

**Recommendations for the equipment of medical spaces on
merchant vessels flying the German flag**

Of 19 February 2020

In accordance with paragraph (3) of the first sentence of Section 108(1) of the Maritime Labour Act (SeeArbG), the Committee for medical equipment in the maritime shipping sector can give recommendations on the equipment of medical spaces. By making the below Recommendations, the Committee exercises this function.

Statutory regulations on medical spaces are contained in particular in Sections 107 to 113 of the Maritime Labour Act and in Sections 22 to 24 of the Ordinance on Accommodation in Maritime Shipping (SeeUnterkunftsV). When equipping medical spaces, the current State of Medical Knowledge has to be taken into account.

The Recommendations were published in the Federal Ministry of Transport Gazette, No. 5, 2020.

The Recommendations are not legally binding.

Federal Ministry of Transport and Digital Infrastructure

Bonn, 19 March 2020

For the Federal Ministry of Transport and Digital Infrastructure

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I. Recommendations applicable to all medical spaces

1. Definitions

- 1.1 The term "**medical spaces**" is defined in Section 107(1) of the Maritime Labour Act. In accordance with the Act, medical spaces include:
 1. sickbays, treatment rooms and operating rooms,
 2. the **equipment** of these spaces, in particular the medicine cabinet, sanitary facilities and communication facilities as well as lighting and ventilation.
- 1.2 In accordance with Section 22(1) of the Ordinance on Accommodation in Maritime Shipping, the **treatment room** is a room for medical treatment that is separate from other accommodation. A **sickbay** (Section 23(1) of the Ordinance on Accommodation in Maritime Shipping) is a room for the provision of care to sick person on board that is separate from other accommodation; it serves, for instance, for separating persons suffering from infectious diseases. In the **Maritime Labour Convention (MLC)**, the term "hospital accommodation" is used to refer to the space used for medical treatment (which is the treatment room in accordance with German law).
- 1.3 As a general rule, all ships required to have a treatment room must also have a **sickbay** (first sentence of Section 23(1) of the Ordinance on Accommodation in Maritime Shipping). In derogation from this, the following ships do not need a sickbay:
 1. passenger ships used for European voyages (Europäische Fahrt) whose voyage duration does not exceed 12 hours (second sentence of Section 23(1) of the Ordinance on Accommodation in Maritime Shipping),
 2. ships carrying up to 30 persons if all persons have their own sleeping quarters equipped with a separate sanitary unit that has a washbasin, a shower or a bath tub and a toilet as well as with a calling system or telephone (Section 23(6) of the Ordinance on Accommodation in Maritime Shipping).

2. Use

- 2.1 Medical spaces are to be used exclusively for the **provision of medical treatment and care** on board as well as for the preparation and performance of sanitary measures in the event of the isolation of potentially infectious patients.
- 2.2 A person suffering from an infectious disease must be kept in a space with a **separate air-conditioning/ventilation system**. If that is not possible, an additional bed has to be placed in the treatment room. The aim is to prevent the spread of infectious diseases via the air-conditioning/ventilation system.

3. Location

- 3.1 The medical spaces and the associated sanitary facilities should be connected to each other and located **on one deck**.
- 3.2 The spaces should be located in a **low-noise and low-vibration** area in which the acceleration forces caused by the motion of the ship are as small as possible.

4. Access

- 4.1 The entrances to the medical spaces should be **easy to access** (cf. first sentence of Section 22(2) and Section 23(2) of the Ordinance on Accommodation in Maritime Shipping) and of suitable dimensions to allow for moving injured persons who are lying in a flat position through them on a rescue stretcher (No. 25.01 of the German List) and transferring them to the examination couch. In this regard, the width of the corridor is to be considered when choosing the width of the door.
- 4.2 It is recommended that additionally a sufficiently wide, lockable, direct **access to the outdoor section** of the deck be made available to facilitate the removal of patients in a lying position.
- 4.3 The **doors** of the sanitary spaces should open outwards so that they can still be opened if the patient suddenly loses consciousness inside the sanitary space.

