



# Mongolian Emergency Service Hospital Hygiene Project

MeshHp.mn

Prof. Dr. W. Popp  
Hospital Hygiene  
University Clinics of Essen  
Germany

## Report of the 10<sup>th</sup> visit to Ulaanbaatar June, 2013

### Participants

Prof. Dr. Walter Popp, University Clinics Essen (9-25 June)  
Dr. Birgit Ross, University Clinics Essen (17-25 June)  
Michael Rossburg, MVZ Dr.Eberhard u. Partner – Dortmund (17-25 June)  
Prof. Dr. Ali Canbay, University Clinics Essen (16-19 June)  
Jörg Spors, Fire Brigade Essen (17-25 June)



### Hospitals

#### First Central Hospital of Mongolia (FCHM)

Dr. Byamba is again director and Dr. Lkhajii vicedirector.

Visit with Dr. Enkhzorig:

- The case of a patient, female, 58 years, from countryside was reported who was **bitten by a mad wolf** which came in the ger by the roof hole. The wolf bit away nose and part of the face. She was vaccinated 3 times in countryside, immunoglobulines not really clear. She came from aimag hospital to UB to get surgery. After some time she was leaving hospital, but came back next day and

collapsed in emergency unit. Died on following day with rhabdomyolysis and renal failure. Section was done, report given to us.

- **HAIs are counted on ICU** now. It was told that there were seen 2 cases of sepsis, 3 pneumonia, 0 bladder infections in May (first month). There are big problems with multiresistant Acinetobacter, Pseudomonas, Enterobacter... It was reported that a prevalence study of HAI is done regularly now. ICU data are reported to INICC (International Nosocomial Infection Control Consortium, Viktor Rosenthal in Argentina). According to Dr Lkhajii, this year alone, there were 153 cases of HAI (inpatients and outpatients together), mostly from ICU, 35 MRSA cases. Last whole year, there have been only 18 cases.
- The ICU has a new isolation room.
- Surface disinfectant now is Kika (also Quats like before), decision was made by epidemiologist.
- The ICU staff has **doubts about quality of hand disinfectant**: it is often smelling strangely and bacteria growth is supposed, especially at the end of the week. According to pharmacy, it contains 80 % ethanol. In pharmacy, it is filled in big bottles which are cleaned several times and rinsed with hot water. On wards, the small bottles are filled from the big ones. Nobody knows whether and how they are cleaned.
- A patient was seen with several abscesses by MRSA – maybe community acquired MRSA?
- Also we had a short look in stroke unit and lab.

For the future, liquid soaps and paper towels are planned, mostly for ICU and emergency service, also single use instruments for biopsies.

The renovation of CSSD will start soon.

A Mongolian center for training of emergency service will be established because No 1 has the biggest emergency unit in Mongolia. A training of CPR will be done for each worker once a year.

The bacteriology lab has been renovated.

Interferon treatment of liver diseases was started and Hep B virus vaccination for new employees is in planning.

Again support was asked for bone marrow transplantation from Essen, especially re stem cell blood bank.

### Second Central Hospital of Mongolia (SCHM)

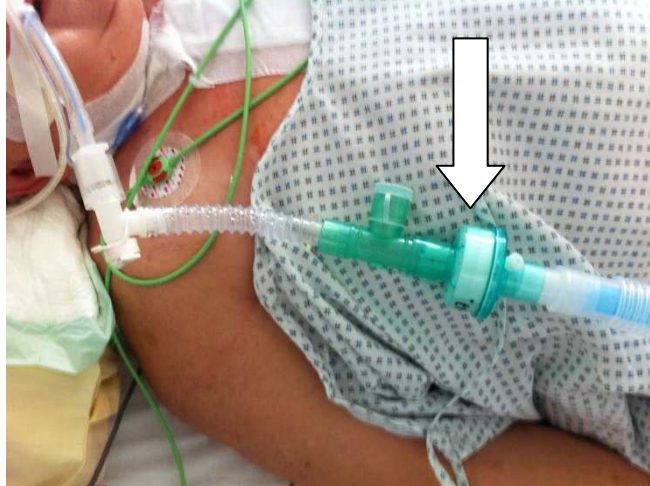
Dr. Rossburg had meetings with administration and lab.

