

as McCarthy said, that its supporters have a hard road ahead of them if they are to combat Canadian resistance. But Dr. Fischer, whose Toronto institute is the only establishment currently offering art therapy train-

ing in Canada, wants to see art therapy used in far more settings than just long-term psychiatric hospitals and in wider application than just its therapeutic and rehabilitative uses. "Primary prevention, achieved

through early recognition of signals make an important contribution to of stress in children's artwork, could the mental and emotional health of

*continued on page 532*

## Many travel personnel lax about warning against risk of malaria

ELAINE ROLFE

A Canadian travelling to a foreign country in which a new health risk has developed has little better than a 50-50 chance of getting accurate information on what preventive measures to take, according to a survey taken last month by *CMAJ*.

Starting point for the survey was the dramatic increase in malaria risk reported this year by the World Health Organization (see Table I). "During the past 10 years the malaria situation has progressively deteriorated in several countries," states the *WHO Chronicle* (32: 226, 1978). "The resurgence of the disease has particularly affected countries in southern Asia, some countries in Latin America and Turkey, sometimes reaching epidemic proportions." In a press release, WHO announced that "providing advice to international travellers is a joint responsibility of the countries of origin and destination of the traveller." It also said that it is asking tourist agencies, airlines and businesses engaged in international travel to assume a large share of responsibility for warning clients of the risk.

In an alarming number of cases, this message is not coming through.

*CMAJ* telephoned 21 Ottawa travel agencies asking for information concerning a proposed trip to Turkey in October. (According to WHO, Turkey recently reported an epidemic of malaria; the season of risk is July-October. This reverses the earlier trend shown in Table I for the eastern Mediterranean.) Each of the agencies was asked for advice on medical precautions such a trip would require, and the questions were structured in such a way as they would be put by a member of the public. There was no prompting. Only 12 of the agencies warned against the malaria risk; nine named

other risks (including mountain bandits and smuggling more than one deck of playing cards into the country). Most of the agencies aware of the malaria risk were able to name districts and times of the year where the risk was greatest. Eight suggested smallpox vaccinations.

Two agencies suggested contacting the department of health; four suggested telephoning the Turkish Embassy or tourist board.

The Turkish Embassy informed the potential tourist that someone travelling with a Canadian passport needed neither inoculations nor vaccinations. When asked if there were any epidemics afoot, the embassy said no.

*CMAJ* then called the federal government's general information number asking for advice on health preparations for the same trip. Referred to the quarantine services, Department of National Health and Welfare, *CMAJ* was told that nothing was required by law. The office recommended inoculations for typhoid, polio and tetanus and suggested calling the local health unit for more information. A second person called

the quarantine services office again and learned of the malaria risk *after* the caller specifically asked about malaria.

Several federal departments or agencies that send personnel abroad maintain effective surveillance of overseas health risks. Their information is available to the public if a casual caller can identify the right section, but there appears to be no service of such information on offer to the public. Even if there were, it would not likely be a practical proposition for an out-of-town caller because of the hopeless inefficiency of the government's inhouse telephone system.

The municipal health unit advised having antityphoid shots if camping and advised the caller to keep up-to-date with polio vaccinations.

The Canadian health and welfare department is aware of the malaria risk, however, and has published a warning in its June 10, 1978 edition of *Canada Diseases Weekly Report*, a publication with a distribution of about 4000 — mostly to public health oriented people and some hospital pathologists. Reprints from the re-

Table I—Number of autochthonous malaria cases (in thousands) reported 1972-1976 by region (excluding Africa)

Region	1972	1973	1974	1975	1976
The Americas	284	280	269	356	379
Southeast Asia	1920	2694	4210	5992	6539
Europe	21	13	8	12	39
Eastern Mediterranean	855	883	524	447	350
Western Pacific	171	203	170	197	210
Total	3251	4073	5181	7004	7517
Ratio of change (1972 = 100)	100	125	159	215	231

Notes: 1. Reported figures from most African countries south of the Sahara are considered unrealistically low and have not been included  
 2. Asian total excludes China, Democratic Kampuchea (formerly Cambodia) and Viet Nam  
 3. All figures are based on cases confirmed by a laboratory and reported by the malaria service and therefore represent a considerable underreporting  
 Source: WHO unpublished document A31/19, presented by director general to 31st World Health Assembly 24 May 1978

# GLUCOPHAGE®

## INDICATIONS:

To control hyperglycemia in Glucophage responsive, stable, mild, nonketosis prone, maturity onset type of diabetes which cannot be controlled by proper dietary management, exercise and weight reduction or when insulin therapy is not appropriate. Glucophage can be of value for the treatment of obese diabetic patients.