5. Set-up and equipment

- 5.1 The **floors and walls** of the medical spaces must have smooth, light-coloured surfaces that are easy to clean. They have to be washable with water and disinfectant proof. Textile floor coverings and upholstery must not be used.
- 5.2 The medical **equipment** (e.g. treatment couches, refrigerators, chairs, couches, lights, tables) should be suitable for use at sea, vibration-resistant and stable.
- 5.3 The treatment room and sickbay are to be equipped with an **oxygen treatment system** in accordance with the State of Medical Knowledge. In the sickbay, there should be secure mounts for at least one 10-litre oxygen cylinder near the bed.
- 5.4 Above the examination couch and the patient's bed, a ceiling or wall mount for hanging **infusion bottles** should be installed.
- 5.5 Next to the access doors to the medical spaces from the passageway, a **spare key** to the access door is to be kept in a box with a glass front (cf. third sentence of Section 22(2) and third sentence of Section 23(2) of the Ordinance on Accommodation in Maritime Shipping). The glass front of the box is to be breakable.
- 5.6 In the treatment room and sickbay, a functioning **telecommunication facility** (e.g. a telephone) must be available at all times to allow for obtaining **direct** radio medical advice (cf. second sentence of Section 22(2) and Section 23(3) of the Ordinance on Accommodation in Maritime Shipping). In the treatment room and sickbay, a telephone and a calling system connected to the bridge and the passageway should be available at the bed. In the sanitary spaces, a calling system that is connected to the bridge and the passageway is sufficient.
- 5.7. The **power supply** should be guaranteed by means of emergency power at least for the medical devices and lights.
At least two Schuko sockets each should be available close to the examination couch, the patients' beds and the desk to allow for the connection of additional devices.
- 5.8 All medical spaces must be equipped with a **hand-washing facility** providing running cold and warm potable water. The hand-washing facility is to be equipped with the following items:
 - a disinfectant dispenser for hand disinfection,
 - a liquid soap dispenser,
 - a paper hand towel dispenser and

- a waste bin with lid (with foot pedal for opening)

This equipment is to be kept clean and ready for use at all times. It is recommended to equip the washbasin in medical spaces with a mixer tap with a long single lever. In the associated sanitary spaces, this can be dispensed with. The tap is to be flushed regularly in accordance with the **hygiene plan** (Annex). The use of soap bars and cloth towels is not permitted in medical spaces, publicly accessible sanitary areas and in areas where food is prepared.

- 5.9. All **waste water** from medical spaces (including from showers and sanitary spaces) must be treated as black water in accordance with the MARPOL Convention. When carrying out **disinfection measures**, it is to be taken into account that discharging disinfectants into the on board waste water system may lead to the death of the bacteria required for the biological treatment stage. This can cause the on board waste water treatment system to malfunction. It is recommended to check the instruction manual of the waste water treatment system or consult its manufacturer before discharging waste water containing disinfectants into it.

6. Hygiene

- 6.1 All spaces used as medical spaces have to be **clean, hygienically flawless** and ready for immediate use at all times.
- 6.2 The Recommendations of the Commission for Hospital Hygiene and Infection Prevention (KRINKO) of the Robert Koch-Institut, as amended, also apply when carrying out hygiene and disinfection measures in medical spaces on board.
- 6.3 A **hygiene plan** must be established for the medical spaces, medical devices and aids. The port health services have the authority to require the presentation of this plan and to review it. The hygiene plan has to include information on cleaning and disinfection measures for surfaces, devices and other equipment that are to be carried out regularly as well as a flushing plan for all potable water taps of spaces used for medical purposes (washbasin, shower, bath tub). The cleaning, disinfection and flushing plans are to be displayed in a clearly visible manner. A model of a hygiene plan can be found in the Annex to these Recommendations.
- 6.4 If a steam sterilizer is used, the requirements in terms of the current state of the art and the specifications provided by KRINKO regarding installation location and operation are to be taken into account.

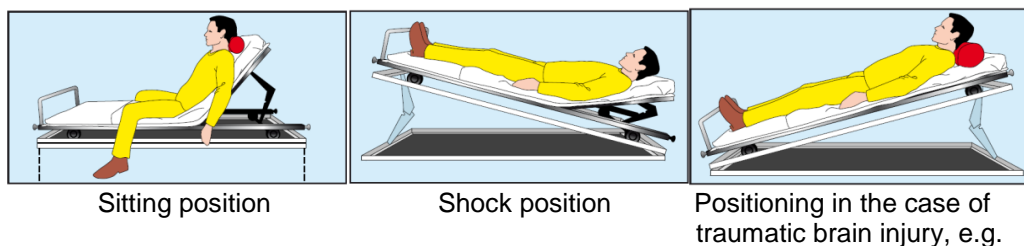
II. Recommendations for the equipment of treatment rooms

1. Size



- 1.1 Refer to the concept drawing under No. 2.9 for guidance regarding the calculation of the size of the treatment room.
- 1.2 The examination couch should be accessible from both long sides and either from the head or foot end, ensuring, in each case, at least one metre of free space for movement.

