Dear Readers,

Again another summer is there. Time to relax, to do nothing (sometimes) and well, to make a little journey covering many places while reading all the articles we received. Let me start in Great Britain with our constant contributor, Martin Walker. He is summarising some of the dangers well known to all of us when entering a ship and moving along on it. Martin points out some of the dangers that could occur. He reminds us of the sentence: “Safety first”. Let me just add that the biggest danger is negligence. And ourselves taking things to easy.

The new edition of this valued newsletter includes an exciting article from Taiwan, a collaborating partner of our project. It shows how Taiwan tackled the Zika virus. It shows us again how utterly important it is for the SHIPSAN community to have these colleagues, situated in the tropics, on board and to share experiences. Back to Europe: It is a good suggestion to read more about Varna, Bulgaria and meet our dear colleague, Dr. Kokoshanova. When in Bulgaria we are on our little journey very close to Greece. Please read the article from the leadership on the newest developments. And of course from Jaret Ames about the upcoming inspections.

From Hamburg, Germany Britta Schulz contributed. And from here, Hamburg, your editor wishes you all the very best.

Meeting at DG SANTE for the sustainability of the outputs of EU SHIPSAN ACT Joint Action, Luxembourg, 28th April 2017

DG SANTE organised a meeting to discuss the EU SHIPSAN ACT joint action results and the possible options to sustain the achievements of the project, after the request of Ministries of Health participating in the SHIPSAN consortium. The Joint Action was represented by the coordination team, while from DG SANTE the Director for Public Health, Country Knowledge and Crisis Management, the Head of Unit 3 Crisis management and preparedness in health and the policy officer were participating. The different options for sustainability were discussed and valuable advice on the steps forward was received. EC DG MOVE will be invited to participate in the future sustainability activities.

“The different options for sustainability were discussed and valuable advice on the steps forward was received.”
News from the leadership continued

New Joint Action on preparedness and action at points of entry (air, maritime and ground crossing)

As you were informed in the latest issue of the Newsletter, the EC Health Programme – Annual work plan for 2017 has been published, including the Joint Action on preparedness and action at points of entry (air, maritime and ground crossing). Member States have been invited to nominate one competent authority responsible for the implementation of the action. The deadline for nomination was 11th of May 2017. A total of 21 EUMS had nominated the authority to represent the country to the new joint action (Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Estonia, Germany, Greece, Italy, Lithuania, Malta, Moldova, Netherlands, Poland, Portugal, Serbia, Slovakia, Slovenia, Spain, Sweden, and United Kingdom). Additional authorities/organisations will be defined at a later stage as collaborating partners.

The Info-day on Joint Actions took place on 7th of June 2017, where all nominated authorities participated. Further information regarding the progress of the call is available at the CHAFEA website: http://ec.europa.eu/chafea/health/actions.html

New Joint Action on preparedness and action at points of entry (air, maritime and ground crossing)

The scheduling of routine passenger ship inspections for 2017 is very active with the participating Ministries of Health for EUMS. As of the publishing of this newsletter, there have been positive responses from 13 countries, representing 27 ports with a total of 59 inspections agreed to so far. These routine inspections will be conducted according to the standards of the European Manual for Hygiene Standards and Communicable Disease Surveillance on Passenger Ships (Second Edition), and apply to those passenger ships sailing in the EU on international voyages. The first inspections of 2017 were conducted in April by the port of Bratislava in Slovakia and included inland river vessels.

We encourage countries who are still preparing their port inspector availability for EU SHIPSAN ACT Administration to examine ferry schedules and inland river vessels which fulfill the criteria of a passenger ship as a priority for inspection this year, as we need more data on such vessels and their compliance with the European Manual. Thank you to all the EUMS who have responded so far to this scheduling call, and especially to those inspectors at EU ports who are now completing the current e-learning course to qualify for participation in inspections, and for others who are already National SHIPSAN Inspectors, but are re-taking the course in an effort to better prepare for the 2017 inspection year.
Thematic Sections

Environmental health and hygiene on ships:

Martin Walker, Port Health Officer, Suffolk Coastal Port Health Authority, Felixstowe, England

Dear Readers, as a little bonus this month, we have two articles. In addition to my article below about general safety matters, I am delighted that Britta Schulz from the ZfAM in Hamburg has also submitted a very timely article. Her feature covers forthcoming changes to the MARPOL Regulations controlling sewage discharges from passenger vessels within the Baltic Sea special area. As this will directly affect a number of colleagues working within ports receiving passenger vessels from this area, I know that it will be of interest to you.