## CONTRA INDICATIONS:

- Unstable and/or insulin dependent diabetes mellitus, history of ketoacidosis with or without coma.
- In the presence of severe liver disease. In the presence of renal impairment or when renal function is not known and also in patients with serum creatinine levels above 1.5 mg/100 ml.
- In chronic alcoholism with hepatic damage.
- In patients undergoing medical or diagnostic examinations, such as intravenous pyelography or angiography which could lead to a temporary function oliguria (see Warnings).
- In cases of cardiovascular collapse and in disease states associated with hypoxemia such as cardiorespiratory insufficiency, which are often associated with hyperlactacidemia.
- In patients suffering from severe dehydration.
- During stress conditions, such as severe infections, trauma or surgery and the recovery phase thereafter.
- Known sensitivity or allergy to the drug.
- In patients with a history of lactic acidosis irrespective of the precipitating factors.

## WARNINGS:

The use of Glucophage will not prevent the development of complications peculiar to diabetes mellitus.

Use of Glucophage must be considered as treatment in addition to proper dietary regimen and not as a substitute for diet.

Glucophage should be immediately discontinued in the presence of acidosis. Lactic acidosis can be precipitated during therapy with biguanides and some cases have been reported with metformin. In all the reported cases, patients were suffering either from significant functional or organic renal insufficiency or from hepatic failure. In isolated instances, hepatic necrosis, acute pancreatitis, drug overdose, intravenous pyelography and aortography leading to oliguria were suspected as contributory factors (see Adverse Reactions).

The risk of lactic acidosis increases with the degree of renal dysfunction, impairment of creatinine clearance and age of the patient. Patients with serum creatinine above the upper limit of the normal range should not receive metformin.

In patients undergoing intravenous pyelography or angiography, Glucophage should be discontinued 2 days prior to the procedure and therapy may be reinstated after the renal function has been re-evaluated.

Discontinue Glucophage 2 days before a surgical intervention. Therapy may be reinstated following the operation after the renal function has been re-evaluated.

Patients should be warned against using alcohol in excess while on metformin therapy. Alcohol in a diabetic subject may cause an elevation of blood lactate.

## PRECAUTIONS:

### Patient selection and follow-up:

Careful selection of patients is important. It is imperative that there be rigid attention to diet, and careful adjustment of dosage.

### Drug interactions with metformin:

Certain drugs may potentiate the effect of Glucophage, particularly sulfonylurea type of drugs used in the treatment of diabetes. The simultaneous administration of these two types of drugs could produce a hypoglycemic reaction, especially if they are given in patients already receiving other drugs which, themselves, can potentiate the effect of the sulfonylureas. These drugs can be: long-acting sulfonamides, tuberculostatics, phenylbutazone, clofibrate, monoamine oxidase inhibitors, salicylates, probenecid and propranolol.

Other drugs tend to produce hyperglycemia and may lead to a loss of blood sugar control. These include diuretics (thiazides, furosemide), corticosteroids, oral contraceptives (oestrogen plus progestogen) and nicotinic acid in pharmacologic doses.

## ADVERSE REACTIONS:

The most frequently reported adverse reactions are: metallic taste in the mouth, epigastric discomfort, nausea and vomiting; rarely: diarrhea and anorexia. Most of these reactions are transient and can be brought under control by reducing the dosage or by discontinuing therapy.

## DOSAGE AND ADMINISTRATION:

In diabetic patients, individual determination of the minimum dose that will lower the blood glucose adequately should be made.

The usual starting dose is one tablet (0.5 g) three times a day. Maximal dose should not exceed 2.5 grams (5 tablets) a day. To minimize gastric intolerance such as nausea and vomiting, Glucophage should be taken with food whenever possible.

## AVAILABILITY:

Tablets (500 mg) white, round, convex, scored, imprinted NORDIC. Bottles of 100 and 500 tablets.