2. Equipment and set-up

- 2.1 The treatment room must be adequately **ventilated (supply and exhaust ventilation)** (cf. Section 11 of the Ordinance on Accommodation in Maritime Shipping).
- 2.2 The electric room lighting in the treatment room should ensure an **illuminance** of 500 - 1000 lx, measured at a distance of 0.85 m above the standing and walking surface. In addition, an examination light in accordance with DIN EN 60601-2-41 should be available for performing minor surgical procedures, such as suturing a wound, and assessing skin diseases. The examination light should have a swivel arm with a radius of action that allows the user to illuminate every part of the examination couch. The light can be mobile.
- 2.3 There should be a **desk** in the treatment room. Near the desk, there should be a **shelf** that is suitable to accommodate DIN A 4 binders. There should be two **chairs** in the treatment room. The chairs, including their padding, have to be washable with water and disinfectant proof.
- 2.4 In addition to what is laid down concerning the **examination couch** in Section 22(4) of the Ordinance on Accommodation in Maritime Shipping, it should be ensured that the couch has the following characteristics:
The examination couch should be secured against falling over and slipping. The examination couch must be easy to clean, washable with water and disinfectable. The height of the reclining surface should be at least 65 cm. The examination couch should make it possible to put the patient in shock position; the adjustable back section should allow for a sitting position of the person to be treated. In addition to the couch, there should be a table that can be locked in position for keeping ready the aids needed for the provision of medical care.



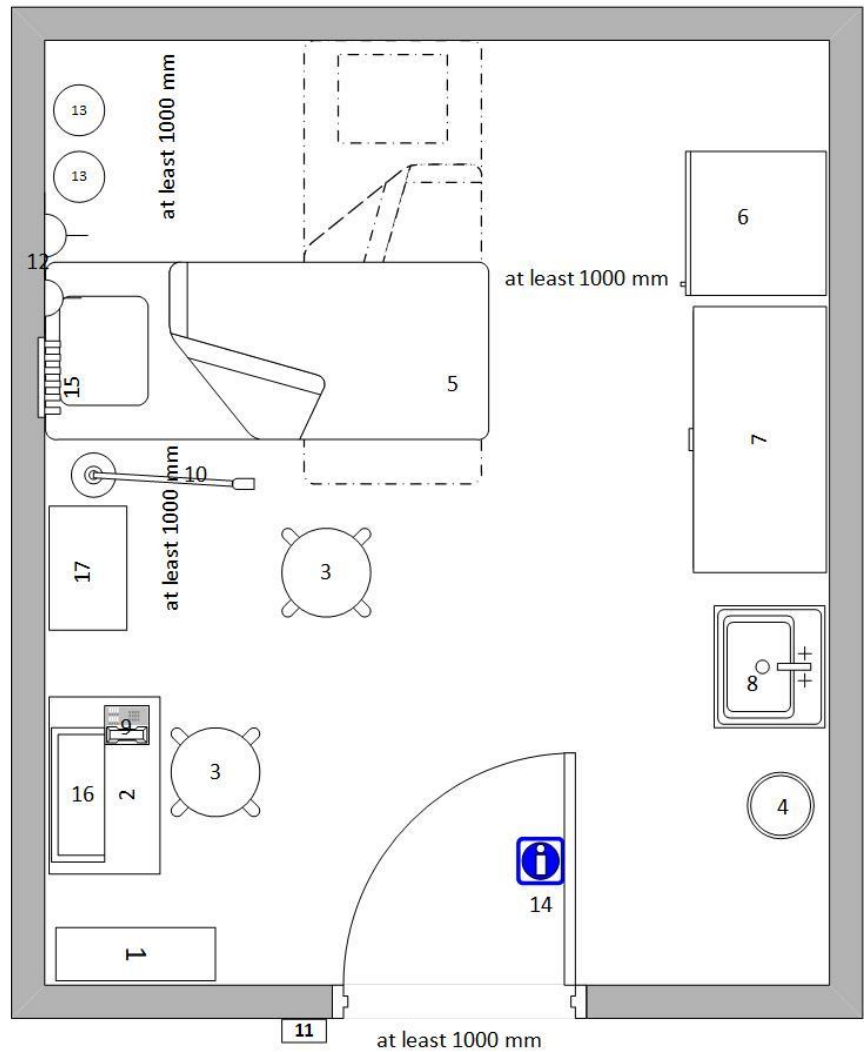
- 2.5 In the treatment room, there should be a **refrigerator** for storing medicines that require cooling. The refrigerator should be set to an internal temperature between +2 and +8 °C and be equipped with a thermometer to check this internal temperature.

