# DGKH Notices

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# Guidelines: Management of hygiene for water births

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### 1 Introduction

The introduction of water births to Germany makes it necessary to highlight the risks from the point of view of preventing infections and to produce information for its implementation (1-3).

### 2 Hygiene risks

The specific situation regarding water births with blood (100 - 1,000 ppm = 0.1 to 1 ml/per litre birthing pool water), faeces, urine and sometimes the placenta require specific hygiene conditions and preventative measures to protect mothers, newborns and staff.

The risk of infection may also arise due to drinking water being exposed to microbes as a result of the hospital's piping system becoming contaminated (4-9).

### 3 Hygiene requirements (I B)

#### *3.1 Conditions for women in labour*

Women at risk during labour or with obstetric contraindications are excluded from water birth (10).

Women in labour are not permitted water births if there is an unacceptable risk of infection to staff due to pre-existing infectious diseases (e.g. HIV or HCV positive, AIDS, gonorrhoea, non-responder to HBV vaccine).

As a result, expectant mothers should undergo a rest for HIV, HAV, HBV and HCV. It also makes sense to screen fir chlamydia and gonorrhoea (11).

Prior to using the birthing pool the woman in labour must undergo a cleansing enema.

Only the woman in labour may be in the pool.

#### *3.2 Personal protection*

Staff need to be immunised against both HBV and HAV. Further immunisation (whooping cough, measles, mumps) is recommended (12,13).

Long (above the elbows) and thick purpose-made gloves with good grip must be used. Normal short gloves are insufficient. These must be identified as a medical product.

Appropriate protective clothing (resistant to liquids penetrating) and goggles are required.

#### *3.3. Requirements for the delivery room, birthing pool and the water*

*Delivery room*

- There must be enough space (at least 16 $m^2$) to allow enough room for technical equipment, care of the newborn and space for around three people.
- The maternity unit must meet the requirements of operating rooms (smooth areas that can be disinfected and walls in the spray area around the birthing pool, floor covering with recesses).
- The room is not to be set up as a connecting room.
- Window ventilation and air-conditioning units are required.
- Appropriate and sufficient lighting is to the provided.

*Birthing pool:*

- The birthing pool must be accessible from at least three sides.
- The water inlets are to be installed in the leg area. Overflows and air nozzles are not allowed.
- Feed pipes must be securely installed.
- If re-contamination of the birthing pool water cannot be safely prevented by technical precautions, the drainage should not be opened during birth. It must be large enough.

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- The birthing pool must be of a sufficient size to allow the mother to move.
- The material must be capable of being regularly wiped down with disinfectant without damage.
- After birth, thorough cleaning and safe wiping down with disinfectant is required (14). Resources in the DGHM list, including virus efficacy, are to be applied in one-hour concentration (15, 16)
- Regular effectiveness checks by means of surface contact cultures are recommended.
- Spray disinfection is mostly patchy and to be rejected for occupational health reasons.
- Health and safety in the workplace is to be strictly observed.
- Foam cushions or anti-slip protection that cannot be properly disinfected must not be used. Mobile anti-slip protection is problematic for reasons of hygiene.
- Water feeds with hose connections are only allowed for cleaning purposes. Feed pipes must be securely installed.
- The warm water feed must be connected to a circulation line (17).

*Water:*

- The microbiological quality of the water at the inlet to the birthing pool is to be tested both prior to commissioning and every three months in line with the Drinking Water Regulations (17) and for birthing pool water quality in accordance with DIN 19643 (18) (KBE, *E. coli, Pseudomonas aeruginosa, Legionella*).
- In the event of complaints about the water quality that cannot be rectified by targeted sanitation (e.g. transitory increased chlorination, increasing the water temperature to over 60 °C, checking water lines etc.) a bacterial filter is to be installed before the water outlet, which requires maintenance and efficiency testing as appropriate.
- Water contamination can also be prevented by the following measures: Installation of final-stage bacteria filters or upstream UV irradiation unit (12, 13). The water birthing room is to be prepared as an operating room (disinfectant cleaning of surfaces, disinfection of equipment and items). All instruments used are to be cleaned, disinfected or, as may apply, sterilised in line with standards.

### 3.4 Quality assurance

It is urgently recommended that water birth is included in the hygiene plan for the maternity department (staff requirements, health and safety, cleaning and disinfecting measures, other preventative measures).

The findings of hygiene-related microbiological monitoring of the birthing pool water are to be documented and saved.

An infection record sheet with details of the birth is also to be recommended as with a conventional birth.

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