

Outbreak Prevention and Response Plan (ORPR)

Where Vessel Owners/Operators do the hotel management by themselves or third parties and have their own OPRP in place, the ship will follow the Owner's procedures for those marked as "hotel operations" herewith but will still follow the rest of the procedures herewith as they relate to the Company's (V.Ships Leisure) responsibilities for technical operations and ISM management.

This Local Working Instruction is to be read in conjunction with the Safety Management System as it makes a number of references to it.

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1. PUBLIC HEALTH MONITORING & REPORTING OF PASSENGERS AND CREW HEALTH

1.1. International and Local Public Health Requirements

1.1.1. Compliance with all port and public health requirements for reporting on passenger and crew health

The Captain is to ensure that the ship complies with all port and public health requirements for reporting on passenger and crew health:

- 1.1.1.1. Unless local regulations require otherwise, before arrival at a Port State the Master shall ascertain the state of health on board, and will complete and deliver, on arrival or before that if so required, to the competent authority for that port a Maritime Declaration of Health which shall be countersigned by the ship's doctor
- 1.1.1.2. Deaths and illnesses will be reported in an Attached Schedule to the Maritime Declaration of Health detailing personal details, nature of the illness, date of onset and treatment as applicable

1.1.2. Public Health surveillance and reporting

- 1.1.2.1. The ship's Senior Medical Officer is to appraise the Captain of the number of diarrhea and vomiting illness cases (Acute Gastro-Enteritis (AGE)) that occur and advise him accordingly.
- 1.1.2.2. The form MEDLOG 3 "Public Health (AGE) Reports on Passengers and Crew Health (AGE Surveillance Log)" is to be completed every cruise on daily basis for all diarrhea and vomiting illness cases amongst passengers and crew of which the medical department are aware.
 - .1. "Reportable" cases of diarrhea and/or vomiting illness are to be indicated on MEDLOG3.
 - .2. A reportable case of AGE (Acute Gastro-Enteritis) illness shall be defined as:-
 - .1. Diarrhea (three or more loose stools within a 24 hour period or what is above normal for the individual; or
 - .2. Vomiting and one additional symptom including one or more episodes of loose stools in a 24 hour period, or abdominal cramps, or headache or muscle aches or fever (temperature of $\geq 38^{\circ}\text{C}$ (100.4°F)); and
Reported by a passenger or crewmember to the Master or medical staff

- .3. The reportable cases must include crew members with a symptom onset time of up to 3 days before boarding the vessel. This is to be assessed and documented by form Med 21 “Health Declaration for Joining Crew Members” which should be completed by all new joining crew and handed to the Ship’s Doctor as soon as completed, and maintained on file for a minimum of 12 months
- 1.1.2.3. Questionnaires (form MED 12 “Medical History Questionnaire” detailing activities and meal locations for the 72 hours before illness onset must be distributed to all passengers and crew members who are AGE cases and attached and maintained with the AGE surveillance log (form MEDLOG 3 “Public Health Reports on Passengers and Crew Health”)
- 1.1.2.4. The following must also be documented and available for 12 months for review during inspections and outbreak investigations
 - .1. interviews with cabin mates and immediate contacts of crew members with AGE (initial, 24-, and 48-hour)
 - .2. documentation of the date and time of last symptom and clearance to return to work for food and non-food employees (ie via Medlog 2 “Medical Consultation Records - Crew”)
 - .3. documentation of the date and time of verbal interviews with asymptomatic cabin mates and immediate contacts of symptomatic crew (ie via Medlog 2 “Medical Consultation Records - Crew”)

1.2. For vessels trading to the USA

1.2.1. Foreign Quarantine Regulations Reporting Procedure (for Illnesses other than GI Illness and for Death reporting)

- 1.2.1.1. Foreign Quarantine Regulation [42 CFR 71.21] requires all ships to immediately report on-board deaths and certain communicable illnesses for ill persons displaying the conditions below:
 - .1. Fever $\geq 37.8^{\circ}\text{C}$ for more than 48 hrs
 - .2. Fever of any duration plus any of the below:
 - Rash
 - Swelling of the lymph glands
 - Jaundice
 - difficulty breathing or suspected/confirmed pneumonia, or
 - cough for more than 2 weeks or cough with bloody sputum, or
 - headache with neck stiffness, or
 - reduced level of consciousness, or
 - unexplained bleeding
- 1.2.1.2. Acronyms:
MIDRS = Maritime Illness and Death Reporting System

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DGMQ = Division of Global Migration Quarantine

1.2.1.3. Contact either:

- Live support (8:00 am – 4:00 pm EST, Monday-Friday):
1-888-892-1320 or
MIDRS_DGMQAdmin@cdc.gov
- For reporting only:
Phone: 24 hour contact information 1- 770-488-7100 or
1-877-764-5455 (at-sea use).

1.2.1.4. Use the ID and password provided to report via the web (preferred and easier method for reporting) at: <https://wwwn.cdc.gov/midrs/>

1.2.1.5. DO NOT send e-mail reports or requests for information as an attachment; MIDRS does not accept ANY attachments and will not process them.

1.2.2. CDC requirements (for GI illness reporting)

1.2.2.1. Centers for Disease Control and Prevention (CD) Vessel Sanitation Program(VSP) requirements for passenger vessels

- .1. the Master of a ship with a foreign itinerary and which carries thirteen or more passengers to submit in addition to other Federal reports at least one standardized Acute Gastro-Enteritis (AGE) report based upon the number of “reportable” diarrhea illness cases (including zero) among passengers or crew during the current cruise (or last 15 days).
- .2. This must be done at least twenty four hours prior to arrival at the first U.S. port but not more than 36 hours before the expected arrival time. If the number of cases changes after the submission of the initial report, an updated report shall be submitted not less than 4 hours before arrival. The 4-hour update report shall be a cumulative total count of the reported crew and passengers during the entire cruise, including the additional cases.
- .3. Proof that routine 24 hour and 4 hour update reports have been received by the U.S. Public Health Service (VSP) must be maintained on file.

1.2.2.2. The AGE report shall cover the cruise before entering a US port (unless longer than 15 days in which case it may cover only those 15 days before arrival in US port) and shall contain:

- .1. the name of the vessel;
- .2. the ports of embarkation and disembarkation;
- .3. the dates of embarkation and disembarkation;
- .4. the total number of reportable cases of AGE among the passengers and crew, including those who have been disembarked because of illness, even if the number is zero; and

- .5. the total number of passengers and crew members on the cruise.
- 1.2.2.3. A special report shall be made by the Master at any time during a cruise, including between two US ports and Canada, whenever the cumulative percentage of reportable cases recorded in the MEDLOG 3 reaches 2 % or more of passengers or 2% of crew and the vessel is within 15 days of expected arrival at a US port. Daily reports of illness status shall be submitted as requested by VSP following initial submission of a special report. Routine 24 hour and 4 hour reports shall continue to be submitted by the Master.
- 1.2.2.4. A second special report must be submitted when the cumulative percentage of reportable cases entered in the AGE surveillance log reaches 3% among passengers or 3% among crew and the vessel is within 15 days of expected arrival at a U.S. port.
- 1.2.2.5. Contact either for GI illness reporting:
- Live support (8:00 am – 4:30 pm EST, Monday – Friday):
770-488-3141 or slawrence1@cdc.gov
954-356-6650 or iga7@cdc.gov
 - For reporting only
 - Phones: 24 hour contact information:
 - Toll Free: 1-800-323 2132 (in the United States),
 - Local and International Contact: 954-356-6650,
 - Facsimile Number: 954-356-6671
 - E-mail: VSP@cdc.gov
- 1.2.2.6. 24 hours prior to entering a U.S. port the Doctor is to advise the Staff Captain in writing the number of “reportable” cases that have occurred during the last 15 days and the Staff Captain is to ensure that the Public Health Service is informed accordingly using the above email address or phone numbers.

1.2.3. General requirements for all reporting

- 1.2.3.1. All ships under the jurisdiction of the Vessel Sanitation Program (ie carry more than 13 passengers and have an international itinerary and call on US ports) are required to maintain all of the following:**
- .1. a copy of the MIDRS User Manual at their reporting desk**
 - .2. reporting requirements for gastrointestinal illnesses (GI)**
 - .3. a User ID**

1.3. For vessels trading to Canada

1.3.1. Health Canada and US CDC VSP

- 1.3.1.1. The Health Canada Cruise Ship Inspection Program (CSIP) follows and is harmonized with the USA CDC Vessel Sanitation Program (VSP)

- 1.3.1.2. There is a voluntary compliance fee-for-service inspection program with unannounced inspections (at least once per year) whereas 85 points or lower (of max 100) are not satisfactory

1.3.2. GI Reports

- 1.3.2.1. Gastro-Intestinal Illness (GI Reports) are equivalents to Acute Gastro Enteritis (AGE) Reports

- .1. A Routine report is to be submitted as detailed below no less than 24 hours, but no more than 36 hours before the ship's arrival at a Canadian port:
 - .1. the report shall contain the name of the vessel, ports and dates of embarkation and disembarkation, the total number of ill passengers and crew and the total number of passengers and crew.
 - .2. when a cruise does not originate in Canada, routine reporting is required prior to arrival at the first Canadian port of call.
 - .3. when a cruise originates in Canada, routine reporting is required prior to arrival at the last port of call in Canada.
 - .4. reporting can be done via:
 - the web at <http://www.healthspace.ca/hcsc>
the following credentials may be used:
username: leisure
password: winnipeg7
OR a sign on as a guest user is also possible
 - fax to +1 613 [952-8189](tel:952-8189) or +1 613 960-4540
 - telephone to + 1 877 742-2538
 - for any questions: phb_bsp@hc-sc.gc.ca
- .2. Likewise the USA requirements in the section above the following reports are also to be made:
 - .1. A Four (4) hour report is also to be done per the contact details for Canada above if the numbers of cases change after the initial report
 - .2. Special (Immediate) Report to the telephone contact only above if the AGE level reaches 2% among passengers OR crew

1.3.3. Corrective Action Statements (CAS)

- 1.3.3.1. Corrective Action Statements (CAS) are required to be submitted for the violations noted within 10 business days of an inspection by Health Canada to the following contacts

| Region | Fax Number | Email Address |
|---------------------------------|----------------|---------------------------------|
| Eastern (NS, NB, NFLD, PEI, NU) | (506) 855-6568 | Atl.phb@hc-sc.gc.ca |
| Central (ON, QC, MB, NT) | (514) 283-4317 | Que.Ont.Mb.bsp.phb@hc-sc.gc.ca |
| Western (BC, AB, SK, YT) | (604) 666-7487 | Western.Region.CARs@hc-sc.gc.ca |

- 1.3.3.2. (see also the guidelines in [the SMS ie for large cruise ships](#): SQMM Ch.9.4 “Port Health Authorities Inspections” and the procedures in FOM 742.2 “External Inspections by Public Health Authorities” for the follow up on such inspections)

2. IDENTIFYING THE EXISTENCE OF A (POTENTIAL) OUTBREAK (TRIGGER LEVELS)

2.1.Trigger levels

2.1.1. Criteria

2.1.1.1. Meeting the criteria defined below as cumulative % and/or daily rate of Acute Gastro Enteritis (AGE) cases among passengers or crew triggers the appropriate responses both on board the vessel and from the support management ashore

2.1.1.2. Norovirus cases will be confirmed onboard by the Doctor by the case definition of AGE.

2.1.1.3. If the vessel is equipped with rapid norovirus testing methods, then these will be used to confirm the case.

2.1.1.4. When it is not possible to get laboratory confirmation of norovirus, health departments can use Kaplan Criteria to determine if the outbreak was likely caused by norovirus:

- A mean (or median) illness duration of 12 to 60 hours,
- A mean (or median) incubation period of 24 to 48 hours,
- More than 50% of people with vomiting, and
- No bacterial agent found.

When all four criteria are present, it is very likely that the outbreak was caused by norovirus. However, about 30% of norovirus outbreaks do not meet these criteria. If the criteria are not met, it does not mean that outbreak was not caused by norovirus.