Dr. Birgit had discussions re **outbreak of Pseudomonas**. It is not really clear whether it is the same Pseudomonas (aeruginosa?) and how many pneumonias and wound infections are involved. The disinfectant solution we took with us last time, was negative. Now, it was reported that Pseudomonas was found in the tracheal tubes of patients on ICU, perhaps coming from ventilation machine. There is one ventilation machine on ICU, usually used only once a month. The breathing tubes are reprocessed by "chemical disinfection", sterilization is not possible due to the material. Bacteria filter is not used, a filter is said to be installed in the ventilator. The device is humidified by a water reservoir that is filled with nonsterile water. Indeed,

besides others, this ventilation machine might be a source of Pseudomonas infections/contaminations.

We recommend that humidifiers/any kind of water reservoir should be disinfected carefully every day, when it is used. Water should be changed every day (use sterile water).

Best of all, single use ventilation tubes should be used – if not possible, a bacterial filter might help (also helpful for moisturization without additional water) which can be used at least 2 days. Dr Navchaa got some for trial during next visit in July.



On surgical ward, mattresses are enveloped in plastic and covered with carpets or blankets. If **blankets** are used in this way, they should be washed between every patient.

**Infusions** are usually prepared in the patients' rooms despite there is a clean room available. Keeping in mind that solutions are given immediately, this might be acceptable.

Usually, **doors of all patients' rooms are open**. There is no concept of isolation for patients who are carriers of multiresistant germs. These patients are not separated from other patients.

Due to an order of MoH, staff was tested for MRSA and several staff members were found positive. It is not really clear how to deal with that issue.

There are sort of hygiene plans and antibiotic guidelines available from MoH and WHO, but implementation is not really working.

The issue of handling of patients and staff with multiresistant bacteria should be discussed in all pilot units and become one of the next main issues of MeshHp project.

In **endoscopy department**, the endoscope is placed directly in the washer disinfector after use without any pre-cleaning procedures. A pre-cleaning with brushes is recommended. A disinfectant from China is used containing 2.0-2.2 % of glutaraldehyde. Reprocessed endoscopes are stored hanging in glass cabinets.



**Endoscope washer**



**Storage of endoscopes**

### Chingeltej district hospital

In January, 300 staff members were tested: 38 HCV positive, 26 HBs Ag. 212 staff members of hospital are vaccinated against hepatitis B (3 shots), in Family Healthcare Center 200.

A Swot analysis about hygiene was done and Dr. Tsolmon from NCCD did several trainings.

Situation in renovated CSSD did not change in comparison to March visit: Steriliser is not installed, an engeneer has to come from Czech Republic.

The open toilet besides the matrass disinfection facility should be closed.

After new CSSD getting to work, the sterile products have to go via yard to the hospital which might cause problems, especially in winter: condensation and perhaps wet instruments.



This way (rooms) was decision of director.  
It is ok from our side also to produce alcoholic handrub in that area – but the bottles have to be cleaned and dried always!

Dr. Uka is still keen on developing a new hospital building with a lot of good ideas.

## Emergency Service

Dr. Muugii reported that Songinokhairkhan district and Bayanzurkh district got 25 dispensers for soap and handrub.

77 % of staff got 3<sup>th</sup> hepatitis vaccination.

Disinfection of cars can only be done twice a month because of big workload.

Dr Muugii gave training to drivers of No 2.

Dr Ariunbold taught disaster lessons to Chingeltej district hospital.

Jörg trained staff about

- advanced life support, CPR,
- repeating last trainings,
- handling of new defibrillators and other equipment of new ambulance cars.



According to Jörg, new equipment is necessary: washing machine, laundry dryer, safety shoes, uniform ECGs and portable ventilators, drugs for emergency treatment.