Safety Matters!

Key message:

Be aware of your own health and safety whilst boarding and on-board vessels.

I was minded to write this article after witnessing various events on past training courses that caused me considerable concern. There is no doubt that quaysides and vessels are hazardous areas, particularly if you are unfamiliar with their workings. Whilst it will be impossible to cover every potential hazard, I hope that this article will help to raise awareness of some of the more common hazards that an inspector may face during a routine inspection. I would also encourage you all to look at your employers and port safety procedures, risk assessments and other sources of safety documentation. Whilst I hope that many of you know/practice a lot if not all of what is covered here, I have seen enough examples of needless risk taking to suggest that this article is a useful reminder to everyone.

Access to the port

Any port is a working environment and numerous activities will be taking place around you. Often your presence may be unusual compared to other activities so you will need to be mindful of minimising your impact (and risk to others) when you access the port. If you use a car, ensure that you park it in areas that do not cause (or at least minimise) any obstruction. Ensure that you have good visibility around your car (so that port vehicles can see you and you can see them when you leave) and if there are designated parking spaces and safe walkways ensure that you use them. All ports will have specific procedures but I have reproduced some of our instructions at Felixstowe below which illustrate some of the principles:

Note that the yellow hatchings indicate areas where crane or other movements may take place (at container ports these may be lines where rubber tyred gantry cranes will run over container stacks).

Access to the vessel

Access arrangements can vary considerably. Here I will focus on access from the quayside; (should you need to board at sea, there are a whole range of other issues about safe access from pilot ladders and the like). My general rule is that if I do not feel safe in accessing the vessel, I will not do so until the vessel has made arrangements for safe access. Improper or missing gangways should be avoided. Equally, you should not have to “jump” across any open area between the vessel and quayside or due to a difference in height. This is a vessel I recently encountered:

Note that the yellow hatchings indicate areas where crane or other movements may take place (at container ports these may be lines where rubber tyred gantry cranes will run over container stacks).

Dear Readers, as a little bonus this month, we have two articles. In addition to my article below about general safety matters, I am delighted that Britta Schulz from the ZfAM in Hamburg has also submitted a very timely article. Her feature covers forthcoming changes to the MARPOL Regulations controlling sewage discharges from passenger vessels within the Baltic Sea special area. As this will directly affect a number of colleagues working within ports receiving passenger vessels from this area, I know that it will be of interest to you.
Gangways should also be deployed with safety nets and chapter six of the UK’s ports industry guidance gives good examples of this.\(^1\)

Notwithstanding other hazards such as dockside crane operations whilst on board:

Once on board, after the gangway had been put in place, I had to avoid this:

Picture shows an open air vent strategically placed at head height!

**On board vessel**

Having safely boarded, as well as responsibility for your own health and safety, the Master also has a responsibility. Boarding without the correct protective equipment (Safety helmets, suitable shoes, inappropriate clothing for example) could be legitimate reasons for the Master to refuse you access to certain areas of the ship (or indeed the vessel itself). If anything happens to you that was down to omissions on their part, they could be prosecuted. I have seen a master (rightly) refuse access to the Engine Room on a training course as some trainees were wearing open toed shoes.

At all times you need to be accompanied by a member of the ships crew. Again, I have seen cases of people wandering off in the Engine Room and getting lost during training courses. Aside from the fact that the Engine Room poses many different hazards, they may have ended up in an unexpected country!

Whilst all areas of the vessel may present risks, I want to cover the Engine Room particularly as it’s very nature places you in an environment close to numerous pieces of machinery, some with less than obvious hazards. It is also an environment that has been unfamiliar to inspectors in the past.