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| Level | Acute Gastro Enteritis (AGE) cases | Sanitation operations | Triggers | | | | | Returning to level Green |
|--------------|------------------------------------|-----------------------|---|----|---|----|-------------------------------------|---|
| | | | Number of cumulative AGE cases (within crew OR pax) | OR | Daily rate (in 24 hrs) number of combined AGE cases (both pax AND crew) | OR | Number of confirmed Norovirus cases | Hours after AGE cases fall to Baseline levels |
| Green Level | Baseline | Normal | Isolated AGE cases < 0.5% | OR | ≤0.45% | OR | 0 | n/a |
| Yellow Level | Elevated | Enhanced | Sudden increase of AGE cases 0.5% -1.5% | OR | ≥0.45% | OR | 1 | 72 |
| Red Level | Outbreak | Epidemic control | Significant increase of AGE cases > 1.5% within pax or crew | OR | ≥0.55% | OR | 3 | 72 |

2.1.2. If in doubt

2.1.2.1. If in doubt, it is better to over react in terms of implementing these procedures, alerting the Company and mobilising resources.

2.2.Main Steps

2.2.1. Case Identification, Control and Prevention

2.2.1.1. For effective identification of AGE and prevention of its spread, whenever possible verify the following:

- .1. Case identification
 - .1. evaluate the measures being undertaken to identify cases not reporting to the medics
 - .2. are onset times properly logged so the right picture is built of the outbreak and identity of recent cases
- .2. Case control
 - .1. are appropriate measures undertaken to “quarantine” cases and THOROUGHLY disinfect cabins

.3. Case prevention

- .1. are all onboard being made aware of the need for preventive measures and reporting of illness

2.2.2. Other controls

.1. Environment control

- .1. is hand washing and sanitising thorough enough and regularly carried out
- .2. is hand contact potential reduced to minimum as practicable

2.3. Gastrointestinal Illness Logs

2.3.1. Retention

In all cases of gastrointestinal illness the following forms must be completed and copies retained onboard for at least 12 months

2.3.2. List of Logs

2.3.2.1. MEDLOG 1 “Medical Consultation Records - Passengers” or MEDLOG 2 “Medical Consultation Records - Crew” as appropriate

2.3.2.2. MEDLOG 3 “Public health reports on passenger and crew health”

2.3.2.3. MED 12 “Gastrointestinal Illness Surveillance System Questionnaire” (2 pages)

2.3.2.4. Med 21 “Health Declaration for Joining Crew Members”

3. MANAGEMENT OF A (POTENTIAL) OUTBREAK (LEVELS YELLOW AND RED)

3.1. Initial Actions and Aims

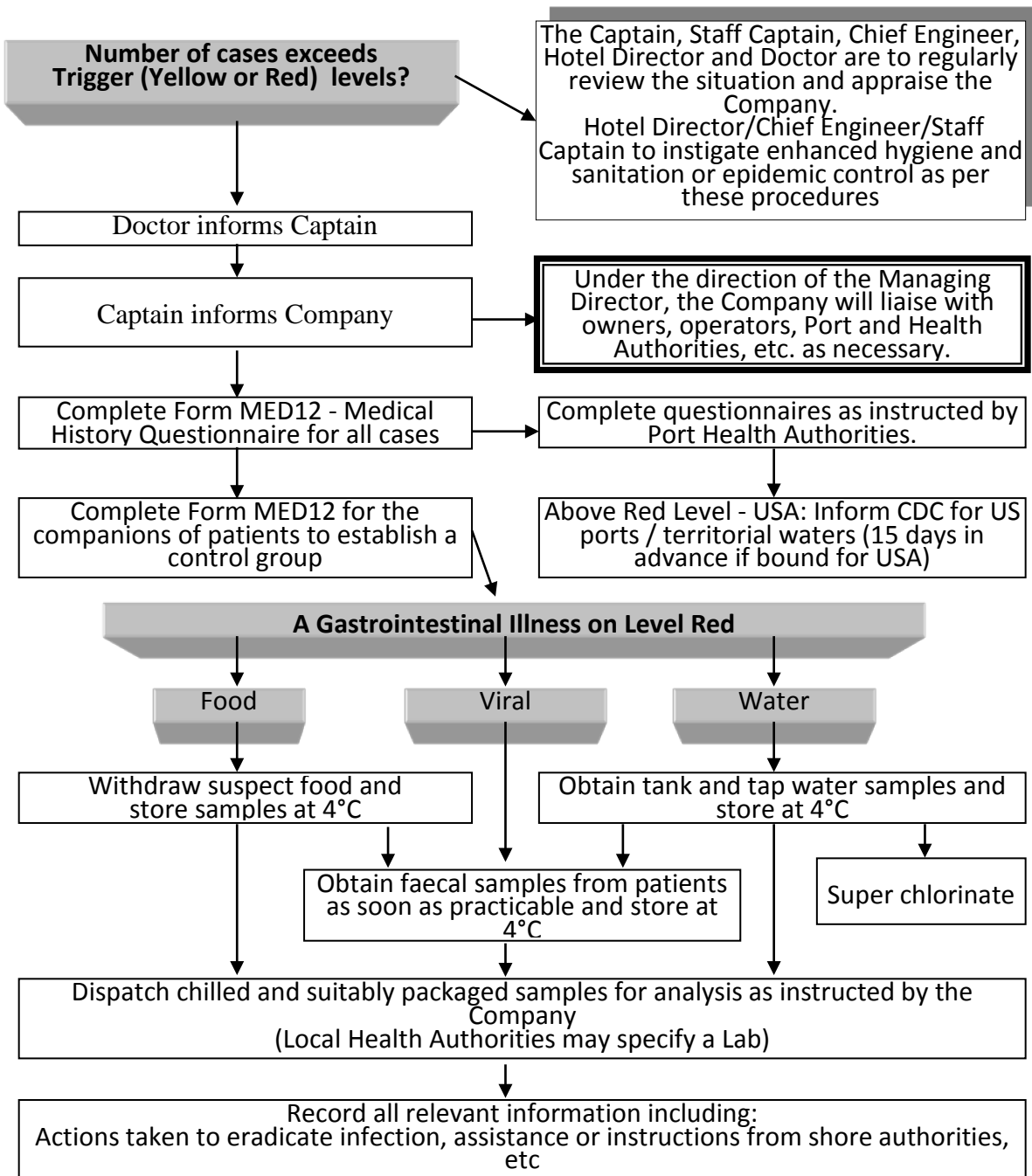
3.1.1. Identification of a trigger level of AGE cases ie Yellow or Red Levels

- 3.1.1.1. In the event that the Yellow or Red Levels as described above of Diarrhea & Vomiting (ie Gastro-intestinal GI / Acute Gastro Enteritis (AGE)) or other epidemic illness is identified the following actions should be implemented
- 3.1.1.2. The Doctor will inform the Master immediately
- 3.1.1.3. The Captain is to co-ordinate and monitor the activities of the senior officers including the Doctor, Staff Captain, Chief Engineer and Hotel Director and in particular reporting and enhanced hygiene and sanitation in accordance with these procedures

3.1.2. Aims

- 3.1.2.1. Establish the facts and extent of the elevated AGE cases / outbreak
- 3.1.2.2. Ascertain the cause of the elevated AGE cases / outbreak
- 3.1.2.3. Identify and implement the actions necessary to prevent the AGE cases / outbreak spreading further (ie above Level Red)

3.2. Process Flow



3.3. Reporting Yellow and Red Levels

3.3.1. Immediate Notifications

Immediately when the Doctor identifies an Yellow (or Red) Level he/she is to inform the Captain who in turn advises the Company's Safety and Technical Departments and the party ashore in charge of hotel operations management without delay. The Company's Safety and Technical in turn will appraise the Managing Director and they will liaise with the party in charge of hotel operations.

3.3.2. Information required

3.3.2.1. This information should include the following :

- .1. Vessel, date and time
- .2. Date and time of origin
- .3. Nature of the epidemic
- .4. Persons affected (number pax and crew, names, date started)
- .5. Whether laboratory tests have been forwarded
- .6. Action taken to prevent infection
- .7. Authorities informed

3.3.2.2. Update reports should be sent to the Company on a daily basis until the outbreak has been eradicated.

3.3.2.3. The Captain should inform port states as required or necessary. (See details of reporting to US Centre for Disease Control and Canada in section 1.2 and 1.3)

3.4. Response to Passenger Enquiries

At an early stage, the Captain should co-ordinate the approach to passenger enquiries, reviewing and revising this approach as necessary.

4. IDENTIFYING THE SOURCE OF A (POTENTIAL) OUTBREAK (LEVELS YELLOW AND RED)

5.1.General

5.1.1. Medical Personnel knowledge

- 5.1.1.1. Medical personnel should be familiar with monitoring and enhanced sanitation and outbreak procedures and lessons learned from previous outbreaks.

5.1.2. General causes

- 5.1.2.1. Outbreaks of illness may be caused by both bacteria and viruses, whether from food or water sources or simply spread from one person to another. The following section gives some background information which may be helpful during the initial investigation into the likely causes of outbreaks of gastrointestinal illnesses on board.

5.1.3. Food Safety

- 5.1.3.1. This section should be read also in conjunction with [the SMS \(ie FOM 703 "Food Safety" for large cruise ships\)](#)

5.2.Possible causes

5.2.1. Main groups of Illnesses

- 5.2.1.1. Food and waterborne diseases are caused by eating affected food or drinking water, and can be classified in three main groups as follows:
- Intoxications caused by eating foods containing toxins produced by micro-organisms in the food (usually bacteria or moulds), e.g., Staphylococcus food intoxication.
 - Infections caused when the micro-organisms (bacteria and viruses), actually invade and multiply in the intestine or other tissues, e.g., Shigella and Salmonella (both bacteria) and Norwalk virus.
 - Chemical poisoning caused by contamination of food or water by accident or deliberate adulteration, e.g. chlorine from sanitising products entering bunkered water or ready to eat food.
- 5.2.1.2. The resulting illness may cause mild discomfort or severe reactions that can even result in death. Food and waterborne diseases normally result in 'gastrointestinal' type of illness with the typical food poisoning type symptoms such as diarrhea, vomiting, nausea, abdominal pain, fever, headache and lethargy.

5.2.2. Possible sources

5.2.2.1. The illnesses caused by intoxication, infection and chemical contamination of food or water, usually come from the following sources and spread in the ways discussed below:

- Viral disease (respirable or gastrointestinal) brought onto the ship by passengers or crew and then spread from person to person. These illnesses may be passed by contact with saliva, faeces or vomit from an infected person and can spread very quickly since only small numbers of organisms are needed to cause illness.
- Transmission of viral or bacterial disease from a crew member to a passenger or to other crew. This may be through food handling direct, e.g. viruses transferred in the air onto food near to a vomiting incident or handling food after contact with faeces), or indirect transmission, e.g. cross contamination of bacteria from raw to cooked foods, via work surfaces or equipment.
- Food contaminated with bacteria or viruses and eaten on the ship. This contamination may have been already in the food supplied to the ship or introduced into the food from dirty work surfaces or equipment, by contact with pests or by the food handlers themselves.
- Spas or pools containing water contaminated by chemicals, viruses or bacteria.
- Bunkering or production and consumption of water contaminated with chemicals, parasites, bacteria or viruses.

5.2.2.2. At the onset of an outbreak the source is probably unknown and it is vital that those dealing with it do not make early assumptions about the type of illness and its causes. The investigations should encompass all areas of the ship's operation.

5.3. Investigating elevated cases of AGE / Outbreak (Levels Yellow and Red)

5.3.1. Response

5.3.1.1. Conducting an outbreak investigation onboard a vessel demands a rapid (because of the turnover of passengers and sometimes crew), organized, and comprehensive response.

