



MMSN Newsletter

Mountain Medicine Society of Nepal mmsnnepal.wordpress.com



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Moving Ahead

Few weeks back I was invited to a felicitation program to the volunteer doctors returning from medical aid posts at Khumbu and Manang. It was impressive how these young western doctors made time from their medical lives and volunteered for the safety of mountain sojourners in Nepal. One of them had even risked to continue volunteering within few days after being heli-evacuated for her illness. I wish I had that zeal. Because until now I thought money and time were among the excuses for many of us. Likewise says Dr Basnyat “if you are searching for excuses in Nepal, there are aplenty. But holding on to your dreams has its own rewards” (*Much is expected: pp2*).

Thinking of the career, money and a steadfast post graduation; we often don't take such gratifying roles. We meet all sorts of people and are instilled with bigger dreams during our medical schooling. Soon, we forget what we had before, the simple notions of life. It's not incorrect to dream but to run after others blindly is. Is this applicable to any of the Nepali doctors flying for the US residency too? Because, Dr Pritam warns, “For many, the ‘research interest’ which they proudly stated during interviews goes down

EDITOR'S CHOICE

the drain during residency” (*Interview season in the US: pp3*). These conflicts are again raised in this issue of Newsletter.

Many young medicos are joining MMSN not only with their interest in mountain medicine but to adopt changes and new thinking to life. We welcome you and in this issue, we try to encourage you to move to research from rumors (*First step: pp4*), spend some time off to volunteering (*Notes from the field: pp5*) from your private ventures and learn from people like Dr Kami (*An interview with Dr Kami: pp7*) and forge a new path. This is why we share you two new career options ‘*International Health: pp11*’ and ‘*Prospects of DMM: pp13*’.

Let's expect, one day we have plenty of Nepali doctors volunteering or working for the safety of trekkers and porters (*The Khumbu Porters: pp12*) in all the high altitude clinics. The Diploma in Mountain Medicine Nepal may be one step towards it. It might take time, but for now let us hope that we will be seeded with the zeal of selflessness forever.

We hope you will enjoy reading this issue. Let us know what you feel and write to us to allow improvements later!!!
Dr. Maniraj Neupane, Editor in Chief
MMSN Newsletter

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Much is expected

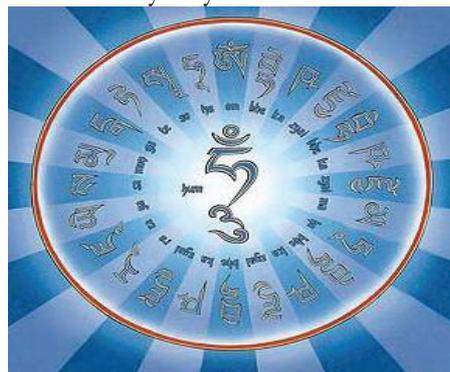
Buddha Basnyat

In the Jesuit high school in Kathmandu, St Xavier's, I loved reading the holy scriptures for our exams because you could score high marks in this. Being an ambitious student but poor in maths memorizing whole passages of the Gospel according to Luke or The Acts of the Apostles (The King James version) helped me make up in my report card for my poor maths performance. Not unexpectedly many years later, some of the lines I memorized continue to haunt me, even though I am not a Christian. One of those is this line, and it is the subject of my write up today.

"For unto whomsoever much is given, of him shall be much required: and to whom men have committed much, of him they will ask the more," Christ tells his disciples. Of course I did not remember the whole thing, but thanks to Google, it was easy to recover what my brain had forgotten. I would like to in all humility, echo those sentiments today, and I think they are very relevant. Many of us may think that this sentiment is limited to financial wealth; that is, more is expected of the wealthy compared to the poor man. That could be one explanation. However if you broaden the scope of Christ's sentiment, it could also include intellectual capability and exposure. There is no denying that a doctor in Nepal will have had tremendous exposure to education compared to his fellow Nepalis. And if you are a Nepali graduate from the Institute of Medicine (IOM) in Maharajgunj then you are twice blessed because you entered that prestigious institution not on the strength of your dad's wallet but free, open competition. In other words you were born bright, and you worked hard to hone your skills and got to where you are. So indeed, much is expected from you in terms of sharing your knowledge and giving to others. Have you begun doing this? Just like with money, it is important not to hoard this wealth. Remember, the word affluence (any kind of wealth or abundance)

comes from "flow", so your intellectual wealth has to flow to other people. Someone said that if you try to block this "flow", you will cause a deep vein thrombosis (DVT) and you don't want that. So spread your intellectual wealth to people. Help people that need your help in the intellectual arena. And do not limit this help to your own blood brother and sisters.

I know many of you are busy studying and getting ahead, but it may be important to remember this parable of Christ. And like me you don't have to be a Christian to do this. In fact that is the magnificence of our Vedic religion which loves and appreciates other people's religion as well. Before I digress too much, I would like to relate a story to you. I had a friend in



that same Jesuit high school who was one of the most brilliant people in the class. He always talked about doing this and that for Nepal. He would say we have to approach the problem like this because remember, we have to come back and help Nepal. That was his recurrent theme, help Nepal. So we expected a lot from him. But guess what?

He went on to become a famous surgeon abroad. He came home several times and tried to conduct some workshops, but other senior Nepali doctors in the bureaucracy did not cooperate with him, so he left saying, well, I tried. It is easy to find excuses in "hamro" Nepal, and if you are searching for excuses there are aplenty. My uncle who was the first FRCS in Nepal also found many excuses when he returned to Nepal from the UK. It was as if he was looking for excuses so he could go

back.

There will be many impediments in your path to help Nepal. Things will not just fall in place for you. They never do. The most common problem may well be bureaucracy. Even though I live in Nepal, while doing research here there is so much mind boggling bureaucracy in the system that I want to run away. Furthermore now our political situation is so disorganized that it is totally unhelpful. And the grass always looks greener on the other side too. But holding on to your dreams has its own rewards.

Much is expected from you because of the tremendous talent that has been awarded to you. One sure way to put this tremendous gift to use is by making sure you have some plan to help Nepal either now or in the future. Importantly you should tell yourself that you will not be befuddled by the bureaucracy. And that you will not actively look for excuses. There will be so many other reasons not to work or help here from family to financial to bureaucracy.

I know it sounds like I am really emphasizing this coming back to Nepal concept. This is great if you come back to Nepal; but actually my main theme here is wherever you may be, it is important to spread your intellectual wealth so it does not just stay with you. And Nepal is a good place to spread this kind of wealth.

In mountain lore they talk about being "steadfast to the summit" and sometimes that is the phrase to remember even to help you follow Christ's wonderful sentiment. You may come from a poor third world (for effect, I purposely use 'third' word here instead of developing world); but you, my friends were born with a lion's share of Shiva's Prasad (grace); and down the line, you may need to give a good account of how you utilized this gift.

*Dr Buddha Basnyat, President
Mountain Medicine Society of Nepal (MMSN)*

Interview season in the United States

Pritam Neupane

It is interview season again in US for residency in various specialties. Most Nepali candidates are applying for Internal Medicine, some for pediatrics, psychiatry and anesthesia and even less numbers for surgery and related fields. You can count in fingers the number of Nepali students who are primarily doing research (*Laxmi Vilas Ghimire 20th batch IOM, Siddhartha Tulachan 12th batch IOM, now shifted to Internal Medicine and previously Umesh and Saraswati Pokharel 14th batch IOM – I do not have knowledge of non IOM research students and I apologize if I have missed anyone*). This season is an exciting time for all. The applicants are excited for obvious reasons. Residents are excited because they get to be the resource and share and a lot of times boast of their experiences. Sometimes totally unrelated inquisitive individuals are equally excited. I used to live in a small apartment in NYC as a paying guest during my interviews and the Gurung dai who owned the apartment got so much into our application process that he would demand updates every evening and offer his predictions as to who would match and who wouldn't.

Rumors about residency probably are more accurate these days in Nepal but several years ago a lot of candidates were totally misinformed about what to expect. For example, internal medicine was portrayed as the only specialty to be applied for in the US for IMGs. People who wanted to pursue other careers esp. surgery were discouraged. Many other specialties remain uncharted by Nepali students. There is some truth in the above statement and as years passed, internal medicine does seem to suit the general Nepali concept (*chito chito padham ra kehi paisa kamam*). Lot of us have obligations towards our families and are limited in how long we could continue to study but for those who are not as pressed and are highly ambitious, there is no limit as to what you could achieve here. There were a large number of Chinese residents/

fellows at Johns Hopkins Hospital and I was surprised how they got in to such a program. Turns out many of them have spent seven years on average doing various basic science research and PhD in the same hospital thus inflating their CV. Reminds me of the perseverance of the Chinese. They are the ones who made the Great Wall and the Terracotta army. Places like Hopkins are also made for pure academicians who would eventually contribute to medical science by their research and teaching. There is no money there. But hey, if you are one of those kinds and have the time and energy, yes! You can get in too, may it be Harvard, Yale or Hopkins. The message is, if you are applying, understand what you want. Do not limit your dream. Ophthalmology, dermatology, neurosurgery are



regarded as very competitive subjects here. Ha, eye and skin were leftovers in Nepal. If you really want to do this, it may require that you spent some time building your background, but it is not the forbidden fruit nor is it the 'white boys club'.

The problems faced by IMGs in general but Nepali in particular are numerous. For the majority the road to residency is pretty smooth. But for many it could be an equally bumpy ride. The initial thrill of landing in US could fade as rapidly as the mark of good luck *tika* on the forehead. For them, the CS exam seems to be the

mahabharat. English language, unusual bedside manners and unfamiliarity to the white or black skin completely throws them off. The friends who they practice with and who were supposed to guide them don't seem to do a good job either. Many of them who failed CS the first attempt had landed in Baltimore for practice when I lived there. My apartment was like a *dharmasala*. Very common scenario would be one day I come from work and find 3 complete strangers sleeping in the living room. They would have come via referral from so and so. Next, they wake up and come around with a big grin saying '*dai, yespali ta CS paar laidinu paryo*'. *Paale paap maare punya* or is it the other way round? Or *saran pareka ko maran nagarnu* etc would make me say, 'alright, I'll see what I can do'. Going over what happened and during practice of CS exam, I have been surprised each time to find the most absurd methods and ideas they have accumulated in the name of CS. No wonder they failed. I always had at least 2 to 4 applicants staying with me at any given time during this interview season. Many of them did well and eventually got into residency. Thus the common folk lore was extended to include this achievement. '*nyaya napaaye Gorkha janu, residency napaaye Baltimore janu*'.