**Engine Room Safety**

The “beating heart” of the ship which can either be cavernous:

\[\text{Or somewhat more restricted in space:}\]

\[\text{In either scenario, there are significant risks that are present; some of which will be obvious and others perhaps less so. Usually upon entering you should be asked if you have or will need ear protection. Ear plugs or ear defenders can provide this protection. Noise levels can vary considerably on board with the loudest levels that I have encountered being in some smaller, older cargo ships where the design of the components was done without acoustic control in mind. Here, the reverberations from the machinery within a metal room were extremely high (greater than 100\text{dB(A)} I would estimate), rendering the use of ear protection a necessity throughout the whole of my time there as there were no quieter spaces to retreat to. Whilst the ship should have spares, it is really incumbent upon you as an inspector to have your own Personal Protection Equipment (PPE) available. The WHO Technical Handbook}^2\text{ gives guidance upon the types of PPE that inspectors should have access to as a minimum. Be aware however, that the principle disadvantage of hearing protection is that you may not hear other sounds (e.g. warning shouts or calls) and so you once you have entered the engine room, be aware}\]

\[\text{\textquote{I have seen cases of people wandering off in the Engine Room and getting lost during training courses.}}\]
Thematic Sections continued

of your surroundings and stay with the responsible crew member! There may be other requirements or matters to be aware of too:

The most common types of hazards encountered are still the “slips, trips and falls”. The Engine Room may certainly present all of these, particularly if there are oil spills or oily floors/steps. In addition, as the engine room is where the power and movement for the vessel is generated, hot surfaces, moving parts (potentially unguarded), pinch, nip and crush hazards, plus sharp edges may all be present. In addition, the construction of engine rooms, (being principally metal) means that surfaces are very unforgiving when they come into contact with humans. Wearing of safety helmets/hard hats may still be necessary depending upon what you are faced with.

Conclusions

This article can only be a quick pointer to some of the risks that you may face. At all times, follow the necessary safety instructions of the crew and your own employer/port authorities. There are also plenty of information resources out there from marine insurers or health and safety bodies. If something looks or feels unsafe, or you are not confident about it, take the time to check. Do not put yourself at unnecessary risk until it has been properly assessed and any necessary safety measure are implemented.

Finally, whenever I research these articles, I tend to come across something I didn’t know. This time, I found out that a “bight” is a curved section or slack part between two ends of a rope (any section of line that is bent into a U-shape is a bight). A crossed bight is a loop. What is the risk? Well “Beware of Bights!”.

References:

Thematic Sections continued

Stricter upcoming regulations for sewage discharge
Britta Schulz, Dipl.-Ing., Zentralinstitut für Arbeitsmedizin und Maritime Medizin (ZfAM), Hamburg, Germany

On passenger vessels a lot of sewage is generated. A distinction is made between black water from toilets and hospital and grey water from showers and laundries.

Requirements concerning the pollution of the sea by sewage are regulated by the International Convention for the Prevention of Marine Pollution from Ships (MARPOL) annex IV which entered into force in September 2003. It regulates the discharge of sewage which is comminuted and disinfected sewage at a distance of more than 3 nautical miles (nm) from nearest land. Ships sewage which is not comminuted or disinfected is allowed to discharge at a distance of more than 12 nm from nearest land. Discharge of untreated sewage has environmental and even health risks.

“In total, the sewage discharge from passenger vessels is forbidden in special areas except the vessel has an approved sewage treatment plant.”

In 2013 the Marine Environment Protection Committee (MEPC) adopted resolution MEPC.200(62) and declared the Baltic Sea to the first special area. The resolution entered into force in January 2013. These stricter regulations are effective from 01.06.2019 for new passenger vessels and from 01.06.2021 for existing passenger vessels.¹ For passenger ships on a direct route from the North Sea to St. Petersburg and back there is a two-year extension until 2023.

In total, the sewage discharge from passenger vessels is forbidden in special areas except the vessel has an approved sewage treatment plant. Alternatively, passenger vessels can discharge sewage to port reception facilities. Some ports offer a sewage discharge free of charge. All states along the Baltic Sea reported that they have adequate port reception facilities.²

“Some ports offer a sewage discharge free of charge.”