5.3.2. Objectives

5.3.2.1. The objectives of an investigation are to:

- .1. Determine the extent of the AGE among passengers and crew.
- .2. Identify the agent causing the illness.
- .3. Once above is determined – manage the elevated Outbreak per these procedures

5.3.3. Analysis

- 5.3.3.1. The analysis of medical questionnaires (MED 12) is all-important and should be completed for all cases.
 - .1. Despite possible PR problems it is essential that input from patients be obtained wherever possible.
 - .2. The medical department is to obtain accurate food histories using form MED 12 “Medical History Questionnaire” and recent menus to establish details when interviewing patients.
 - .3. Medical confidences must be respected however, the assistance of those outside the Medical Department may be of help when compiling and analysing questionnaires.
- 5.3.3.2. Questionnaires should also be completed for the travelling companions of D&V patients (whether or not they are affected) to provide a control group in the epidemiological investigation.
- 5.3.3.3. Interviews with cabin mates and immediate contacts of crew members with Acute Gastro-enteritis AGE (initial, 24-, and 48-hour) as per section 1.1 are to be made and documented

5.4. Sampling Regime

5.4.1. Materials Supply

- 5.4.1.1. The medical staff will be responsible for maintaining a supply of at least 10 clinical specimen collection containers for both viral and bacterial agents (10 for each), as well as:
 - appropriate refrigerant materials to keep clinical specimens cool
 - a shipping container that meets the latest shipping requirements of the International Air Transport Association (IATA) [and for ships trading to USA: U.S. Department of Transportation for Biological Substances, Category B designated shipments (or higher)]
 - appropriate labels and markings

5.4.2. Collection

- 5.4.2.1. With the Master’s authorisation and not later than when a vessel reaches 2% reportable (Acute Gastro-Enteritis) AGE in either passengers or crew members, the medical staff will begin collecting clinical specimens (stool or vomitus specimens) for bacterial and viral analysis, the following samples should be obtained as soon as practicable and sent by the most expedient method for full analysis at a laboratory as directed by the Company.

5.4.3. Requirements

5.4.3.1. Stool / Faecal samples

- .1. Faecal specimens for viral diagnosis should be collected within the first 48 hours. It is recommended to collect specimens from 10 ill persons if possible to maximise the chance that a diagnosis can be made.
- .2. Specimens should be stored at 4°C. Freezing may destroy the characteristics that permit a diagnosis.
- .3. Special care must be taken to prevent cross-contamination of specimens during collection and transport.

5.4.3.2. Food and Water samples

- .1. Samples must be collected with washed and gloved hands, using sterile sampling utensils and containers to protect the integrity of the sample during collection.
- .2. Water taps used for collection should be sterilised and the water allowed to flow for one minute before collecting the sample.
- .3. Approximately 200 grams or 200 ml of sample should be collected, and should be clearly identified with the date, time, location of collection, product information etc
- .4. Sample should be held below 5°C (41°F) but not frozen.
- .5. The vessel will maintain a food and water sampling kit for the collection and shipping ashore of samples.

5.4.3.3. Other specimens for viral diagnosis

- .1. Viruses can be successfully detected in vomitus specimens as well. These should be collected and sent using the same methodology as for stool specimens.

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OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

5.4.4. Instructions for Collecting Stool Specimens

| Instructions | Bacterial | Parasitic | Viral | Chemical |
|--|--|--|--|---|
| When to collect | During period of active diarrhea (preferably as soon as possible after onset of illness). | Anytime after onset of illness (preferably as soon as possible). | Within 48-72 hours after onset of illness. | Soon after onset of illness (preferably within 48 hours of exposure to contaminant). |
| How much to collect | Two rectal swabs or swabs of fresh stool from 10 ill persons; samples from 10 controls also can be submitted. Whole stool is preferred if non-bacterial stool testing considered | A fresh stool sample from 10 ill persons; samples from 10 controls also can be submitted. To enhance detection, 3 stool specimens per patient can be collected >48 hours apart. | As much stool sample as possible from 10 ill persons (a minimum of 10 mL of stool from each); samples also can be obtained from 10 controls. | A fresh urine sample (50 mL) from 10 ill persons; samples from 10 controls also can be submitted. Collect vomitus, if vomiting occurs within 12 hours of exposure. Collect 5-10 mL whole blood if a toxin/poison is suspected that is not excreted in urine. |
| Method for collection | For rectal swabs, moisten 2 swabs in an appropriate transport medium (e.g., Cary-Blair, Stuart, Amies; buffered glycerol-saline is suitable for E. coli, Salmonella, Shigella, and Y. enterocolitica but not for Campylobacter and Vibrio). Insert swab 1-1.5 inches into rectum and gently rotate. Place both swabs into the same tube deep enough that medium covers the cotton tips. Break off top portion of sticks and discard. Alternatively, swab whole stools and put them into Cary-Blair medium. | Collect bulk stool specimen, unmixed with urine, in a clean container. Place a portion of each stool sample into 10% formalin and polyvinyl alcohol preservative (PVA) at a ratio of one part stool to three parts preservative. Mix well. Save portion of the unpreserved stool placed into a leakproof container for antigen or PCR testing. | Place fresh stool specimens (liquid preferable), unmixed with urine, in clean, dry containers, e.g., urine specimen cups. | Collect urine, blood, or vomitus in prescreened containers *. If prescreened containers are not available, submit field blanks with samples [†] . Most analyses from blood require separation of serum from red cells. Cyanide, lead and mercury analyses require whole blood collected in prescreened EDTA tubes. Volatile organic compounds require whole blood collected in a specially prepared gray-top tube. |
| Storage of specimens after collection | Refrigerate swabs in transport media at 4°C. When possible, test within 48 hours after collection; otherwise, freeze samples at -70°C. Refrigerate whole stool, | Store specimen in fixative at room temperature, or refrigerate unpreserved specimen at 4°C. A portion of unpreserved stool | Immediately refrigerate at 4°C. Store portion of each stool specimen frozen at less than -15°C for antigen or PCR | Immediately refrigerate at 4°C and if possible freeze urine, serum, and vomitus specimens at less than -15°C. Refrigerate whole blood for volatile organic |

LOCAL WORKING INSTRUCTION (LWI) # 52
OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

| Instructions | Bacterial | Parasitic | Viral | Chemical |
|-----------------------|--|---|--|--|
| | process it within 2 hours after collection. Store portion of each stool specimen frozen at less than -15°C for antigen or PCR testing. | specimen may be frozen at less than -15°C for antigen or PCR testing. | testing. | compounds and metals at 4°C. |
| Transportation | For refrigeration: Follow instructions for viral samples. For frozen samples: Place bagged and sealed samples on dry ice. Mail in insulated box by overnight mail. | For refrigeration: Follow instructions for viral samples. For room-temperature samples: Mail in waterproof container. | Keep refrigerated. Place bagged and sealed specimens on ice or with frozen refrigerant packs in an insulated box. Send by overnight mail. Send frozen specimens on dry ice for antigen or PCR testing. | Immediately refrigerate at 4°C and if possible freeze urine, serum, and vomitus specimens at less than -15°C. Refrigerate whole blood for volatile organic compounds and metals at 4°C. Place double bagged and sealed urine, serum, and vomitus specimens on dry ice. Mail in an insulated box by overnight mail. Ship whole blood in an insulated container with prefrozen ice packs. Avoid placing specimens directly on ice packs. |

¹ Label each specimen in a waterproof manner, and put the samples in sealed, waterproof containers (i.e., plastic bags). Batch the collection and send in overnight mail to arrive at the testing laboratory on a weekday during business hours unless other arrangements have been made in advance with the testing laboratory. Contact the testing laboratory before shipping, and give the testing laboratory as much advance notice as possible so that testing can begin as soon as samples arrive. When etiology is unclear and syndrome is nonspecific, all 4 types of specimens may be appropriate to collect.

*The containers have been tested for the presence of the chemical of interest prior to use.

[†] Unused specimen collection containers that have been brought in to the field and subjected to the same field conditions as the used containers. These containers are then tested for trace amounts of the chemical of interest.

5. CARE OF PASSENGERS AND CREW

5.5. Medications and Advice

5.5.1. Medications

- 5.5.1.1. Antidiarrhoeal medications shall not be sold or dispensed to passengers or crew except by designated medical staff

5.5.2. Medical Advice

- 5.5.2.1. During his consultation with any suspect cases, the Doctor is to warn the patient re the possibility of secondary infection.

5.6. Demonstration of Medical Knowledge

5.6.1. Person in Charge

- 5.6.1.1. The person(s) onboard (for large cruise ships as assigned per SMS FOMs 401 “Medical Department Responsibilities” and 402 “Assignment of Medical Department Responsibilities”) and in charge of medical operations related to Acute Gastro-Enteritis (AGE):
 - .1. shall be able to demonstrate during inspections and on request knowledge of the guidelines for medical operations related to AGE during inspections and upon request
 - .2. must ensure that employees are properly trained to comply with such guidelines as they relate to their assigned duties

5.7. Crew

5.7.1. Inspections

- 5.7.1.1. The Doctor should conduct personal hygiene inspections of food handling staff and any potentially infectious conditions screened out.

5.7.2. Offence

- 5.7.2.1. It should be impressed on all crewmembers that it is an offence to conceal any gastro-intestinal illness.

5.7.3. New Joiners

- 5.7.3.1. The health of new crew is to be screened upon joining the ship and up to 3 days prior to embarkation via form MED 21 “Health Declaration for Joining Crewmembers”

5.7.4. Food Handlers

- 5.7.4.1. Food handlers or beverage service staff assigned to the Sanitation Squad must be excluded from normal duties.

5.7.5. Symptomatic Crew

- 5.7.5.1. Symptomatic crew and crew meeting the (Acute Gastro-Enteritis) AGE criteria (per section 1.1):
- .1. Food handlers and beverage service staff should be withdrawn from the workplace and isolated in cabin or designated restricted area for a further 48 hours after symptoms have stopped. (a 72 hrs period in level red, see section 15.1)
 - .2. Other crew should be withdrawn from the workplace and isolated in cabin or designated restricted area for 24 hours after symptoms have stopped. (a 48 hrs period during outbreaks /level red)
 - .3. Isolation should ideally be in a facility with internal toilet and they must disinfect the toilet seat and bathroom after every use. Gloves must be worn when cleaning and regularly changed to avoid cross contamination (see section 15.1)
 - .4. All meals to be served in the cabin by a designated steward using disposable paper plates and plastic eating utensils. Dirty items should be disposed of and incinerated when possible.
 - .5. The work restriction and the release from restriction of the crew member including time of last symptom and clearance to return to work will be documented and maintained for minimum of 12 months.
 - .6. Symptomatic crew are to be advised of hygiene and hand-washing facts and provided with written hand-washing and hygiene fact sheets [\(see Annexes Section 19\)](#)

5.7.6. Crew Cabin Mates

- 5.7.6.1. Cabin mates and contacts of symptomatic crew and crew with AGE:
- .1. their exposure to symptomatic crew members is to be restricted

- .2. medical or supervisory staff are to verbally interview them and confirm their condition within 8 hrs from the time their ill crew cabin mate or contact reported. and thereafter continue to interview them daily till 48hrs after their ill crew member's cabin mate or contact symptoms began
- .3. are to be provided facts and written fact sheets about hygiene and hand-washing and instructed to report immediately upon any illness symptoms ([see Annexes Section 19](#))
- .4. the date and times of the verbal interviews above are to be documented (ie on MEDLOG 2 – “Medical Consultation Records – Crew”)

5.8. Symptomatic Passengers

5.8.1. Restrictions

- 5.8.1.1. Where possible the movement of affected persons should be restricted and individuals isolated until they are no longer considered infectious.
- 5.8.1.2. During consultation, the Doctor is to strongly recommend the patient remains in their cabin for a minimum of twenty four hours after first symptoms, explaining the suspected cause of illness and its mode of transmission. All patients with diarrhoea and vomiting should, if possible, be examined and treated in their own cabin.

5.8.2. Advice

- 5.8.2.1. Symptomatic passengers are to be advised of hygiene and handwashing facts and provided with written handwashing and hygiene fact sheets. ([see Annexes Section 19](#))

6. TECHNICAL OPERATIONS- POTABLE WATER

6.1. Green Level

- 6.1.1.1. The normal procedures covered in FOM 780 “Safe Water Supplies”, FOM 781 “Independent Shore Testing of Water” and FOM 783 “Legionnaire’s Disease” are to be followed
- 6.1.1.2. Ppm solution levels in this section are to be determined by using calibrated halogen analyzers (where these are required ie at a distant point in the potable water distribution system or at each multiple distribution loop) or by test kits (within expiration date), also in case of the above equipment failure (within 10 days)

6.2. Yellow Level

6.2.1. Potable Water Treatment

- 6.2.1.1. Until water as an infected source has been excluded, chlorination levels to be increased to 4 ppm
- 6.2.1.2. A residual of 3 ppm chlorine level to be available at taps
- 6.2.1.3. Chlorine dosing charts at far point analyser to be examined closely by the responsible officer to ensure correct levels of chlorine maintained in system
- 6.2.1.4. Increase hot water temperature to +75°C

6.3. Red Level

6.3.1. Potable Water Sampling

- 6.3.1.1. Daily Millipore water testing to be undertaken to monitor effectiveness of cleaning procedures (e.g. in small plastic samples bags containing Sodium Thiosulphate).
- 6.3.1.2. Distribution samples taken from five locations e.g. :
 - .1 Galley wash hand basin
 - .2 Galley juice machine
 - .3 Upper deck juice machine
 - .4 Pax cabin wash hand basin
 - .5 Crew toilet wash hand basin
- 6.3.1.3. Samples of new potable water to be taken from a number of sample cocks during bunkering.

