tioning of health care. The health care professions must lead in this regard and provide guidance and assistance as appropriate.

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*[Dr. Emson responds:]*

I agree with all but one of Dr. Girotti's opinions. The rationing of health care requires objective data, based as far as possible on outcomes, although we must remember that this is not the only way of assessing the validity of much of our health care. If rationing is to be just and fair the discussion should also involve continuing public input at the grass roots. This is not provided by our current process of representative democracy, by political decision making or by one-off surveys. Oregon has started to blaze a trail in this direction. Regrettably, our politicians are unwilling to follow it: the ministers of health for Alberta and Saskatchewan have both rejected recommendations for regionalization in the reports that they commissioned.

Such decisions should not be loaded onto the doctor at the patient's bedside. To do so produces either intolerable conflict of values or — what is worse — the hypocritical concealment of decisions as to the worth of individuals under a cloak of pseudoscience. We have to find ways of sparing the specific doctor–patient relationship from this strain.

The only point on which I disagree with Girotti has to do with a two-tier health care system. This we have already. Those who can afford it can buy what care they want in the United States. Politicians set us the example. Those who qualify (and who set the qualifications) can go to the (gloriously misnamed) National Defence Medical Centre. Some are already much more equal than others. At some point Canada has to look honestly at the second tier instead of pretending piously that it does not exist.

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## Snowboarding injuries: an analysis and comparison with alpine skiing injuries

Dr. Riyad B. Abu-Laban's comparative analysis of ski resort injuries provides a timely and very helpful perspective for rescue services at ski resort areas.

Although only a few of the described injuries are likely to have been associated with hypovolemic shock, injury on a mountainside in winter carries a considerable risk of hypothermia. Neither medical condition was identified in this study; however, it is mandatory to assume that any casualty on a mountainside is, in fact, injured twice: once from the mechanism of the trauma and once from prolonged exposure to the elements.

The altitude in the ski areas of Banff National Park, Alta., is at the threshold (approximately 3000 m) at which the clinical syndromes of ill health on high mountains occur[1] but is sufficiently great to markedly reduce physical performance in unacclimatized people. Thus, skiers' self-assessment of their level of conditioning may not reflect their actual fitness in a sport at these altitudes. It may be useful to recall the mandatory period of acclimatization for participants in the 1968 Olympic Games in Mexico. These were held at an altitude almost exactly the same as that at Sunshine Village, Banff: 2130 m.

The increased incidence of sporting accidents as the day progresses is attributed to fatigue. The Rocky Mountains present longer ski runs, higher altitudes and lower temperatures than are normally encountered in central and eastern Canada and may therefore give rise to a pattern of accidents different from that in eastern Canada; I hope we may look for further studies by Abu-Laban and others.

In the meantime, it is reassuring to know of the exemplary service of the Canadian Ski Patrol System (now in its 51st year). These volunteers are rigorously trained, well equipped and strategically deployed to monitor the safety of skiers and snowboarders across Canada.[2]

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### References

1. Hedges KH: Ill-health on high mountains. *J R Army Med Corps* 1974; 120: 158–164
2. *Patroller's Manual*, 8th ed, Canadian Ski Patrol System, Ottawa, 1988

*[The author responds:]*

I thank Dr. Hedges for his thought-provoking comments. As he says, exposure to the elements is an important consideration in any wilderness emergency.[1] This is perhaps more relevant to activities in the backcountry than to those at a ski resort, where professional or volunteer patrollers can rapidly "package" and evacuate injured people. In Banff evacuation is usually expeditious and involves toboggans, ground ambulances and, occasionally, helicopters. Since avoiding heat loss is a prehospital priority we virtually never see significant hypothermia associated with ski-resort injuries.



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