



Mongolian Emergency Service Hospital Hygiene Project

MeshHp.mn

Prof. Dr. W. Popp
HyKoMed GmbH, Lünen/Dortmund
Germany

Gefördert durch:



aufgrund eines Beschlusses
des Deutschen Bundestages

Report of the visit to Ulaanbaatar 1 – 8 February, 2020

Participants:

Walter Popp, HyKoMed, Dortmund
Marina Lorsch, City Health Department, Essen
Adelheid Jones, Köln

This was the sixth 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 mainly mention important results and informations out of the project topics.

The main aim of this visit was to see tattoo and beauty shops.

Hospitals

We visited **Hospital No 1** and met new General Director of the Hospital, Dr Munkhsaikhan, Deputy Director Dr Bayarmaa, Mrs Amarjargal, Head Nurse, and Dr Nasantsog, epidemiologist.

Because of Corona virus, every visitor was measured fever at entrance with infrared thermometer (only in this hospital).



The first floor is just renovated and looks well, also ICU.

ICU has much space and many patients are mechanically ventilated. Bedpans are washed and disinfected in a Meiko washer-disinfector, bought in 2016.

On first glance, staff is not doing enough hand disinfection. Many workers touch patient, bed, surfaces and never make hand disinfection.

It was said that they often have pneumonias, especially with multiresistant Acinetobacter. This hints that this bacteria might be permanently on the ICU. Usually in Germany, this would mean very big disinfection actions.

After that we saw CSSD, which is in construction situation like years ago. The way of instruments is correct. They got only one autoclave from ADB (Health V), but should have got 2! The second autoclave (elder one) is not working. They also have a plasma sterilizer, also not from Health V.

They still have EO sterilization in use – we hinted to that in one of our last reports. EO is forbidden in Mongolia since years because it is carcinogenic.

Instruments are in very bad condition, very rusty and often “repaired”:



They got 2 washer-disinfectors from Health V last spring. They are still not working because they do not get the disinfectant they asked from administration to order. So they still make manual cleaning and disinfection – in the biggest hospital of Mongolia! Ultrasound is in packing room but should be in the first (dirty) room because if ultrasound cleaning is done, it is the first step at all.

Then visiting the microbiologic lab. They got different equipment from Health V. One plate is used for 4 patients. 55 % of Staphylococcus aureus is MRSA – terrible number! In our opinion, Mongolia might have a big problem with multiresistant bacteria, but we never get real numbers. One should think about to make a

prevalence screening, starting with maybe 1,000 outpatients or normal population – looking for MRSA, ESBL positive gram negatives and Vancomycin resistant enterococci (VRE). This would be rather easy to do and would give some first impression about the problem.

After that endoscopy unit was seen which was just renovated and is not working on that day. There are some (maybe) Korean washer-disinfectors which we cannot make an opinion about.

It is said that they brush always the channels. Instruments like biopsy forceps are single and multiple use, both. One should try to completely change to single use only. Then we saw emergency unit which will be used for isolation, especially Corona virus patients.

In our opinion, an infection ward would make sense in this big hospital, for outbreaks like Corona, but also diseases like MRSA or Norovirus and influenza.

We visited **Hospital No 2** and met the new director Dr. Enkhbold.

We saw the new building which is primarily for outpatients. It is very nice and has a lot of space.



The new endoscopy unit is very nice, much space, several rooms for examination. There is an own room for ERCP (with anesthesia, X-ray and X-ray-protected walls). Big resting room with stretchers for the patients.

Good reprocessing area with well planned way of the endoscopes.



Unfortunately, the washer-disinfectors are not working and it is hard to get some engineer coming. So at the moment they do manual reprocessing. Adelheid hints that after looking in internet it is not clear whether these washer-disinfectors do only disinfection and not cleaning. The endoscopes are dried by air and placed in shelves. It is said that the closets are not well working and endoscopes are damaged. Storing time of endoscopes is maximum 1 day, after that they are reprocessed. All instruments (biopsy forceps ...) are single use. So in our view, reprocessing is much better planned and done than in new university clinics.

After that we saw the new CSSD. There is much space and the way of the instruments well planned. An elevator is bringing the sterile instruments to OT (operating theatre), back is on the floors. They have got 4 (four !!!) plasma sterilisers from Sterrad (each around 100,000 € !!!) from Health V:



A fifth new one is from Asia and this is working – this one is enough for this hospital. Additionally, Sterrad sterilisers are only working with Sterrad cartridges and they will be too expensive. In other words: The Sterrad sterilisers will never work. They got 2 autoclaves, rather small. They do not work because they did not get the access data and now they try to find someone who could tell them. There is an additional small autoclave. They did not get washer-disinfectors and they have to clean and disinfect manually. Because of the problem with the autoclaves, the CSSD is not working and the old one does the work. They still have to use the old containers (with holes to close after sterilisation).

ICU also has much space and looks rather fine. There are 2 isolation rooms.