Mr Purevdash reported that City Mayor Office will decide about an emergency hospital run by emergency service. Architectal support for this is needed.

## Training and presentations

Prof. Ali gave presentations for hepatologists and internal medicine (**hepatitis, liver cancer therapy**, hospital No 2).



Michael gave some **lab training** in Hospital No 1.

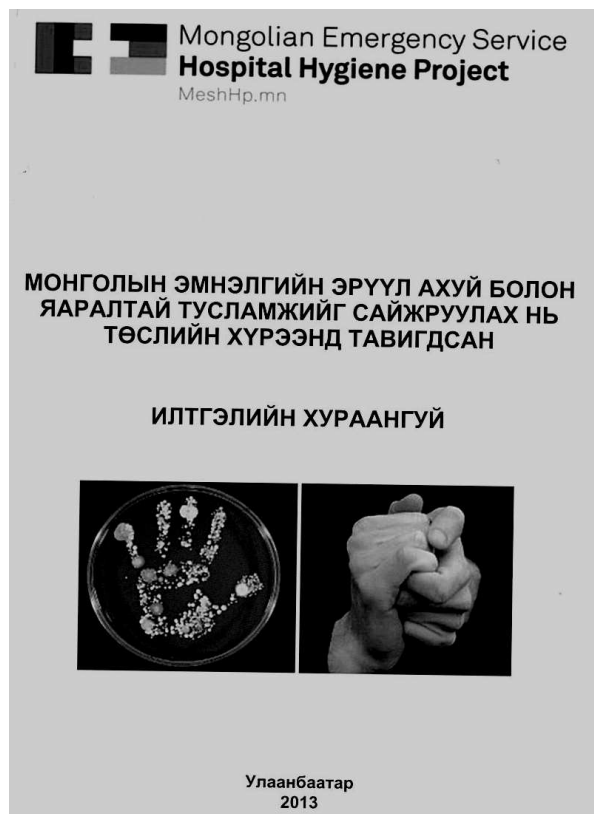
On the fair **Future Mongolia**, Jörg Spors and Prof. Walter gave presentations about MeshHp work and results.

## Meetings

The „**First National Forum on Infection Prevention and Control**“ took place on June 19 and 20 in MoH bringing together nearly 200 participants from all over the country. Organisers were the German and Mongolian Ministries of Health, Global Fund, WHO, ADB, MeshHp project.



On behalf of MeshHp project, Dr Navchaa prepared a **booklet** for the Symposium which was distributed to all participants:



More booklets are available with her and can be given away for free. The booklet contains different presentations of MeshHp group, translated in Mongolian language. Presentations of MeshHp were given by

- Prof. Walter (Disinfectants – situation in Mongolia and German regulations; Hygiene risk management in neonatal wards),
- Michael Rossburg (Prevention of hospital acquired infections – role of a central laboratory),
- Dr. Birgit Ross (Antibiotic usage in hospital acquired infections in hospitals),
- Jörg Spors (Infection control management in emergency services) and
- Dr. Uka (MeshHp project cooperation initiatives).

Prof. Walter got a **medal of Mongolian MoH** as elder healthcare worker.

Mongolian **media** (tv, newspapers) reported a lot about the symposium and also MeshHp project.

Also **German Parliamentary State Secretary Mrs Flach** with a German delegation was in UB during that time and attended the symposium. She had meetings mit Viceminister of Health Dr Amarsanaa, German Ambassador, Mongolian medicine alumnis who had studied in Germany, WHO, ADB and GIZ and she visited several hospitals. Besides others, she was accompanied by Mr Grotz (Heart Centre Bad Krotzingen) and Mr Braun (German Healthcare Expert Group, Meiko).



Michael Rossburg and Prof. Walter had a meeting with **President & CEO Prof. Khurelbaatar** and Prof. Amarja from **Monos** Company re lab capacities in Mongolia.

Prof. Walter had a meeting with **MedClean** regarding import of disinfectants from Germany.

