cleared relapsed and required dapsone again, and of the three patients whose dapsone requirements had fallen two needed an increased dose in order to control the skin lesions. The changes that occurred in the macroscopic appearances of the small intestine, in the heights of the intestinal villi and of the surface epithelial cells, in faecal fat excretion, and in serum and red cell folate levels as a result of the diet, and their reversal on reintroducing gluten, were all compatible with gluten sensitivity.

These recent findings will be reported in full elsewhere, but to our mind they demonstrate that in a number of patients the skin disorder is influenced by a gluten-free diet, and that there is a direct relationship between the gut and the skin in dermatitis herpetiformis. The fact that in some patients the skin lesions do not improve with a gluten-free diet does not negate the fact that they do improve in others. It was apparent from our studies that improvement in the skin disorder in response to the gluten-free diet may take a considerable time.

Failure of other workers to observe improvement in the skin condition on gluten withdrawal may be due to: inadequate length of time on the gluten-free diet; failure of the patient to keep strictly to the diet; and, since the enteropathy in idiopathic steatorrhoea or in dermatitis herpetiformis does not always respond to a gluten-free diet, pre-

sumably, therefore, by analogy, the skin lesions cannot be expected to respond in all patients with dermatitis herpetiformis.

Since idiopathic steatorrhoea is known to have a genetic basis⁷ it is likely that the gluten sensitive enteropathy in dermatitis herpetiformis will also have a genetic basis; nevertheless this does not exclude the possibility that a similar or related acquired defect is responsible for both lesions.—We are, etc.,

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Mountain Accidents

SIR,—Details of mountain accidents for 1967 are given in the Tables. The figures are based on accident report forms returned from official mountain rescue posts to the Mountain Rescue Committee. There are now 65 official mountain rescue posts; they are situated in all the mountainous areas of Great Britain. In all cases the victim sustained physical injury, but in addition to the accidents recorded many searches and rescues were undertaken for persons lost, cragfast, or trapped in caves; also 200 cases of injury to skiers were reported for the year, chiefly in Scotland.

There has been a slight increase in the total number of mountain accidents in 1967 compared with 1964 and 1965.¹ However, there were slightly more accidents in 1966 than 1967. This pause in the steady increase in the number of accidents each year was probably due to the widespread epidemic of foot-and-mouth disease in the last quarter of 1967. During this time the number of walkers and climbers was greatly reduced by voluntary co-operation of walkers, rambles, and climbers with the farmers and agricultural authorities.

Table I shows that roughly one quarter of accidents have occurred in each of the three main climbing areas—Wales, the Lake District, and Scotland—with the Pennines

and sea cliffs making up the remaining quarter. The accident incidence in the various hilly districts remains practically constant. Table I also shows that again the proportion of accidents between walkers, climbers, and cavers remains constant when compared with previous figures.¹ It will be seen that there are a few more walkers than climbers involved in accidents.

TABLE II.—Nature of Injury

Head and back including fractures ...	54
Fractured limbs ...	82
Heart attack ...	1
Exposure and frostbite ...	18
Found dead ...	3
Drowned ...	13

Injuries to the lower limb and head are the most common type of injury encountered. The wearing of a firm protective helmet (similar to the industrial helmet) by climbers is increasing, but the fashion is not yet sufficiently established to reduce the number of head injuries.

Inflatable "jet" splints have been used with satisfaction in the first-aid management of fractures of the lower limb.^{2,3} Inflatable splints have only been issued to selected and experienced mountain rescue teams. Instructions have been given to users to keep the pressure in the splint at a minimum consistent with the immobilization of the fractured limb,

to reduce the pressure in the splint every one or two hours according to the state of the patient. No report of any untoward effect has been received following the use of these splints.

Drowning accidents have increased proportionally with the increase in cliff-climbing, chiefly on the South Coast and Cornwall.

TABLE III.—Causes of Accidents (Where Known)

Slips ...	109
Belay failures ...	3
Climbing alone ...	6
Loose rock ...	9
Abseiling ...	2
Glissading ...	1
Bad weather ...	8
In caves ...	11
Swept into or falls into the sea ...	6

As previously reported,¹ almost half of all accidents in mountainous areas happen to young people aged 21 or less. This high incidence of youth in mountain accidents has been stressed by the Central Council for Physical Recreation, the Scottish Council for Physical Recreation, and the Mountain Rescue Committee. A mountain leadership training board has been set up by interested bodies under the aegis of the Central Council for Physical Recreation. A certificate of mountain leadership is being instituted. It is hoped that leaders of youth groups will be encouraged to take this certificate and thereby obtain a reasonable knowledge of mountaineering and suitable first aid for the hills. Cases of exposure show an increase. This may be partly due to the better recognition of the condition by rescuers owing to wider publicity in mountaineering and medical journals.⁴⁻⁷—We are, etc.,

N. F. KIRKMAN.

Honorary Issuing Officer for Morphia
and Equipment Officer.

