Main items:
- Galley
- Stores
- Hospital
- Drinking water
- Sewage

Matthijs Plemp
The galley

- IHR standard is NOT inspected at a EU standard
- HACCP is guiding but stick to the regulations

Clean
Well maintained
Hand washing
Temperatures
Galley

- Different risk between
  - Basic vessels
  - Large vessels
    - Capable to carry 12 or more crew members

Both carry > 100 people:
- marine diving vessel large
- navy fregate basic

The galley

- Communicate simple
- Bacterial growth can be Stopped when you have No:
  - Food
  - Water
  - Temperature
The galley
The galley of the future

The stores
The stores

- Cleaning (evaporator)
- Food products on the floor
- Defrosting elements
- Covering of products
- Expiration dates
The hospital

- Many regulations depending on
  - Flag
  - Type of ship
  - Area of operation
- Look for medical chest certificate

The hospital

- Papers
  - Medical chest certificate
  - Medical log
  - Medical inventory
The hospital

- Medical log

<table>
<thead>
<tr>
<th>Date</th>
<th>Type of Disease</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023-09-01</td>
<td>Earache</td>
<td>Headache</td>
</tr>
<tr>
<td>2023-09-02</td>
<td>Headache</td>
<td>Headache</td>
</tr>
<tr>
<td>2023-09-03</td>
<td>Headache</td>
<td>Headache</td>
</tr>
<tr>
<td>2023-09-04</td>
<td>Headache</td>
<td>Headache</td>
</tr>
<tr>
<td>2023-09-05</td>
<td>Headache</td>
<td>Headache</td>
</tr>
</tbody>
</table>

Hospital

- Medical log
  - Types of diseases
    - ✓ Tearing eyes on bulk carrier
    - ✓ Caugh in summer/winter
    - ✓ Headache Master
    - ✓ Enough entries
    - ✓ Strange variations
Hospital

- Clean
- Structural sound
- Data available
- Communication with emergency radio

**Hospital Inventory**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY/UNIT</th>
<th>R.O.S.</th>
<th>EXPIRY DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>955</td>
<td>90 x 100 ml, 200 ml, 500 ml</td>
<td>1 Box</td>
<td>28 Dec 2012</td>
</tr>
<tr>
<td>975</td>
<td>90 x 250 ml to 1 l</td>
<td>1 Box</td>
<td>25 Feb 2012</td>
</tr>
<tr>
<td>976</td>
<td>90 x 10 ml to 5 l</td>
<td>1 Box</td>
<td>25 Mar 2012</td>
</tr>
<tr>
<td>977</td>
<td>90 x 1 l to 10 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>978</td>
<td>90 x 5 l to 10 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>979</td>
<td>90 x 20 l to 50 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>980</td>
<td>90 x 50 l to 100 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>981</td>
<td>90 x 1 l to 10 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>982</td>
<td>90 x 10 l to 50 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>983</td>
<td>90 x 50 l to 100 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>984</td>
<td>90 x 100 l to 200 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>985</td>
<td>90 x 200 l to 500 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>986</td>
<td>90 x 500 l to 1000 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>987</td>
<td>90 x 1000 l to 2000 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>988</td>
<td>90 x 2000 l to 5000 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>989</td>
<td>90 x 5000 l to 10000 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>990</td>
<td>90 x 10000 l to 20000 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>991</td>
<td>90 x 20000 l to 50000 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>992</td>
<td>90 x 50000 l to 100000 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>993</td>
<td>90 x 100000 l to 200000 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>994</td>
<td>90 x 200000 l to 500000 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>995</td>
<td>90 x 500000 l to 1000000 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>996</td>
<td>90 x 1000000 l to 2000000 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>997</td>
<td>90 x 2000000 l to 5000000 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>998</td>
<td>90 x 5000000 l to 10000000 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
<tr>
<td>999</td>
<td>90 x 10000000 l to 20000000 l</td>
<td>1 Box</td>
<td>25 Apr 2012</td>
</tr>
</tbody>
</table>
Hospital

- Check temperature of refrigerator
  - 2-8 ºC Tetanus immunoglobulin
  - stored in refrigerator
Hospital

- Water
- Soap (liquid)
- Paper towels
- UN certified needle container
Hospital

- Resuscitator
  - Ready to use
  - Knowledge of operation
  - More crew then only medical responsible officer
  - Training
Hospital

Drinking water

- Bunkering/ generation
- Tanks
- Sterilizer
- Testing
Drinking water

- Risk for use of mineral water
  - Brushing teeth
  - Washing vegetables
  - Cleaning food surface

- Bunkering/generating water
Drinking water

- **Bunkering**
  - Clean hoses
  - Marked hoses
  - Dedicated hoses
  - Test certificate
  - Known supplier

Drinking water

- **Generating water**
  - Vacuum
  - Boiling 55 °C
  - 5 ppm alarm
  - Not in shallow water
  - Not in port
  - Not in Baltic sea
Drinking water

- Fresh water tank
- Clean periodically
- Biofilm

- Check also cleaning of the hydrophore tank

Drinking water

- UV Sterilizer
  - Gate keeper
  - No residual effect

- Running hours
- Cleaning
- By-pass closed
Drinking water

- Silver copper ionisation
- Alarm included
- Residual effect in pipes
- Expensive

Drinking water

- Chlorine
- Use for consumption
- Dosing
- pH
- Pro=cheap-residual
- Bad = taste
Drinking water

- Check for labels
- Ask maintenance book
- See for marks on paint on bolds if tanks have been opened
- Do not sample yourself
- Sharing common wall
- Tank coating

- Request test result drinking water
  - WHO Guideline safe drinking water in Galley
Drinking water
Sewage

- Tank
- Treatment plant

Sewage

- Functional airflow
- Starter culture
- Enzyme cleaning
- 3 mile zone Marpol
Crew accommodation

- ILO standards are minimum standards
- Maintained
- Structural sound
- Clean
- Well ventilated

Questions?