There are around 72,000 seats for internal medicine alone in a given year. 54% of these are filled with IMGs. I do not know what percentage of this is constituted by Nepali candidates. Anyways, that is a lot of seats. However candidates can compete for only those positions where they have been called for interviews. Interview is another different animal. Our tendency is to say big words and set high standards during an interview. Little do our applicants know that here they take what you say as face value. For example if you say, I want to do research on so and so and pursue cardiology subspecialty, the program director might think, well, our program doesn't meet his career goals and actually may drop you for that reason. So, more is

not always better and we flunk quite a bit with 'guff dine' attitude. There are numerous cases of double 99s not matching and in fact some of them have returned home.

Those who don't match form a pool commonly known as the 'pidit party'. The only way to salvage them is by what we call 'jack lagaune'. It starts with trying to make up for the low scores or 'CS fail' status. Usually this involves 'observership' or some experience in some doctor's office or some sort of research activity. Some have even presented on regional ACP conferences. Then residents who have good rapport with their program directors/coordinators can request their pidit friends to be called for an interview. Sometimes we ask some US doctors to call the program vouching for their sincerity. We have used 'please he is my brother or she is my cousin' *astra* for those who have high probability of mortality. This is equivalent to activated protein C use in seriously ill patients with high APACHE scores. I personally have gone a step further and have taken some candidates to the program director's office for an informal meeting just for

the program director to see that our pidit party is not a moron. Some of our Nepali residents have turned into 'Residency Dons'. They know who to call and can get one of these pidit parties into a program. I have a lot of respect for the Dons. Getting one person into residency has long lasting effects on that person's productivity, and his/her family's prosperity. I am a believer of trying to get as many Nepali as possible into residency spots. The Indians do it, the Syrians do it. We need to do it too.

While some get none, some other candidates are troubled with 'prematch'. Programs try to lure good candidates by offering them out of match positions. This puts the candidates in a very tight spot. If they don't take the 'prematch', they lose the seat. If they do take it, it may not be the best program in their list. However it is always advised that all programs in US are accredited and that one bird in hand is always better than two birds in the bush.

Once they become residents, they quickly forget the struggle they have done to get there. Their ambitions to get the best out of residency are

shadowed by the day to day rigors of calls and presentations. For many, the 'research interest' which they proudly stated during interviews goes down the drain. The little free time they get is used in catching up on sleep and social life. Soon it is time to find a job and make some money. Some like Dr. Shiva Lal Acharya, unfortunately don't survive the brutality of residency.

Back home there is hot argument about brain drain, doctors being insensitive towards the health need of Nepali people etc. The best solution I believe is not to limit educational freedom for those who desire but to sensitize the young medical students towards the need of Nepal. Community visits, 2 years of compulsory service in rural Nepal etc are good starting points. Ultimately, the progress of Nepali wherever they may be is the progress of Nepal. The immediate next question is, 'are these doctors coming back?' We shall discuss this in next issue of MMSN newsletter.

Pritam Neupane, MD

Dr Neupane is currently doing Pulmonary/critical care fellowship at Medical College of Georgia, USA

First step into the world of Research

Sushil Pant

I had always wanted to involve in research activities since I was enrolled in medical school. But in no time, I realized it was far from my dream as I saw apparently no medical students involved into it. It was not until I came to know about MMSN and the Goshainkunda Health Camp that my dream of making a step into the world of research took some shape. MMSN had called for a team of doctors for the health camp and a medical student to continue the ongoing research project. I applied in the first place for the medical student and was chosen for it.

Being selected was a pleasure but when I met Mani dai for the orientation of my job, I then realized, challenge stood ahead. I was supposed to consent more than 100 elderly pilgrims in three days and collect the co-morbidity data from them. We thoroughly discussed over the questionnaire and the ways to collect quality data. I now realize how each step was important. I was suggested

some articles and the MMSN Nepali booklet for basics on altitude illness and physiology. It was very useful.

Because of the monsoon, the trail was muddy, slippery and scary but Gosainkunda awaited us with its beauty; especially the early morning view was awesome. I was wandering to capture it. But my prime purpose was data collection. So without further delay, I started my work. I went around each 'tharpus' (temporary huts available for renting overnight) looking for the elderly pilgrims, the population under study. Besides the demographics, I had to inquire them how they reached Gosainkunda, how much time did they take, and record any co-morbidities they were suffering from. I had to rule out each system for any chronic illness.

It was frustrating initially, not getting enough study participants, but I had to complete my task. It was almost always drizzling then in Goshainkunda which added to my difficulties. But with cooperative team members, I was able to recruit nearly

120 participants into the study within time. Most of the pilgrims I talked with were not aware of altitude illness. Some of them had even reached the Lake in a day, unbelievable! They were risking their lives for Lord Shivas grace. On screening through the Lake Louise Score, I found many of them suffering from mild to severe AMS and I escorted them to our health camp for proper management. Not only research, ethics came into field and it was fun talking with the elderly pilgrims and helping them. Either way I was learning science.

Goshainkunda Co-morbidity Survey was a life time experience for me that added a new dimension in my life. MMSN has inspired me to learn the ABCDEs of 'research' and these days, besides study, I continue learning research through some of the hospital based studies running inside my hospital. Thank you so much MMSN!!!

*Sushil Pant, MBBS 4th year student
Maharajgunj Medicine Campus*

Notes from the Field: Wilderness Medicine in Practice

Justin Venable

We are very fortunate, as physicians, to have professions in a field as enormous and diverse as health care. Virtually every type of individual can find a particular niche to suit their personality, career interests, and lifestyle preferences, especially if one is prepared to forge a new path or take the road less traveled. I have been asked by my good friend and colleague Dr. Matiram Pun to share my personal experiences of expedition medicine with MMSN members, and I hope to encourage or motivate those who may be wondering how to make wilderness medicine a part of your practice in the future.

As a lifelong whitewater expedition kayaker, climber, and keen traveler, I occasionally felt at odds with my decision to become a 'traditional' physician during my studies at medical school. I did well academically, and enjoyed nearly all of my clinical rotations, but felt that very few of them would ultimately suit my personality and need for travel and adventure. I deeply wanted to have my cake and eat it too: I wanted a rewarding career in academic medicine (Emergency Medicine ultimately fit the bill for me well); I insisted on being able to provide healthcare for those most in need through extended volunteer medical humanitarian work in the developing world, but I also refused to retire from participating in legitimate overseas kayaking and climbing expeditions. How could I possibly resolve the conflict of these seemingly mutually exclusive professional desires? The answer became clear when I discovered Wilderness Medicine as a third year medical student, and realized that I could accomplish all these things through a domestic Emergency Medicine practice that allowed me to fund alternating years of academic work and Expedition Medic work. In addition, I could combine the 'Team Doctor' duties with local volunteer service in the regions in which we were climbing or kayaking. Becoming a part-

time professional Wilderness Medicine physician was the way forward!

My first tangible experience began after attending a World Congress on Wilderness Medicine in British Columbia, Canada, in the final year of my medical studies. I signed up to participate in an elective as part of a high altitude research project in the Khumbu Valley of Nepal through Wilderness Medical Society Student Section. As students, we were exposed to the inspiring doctors at Pheriche Aid Post and Everest Base Camp clinic. In addition to our research project responsibilities, we assisted the HRA docs with giving daily altitude lectures and observing treatment of altitude pathology in all its forms, manifested in foreign trekkers and climbers as well as the local Nepali population. I was captivated and resolved to return as an HRA physician in the future.

In the meantime, I graduated from medical school in the United States and took the opportunity to participate in several overseas kayaking expeditions to explore previously un-descended rivers in Peru, Chile, Nepal, Tibet and Costa Rica prior to starting a grueling residency training program in General Surgery. I loved to operate and learned much in the two years I spent as a surgical resident, but remained dissatisfied with neglecting my other needs due to time constraints. I realized that I would only very rarely be able to fulfill two of the three essential components of my professional happiness recipe: as an attending surgeon I'd not have much opportunity to travel overseas for volunteer work or expedition medicine opportunities, and hence would ultimately likely be unhappy. So I made the difficult decision to resign from my surgical training program, and devote some time to volunteer



DR. JUSTIN WITH A PATIENT

work to hopefully find inspiration in a new field of medicine in which to train, that would hopefully suit me better.

I traveled to Africa for a year, and volunteered with various tropical medicine and infectious disease clinics in Malawi and Uganda. I felt deeply satisfied by the work but soon realized that I needed further training to make a more significant impact as a clinician. I did manage several kayaking expeditions while in Africa, including being invited to act as Team Physician for a group of whitewater kayakers and rafters who were attempting a First Descent of the entire length of the White Nile river (the world's longest river) over several months. This amazing journey was one of the most intense, difficult, beautiful, and rewarding experiences I've ever had! And I could never have participated in such an adventure if I was still locked in a surgical training program, so I felt that coming to Africa for the year had been worthwhile on nearly all fronts. Just as I was preparing to return to the USA and apply to a residency training program there in Emergency Medicine, I discovered an opportunity to travel to New Zealand and work as an Emergency Medicine registrar for a year. Never one to bypass an opportunity to travel to a

new place, I arrived in New Zealand and quickly realized the pace of life suited me ideally. Despite my initial plans to return to the States, I enjoyed my work and lifestyle so much I decided to stay. After several months, I was invited to join the Australasian College of Emergency Medicine, and I eagerly accepted the offer. I applied for permanent residency and have since made New Zealand my home.

After a year of working in the ED of Christchurch Teaching Hospital, I took a year off and headed back to Manang to work for the Himalayan Rescue Association as an Aid Post Physician in spring season 2008. The work was incredibly rewarding and I met several fascinating people, (like Matiram Pun and Buddha Basnyat) all of whom provided much more inspiration and new ideas for how I could expand Wilderness Medicine into my career in the future. I also managed a solo kayaking expedition down the entire Marsyangdi River from the source at Tilicho Tal to the Indian border of Nepal at the season's end, followed by a trans-Himalayan kayaking full first descent down the Humla Karnali

from close to the source at Mt. Kailash in Tibet, across Nepal to the south of Royal Bardia National Park. I had realized my goals of combining deeply rewarding volunteer work in wilderness medicine with proper expedition travel, and could return to my training post in New Zealand with renewed inspiration and tales of adventure for grand rounds! Back home in New Zealand, I immersed myself in Emergency Medicine opportunities, and took a one year post with a helicopter retrieval service. I also began teaching medical students about Wilderness Medicine and the amazing experiences that await those who are prepared to 'think outside the medical box'. My training is going very well and I love my job as a senior registrar in the ED.

