



# Mongolian Emergency Service Hospital Hygiene Project

MeshHp.mn

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## Report of the visit to Ulaanbaatar 14 – 22 June, 2019

### Participants:

Prof Dr Walter Popp, HyKoMed, Dortmund  
Dr Jan Kehrmann, University Clinics Essen  
Prof Dr Heike Martiny, Charité, Berlin

This was the third visit in the project (2018-2020) **“Primär- und Sekundärprävention sowie aufsuchende Prävention bei Hepatitis B/C und Tuberkulose in der Mongolei“** („Primary and secondary prevention as well as visiting prevention of hepatitis B/C and tuberculosis in Mongolia“) funded by German Ministry of Health.

The project includes visits and interviews in different hospitals and health care units in Ulaabaatar as well as 4 aimag center hospitals and different sum hospitals. Detailed results of these will be given in a separate report, presumably in the first half of 2020.

So within this report we only mention important results and/or informations out of the project topics.

This time, the plan was to fly to Khovd aimag (western Mongolia). Unfortunately, it was rainy and stormy in UB and the flight was several times postponed so that the possible time there was getting shorter and shorter. So we decided to cancel this plan and go to Dornogobi in the south.

### Hospitals

We had a visit to **microbiologic lab of Hospital No 2** (Health V) and Dr Kehrmann will write separate report about lab visits.

We had a trip to **Sainshand, capital of Dornogobi aimag.**

There we visited **Aimag Health Center** and talked with director and epidemiologist. In the aimag, there are 2 big hospitals, one of them near to the border of China. There are 30,000 people living, 100 persons staff in hospital. Lot of border traffic, many sexually transmitted diseases. The hospital in Sainshand has 280 beds and 300 people staff.

The aimag has 70,000 people, of whom 20,000 are living in Sainshand.

The number of tuberculosis cases increased in last years because of more diagnosis by mobile X-ray and GenExpert.

Hepatitis:

First they use rapid test, then Elisa in their hospital, then virus titer in NCCD and 2 labs they have contract with.

Re vaccination of kids, it was told that titers are very low 15 years later.

It was told that there is a campaign to make re vaccination in all adults. Before that, antibodies shall be determined at NCCD.

MoH has recommended antibody control after vaccination for hospital staff.

We got the data of screening and they found – in 2017/18, 20,437 people - hepatitis B 1,762 (8,6 %) and C 1,434 cases (7,0 %). In 2019, also screening of 1,055 people with hepatitis B in 165 (15,6 %) and C in 131 cases (12,4 %).

They screened around 300 healthcare staff and found 38 with hepatitis B (13 %) and 42 with hepatitis C (14 %).

In the **Aimag Hospital**, we talked with director and two epidemiologists.

Then we visited the hospital departments:

Health V is going to finish, but not working yet.

In CSSD, they got 2 autoclaves, but only 1 washer disinfector – that means the critical point will be the washer disinfector with high risk that they will go back to manual cleaning because of time issues. They got a plasma sterilizer as usual. It was not clear whether they can connect their microsurgery instruments to the washer disinfector.

There are no cooling units in the renovated CSSD. This is very strange because we saw a lot in hospital No 2 in UB and also some in Chingeltej district hospital in UB.

That means that they will have very hot working environment especially in summer.

Also it is not clear why some hospitals got a lot of cooling units and others not at all.

In the new microbiologic lab they claimed that they were only trained for 3 days in UB and not at all in their lab. A lot of things are not clear. So in our opinion there should be more training after some weeks so that they really can use all the modern equipment. (see also upcoming report of Jan Kehrmann.)

The dental unit is very old. Suction is not working, patients have to spit.



Handpiece: Channel seems blocked, after cleaning with Alpro cleaner it seems that channels are open again and the turbine is singing (the dental doctor did not hear that for a long time).

Hand disinfection in whole hospital is sanitizer gel:



There are no informations on the bottle what is in it and in which concentration. This is unacceptable!

Endoscopy: They clean manually before half-automatic washer disinfector. They make bronchoscopy, gastroscopy, colonoscopy and cystoscopy. They have only 2 brushes, not different sizes. They have no air drying, only with syringe.

Endoscopes are hanging in self constructed shelf, but with loop so that water can store in it.



They use Steranios 2 % (Glutaraldehyde) for 4 weeks and test with rapid test – maybe pH. This is what supplier said. This cannot work and we recommended to change solution at least every 2 days, better daily.

On Tb ward, sputum production cabin has air suction and UV disinfection. It was said that some masks are thrown away after use. Other masks (like duck) are taken 2-3 days.

Back in UB, we met with **Dr Battogdikh**, head of Institute of Microbiology in new **University Clinics**.

