

A Preventative Search and Rescue Service on Lenin Peak

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We can confirm that there are no competing interests

Jeremy Windsor was responsible for project conceptualization, data curation, formal analysis, supervision, visualization and writing of the original draft of the manuscript.

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Lenin Peak (7134m) lies on the border of Kyrgyzstan and Tajikistan. Widely known as the “easiest” of the 7000m mountains, it attracts many hundreds of visitors each year. However, unlike other popular high-altitude destinations the mountain lacks a dedicated preventative search and rescue service (PSAR).

Following the death of highly respected guide Vyacheslav Sheiko (“Slava Topol”) on Lenin Peak in 2022, David Wade and Stephen Taylor founded the Slava Topol Project (STP) with the aim of improving safety on the mountain. In 2024, the pair invited a group of health care providers and mountain rescuers to Kyrgyzstan in order to undertake a feasibility study and met with local stakeholders including the Kyrgyz Mountain Guides Association and Rescue in the Mountains.

In 2025, the STP established two medical clinics on the mountain - at Base Camp (3600m) and Advanced Base Camp (4300m). Each clinic was stocked with the drugs and equipment that were required to treat the medical problems typically seen at high altitude [1-3]. Further supplies were obtained from pharmacies based in the nearest city (Osh - 6 to 8 hours by road). During the 8-week climbing season medical clinics were run by a group of 8 volunteer health care providers (including doctors, nurses and paramedics). Volunteers were divided into 2 groups of 4 and worked on the mountain for approximately 3 to 4 weeks each. Their time was divided between BC and ABC where they ran a daily clinic and provided emergency out of hours care. In all, a total of 124 medical consultations were recorded.

Whilst most of these were undertaken on visiting mountaineers, local mountain workers and members of their family were also treated.

A highly reliable satellite connection made it possible for volunteers to use messaging services whilst at BC and ABC. This not only allowed volunteers to communicate with other healthcare providers on the mountain, but it also provided a link to the medical director (Jeremy Windsor) and a group of medical experts, including members of the UK Frostbite Advice Service, at all times of the day. Internet access also made the medical consultation process easier. With patients from almost 20 countries attending the medical clinics it was often necessary to use online translation services to aid communication.

A wide range of medical conditions were encountered. Soft tissue injuries such as blisters, cuts and burns were common. However, given the challenges of the mountain environment, more serious cases of frostbite and polytrauma were also seen. Acute Mountain Sickness (AMS) was a frequent presentation at both BC and ABC. This was commonest in those who had ascended quickly and set aside only limited time for acclimatization. Volunteers often encountered mountaineers who reached Camp 3 (6100m) within 5 days of arriving at BC. Inevitably, this led to several cases of life-threatening high altitude pulmonary edema (HAPE). These patients were treated with drugs, supplemental oxygen and in some cases, a portable hyperbaric chamber. Along with high altitude illnesses, volunteers also saw a wide range of conditions typically seen at low altitude. These cases often required expertise in gynaecology, paediatrics and psychiatry. In these instances, support from our online group of medical experts was invaluable. On leaving the mountain, further management was provided by the medical team at the Eldik Family Medical Clinic in Osh.

Alongside the medical clinics, the STP also established a search and rescue capability on the mountain. Mountain rescue volunteers, along with members of Rescue in the Mountains,

created clear plans for evacuation. They established communications via radio and introduced a range of stretchers that were used to transport casualties over steep and uneven ground.

In keeping with the aims of a preventative search and rescue service, volunteers also focused upon reducing the risk of injury and illness [4]. Throughout the climbing season sections of fixed ropes and ladders required regular inspection. In many instances, the melting of snow and ice meant that anchors often needed to be replaced. Along with the medical volunteers, the mountain rescuers also played a key role in education. This was done in a variety of different ways. Throughout the climbing season volunteers organized structured teaching sessions that were delivered to large groups. Often these were supplemented with posters, handouts and a variety of online links. At the other end of the spectrum, countless informal conversations took place between volunteers and those on the mountain. Although many of these lasted only a few minutes, this was often long enough to share information on topics such as acclimatization, clothing and safe mountain travel.

Following our recent experience, we have shown that it is possible to develop a preventative search and rescue service on Lenin Peak. Looking to the future, we hope to continue working with local stakeholders and eventually pass the service on to local rescuers and health care providers so that they can make it their own.

## Bibliography

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