#### **Wrap up meeting and conclusions:**

Michael stated that lot of things in labs improved. Especially, in Hospital No 1 the lab is quite well equipped, but not all equipment running.

The usage of alcoholic hand disinfectant should be improved more and more. If the production is done in hospitals, it is very important to clean and dry very thoroughly every bottle before refilling!

On the long hand, budgets should be made so that single use bottles are used only, bought from producers.

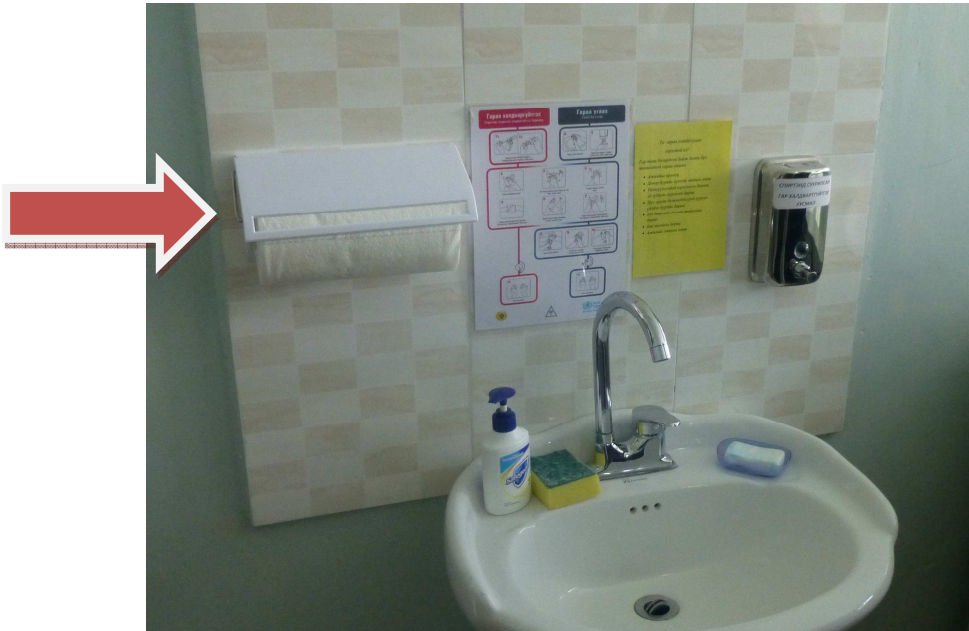
Also it should be thought about how to raise budgets for maintenance of equipment and for buying disinfectants – quality products (eg Ecolab), tested according to standard procedures, and not any longer the cheapest products from China or Russia.

The same is for liquid soap and paper towels.

Health 5 project of ADB will raise the issues of maintenance and budget, and might prepare tenders including both first time.

Prof. Walter hinted that he had seen in some aimag hospital kitchen paper rolls (also with cheap dispenser on the wall) instead of paper towels and he recommended this as cheap solution for more hospitals:





There was a discussion about the next groups. Prof. Walter and others proposed a “basic” group coming this year to Essen and also a more “political” group, perhaps viceminister Dr Amarsanaa, deputy mayor and Mr Purevdash, of course also proposals from other sides. This topic will be further discussed by Mongolian side during next time coming up with some proposals. Political group seems to make sense not before November because of federal parliament election in Germany end of September.

Also more activity in pilot units by German visitors was wanted. Prof. Walter hinted that this is possible, but needs more planning on Mongolian side. Last visits in some of the hospitals were finished after 1.5 hours because of poor planning.

Next steps in MeshHp project:

- Starting of hepatitis therapy politics by Prof. Ali.
- Discussing how to handle multiresistant bacteria in staff and patients: Isolation possible? Decontamination possible? Should there be a written standard operating procedure (hygiene plan)?

Prof. Walter will try to get some contact in Germany re building up a stem cell blood bank in FCHM.

Prof. Walter asked for help as a German journal asked for some paper about wound care in Mongolia. Dr. Lkhajii and Dr. Navchaa will send data or draft (parts of) to him so that he prepare a proposal.