I have now returned to Nepal in my second season as an HRA doctor. We are in the final days of preparation for departing for the Annapurna Himalayas, this time in the fall season. After this season in Manang Aid Post, I will once again return to New Zealand to complete my EM training. For now, however, I am excited and delighted to be back to this beautiful

place that is so close to my heart. I strongly encourage you as MMSN members to become active as HRA volunteers, or join other organizations with similar opportunities and objectives. Many opportunities exist for making wilderness medicine part of your practice, but most will not be handed to you, nor will the path be illuminated as it is for most fields in medicine; here we must forge our own paths. We are greatly blessed to use our medical skills and knowledge to make genuine contributions to patients' health and well-being as physicians. I challenge you to expand this role into forging clinical and research opportunities for yourselves in wilderness and expedition medicine, and thus discover that enlightened and delicate balance that exists in satisfying your passion for volunteer work, travel and adventure, and living your professionally gratifying role as a doctor of medicine. Good luck and have fun!

*Justin Venable, MD, New Zealand
Dr Venable volunteered in Himalayan Rescue Association Nepal-Manang Aid Post for two terms in Spring 2008 and Fall 2010*

Visit to Swiss Air Rescue-REGA Mingma T. Sherpa

Last August, I had a chance to visit Switzerland and opportunistically, I happened to visit the Swiss Air Rescue called REGA. I was impressed with how REGA was operated.

REGA has its inception history for mountain rescue. With its guiding principles based on those of Red Cross, its objective is to help people who are in serious difficulties and in need of assistance. Its primary mission lies in the mountainous region including mountain rescue, ski accidents, searches, and preventive mission like evacuation maneuvers among many others.

About 2 million members and donors donate small amounts every year that allows REGA to offer the expensive service. More than a quarter of Swiss populations are members of REGA now. As a member of the Red Cross, REGA offers help to anyone in need on Swiss soil. For REGA members who pay a small annual fee, it writes off any costs not covered by

person's own insurance.

Its helicopters can reach the scene of an accident anywhere in the country in a matter of fifteen minutes. Every year around 300 accidents occur in the Swiss Alps and 90% of the victims are rescued by helicopters. REGA rescued more than 8000 people by helicopter in 2006 in which more than a quarter were mountain rescues.

Its staff members include doctors, nurses, helicopter pilots, jet pilots and medical flight assistants. It is also actively involved in transferring emergency patients, high-risk newborns to medical centres, transportation of organs, blood serum and medicines. Nevertheless the purpose behind origins of air rescue, mountain rescue missions in the Alps, still represent a key part of REGA's rescue work today. In the time of avalanche, REGA has a team of dogs who can trace people trapped in an avalanche. These dogs are trained to be used to flying in Helicopters. Interestingly, during summer, it's the 'cattle' that are



REGA's patients. It rescues injured, trapped or dead livestock from the rough mountain terrain as a part of the assistance programme for mountain farmers and transports them to nearest location and eventually transported by a land vehicle.

I can't say when Nepal can have a proper mountain rescue service, but with the increasing number of expedition casualties, and mounting number of trekkers in problem and missing trekkers in high altitude, I believe the scope of mountain rescue service is unlimited, both for service as well as commercial advantage.

*Mingma Tshering Sherpa, MBBS
Nepal Medical College, Jorpati, KTM.*

An interview with Dr Kami Sherpa

Dr Kami Sherpa is a well known figure in the Khumbu region. He is the first Sherpa doctor and has been working in the Khunde Hospital for more than 25 years. After working for nearly 17 years as a paramedic in Khunde, he received his medical degree from Fiji at the age of 41. In the following interview, we have tried to explore the life of this inspiring doctor.

How were you raised as a young boy? Can you remember your childhood and the schooling days?

My childhood was in a completely different era with no modern facilities. I remember being so astonished when I first saw the small SW radio. I was around eight then. My mom gave birth to eight children and I was the youngest among the four living. Sadly, childhood mortality was more than 50% then. My father expired before I was born and my mother had to struggle a lot. Being the youngest and only son in the family, I guess I was a spoiled little kid and enjoyed all the attention. We were lucky that Sir Edmund had just built a primary school in Thami in 1963. I was on my right age to attend school. I did well at school and I still remember my mom and sisters being so proud with my progress. They all had a lot of hope in me. Sadly enough, none of my sisters could go to school due to social and financial reasons. This is something I still regret. Life was hard then. Besides going to school, we all had to work in the fields and take the yaks to high pastures whenever free. Many of my friends had to quit school to support their household chores and I feel lucky that I wasn't among them.

Thami is the soil of mountaineers, what made you choose medicine as a career; you were born and raised there?

Yes, Thami is the soil of great mountaineers and there is no doubt that we, the people in Thami valley are very proud of them. However, most Sherpas then and even now choose mountaineering as a career not because they love climbing but due to the lack of proper education and job opportunities. I feel very lucky to be one of the very few Sherpas who had the opportunity to attend further schooling and build a career in a different field. There were no

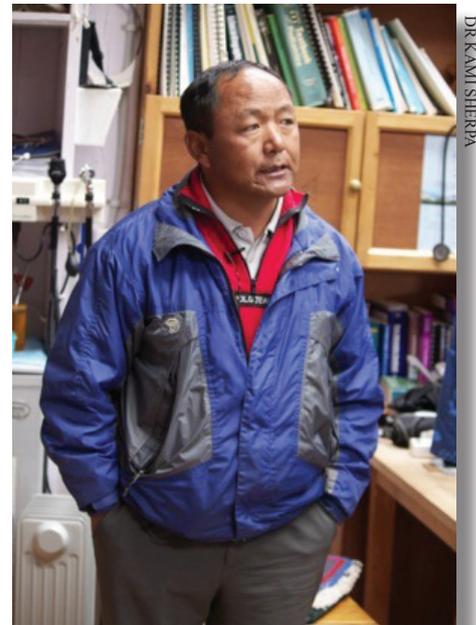
high schools in Khumbu in my days and I had to work very hard to get a scholarship. I developed likings to medicine only after I completed my high school.

So, it wasn't a childhood dream to be a doctor. How did you opt for it later then?

Well, options were very limited that completing the high school was a big dream to most of us. One of the happiest moments in my life was when I got a scholarship to attend my high school. After completing the high school, I joined Khunde hospital as an assistant. I worked as a paramedic for nearly 17 years. This is actually where I got the inspiration to choose medicine as a career later. Well, it was not that I didn't enjoy working as a paramedic but I was fairly dissatisfied by being just a paramedic and always wanted to develop and upgrade my skills in the same field. It was not that easy as I already had a family to look after. That is why it took me a long time to finish my MBBS but I am glad that I have made it.

Practising in Khunde must be a different experience than in other parts of the country, what are the challenges here?

Practising in my own community where I was born and grown up, knowing the people, the culture and local dialects is indeed different from working elsewhere. There are of course some challenges; I guess quite similar to the ones faced by most hospitals in remote parts of Nepal. The major challenges are retaining medical staffs mainly doctors, difficulties in timely referral of patients with life threatening condition due to lack of resources or poor weather condition, keeping the diagnostic equipments functioning besides many others and most importantly to arrange CME for the doctors and mid level health staffs.



DR. KAMI SHERPA

Do you think people over here have different medical problems than in other parts of the country?

Well, western medicine was introduced in our region many years before it was introduced in other remotes areas of our country. Khunde hospital was built in 1966, a long time before any of the hospitals in other districts were built. We are at an altitude of 3800m from sea level so obviously we don't see any tropical diseases unless someone has gone down in to the tropics and contracted it. But then again, being in high altitude, we do see high altitude related problems, especially among the itinerant population. Furthermore, people's perception of an illness differs from place to place and from ethnic group to the other, which is important to take note during the management of patients.

How do you see the overall health status of the Solu Khumbu district?

Well, Solu Khumbu is a very large district and it's overall health status is very difficult to comment on due to lack of enough data. There is a government district hospital at the district centre and health posts in each VDC. But whether all of them are functioning to a level they are supposed to, is still questionable. Khunde hospital carried out a demographic survey in 2003/04 which included under 5, neonatal and maternal mortalities; contraception uptake and immunisation uptake in

all three VDCs. This hospital has been here for more than 40 years. So, the rationale behind the study was to find out whether we were moving on right direction and if there was any particular field that we needed to focus on. We then compared our data to that of MoH 2002. Besides neonatal mortality, we were far ahead than the rest of the country in all measures then. With Khunde hospital, and a new hospital now in Lukla, I believe, people of Khumbu have a better access to health care as compared to many similar remote areas in the country.

Your patients include local Sherpas, migrant Nepalese and tourists from all over. What are the differences among these groups in terms of health problem and presentation?

In the past, majority of the patients at Khunde were local Sherpas. But with rapid development of tourism in the region, immigrants and itinerant workers have remarkably increased over the last few years. Altitude related illnesses used to be predominant among the trekkers but now, this has reversed and is more common in low land Nepali porters and guides. With spreading information about altitude illnesses, AMS among the trekkers has not increased considering their growing number each year. Chronic diseases like type 2 Diabetes and Hypertension seem slowly increasing in the locals. However, the migrant groups usually lag behind in hygiene, nutrition and are much more vulnerable. And now they include more than 50% of the total patients coming to the hospital.

I believe Khunde Hospital is not supported by government of Nepal. How do you see the government's effort for bettering the healthcare in mountain regions of Nepal including Khumbu? What should government be doing?

Yes, we don't get any support from the government. I don't really expect much from the government in terms of fund as they are struggling to run their own hospitals. Most of the remote government district hospitals are always run understaffed, undersupplied and poorly managed.

In my opinion, a resource poor government like ours should be more open minded and treat all the doctors equal whether they are working in government hospitals or other hospitals funded by INGOs. For example, doctors who work in government hospitals are awarded additional points in the post graduate entrance exam while similar other doctors who work hard in remote but non-governmental hospitals aren't. These sorts of discrimination are not good.

Dr Kami, have you ever thought of sumitting the Everest, to be the first Nepali doctor to summit the World Peak?