- 2.6 A suitable mark indicating the location where the defibrillator, the MFAG equipment and the rescue stretcher are kept should be affixed to the access doors of the medical spaces. The indication of the location where the defibrillator is kept should take the form of a photoluminescent safety sign in accordance with the currently applicable DIN EN standard and be supplemented by an arrow pointing in the direction of the location where it is kept and include the information where it is kept.
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- 2.7 The **rescue stretcher** with vacuum mattress has to be ready for use and kept, together with its accessories, in an easily accessible and well-secured manner. It can also be kept outside the treatment room. In this case, it should, however, be kept in the immediate proximity of the treatment room. If the rescue stretcher is kept in the treatment room or sickbay, a photoluminescent safety sign in accordance with the currently applicable DIN EN standard should be affixed to the outside of the access door to the room. If the rescue stretcher is kept outside the treatment room, the location where it is kept should, as a minimum, be clearly indicated on the outside of the door to the treatment room.
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- 2.8 The **emergency bag** and the **MFAG equipment** that might be required should be kept close to the rescue stretcher.

2.9 Concept drawing of a treatment room:

Treatment room for sea-going ships (concept drawing)

1. Recue stretcher, in upright position
2. Desk
3. Chair
4. Waste bin
5. Examination couch
6. Refrigerator
7. Medicine cabinet
8. Washbasin with soap and disinfectant dispenser
9. Communication facility for direct advice (telephone)
10. Mobile examination light
11. Box with glass front for spare key
12. Double socket
13. 10-litre oxygen cylinder
14. Mark indicating where defibrillator, MFA G equipment and rescue stretcher are kept
15. Hooks for infusion bottles
16. Bookshelf
17. Table, lockable in position



III. Recommendations for the equipment of sickbays

1. Size and location

- 1.1 Refer to the concept drawing under No. 2.4 for guidance regarding the calculation of the size of the sickbay.
- 1.2 It is not permissible to use an inside space as sickbay (first sentence of Section 23(2) of the Ordinance on Accommodation in Maritime Shipping).

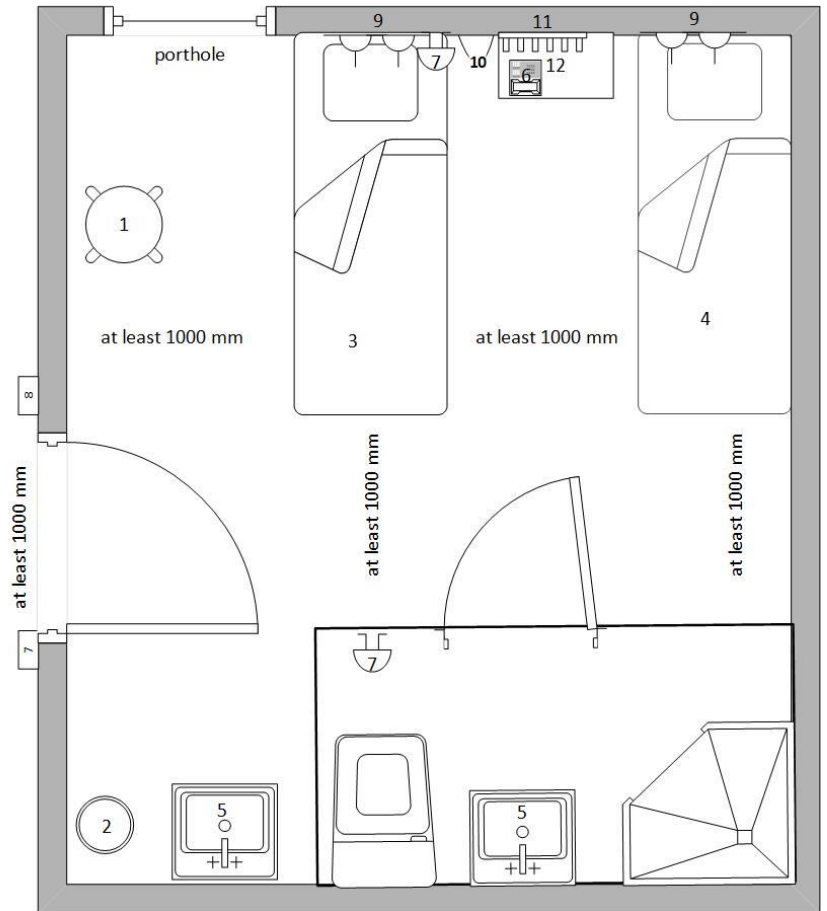
2. Equipment and set-up

- 2.1 The sickbay should have access to daylight through an external window. The electric room lighting in the sickbay should ensure an **illuminance** of 500 - 1000 lx, measured at a distance of 0.85 m above the standing and walking surface. Separately switchable reading lights should be installed in the head-end area of patients' beds.
- 2.2 There should be at least one **chair** in the sickbay. A bedside cabinet should be available in the head-end area of every patient's bed. Instead of a bedside cabinet, a foldable tray can be provided. For every patient, there should be a possibility to lock away valuables.
- 2.3 In addition to what is laid down concerning the **patient's bed** in Section 23(5) of the Ordinance on Accommodation in Maritime Shipping, it should be ensured that the bed has the following characteristics:
Patients' beds in sickbays should be at least 2000 x 900 mm in size and secured to the floor. They should be longitudinally aligned with the vessel. The back and foot sections should be height-adjustable. They should be adjustable to make it possible to position patients with their backs raised, in shock position or with their knees raised. To make it possible to carry out cardiopulmonary resuscitation on the soft surface of the patient's bed, a flat and hard support should be kept ready that can be pushed underneath the patient's upper body if necessary.