There are booklets (from symposium, containing MeshHp presentations in Mongolian language) still available with Dr. Navchaa, please use them!

MeshHp project should be extended even after 2014.

## Social life

As always, we had a very nice time in free hours, in the evenings and on the weekends.



... and of course, we do everything to promote MeshHp also in Germany:

## Experten des Uniklinikums reisen in die Mongolei

Das Team um Professor Walter Popp betreibt Aufklärungsarbeit in Sachen Krankenhaushygiene. Projekt läuft, seit drei Jahren

Von Tobias Appelt

Vom Uniklinikum nach Ulaan Bator: Essener Experten werden an diesem Wochenende erneut in die Hauptstadt der Mongolei reisen, um dort medizinische Aufklärungsarbeit zu leisten. Die Kooperation zwischen dem Klinikum und der zentralasiatischen Republik besteht seit drei Jahren – und Prof. Walter Popp, Leiter „Krankenhaushygiene“, zieht ein positives Fazit: „In kurzer Zeit haben wir schon große Erfolge erzielt.“

Rund ein Dutzend Mal ist Popp seit Juni 2010 in die Mongolei gereist. Seine Mission: Die hygienischen Zustände in dortigen Spitälern verbessern. Er möchte zeigen, dass hierbei mit einfachen Mitteln viel erreicht werden kann.

Drei Krankenhäuser wird die Essener Expertengruppe, zu der auch Vertreter der Feuerwehr gehören, in

der Mongolei besuchen. Geplant sind Schulungen für Klinikmitarbeiter, Ärzte und Rettungsdienstler.

Das Wissen über die Notwendigkeit der Händedesinfektion haben

sie in den vergangenen drei Jahren bereits etablieren können. Zudem haben sie eine Impfkampagne gestartet: in den betreuten Krankenhäusern konnte seit Projektstart fast

jeder Mitarbeiter gegen Hepatitis immunisiert werden. Diejenigen, die bereits Träger des Virus sind, sollen künftig gezielt behandelt werden. Um Therapiemöglichkeiten zu erörtern, wird in dieser Woche auch Gastroenterologe Ali Canbay vom Uniklinikum mitreisen.

### Gegenseitiger Austausch

Das Projekt basiert auf gegenseitigem Austausch: Regelmäßig kommen Besucher aus der Mongolei nach Essen, um sich Anregungen für die Arbeit in ihrer Heimat zu holen. Ein Beispiel: Am Uniklinikum haben die mongolischen Besucher, dass Angestellte ihre Kittel ablegen, bevor sie in die Kantine gehen. „Nach ihrer Rückkehr haben die sofort vor ihrer Kantine eine Garderobe montiert“, berichtet Popp. „Eine simple, aber sehr effektive Maßnahme, um die Hygiene-Situation zu verbessern.“

Gefördert wird das Engagement der Essener vom Bundesministerium für Gesundheit und von der Regierung in Ulaan Bator. Der Fortbestand ist bis 2018 gesichert. Die Mongolei investierte lange sehr wenig Geld ins Gesundheitswesen. Das Land ist sehr reich an Rohstoffen, es wird ein starker Anstieg der wirtschaftlichen Entwicklung erwartet.

„Unser Projekt war bereits der Auslöser dafür, dass Krankenhaushygiene in der Mongolei auf politischer Ebene zu einem nationalen Thema geworden ist“, sagt Popp. So habe die Regierung des Schwedenlandes den Kliniken bereits zusätzliche Mittel für den Kauf von Desinfektionsmitteln bereitgestellt. Bisher sei es so gewesen, dass in der Klinik zwar Schilder auf die Notwendigkeit des Händewaschens hingewiesen haben – aber nirgends Desinfektionsmittel war.



Einstimmung auf den Auslandseinsatz in landestypischer Tracht: Walter Popp und Birgit Ross vom Uniklinikum Essen.

Prof. Walter and Dr. Birgit, 22 July 2013