I love climbing small peaks but not Everest and I certainly don't want to be the first Nepali doctor to summit Everest. I am happy with what I am doing now and strongly feel that our community is always in need of doctors. Most Sherpa climbers do get some fame from climbing Everest but do not get rewarded very well for the work they do. Ultimately most of them end up moving abroad for good. I do have a lot of respect for all the climbers but climbing is, in fact, the most risky business around here and I personally don't have any intention to be involved into it.

Will you please tell us about Sir Edmund and your time with him?

I have known him since my childhood and we were very close friends. He was not only a good climber, but also a very good human being. He had a very strong personality. His undying love for the mountains, Sherpas and the Khumbu community was the reason why he contributed so much to this region. We believe that he is the ideal godfather of all Sherpas in this region. I heartily appreciate and respect him for all the great humanitarian works that he has done for our country. He surely was an extraordinary human and I wish some of our leaders and people of this country would learn a lesson from what he has contributed.

What would you like to say to our young

medicos at a time when a significant number of them is leaving the country for green pastures abroad?

I heard shocking news the other day that an average of 731 young Nepalese is departing each day from Tribhuvan international airport. And here we are dreaming to build New Nepal without these draining brain and muscles. These brains will not be back for sure once they are settled in green pastures but the muscles will once they have all been wasted. Given the current political situation, one can understand why the young medicos are looking for the green pastures abroad. However, its high time we acted together otherwise it will be our own poor fellow brothers and sisters to suffer later.

I would like to advise our young energetic medicos that there are opportunities for all fields in our own country, probably even more than that of abroad, if the sole reason to leave the country is not just the money. Young minds should try and stay for the betterment of our society and the country. Though you might need to struggle more here, I believe ultimately everyone will be paid for their good deeds.

What do you say to the doctors from all over the world, who want to spend some time in Khunde as a volunteer physician? We are sure you get plenty of such requests.

Khunde was staffed by foreign volunteer physicians from 1966 to 2001. They were mainly from Newzeland and Canada and their contributions to the hospital and community were enormous. Yes, we do get numbers of request each year but sadly we have to turn down most of them as there is not enough work for three doctors. However, any expertises that are willing to help



Dr Kami with other staffs of Khunde hospital, photo source: web

Interview continued from page 8...

us for short term are always welcome as they are great resources for the hospital.

Dr Kami, we are sure you had plenty of opportunities to go abroad and live or work. What made you stay at Khunde?

Had I tried, I am sure I would have got the opportunity, but I didn't bother to do so. For me, working for my own community has always been the most gratifying experience. I am happy with what I get paid for and never had the urge to make more money. This is one reason why I've stayed back unlike many of my counterparts. Besides that, Sir Edmund Hillary and his foundation had sponsored me all the way through my high school to medical school. The rationale behind the scholarships was for the betterment of this community. I have always been honest to all of them and have committed to work at Khunde as long as I can. In the end, nothing is more satisfying than being with your own family and friends and serving your own society and country.

What do you think is the urgent improvement needed at Khunde hospital now? What are your future plans?

Well, my plan is to upgrade our laboratory facility. We have a good microscope and automated biochemical analyser, and a number of serological tests can be performed but we need a separate machine to test electrolytes and blood gases. I am very keen on the telemedicine concept and if possible I would like to link with other centres.

Anything you would like to say

It's always nice when you can share some of your thoughts with the world. MMSN is a good platform for many young doctors and I hope in future, people will have a good understanding of the mountains, the mountain people and high altitude illnesses, through MMSN. MMSN has many young, energetic and talented minds. I believe these will be utilised in addressing the health problems faced by many people in the mountains.

Thank you Dr Kami for talking with us !!

High altitude playground

Piotr Szawarski

Would you allow a child to join the army? Would you want it to learn how to maim and kill? Maybe that is a bad example. In many parts of the world children do become soldiers, learn to fire a gun and die in battle. We know it happens, but is it right? Is that what children should do? Do they understand what they do? Do they understand the implications of firing a gun at another human being? Or burning a house? Children's rights have been subject of a number of declarations since 1923. Beginning with five articles we now have as many as fifty four documenting children's rights.¹ These rights are aimed at protecting the welfare of children. Child has the right for instance "to engage in play and recreational activities appropriate to the age of the child".

It also has a right "to be protected from economic exploitation and from performing work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development."¹ Climbing Mt Everest isn't child's play. The child can not appreciate the danger and for the adult to allow the child into this environment seems negligent. From a medical standpoint do we know what the effects of hypoxia on a brain of a teenager are? How likely is frostbite, hypothermia, altitude illness? What about skeletal development and puberty? Are the corpses on the slopes of Everest appropriate to child's moral development? Somehow all those concerns seem to point against allowing children tackling this extreme playground otherwise known as the death zone. This is not to diminish a recent success by Jordan



JORDAN ROMERO, photo source:web

Romero a 13 year old from California who succeeded on Mt Everest.² In this case one could argue a decision was an informed one and previous experience pointed to awareness of dangers on the mountain. Yet exceptions should not become a rule. A child could be easily influenced by the parents. The decision by the China Tibet Mountaineering Association to ban children from climbing Everest as reported in the Times of India seems very appropriate.³ It is a wise decision, taken before a first child dies on the mountain. Yet there is a caveat: a young a participant may be considered if a "medical certificate" indicating fitness

to attempt Everest is provided. Would you as a doctor, a responsible human being be willing to issue such a certificate? Most young sport stars start at an early age. Think of Williams sisters or Tiger Woods... Imagine a father training his son to accomplish ascent of Everest by the age of say 11. Would you endorse this by issuing a medical certificate? Playing tennis does not kill. Everest can.

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A day in the life of an HRA doctor

Suzy Stokes and Suzi Mackenzie

At 6:30 a jovial good morning from our Nepali medical assistant Bhuwan awakens the Pheriche team to the start of a new day. Before clinic starts at 9, the two UK Doctors, Suzy and Suzi, the Canadian assistant Christine and Bhuwan set off for our routine hour-long march, wrapped in many warm layers now that temperatures are below freezing. We like to watch the sunrise over Pheriche and work up an appetite for a hearty breakfast in the clinic's kitchen.

Following breakfast, the clinic opens to patients for the morning session, 9 until 12. On an average day we will see between ten and thirty patients with a whole variety of complaints. These range from minor problems like skin infections or coughs/colds that you might visit your family doctor for, to life threatening altitude related illness requiring helicopter evacuation. One of the most exciting things about the job is that we never know what will come through the door next and what challenges will be presented to us. Sometimes we see and assess patients together – for more simple things we do brief consultations. Although we try and stick to clinic opening times, we are

a 24/7 service which not infrequently receive patients in the night, early in the morning and during our breaks. Trekkers, porters, guides and local people of all ages use this medical facility and sometimes walk for hours to reach the clinic. We aim to provide affordable health care and operate as a non-profit voluntary organisation. To make the service sustainable/economically feasible we charge trekkers a higher price as they can claim this back from their insurance company on return home. This allows us to charge Nepali patients a minimal fee, hopefully promoting accessible

health care and reducing morbidity and mortality.

Interspersed amongst the patients are interested trekkers passing through Pheriche who like to learn about the clinic's operations and see around the facility. We show them the patient assessment room, inpatient room and office areas from where we operate. Some people have general enquiries about altitude which we try and answer whilst inviting them to the afternoon daily informative lecture at 3. We also sell T-shirts, hats, scarves, jackets, sun cream, water purifiers and more to augment the charity's income.

On the occasions between seeing waiting patients, we take personal time to enjoy the solar powered hot shower, wash some clothes, tidy the clinic and visit the puppies! Our medical assistant (and

friends and requiring urgent attention.

The afternoon clinic session, from 1:30 to 5, also includes our daily lecture at 3, where we aim to educate both trekkers, and their guides about the signs and symptoms of high altitude sickness. Every second day one of the team travels to Dingboche to give a lecture to travellers staying there, and perhaps drop into the bakery to collect a treat for everyone back in Pheriche. The lecture lasts between 30 minutes to 1 hour depending on the number of attendees and the questions they have. Normally around 20 to 30 people attend the lecture, but on occasion when large groups are passing through, the lecture is given twice a day. Invariably the lecture will alert some people to the fact they have been suffering altitude sickness, and people often request a consultation after the talk. Frequently patients will arrive during the lecture and Bhuwan will undertake the initial assessment of the patient, especially if one of the doctors is away in Dingboche.

After the lecture the trekkers are invited to visit the clinic, and if they wish, for a 100NRs donation, have their oxygen saturation checked. They often have numerous questions about how the clinic is run, and are intrigued to see the examination rooms and facilities. If there are no more patients to be seen the clinic closes at 5, and the staff have an opportunity to relax before dinner, perhaps catch up on paperwork or email messages home.

Dinner is normally around 7, and if the sun has been shining and the solar battery is fully charged, the team will congregate in the living room around the propane heater to eat some popcorn and watch a DVD.

One memorable night the bell was rung at 8:30, indicating that an emergency patient had arrived. A 31 year old male trekker presented



SUZY & SUZI TAKING SOME TIME OFF

Veterinarian by trade) was delighted to find newborn puppies which we have watched grow and feed in this harsh environment.

From midday to 1:30 we break for lunch and enjoy the delicious feasts cooked by our chefs Ang Rita and Jeet. They never fail to make a novel meal with the sparse ingredients and keep our stomachs happy and our minds fresh. If weather permits we take a book and sit outside, getting as much warmth from the sun as possible. Breaks are frequently interrupted by the need to assess and treat sick patients – some carried for hours by

with a significant head laceration and cervical spine tenderness after falling 8m while going over the Cho La pass. He had walked for 8 hours to Pheriche hoping for medical assistance. Luckily the patient was alert and orientated and after full assessment it was determined that he had a 28 cm head laceration and upper cervical spine tenderness with no focal neurology. He was placed in a C-Spine collar and his head laceration was cleaned and sutured with 25 stitches under local anaesthetic. After ensuring the patient was comfortable and warm, the team returned to their sleeping bags, with each staff member then taking a turn to get up and check the patient at regular intervals overnight.

Unusually the bell sounded for a second time that night. On this occasion, a Japanese trekker had been carried down by a team of three porters from Gorak Shep (5180m) suffering from a combination of High Altitude Cerebral Edema (HACE) and High Altitude Pulmonary Edema (HAPE). On arrival he was hypothermic,

disorientated and significantly hypoxic. Further assessment determined that he had SpO₂ of 58% on room air, a pulse of 140 and a raised BP of 160/110. Taking a history from a cold, confused patient was further complicated by his limited English and the Pheriche team's non-existent Japanese! Luckily a three way translation was conducted, via Bhuwan the porters and the patient, allowing us to establish a medical history. The patient was treated with medications for both his ailments and placed on high flow oxygen via a concentrator overnight. Our concentrators rely on electricity which is in turn dependent on solar and wind power. If the weather is persistently cloudy and calm, the electricity can run out, forcing us to use the Gamow bag or our limited supply of bottled oxygen.