The new University Clinics has around 100 beds and will be opened in October. Many things are not really clear at the moment, also whether some more equipment is coming from Japan or not.

In endoscopy, they shall use a half automatic “ozone disinfecter”.



We do not think that ozone is working in the channels. So we recommended to test for first month daily and then decide how to go on.

In CSSD, there are 2 autoclaves and 1 plasma sterilizer, but no washer disinfector. Perhaps some will come.  
We saw a lot of curtains on ICU and in 4-bed-rooms on wards.



We recommended to take them away and use flexible walls (folding screens) which can be disinfected by wiping.  
On ICU, bedpans must be cleaned in sink by hand and then disinfected in disinfectant working around 80 degrees. This is really oldfashioned.  
There are 4 OTs, only one with endstanding Hepa filter. No filter ceiling. Video cameras are integrated in op lights.  
On wards, Japanese toilets are installed with showering and blow-dry.



We recommended to stop showering and blow-drying because of high contamination rate – even Japanese have reported about high contaminations of these toilets (Katano et al, J UOEH 2014, 36, 135; Ogino et al, J Obstet Gyn Res 2011, 37, 84; Katsuse et al, J Hosp Infect 2017, 97, 296).

The microbiologic lab is much too small.

It seems they forgot outside canalization for rain water which will make big problems in big rains (like photo on all sides of the building):



Finally we visited a **Traditional Medicine doctor**. Acupuncture is done with single use needles and also lancets for blood letting. Cupping glasses are “sterilized” in UV, after some disinfection with a Hexanios product.



Cupping glasses for blood letting are also UV “sterilized”, additional with some temperature between 120 and 180°C, as we were told. In future we should have a stronger look on traditional medicine.



## Training and presentation

On the last day, we had a **half day training about tuberculosis** (presenter Jan Kehrmann) with around 100 participants.



## Meetings

We had a **meeting with Raushan Mamatkulov (ADB)** and talked about the new projects of ADB, also in emergency medicine.

We had a meeting with Dr **Tsogbaatar**, director of **National Center for Zoonotic Diseases**, and were informed about the two **plague** cases in Bayan Ulgi. They were Mongolian citizens, 37 and 38 years old, 4 kids from 9 months to 12 years. The two parents had eaten raw kidney, meat, stomach and bile from marmot, but did not tell when they got sick. So time was lost when they worsened. He died first and she some days later, she had got antibiotics. In autopsy, they both had generalized sepsis. Handling of the dead, autopsy and funeral was very difficult because they were Kazakhs and usually they wash the dead bodies and don't like autopsy. There was quarantine for 6 days in Ulgi (capital of aimag) and the respective sum where marmots have highest rate of plague positivity (> 70 %). Mongolia is using a plague vaccine from Kasachstan which makes protection in nearly 80%, but only for 8-9 months. He had been vaccinated, but one year ago. We will make a paper in a journal together.

## Social life

We could see **Mongolian culture** in Tumen Ekh.

Also we visited the **soccer competition of Emergency Service Center** of UB.

In Dornogobi, we visited **Khamariin khiid** and the energy field there. There you can burn your sins written on a paper.



Also we were on the top of Khuseliin har uul where you can give your wishes to the mountain and hope that they will be fulfilled.





On one afternoon, we were in **German Embassy** because of summer reception of German Mongolian Business Association.



### Next steps

Next **trip to Mongolia** in 2019 in our project will be from 6-16 September, mainly going to South-Gobi. Participants are : Walter Popp, Peter Renzel, Heike Kamphusmann, Adelheid Jones, Christine Schoppe, Prof. Simonis, Jörg Spors, Michael Roszburg. Because of Mr Renzel (Vice Mayor of Essen) there will also be some political program.

A **group of nurses from Mongolian nurses association** will come from 19 - 26 October, 2019, including

- Mrs Nyamsuren,
- 3 nurses,
- Dr Gantumur (translator).

A **group of MeshHp nurses** will come to Germany from 11-18 January, 2020. Topic will be mainly education of nurses, also with regard to hepatitis and tb. Members will be

- each one nurse from Maternity hospitals No 1-3,
- one from Sukhbaatar district hospital
- one from Chingeltej district hospital,
- Dr. Gantumur for translation.

In 2020, **Dr Uyanga** from hospital No 2 will come for training for 2 weeks.

A **private trip** will be done in July 2020, organised by Dr Purevdash and Dr Gantumur, starting with Naadam, going to Kharkhorin, Erdene zuu, Arkhangai aimag and to the north. Prof Walter will organize the German participants.

Prof Walter, Jörg and others from Essen Fire Brigade and City Department are invited to **90 years anniversary of Emergency Center 103** on 20 October, 2020.

Walter Popp, 28 June, 2019