2.4 Concept drawing of a sickbay:

Sickbay for sea-going ships (concept drawing)

1. Chair
2. Waste bin
3. Patient's bed
4. Second patient's bed, if appropriate
5. Washbasin with soap and disinfectant dispenser, paper towel dispenser
6. Telephone connected to bridge and passageway
7. Calling system connected to bridge and passageway
8. Box with glass front for spare key
9. Double socket
10. Mount for oxygen cylinder
11. Hooks for infusion bottles
12. Bedside cabinet / foldable tray



IV. Recommendations for the equipment of medical spaces on ships with a ship's doctor

1. General information

- 1.1 On ships with a ship's doctor, there has to be a procedure room in addition to the sickbay and the treatment room (cf. Section 24 of the Ordinance on Accommodation in Maritime Shipping, which refers to this room as "operating room").
- 1.2 Medical spaces have to be designed and equipped in consultation with the ship's doctor within the framework of a risk assessment.

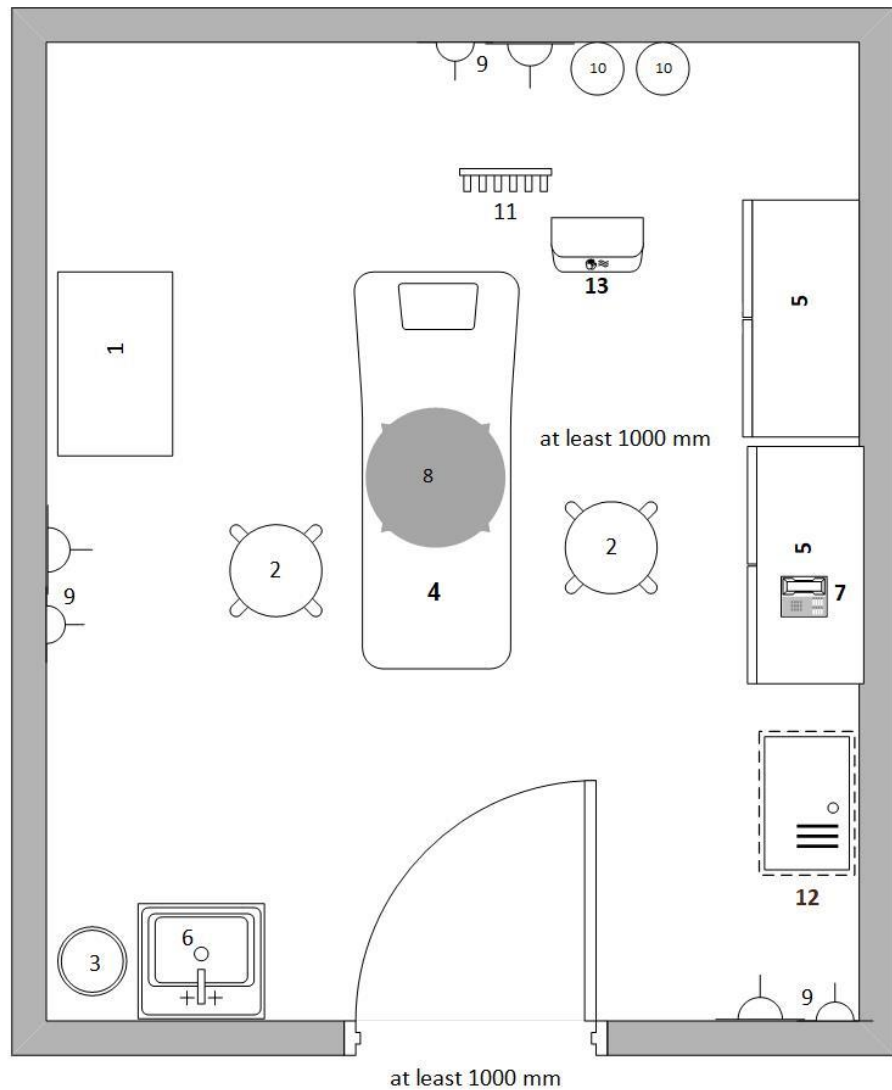
2. Size and equipment

- 2.1 The size of the procedure room has to be sufficient to accommodate the equipment mentioned in the List for ship's doctor that is needed for procedures.
- 2.2 Refer to the concept drawing under No. 2.6 for guidance regarding the calculation of the size of the procedure room.
- 2.3 There should be a functioning telecommunication facility (e.g. telephone) to provide a connection to the accommodation of the ship's doctor.
- 2.4 An uninterruptible power supply should be ensured for the procedure room.
- 2.5 Medical spaces on board ships with a ship's doctor should have a separate ventilation circuit.