Both patients luckily had travel insurance that covered high altitude helicopter rescue. After overnight monitoring they were transferred via helicopter to the clinics in Kathmandu. We have since heard that both patients

are doing well and have returned home safely. Unfortunately for those without adequate insurance, a helicopter evacuation will set them back \$5500 USD! For local Nepali people and some trekkers this is unaffordable and descending on horseback, foot or being carried is the only option. From Pheriche it is a 2 day walk to the nearest hospital at Kunde, where diagnostic facilities e.g. blood tests and x-ray are available.

Every day at the Pheriche clinic is a novel experience, bringing us patients from countries all over the world with a plethora of challenging and interesting pathology. It is also a wonderful opportunity to meet and talk to new people. It is an honour to be able to work and live with such a friendly team and we all plan to return one day to do some more trekking.

Suzy Stokes, MD, DMM, UK

Suzi Mackenzie, MD, DMM, UK

Dr Stokes and Dr Mackenzie volunteered in Himalayan Rescue Association Nepal -Pheriche Aid Post in Fall 2010

International Health: An opportunity for Health Research

Ashish Lohani

In recent decades, the concept of health has shifted from an individual based clinical science to community based science focusing in major killers of population as a whole. It is the burden of disease in the society that a policy maker or a government is interested in. Even more for a country like ours, it is pertinent to know what health problems we have before we can make policies to ensure better quality of life to the people. The Millennium Declaration 2000 was a huge step to focus in the major challenges of the developing nations and 4 out of 8 of these most important goals are related directly to health. Naturally, the interest in public health related field has been immense.

One such is an opportunity I am a part of. The program is located in Ludwig-Maximilian's University, Germany. It is the first PhD Program in International Health in Germany and I am among the first batch of student researchers being trained there. The program is funded by the German Academic and Exchange Service which provides scholarships to

applicants from developing countries for the course period of 3 years.

Application starts in January each year and is web-based. An applicant has to submit an ethically cleared research proposal with a secured funding source. Applicant should also find a mentor for him/herself and apply along with two letters of recommendation. The research should address a millennium development goal or should be an intervention trial. In addition, the applicant should also apply for the scholarship to receive it.

The program itself consists of 3 modules in Germany, 3 months each and the rest of the time in home country where the research is based. In the University, supervisors will assess your work regularly and provide feedback. They guide your 3 years and visit research sites to check the progress of the work. In the end of 3 years, they wish you to become an independent researcher, capable of writing good proposals, conducting high impact researches and being able to network with a variety of specialists worldwide. I am happy to have met in

my program a specialist biostatistician, an epidemiologist, a lab researcher, an immunologist, a microbiologist and public health specialists from ten different countries to whom I can refer my questions anytime not just as a professional but as a friend.

The details of the program can be found in the website <http://www.international-health.uni-muenchen.de/index.html> along with other information and application. It is important to understand that the program itself does not fund the research, funding should already be acquired for application.

I am thankful to Prof. Buddha Basnyat and MMSN for forwarding me into this program. I am grateful also to Dr Matiram Pun for his contributions in my application process. I hope this program will draw some other young minds interested in health researches that address Millennium Development Goals that will contribute to the national and international efforts of making world a better place to live

Ashish Lohani, PhD student

Ludwig-Maximilian's University, Germany.

The Khumbu Porters and altitude illness: A major challenge

Tshering W. Sherpa

The Khumbu region has been Nepal's most popular high altitude travel destination. Every year thousands of foreigners visit this mountainous region for trekking and expeditions. The rich cultural heritage, breathtaking mountain landscape, challenging mountain trails and most importantly, Mount Everest have been central to the popularity of the region. Last year alone, the region saw 32,000 trekkers and climbers and the number seems to be increasing every year.

These trekking and expedition trips usually last several days, sometimes even more than a month. Consequently, enough provisions are required in terms of food, shelter, clothing etc. Since almost all trekkers prefer not to carry the load by themselves, it is customary to employ porters for the purpose. The rapid blooming of tourism in the region has drastically improved the socioeconomic status of the region. Hence, many local Sherpa residents are now involved in hotel and lodge business and as climbers and guides. The increasing demand of more porters and less attraction of the local Sherpa towards portage jobs has lured hundreds of non-locals, mostly low lander Nepalese into the job. Unemployment in lower regions of the country due to various sociopolitical reasons has been the major cause for the movement.

Khunde hospital is the principle primary care centre to the local Sherpa residents of the region. This hospital was established by Sir Edmund Hillary in 1966 in view of providing basic health care to about 4000 residents during the time. Since then the hospital has come a long way and is now equally important for the visitors including the trekkers and the non-local porters and guides travelling with them. The trekkers and porters are considered as being more vulnerable and every season many of them come to the hospital with various medical

problems ranging from minor inconvenience like common cold to the ones that could be fatal. High altitude related illnesses are common and seem to be the most fatal of them all.

High altitude related illnesses include a significant number of hospital admissions at Khunde every year. With the rapid increase in number of tourists since the late 90s, the number of people suffering from altitude sickness has also significantly increased. Records show that High Altitude Illness includes a major portion of the hospital admissions, the majority among them being high altitude pulmonary edema. In view of the number of trekkers, the incidence of the illness among them has significantly gone down. However, it is drastically increasing among the low land Nepali porters and is the major cause of mortality.

Unlike in the past, most trekkers are now very cautious and are very good at seeking health care service and advice even for minor ailments. Most trekkers now travel in organized groups and are aware of the altitude and problems that come along with it. All trekking itinerary are designed to follow the daily normal recommended ascent to allow sufficient time for acclimatization. A significant number of them are already on acetazolamide prophylaxis before the trip starts reducing their risk even further. As a result, fewer tourists seem to be suffering from the illness these days. In addition, better communication and transport facilities have made it very feasible for the tourists to fly out from almost any part of the region.

On the contrary, knowledge about altitude and its hazards are a rarity among low land Nepali porters. It is very rare, if not impossible to meet a porter on *Diamox* prophylaxis. The urge of making more money during the short trekking season is seen among all porters. Hence, a lot of them walk long distances, the altitude gain



An overloaded porter in Khumbu

sometimes exceeding 1000 metres in a day leaving no time for acclimatization. Risk factors for altitude illness like dehydration, physical exertion and cold are a common finding among them. These, in addition to the poor living and travelling conditions and the daily burden of the big loads they carry make them most vulnerable group. Even while travelling with big organized groups, a lot of porters when sick usually hide their illnesses with the fear of losing their jobs. Hence, it is not surprising to hear porters losing their lives while on their trip.

In the last fiscal year 8 porters died in various parts of Khumbu due to altitude related illnesses. It has been reported that 3 such deaths have occurred in October this year alone. Sadly enough, many such deaths have occurred en route to the hospital, the major reason being lack of quick and prompt access to proper medical care. The difficult geographical location, lack of enough manpower and financial constraints in transport make medical care even tougher. Hence, as the saying goes 'prevention is better than cure', prevention seems to be most effective, if not the only way to reduce the burden of the illness among the porters.

Without porters trekking in the Khumbu is almost impossible. Saying so, everyone involved should be responsible in ensuring that the porters travelling with them are healthy. Since the guides, cooks or head porters are the once who hire the porters, it is important they have adequate knowledge about altitude sickness. They could then pass down the knowledge to the porters or more importantly, it helps them

(continued from page 12)

recognize the illness early in the course and then make specific arrangements accordingly. Many guides and trekking support staffs do receive courses on altitude sickness during training sessions in the capital. Decentralization of such activities to the local level would ensure a bigger participation including the porters and consequently, a much bigger impact. NGOs and groups that have been involved in porter support including distribution of proper clothes, fixing wages and ensuring porter rights should now lay hands on creating awareness regarding altitude illness among the porters. Altitude awareness campaigns for porters at places like Lukla and Namche, where most porters are concentrated have always been a big necessity and may be a good place to start.

In recent times, improvements have been observed in that matter. It is seen that few guides, especially the ones from bigger organized trekking groups are now aware and address the health issues of the porters more seriously. Some trekking agencies now make it a duty that the guides and leaders look into the status of the porters each day. Few porter protection groups have now been established. Though they are not seen to be directly involved in health issues, their active participation has surely generated a positive impact in the health status of the porters. Hopefully, all public and private sectors as well as individuals who are directly or indirectly involved in the issue will address the problem more seriously in the future. Most of us now recognize the importance of the porters and imply with the hardship and burden they endure every day. Hopefully, everyone will recognize this sooner or later. Only then the health status as well as working conditions of the porters will improve and the contributions of these hardworking countrymen of ours will be recognized.

*Tshering W. Sherpa, MBBS
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Dr Tshering was born in Thame and is currently working as a medical officer in Khunde Hospital for the last 18 months.

Prospects of Diploma in Mountain Medicine in Nepal

Maniraj Neupane

Diploma in Mountain Medicine (DMM) is a post graduate course jointly developed by the Union Internationale des Associations d'Alpinisme (UIAA), International Society of Mountain Medicine (ISMM), and the International Commission for Alpine Rescue (ICAR). This is a relatively new course launched on 2004, and until writing this column, 107 doctors have been awarded with this diploma globally. None of the Nepali doctors have undertaken this course until. However as the Nepalese Himalayas are becoming more accessible and popular destination for trekkers, mountaineers and high altitude researchers, the importance of appropriately trained mountain medicine doctor increases.

Internationally the diploma is run in four modules, each of a week. These modules are very intense, with equal classroom theories and field trainings in mountains and hills with snow and glaciers. Most

countries spend more than 100 hours to the diploma and devote additional hours for topics based on local needs. Since the course has a fail potential so enrolling into the diploma program per se doesn't get you a DMM degree. Internationally certified UIAA guides and the DMM faculty deliver the course.

In Nepal, we are trying to tailor the course to our needs, not only to make this venture sustainable but also to increase the accessibility of local doctors to this specialty. Since none of the Nepali doctors have a DMM, so we need to rely on international instructors and certified international guides for our first pilot course. Hopefully we will also arrange esteemed speakers in the field of high altitude medicine.