6.3.2. Investigating Potable Water Contamination

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OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

- 6.3.2.1. Confirm that water chlorination records for the previous week establish that treatment is to the required standard.
- 6.3.2.2. Checks should include the following:
 - .1 The bunkering rate has allowed chlorination to 2 ppm.
 - .2 FW supply was not drawn from tanks being bunkered, as chlorine requires contact time to act upon the bacteria.
 - .3 Where this was unavoidable was the tank batch chlorinated as bunkering took place and chlorine levels checked at the far distribution point?
 - .4 Correct rotation of the potable water tanks. Chlorine allowed to stand in water will decay with time and become susceptible to bacteria growth.
 - .5 If a tank had been out of use for some time was it batch chlorinated at least 2 days before coming into use and chlorine levels checked.
 - .6 Sodium hypochlorite solution stock has been:
 - .1 Well stored.
 - .2 Adequately rotated.
 - .3 Tested with the kit provided as new drums were opened
- 6.3.2.3. Sodium hypochlorite solution quality reduces with time and hot storage.
- 6.3.2.4. Examine in detail the distribution system from storage tanks to distribution points for sources of contamination.

6.3.3. Additional checks

- 6.3.3.1. Suction lines and glands beneath plates are leaking when pump is stopped but allow suction when the pump is running.
- 6.3.3.2. Contamination from sewage to fresh water systems due to:
 - .1. History of sewage overflow into the bilges
 - .2. Spray from leaking sewage gland onto adjacent FW pump.
 - .3. There are no guards between the systems and the area is not clean.
 - .4. Fresh water line contaminated when used to prime bilge pump suction and vacuum breakers are inoperative or missing (after repairs).
- 6.3.3.3. Increased tank chlorination should be reflected in the distribution system chlorine level. If not, contaminated water maybe degrading chlorine between storage tanks and the distribution system.
- 6.3.3.4. Potable water tank lid gasket leaking when submerged by bilge water.

7. TECHNICAL OPERATIONS – RECREATIONAL WATER FACILITIES (RWF) SANITATION

7.1. Green Level

- 7.1.1.1. The normal procedures covered in the SMS FOM 782 “Recreational Water Facilities (RWF)” are to be followed
- 7.1.1.2. Ppm solution levels in this section are to be determined using calibrated analyzers for each individual RWF, or by manual test kit (within expiration date) in case of above equipment failure (within 30 days)

7.2. Yellow Level

7.2.1. Increased halogenation

- 7.2.1.1. Increase chlorine concentration levels to maintain an approx residual 5 ppm

7.2.2. Increased frequency of testing

- 7.2.2.1. Test every four hours

7.3. Red Level

Conduct a Risk Assessment jointly with shoreside management if RWFs are to be closed.

8. TECHNICAL OPERATIONS – AIR CONDITIONING

8.1. Green Level

- 8.1.1.1. The normal procedures covered in [the SMS](#) FOM 790 “Maintenance of Air Conditioning Systems” and FOM 783 “Legionnaire’s Disease” are to be followed
- 8.1.1.2. Ppm solution levels in this section are to be determined using test kit (within expiration dates)

8.2. Yellow Level

8.2.1. Inspection and disinfection requirements

- 8.2.1.1. An inspection of air conditioning systems should be made to check that no faults or failures in the system might be contributing to an outbreak of gastro-intestinal illness.
- 8.2.1.2. Air Inlet and Recirculation Filters
 - .1. As applicable, to be renewed or sanitised (in a 50 ppm sodium hypochlorite solution for 10 mins) and thereafter every two days
 - .2. Any damaged or worn filters should be replaced and supplementary cleaning and disinfection carried out
- 8.2.1.3. Cooler drain Sumps
 - .1. To be sanitised (in a 50 ppm sodium hypochlorite solution for 10 mins) and thereafter once a week
- 8.2.1.4. Humidifier sumps and drains
 - .1. To be sanitised (in a 50 ppm sodium hypochlorite solution for 10 mins) and thereafter once a week
- 8.2.1.5. Air Handling Units Internal Surfaces
 - .1. The air-side of cooler tubes are to be washed and sanitised (in a 50 ppm sodium hypochlorite solution for 10 mins) and thereafter once a week

8.2.2. Safety Precautions and Air Management

- 8.2.2.1. Safety precautions (shutting down of the AC system) must be taken to ensure the sanitizer does not enter cabins or occupied public rooms when the system is being sanitized as above
- 8.2.2.2. After sanitation is completed, ventilation including AC system should be set at the maximum level for the introduction of outside air and the minimum level of re-circulation

- 8.2.2.3. Many cabins are fitted with ventilation gaps in doors or bulkheads. These gaps allow air to circulate into adjacent corridors. Whenever possible these gaps should be fitted with closers to allow this infiltration to be stopped during outbreaks, if possible
- 8.2.2.4. If the balanced system and pressure differentials do not allow these to be fully closed off then this circulation of air into corridors should be minimised as far as possible.

8.3.Red Level

- 8.3.1.1. If practicable, minimise the risk of airborne spread virus particles by the use of specialist contractors to constantly sanitise air conditioning systems

9. TECHNICAL OPERATIONS - TENDERING

9.1.Green Level

9.1.1. Sanitation

- 9.1.1.1. Ppm solutions in this section are to be determined by using either specialized test kits (within their expiration dates), 1:xx dilution ratios by dispensing equipment where available, or by mixing proportions as follows: 1 ounce per US gallon of water (3.78 L) = 1:128; 2 ounces per gallon = 1:64; 4 ounces per gallon= 1:32; 8 ounces per gallon = 1:16
- 9.1.1.2. The day before each tender port and also after a tender port (following the end of tender service) all hand touch surfaces inside each tender should be cleaned and sanitized with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants). Concentrate on all hand and bottom touch surfaces, all handles including window handles, seats and benches, poles and railings
- 9.1.1.3. Gangway railings must be sanitized with the chemicals , concentrations and contact times as above during and after embarkation / disembarkation
- 9.1.1.4. Hand contact surfaces in gun port areas must be sanitized at the end of each day when used with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants).

9.1.2. Contingency Kit

- 9.1.2.1. A contingency kit should be on each tender including following:
- .1. Vomit bags
 - .2. Paper towels
 - .3. Disposable scoop
 - .4. Disposable rubber gloves
 - .5. Plastic bags
- 9.1.2.2. Disinfectant/sanitizer sprays or 1000 ppm chlorine solution must be also available on board the tender

9.2.Yellow Level

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- 9.2.1.1. As often as possible (ie when min exposure to crew and passengers), disinfect hand touch surfaces and areas which may be sat on inside boats during use with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants). This can be achieved in between loadings and during slow intervals throughout the day.
- 9.2.1.2. Gangway railings must be disinfected with chemicals, concentrations and contact times as above every two hours and after times of high passenger use
- 9.2.1.3. Hand contact surfaces in gun ports must be disinfected with chemicals, concentrations and contact times as above twice during the operating hours.
- 9.2.1.4. Where the gun port deck is not carpeted it is to be sprayed with chemicals, concentrations and contact times as above at the end of the operating day.
- 9.2.1.5. Any dockside water/juice dispensers, taps and counters must be wiped down with a 200 ppm chlorine solution with 5 mins contact time in between the arrival and departure of the tenders.
- 9.2.1.6. Provide hand sanitising gels for the gangway operation. These should be dispensed into passengers' hands or passengers should be asked to use them.

9.3.Red Level

- 9.3.1.1. Disinfect hand touch surfaces inside tenders continuously by using with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants). This can be achieved in between loadings and during slow intervals throughout the day.
- 9.3.1.2. Gangway railings, hand surfaces in gun ports must be continuously disinfected with chemicals, concentrations and contact times as above.
- 9.3.1.3. For areas where 1000 ppm chlorine solution is used – see section 17. “Procedures to protect Passengers and crew from exposure to disinfectants”. In the case of tenders periods, between embarkation periods when no passengers onboard and air management will be used to reduce exposure to passengers and crew to 1000 ppm chlorine.

10. TECHNICAL OPERATIONS - SECURITY

10.1. Green Level

- 10.1.1.1. Ppm solutions in this section are to be determined by using either specialized test kits (within their expiration dates), 1:xx dilution ratios by dispensing equipment where available, or by mixing proportions as follows: 1 ounce per US gallon of water (3.78 L) = 1:128; 2 ounces per gallon = 1:64; 4 ounces per gallon = 1:32; 8 ounces per gallon = 1:16
- 10.1.1.2. Sanitize daily equipment, surfaces and gangway railings with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants).

10.2. Yellow Level

- 10.2.1.1. Security staff who are handling passenger and crew items for inspection or X-ray should be wearing vinyl gloves.
- 10.2.1.2. Sanitary wipes as AHP (see section 16 for recommended disinfectants) are to be provided at all embarkation gangways for security staff to use when necessary.
- 10.2.1.3. The gangway rails and all contact surfaces (including hand rails and lift buttons) must be frequently disinfected with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)

10.3. Red Level

- 10.3.1.1. Stop assisting passengers with their ID cards.
- 10.3.1.2. Continuously disinfect when in use the above surfaces with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)
- 10.3.1.3. For areas where 1000 ppm chlorine solution is used – see section 17. “Procedures to protect Passengers and crew from exposure to disinfectants”. In this case disinfection with 1000 ppm chlorine will be done when no passengers or crew are passing the gangway

11. TECHNICAL OPERATIONS - WASTE PROCESSING (GARBAGE) ROOM

11.1. Green level

- 11.1.1.1. Ppm solutions in this section are to be determined by using either specialized test kits (within their expiration dates), 1:xx dilution ratios by dispensing equipment where available, or by mixing proportions as follows: 1 ounce per US gallon of water (3.78 L) = 1:128; 2 ounces per gallon = 1:64; 4 ounces per gallon = 1:32; 8 ounces per gallon = 1:16
- 11.1.1.2. Maintain the highest levels of cleanliness at all times, using detergents to wash surfaces, rinse with clear water, then sanitize with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants) at least daily.
- 11.1.1.3. Any persons sorting or handling garbage in the garbage room must be properly protected by wearing durable vinyl gloves, aprons, and safety glasses/goggles.

11.2. Yellow Level

- 11.2.1.1. Twice daily deep clean hand touch surfaces and equipment used and handled.
- 11.2.1.2. Use detergents to wash surfaces, rinse with clear warm water, and then disinfect with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)

11.3. Red Level

- 11.3.1.1. Continuously disinfect with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants) all areas and equipment in the garbage room and/or incinerator.
- 11.3.1.2. For areas where 1000 ppm chlorine solution is used – see section 17. “Procedures to protect Passengers and crew from exposure to disinfectants”. In this case 1000ppm chlorine disinfection is to be done when no crew is disposing of waste in the garbage room.
- 11.3.1.3. At the turnaround following an outbreak an additional deep clean and disinfection of surfaces and equipment with chemicals, concentrations and contact times as above in these areas is to be carried out

12. CREW HYGIENE & SANITATION RESPONSIBILITIES (ALL LEVELS - GREEN, YELLOW, RED)

12.1. General

12.1.1. Discipline

- 12.1.1.1. Staff must rigidly conform to the following instructions and guidance if the risk of epidemic illnesses is to be reduced

12.1.2. Supervision

- 12.1.2.1. All hygiene standards and cleaning routines are to be enhanced wherever possible and adequately supervised to control an outbreak

12.2. Personal Hygiene and Individual Responsibilities

12.2.1. Crew reporting their GI condition

- 12.2.1.1. Staff who continue to work when sick, through a misguided sense of loyalty to the Company, put the health of passengers and crew at serious risk

12.2.1.2. All crew:

- .1. Are to receive instruction re the transfer of viruses and the importance of maintaining higher levels of hygiene throughout the vessel for the duration of the problem
- .2. Must notify their supervisor of any condition such as diarrhoea, vomiting or infected skin surfaces. This is especially important for food handlers and beverage service staff
- .3. Failure to report such a condition is a breach of the Code of Conduct
- .4. Must report any soiled areas they find immediately

12.2.2. Notice to Ship's Company

- 12.2.2.1. The notice similar to the one below must be displayed on staff notice boards

NOTICE TO SHIP'S COMPANY

**Action to be taken by all crew and officers suffering symptoms of
diarrhoea or vomiting**

All staff must report to their supervisor of any skin complaint, eye or ear discharge or stomach disorders (diarrhoea or vomiting) immediately.