2.6 **Concept drawing** of a procedure room:

Procedure room for sea-going ships (concept drawing)

1. Instruments table, also foldable
2. Swivel stool
3. Waste bin with foot pedal
4. Operating and treatment couch
5. Cabinet
6. Washbasin with soap and disinfectant dispenser
7. Communication facility for direct advice (telephone)
8. Operating light
9. Double socket
10. 10-litre oxygen cylinder
11. Hooks for infusion bottles
12. X-ray machine, if applicable
13. Ventilator (at head end of operating and treatment couch)



Annex

Model of a hygiene plan for medical spaces on merchant vessels

Cleaning, disinfection and thus maintenance measures have to be carried out regularly in medical spaces on board merchant vessels.

The hygiene requirements to be met by medical spaces on merchant vessels are similar to the ones to be met by out-patient clinics, doctors' clinics or medical care centres ashore.

In Germany, the recommendations of the Commission for Hospital Hygiene and Infection Prevention (KRINKO), published by the Robert Koch-Institut are applicable. They also apply to treatment rooms and sickbays on board merchant vessels. They can be accessed at <http://www.rki.de> (in German).

This overall hygiene plan only applies to the treatment rooms and sickbays, the associated sanitary facilities as well as spaces of merchant vessels used in the event of isolation measures, if appropriate.

Disposable articles are preferable to reusable articles. The port health service of the home port will gladly provide specific advice on the articles and their adequate quantity based on the risk profile of the relevant ship.

1. Staff

Training and instruction

Persons engaged in cleaning and disinfection activities are to receive instructions regarding the intended activities from the responsible officer. Here, the choice of the appropriate disinfectant should be a key subject. This instruction is to be documented in a suitable manner.

Using the personal protective equipment listed in the hygiene plan is mandatory for all persons previously mentioned.

2. Hand hygiene and use of personal protective equipment (PPE)

Handy hygiene

The hands of the staff members are considered to be the main vehicle for the transmission of pathogens. Therefore, hand hygiene is globally considered the most effective individual measure for preventing the transmission of infections. No other hygiene measure offers such great preventive benefits to everyone.

Detailed information on hand hygiene can be found on the website of the RKI (<http://www.rki.de>) under "Infektionsschutz/Krankenhaushygiene/Händehygiene" (in particular "Händehygiene in Einrichtungen des Gesundheitswesens") (in German).

This and other adequate information on hand hygiene is to be made available to the ship's personnel by the shipowner. A poster illustrating professional hand disinfection is to be put up in the medical spaces!

For the protection of the officer carrying out medical duties and his patients:

**Ensure proper hand hygiene before every patient contact
and wear disposable gloves!**

Personal protective equipment for use in the medical field (PPE)

Detailed information on PPE can be found on the website of the German Social Accident Insurance Institution for Health Services and Welfare (Berufsgenossenschaft für Gesundheitsdienst und Wohlfahrtspflege, www.bgw-online.de) (in German) by searching for the keyword "TRBA250".

PPE provides a mechanical barrier between wearer and environment. It includes:

- Disposable surgical gloves (No. 21.20)
- Disposable examination gloves (No. 21.21)
- Surgical mask, disposable (No. 21.27.1)
- Eye protection (e.g. protective goggles)
- Apron, disposable (No. 21.28.1)
- Surgical cap, disposable (No. 21.26.1)

Disinfection and cleaning activities require the person performing them to have special knowledge and take special precautionary measures:

Cleaning activities using disinfectants

- Suitable gloves in accordance with the recommendations of the manufacturers of the disinfectants are to be used.
- If spray aerosols form, e.g. when using insecticide spray (No. 18.04), suitable respiratory protection is to be used in accordance with the manufacturer's instructions, if appropriate.

Potable water disinfection

In this regard, it is essential to take into account the manufacturer's instructions.

- Adequate protective equipment is to be worn (at least protective goggles and acid-proof gloves).
- If aerosols form, adequate respiratory protection is to be used.

