Himalayan Rescue Association , Pheriche Aid Post

Dr Simon Randfield

Volunteer Doctor Spring 2018

Report for the Claire Wand Fund

Introduction

Pheriche lies in the Nepali Himalaya at an altitude of 4200m on the route to to Everest Base Camp (EBC, 5300m) an approach commonly used by trekkers and climbers alike. There were over 20000 visitors to the Sagamartha (Everest) National Park in the season we were in attendance. The Pheriche area is a barren dry windswept valley, historically above permanent habitation. These days it supports a number of seasonal lodges and tea shops as a rest point on the way to EBC. It has historical significance in many Everest expeditions as an acclimatising venue on the approach trek, and more recently the Himalayan Rescue Association (HRA) Aid Post has produced much of the emerging evidence for management of altitude related illness from this site. The Aid Post was established in 1973 and its main role and remit is to educate, treat and support all visitors, principally with altitude related illnesses. It is , arguably, the best place in the world to see and treat people with altitude sickness.

The Aid Post in Pheriche (behind the flags)

For the pre monsoon (spring) season of 2018 I was joined by 2 other doctors; one (my wife), also a GP in Scotland, , the other, Carlo Canepa, an ED consultant from the States. Due to unforeseen problems with registering with the Nepali Medical Council, we were delayed in Kathmandu for 2 weeks, but despite this we were on site in Pheriche from 24th March to 20th May, spanning the peak of the spring season.

My initial application revolved around the 12 basic clinical competencies of a General Practitioner (GP) as per the Royal College of General practitioners (RCGP) and below I respond to these aspirations.

1. **Communication and Consultation skills**

We gave our daily lecture primarily on altitude related illnesses to 591 attendees this season. The groups were from all over the world, and it was sometimes a challenge to communicate adequately the potential perils of altitude without causing undue anxiety. The lecture was invariably well received and a fascinating opportunity to meet people from many different cultures.

Likewise consulting provided a multinational challenge. 2/3 of the patients we saw were Nepali, and for this our Nepali lessons in Kathmandu were essential, although we had a translator if required. Consulting through translators adds an extra level of difficulty, and this is something we practice increasingly frequently in the UK.

2. **Practising Holistically and Promoting Health**

It was difficult to take on board the multitude of cultural backgrounds of the visiting population, but having the luxury of more time to consult meant we could explore patients concerns more thoroughly. A preventative approach to altitude illness is essential and a better understanding of other illnesses common in the mountains(respiratory and gastrointestinal being by far the most common) also lent itself to this approach. It was particularly rewarding to see Nepali guides attending the lectures, and feeling comfortable bringing their clients (and themselves) to be seen, if required. The Sherpa population is a hardy one out of necessity and the psycho social implications of illness to them revolved around potential loss of income in a short working season.

3. **Working with Colleagues and in teams**

We had to gel quickly as a team in a challenging environment. A US ED consultant approach is very different from a Scottish GP approach! Finding common ground was easy though. We worked and lived together, the 3 doctors and 3 Nepalis - 2 health care assistants and a cook. There was a rare opportunity, unusual in normal working environment due to time pressures, to reflect on how one works best individually.
Understanding the health services existing locally was vital, and we took time to meet the “local” doctor and dentist, both 2 days walk away.

4. Data Gathering

We saw 563 patients over the 8 weeks; 360 (64%) were Nepali- a mixture of locals (lodge owners and their families, temporary workers) and porters (often lowland Nepalis without the genetic adaptations of the Sherpa population) and guides. Many were going on to set up Everest Base Camp or to climb on the mountain

We saw at least 80 patients with Acute Mountain Sickness (undoubtedly an underestimate as this was endemic at this altitude) with a further 54 patients with HAPE, 6 with HACE and 2 with a mixture. HACE (high altitude cerebral oedema) and HAPE (high altitude pulmonary oedema) are the severe, life threatening complications of the low oxygen of altitude. As previously mentioned, this role was unique in mountain medicine, and these numbers are greater than most clinicians will see in a lifetime.

Of note other pathology consisted of 271 respiratory-related and 96 gastrointestinal-related consults. We saw surprisingly few musculoskeletal (25) and trauma (12) related presentations

One great joy of working in Nepal is we were forced to return to a data-lite hand-written recording system!

5. Making a diagnosis

Making a clear diagnosis in a resource poor environment creates new challenges. One had to rely on history taking and basic clinical skills, as there was no access to blood tests. I have an interest in working in more rural situations in Scotland in the future and this was a useful tester. Apart from a stethoscope, sphygmomanometer and ophthalmoscope we only had access to urinalysis, and, surprisingly an ultrasound machine. Dr Canepa has postgraduate experience in ultrasonography so we were able to learn how to use this and frequently were able to confirm the clinical findings of pulmonary oedema in patients with suspected HAPE.