M. K. HARTLEY.

Honorary Secretary,
Mountain Rescue Committee.

Manchester.

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Chloroquine-resistant Malaria in West Malaysia

SIR,—We wish to report the occurrence of chloroquine-resistant *Plasmodium falciparum* malaria in the south of West Malaysia, an area in which this has not previously been recorded.

Chloroquine-resistant falciparum malaria was first noted in Malaya in September 1962, among Commonwealth military personnel operating in Perlis along the Malaya-Thailand border.¹ Sandosham² recorded a further instance in which infection appeared to have been contracted at Tanjong Rambutan, near Ipoh in Perak. He stated "this is the furthest south in Malaya where chloroquine-resistant falciparum malaria has been recorded."

The Ministry of Defence (Army) set up an investigation to ascertain the incidence of

TABLE I.—Analysis of Mountain Accidents in 1967

District	Total Accidents	Injured	Fatal	Climbing	Walking	Caving
Wales	37	34	3	16	21 (3)	—
Pennines	18	8	10	3	2	13 (10)
Scotland	50	41	9	22 (3)	28 (6)	0
Lake District	54	47	7	17 (2)	35 (5)	0
Sea cliffs, including Scotland and others ..	11	3	8	9 (7)	2 (1)	0
Totals	170	133	37	67 (12)	90 (15)	13 (10)

Figures in parentheses are fatalities and are inclusive.

drug-resistant malaria in British Military personnel in Malaya. This investigation was begun in April 1966 by members of the Army Medical Services. Patients with confirmed falciparum malaria were treated with chloroquine as recommended by the World Health Organization³ field test for strain sensitivity to a standard regimen of chloroquine. This consisted of administration of chloroquine in 4 doses over 3 days, the first dose of 10 mg. base/kg. and remaining 3 each of 5 mg. base/kg. Patients were kept under continued surveillance for 28 days in a British Military Hospital in a malaria-free area. Direct supervision by nursing staff ensured both ingestion and retention of the chloroquine. Blood films were taken daily for 7 days and on the 14th and 28th day: urine was tested for chloroquine daily⁴ during the first 7 days of treatment, and was positive for chloroquine in all patients. Accurate blood chloroquine assay was not possible.

Up to the end of February 1968, in 32 patients investigated, no definite evidence of resistance was found. From March 1968 the incidence of malaria increased, rising sharply in April, May, and June, coinciding with exercises in jungle areas. During this period 56 patients contracted falciparum malaria and 44 were investigated as above. Of these 44 patients, 13 relapsed, showing R 1 type of chloroquine resistance as defined by the World Health Organization.⁵ These patients were treated with a second course of chloroquine in identical or higher dosage; 5 relapsed a second time.

Infection was probably contracted in South Johore in the Kota Tinggi and Mersing areas by 12 patients, and in the Trengganu area on the East Coast by the thirteenth patient. Routine anti-mosquito precautions were in force and proguanil 100 mg. daily was administered as the only antimalarial prophylactic. Chloroquine was not administered prophylactically.

These initial findings are reported because of the considerable interest now taken in the emergence of chloroquine resistant strains of *Plasmodium falciparum*. They represent a summary of the investigations made to the end of June 1968. Investigations continue. —We are, etc.,

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Seat-belt Injuries

SIR,—May I be permitted to augment the picture so graphically presented by Mr. J. B. Hamilton (23 November, p. 485) of what happened to the 13 persons involved in a three-car accident?

Taking Car A, both the belted driver and front seat passenger sustained significant injuries through coming into violent contact with parts of the car interior, and both were bruised by belt-marks—but these were in the wrong places, suggesting, as Mr. Hamilton himself pointed out in Case 1, that the belt had been worn incorrectly adjusted, and so slack as to slide down over the arm. In Case 2, the lap-belt mark was a horizontal bruise at the level of the umbilicus. A correctly positioned lap-and-diagonal belt would have its lap component lying taut across the lap—that is, lower abdomen and bearing on the bony hips—never across the soft and vulnerable waist. The facial injuries sustained by Case 2 suggest that her diagonal strap was loose enough to allow her face to hit the scuttle when her body jack-knifed forward.