Supervisors will arrange for an individual to visit the doctor at the first opportunity.

Staff who handle food must alert the doctor of this when seeking advice as to when they may return to work.

The staff member must advise the supervisor of the diagnosis and anticipated date of return to work.

A food handler suffering from diarrhoea, vomiting or chronic stomach disorder must not handle food under any circumstances.

**ANY FOOD HANDLER WHO FAILS TO NOTIFY THEIR SUPERVISOR OF
SUCH CONDITIONS IS LIABLE TO DISCIPLINARY PROCEDURES.**

13. HOTEL OPERATIONS - HYGIENE AND SANITATION

13.1. References

- 13.1.1.1. Section 15 gives detailed instruction and advice regarding the measures to be instigated at all levels in the hotel department
- 13.1.1.2. Heads of Hotel Departments and Hotel Supervisors must consult the above section 15 and verify that the required procedures are in place.
- 13.1.1.3. Section 18 lists the recommended kit for control of an outbreak for a vessel of approximately 600 passengers.

13.2. Criticality of Food & Beverage Areas

- 13.2.1.1. The hygienic and sanitary operation of these areas (including galleys, bars and other production / preparation areas) is critical
- 13.2.1.2. The shipboard management is to be appraised of any F&B staff taken ill and their symptoms
- 13.2.1.3. Food/beverage handlers are to wash and then dry hands thoroughly before commencing duty. Adequate facilities to be provided. They should also protect food effectively
- 13.2.1.4. Supervisors are to carry out stringent checks to ensure that all hygiene practices are correct
- 13.2.1.5. Managers must confirm that practices are correct
- 13.2.1.6. Areas of particular concern during levels yellow and red include:
 - .1. Correct food preparation, storage and service including cold buffets
 - .2. All food must be protected to prevent any risk of contamination
 - .3. Cutlery, crockery and glassware correctly washed, stored and utilised
 - .4. Correct use of towels, plastic gloves, etc.
 - .5. Correct temperatures (refrigeration, dishwasher glasswasher, etc)
 - .6. Separation of clean and dirt tableware
 - .7. Changing tongs and utensils regularly
- 13.2.1.7. for more details, please see sections 15.16 and 15.17

13.3. Sanitizing Uncontaminated Cabins:

- 13.3.1.1. Uncontaminated cabins should be carefully cleaned and sanitized, since not all passengers/crew report gastrointestinal illness. This will help to avoid cross-contamination.

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13.3.1.2. See the recommended sequence in Section 15.2

13.3.1.3. If there are any signs of the passenger/crew being ill, the stateroom steward should contact immediately their supervisor and NOT clean the cabin. The Sanitation Squad will then disinfect the cabin (see section 14.3)

14. HOTEL OPERATIONS - SANITATION FOLLOWING PVIs (Public Vomiting Incidents) OR PDIs (Public Diarrhoea Incidents)

14.1. Cleaning, Disinfection and Disposal of Vomit and Diarrhoea

14.1.1. General

14.1.1.1. Viruses deposited on surfaces by vomit or diarrhoea (as with gastroenteritis caused by the Norwalk SRSV virus) are highly contagious and particular attention must be directed to vomit and diarrhoea disposal.

14.1.1.2. The procedures herewith reference recommendations from the UK HPA publication "Guidance for the Management of Norovirus Infection on Cruise Ships" should be used for further details

14.1.1.3. Ppm solutions in this section are to be determined by using either specialized test kits (within their expiration dates), 1:xx dilution ratios by dispensing equipment where available, or by mixing proportions as follows: 1 ounce per US gallon of water (3.78 L) = 1:128; 2 ounces per gallon = 1:64; 4 ounces per gallon = 1:32; 8 ounces per gallon = 1:16

14.1.2. Vomiting / Diarrhoeal Incidents (PVI s and PDIs)

14.1.2.1. Immediately when vomit (or faeces) is discovered the (public) area must be cordoned / roped off or closed if possible and the Sanitation ("Hit") Squad activated (see section 14.2)

14.1.2.2. Cordon off and clean and disinfect within 8 meters / 25 feet radius of the soiled public area if possible with chemicals, concentrations and contact times as below

14.1.2.3. The following types of disinfectants are to be used in the actions further below:

- .1. For hard surfaces disinfect with either 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants) including any surrounding surfaces (deck, bulkhead, deckhead); air dry
- .2. In case of food areas where PVI/DVI took place, then after application of 1000 ppm chlorine for 10 mins - wash, rinse and sanitize with 50-200ppm chlorine; air dry
- .3. For areas where 1000 ppm chlorine solution is used – see section 17. "Procedures to protect Passengers and crew from exposure to disinfectants"

.4. Soft surfaces (furnishings): spray with suitable effective virucide as AHP Accel-Virox/Oxivir RTU for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants) to wet thoroughly; lightly soiled cover items to be put in sealed soluble laundry bags (to be washed at min 70C for min 5 mins); heavily soiled items in biohazard bag for incineration

14.1.2.4. Spray disinfectant directly onto gross contaminants (vomit or stool) and cover them with disinfectant (with chemicals, concentrations and contact times as above) soaked paper towels or rags for the appropriate contact time or cover them with absorbent gel powder (designed for bodily fluids, allow 5 mins to absorb)

14.1.2.5. Clean surface of residuals with dustpan and spatula

14.1.2.6. Apply disinfectant with chemicals, concentrations and contact times as above to the soiled surface for the appropriate contact time or let air dry

14.1.2.7. Dispose ALL (vomit or stool, absorbent, gel, waste cloth, paper towels, the disposable PPE) carefully in (biohazard) bags which are to be immediately sealed and preferably incinerated or carefully disposed of to avoid any contamination elsewhere

14.1.2.8. Other measures:

.1. Any food items in the area must be discarded

.2. Any utensils from the area affected must be disinfected with 1000ppm chlorine solution for 10 minutes before going through the dish/glass ware washers

.3. place any linen from the affected area into a sealed dissolvable Landry bag if lightly soiled (to be washed at min 70C for min 5 mins) or sealed in a biohazard bag if heavily soiled for incineration

14.1.2.9. Wash hands with soap and water and dry and with hand sanitizer

14.1.2.10. If possible open doors or windows to direct the airflow outside of the vessel

14.1.2.11. The area should remain closed for as long as practical thereafter (ideally overnight), but for at least a minimum of 2 hours after the incident

14.1.3. Cleaning Equipment (see also section 18)

14.1.3.1. Separate cleaning equipment should be used for toilets, hand wash areas and non-toilet areas. A colour coding system for equipment should be used to achieve this

14.1.3.2. All mop heads should be detachable and washable. They should be laundered at 70°C and the mop should then be inverted to dry thoroughly. Mops should not be left in buckets of water

- 14.1.3.3. Mop buckets must be cleaned, disinfected and dried between uses. Water should not be left in buckets as this can quickly become contaminated and if used later, can spread the infection within the environment
- 14.1.3.4. Storage areas should be kept clean and tidy so there is no risk of cross contamination from used 'dirty' equipment to clean equipment
- 14.1.3.5. All equipment used for cleaning incidents should be disinfected before being returned to storage areas
- 14.1.3.6. Disposable cloths must be used and disposed of immediately after use. Used cloths should be placed in bags and sealed
- 14.1.3.7. All other equipment such as vacuum cleaners, steam cleaners etc. (including detachable tools) must be cleaned and wiped with a disinfectant after use. Change the air filter regularly on vacuums according to manufacturer's instructions

14.1.4. Detergents

- 14.1.4.1. Cleaning using detergent and hot water removes accumulated deposits and reduces the number of micro-organisms from a surface.
- 14.1.4.2. The detergent selected must be compatible with the subsequent disinfection process because some products can interfere with chemical disinfection.
- 14.1.4.3. Thorough rinsing is necessary to remove all soil and cleaning agent from surfaces
- 14.1.4.4. Cleaning with detergent before applying disinfectant has been demonstrated to be the most effective method of eliminating contamination.**

14.1.5. Disinfectants (see also section 16 on recommended disinfectants)

- 14.1.5.1. Sanitizers reduce the number of bacterial contaminants to safe levels in one test. Disinfectants perform a higher level of germ killing (destruct pathogenic and other microorganisms in multiple tests). All disinfectants sanitize but not all sanitizers disinfect.
- 14.1.5.2. Required concentrations of chlorine solutions in ppm (mg/l) must be accurately determined by using a test strip kit (range 0-1000ppm)
- 14.1.5.3. Disinfectants requiring dilution will be used by dispensing device equipment where available, by specialized test kit or by mixing proportions. As guidance the mixing ratios are as follows: 1 ounce per US gallon of water (3.78 L) = 1:128; 2 ounces per gallon = 1:64; 4 ounces per gallon= 1:32; 8 ounces per gallon = 1:16

14.1.5.4. The recommended disinfectant [for Norovirus] for non-food contact services is hypochlorite solution at 1000 parts per million (ppm) – 0.1% of available chlorine (for a minimum of 10 mins contact time) or an effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)

14.1.5.5. 1000 ppm chlorine can be used in food areas only if there has been a vomit or diarrhea incident, otherwise the max chlorine concentration on food contact surfaces is 200 ppm. If 1000 ppm chlorine has been used on food contact surfaces in cases like the above incidents, after its contact time of 10 mins, the surfaces are to be washed, rinsed and sanitized with 50-200 ppm chlorine.

14.1.5.6. For areas where 1000 ppm chlorine solution is used – see section 17. “Procedures to protect Passengers and crew from exposure to disinfectants”

14.1.5.7. Hypochlorite is not recommended for disinfecting carpets and soft furnishings as it is damaging to many textiles. Instead spray with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)

14.1.6. Cleaning Method

14.1.6.1. All cleaning activities must be undertaken in a methodical manner following hygienic principles so as not to re-contaminate decontaminated areas.

14.1.6.2. All cleaning activities must be adequately supervised ‘in house’ with regular inspections to ensure correct procedures are being adhered to and that there is no risk of cross-contamination from ‘dirty’ to ‘clean areas’.

14.1.6.3. Thorough and continuous cleaning and disinfection must be carried out. Cleaners must target general hand contact surfaces such as hand rails, door handles, toilet flush handles, tap handles, etc. and also where passengers sit or lie down.

14.2. Sanitation (“Hit”) Squad

14.2.1. Purpose

14.2.1.1. A dedicated Sanitation (“Hit”) Squad is to be organised and trained to provide:

- .1. The principal response for the thorough cleaning, sanitising and disinfecting areas where staff or customers have been sick.
- .2. Fogging with disinfectants (see section 14.7)
- .3. Support to other groups implementing enhanced sanitation routines.

14.2.2. Equipment and decontamination

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- 14.2.2.1. Disposable Personal Protective Equipment is to be worn by the squad: full long arm disposable plastic gloves, disposable boiler suits, aprons, safety glasses. A particulate respirator mask (N95) is to be worn if aerosols are likely to be present (ie within an hour of the incident occurring).
- 14.2.2.2. The PPE is to be changed after each task or cabin. Hands must be thoroughly washed for min 20 secs and dried before entering the next cabin / commencing the next task
- 14.2.2.3. PPE used must be discarded and is to be sealed in disposable plastic bags, prior to transportation and ultimate disposal or incineration
- 14.2.2.4. Operatives must scrub, wash and dry hands at completion of each task
- 14.2.2.5. The cleaning/decon equipment of the Sanitation "Hit" Squad includes: covered 10-20 litres bucket, disinfectants (see section 16) in spray bottle, absorbent powder or gel, scraper, dust pan, paper towels / disposable rags, alcohol based hand sanitizer, plastic biohazard bags, (and fogging disinfectant with equipment when fogging is to be performed -see section 14.7). For list of recommended disinfectants see section 16, for lists of recommended equipment see section 18.

