MEDICAL SUPPORT FOR THE CAMBRIAN MARCH

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"Mountainous areas are healthy for the very fit man, but tend to reduce those of lesser fitness to casualties." Administration in the field, Vol. I, page 1,032.

"La Montagne imprime les foibles, exalte les forts."

Les Chasseurs Alpin.

The Cambrian March is an annual military exercise in the mountains of Wales by units of the 53rd (Welsh) Division, Territorial Army. It takes the form of a competition between patrols representing the units on a four-day exercise carrying full equipment on an 80-mile mountain march. It was introduced as a march which provided a better test of military skill than the popular Nijmegen March. Although there are other competitions of a similar nature, including the Pegasus Trophy Competition for R.A.M.C. Territorial Army units, and the Courage Tankard Competition for London Territorial Army units, the Cambrian March is probably the most testing of them all. Over 150 Territorial volunteers, although not "tested to destruction," are submitted to extremely arduous training with a 50 per cent failure rate.

The 127 (Lancs.) Field Ambulance R.A.M.C. (T.A.), has always sent a mountain rescue section to provide the medical support for the exercise. This has proved useful training, and each year new techniques have been developed. In 1960, the first year, a rescue section, including a medical officer, marched the whole route carrying rescue equipment and a stretcher, treating casualties en route and carrying them forward. On the first day, the only serious accident in the four years of the march involved a very difficult rescue which entirely justified the existence of the Mountain Rescue Section and made quite certain that the unit would be invited in subsequent years.

In 1961 the unit again provided the medical element of the follow-up party and, in addition, wireless communication was used. The follow-up party had four operators with No. 88 sets deployed along the route to maintain continuity of communication because of the limited range of the sets. The ambulance car was fitted with a No. 31 set which had a longer range. Wireless communication had a dramatic effect on the work of the medical officer. The problems of command and control were simplified to the extent that the main problems of the march became the physical effort required, which was considerable, and the inspection of many pairs of steaming, blistered feet. Poor foot care was again the commonest cause of failure to complete the march. An essential part of the medical plan was the establishment of mobile car-posts at preselected points close to the mountainous section of the routes, and in wireless communication with the marching party. A car-post consisted of a Champ with a No. 19 wireless set on the march control wireless net, a 10-cwt. trailer for equipment and a Land-Rover with a No. 31 set and stretcher gear for casualties. These
Medical Support for the Cambrian March

car-posts were established in sequence at the head of a valley or the summit of a pass as the column moved along the mountain peaks and ridges. The car-posts were given nicknames such as "Red Rose," "Old Trafford" and "Grand National." Any connoisseur of divisional loyalties will detect a note of vigorous nostalgia in the choice of these nicknames to describe a six-figure grid reference on a desolate Welsh mountainside. The names were in fact chosen deliberately to leave the Welsh Division in no possible doubt that the medical support for the march was provided by a Lancashire Territorial Field Ambulance. We were particularly fortunate in the outstanding support received from the Duke of Lancaster's Own Yeomanry (T.A.). Their medical officer had marched with the Mountain Rescue Section in 1960, and in 1961 their commanding officer, medical officer and four other members provided the wireless communication on the march and, incidentally, developed a new respect for the work of the R.A.M.C. It was a very rewarding experience to see a commanding officer of Her Majesty's Cavalry measuring his length in a peat bog and acquiring an intimate knowledge of the texture and taste of ground, where previously he had only considered contour and consistency. At the end of the second day the Yeomanry wanted to open a recruiting office in the bivouac area, firmly convinced that the attractions of service in an armoured regiment would have a particular appeal to many of the marchers. They were discouraged only by the marchers' manifest lack of interest in anything except food, drink and rest.

In 1962 the technique using car-posts was developed in greater detail and the medical element in the follow-up party reduced. This proved very popular with those members of the rescue section who had misgivings, quite rightly, about their ability to complete a rescue operation with a long stretcher carry at the end of their exhausting day's march. The follow-up party was reduced to a medical officer and a corporal medical assistant to give treatment, but the transport of a stretcher casualty depended upon the use of wireless to call up a stretcher team from the nearest car-post.

Prior to the march in 1963, an attempt was made to increase the number of competitors who successfully completed the march by applying some of the basic principles of Army health. Some notes on mountain marching were prepared and circulated to the competing units. The main causes of failure (in order of importance) were assessed as—1. Poor foot care and poor marching technique. 2. Excessive weight of the load carried. 3. Poor map-reading and route-finding. On the march in 1963, the failure rate was as high as ever and some of the causes of failure were examined more closely. It was noted that the failure rate was very high on the second day when there was continuous rain. The weight of the dry combat suit (smock and trousers) is 5\(\frac{4}{9}\) lb. The weight of the wet combat suit is 10\(\frac{4}{9}\) lb., giving a net increase of 4\(\frac{4}{9}\) lb., or a factor of 80 per cent. When this factor is applied to other items of kit made from material which absorbs moisture, it is clear that troops carrying full kit, soaked to the skin, are carrying an excess load of perhaps 20 lb. above the weight of kit as measured under dry conditions. I believe that the poor physical performance of troops soaked to the skin is affected by factors additional to the obvious ones of poor morale because of discomfort, and body chill induced by the attempt to evaporate moisture by body heat. The more subtle but constant effect of the increased physical effort required to carry the increased load is a factor to be considered when advising
operational commanders. It must be borne in mind that although high morale under these conditions may sustain troops in a defensive role, even superb morale cannot guarantee normal physical performance in a role involving prolonged effort.

The second factor studied was the importance of food. Team leaders had to learn, or relearn, that troops must be ordered to eat when working hard under bad conditions. The natural protective mechanism of appetite fails as physical exhaustion increases. An examination of the rubbish dumps in the bivouac areas confirmed that many men throw away their rations rather than carry the additional weight. This does not take into account food thrown away on the line of march. In the rain and cold, many men went hungry rather than go to the trouble of preparing a meal, and as a result, a few hours later, they collapsed. Two cases in particular, which fortunately occurred on the less remote sections of the march, were clinically in hypoglycaemia, and shocked to the extent of being unable to swallow without encouragement and nursing care. In both cases there had been a failure to eat, coupled with strenuous exertion in the previous 24 hours. The 24-hour individual ration pack contains ample calories for the most intense physical effort but much may be discarded unless training and discipline is good.

The third factor studied was the prevention of blisters. On this occasion I had done no preparatory training for the march and the condition of the skin of my feet was in the normal "civilian" state. Prior to each day's march, and once during the march, I rubbed the feet with an industrial water-repellent barrier cream, but apart from this took no special precautions. Because of the conditions of the march, the socks were saturated with water for most of the day. I completed the 70-mile march and the results were very encouraging. I had no superficial blisters and a total of five deep blisters from pressure which no superficial application could have prevented. The barrier cream had a synthetic resin base with aluminium stearate added as a jelling agent and there are several theoretical reasons why it should be of value in preventing foot blisters. It was packed in a collapsible tube which was very convenient for individual issue and the main disadvantage was its extreme persistence which resisted soap and water when the feet were washed at the end of the day. An uncontrolled series of one case may not be statistically significant, but I think a larger trial would be worthwhile. Foot blisters amongst troops on arduous training continue to cause a very considerable loss of effective manpower.