References:

Infectious diseases on ships

Taiwan experience in dealing with the Zika virus
Yu-Hui Tsai, Yi-Chun Wu

Population 23 million, the national health insurance covers 99% of the population. Taiwan, a country which one-third of island horizontally cut by tropical of cancer and its climate as a perfect host for mosquitoes. Just like any natural phenomenal communicable disease transmission can occur without border regardless political and race. It was known before 2015 that there were Zika Virus infections in parts of Africa and Asia – limited cases were reported at that time.

In late 2015, Taiwan Centers for Disease Control (TCDC) routine real-time surveillance monitored emerging news/articles reported of microcephaly case with high-association to Zika infection. On 10 Jan 2016 the entry screening surveillance detected a mild fever in a man from Thailand who later was laboratory-confirmed the first case of Zika. Taiwan immediately set up a Central Epidemic Command Center (TCECC), right after The World Health Organisation (WHO) declared the cluster of microcephaly cases and other neurological disorders with possible Zika infection association a Public Health Emergency of International Concern (PHEIC) on 1st Feb 2016. Four initial strategies were announced for battling Zika: (1) overseas disease prevention, (2) travel and border health, (3) medical preparedness, and (4) vector surveillance and control. As of May 23, 2017, Taiwan has reported 14 cases (all imported), 5 of which were detected at the border and found additional 1 confirmed case through the contact tracing.

Travel and border health measures stands as frontline defences in responding international epidemics before locally acquired case detected. The system gained solid experiences from everyday reality test as proven in the epidemics of Ebola, MERS and Zika. The routine surveillance mechanism and procedures enable early detection especially laboratory is included which also provide extra response time. The inbound passenger’s health monitoring is a system of continuous measure including in-depth health assessment, rapid blood test, national lab active monitoring and followed up with case management and control measures by local government. Entry screening has been implemented for more than 10 years, with increasing numbers of traveller voluntarily informing of returning from epidemic areas and make health enquiry before enter into community. It shows that inbound traveller’s attitude towards border health measures changed from refuse to acknowledge. This acknowledgement positively enhanced the effectiveness of travel and border health measure.

When dealing with the Zika Virus, the Government has raised awareness through a series of public risk communications/bulletins – to ensure the message is sufficiently communicated."

When dealing with the Zika Virus, the Government has raised awareness through a series of public risk communications/bulletins – to ensure the message is sufficiently communicated. The tourism companies thus can play an important role in raising travellers’ awareness on designated communicable diseases, and have consequently been required to conduct pre-travel education to its customers, tourist guide and the industries related. However, when looking at 2 of the confirmed Zika-infection cases, it was noted that there has been a gap between the expectations mentioned in the awareness education materials and the actual practice thereof – this needs to be worked on.

In addition, the subtropical climate and local dengue cases does stand a controversy fact in battling mosquito-borne Zika virus infection. In comparing of changing weather (which is highly unlikely), the vector surveillance and control measures have been implemented, practiced and enforced in 1895 when the Japanese had established its rule in Taiwan. The surveillance and control measures have been established from routine mosquito behaviour education workshop, density survey, engaging all sectors to eliminate breeding sites and modify response plan. Sixty years later with all resources pull to fight against Malaria Taiwan was declared its eradication in 1965. Based on the experiences gained over decades the first imported Chikungunya fever and Zika virus infection case were detected right at the border which efficiently break the community transmission cycle. It is clear that the threat of spread and transmission will never stop if the disease was undermonitored or even underreported in endemic origin and community. By sharing epidemic information and case study it helped the origin (or second origin) country to act and others to enhance surveillance and preparation. Together formed a borderless guarded net of public health security for everyone to live in.
“Cross-sectoral/cross-country cooperation, as well as vigilance and timeous information sharing are key to successfully control any public health threat.”

It was also noted that there was little guidelines available in the early days of the Zika Epidemic because it was a relatively unknown-disease to the world. Consequently, there was also some confusion worldwide on which authority’s post-disinsection requirement and method best complied with the international standard. Whilst most of mosquito habitant countries focus of air transport preparation and response plan, the EU SHIPSAN ACT Joint Action released an “interim guidance on maritime transport and Zika virus disease” to address the possibility and risk assessment of sea transportation in April 2016. Taiwan as an associated member of SHIPSAN. In light of this, TCDC recommended to emphasise the importance of vector management practice to sea freight and ships and port authorities. In addition to routine health monitoring TCECC soon issued official letter in regard of enhancing the vector surveillance and control measures both on and off the ships.