Prior to medical procedures (e.g. suturing a wound) and catheterizations

- The hands and forearms are to be cleaned using water and liquid soap; if very dirty, a nail brush (No. 21.06) and nail cleaner (No. 21.07) are to be used in addition. Afterwards, the hands and forearms are to be dried thoroughly using disposable towels or a clean cloth towel. After a drying and waiting period of at least 10 minutes, a surgical hand disinfection (3 minutes, virucidal disinfectant for hands effective against noroviruses (No. 18.01)) is to be performed.
- For aseptic procedures, disposable surgical gloves (No. 21.20) and a surgical mask, disposable (No. 21.27.1) are to be used.
- If necessary, use further PPE in consultation with radio medical advice.

All other medical measures performed on a patient

- The hands must be cleaned using water and liquid soap, they must be dried thoroughly and, subsequently, a hygienic hand disinfection using a virucidal disinfectant for hands effective against noroviruses (No. 18.01) must be performed.
- Disposable examination gloves, non-sterile (No. 21.21) are to be used.

After performing any measure on a patient

- A hygienic hand disinfection must be performed after taking off the disposable gloves and, finally, the hands must be cleaned using water and liquid soap and then dried.

3. Disinfection and cleaning plan

The disinfection and cleaning plan must be displayed in the treatment room together with the poster on hand hygiene (illustrations showing the rubbing technique, e.g. of the Clean Hands Campaign (“Aktion saubere Hände” – <http://www.aktion-sauberehaende.de>, in German) in a clearly visible manner and has to be known to the competent officers and the captain.






The means of disinfection mentioned in Nos.:

- 18.01 Virucidal disinfectant for hands
- 18.01.1 Alcohol swab for skin disinfection
- 18.01.2 Disinfectant for wounds and wound infections
- 18.03 Disinfectant for surfaces and objects

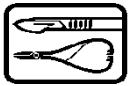
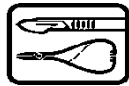


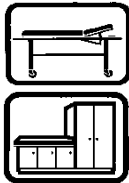

of the State of Medical Knowledge are specified below to meet the requirements of the current hygiene guidelines.

The preparations used on board have to be mentioned by name in the displayed disinfection and cleaning plan.

Disinfection and cleaning plan - skin

WHAT?	WHEN?	HOW?	WITH WHAT?	
	1. Hygienic hand disinfection	<ul style="list-style-type: none"> ➤ Before and after any measures performed on the patient as well as after any contact with materials potentially containing pathogens 	<ul style="list-style-type: none"> ➤ Apply 2 x 3 ml to the dry palm of the hand ➤ Rub hands 2 x 30 seconds, paying particular attention to the palm of the hand, the thumbs and the spaces between the fingers ➤ Wait for a contact time of 2 minutes to pass 	No. 18.01
	2. Surgical hand disinfection	<ul style="list-style-type: none"> ➤ Before aseptic procedures (e.g. suturing a wound) 	<ul style="list-style-type: none"> ➤ Apply 3 ml to the dry palm of the hand several times ➤ Carefully rub hands and forearms up to the elbow with disinfectant for 3 minutes, increasingly focussing on the hands; hold hands higher than elbows ➤ Wait for a contact time of 2 minutes to pass 	No. 18.01
	3. Skin disinfection	<ul style="list-style-type: none"> ➤ Before injections and taking blood samples 	<ul style="list-style-type: none"> ➤ Spray onto skin or apply using a sterile swab ➤ Wet skin thoroughly ➤ Observe contact time, see manufacturer's instructions 	No. 18.01.2 or 18.01.1
	4. Skin disinfection	<ul style="list-style-type: none"> ➤ When treating wounds 	<ul style="list-style-type: none"> ➤ Wet skin / area around the wound thoroughly ➤ Observe contact time, see manufacturer's instructions 	No. 18.01.2
	5. Mucous membrane disinfection	<ul style="list-style-type: none"> ➤ Before catheterization 	<ul style="list-style-type: none"> ➤ Observe contact time, see manufacturer's instructions 	Included in No. 20.09.1