Then we went to new OT. There are 6 nice operation rooms with ventilation. In the storage rooms, we had to criticize that there are no data on the containers or paper-film-wrapping telling something about content, day of production and length to keep. After some search we saw that the data are printed on the wrapping, but ink is empty. Also welding is often not correct.

Emergency unit is fine.

Then we saw old CSSD with equipment from Health V project. 2 autoclaves and 2 washer-disinfectors are working (they said, but washer disinfectors were very dry), also there is a plasma sterilizer. Dirty area is fine with many sinks.

As conclusion, this old CSSD has better equipment than the new one – especially because there are washer disinfectors.

We visited **Chingeltej District Hospital** and talked with Director Dr Lkhagva and Dr Uka.

We visited microbiologic lab and it seems that they work with the equipment from Health V.

Last year, in UB 3,000 teachers and schoolchildren were screened for MRSA and there were 200 positiv. That means 7 %, in Germany it is around 0.5 %. Also there are many MRE in urine, also Carbapenem resistant ones. Unfortunately, it is unclear whether they will have enough money to buy new cassettes for Vitek. At the moment the cassettes are from ADB and expired, but they use them.

Then CSSD. Situation is better than last time. Washer-disinfector from Health V is not working, they do it manually, but in correct way and with correct products. The autoclave from ADB is filled and emptied from one side because of too little space in one room. Sinks are correct with hand disinfectant, fluid soap and paper towels.

We visited **NCCD** and met the Deputy Director.

We visited CSSD which was renovated by Health V. Very big rooms. All the equipment is correctly delivered (first time!). Sinks are often without hand disinfectants. Also paper towels are often missing and textile towels hanging there which should not be:



They bought cheap containers for instruments from China with holes which have to be closed after sterilization:



This is not state of the art, but much cheaper. Sterility is not guaranteed by these containers – additionally, this is the first hygiene institute of Mongolia and should work only in a correct way.

They got autoclaves (working) by Health V, 1 plasma sterilizer and 2 washer-disinfectors. They said that washer-disinfectors are working but they were completely dry. One staff member had to be called to turn them on. The canisters in the washer-disinfectors were empty. We hinted that for manual cleaning and disinfection they should not use latex gloves (not chemical resistant), but use nitril gloves.

Also, we visited **Cancer Center** and met with Deputy Director Dr Bayarsaikhan. We saw ICU. There was an isolated patient after liver transplantation, also having MRSA.



During our stay, there was emergency alarm and nurse went into the isolation room with jacket on – the jacket touching a lot of surfaces. After coming out she made hand hygiene but touched the tip of the bottle with not disinfected hand. This may contaminate the tip! We hinted to that.

After that we had a meeting with head ward nurses and told how we handle MRSA: Isolation, gown, gloves, cap, mask. Also we try to decolonize them: Mupirocin for nose (or Octenidin or Sekusept mucosa – both not so well working), antiseptic for mouth and body washing with antiseptic solution. This must be done for 5-7 days, then wait 2 days, then make swaps and control (nose, mouth, axilla, groin, chronic wounds). 80 % can be decolonized by this way. Also bed, bed linen can be full of MRSA. So every day all surfaces of the room (bed, perfusors...) must be disinfected in order to reduce spread of MRSA. Also bed linen and clothings of patient must be changed. Also all things the patient is using must be disinfected: tooth brush, glasses, teeth prosthesis....

We visited CSSD. This is in same condition as last time. Now, they are included in Health V and renovation will be done soon.

Tattoo and beauty shops

With support from City Inspection Agency we saw 3 small shops which make a mixture of everything: Hair cutting, manicure, permanent make up, laser, waxing, nail

manicure, some also tattoo. There are streets with only shops like those. Usually hair cutting is in one room and the rest in another room.



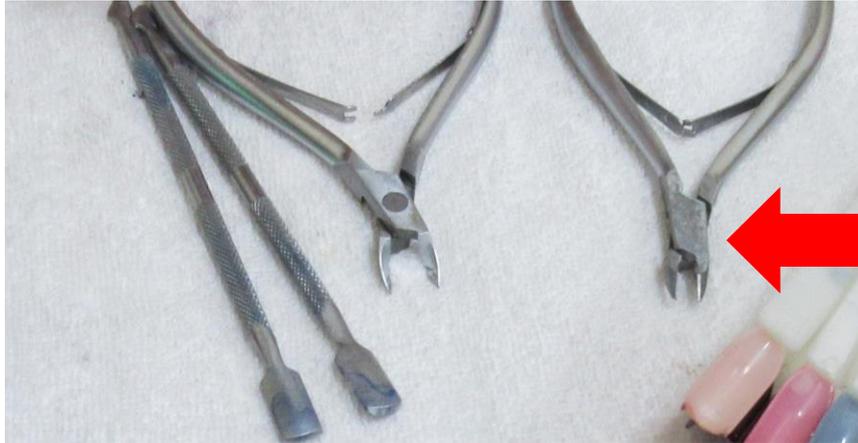
Shop 1: They make permanent make up. They use single use blades, they are thrown in usual house waste. Disinfectants are not available, not for skin and not for hands nor for instruments. Also they make laser and waxing. Everything is rather dirty.