In summary, it must be understood that cross-sectoral/cross-country cooperation, as well as vigilance and timeous information sharing are key to successfully control any public health threat. A single battle strategy has its own shortcomings, as one country free of transmission now no forever. One must remain vigilant and committed in its effort for upcoming challenge. With EU SHIPSAN, it is certain the information and experiences are continuously shared without border.

People from the SHIPSAN consortium

Dr Galina Kokosharova, MD
Head inspector of Port Health Authority in Regional Health Inspection – Varna, Bulgaria

My name is Galina Kokosharova. I was born, grew up, studied and live in Varna. Varna is the biggest sea port of Bulgaria. It is a very nice place for living, surrounded by forest hills, with beaches of fine sands.

I studied in Medical University in Varna. Then I worked as epidemiologist in Dobrich, a city at 50km far from Varna. After 3 years I took specialty epidemiology and became an epidemiologist in one of the biggest hospitals in Varna. Then I worked for 7 years in Transport Hygiene – Epidemiological Inspection and from 1999 I am chief of Medical – Sanitary border control in Regional Health Inspection Varna.

I participate in SHIPSAN projects after The Ministry of Health took decision Bulgaria to be associated partner. I did different activities in the project – presentations, questionnaires, meetings on the national level, etc. and was representative of Bulgaria in training courses, conferences and general assemblies. In 2016 I was tasked in the organisation of National Training Course which was held in one of the most popular resorts near Varna. It was very successful for participants and trainers.
**Events**

**Past events:**

Chafea workshop: Healthy work environments, active health promotion and diseases prevention at workplace

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<tr>
<td>Lisbon, Portugal</td>
<td>8–9 June 2017</td>
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The Health Directorate for Health, DGS from Portugal, in collaboration with Chafea, the Consumers, Health, Agriculture and Food Executive Agency and the European Commission organises the conference. The achievements of EU SHIPSAN ACT Joint Action will be presented. Dr. Martin Dirksen-Fischer will present the EU SHIPSAN ACT focusing on the web-based risk assessment tool for occupational health risks per cargo ship type developed by EU SHIPSAN ACT Joint Action using the EU-OSHA Online Interactive Risk Assessment (OIRA) tool.

**Other forthcoming events:**

**PUBLIC HEALTH CONFERENCE**

**Preparedness, Alert and Response**

Lessons Learned in Europe from Last Cross-Border Health Infectious Threats

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<tr>
<td>Madrid, Spain</td>
<td>15 June 2017</td>
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The Preparedness, Alert and Response: Lessons Learned in Europe from Last Cross-Border Health Infectious Threats conference is a major conference that will address the issue of improving the capabilities of Reference Centers in Public Health to protect efficiently European citizens from threats to their health.

The event is supported by the Consumer, Health, Agriculture and Food Executive Agency (Chafea) and organised by Instituto de Salud Carlos III.

Dr Carmen Varela Martínez, leader of work package 4: State of the Art in the EU SHIPSAN ACT Joint Action from the Spanish National Center for Epidemiology (ISCIII), will give a presentation titled “International cooperation on management of point of entry and capacity building”. Prof. Christos Hadjichristodoulou, coordinator of the EU SHIPSAN ACT Joint Action will give a presentation titled “Risk communication”.

