



# Mongolian Emergency Service Hospital Hygiene Project

MeshHp.mn

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## Report of the visit to Ulaanbaatar 22 - 29 January, 2023

### Participant:

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### Main work

The main reason for this trip was the second part of the course “Link Nurses” together with Mongolian Nurses Association (MNA). The first part had been in September, 2022. In the second part each participant had to present their „homework“ including answers to the following questions for the respective hospital (in short):

- Description of hospital
- Situation of hepatitis B vaccination
- Situation of hepatitis virus carriers
- Nosocomial infections (one day prevalence)
- Situation of multiresistant bacteria

This was done on Monday and Tuesday in City University.

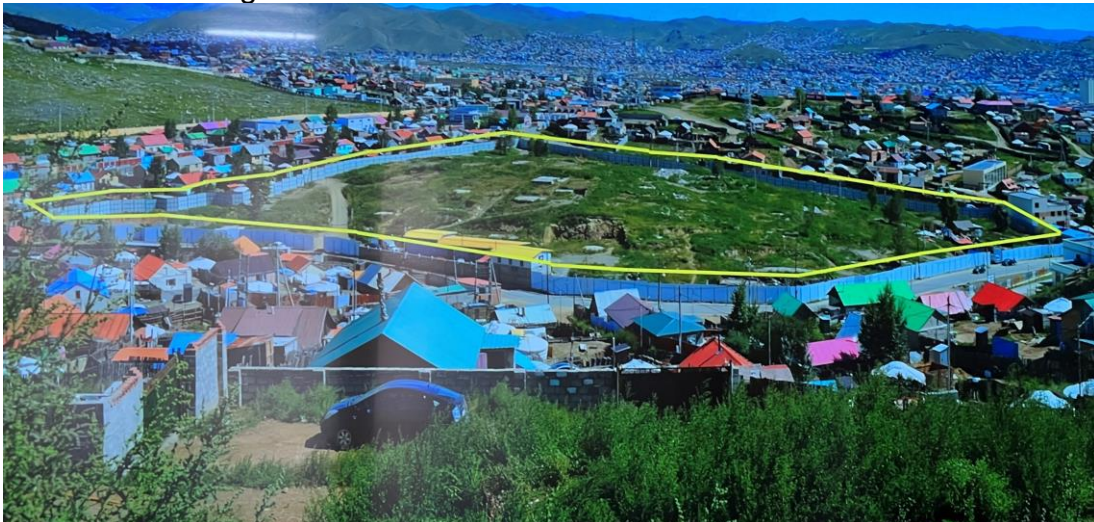


Most of *Staphylococcus aureus* seem to be MRSA. All hospital vaccinate against hepatitis B and measure antibodies after 3 shots. The fulfilling of vaccination and antibody detection is quite different between the hospitals. Some have very bad antibody results (no or low immunity) – reasons are not clear. Some aimag hospitals do not have a lab to determine antibody concentrations. Antibiotic therapy is very bad – mostly „blindly“, without microbiology and resistance testing. Some of the Health V hospitals cannot work with the lab products (like Sysmex) because administration does not buy necessary equipment (chemicals and so on). It is planned to prepare a publication about these results.

## Visits

We had a visit to **Chingeltej District Hospital** and met with Dr Uka, Dr Czinzo and the hygiene team. They gave 2 very interesting presentations:

- The hospital has 252 beds and 394 staff members. In 2024 the new hospital construction shall be started, same architecture like in Songinokhairkhan District. It will be within the ger district:



- Also they are building or will build 3 new outpatients houses.
- The hygiene department has 13 fulltime workers (including sterilisation unit).
- 293 staff members are vaccinated against hepatitis B. Until now no antibody determination because hospital is not able to measure concentrations of them.
- They do a passive nosocomial infection surveillance as demanded by MoH. The department have to fill in the respective documents. With this method they found 2 nosocomial infections in 309 operation procedures of the department of traumatology and general surgery. In 2022, 70 patients were mechanically ventilated.
- As usual, the childrens department is overcrowded in winter: They have 75 beds for them and actually 160 kids in the hospital.
- Tuberculosis is the most important infection in the district.
- They have 340 healthcare workers. 33 (10 %) are carriers of hepatitis virus, mostly hepatitis C (n=27). 18 were treated in 2022.

After that we visited the childrens´ ward.

Also visit to the lab and ICU.

In the sterilisation unit, the devices from Health V project seem to be used.

Walter gave a presentation at **Hospital No 2** about multiresistant bacteria. Here the data in international journals about the situation in Mongolia:

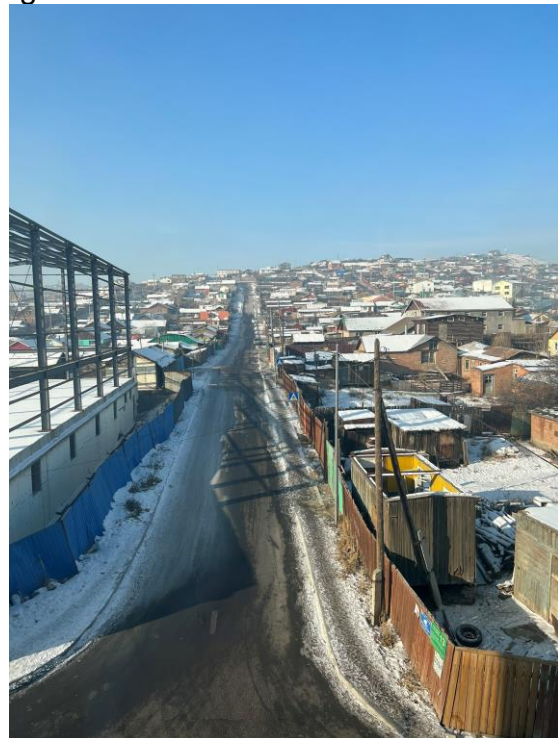
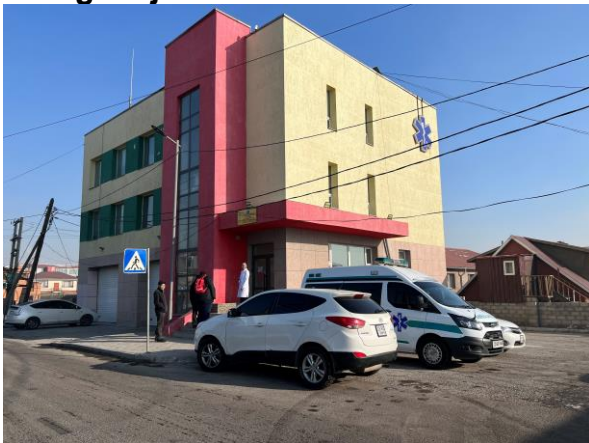
- Inpatients 100 % MRSA of all Staph. au. (Ilder et al 2016) (Germany around 15 %).
- In 2 hospitals Gram-negative multiresistant bacteria in the range of 42 – 69 %. 16 % acquire Gram-negative multi resistant bacteria within 14 days in hospital (Baljin et al 2016).
- Patients at admission to hospital carry Gram-negative multiresistant bacteria in 29 %, 70 % at leaving the hospital (Baljin et al. 2021) (Germany public up to 10 %).

Also he mentioned some data about antibiotic therapy in Mongolia:

- 42 % of parents give non-prescribed antibiotics to their children (Togoobaatar et al 2010).
- Microbiology made in 19 % of inpatients, 60 % getting antibiotics (Germany: 25 %), 92 % antibiotics given without sensitivity test (Germany: 0-10 %) (Ilder et al 2010).
- Sepsis cases with 52 % resistant bacteria. If resistant bacteria: 37 % inadequate therapy (Bataar et al 2013)

After that we had a meeting with director Dr Erdene-Bulgan, Dr Tsogt-Ochir and Dr Tsendjav.

We had a visit to the central of **Emergency Service 103** and the **new branch in Chingeltej district** which is in the middle of ger district:

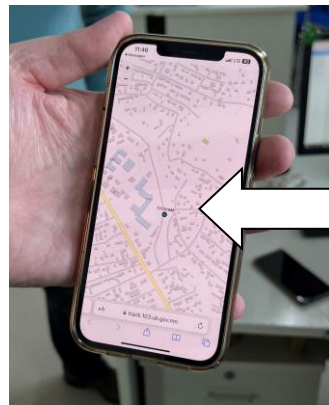


Dr Ariunbold as new director did a great job:

- Everything is very clean.
- All staff got new uniforms for summer and winter.



- The telephone switchboard can see the emergency cars moving in the map and also the patients can do:



What the patients can see: car moving to them

- All doctors got an iPad to give in data and send instantly to emergency center and hospital they go to.
- Also every car has a mobile ultrasound and doctors are teached in it. Also the pictures can be sent:



- All the cars have a mobile ECG which can be sent, too. Also doctors are trained to prepare and read it.
- Very clean and well organised store rooms.
- Every staff member has his/her own locker:



- In each car is a defibrillator, a ventilator and oxygen and a sterile set for births.
- At the moment they have 410 staff members, 95 cars and 5 branches.
- Each year there are 330,000 calls, transport of 265,000 patients (including 26,000 kids), 290,000 consultations by telephone (without payment).

- Within staff, there are 40 % doctors, 30 % drivers and 8 % nurses.
- Emergency service is working with profit so that income of staff could be raised for the second time.
- Basically, they would need 147 emergency cars, but only have 88. This year they will buy some more of them.
- Unfortunately, the ADB project to build a new central does not seem to go on.

There was a meeting with **German ambassador** Mr Rosenberg in the embassy.

### Social contacts

On the first Sunday we went to **Terelj**. It was very cold there with -40°C and lot of wind.



Patrick, Walter and Ganaa had a visit to the **new Chingis Museum**.

On the Saturday, again we went to **Terelj**. Weather that time was much better:



There we met Orgil, relative of Patrick and famous actor in Mongolia. He will prepare a documentary about the MeshHp project.



### **Next steps**

A group of the MNA will go to Germany from 16 to 25 February, 2023, and visit hospitals in Essen, Dortmund and Herne.

A repetition of the September course will be in June, 2023. It will be held at City University.

Maybe, a group of Emergency Service 103 will come in August, 2023.

Walter will go to UB in October/November, 2023, for second part of the course in June, 2023.

Walter was invited for Tsagaan Sar to Khentii Aimag in February, 2024.

Walter Popp, 8 February, 2023