

# Transferring Japan's expertise in Mongolia's emergency medicine

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## Introduction:

Since 2017, AMDA has transferred medical expertise to Mongolia in the field of emergency medicine. Ulaanbaatar Emergency Service 103 (hereafter referred to as 103) being AMDA's counterpart, seminars and workshops have been held at its headquarters in Ulaanbaatar. This year, Erdenet, Orkhon Province, the second-largest city in the nation, was added to the list of destinations in which AMDA organized the training. Erdenet is located 375 km (seven-hour drive) from the capital.

## Seminar in Erdenet (27-28 April 2019):

AMDA held a two-day seminar for local doctors and medical practitioners with a special focus on emergency medicine. The event garnered around 100 participants, most of which were from Erdenet Medical Central Hospital, state-run Medipas Hospital and privately-owned clinics.



*Medipas Hospital*

## Day 1:

The seminar kicked off with opening remarks presented by Dr. Oyunhand (Director of Policy Making, Mongolian Ministry of Health) and hospital officials. 103 addressed the full contents covered in the past which ranged from FAST (Focused Assessment with Sonography for Trauma) for external injuries, intraosseous infusion, pericardiocentesis, to surgical tracheostomy. The lecture focused on the basic approach to emergency patient transfer, especially looking at severe external injury cases.



*Opening remarks by ministry and hospital officials*

On the first day, I showed the participants how to use an ultrasound scan to diagnose the bleeding part after explaining the circulatory shock caused by external wounds.

Doctors who had seldom used the scan found it a little tricky handling it. I also explained the characteristics of chest ultrasound using actual images.



*FAST training*

Responding to a request made by local medical personnel, I also gave guidance on how disaster medicine is regarded in Japan. Based on AMDA's past experience, I stressed the importance of CSCATTT (Command & Control, Safety, Communication, Assessment, Triage, Treatment and Transport) which is the fundamental principle of disaster medicine. To wrap up my lecture, I told participants that the safety of relief personnel also needs to be prioritized, because they are always at the risk of losing their lives in the secondary disaster.



*Lecture on disaster response in Japan (i.e. Kumamoto Earthquake etc.)*

## Day 2:



*Checking the position of one's cricothyroid ligament*

On the second day, we organized a practical workshop on intraosseous infusion, pericardiocentesis, and surgical tracheostomy. For surgical tracheostomy, we highlighted on cricothyroidotomy and checked the actual position of cricothyroid ligament that needs to be cut open. As for pericardiocentesis, after identifying the pericardial effusion collection using ultrasound, I practically demonstrated how to insert indwelling needles (over 18G) using an anatomical model.

Intraosseous infusion is not commonly practiced in Mongolia. However, for infants who sometimes have difficulty getting the infusion route, this is an essential technique that emergency doctors need to learn. Since intraosseous needles are not available in Mongolia, we borrowed them from Mongolian National University of Medical Sciences (MNUMS). The trainees practiced the procedure on bone-in chicken meat using the needles the school imported from China. This way, it allowed the participants to get the actual feel of putting the needle through flesh.



*Using actual needles to experience the procedure*

103's Training Manager Dr. Tegshjargal Baast, who acted as my assistant, did a tremendous job based on what he had gained in the last couple of years. His technical progress was remarkable and I was happy to see it before my eyes.

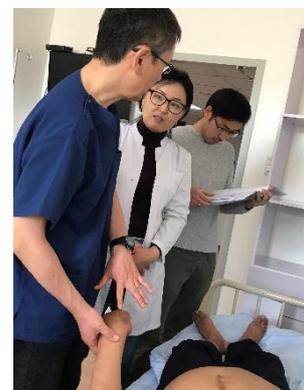


*Dr. Tegshjargal Baast who served as Prof. Sato's assistant (right)*



### Conclusion:

The participants said the workshop was truly meaningful because it was a rare occasion for Erdenet's emergency doctors to come together irrespective of what hospitals they belong to. They said the so-called "practice-oriented" lectures made a difference since the contents were directly linked with actual procedures.



### Notes:



MNUMS two years ago.)

A local endoscopy specialist sought my advice on how choledocholithiasis (a large calculus) should be treated. Since it is difficult to remove the calculus with a standard endoscopic method using basket/balloon catheter following EST, I told the doctor that alternatives such as ESWL or laser lithotripsy below POCS must be considered. (On a side note, the doctor had previously attended my seminar at

### Seminar at Ulaanbaatar Emergency Service 103:

I chose OSCE (Objective Structure Clinical Examination) for this year's topic considering my seminars over the past two years at 103. This time, I decided to conduct a training session assuming that 103 doctors were working at a hospital emergency ward. I came up with this idea because their capacity is limited especially due to the fact that their main work is patient transfer and most of the treatments are done in the ambulance.

### OSCE (Objective Structure Clinical Examination):

OSCE is all about going through the actual scenarios of possible emergency cases such as acute patient deterioration. During the training, the doctors used an anatomical model to assess the life risks with which a patient maybe faced and come up with precise care. I strongly believe this workshop helped them understand the essential treatment that is required during the patient transfer and made them realize what it takes to be an emergency doctor at medical centres.

Through this training, the participants learned that they should not be overconfident of things they had already known, because quite a few things might be overlooked. "The only way to make up for it is to always hone our skills and thoroughly make efforts at improving diagnosis and cure," they said.



After the seminar ended, 103 Director Mr. Prevdash commended AMDA's three years of contribution to uplift the expertise of its staff and issued a certificate of appreciation, stating that 103's ambulance service has been increasingly gaining a good reputation.



As 103 will be celebrating its 90<sup>th</sup> anniversary in 2020, Mr. Pravdesh said he would be happy to invite me to the celebratory function. At the moment, there seems to be a lot of plans in his mind including a training session for emergency doctors in regional areas, as well as their building renewal and facility enhancement (with Asian Development Bank being their expected donor.) For the latter, Mr. Pravdesh revealed that a plan to introduce a medical helicopter is also in sight.

#### Message from Mr. Pravdesh (Director, Ulaanbaatar Emergency Service 103)



*“For our staff who joined the training in the last years, this year’s program provided more practical and advanced materials. The training was a must for our staff as we are now trying to expand our services. I would like to extend our sincere gratitude to Prof. Sato for his assistance thus far and wish for his continued guidance.” “This year, we feel thankful that Prof. Sato undertook the training session in Erdenet, the second largest city in Mongolia. For its geographical characteristics, emergency medical practitioners in Erdenet are required to tackle more external injury cases from mining and traffic accidents. It was the first full-scale seminar to be held locally that involved practical training. As a result, it turned out to be one of the most satisfying seminars held in the region. “*

#### Message from Ms. Batmunkh Urtnasan (Head of Department of Hospital Health Service, Orkhon Province Health Department)



*“Orkhon Province Health Department and 103 have jointly worked at organizing ER training programs in which more than 150 medical institutions took part. Having Prof. Sato from AMDA Japan, the participants were pleased to see his techniques in learning how to respond to emergency cases. As it is rare for us in Mongolia to attend a participatory-type workshop, every moment felt like a new learning experience. Prof. Sato’s session (in which he talked about disaster response in Japan) took place at the right time, because a nationwide disaster drill was recently held in our country for the first time in 32 years. On behalf of our department, I would like to express our heartfelt thanks to Prof. Sato and AMDA for providing a wonderful opportunity and support.”*