In Car B, the driver got away with minor chest compression damage. His front passenger, Case 4, again sustained facial injuries from contact with the scuttle, and a classical dash-board fracture of the patella. But neither was bruised by the seat belt worn, nor is there any evidence of serious belt injury. This, I suspect, was a fairly small car, its sharp-edged dash close to the front seats. Cases 1, 2, and 4 received extensive injuries, yet all four made full recoveries. I suspect that had they not been wearing their belts in an accident of this magnitude, one would statistically expect at least the two front passengers to have been ejected through the screens and probably killed and the drivers seriously injured against their steering wheels.

What of the rear seat passengers, all unprotected by belts? The seven persons involved between them scored one fractured femur, facial laceration, facial bruising, and one scalp wound, fortunately nothing too serious. But there seems little doubt that simple diagonal seat belts, as recommended for rear seats, would have prevented most of these.

Mr. Hamilton very rightly comments on the paucity of statistics concerning the efficiency of the standard lap-and-diagonal seat belt. May I again mention the Volvo survey of 28,750 accidents, which I described earlier (14 September, p. 681)?—I am, etc.,

Birmingham 8.

KEITH E. JOLLES.

Solvents for Ear Wax

SIR,—I was interested to read the letter of Dr. J. I. Horowitz concerning solvents for ear wax (30 November, p. 583). It surprises me that he should have used a large piece of ear wax six months old. Surely, if this wax was exposed to air during this length of time its physical state must have altered considerably. Further, shaking tubes containing wax and solvent six times hourly may well give a misleading impression, as surely this is impossible to simulate clinically.

For the past three years I have used dioctyl sodium sulphosuccinate suspended in oil (in the form of Dioctyl ear capsules) with very good results in a high percentage of cases. My practice has been to instil these drops for two or three days when possible, but even when used a short time before syringing I have found the syringing to have been made

very easy. My impression is that the oily base allows this.

If Dr. Horowitz is correct in his assumptions there will never be any need for general practitioners to use ear syringes again, and this I am afraid is certainly not possible with present-day wax solvents.—I am, etc.,

Mitcham, Surrey.

TREVOR SILVER.

SIR,—I would draw your attention to an error in the formula you printed of Xerumenex ear drops in a letter from Dr. J. I. Horowitz (30 November, p. 583). Our ceruminolytic, Xerumenex ear drops, contains the active constituent triethanolamine polypeptide oleate condensate 10% in propylene glycol. There is chlorbutol 0.5% added as an antimicrobial preservative and not chlorbutol 10% as printed.—I am, etc.,

R. B. MILLER,
Medical Director,
H. R. Napp Ltd.

Watford, Herts.

** We regret this error, which was ours and not Dr. Horowitz's.—Ed., *B.M.J.*

SIR,—I was interested to read the letter by Dr. J. I. Horowitz (30 November, p. 583).

The most effective of his solvents, Waxsol, caused only "slight disintegration" after one hour. The effect of the solvent on wax this hard would be negligible in the few moments allowed to syringe an ear.

Dr. Horowitz could repeat his experiment on fresh wax at body temperature. If the wax is not dissolved appreciably in a few seconds, I think a simple lubricant will be as effective in vivo as an expensive "solvent." The lubricant is olive oil.—I am, etc.,

Sheffield.

R. P. GRIMSHAW,
Medical Student.

Poisons in the Home

SIR,—It was pleasing to make contact with Dr. Cyril Hart again, if only through the columns of the *B.M.J.* (5 October, p. 52). His concern about "poisons in the home" is timely and the need for action overdue. The reply from Dr. N. A. Wynne (19 October, p. 183) surely underlines the (typical?) committee approach to an urgent and almost daily recurring clinical problem. Defining a poison as any substance which is not a food must encompass an enormous and mushrooming list.

It may be of interest to readers to learn that in the Province of Ontario there are poison control centres in most medical centres. Cards containing information on poisons are provided by their manufacturers and by the Department of Health. These catalogue trade names, chemical names, toxic signs, and treatment, and are constantly being reviewed and revised. Manufacturers provide telephone numbers for ready reference in case of difficulty and expert toxicologists are also available to help. This means that a general practitioner presented with a potential poisoning has the necessary information no further than the nearest telephone.—I am, etc.,

J. G. INGLIS.

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