Registration is available here

The conference agenda is available here

**Keeping international travellers healthy – meeting the public health challenges**

**Conference**

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<tr>
<td>London, UK</td>
<td>29–30 June 2017</td>
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Mr Jaret Ames, representing EU SHIPSAN ACT, will present during the second day of the conference the EU SHIPSAN ACT guidelines. For further information please visit the conference website [https://www.rsph.org.uk/event/keeping-international-travellers-healthy---meeting-the-public-health-challenges.html](https://www.rsph.org.uk/event/keeping-international-travellers-healthy---meeting-the-public-health-challenges.html)

**9th International Conference on Legionella**

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<tr>
<td>Rome, Italy</td>
<td>26th–30th September 2017</td>
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Prof. Hadjichristodoulou C., representing EU SHIPSAN ACT, will give a presentation titled Legionella colonisation of water systems aboard passenger ships and differences with accommodation sites (hotels etc.) For further information please visit the conference website [http://www.legionella2017.com/en/](http://www.legionella2017.com/en/)

**Quiz**

Answer to the previous issue quiz: Anthrax

Congratulations to the following for providing the correct answer:

Fernando del Hierro Vega, Director, Ministerio de Hacienda y Administraciones, Spain
High prevalence of Legionella in non-passenger merchant vessels


Abstract

There is a paucity of information on the risk from potable water in non-passenger merchant vessels (NPMVs) particularly with regard to Legionella and other bacteria. This retrospective study examined water samples from 550 NPMVs docked in eight UK ports. A total of 1027 samples from 412 NPMVs were examined for total aerobic colony counts (ACC), coliforms, Escherichia coli and enterococci; 41% of samples yielded ACC above the action level (>1 x 103 c.f.u./ml) and 4-5% contained actionable levels (>1 c.f.u./100 ml) of faecal indicator bacteria. Eight hundred and three samples from 360 NPMVs were cultured specifically for Legionella and 58% of vessels proved positive for these organisms with 27% of samples showing levels greater than the UK upper action limit of 1 x 103 c.f.u./l. Cabin showers (49%) and hospital shower (45%) were frequently positive. A subset of 106 samples was analysed by quantitative polymerase chain reaction for Legionella and identified a further 11 Legionella-positive NPMVs, returning a negative predictive value of 100%. There was no correlation between NPMV age or size and any microbial parameters (P > 0.05). Legionella pneumophila serogroup 1 was isolated from 46% of NPMVs and sequence-based typing of 17 isolates revealed four sequence types (STs) previously associated with human disease. These data raise significant concerns regarding the management of microbial and Legionella risks on board NPMVs and suggest that better guidance and compliance are required to improve control.

Identification of World Health Organisation ship’s medicine chest contents by Anatomical Therapeutic Chemical (ATC) classification codes


Abstract

BACKGROUND: Ships should carry mandatory given amounts of medicinal products and basic first aid items, collectively known as the ship’s medicine chest. Type and quantities of these products/items are suggested by the World Health Organisation (WHO) and regulated by individual flag states. In countries that lack national legislation, it is assumed that ships should follow WHO indications. An objective difficulty mainly involving vessels of international long-haul routes could be to recognise medicinal compounds obtained in other countries for replacing products used or expired. Language barrier may complicate, if not make it impossible to interpret the name of the medicinal product and/or of the active principle as indicated in a box printed in a completely different language. Handling of the ship’s pharmacy may be difficult in case of purchasing of drugs abroad due to language barriers. Medicinal products are identified by the international non-proprietary name of the active principle and/or by their chemical or invented (branded) names. This paper has reviewed the list of medicinal products recommended by WHO and assigned to each one the ATC code as a solution to the problem of medicinal compounds organisation.

MATERIALS AND METHODS: Two researchers independently examined the list of medicinal compounds indicated in the third edition of the International Medical Guide for Ships and attributed to each compound the ATC code according to the 2013 Guidelines for ATC classification and Defined Daily Dose (DDD) assignment.

RESULTS: The ATC code was attributed to the medicinal compounds indicated in the third edition of the International Medical Guide for Ships.

CONCLUSIONS: The availability of an objective system to identify medicinal products is required for ships, which will contribute in making the identification of items purchased simpler, making it easier to understand which drug seafarers need to be administer, and consequently reduce possible therapeutic mistakes.

What’s new on the website?

www.shipsan.eu

https://www.facebook.com/shipsan.eu
https://twitter.com/shipsan_eu

Do you want to keep up to date with upcoming events? All upcoming SHIPSAN ACT and other events are posted in the SHIPSAN ACT website under the News and Events section. Check it out! http://www.shipsan.eu/Home/NewsandEvents.aspx