Lifeline Express: A journey with the world's first hospital train in India

By Neil Sikka, United Kingdom

India is a vast and varied country with a population of a billion, of which 70 million are disabled – more than the population of the United Kingdom. I was looking forward to returning to my homeland and to working alongside those on the Lifeline Express.

While the word Delhi may conjure up images of crowding, poverty and sickness, Delhi domestic terminal was like any other European airport – all Jasper Conran-designed hotels, five-star cuisine, designer shops and even a place to grab a coffee and a chocolate muffin. It seems Delhi has changed incredibly since my last visit three years ago.

After a good evening meal (during which I choked over the wine list as luxury items cost three times more than in London; yet everyday living costs less than one third), I caught the red-eye flight from Delhi to Jabalpur in the Madhya Pradesh state. Touching down in Jabalpur revealed a complete contrast.

A solitary, simple, small, plain concrete terminus greeted us, surrounded by a barren and dusty landscape. Jabalpur is just like many other small towns in India: low rise, an army presence and an air of forbearance from all those who go about their daily routine, especially when it comes to the traffic. Most importantly, it has a railway station!

Lifeline Express

Neelam Kshirsagar, general manager of special projects for Impact India, met me and immediately agreed to give freely of their time. She explained that the Lifeline Express was here to provide free treatment for all, but it could only be successful with the support and cooperation of the local community.

Local hospitals had been contacted many months prior to arrival, and teams of local orthopaedic, eye, cleft lip and ENT surgeons agreed to give freely of their time. The local Hitkarni Dental College was also supporting the project. The director, Dr. Dhiranwani, and his team would be assisting me for the duration of my visit.

Getting things moving

As only certain types of operations could be performed on the train, all patients had to be screened prior to commencement. The orthopaedic team alone saw more than 3,000 patients, of which 200 were suitable cases.

Lazarus explained that the only way to “get things moving” was to go straight to the district collector. He is the area head of local government and in India holds a position of considerable power and influence.

He agreed to mobilise his network of officials to ensure that all in the town and outlying villages would be aware of the visit. The collector also wanted to meet “the dentist from London,” and so at the duly appointed hour he arrived for the inaugural ceremony of the dental suite.

He assured me that he was committed to spreading the word and promised me many patients for the next day. To prove his point, he brought along the local television station to conduct an interview with me (which was aired that night).

The following morning I was raring to go. I hadn’t been this excited about going to work for years. So at 9 a.m. on the dot, I arrived at the platform ready, willing and able, only to find the place virtually deserted.

Lt. Col. Randhir S. Vishwen (who runs the Lifeline Express) invited me into his office for a cup of tea. In the nicest possible way, he explained that in India when a doctor says he starts at 9 am he never arrives before 10. As a result, patients never turn up before 10:15. The team from the dental college arrived at 9:30.

I had thought they would send a dental nurse to assist me, but to my surprise two dentists, Dr. Mangesh Ghate and the newly qualified Dr. Pratibha Patel; a hygienist, Anmol and our nurse, Reena, welcomed me.

Ghate explained that as it was my first day they wanted to ensure I was fully supported. He proposed that as it was likely to be very busy, we concentrate on those most in need. Patel and he would initially screen the patients and any non-urgent cases would be asked to return at a later date.

Anyone else would be given a written prescription for treatment. This was of enormous assistance, as my Hindi is terrible and most patients spoke a local dialect (one of 1,300 in India).

Patients

True to the colonel’s word, at 10:15 the first patients arrived, and by 11 we had a queue of 20 people. We turned the lecture facility into a waiting and post-op room. Extractions and scaling were the order of the day.

Many patients had never visited a dentist in their life and most had travelled enormous distances to be treated.

By lunchtime, I had removed more teeth than I had in the past 10 years. I was thankful for the pristine ultra-sonic scaler, which enabled me to provide some first-time scaling. All those I treated were incredibly grateful and remained stoic despite the considerable pain they had been in (probably for some years).

Some of those I examined had difficulty in opening their mouths and, on further investigation, I noticed clinical changes on the buccal mucosa consistent with chewing tobacco and betel nut.

Ghate later confirmed that they see many cases of submucous fibrosis at the dental clinic.

I remained for the next two days, after which it was time to
A Simple Solution to a Complex Problem.

The NTI-tss Plus™ from Keller protects teeth, muscles and joints by suppressing parafunctional muscle contraction by almost 70%. Common Pain Centers triggered by bruxism and clenching include:

- Temporalis
- Masseter
- Pterygoid
- TM Joint
- Sinuses
- Teeth
- Neck

The NTI-tss Plus allows dentists to simply and effectively treat patients suffering from tension and migraine headaches, tooth wear and muscle pain by reducing the intensity of clenching.

The NTI-tss Plus is smaller, less bulky than traditional bite guards. Because it is more comfortable, patients actually wear it.

To learn more or schedule a case pick-up, call (866) 535-5371 or log on to www.kellerlab.com

FDA approved for the prevention of medically diagnosed migraine pain, jaw disorders and bruxism through the reduction of trigeminal innervated muscular activity. Keller Laboratories, Inc. is a certified distributor of the NTI-tss Plus. NTI-tss products are made, used and sold under license and patents owned by NTI-TSS Inc. NTI-tss, NTI-tss Plus and their logos are trademarks of NTI-tss Inc. and are used under license. Contains no Bisphenol A.