This will add significant cost to the course. However, for the program to be running continuously, we plan to arrange sponsorships for few Nepali doctors so as to develop them into instructors for subsequent courses.

Any interested doctors, who want to have additional skills on mountain medicine, high altitude research, expedition medicine, mountain rescue, outdoor medicine will find this course rewarding. Because we are not just dealing with the theories, but you will be acquiring practical hand on skills in rope techniques, surviving skills, rescue techniques, practical traumatology besides many practical advice devised after several years of sharp experience of the internationally recognised guides and instructors.

With increasing expeditions and outdoor activities in the mountains, the diploma holders have better employability in the lucrative expedition medicine market tomorrow.

To identify the potential barriers for the successful implementation of the course, a feasibility study has already been carried out in the field. We plan to launch the pilot course in Fall 2011. We have already identified significant practical hurdles to address. But if we are successful in arranging national and international supports; very soon and very likely, the Nepalese mountains will train both local and international doctors in mountain medicine. This will definitely be something to take pride in.

Acknowledgement: Dr Suzy Stokes, UK

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Dr Neupane is directly involved from MMSN in planning the Diploma in Mountain Medicine in Nepal.



High hopes and tight ropes

Matiram Pun

Life, every year, starts slowly over six months and takes a little stride as spring approaches in one of the small Sherpa villages of the Himalayas. Lakpa, a young and strong Sherpa climber, has been looking into his stores in the dark corner of his wooden hut where he threw his old boots, rusty crampons and some donated climbing ropes. He needs to assemble these and try his luck again, this spring, finding loads to carry and clients to accompany to the top of the world. Before he sets out; he plans to have a final meal with all his family members and relatives to bid farewell. On the final day, he puts statue of Lord Buddha in his backpack and starts a four-month-journey with hopes of finding a client who would trust him to be taken to the summit of Mount Everest, the tallest mountain on earth.

To Lakpa Everest is everything- his Goddess, his home, symbol of peace, and source of bread and butter for him and his family. He would not stand tall in geology or puritanical stories behind the formation of the great Himalayas! He might not have any idea on how the collision of tectonic plates evolved the Himalayas. For him, it would only be a holy place for his living. He considers it as pure and believes no one should ever disrespect or pollute it.

Half a century ago, when Sir Edmond Hillary and Tenzing Norgy put their foot on top of Mount Everest; there were many amazing stories written and told. They should have faded way by now. Yes, many have been forgotten but the majesty of Everest is still tall and claims many people's last breath on their attempt to challenge her. The anecdotes and stories range from trekkers to climbers who slowly hike up to 5500m altitude and cling to the tight ropes with the hopes of reaching the top. The Norgy's clans are almost everywhere from the base to the top of Everest with many designations, roles and

responsibilities. Hailing from high mountain villages of Nepal, Lakpa waits a year until spring for his long awaited godly clients from other side of the globe to arrive. Every tourist, trekker or climber is his possible luck, his opportunity, his source of bread and butter. He treats them as both guests and gods.

As a part of agency and expedition, Lakpa joins a team of Western climbers who need his strength, his skills and immunity against altitude illness to materialize their dream of being on top of the highest place on earth. His routine starts from the base camp (5200m) where he puts tent, sets up kitchen and piles up rations for the upcoming months. Every day, plans are laid and the division of labour is put forth. He sits in the corner and accepts whatever job he is assigned to. It no longer is a difficult job for him 'to pave the way up' for all. He says to himself "the goal is to take these guys up and bring them down safe"!

He wakes up at 3.00 in the morning, looks at the stars to see if he can predict the possible storms that day. He fills his sack up with ration, oxygen cylinders and ropes. After tying up laces and fixing crampons he takes an ice axe and a head lamp and starts crawling up through the dangerous Khumbu glacier. He passes a number of crevasses where he had

put ladders and ropes in the past. He stresses himself to be very careful and vigilant as gigantic ice blocks could tumble down without any warning crushing his heartbeat. He would look at his feet on ice and the opposite side while crossing the crevasses to avoid the scary view deep down. The crevasses have engulfed many human bodies. Lakpa jokes with his clients, "If you fall in the crevasse, you reach all the way to America". Ironically, for him America, the heavenly place full of opportunities is exactly in the other side of the globe. The climbers find it funny but they can hardly laugh as they are sweating hard to cross the scary crevasses. Rather they expect to carry these memories back home when they manage to return safely.

Lakpa is putting ladders, fixing ropes and setting up tents in camps: 1, 2 and 3 before planning final assault to the summit. He piles up stacks of oxygen cylinders in each camp making sure all of his clients get enough oxygen. He does not know much but he is sure that everybody needs oxygen from those cylinders there. He has heard of some sickness his clients suffer from – which he calls 'Highchute' referring to high altitude illness. Sometime ago he was in goofy orientation when some medical person said 'people get water accumulated in their head and chest when they go high up in the mountains'. He did not



In the pursuit of summit, photo source: web

care much as his group of people did not get it. He did not ask either, about why some get it and some don't.

As he reaches higher, Lakpa tries to get back to the tent before 10 am as ice blocks tend to tumble down with day's sun and avalanches become even more frequent. The days go along with lunch, cards and Sherpa tea (churning of rock salt, butter, milk and sugar). All around, there are gossips about climbing progress and other camps' strategies. That's the favorite chit chat then. There are strategic meetings and there are things to be carried up to higher camps early midnight. His job mostly includes moving back and forth. Drinking is not that allowed there during routine activities but he and his companies always seem to find a way. Vodkas are pretty much tolerable for him even at that altitude. However, he cannot go on a drinking spree as he recalls death of a fellow Sherpa due to spurious drink (methanol mixed) sometime ago up there.

As camps are being set up higher and higher, he gets more and more excited. His wages per kilogram increases as altitude increases. Hence, he gets more excited about fixing ropes, stocking food up and piling up cylinders. Then he has to carry down used up cylinders, pooh barrels and other used wastes for environmental reasons. More work to do means more money for him. So, he gets even more dedicated. His responsibilities increase, as his clients are bound to tents with oxygen mask all the time. Preparing food, melting ice for water and serving clients are part and parcel of his duties in addition to proper climbing activities of fixing ropes and all that. From these higher camps, Lakpa has to fix the crampons, adjust masks and put in ropes for his clients. What he solely understands is 'to make his clients happy' and there is only one way to do that - 'taking them up to summit'. He takes it as his ultimate objective.

Every morning as early at 3 he wakes everyone up. Makes sure everybody has all the gears. The radio sets are on and they relay to the

people at the base camp about what is going on up there. Clip, on-clip and huge mask; climbers breathe heavily and it feels as if one is in moon. All they can hear is their own long deep breaths. And every step turns out to be a herculean task now. However Lakpa encourages everyone in their every move. All of the climbers follow him and slowly drag themselves up.

On the final bid to the summit, when the weather forecast is in favour and summit window is seen; Lakpa looks at his small statue of Lord Buddha that he carries with him all the time. He takes time to remember his wife and kids home, prays for safety and hopes to take all of his clients to the summit. 2 p.m. next day is their turnaround time. Even if they are just a meter below summit at 2 p.m., they would have to return. This is for the safety of all and that's the most important issue. Lakpa promises his clients by heart to make it to the summit before that. The time to start climbing from high camp is 11 at night.

Lakpa only has a day. He makes everyone ready, puts in ropes, relays down and starts up. He checks masks, oxygen flow and thumbs up. Every step and every move decides the summit thereafter. There are slower and weaker members for whom he may need to short-rope for helping them up. He knows how important summit bid is. He knows he will get bonus for that. Above all, he might get job next year too if he succeeds this time. That is all he cares about.

With crampons and heavy breathing; climbers line up. They crawl up in snails' pace towards the summit. As they approach nearer, it gets harder and harder. The last few meters to the summit feels like an invincible battle against death. But Lakpa is determined to conquer it. Slowly, the final step mounts to the summit. Lakpa hugs everybody, puts his Lord Buddha's statue on the summit and takes pictures of the group. He is as agile and energetic as ever, may be even more with this success and happiness. The message is relayed to the base camp team and to the world. They

congratulate each other with tears of happiness flowing down. After taking 360° glance from the summit, they all hug one another once more and start climbing down. Lakpa watches everybody and guards them down.

Few days later, members are back in base camp with all buzzing! Party kicks off. Lifetime dreams have come true for them. They have made it to the top and safely back down. Lakpa has tents to wrap up, and has to pack up sleeping bags, and carry down remnants and other waste materials. He weighs all in kilograms. He will be working weeks from now to clean up those, again for his wages. So, he is all alone up there. He walks up and down that trail with much more freedom as he doesn't have to worry about the clients.

His year is done. His job is accomplished and that's all of his earnings. He hopes to get good tips from summiteers and prays that some of these clients would come next year and hire him again.

He strolls back home with his old North Face down jacket, heavy boots and his backpack. It has been a great year as he succeeded in taking his clients up to the summit and safely back down. This is not a usual story for many. He expresses his gratitude to Goddess Mountain. Few hundred bucks of bonus on making expedition successful is his determination to go back. Yet another successful Everest expedition is added to his credential. He has better chances of finding this job next year. He relishes this and takes a nap at his home with relaxed muscles after four months high up into thin air with tight ropes. His wife is making millet breads in the adjacent kitchen and kids are playing around when he falls asleep with lots of memories and happiness!

All the characters in this story are fictitious and any resemblance to anyone is merely by coincidence.

*Matiram Pun, Graduate Student
Calgary, Canada*

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Medicine and High Altitude Physiology
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Rescue at midnight

Sagar Panthi

“Daktar basne kotba kun ho?” (Which room are the doctors staying in?) We heard somebody talk outside while we had just gotten ready to play the card game in our room after a dinner of cheese fried potatoes. It was not unexpected, so we were instantly ready to attend the ‘house call’ at a lodge just next to ours.

An old man who had asked for us said that a pilgrim had gotten “very serious” and was unable to speak. The patient had walked to Gosainkunda on that day from Dhunche itself (from 1950 – 4380 meters). On the way, he had complained of some headache and dizziness and had vomited twice. Still, he had taken a tour around the lake when had gotten to Gosainkunda. When his headache and dizziness got worse and felt very tired, he had gone to his hotel room to take a rest.

When we saw the patient, he was lying on his bed. He looked like he was in his fifties. His lips were dry and chapped. He did not respond to our questions, just moans and groans. He moved his limbs and opened his eyes only in response to pain. His heart was beating fast and he ran a temperature of 39 degrees. Bilateral coarse basal crackles were heard on auscultation of his chest. On probing with pulse oximeter, his oxygen saturation was just 40-45%.

