

Report of the visit to Ulaanbaatar
(Emergency Medical Service 103 UB)
14 – 21 April, 2018

Participants:

Jörg Spors, Fire Brigade Essen
Prof.Dr.Walter Popp, HyKomed, Dortmund
Volker Römer, Fire Brigade Essen
Dr. Nina Parohl, Hykomed, Dortmund

This is the report about our working at the Emergency Medical Service 103 UB. The focus of our work was to train the doctors, drivers (paramedics) and nurses of the Emergency Medical Service 103 UB and the exchange of experience in the sector of emergency services and the emergency medicine. Also we wanted to see, what changes have occurred for the Emergency Service in the last years?

Emergency Service 103:

According to the Emergency Medical Service at the time 46 ambulance cars operated 24 hours a day in UB. There are also private ambulance cars in UB (from hospitals or from private organisations). The exact number of this private ambulances is not clear. The standard and the quality of this private ambulances is unknown and they are not organized by the Emergency Service 103.

The ambulance cars of the Emergency Medical Service 103 are occupied by one emergency doctor or one nurse and one driver (paramedic). The rescue teams treat emergency patients and they also hold the responsibilities of family doctors in the primary care of patients at home. Per shift (24 hours) there are round about 20-25 emergency calls per ambulance car. The ambulance cars are different equipped. So for example only 20 ambulance cars of the 46 ambulance cars are equipped with an automated external defibrillator (AED). But when the project started in 2010, there were no AEDs equipped on the ambulance cars. Some cars are equipped with ventilators. In the case of a cardiopulmonary resuscitation patients will not be intubated. According to the doctors and nurses, ventilators are only used by patient transports between hospital and hospital. In the case of a cardiac arrest and during the patient transport to a hospital in an ambulance car the cardiopulmonary resuscitation (CPR) will be done by the doctor only (The doctor is staying alone in the patient room of the ambulance car during the transport) The rescue teams are not able to provide the patient with intensive care and carry out the transport so that the patient's vital functions can't be secured, because there is an inadequate equipment.

The rescue teams do not have the components they need to stop a massive bleeding. The ambulance cars are only equipped with two bandages and there are no tourniquets. An extensive infusion therapy is not possible. There is a lack of comprehensive emergency equipment for the treatment of trauma patients.



Ambulance car of the Emergency Medical Service 103 UB. There is a minimal medical technical equipment. The ambulance cars are equipped differently.



There were some new ambulance car models to see.



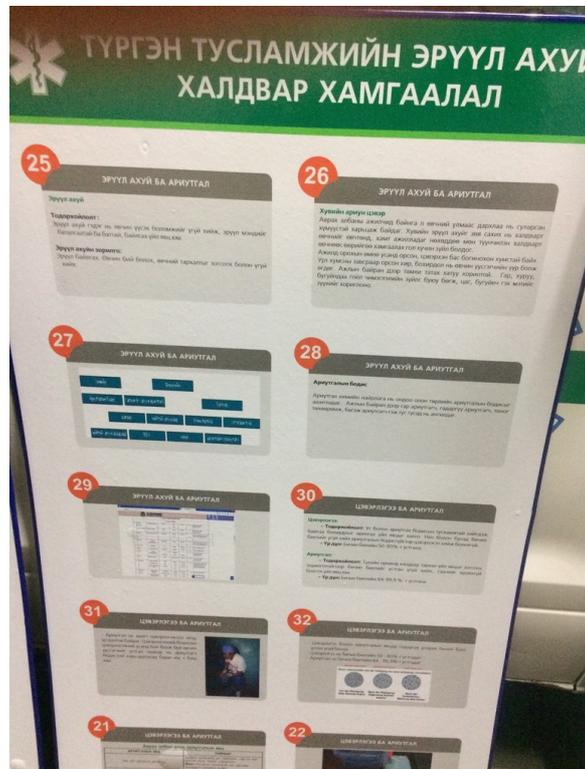
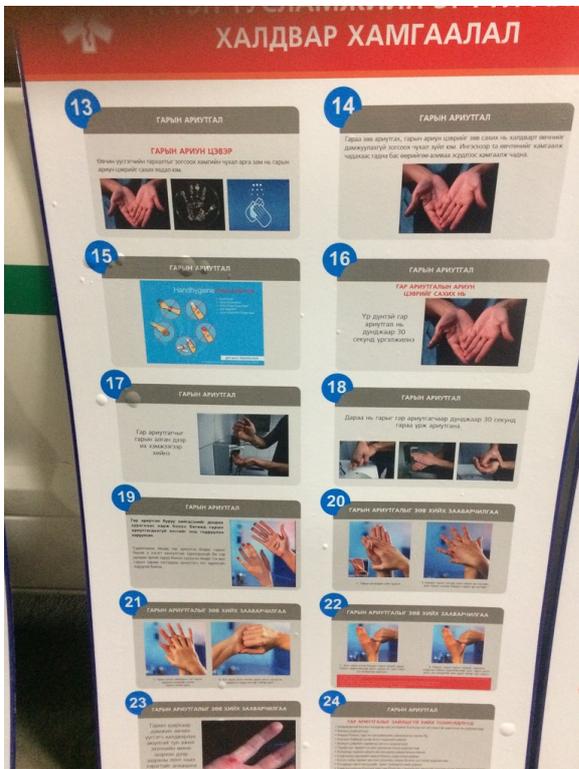
Some ambulance cars were equipped with unield, heavy suction devices.....