**NORDIC**  
PHARMACEUTICALS LTD  
Laval, Qué. Canada.

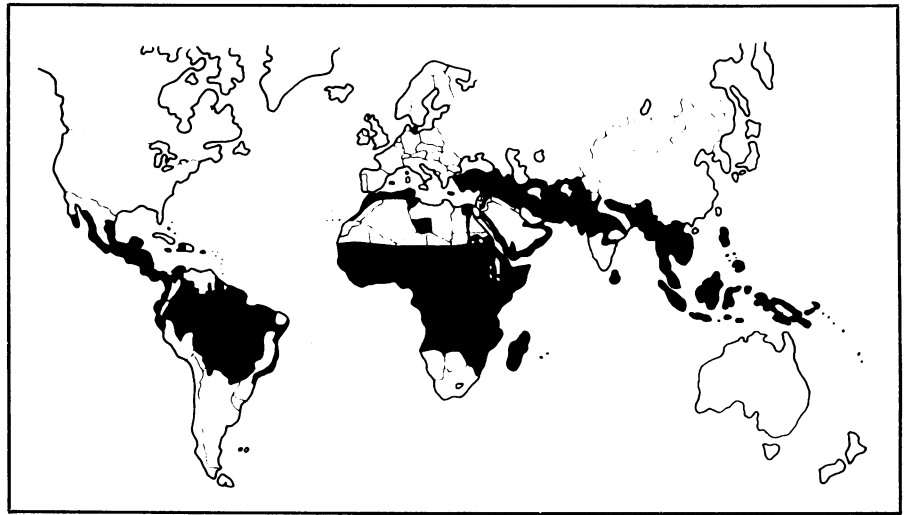


FIG. 1—Areas shown in black are locations of risk of malarial transmission.

port often appear in provincial medical journals, notably the *BCMJ*.

The *Report* noted several cases of Canadians who had visited malarious regions and fallen sick with the disease after their return to Canada, and alerted physicians to "the importance of considering the diagnosis of malaria in any patient who presents with a history of fever and who has travelled to an endemic area even if it has not been recently." In an editorial comment, the *Report* said seven cases of malaria were reported in Canada in 1972, 25 in 1973, 24 in 1974, 52 in 1975, 91 in 1976 and 100 in 1977. Fifty-two cases had been reported to date in 1978. The *Report* stressed the need for anti-malarial drug administration, education of the endangered populations and the disinfection of aircraft, ships and freight.

This, however, is not information readily available to the public, or, for that matter, to general practitioners. According to WHO press release 29, July 14, 1978, "because malaria risk varies from place to place, as do the preventive measures needed, it is at times difficult even for the physician to know which is the appropriate drug to prescribe."

Besides travel agencies and the countries of origin and destination of the travellers, WHO said airlines should share responsibility for informing tourists of malaria risks. Of seven airlines contacted by *CMAJ*, four warned of the malaria risk in Turkey. The seven were chosen because they operate direct or connecting services to the eastern Mediterranean.

Is such confusion typical of other WHO-affiliated countries? According to the WHO magazine *World Health* (June 1978, p. 30), the UK's national airline, British Airways, tells passengers: "Malaria is prevalent in many parts of the world. We recommend that you take antimalaria tablets during your stay and for 30 days after you leave an infected area. Medical opinion should be sought if you are in doubt." British Airways also makes inflight announcements for disembarking passengers entering a malarious country, recommending them to take antimalaria tablets in the proper manner.

The Dutch Ministry of Health and Environment distributes two free brochures, one for the medical profession and one for the general public, giving health advice which includes information on the risk of contracting malaria when travelling.

The Council of Europe, at its meeting last June, repeated the WHO's concern and recommended that airline operators make inflight announcements before landing in infected areas.

## What is available?

The question remains: Why is this information not being presented to the public on request in a systematic and reliable manner in Canada by the government, travel agents and foreign representatives?

Travel agents can subscribe to a monthly publication *Travel Information Manual*, which provides local information to travelers and agents, including general health information.

# ANTURAN<sup>®</sup>

## 200 mg four times a day

### INDICATIONS:

1 Clinical states in which abnormal platelet behavior is a causative or associated factor, as demonstrated by:

- thromboembolism associated with vascular and cardiac prostheses
- recurrent venous thrombosis
- arteriovenous shunt thrombosis

2 Chronic phases of gout, both the intercritical or silent stage and the gouty arthritis stage.

### DOSAGE AND ADMINISTRATION:

**Thromboembolic conditions:**—Usual daily dosage is 600–800 mg in divided doses. It is recommended not to exceed 1000 mg (20 mg/kg for a 50 kg man) daily.

**Gout:**—Usual daily dosage is 200–400 mg in divided doses. This average dosage may be increased to 800 mg if necessary, or reduced to 200 mg when urate blood level has been satisfactorily controlled. Minimum effective dose should be maintained indefinitely without interruption even during acute attacks, which should be treated concomitantly with either Butazolidin or colchicine.

The change from other uricosuric agents to Anturan should be made at full dosage.

It is important to distribute the total dose as well as possible over a 24-hour period. It is recommended that Anturan be taken with meals.

### CONTRAINDICATIONS:

The safe use of sulfapyrazone in pregnancy has not been established. It should not be used during pregnancy unless in the opinion of the treating physician the expected benefits outweigh the potential risks.

