



Profile

Bishesh Poudyal: transplantation at a lifesaving discount

Back in 2007, his first year of clinical practice, Kathmandu native Dr Bishesh Poudyal realised that Nepal needed a transplantation centre. “Hundreds of aplastic anaemia, thalassaemia and relapsed refractory acute leukaemia patients were dying because of the lack of a transplant facility”, he says. By delivering presentations and hosting awareness sessions, he sought to convince health policy makers of the need to establish such a facility in Nepal, a landlocked South Asian nation of 30 million people. The usual reaction, however, was that the country needed to focus on its heavy infectious disease burden instead of worrying about more specialised treatments like haematopoietic stem cell transplantation (HSCT).

5 years into Poudyal’s lobbying efforts, a friend introduced him to a private hospital where the administrators were interested in doing such transplantations. In 2012, Poudyal carried out his first HSCT, on a patient who had T-cell lymphoma. “When I started the transplant program, I was alone”, he recalls. “I was the one doing the lab work, harvesting and transfusing the cells. During the first five transplants, I slept in the hospital and went home just to eat or to change clothes.” Despite such dedication, though, the transplantation programme was meeting with obstacles, primarily the cost of such procedures in a private hospital. Poudyal had to face the reality that such a programme was not possible without government subsidies.

Once again, he found himself in the position of needing to persuade health policy decision makers. Eventually, he received an offer to do transplantations at the Civil Service Hospital (Kathmandu, Nepal). He is grateful to the administrators for providing all the necessary equipment to establish the Clinical Haematology and Bone Marrow Transplant Units. He also speaks fondly of Dr Damiano Rondelli, Director of the Stem Cell Transplant Program at the University of Illinois Cancer Center (Chicago, IL, USA), whom he credits for mentoring him and training four of his colleagues. This mentorship was facilitated by the Binaytara Foundation, a US-based, non-profit organisation that covered the travel and living expenses of Poudyal and his colleagues while they received three months of training in the USA.

As of August 2020, Poudyal has carried out a total of 60 transplantations (31 of them allogeneic, including haploidentical HSCT, and the other 29 autologous HSCT), and he has rendered these procedures at a remarkably reduced cost. His allogeneic transplantations cost only USD \$10 000, which is 25 times less than the price of the same procedure in the USA. Such a discount is especially crucial in a low-income country like Nepal, where the

current per capita GDP barely exceeds \$1000, and although public health-care facilities, such as Kathmandu’s Civil Service Hospital, are less expensive than private hospitals, patients usually must pay 100% of their health-care fees even in public hospitals, as Nepal does not have universal health-care coverage.

Poudyal’s patients who received a transplantation, however, do not have to pay any fees. His hospital subsidises the transplantations, the costs of which he continues to keep down by relying on generic medicines, typically manufactured in neighbouring India, where Nepalese patients who can access sufficient funds often travel to seek treatment for severe health issues. Much of the time, there are not enough treatment options in Nepal, which is burdened by a shortage of medical specialists. Poudyal—who received both his undergraduate and medical degrees in China—says that the so-called brain-drain, where native-born professionals seek employment abroad, is a huge problem in his homeland and is getting worse by the day. In an effort to remedy the shortage of haematologists, he launched a 3-year fellowship programme in 2018, and starting in 2021, he will launch an additional clinical haematology fellowship programme.

These initiatives will be another contribution to a domain of medicine that was relevant to his life long before he ever became a doctor. Growing up, he saw his maternal uncle battle myelodysplastic syndrome. He lived for four years after receiving this diagnosis, spending the last year in Poudyal’s home. There, the ailing uncle received care from Poudyal’s father, an immunohaematologist and founding member of Nepal’s central blood bank. “He always wanted me to become a haematologist”, says Poudyal, who recalls his father’s frustration at seeing people with blood disorders die because of a lack of available quality health-care. The father would repeatedly lament, “No one is treating the cause...everyone is just transfusing blood”.

Continuing to treat “the cause”, Poudyal is hopeful about the future of haematology in Nepal. “I was alone in the beginning, but at present I have a robust team and I hope to see haematologists in each and every government hospital in Nepal in the future”. When time permits, Poudyal—who is married and has a young daughter—enjoys swimming and playing futsal (a sport similar to football but typically played on a hard court between two teams consisting of five players each). He also likes travelling, though he is typically not much of a luxury tourist: this is because, for all his transplantation work and advocacy, he receives a monthly salary of \$400.

Ray Cavanaugh