The man was immediately given oxygen via a face mask from an oxygen cylinder which we had carried from our hotel. After establishing an intravenous line, we pushed Dexamethasone shot and kept him on a saline drip. Now the difficult part was to give him Acetazolamide and Nifedipine, both of which was available in oral formulations. So, we sat him up, opened his mouth and pushed a tablet of Acetazolamide in his mouth with some water. He somehow managed to swallow it. Next, we put the tablet of Nifedipine under his tongue, which should have gotten slowly absorbed.

After this initial management, we waited for some time to see if he would show some signs of improvement. His oxygen saturation dropped immediately when he was disconnected from the oxygen cylinder. His consciousness did not improve. Basal crackles were still heard on his chest auscultation. At this point, we nebulized him with Salbutamol and gave intravenous Ceftriaxone. After two hours of waiting, when he refused to improve, we decided that he needed the definite treatment – DESCENT.

So, we called the police officer – an Assistant Sub Inspector – posted temporarily for the festival and a man from Gosainkunda Area Development Committee. We asked them to arrange for the descent of the sick man, at least up to Cholangpati (3670m), where the army had its health camp. Although we tried to explain that no doctor was needed for the descent and we would be in short supply for the camp, the man from the committee did not understand and was reluctant to descend without us. So, for the social reasons as well, we decided that two of us would accompany the rescue team. Our camp leader could not leave as he had to expect anything unexpected at Gosainkunda itself. Thus the rescue team comprised of me, Dr Koehle (a sports physician from Canada who was in Gosainkunda partly for his research and the HRA temporary health camp), a policeman and a porter who would carry the man on his piggyback.

It was cold outside, it was raining, and the trail was slippery. It was going to be one hell of a night. I and Dr. Koehle put on warm clothes, the rain gear and head torches. We carried a liter of drinking water each and got ready for the adventurous night. At midnight, we started the journey down. Our rescue porter walked so fast that it was hard for us to keep pace with him. It was especially hard for Dr. Koehle because he was also carrying the oxygen cylinder



A sick man being rescued on a piggyback, photo: SUZY STOKES

connected to the patient.

We stopped at places to check the oxygen saturation of our patient. It got better as we descended. He spoke two sentences on the way – “Jaado bhayo” (I am feeling cold) and “Peesab garchhu” (I wanna pee). Seeing such a dramatic improvement in the patient, I was excited. He was going to live for sure. I had never thought that descent was such an effective treatment of AMS, HAPE, and HACE.

At Lauribinayak (3925m), the man had used up our oxygen cylinder, and had gotten far better. From there, I and Dr. Koehle gave the policeman the “discharge letter” to give to the army doctor down in Cholangpati. Having finished our job successfully, we took a rest; ate some chocolates, drank some water and started our climb uphill; this time not at all in a hurry. And the rain had stopped.

Twinkling eyes of horses in the light, black shades of hills all around, white foamy clouds below them, dimly seen white mountains in the distance and the bright moon in the clear sky – I had not seen a night more beautiful!!

Sagar Panthi, MBBS
Kathmandu

Dr Panthi worked as a member of the team for Gosainkunda Temporary Health Camp, 2010 in Lake Gosainkunda, 4380m

Editors note: Photo used above is different from the actual case and place.

Updates in the Prevention and Treatment of Altitude Illness

Smith Giri, Maniraj Neupane

MMSN continues to expand day by day. On an average, 30 new members join us each year. These members participate in high altitude researches; serve in medical camps at high altitude(HA) and act as expedition/trekking doctors. We are constantly approached by our other friends about high altitude illness before they go on a trek. Thus, we thought it would be useful to summarize the current guidelines on high altitude illness especially focused to our new members.

When you are travelling to altitudes more than 2500m, you are always at risk of developing altitude illnesses from simple Acute mountain sickness(AMS) to life threatening High altitude cerebral edema(HACE) and High altitude pulmonary edema (HAPE). AMS and HACE can be regarded as the continuum of same disease process whereas HAPE is largely seen as a separate entity with a different pathogenesis.

AMS and HACE

Headache and one or more symptoms among nausea, vomiting, fatigue, lassitude, dizziness, difficulty in sleeping points to the diagnosis of AMS unless proven otherwise in high altitude. Lake Louise scoring is easy way of identifying people with AMS and estimating its severity. AMS features plus any neurological signs like ataxia, confusion, severe lassitude, altered mental status and encephalopathy favours the diagnosis of HACE.

Prevention

Gradual ascent would suffice in low risk situations. When above 3000m, you should not increase the sleeping elevation by more than 500m per day. A rest day after every 3 to 4 days is recommended.

Acetazolamide 125mg oral, twice daily to be started a day before ascent or on the same day is the agent of choice for AMS and HACE prevention. It can be stopped once descent is started. If you are ascending and staying in the same altitude, it can be stopped 2/3 days after remaining in the target altitude. Dexamethasone at a dose of 2mg every 6 hourly or 4mg twice daily is an alternative to Acetazolamide. This is particularly useful if there is previous hypersensitivity to Acetazolamide. However this is not to be used in children or for more than 10 days in any age. Adequate hydration is very important as dehydration can mimic

symptoms of AMS.

Treatment of AMS and HACE

It is always better to rule out the possibility of dehydration, exhaustion, hypoglycemia and hypothermia. When you notice symptoms suggesting AMS and HACE, stop ascending and consider descent. Individuals with AMS alone may remain at current altitude and use NSAIDS and anti-emetics for symptomatic relief. Acetazolamide at a dose of 250mg oral twice daily is an effective treatment for AMS. Dexamethasone(4mg every 6 hourly) may be a better alternative for moderate to severe AMS. One should consider ascent only after the symptoms resolve completely. Those refractory to medical treatment however must consider an immediate descent.

Individuals who develop HACE should be started on Dexamethasone(8mg IM, IV or orally followed by 4mg 6 hourly)until symptoms resolve and should make a prompt descent to a lower altitude (300-1000m below the current height). Supplemental oxygen and portable hyperbaric chambers are useful in situations where an immediate descent is not feasible. Ascent should only be considered once the patient is symptom free and is no longer taking Dexamethasone.

HAPE

HAPE is a serious form of altitude illness. The Lake Louise consensus definition for HAPE is the presence of at least two of these symptoms: difficulty in breathing, cough, weakness or decreased exercise performance, and chest tightness; and at least two of these signs: crackles or wheezing in at least one lung field, central cyanosis, tachypnea, and tachycardia.

Prevention

There is some evidence that

a gradual ascent prevents HAPE. Nifedipine in the dose of 60 mg sustained release tablets in divided doses is the agent of choice for preventing HAPE in susceptible individuals. The most practical approach in prevention will be to ensure a slow ascent while reserving pharmacological therapy for those individuals with a prior history of HAPE. Nifedipine should be started one day prior to ascent and continued till the initiation of descent or after spending 5 days at the target altitude.

Treatment

If someone develops HAPE, first rule out other causes of respiratory symptoms such as pneumonia, viral URIs, bronchospasm, or MI. An urgent descent of at least 1000 meters remains the single best treatment of HAPE. If an immediate descent is not possible, then supplemental oxygen maintaining SpO₂ of >90%, and portable hyperbaric chambers are alternatives. Nifedipine has been proven to be a good adjunct to oxygen or descent; however should not be relied on as a sole therapy. It is quite surprising indeed that diuretics have no role in the treatment of HAPE.

Conclusion:

Gradual ascent is the key to the prevention of altitude related illnesses that includes AMS, HACE and HAPE. Acetazolamide, dexamethasone and nifedipine are well established drugs in the treatment of these illnesses. Immediate descent however remains the most important therapeutic intervention in severe cases.

This article is produced for education purpose and is based on: *Luks AM, McIntosh SE, Grissom CK et al. Wilderness Medical Society Consensus guidelines for the Prevention and Treatment of Acute Altitude Illness. Wilderness & Environmental Medicine 2010;21:146-155.*

*Smith Giri, MBBS & Maniraj Neupane, MBBS
Dr Giri and Neupane have served in HA health camps.*

Mountain Discourse on SPACE® research

Anip Joshi

When I heard about SPACE trial in mid September of 2007 I was pretty much excited, although I had little idea of what Mountain Medicine Society was going to venture. Initially, it sounded like a NASA funded project because you never know who the mountain medicos would be conglomerating with. When I found that SPACE was actually an acronym for SPironolactone and ACEtazolamide trial in the prevention of Acute Mountain Sickness (AMS) and had nothing to do with galaxy or planets or space per se, it was a great delight for me; a medical intern back then, I was becoming a part of it. As I flipped through the research protocol, I came to know that it was a double blinded randomized placebo controlled trial to find out whether Spironolactone, a diuretic worked for prevention of AMS. This was designed to be carried out among the high altitude trekkers in Khumbu region, starting with their initial assessment at Pheriche-4280m or Dinboche-4360m and follow up assessment at Lobuje-4940m. Of the two teams for the field research, 'October' and 'November', I was on the later with Dr. Ravi and two other research volunteers Skip and his wife Rylee from the US. Dr. Ravi was a pharmacologist from Pokhara and Skip was an Emergency Medicine resident. Dr. Ravi and I were to be based at Lobuje, the end point of the trial, where we had to assess if the study participants had features of AMS based on Lake Louise score and collect data accordingly.

Though I had been to many hilly regions of the country, I was a novice when it came to mountains. Trekking was something I always thought of as luxury of the khaires. Adding up to my fears, were numerous talk programs and journal clubs, that I had participated in as a member of MMSN, which always highlighted about hypoxia, HACE and HAPE at altitude. However, words from Dr. Buddha Basnyat at Nepal International

clinic, a day before the departure to Khumbu were comforting, and at the same time inspiring and motivating.

Our departure was scheduled for the day after the auspicious Dashain tika day. With Dashain hangover still on, I had a weird feeling as we got on-board 9N-ABD twin otter to Lukla. That was one scary flight- to the extent where I was seriously afraid I might die in the mountains.

As we approached Lukla, captain Bijaya Lama tried to show us where we would be landing. Scared and apprehensive, I asked to myself, "where is the runway?". It was a short, banked and black topped landing strip starting just at the edge of the cliff which I came to know, often gives a hard time to the pilots (who had to do STOL-Short Take Off and Landing) and of course a nerve racking experience to the crew. Adventure had just begun!

