautions, tolerance, etc. A rational therapeutic choice depends on a careful assessment of all such factors.

1 Data on file at Boehringer Ingelheim Ltd.

Please see last page for brief summary, including warnings, precautions, and adverse reactions.

Now available in new 0.3 mg tablets

Catapres®
(clonidine HCI)
Hypertension
The Alpha Advantage: It's for all kinds of hypertensives

Tablets of 0.1, 0.2, 0.3 mg

Catapres (clonidine HCl)

Hypertension

- No contraindications.
- Effective in all degrees of hypertension. It is mild to moderate in potency.
- Low incidence of depression, impotence, orthostatic hypotension—no fatal hepatotoxicity.
- Preserves kidney blood flow.

Most common side effects are dry mouth, drowsiness, and sedation which generally tend to diminish with time.

The usual starting dose of Catapres is 0.1 mg at breakfast and 0.1 mg at bedtime. Some patients may benefit from a starting dose of 0.1 mg at bedtime.

Usual daily dose range—0.2—0.8 mg

Maximum daily dose—2.4 mg

Doses as high as this have rarely been employed.

For optimal results, the dose of Catapres must be adjusted according to the patient's individual blood pressure response.

### Indication:
The drug is indicated in the treatment of hypertension. As an antihypertensive drug, Catapres (clonidine hydrochloride) is mild to moderate in potency. It may be employed in a general treatment program with a diuretic and/or other antihypertensive agents as needed for proper patient response.

### Usage

#### Usage in Pregnancy

In view of embryotoxic findings in animals, and since information on possible adverse effects in pregnant women is limited to uncontrolled clinical data, the drug is not recommended in women who are or may become pregnant unless the potential benefits outweigh the potential risk to mother and fetus.

#### Usage in Children

No clinical experience is available with the use of Catapres (clonidine hydrochloride) in children.

### Precautions

When discontinuing Catapres (clonidine hydrochloride), reduce the dose gradually over 2 to 4 days to avoid a possible rapid rise in blood pressure and associated subjective symptoms such as nervousness, agitation, and headache. Patients should be instructed not to discontinue therapy without consulting their physician.

Rare instances of hypertensive encephalopathy and death have been recorded after cessation of clonidine hydrochloride therapy. A causal relationship has not been established in these cases. It has been demonstrated that an excessive rise in blood pressure, should it occur, can be reversed by resumption of clonidine hydrochloride therapy or by intravenous phentolamine.

### Adverse Reactions

The most common reactions are dry mouth, drowsiness and sedation. Constipation, nervousness, headache, and fatigue have been reported. Generally these effects tend to diminish with continued therapy. The following reactions have been associated with the drug: Some of them rarely (in some instances an exact causal relationship has not been established) These include:

- Anorexia, malaise, nausea, vomiting, paraesthesia, mild transient abnormalities in liver function tests; one report of possible drug-induced hepatitis without jaundice and hyperbilirubinemia in a patient receiving clonidine hydrochloride, chlorpromazine, and papaverine hydrochloride.
- Weight gain, transient elevation of blood glucose, or serum creatine phosphokinase.
- Congestive heart failure, Raynaud's phenomenon, vivid dreams or nightmares, insomnia, other behavioral changes, nervousness, restlessness, anxiety and mental depression. Also rash, angioneurotic edema, fever, urticaria, flushing of the face, pruritus not associated with a rash, impotence, urinary retention, increased sensitivity to alcohol, dryness, itching or burning of the eyes, dryness of the nasal mucosa, palor, gynecomastia, and sedation.

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### How Supplied:

Catapres, brand of clonidine hydrochloride, is available as 0.1 mg (tan) and 0.2 mg (orange) oval, single-scored tablets in bottles of 100 and 1000. Also available as 0.3 mg (peach) oval, single-scored tablets in bottles of 100.

For complete details, please see full prescribing information.

Under license from Boehringer Ingelheim GmbH.

Boehringer Ingelheim Ltd.
Ridgefield, CT 06877