..... we presented this manual mobile suction pump, it's easy to handle and operates independently from electricity.

Hygiene:

Disposable gloves were consistently used, that was very positive. For hand disinfection on the ambulance cars gauze bottles with alcoholic hand sanitizer are used. The ambulance cars are cleaned once a day according to the hygiene plan which was developed by us in cooperation with the Emergency Service 103 in 2012. For surface disinfection, chloramine is still used. There is not really a disinfection after every patient transport of the near-patient surfaces or of the stretcher.



Hygiene plan of the Emergency Medical Service 103 UB.



Daily desinfection and cleaning of an ambulance car. They did the work very well.



Every ambulance car was equipped with a box for a surface desinfection outside of the ambulance garage.



The box includes:

- 1 trash bag
- 1 pack wipes
- 1 spray bottle
- 1 pair of safety gloves
- 1 tablet chloramine
- 2 surgical face masks

Training program:

The staff of the Emergency Medical Service 103 is really inquisitive and hard working. And it was nice to see, that they did not forget what we taught them during our visits in the last years. Some Emergency Physicians (doctors) have a very good basic knowledge of the emergency care.

This main topics were trained by Jörg Spors and Volker Römer in the week from 14- 21, April, 2018:

- cardiopulmonary resuscitation (CPR) (adults and children) ,
- ventilation management
- wound treatment and wound dressing
- trauma management
- Tourniquet
- surgical emergencies (ophthalmic emergencies, ear-nose and throat emergencies, electricity accidents)
- hygiene and quality management in the area of emergency services

The participants were doctors, drivers (paramedics) and nurses.

There was also a daily meeting with the Chief of the Emergency Medical Service Mr. Purevdash for sharing and discussion about the Training and the Emergency Medical Service 103.



CPR training



Apply the tourniquet



Training with doctors



Theoretical education



One day we went with an ambulance car, to see the work of the rescue teams.



Treatment of a homeless person. Infection protection: Gloves and surgical face mask.



Check blood pressure.

What needs to be changed acutely by the Emergency Medical Service 103?

- There must be more bandages on the vehicles (at least 8-10 bandages) and sterile compresses to the wound care and to stop life-threatening bleedings.
- For the trauma management a pelvic sling, a tournique and a cervical spine (like a Stifneck) are needed on every ambulance car.
- For the immobilization of fractures there is an easy to handle splint needed, like the SAM splint. The SAM Splint is lightweight, flexible, and requires only wrap or tape to provide the necessary strength to support any fractured or injured limb. An easy to handle splint is needed on every ambulance car.
- They need mobile suction devices, because the existing ones are too unwield.
- Reanimation requires more staff. In Germany for example, resuscitation involves a doctor and 3 paramedics on site (two ambulance cars are used). Thus, the patient can be cared for by a doctor and a paramedic during transport and the resuscitation can be optimally performed. Both vehicles go to the hospital.
- The remaining ambulance cars must be equipped with automated external defibrillators (AED).
- Material for securing the respiratory tract and for the ventilation management (such as laryngeal mask, intubation set, guedel tube) must be procured and loaded on the ambulance cars. The staff must be trained intensively in the management of the respiratory system.
- Always ensure that every ambulance car have a water bottle (a fresh bottle still mineral water for example, because this water is not contaminated of course), to rinse the eyes of a patient in the case of an ophthalmic emergency like corrosive to the eye (contact with acids or alkalis).

Next steps:

- Further training of the staff (doctors, drivers (paramedics), nurses) (in 2019)
- Intensify the training of the staff
- Writing of a small paperback for paramedics and doctors
- Development of a disinfection plan for a disinfection after a patient transport (in 2018)