The challenges of deciding when a patient needs evacuating with a large financial commitment associated – was be one of the toughest. Knowing how quickly things can change at this altitude and what leeway we have for safety was be critical.

6. Clinical Management

Beyond the diagnostic dilemmas outline above, the key management decision at 4200m is whether this patient needs to descend to a lower altitude and if so how urgently. I was surprised to note just how much helicopter traffic there was in the valley, and despite concerns regarding the overuse of helicopters, (see link https://www.yahoo.com/news/unnecessary-rescues-soar-nepal-profits-insurance-payouts-034651607.html) it undoubtedly made practicing medicine much easier and safer. Helicopters flew if weather allowed daily; indeed the only

death in the valley coincided with the one day that weather precluded helicopters from flying.

The other significant difference since working in the Himalayas 25 years ago was the access to the internet. This allowed us to consult with Travel and altitude experts in Kathmandu occasionally. We were reassured to meet the extremely competent dentist in Namche Bazaar, 2 days walk away, so we didn't have to perform any emergency dentistry.

Please see appendix with case histories

7. Managing Medical complexity

There was a surprisingly small amount of medical complexity in Pheriche. Perhaps because most elderly folk do not live so high, and school aged children are schooled down the valley, so the population is mainly young adults. The one case that caused most consternation was that of a homeless lady from India found hypothermic and with frostbite in a cave. She was initially very unwell, had minimal common language with us or the Nepalis , and no social network of support. There is essentially no social care beyond family in rural Nepal. We were able to treat her hypothermia, initiate treatment of her hypothermia, and get her transported down the valley for more definitive treatment. Managing the social situation will remain a challenge as long as she stays in the mountains and has no next of kin.

Please see appendix for case history

The major complexity involved our ability to manage uncertainty given the lack of diagnostic facilities and the remote location with little support.

8. Organisation Management and Leadership

The organisational skills required for working in Pheriche starts well before you leave your home country, with ensuring work cover with partners, and other domestic arrangements. I had additional challenges arriving in Kathmandu this year as registration procedures for overseas doctors had changed in the time between me leaving the UK and arriving in Nepal! Working together as a body required skilled organisation. We were also involved in stocking restocking the aid post and had a role in managing the finances. The charity runs on the charges made to see the trekkers to be able to provide almost free health care to the Nepali community so this was an important role.

9. Community Orientation

I have been a GP in my practice for more than 15 years and have become very familiar with its needs, services and resources. If nothing else this opportunity has enabled me to reflect positively on what services we offer our patients both at practice level and as part of the NHS. It also strengthens my belief that central to all this is the doctor- patient relationship- if you don't get this right then everything else is an uphill struggle.
As deputy Team Leader for the Local (Ochil) Mountain Rescue Team, to work for the HRA was an unparalleled opportunity to bring back unique experiences to the local team. This includes scoping different equipment (eg stretchers) and medications (eg wider use of sub lingual ondansetron for nausea, inhaled penthrox, for short term analgesia) and other equipment from around the world

10. Maintaining Performance learning and teaching.

We were able to support Dr Canepa with his research looking at lung ultrasonography in trekkers looking for asymptomatic or symptomatic evidence of pulmonary oedema. We also used the time to learn about and refresh our learning about both altitude illness and the common illnesses in Nepal and their management.

11. Maintaining an Ethical Approach

Working in an increasingly diverse community in Scotland,
this experience helped me to value the cultural differences and treat all equally.

12. Fitness to Practice

This was an excellent opportunity to "recharge our batteries". In an environment of increasing and more complex workload against a backdrop of dwindling resources, I return to work in Scotland enthused with my experience and ready to work on and delay any thoughts of early retirement. I truly believe that a supported sabbatical environment could help maintain GP numbers by delaying the projected GP retirement crisis.

Conclusion

Working in Pheriche this season has been an unique opportunity to help a remote community and assisting trekkers and climbers in the Everest region. It is with significant support from the Claire Wand Fund that I was able to perform this role. Thank you.