14.2.3. General Requirements

- 14.2.3.1. The "Hit" Squad is to be available 24 hrs a day during all sanitation / trigger levels (green/yellow/red) for PVIs and/or PDIs
- 14.2.3.2. Sufficient Hit Squad staff (typically of Housekeeping Utilities) headed by an Assistant Housekeeper or other Hotel Supervisor are to be organized in 8 hrs shifts to cover 24 hrs period
- 14.2.3.3. Generally a squad of 3 people can respond to most incidents or cleaning of individual cabins
- 14.2.3.4. The Hit Squad personnel can be assigned other duties (unless Food and Beverage handlers) but must be available as an emergency response team for PVIs/PDIs
- 14.2.3.5. Squad members should shower and change only in their own cabins if possible
- 14.2.3.6. Squad members should normally share accommodation with other members of the Squad and not share with any other crew
- 14.2.3.7. A log of all D&V responses made must be kept by the Hit Squad Supervisor for one year

14.2.4. Reducing F&B risk

- 14.2.4.1. Food and beverage handlers, if any, assigned to the Sanitation "Hit" Squad must be removed from their normal duties.

14.3. Sanitising Contaminated Cabins

14.3.1. General

- 14.3.1.1. Contaminated passengers and crew cabins must be identified and attended by the Sanitation "Hit" Squad as soon as possible

14.3.2. Sanitising Contaminated Solid / Hard Surfaces (cabins)

- 14.3.2.1. All hard surfaces, i.e. door knobs, chair and table legs, window frames, dressing table, bedside tables, TVs and units, wardrobes, handles, inside drawers and wardrobes, headboards, all bathroom fittings, towel rails, waste bins, etc. must be cleaned and disinfected as per below
- 14.3.2.2. Vomit on solid surfaces to be covered with sanitiser, scooped into plastic bags and the area sanitized. The shovel and scoop to be washed in a strong sanitising solution. Plastic bags to be sealed prior to transportation and disposal
- 14.3.2.3. Spray disinfectant directly onto gross contaminants (vomit or stool) and cover them with disinfectant (1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)) soaked paper towels or rags for the appropriate contact time or cover them with absorbent gel powder (designed for bodily fluids, allow 5 mins to absorb)
- 14.3.2.4. Clean surface of residuals with dustpan and spatula
- 14.3.2.5. Dispose ALL (vomit or stool, absorbent, gel, waste cloth, paper towels, the disposable PPE) carefully in (biohazard) bags which are to be immediately sealed and preferably incinerated or carefully disposed of to avoid any contamination elsewhere
- 14.3.2.6. See also section 14.1.2 for similar measures as above for PVI and PDI (Public Vomit/Diarrhea Incident)
- 14.3.2.7. All hard surfaces should be cleaned using a suitable detergent or multipurpose cleaner and then disinfected with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide and cleaner as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)
- 14.3.2.8. For areas where 1000 ppm chlorine solution is used – see section 17. "Procedures to protect Passengers and crew from exposure to disinfectants"
- 14.3.2.9. Separate disposable cloths must be used for 'dirty' areas such as toilets. After cleaning bathrooms cloths must be placed in sealed bags and disposed of. Staff must not use the same cloths to clean the rest of the accommodation

14.3.2.10. Damp rather than dry dusting or sweeping should be performed

14.3.2.11. During wet cleaning, cleaning solutions and equipment soon become contaminated. Cleaning solutions and cloths/mops should be changed frequently and disposed of

14.3.3. Linen

14.3.3.1. Bed linen and towels to be changed. Beds should be stripped and whilst in the cabin all linen, pillowcases and towels should be placed in the laundry bags. If the linen is heavily contaminated, the use of dissolvable bags is advised

14.3.3.2. Soiled linens should be handled as little as possible and with minimal agitation

14.3.3.3. Damaged linen is to be discarded in biohazard waste bags. The linen bags should be removed to laundry ensuring there is no risk of cross contamination en route. The linen and towels are to be then washed at minimum 70°C (for min 5 mins at that temperature)

14.3.3.4. Clean linen should not be taken into an affected room before it has been decontaminated.

14.3.3.5. Soiled bed spreads and similar materials to be bagged, sealed and stored separately prior to appropriate cleansing

14.3.4. Avoiding cross contamination

14.3.4.1. Any vomit to be double bagged and sealed in disposable plastic bags and transported for disposal. Sealable, disposable, plastic coated vomit bags to be supplied

14.3.4.2. No used linen of any sort to be left in corridors, near to food areas or air conditioning fan rooms

14.3.4.3. All cloths, gloves and sponges used to clean affected areas must be discarded and never re-used in other cabins

14.3.4.4. Any beverage sachets such as coffee, tea, sugar, biscuits etc. should be disposed of. All cutlery, crockery, glasses, tongs, ice buckets should be placed in a lidded container to sanitized first with 1000ppm chlorine solution for 10 mins before passing through a dish/glassware washer.

14.3.4.5. All toilet rolls and other toiletries should be replaced and the partly used materials disposed of. The holders should be cleaned and disinfected as per the Hard Surfaces procedure

14.4. Sanitising Contaminated Carpets (cabins and/or public areas)

14.4.1. Methods

- 14.4.1.1. Vomit on carpeted surfaces to be covered with sanitiser powder and then cleaned using steam cleanser or similar.
- 14.4.1.2. Machine to be cleaned with sanitising solution after use.
- 14.4.1.3. Carpets should be steam cleaned (or steam vacuumed) using a steam cleaner which reaches a minimum of 70°C (contact time min 5 mins), unless the floor covering is heat sensitive and/or fabric is bonded to the backing material with glue. If this is the case then make wet with an effective virucide as AHP Accel-Virox/Oxivir RTU for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)

14.4.2. Precautions

- 14.4.2.1. Carpets should be allowed to dry before any crew or passenger is allowed back into the area
- 14.4.2.2. Vacuum cleaning carpets and buffing floors have the potential to re-circulate viruses (Norovirus) and are therefore not recommended. (If vacuum cleaners are used this should only be in decontaminated areas, closed overnight and when not in passenger use.
- 14.4.2.3. The vacuum cleaners should contain high efficiency particulate air (HEPA) filters which are regularly cleaned and disinfected)

14.5. Sanitising Soft Furnishings (cabins and/or public areas)

- 14.5.1.1. If Soft Furnishings (i.e. chairs, stools, beds, upholstery, headboards etc) items are heat tolerant, after initial cleaning with hot water and detergent, they should be steam cleaned with a temperature of minimum 70°C for min 5 mins
- 14.5.1.2. If this is not possible, they should be disinfected by making them wet by an effective virucide as AHP Accel-Virox/Oxivir RTU for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)
- 14.5.1.3. If covers are removable they should be laundered at 70°C for min 5 mins at that temperature

14.6. Sanitising Contaminated Solid / Hard Surfaces (public areas)

- 14.6.1.1. Follow the procedure for solid / hard surfaces in cabins above

14.7. Fogging

14.7.1. General

- 14.7.1.1. Fogging is the application of small droplets of disinfectants to the air and environmental surfaces
- 14.7.1.2. Optimal particle size is 10-20 microns in diameter which will settle in 45-60 mins in non-ventilated room
- 14.7.1.3. Fogging should be carried out as an addition to thorough surface cleaning and disinfection (and in case of cabins - after occupants have recovered)
- 14.7.1.4. Fogging is to be performed with an effective virucide as AHP Accel-Virox/Oxivir RTU or AHP diluted concentrate 1:16 (see section 16 for recommended disinfectants) (general recommendation is 1 liter/100m3)
- 14.7.1.5. Fogging can only be carried out in enclosed areas (such as cabins, toilets, bathrooms) and public areas that can be completely closed off to other rooms.
- 14.7.1.6. For areas that cannot be closed, instead of using of fogging generator devices a wide area spreader can be used on surfaces.
- 14.7.1.7. Exposure to fogging of crew (not with PPE) and passengers shall be minimized and whenever possible the areas to be fogged will be restricted in access and/or out of service hours.
- 14.7.1.8. Fogging on its own with disinfectants is not an alternative to effective conventional cleaning and disinfection
- 14.7.1.9. Appropriate PPE, including vinyl gloves, face masks, respirators and disposable (tyvek) suits are to be used by the Sanitation "Hit" Squad when fogging even if some of the chemicals for fogging do not require PPE at use dilution due to the increased exposure when fogging

14.7.2. Fogging procedure:

- 14.7.2.1. it should be done after the cabin (or space) has been thoroughly cleaned an disinfected as above
- 14.7.2.2. it must take place before changing linen (prior to clean linen being taken into the room) and before crockery and beverages are replaced, ie before that cabin has been "made up"
- 14.7.2.3. any open-able windows they must be closed during fogging operations and the AC unit should be disabled.
- 14.7.2.4. wardrobe doors and all drawers should be opened including the door to the bathroom

14.7.2.5. Electrical equipment must be protected and fire alarms and smoke/heat detectors covered.

14.7.3. Fogging techniques:

14.7.3.1. set fogger for a particle size 10-20 microns and appropriate rate

14.7.3.2. have an adequate volume of disinfectant in the fogger reservoir

14.7.3.3. fFog the entire volume of disinfectants

14.7.3.4. the fogging generator device should be methodically worked backwards from the furthest point from the door, aiming it upwards ensuring all surfaces are covered with a light vapour from high to low levels.

14.7.3.5. the fogging generator should be aimed into any cupboards, the bathroom and under beds.

14.7.3.6. best fogger nozzle location in cabin/room:

- 1-2 meters above floor
 - Higher location improves dispersal of disinfectant
- Less coverage at higher areas of room
- Less coverage at areas posterior to nozzle
- Avoid wall and ceiling contact with nozzle plume
 - Disinfectant will concentrate on these surfaces

14.7.3.7. the cabin/room door should be closed and left usually for 45- 60 minutes.

14.7.3.8. the room should then be re-entered and all hard surfaces wiped with a multi purpose cleaner

14.7.3.9. fire alarms and smoke/heat detectors should be uncovered then

14.7.3.10.the Air Conditioning (AC) can be restarted

14.7.3.11.wipe off any residual disinfectant from sensitive surfaces

15. HOTEL OPERATIONS - SANITATION REQUIREMENTS AT ALL LEVELS (GREEN, YELLOW AND RED)

As a rule of thumb the following chemicals, concentrations and contact times are to be used (see also section 16 for recommended disinfectants):

- For hard non-porous surfaces:
 - Green level: sanitize with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec
 - Yellow level: disinfect with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins
 - Red level: disinfect with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins
- For food contact surfaces/areas
 - Wash rinse and sanitize with 50-200ppm chlorine solution
 - 1000 ppm chlorine can be used in food areas only if there has been a vomit or diarrhoea incident
 - If 1000 ppm chlorine has been used on food contact surfaces in cases like the above incidents, after its contact time of 10 mins, the surfaces are to washed, rinsed and sanitized with 50-200 ppm chlorine
- For areas where high concentrations ie 1000 ppm chlorine solution is used – see section 17. “Procedures to protect Passengers and crew from exposure to disinfectants”
- For soft furnishings (and carpets):
 - the recommended disinfectant is AHP Accel-Virox/Oxivir RTU for 5 mins or AHP diluted concentrate 1:16 for 5 mins
 - where steam cleaning or washing can be done – at min 70°C for min 5 mins

Concentrations for PPM solutions in this section are to be determined by using either specialized test kits (within their expiration dates), 1:xx dilution ratios by dispensing equipment where available, or by mixing proportions as follows: 1 ounce per US gallon of water (3.78 L) = 1:128; 2 ounces per gallon = 1:64; 4 ounces per gallon= 1:32; 8 ounces per gallon = 1:16

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| GREEN | YELLOW | RED |
|--|--|---|
| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| 15.1. GENERAL REQUIREMENTS | | |
| The hit squad procedures for a vomiting / diarrhoeal accident are the same as per Section 14 for all three levels Green, Yellow, Red | | |