Shop 2: The same spectrum. Permanent make up the same way, also no disinfection of skin. A towel warmer was explained as disinfector, waxing machine very dirty.



Very dirty nail scissors:



Shop 3: 4 beds very close to each other – that would mean that they have up to 4 customers in parallel. They do the same and also tattooing. One tattoo needle was still in halter, covered with paint and blood:



It is known that blood can be distributed during tattooing up to 1.5 m, so may reach the other patients. We presume that the needle is used not only for one patient. Sponges are “disinfected” by UV – which will not work on sponges.

Also we visited Sun Ray Cosmetic Shop: It has big space and many rooms, clean and looks well organized. Many beauty technical equipment, eg laser for hair or tattoo removing. Also here the holders for the tattoo needles are not clean, contain paint (and maybe also blood).



It seems that the needles are not sterilized (color of indicators not changed). Disinfectant seems to be used only in acne treatment. Different apparatus working with UV – called as towel warmer, sterilizer, disinfector...



We had a visit to Dermaesthetic, a new plastic surgery hospital (they will start soon). They will do nose surgery and similar operations. It will be done by a Korean doctor who still has to come. The clinic is very big, nice construction, clean. Also there is a lot of equipment for skin treatment, like laser. Reprocessing of instruments is done outside in another company. Also they do tattoo, especially eyebrows. The needles have to be filled with paint and they say that contamination of paint is excluded. But we are not sure whether they will really use them only once or put the used needle again in the paint bottle.

Symposium

On one afternoon, Marina Lorsch gave a presentation about Corona virus (what is Germany doing, PCR explaining). Around 100 HCWs were listening and there was some discussion.



This meeting was specially allowed by Dr Tumurbaatar, head of CHD. All other meetings are not allowed in Mongolia because of Corona virus.

Social contacts

On the first weekend we went to Terelj national park, visiting Chinggis statue and resting in a ger camp.



The other day we visited two herder families west of UB. There we saw Walter's horse and Marina Lorsch could ride a camel.



On one evening our Mongolian friends celebrated Walter's birthday in UB Jazz Club and Walter got a lot of presents.

Next steps

From 14-23 March, 2020, **15 firefighters from Essen** will go to UB together with Jörg and Walter to make training in Emergency Service Center 103. This project is financed by Engagement Global (German Development Ministry).

Another trip to UB will be 5-13 June, 2020. Also Peter Renzel will join again and we will have 10 years anniversary symposium of MeshHp.

A **private trip** will be done in July 2020, organised by Dr Purevdash and Dr Gantumur, starting with Naadam, going to the eastern aimags. Walter will organize the German participants.

In September 2020 a **German group** will go to UB and make a full week course together with Mongolian Nurses Association, MeshHp and Hospital No 1 for link nurses.

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.

Presumably in November 2020 a **Mongolian group** will come to Germany.

Final remarks

One of the big problems in Mongolian healthcare system is that nearly nobody is reading literature. They always have training, from different countries, with different opinions and philosophies – but at the end consequences are small. Mongolian doctors must start to read new books in their field and get journals in their fields. Without that they do not know what is scientific work and how to make a scientific study. This is why many of statistic data are strange – too many factors in them which are not controlled. It is not the number of trainings, there is a need that Mongolian doctors try to study also on their own!

The same with nosocomial infections. Since 10 years we are asked what is a nosocomial infection, how can we decide about it. We taught it again and again – but always the same question is coming. There are international standards for it, how to decide. In one hospital (some 100 beds) we were told, that they had some 40 nosocomial infections, but only 7 could be confirmed. This is not reality. In Germany, 3-5 % of inpatients have a nosocomial infection, it is worst in most of European countries. So we would expect that infection rate in Mongolia is at least over 5 %. So if you find only 7 nosocomial infections, it must be wrong! Of course, the system of mandatory reporting nosocomial infections and – if they are too high – punish the hospital can not work.

The data about MRSA are quite alarming: According to Hospital No 1, 55 % of Staphylococcus aureus are MRSA - in Germany below 16 %. According to Chingeltej District Hospital last year 3,000 teachers and schoolchildren were screened and 7 % were positive for MRSA - in Germany around 0.5 %. There should be more prevalence screening for MRSA, multiresistant gram-negative bacteria and VRE.

In 2019 and this year, we saw a lot of hospitals which were part of the Health V project of ADB. Nearly all of them got wrong equipment, very often not all necessary products were delivered. A lot of the equipment is not working, especially the washer-disinfectors – the reasons for this are different (no access data, damaged, not repaired...). The absolute top of craziness within Health V is 4 plasma sterilisers from Sterrad (worth around 1,200,000,000 Tugrik) for Hospital No 2.

Walter Popp, 18 February, 2020