Tension mounted when my baggage, my survival kit got misplaced at Lukla airport and got exchanged with that of a large group of tourists and had been taken to one of the lodges. After an hour long marathon, hyperventilating, at different lodges around Lukla airport, I eventually found my luggage. What a relief that was!

From Lukla-2800m, the gateway of Everest, we started our trek at a steady pace, as much as our lungs would allow. We kept listening to our body demands, hydrating ourselves, ascending slowly, taking rest and putting to practice what we had learnt as members of MMSN. We followed the rules of the mountain as the mountain bestowed us its beauty.

While on the first leg of trek from Lukla to Namche-3440m via Monjo and Phakding-2652m, the majestic Mount Thamserku stood tall on the right side of the trail. The mani stones laid on the trail and



Mt. Anandabham, photo Manjira Neupane

the large rocks engraved with 'Om Mane Padme Hum' gave a magical feeling of tranquility and bliss. After walking for almost 5 hours in the direction opposite the flow of Bhote Koshi, with a green view of pine and broad leaved trees, we finally arrived at Namche bazaar, the tourist hub of Khumbu. Though the village had been transformed from old huts to stone buildings, we could still see the age-old cultural heritages and traditions, along with the warm hospitality the high-landers had offered. During that season, Namche was crowded with a lot of Tibetans coming for trade. It reminded of maddening rush at Thamel. And surprisingly they also had portable pocket sized oxygen cylinders for sale. Amidst the hustle and bustle, the breathtaking view of the snowpeaks Kongde and Kantega- the saddle shaped peak could keep any soul spell bound.

On a short acclimatization day at Namche, I hiked to Khumjung and Khunde around 3800m. The sky was clear and blue to let me the unobstructed stunning view of Mount Everest. After walking along the ragged Himalayan trail via Syanboche, I arrived at Khunde hospital. This gave me a great opportunity to meet Dr Kami Sherpa who had been providing medical service to the people of the region. He showed me how Khunde hospital was running well despite the inadequacies. There I also came across a group of Italian researchers who were researching on household air pollution and its impact on respiratory system of Khunde dwellers.

On the next day, the initial frustrations of steep climb from Namche to Tengboche-3860m didn't last too long. The mask dance at "Mani Rimdu"- the vibrant and colorful festival at Tengboche monastery was vivid and entertaining. The salty butter tea was enough to keep us warm in that freezing temperature. A short descent from Tengboche to Dingboche (located on the south western lap of Mount Ama Dablam), led to a real paradise which I used to think existed only in fairy tales. Walking on the stone-paved trail gave a different feeling of solace. It was a popular resting place among the climbers as they count their final steps towards the summit.

Walking further north, the following day, on grassy yak meadows through the beautiful village of Pangboche was another heavenly pleasure. But, as the altitude approached 4000m, vegetation seemed to thin out. It was like a demarcation between alpine and subalpine zone. The cold and dry climate was the reason why trees could not survive at this altitude. The air got thinner as we approached the alpine zone. Higher up, there were few small shrubs and bushes and the terrain turned rocky. Later we stopped for the night in the windy village of Pheriche. I still recall the picturesque beauty of the Amadablam dazzled with silver hue as the moonlight blended with white snow.

The remaining leg of the trek posed difficulties as the mercury sank down following the rules of November and the air was getting thinner. My body was acclimatizing slower than required. I could sense a change in my body physiology while climbing the terminal moraine of the Khumbu glacier. I kept pushing my heart and lungs to new limits with each step. Tachycardia and tachypnoea accompanied every time. My brain was working with a meager supply of oxygen, with saturation on pulse oxymeter barely reading above 85%. I was finding it hard to cope with the harshness of high altitude. I was literally listening to my body as I climbed further (I had always been wondering what 'listening to one's

body' meant during our MMSN journal club discussions).

The resting spot after the difficult climb on the moraine was the memorial ground. There lied the memorials of many climbers from different countries who lost their lives in the pursuit of their dreams. The next few hours trek alongside the Khumbu glacier led us to our research base at Lobuche (4940m) where we met the 'October team'- Mati and Subash.

Lobuche was surrounded by beautiful Mount Nuptse with its ragged and reticular southern face from the north and the glamorous Khumbu glacier on the east. We had a mundane routine for the next one month stay at Eco lodge (one of the six lodges at Lobuche). The days and nights were eventful because of the calls we used to get from porters and trekkers once they



knew that the medics are available.

At the research base, our work day started with greeting research participants, offering them a hot cup of tea, having an interesting chat with them and collecting data with rounds in all of the 6 lodges (which were the only houses there). Our day would end with food prepared by chef Sarke Sherpa, the memories of which still water my mouth. Our taste buds used to tickle with yak steak, fries, spaghetti, hash brown, apple pie, pizza, potato pancakes and our very own dal-bhat but at a higher price. The postdinner conversation beside the fire gave us a free insight into the heroic adventures of the trekkers and expedition teams. Sharing anecdotes with trekkers from different walks of life over a cup of hot ginger tea or coffee would lead you to a spiritual and philosophical ride. From meeting a Spanish boat maker who sold

everything to visit Nepal to meeting an American couple who found travelling in Asia cheaper than renting a house in the US, from listening to an Indian-born Canadian PhD physicist who had brought an octogenarian lady on a wheel chair as per her last wish to seeing an affluent British entrepreneur who could not sleep in the lodge room (could be a claustrophobic) and slept in the dining hall (which according to him was the size of his bedroom)- there were events that never happened at low land and stories you could not hear anywhere else.

After conducting the research for a month, I left the Khumbu valley with lots of good memories and worthwhile experiences. Throughout the stay, Pumori stood enchanting as always and the setting hue of the sun used to make it more beautiful. High altitude medical research in a natural lab at the base of the world's highest peak - turned out to be a great package for me fulfilling my desire for adventure and my dream to get close to the Everest.

In Kathmandu, chaos of the maddening city, burden of relationships, daily chores at medical school, pager beeps and cell phone rings, subtle suffocation in the air of the city awaited me while I just left the fresh mountain aroma in the air, the trains of yaks and *jopkyos*, the *chortens* and the sacred *mani* stones lying around it, the soul vibrating silence in the monasteries, the colorful prayer flags in the backdrop of the virgin snowcapped mountains, the enchanting sound of yak bells during day and the dreadful burst of avalanche at night.

I grew up learning life in the alleys of Patan and the 'gallis' of Indrachowk. The Himalayas taught me some different chapters of life. Someone once said 'you don't die in the mountains, you feel reborn', I stood revitalized, fearless and enlightened!!!

Anip Joshi, MBBS
Kanti Children Hospital

Dr Joshi was a coinvestigator in the SPACE trial research. A mountain lover, he now works as a medical officer in Paediatric Othopaedics in KCH.

MMSN News bureau

MMSN President Dr Buddha Basnyat has also been appointed President Elect of the International Society of Mountain Medicine (ISMM) for the term of 2010-12 in the VIII World Congress on High Altitude Medicine and Physiology, Peru. Congratulations Sir and best wishes for a successful tenure ahead!!!

MMSN organised a talk program on the 'Prospects of Diploma in Mountain Medicine in Nepal'. Dr Suzy Stokes from the UK shared with us her findings of the feasibility study for the diploma amidst a crowd of more than 50 young medical students.

MMSN members Dr Maniraj Neupane, Dr Smith Giri, Dr Santosh Timalina and Mr Punyahari Dahal participated in the Research Ethics and Governance Workshop organized by Oxford Clinical Research Unit, Patan Hospital.

Nikita Ale and Nirajan Regmi joined a high altitude pilgrimage study at Gosainkunda with a medical student from Glasgow in August 2010.

MMSN doctors Asish Lohani, Smith Giri, Sagar Panthi, Sagar Koirala, and a medical student Sushil Pant participated in the Gosainkunda Temporary Health Camp at 4380m organized by the Himalayan Rescue Association Nepal in August 2010.



MMSN organised a documentary show on December 29, 2010. Thrilling docu-drama 'Touching the Void' was chosen for the show.

MMSN member Dr Ashish Lohani joined the PhD program in International Health in Ludwig-Maximilian University, Germany. Prof Basnyat is his local supervisor in Nepal who coordinated and created this opportunity. Ashish will be continuing the High Altitude Cough study among others

Dr Maniraj Neupane accompanied Prof Cynthia Beall from the Case Western Reserve University, USA in a study at Thame 3800m looking for the Adaptation Mechanisms of Sherpa people at High Altitude.



Dr Sagar Panthi accompanied Dr Richard Keiden from the US for a feasibility study to promote health care activities in Khotang Nepal, 2010

Dr Maniraj Neupane participated in 8 weeks long placement in John Radcliffe Hospital, University of Oxford, UK which was organized and coordinated by MMSN in March-May 2010

A training program for porters going to high altitude was conducted by MMSN members Dr Asish Lohani and Dr Sagar Panthi at the office of Himalayan Rescue Association Nepal.

Dr Ashish Lohani participated in the High Altitude Cough Study in Khumbu in 2010.

Our Journal Clubs, the Scientific saga of MMSN are being held regularly. Dr Santosh Timalina, Dr Sagar Koirala, Mr Punyahari Dahal were among the presenters on various journal articles last year.

MMSN website address has been temporarily changed to mmsnnepal.wordpress.com. We will retain our old website mmsn.org.np very soon.

Talk programs with international speakers are being held at regular intervals in MMSN. Prof Jeremy Farrar from Oxford Research Unit Vietnam, Prof Cynthia Beall from Case Western Reserve University USA, Dr Suzy Stokes from UK were among the guests.

Now the Oxford Textbook of Medicine has chapters on "Typhoid and paratyphoid fevers" and "Diseases of High Terrestrial Altitudes" by Prof Basnyat.

MMSN has been renewed for another term in the District Office Kathmandu. Thanks to Dr Subash, Dr Saroj and Dr Rashmi for the efforts.

New members are constantly joining MMSN. In 2010, there were more than 30 new members added to the society. A separate committee is preparing a detailed log of our members as well.

In 2011, we will continue our journal clubs, talk programs, and events like Snakes, Bugs and Altitude, Diploma in Mountain Medicine etc.

Keep tuned and keep checking our web mmsnnepal.wordpress.com and the [mmsn yahogroup](http://mmsn.yahogroup.com) !!!

Send us your feedback and articles for the next issue of MMSN Newsletter at: mmsnnewsletter@gmail.com