LOCAL WORKING INSTRUCTION (LWI) # 52
OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

| GREEN | YELLOW | RED |
|--|--|---|
| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| <p>The Standard Hotel Operations Procedures on sanitation are to be applied per the Hygiene and Sanitation procedures of the SMS (ie FOM7)</p> <p>This generally includes daily <u>sanitation with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants).</u></p> <p>See precautions for symptomatic crew per Section 5.7</p> <p>See precautions for symptomatic passengers per section 5.8</p> | <p>The sanitation frequency <u>must</u> be increased to twice or three times a day <u>with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u> for non-food areas. For food <u>areas continue to wash rinse and sanitize with 200ppm chlorine 2-3 times a day.</u> <u>1000 ppm chlorine can be used in food areas only if there has been a vomit or diarrhea incident, otherwise the max chlorine concentration is 200 ppm. If 1000 ppm chlorine has been used on food contact surfaces in cases like the above incidents, after its contact time of 10 mins, the surfaces are to washed, rinsed and sanitized with 50-200 ppm chlorine</u> <u>For areas where 1000 ppm chlorine solution is used – see section 17. “Procedures to protect Passengers and crew from exposure to disinfectants”</u></p> <p>Hand Washing campaign to be reinforced.</p> <p>Hand gel sanitiser’s use <u>must</u> be encouraged by stationing a crew member next to it to invite passengers and crew to use it</p> <p>Any dishes from affected cabins to be washed in a designated service pantry <u>with ware-washing machines (the temperature to be monitored frequently -min wash temperature 70°C/160°F, min rinse temperature</u></p> | <p><u>Disinfect non-food contact hard surfaces continuously with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p><u>Food contact areas must be washed, rinsed and sanitized with 200 ppm chlorine solution</u> <u>1000 ppm chlorine can be used in food areas only if there has been a vomit or diarrhea incident, otherwise the max chlorine concentration is 200 ppm. If 1000 ppm chlorine has been used on food contact surfaces in cases like the above incidents, after its contact time of 10 mins, the surfaces are to washed, rinsed and sanitized with 50-200 ppm chlorine</u> <u>For areas where 1000 ppm chlorine solution is used – see section 17. “Procedures to protect Passengers and crew from exposure to disinfectants”</u></p> <p><u>For disinfecting soft furnishings use effective virucide as AHP Accel-Virox/Oxivir RTU for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants).</u> <u>Soft furnishings can be also steam cleaned with min temperature of 70°C and min contact time of 5 mins</u></p> <p><u>Company Office is to be updated on continuous basis.</u></p> <p>Crew and passengers to be informed of the outbreak (daily during its duration) including those embarking after an outbreak voyage or segment. The above notifications will take place by means of letters in cabins for passengers and</p> |

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OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

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| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| | <p><u>82°C/180°F</u></p> <p>Advise persons to close toilet lid before flushing if they have either Vomit or Diarrhoea Accident into it.</p> <p>The Doctor notifies Captain who notifies also the Office</p> | <p>announcements <u>including</u> during safety inductions for crew and the safety muster for passengers. They <u>must</u> also be advised to reduce hand contact potential (ie avoiding loaning of items (books, magazines, computer disks etc to friends)</p> <p>Doctor and Captain to keep the Office updated on the situation.</p> <p>Stop transfer of staff moving between vessels and if not possible, only do so with the relevant 48 or 72 hour gap without symptoms</p> <p>After <u>extended periods of</u> enhanced sanitation, the teams will be feeling fatigue. Do your utmost to re-energize them (medics, hit squads, utility cleaners, etc.) and their programs.</p> <p>Implement isolation of up to 48 hrs for any crew member and up to 72 hrs for a food handler after the AGE symptoms have stopped</p> |

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OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

| GREEN | YELLOW | RED |
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| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| 15.2. HOUSEKEEPING - Cabins | | |
| <p>Cabins to be cleaned and sanitised (Vomit / Diarrhoea Accident and/or AGE infected cabins to be cleaned last as per section 14.3) <u>with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants)</u> and in the following order to prevent cross contamination:</p> <ul style="list-style-type: none"> • Put on new gloves • Clean and disinfect door handle • Empty trash • Remove soiled towels • Change gloves • Spray disinfectant and clean and disinfect bathroom (toilet and brush, bowl, taps, shower, flush, drainage and scuppers, around toilet bowl and floor) • Wipe sink and shower • Change gloves • Clean and disinfect all hard surfaces • Sanitise specific touchable items such as door handles, light switches, phones, remote controls, etc.) • Clean mirrors • Strip bed linen (send to laundry or for incineration) • Change gloves • Change bedding • Restock towels • Discard gloves, wash <u>and dry</u> hands <p>NB. Sanitiser solution must be applied using a</p> | <p>The housekeeping department <u>must</u> provide a detailed ship's plan, deck by deck, with the affected staterooms highlighted.</p> <p><u>Disinfect with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants). For soft furnishings use only AHP and not chlorine per above.</u></p> <p>Vacuuming <u>must</u> be minimised to help limit any possible transfer of virus. HK Staff must pre-spray areas to be vacuumed with <u>the appropriate AHP disinfectant (as above)</u> to help reduce the creation of dust.</p> <p>All garbage must be collected and bagged/binning inside the cabin rather than out in the corridor.</p> <p>HK Staff to spray the soles of their shoes with appropriate disinfectant (<u>with chemicals, concentrations and contact times as above</u>) after working in each cabin.</p> <p>HK Staff must be re-briefed about the importance of washing <u>and drying</u> their hands after cleaning or working in each cabin and/or using hand sanitisers where this is not possible.</p> | <p><u>Disinfect on</u> continuous basis <u>with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants). For soft furnishings use only AHP and not chlorine per above.</u></p> <p>All vacuuming must be suspended. Vacuum bags must be removed and incinerated. The vacuum bag compartment must be carefully disinfected with effective virucidal disinfectant (<u>with chemicals, concentrations and contact times as above</u>)</p> <p>In infected cabins, blankets that may harbour virus particles <u>must</u> be replaced.</p> <p>De-scale shower heads ,hoses taps before sanitizing</p> <p>Linen <u>must</u> be changed daily. Lightly soiled linen should go to the laundry in dissolvable bags. Heavily soiled linen is placed in bio-hazard bags for incineration.</p> <p>Use disposable personal protection equipment, including gloves which are changed after each cabin as per the sanitation of contaminated areas procedure per section 14.</p> <p>Hands must be washed with liquid soap <u>and dried</u> before proceeding to next cabin.</p> <p>The same cleaning cloth must never be used in more than one cabin. Used cloths must be discarded.</p> <p>Ice to be provided to passengers only upon request. All ice buckets must be <u>washed, rinsed</u></p> |

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OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

| GREEN | YELLOW | RED |
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| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| <p>spray or damp cloth and allowed to air dry to give the sanitiser sufficient contact time to kill viruses present.</p> <p>Ensure and maintain ample supply of bleach/ chlorine and an effective virucidal disinfectant <u>as AHP Accel-Virox/Oxivir RTU/wipes (see section 16 for recommended disinfectants)</u></p> <p>All cleaning utensils to be disinfected at end of use <u>with chemicals, concentrations and contact times as above.</u></p> | | <p><u>and sanitized with 200ppm chlorine</u> prior to refilling with ice.</p> <p>Ensure carts/trolleys are kept clean without any risks of cross-contamination between clean and dirty items.</p> <p>Cabins are to be fogged as per section 14.7.</p> |
| 15.3. HOUSEKEEPING - Infected Crew Cabins | | |
| <p>Supplies of <u>1000 ppm chlorine solution or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/ or AHP diluted concentrate 1:16 (see section 16 for recommended disinfectants)</u> to be made up and to any affected crew to help disinfect their own toilet and bathroom areas especially in shared cabins. A Housekeeper must give guidance to affected crew on the use of the disinfectant <u>(ie contact time of 10mins, chemical safety profile and Personal Protective Equipment)</u>. The Hit Squad staff must clean and disinfect affected crew cabins whenever possible / necessary.</p> | <p>In outbreaks affecting a high number of crew, additional Hit Squad staff should be designated for cleaning affected crew cabins, when possible.</p> | <p>Implement higher frequency of blanket and bedding changes.</p> <p><u>Cabins are to be fogged as per section 14.7.</u></p> |
| 15.4. HOUSEKEEPING - Alleyways, corridors, staircases including elevators | | |
| <p>Sanitise all hand contact surfaces (ie handrails and door handles, phones, buttons etc) <u>with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants)</u></p> | <p>The general frequency of cleaning and disinfection <u>levels</u> of hand contact surfaces within public areas <u>must</u> be increased.</p> <p><u>Disinfect with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended</u></p> | <p><u>Disinfect with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u> on continuous basis.</p> <p>Continuously disinfect the following using a</p> |

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| GREEN | YELLOW | RED |
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| | <p>In addition to the level Green procedures as appropriate</p> <p><u>disinfectants</u>)</p> <p>This precaution <u>should</u> also be used routinely for the first 2 days of each cruise, since many outbreaks start at this time.</p> | <p>In addition to level Yellow procedures as appropriate</p> <p>clean cloth saturated with an effective virucidal disinfectant (<u>chemicals, concentrations and contact times as above</u>)</p> <ul style="list-style-type: none"> • Elevator/lift controls/doors/interiors • Stairway and public area handrails • Door handles and push panels • Corridor handrails • Gangway handrails when the ship is in port • Telephones, tabletops, and other hand contact surfaces such as seat handles <p>Implement spraying or fogging of disinfectant per sections 14.7 (fogging) in such areas when not in use</p> |
| 15.5. HOUSEKEEPING - Public Toilets | | |
| <p>Public toilets <u>must</u> be washed/rinsed/sanitised thoroughly at least three times a day <u>with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants)</u></p> <p>Check all toilets have liquid soap and toilet paper present.</p> | <p>Public toilets to be checked every hour and thoroughly cleaned and disinfected (<u>with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u>) whenever soiled and at least every 4 hours.</p> <p>Particular attention to be paid to all surfaces of toilets, including insides, seat, taps, and any other surfaces that may be contaminated</p> <p>All hard surfaces must be cleaned and disinfected (<u>with chemicals, concentrations and contact times as above</u>) ensuring that separate disposable cloths are used for 'dirty' areas such as toilet bowls. All dirty cloths</p> | <p><u>Cleaning and disinfection on continuous basis with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants) which includes taps, tiles, faucets and toilet bowls.</u></p> <p><u>Use separate rags for the toilet only, one rag per toilet (disposable cloths can be used) then disposed of in sealed bags.</u></p> <p>All <u>other</u> surfaces must be sprayed <u>with an effective virucide as AHP Accel-Virox/Oxivir RTU for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants).</u></p> <p>Then also re-stock public toilets</p> <p>Whenever possible, public toilet / restroom</p> |

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| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| | <p>should be disposed of in sealed bags</p> <p>Then restock also as follows: Toilet rolls and paper towels to be changed; Soap dispenser to be replenished with anti-bacterial soap</p> <p>Air dryers (if any) <u>must be</u> disconnected and paper towels used with an appropriate notice.</p> <p>Busy locations <u>must</u> be identified and cleaned / disinfected more frequently.</p> <p>Toilets / Restrooms <u>must</u> be ideally fogged every night (<u>see section 14.7 on fogging</u>)</p> | <p>doors should be propped open to reduce the need to touch door handles.</p> <p>Proper signs to be displayed, also for use of paper towels when leaving the facility.</p> <p>Toilet brushes <u>must</u> be removed</p> |
| 15.6. HOUSEKEEPING - Open Decks (and SPA) | | |
| <p>Deck blankets - <u>must</u> be laundered quarterly. <u>SPA blankets must be laundered daily.</u></p> <p>Lounger and seating cushions <u>must</u> be <u>sanitized</u> weekly with an <u>effective virucide as AHP Accel-Virox/Oxivir RTU for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants).</u></p> <p>Abandoned soiled pool towels must be routinely collected throughout the day and placed in a designated "dirty" bin or trolley. When the bin is full, the soiled linens must be bagged and taken directly to the Laundry (the bin should be <u>sanitized with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants)</u> at</p> | <p>All hand touch / contact points are to be cleaned and disinfected at least 3 times per day with <u>with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants).</u> This includes pool or spa / door / seat handles, push panels and railings.</p> <p>Separately store used deck <u>(and SPA)</u> blankets from laundered blankets, unfold and disinfectant spray used blankets (<u>AHP Accel-Virox/Oxivir RTU for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u>) before they can be re-used.</p> | <p><u>Clean and disinfect</u> continuously <u>all</u> hand touch / contact surfaces (ie handrails etc) wiping all hard surfaces with <u>1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>Lounger and seating cushions are to be disinfected <u>continuously with an effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>Disinfect the "dirty" towel bin <u>continuously with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-</u></p> |