Dr Simon Randfield
GP, Park Terrace, Stirling
Volunteer Doctor, Pheriche Aid Post , Himalayan Rescue Association, Nepal

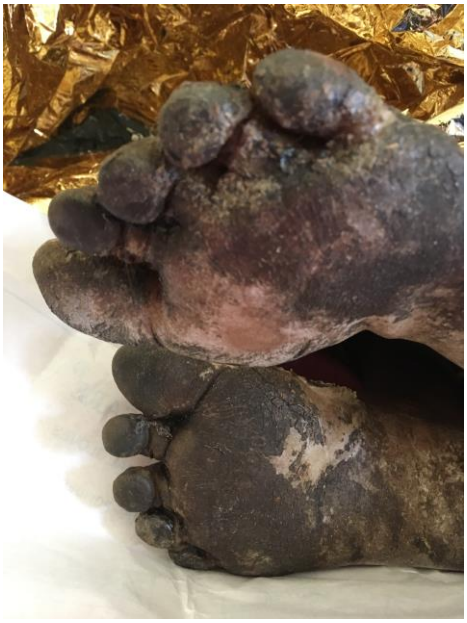
Everest above the Pheriche Valley

Appendix 1. Case Histories

1. Infected Frostbite in homeless lady

A woman of approximately mid forties arrived by stretcher, having been found by a trekker in a small cave between Chukhung and Dingboche 'unconscious'.

She was conscious when she arrived here. Dishevelled and with evidence of self neglect. Her feet were a mess - she had no shoes on and had obviously been walking barefoot for some time but on top of this there was also evidence of recent frostbite with blistering affecting all digits and her forefeet with superadded infection. It turned out she spoke Hindi - Thaneshwar speaks a little but communication was sparse - we think probably she had some underlying mental impairment. There was no evidence of any altitude problems - her oxygen levels were good and other examination other than dehydration and self neglect - were normal.



We soaked her feet in betadine and tried our best to clean them. There after we dressed them with bulky protective dressings and gave her antibiotics, aspirin and ibuprofen. What to do with her now? No name age relatives, NFA. A pocket full of used banknotes which amounted to a reasonable sum but she would be ill advised to walk now. Facebook/ Thaneshwar to the rescue . Our feeling was that she would be better in Lukla where she could get dressings done and supervised antibiotics but how to get her there. A helicopter could be arranged - squeezing her on to a descending one - but the air strip in 15 mins away from the hospital and there would be no one to get her to hospital and we really couldn't communicate with her to try to find a solution. Turns out from the Khumbu facebook group that she had been spotted lower down over the last few weeks roaming around. Thaneshwar also managed to relay our predicament and Lukla police offered to transport her from the airport to the hospital.

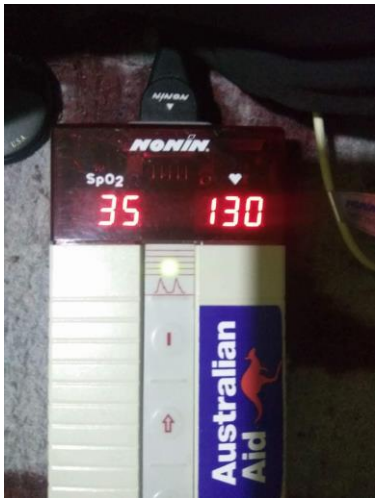
It was by now late in the afternoon and helicopters are few and far between and can be stopped from travelling due to cloud. However a gap and one appeared. She seemed very unfazed by all of this and just went along with what was happening. Others from Pheriche were there to help out and it had become a bit of a talking point I think! Great example of social media co ordinating a community response and getting us out of a sticky situation.

2,3. HACE/HAPE night

Two unrelated patients arrived one evening, and they turned out to be our most severe HAPE/HACE patients of the season.

Patient A presented on a stretcher unable to walk. He had become increasingly SOB ascending to Dingboche 2 days prior, had missed his groups acclimatising walk the day prior then as his party (including his wife) set off for Lobuche without him, he was

walked over to Pheriche by his guide. He was left here that morning, as his guide set off to catch up with the rest of the party. He presented that evening having gradually deteriorated. He was unable to walk, was very vague and not SOBAR despite having sats of 38%. However he had widespread pulmonary oedema and responded well to oxygen, nifedipine, diamox and dexamethasone, orally. He was stable overnight but was still somewhat vague and unsteady on transferring to a heli the following morning.



Patient B arrived 30 mins after the arrival of patient A, carried from Dingboche. He too had developed increasing SOBOE over the course of the day, and on arrival was at tachypnoeic and cyanosed, and became increasingly difficult was to rouse. His sats were 33% but he did not respond to maximum oxygen by the concentrator, and required concurrent tank oxygen via nasal cannula, to see his sats improve. Alongside diamox, dexamethasone IM and nifedipine he made a remarkably quick improvement. He was able to get himself to a waiting heli the following morning

Notes

1. It would appear that both fast-tracked into HACE due to rapidly decompensating HAPE. Most cases of HACE would have otherwise progressed through AMS

2. The first patient was not SOB at presentation , despite low sats and widespread pulmonary oedema. Is this due to obtundation caused by his HACE?

3. We were able to confirm HAPE with the sonosite USS, although in these cases the diagnosis was obvious without. Additionally Carlo was able to scan their optic nerve sheath diameters, confirming swelling consistent with HACE.