Active peptic ulcer.

Known hypersensitivity to sulfapyrazone and other pyrazolone derivatives. Severe hepatic or renal disease, unless due to platelet aggregates.

### WARNINGS:

Avoid salicylate therapy, unless administered under careful supervision:

(i) Salicylates and citrates antagonize the uricosuric action of sulfapyrazone and may therefore interfere with uric acid excretion.

(ii) Salicylates may cause unpredictable and at times, serious prolongation of the bleeding time and in combination with sulfapyrazone may cause bleeding episodes. If during Anturan therapy, aspirin or another chemically-related drug must be used, patients should be urged to report immediately any undue bleeding episode.

It should be administered with care to patients with a history of healed peptic ulcer.

### PRECAUTIONS:

As with all pyrazole compounds, patients receiving Anturan should be kept under close medical supervision and periodic blood counts are recommended.

Recent reports have indicated that Anturan potentiates the action of sulfonamides, e.g., sulfadiazine, sulfisoxazole. Other pyrazole compounds e.g., phenylbutazone, potentiate the hypoglycemic effects of sulfonylureas. There have also been reports that phenylbutazone enhances the effects of insulin in diabetics. Therefore, it is recommended that Anturan be used with caution in conjunction with insulin, sulfonamides, the sulfonylurea hypoglycemic agents and, in general, with agents known to displace, or to be displaced by, other substances, such as penicillin, from serum albumin binding sites.

Because Anturan is a potent uricosuric agent, it may precipitate urolithiasis and renal colic, especially in the initial stages of therapy, in hyperuricemic patients. For this reason, an adequate fluid intake and alkalization of the urine are recommended. In cases with significant renal impairment, periodic assessment of renal function is indicated.

Since Anturan modifies platelet behavior and, therefore, interferes with one of the components of the blood-clotting system, it should be used with care in conjunction with certain vitamin K antagonists which inhibit clotting through a different mechanism. Regular estimations of bleeding time should be performed.

### ADVERSE REACTIONS:

The most frequently reported adverse reactions to Anturan have been gastric complaints or disturbances. Anturan may aggravate or reactivate peptic ulcer. Gastrointestinal bleeding has been reported.

Skin rashes have been reported in rare instances. When they occur, Anturan should be withdrawn.

Anemia, leukopenia, agranulocytosis, thrombocytopenia have rarely been associated with the administration of Anturan.

### DOSAGE FORMS:

**Anturan 100 mg:** Each white, single scored tablet, imprinted Geigy and bearing the identification code FK, contains 100 mg sulfapyrazone Geigy standard. Supplied in bottles of 100 and 1,000.

**Anturan 200 mg:** Each white, sugar-coated tablet, imprinted Geigy, contains 200 mg sulfapyrazone Geigy standard. Supplied in bottles of 100 and 500. Product monograph supplied on request.

*TIM* publishes the WHO world map indicating malarious regions and, when *CMAJ* checked the section dealing with Turkey, it found up-to-date information on affected provinces and seasons of risk in plain view. Most of the travel agents who knew of the malaria risk gave identical information. *TIM* is issued by 15 airline members of the International Air Transport Association; 2 of the 7 lines surveyed were not among the sponsors and of these 2, 1 gave inaccurate information and 1 gave correct information.

There is no obligation on the part of travel agencies to subscribe to *TIM* (or any other publication of that nature) but, as one travel agent said, it's not a book you can really do without. Some agency personnel answered *CMAJ* questions, rightly or wrongly, without consulting the book. Others apparently consulted it (and in several cases still gave out incorrect information).

There doesn't seem to be any professional discipline system for travel agencies that don't supply vital health information either, except the threat of lawsuits or loss of business, according to Gareth Davies from the Alliance of Canadian Travel Associations, an association that operates on the federal and provincial levels and comprises 1700 companies across Canada and 630 in Ontario. His agency receives WHO information, however, and tries to keep its members informed through an internal publication.

Interested physicians can also check *Morbidity and Mortality Weekly Report* (Supplement: March 10, 1978/Vol. 27/No. 10) for a special treatment of "Chemoprophylaxis of malaria".

Another source is WHO *Weekly Epidemiological Record*, 1978, No. 25, 26, which includes "Information on malaria risk for international travellers". This report gives information on locations of risk, presence of different strains of the disease, and accepted and alternative methods of treatment.

The International Development Research Centre last month issued a new booklet "Travelers to the tropics — guidelines for physicians". It covers preparations for tropical visits, immunizations, examinations, diagnosis and therapy for those who suffer from tropical diseases. ■

## Geigy

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