©2009 Keller Laboratories, Inc.
Dr. Neil Sikka (right) is owner of Barbican Dental Care in London. He can be contacted at eng@barbicandentalcare.com.

hand over to Dr. Ghat and his team who would continue the service for three weeks.

Staggering numbers

By the end of my two days, we had seen and treated 62 patients for dental problems, a number that rose to an impressive 354 at the end of the three-week clinic.

The medical teams on the Lifeline Express also treated 405 patients with eye problems, more than 100 for cleft lips, 85 patients with ear problems and 211 sufferers of polio — in total a staggering 1,134 patients were treated.

Impact India’s ultimate aim is to raise awareness in communities of the medical benefits available to them by encouraging them to demand treatment at local and regional health centres. Most poor Indians are illiterate and unaware of their right to treatment.

For instance, in Madhya Pradesh, those below the poverty line are entitled to ₹500 (U.S. $50) in treatment a year, paid for by the state. While funds are available to treat those below the poverty line, less than 10 percent of the allocated funds reach those in need.

On my final day, I asked Laxarus what her ultimate dream for the Lifeline Express would be.

“Neil, I hope that one day the train becomes defunct.”

“If we can educate and inform people of their rights, treatment will be fully provided locally and our train will be surplus to requirements.”

Here’s to hoping!

The Lifeline Express is the world’s first hospital train. To date more than 500,000 patients living in the remote rural interiors of India, where medical facilities are scarce, have been treated.

Last year Impact India introduced dental services as a trial measure on the Lifeline Express in Mandsaur in Madhya Pradesh. Patients received free treatment for scaling, fillings, extractions and minor surgeries, and biopsies of a few patients were taken for diagnosis.

This trial project demonstrated that there was an urgent need for dental health care.

In order to assist, Dr. Neil Sikka has donated funds to cover the costs of items such as a hydraulic chair, an oil-free compressor, a scaler with handpiece and other essential equipment.

For his next trip, Sikka already has a list of further equipment needed, including syringes and cartridges, sprays for disinfection, tissues and sharps bins.

Many thanks to Claudius Ash for donating 500 much-needed toothbrushes, all gratefully distributed.

For more information on the work of Impact India, visit www.impactindia.org.

About Lifeline Express

Scientists from the University of Melbourne, Australia, have announced they have partnered with CSI Limited and Sanofi Pasteur, the country’s largest biopharmaceutical companies, to further develop and commercialize a vaccine for the treatment of gum disease.

The program, which took 10 years in development, involves bacterial and pathogenic bacteria called P. gingivalis that causes periodontitis. The infection is currently being trialed in mouse models and expected to progress to clinical trials soon, the researchers said.

The new vaccine approach is targeting the “ring leader” of a group of pathogenic bacteria called P. gingivalis that causes periodontitis. According to a U.S.-based P. gingivalis research consortium, elevated levels of the organism were found in the majority of periodontal lesions, as well as low levels in healthy sites.

In addition, the organism also produces a number of enzymes that have been shown to interact with and degrade host proteins.

Although the bacterium can be eliminated through periodontal therapy, it is often found in recurrent infections.

“Periodontitis is a serious disease and dentists face a major challenge in treating it because most people will not know they have the disease until it’s too late and the infection has progressed to advanced stages,” says Professor Eric Reynolds, CEO of the Cooperative Research Centre for Oral Health Science and the head of The University of Melbourne’s Dental School.

“This new approach will provide dentists and patients with a specific treatment.”

Traditional periodontal therapy involves manual scaling and cleaning, and even surgery with instruments or dental lasers, in an effort to contain the bacterial infection.

Reynold said the new line of vaccine products will possibly prevent the progression of the disease, rather than managing its symptoms and incurring damaging consequences.

Sanofi Pasteur has an option to an exclusive worldwide license to commercialize the intellectual property associated with these products.

Countries in Asia have been found to spend less of their GDP for health care than most other countries in Europe and the United States.

According to a new health care report by the Organisation for Economic Co-operation and Development (OECD) in Paris, France, only New Zealand provided more money for health care in 2007 than the average of all observed countries. Japan, Korea and Australia, however, spent less than the OECD average of 8.9 percent.

The United States currently spends more on health than any other country — almost two and a half times greater than the OECD average of $2,984 adjusted for purchasing power parity. Luxembourg, France and Switzerland also spend far more than the OECD average.

At the other end of the scale, in Turkey and Mexico, health expenditure was less than one-third the OECD average.

The 2009 edition of the OECD Health at a Glance report also shows that all countries could do better in providing good quality health care. Key indicators presented in the report provided information on health status and the determinants of health, including the growing rates of child and adult obesity, which are likely to drive health spending higher in the coming decades.

The report also had new data on access to care, showing that all OECD countries provide universal or near-universal coverage for a core set of health services, except the United States, Mexico and Turkey.

Australia: vaccine for treating gum disease

Asia: less than average in health care spending