Disinfection and cleaning plan - instruments, surfaces and rooms

WHAT?		WHEN?	HOW?	WITH WHAT?
	6. Sterile Instruments and disposable articles e.g. disposable syringes and cannulas	<ul style="list-style-type: none"> ➤ After use 	<ul style="list-style-type: none"> ➤ After use, disposables have to immediately be disposed of in a sharps container to prevent punctures and cuts. Reusing them is not permissible. 	21.24.1 or 21.24.2
	7. Re-usable instruments	<ul style="list-style-type: none"> ➤ After use 	<ul style="list-style-type: none"> ➤ Once used, the instruments are to be stored safely and sent ashore for sterilisation. ➤ If a steam sterilizer in accordance with No. 21.53 is used on board, the instruments are to be treated in accordance with the applicable requirements. 	
	8. Medical-technical devices e.g. sphygmomanometer, stethoscope	<ul style="list-style-type: none"> ➤ After use 	<ul style="list-style-type: none"> ➤ Observe manufacturer's instructions 	No. 18.03
	9. Urinal Nos. 20.07 and 20.08 Bed-pan No. 20.06	<ul style="list-style-type: none"> ➤ After use 	<ul style="list-style-type: none"> ➤ Empty into toilet, fill with disinfectant solution in the wet cell, wait for contact time to pass, rinse with potable water ➤ Observe manufacturer's instructions 	No. 18.03
	10. Area close to patient e.g. patient's bed, examination couch, rescue stretcher and worktops	<ul style="list-style-type: none"> ➤ Monthly ➤ After use 	<ul style="list-style-type: none"> ➤ Wipe disinfection ➤ Observe manufacturer's instructions 	No. 18.03
	12. Washbasin Shower Toilet Floor	<ul style="list-style-type: none"> ➤ Monthly ➤ Upon visible contamination ➤ After end of treatment 	<ul style="list-style-type: none"> ➤ Wipe disinfection ➤ Observe manufacturer's instructions 	No. 18.03

The port health services and the pharmacies supplying the ship can give you advice on which preparations are preferable for the specific area of application.

If there are diarrhoea cases caused by clostridia or other sporulators, the port health services should be consulted regarding disinfection.

4. Cleaning and flushing plan for potable water taps

In dead legs that are not or rarely used, there is a high risk of bacterial growth. There is a risk of contaminating the entire potable water system. To prevent contamination and colonization of the pipe network due to stagnant water as well as to prevent the infection of people in the treatment area, it is important to always pay attention to an adequate flushing of all potable water taps. Rarely used taps are to be treated in accordance with the following flushing plan. Moreover, attention is to be paid to the cleanliness of shower heads and aerators (aerated stream or laminar stream aerators), since they may become colonized by germs if maintenance is neglected.

Tap	Flushing interval	Flushing and cleaning method
Washbasins and showers in medical spaces	2x per week (e.g. Mon and Thu)	Each 3 minutes cold and 3 minutes at maximum temperature
	Monthly	Unscrew, clean and descale the laminar stream aerator
Toilets in medical spaces and stagnant areas (e.g. rarely occupied cabins, owners cabin, pilot's cabin)	Weekly	Flush 3 times
Stagnation areas outside the medical spaces (e.g. rarely occupied cabins, owners cabin, pilot's cabin, taps in machinery space)	2x per week (e.g. Mon and Thu)	Every tap, 3 minutes cold and 3 minutes at maximum temperature
	Monthly	Unscrew, clean and descale shower heads and laminar stream aerator
All water taps and showers on board	Monthly	Unscrew, clean and descale shower heads and aerators

5. Laundry treatment

If it is certain that there is neither an infection nor a suspected infection, the existing processable laundry from medical spaces (e.g. bed linen, white coats, patients' laundry) can be washed in the ship's washing machine and then reused.

In the case of an infection or a suspected infection, this is not permissible. In such cases, the laundry is to be collected in a watertight, tear-proof and sealable plastic bag, marked as potentially infectious and collected inside the medical spaces. The laundry collected in the plastic bag is to be treated or disposed of professionally in a manner appropriate to the infectious agent as soon as possible. For this purpose, the advice of the port health service is to be sought.

6. Isolation of infected persons or persons suspected of being infected

If an infection with an infectious disease, such as chickenpox, tuberculosis, influenza, infectious diarrhoea or other febrile illness accompanied by skin rashes of unclear origin, is suspected, the patient has to be accommodated in the sickbay or alone in a cabin having its own toilet together with his personal belongings and his bedding. Contact persons have to be isolated, too, if necessary. Since it has separate exhaust ventilation, the sickbay is to be given preference for isolation purposes. A final disinfection is to be carried out in all spaces used by the infected person for treatment and as accommodation.

In accordance with the International Health Regulations, the port health service of the next port has to be notified immediately (e.g. by way of the Maritime Declaration of Health).

We recommend obtaining radio medical advice or consulting with the port health service of the next port regarding the type and duration of the treatment, isolation, hygiene measures and final disinfection.

The isolation should be as follows, depending on the type of infection:

- Single accommodation in the treatment room or sickbay or in the cabin (isolation room)
- Keep doors closed
- For transport: use a surgical mask (without exhalation valve) for the infected person
- Provide carers with PPE appropriate to the pathogen. The PPE is to be worn before entering the isolation room.
- Leave the PPE in the isolation room after use
- Perform hygienic hand disinfection immediately after leaving the room. In the case of sporulators, seek radio medical advice.
- Collect laundry and waste (e.g. paper handkerchiefs), each in watertight, tear-proof and sealable plastic bags, inside the isolation room
- Use disposable tableware