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| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| least weekly) . After handling the delivery, staff must immediately wash <u>and dry</u> hands prior to starting a new task. | <p>Disinfect lounge and seating cushions daily with an effective virucidal disinfectant <u>as AHP Accel-Virox/Oxivir RTU for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>Disinfect the "dirty" towel bin daily <u>with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u></p> | <u>Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants).</u> |
| 15.7. HOUSEKEEPING - Main Laundry | | |
| <p>Laundry from GI affected persons must be kept separate from all other laundry. All laundry items from affected rooms <u>must</u> be placed separately in water soluble bags before transfer to the laundry.</p> <p>All dirty linen <u>must</u> be bagged at the site of collection. During the transfer of laundry bags, there must be no risk of cross contamination en route.</p> <p>Water soluble bags <u>must</u> be used for all instances of gross contamination. If linen is soiled with body substances e.g. faeces, it <u>must</u> be washed separately, with a pre- wash sluice cycle. All soiled linen <u>must</u> be washed as promptly as possible. Alternatively, heavily soiled linen should be disposed of in a sealed bag.</p> <p>GI contaminated fabrics which can tolerate heat should be washed at a minimum temperature of 70°C <u>for min 5 mins..</u> Other non-heat tolerant GI</p> | <p>The entire Laundry area including decks and bulkheads must be cleaned/disinfected by Laundry staff daily using <u>with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p><u>Fogging of laundry areas is to</u> be carried out by Laundry staff each day <u>(see section 14.7)</u></p> <p>All laundry machines must be disinfected each day by <u>1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u> inside and outside and running empty on the hottest temperature cycle.</p> | <p>Avoid cross-contamination between clean and dirty items.</p> <p>All laundry trolleys, <u>laundry including machines</u> to be sanitized <u>on continuous basis with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>All irreparable damaged linen is to be discarded as bio-hazardous waste.</p> <p>Control panel and handles must be disinfected after starting <u>of</u> each load <u>with chemicals, concentrations and contact times as above</u> so that when opening, viral particles are not transferred by hands to clean laundry.</p> |

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| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| <p>contaminated fabrics (ie white) may be disinfected by the addition of <u>150 ppm chlorine for 5 mins duration.</u></p> <p>Trolleys must be stencilled or labelled or painted different colours to distinguish them between “clean” and “dirty” linen use. They <u>must</u> be stored in “clean” and “dirty” areas respectively.</p> <p>Trolley carts used to transport GI soiled linens are be cleaned and disinfected after each use <u>with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p><u>All trolleys must be cleaned daily to remove all dirt and debris from the bottom surface and sanitized with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants)</u></p> <p>A laundry machine <u>must</u> be designated and labelled for use with all laundry from cabins of passengers/crew known to be affected with GI illness.</p> <p>If an external laundry service is used, <u>the</u> operators <u>must be</u> informed of the likelihood of contaminated bedding, etc and any special requirements for the receipt of such items must be identified</p> | | |

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| GREEN | YELLOW | RED |
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| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| 15.8. HOUSEKEEPING - Crew and Pax Laundrettes | | |
| As per Standard Hotel Operating Procedures, <u>sanitize daily with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants)</u> | <p>Limit the hours of operation to a maximum of 12 hours a day</p> <p>Increase the frequency of cleaning and disinfection to at least three times per day: <u>disinfect with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants).</u></p> <p>Disinfect surfaces on all machines, laundry equipment, ironing boards, irons, hand contact surfaces) <u>with chemicals, concentrations and contact times as above</u></p> <p>Spray inside washing machines, cycle <u>with chemicals, concentrations and contact times as above</u> at least twice daily.</p> <p>Run all empty machines through the highest temperature wash cycle at the end of opening hours and then re-spray inside with <u>chemicals, concentrations and contact times as above.</u></p> <p>An effective virucidal disinfectant <u>as AHP Accel-Virox/Oxivir RTU for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u> solution sprays must be made available in crew laundrettes and a notice posted on its use</p> | <p>Limit use of or closing laundrettes (including passengers' laundrette)</p> <p>If kept open initially<u>y</u>:</p> <p><u>-the laundrettes, including all laundry equipment, must be continuously disinfected with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p><u>-notices must</u> be posted in all self-service laundrettes recommending passengers <u>to</u> use the hottest cycle of the machines only. If possible the laundry machines <u>must</u> be set to only run at these temperatures during an outbreak and warning notices displayed to avoid any accidental damage to delicate laundry.</p> <p>Areas and surfaces <u>are</u> to be fogged (<u>see section 14.7</u>), including outside and inside of washing and drying machines</p> <p>After <u>fogging</u> inside washing machines they are to be run once using the hottest cycle</p> |

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| GREEN | YELLOW | RED |
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| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| 15.9. HOUSEKEEPING - Disembarkation / Embarkation Days | | |
| Standards of general cleanliness especially within crew areas must not be compromised during turnaround days. | <p>Extra housekeeping personnel must be made available for cleaning</p> <p>Cleaning <u>and disinfection</u> of the main hand contact surfaces and toilets <u>must</u> be done after disembarkation including gangway, handrails etc. <u>(with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants))</u></p> | <p>Extra housekeeping personnel must be made available for cleaning</p> <p>Cleaning <u>and disinfection</u> of the main hand contact surfaces and toilets <u>must be on continuous basis</u> throughout disembarkation. <u>(with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants))</u></p> <p>Designated cleaners <u>must</u> follow immediately behind the last group of disembarking passengers and disinfect the gangways, handrails, stair handrails, lift buttons, door handles, door push plates, telephones, keyboards, sports, casino, library areas and equipment <u>with chemicals, concentrations and contact times as above</u></p> <p>Designated cleaners <u>must</u> then clean and disinfect the toilets <u>as per section 15. 5.</u></p> <p>Turn every mattress onto its side and spray with <u>an effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>Laundry mattress pads and protectors, duvet / inserts, bedspreads, pillow protectors in between cruises and occupancies.</p> |

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| GREEN | YELLOW | RED |
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| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| | | <p>Blankets may be washed at a low temperature, but use proper disinfectant <u>(AHP Accel-Virox/Oxivir RTU for 5 mins or AHP diluted concentrate 1:16 for 5 mins)</u> to pre-soak and always dry completely before making up the beds</p> <p>All linen including sheets to be washed at a high temperature (above 70 °C/160° F <u>for min 5 minutes</u>)</p> <p>Other items such as pillows, curtains and bed cushions should also be changed or laundered.</p> <p>Passengers remaining on for a second cruise to be closely monitored, especially if ill the previous week.</p> <p><u>Crew and passengers embarking the ship following an outbreak cruise, or an outbreak segment,</u> are to be advised of the previous outbreak <u>by means of letters in cabins for passengers and announcements during safety inductions for crew and safety muster for passengers</u></p> |
| <p style="text-align: center;">15.10. HOUSEKEEPING - Public Areas (general requirements for those not separately listed herewith below)</p> | | |
| <p>Handrails and hand contact surfaces (especially door push plates) <u>must</u> be sanitised at least twice daily <u>with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants)</u></p> | <p>Surfaces, especially hand contact surfaces and seats, must be disinfected after each large gathering (this includes passenger drill musters and any 'welcome onboard' cocktail parties or functions) with <u>1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants).</u></p> <p>Vacuuming <u>must</u> be done overnight or when</p> | <p>Vacuuming of carpets must be suspended, carpets <u>could</u> be spot cleaned by hand</p> <p>Continuous <u>disinfection</u> of all hand contact surfaces (door handles, push plates, hand rails, equipment, etc) and hard surfaces <u>with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> |

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OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

| GREEN | YELLOW | RED |
|---|--|---|
| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| | rooms/areas are free from passengers and after applying effective virucidal disinfectant (<u>AHP Accel-Virox/Oxivir RTU for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u>) with hand sprayer Increase (overnight) frequency of spraying or fogging in areas of high passenger usage | Sanitation of carpets and soft furnishings with <u>an effective virucidal disinfectant as AHP Accel-Virox/Oxivir RTU for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u> Public areas that can be closed are to be fogged as per section 14.7 |
| ENTERTAINMENT VENUES (THEATRE, CINEMAS, SHOW LOUNGES ETC.) | | |
| Typical theatre / lounge sitting and hand surfaces ie theatre chair arms and tray tables need routine cleaning and sanitising (ie twice a cruise). These tables must be unfolded prior to applying <u>a 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants)</u> Cleaning and disinfecting surfaces <u>must</u> generally take place when passengers are not present. Avoid placing entertainment equipment directly on the deck wherever possible. Microphones must be wiped with a cloth saturated in an effective disinfectant (<u>as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants)</u>) between each use, especially if shared by passengers and Entertainment Staff. | All theatre hand and sitting surfaces ie chair arms and tray tables must be <u>disinfected</u> at the end of each night when all shows have been completed <u>with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u> . Equipment must be disinfected <u>with chemicals, concentrations and contact times as above</u> once per day. <u>Disinfect</u> all soft furnishings, tables, counters and other hard surfaces which may be touched or sat on <u>with chemicals, concentrations and contact times as above</u> daily if in use | Theatre chair tray tables <u>must</u> be <u>disinfected</u> after every major event <u>with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u> Any re-used items of equipment must be <u>disinfected continuously with chemicals, concentrations and contact times as above.</u> <u>Disinfect</u> all tables, counters and other hard surfaces which may be touched or sat <u>continuously with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants). On Soft furnishing use AHP and not chlorine.</u> Surfaces need to be made moist enough to give <u>the required above 5-10 minutes</u> contact time without being too wet for re-use. <u>Disinfect</u> all surfaces at the end of work, or |

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| GREEN | YELLOW | RED |
|---|---|--|
| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| | | overnight <u>with chemicals, concentrations and contact times as above</u> |
| 15.11. CONCESSIONS (BEAUTY SALON, SPA, GYM, SHOP, BOUTIQUE, CASINO ETC) | | |
| <p>All hard surfaces and door handles, sales racks, Micros machines (point of sale) and equipment must be sanitised daily after closing for business. This <u>must</u> target areas and items which are touched by users <u>with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants).</u></p> <p>Gymnasium and the Spa Salon areas, hand and bottom contact hard surfaces and accessories (including Casino chips) <u>are to be</u> cleaned and <u>sanitized</u> on a daily basis <u>with chemicals, concentrations and contact times as above</u></p> <p>Cleaning and <u>sanitizing</u> surfaces <u>must</u> generally take place when passengers <u>are</u> not present.</p> <p>The Spa, Salon, Casino or Gym staff must clean and <u>sanitize</u> the back office at least once per cruise <u>with chemicals, concentrations and contact times as above</u>. This shall include but is not limited to: computer keyboards, mouse and mouse pads, light switches, copy machine buttons, telephone receivers and keypads, drawer handles and knobs, door handles, waste bins, etc.</p> | <p>Clean and disinfect hard surfaces and accessories twice or three times per day using <u>1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>Spa, Salon and Gym staff must clean and disinfect the back office at least every other day <u>with chemicals, concentrations and contact times as above</u></p> <p>All carpets must be sprayed <u>with an effective virucide as AHP Accel-Virox/Oxivir RTU for 1 min or with AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u> and ideally shampooed / extracted at night or when in ports (i.e., the shops are closed) as often as possible</p> <p>Soft furnishings other than carpets must be sprayed <u>with an effective virucide as AHP Accel-Virox/Oxivir RTU for 1 min or with AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u> after the shop has closed.</p> <p>Alcohol hand sanitisers must be provided at the entrance of the gym</p> <p>Disinfectant wipes <u>(AHP for 1 minute) must</u></p> | <p>Frequent hand washing <u>must</u> be encouraged and alcohol hand sanitizer gel <u>must</u> be made available</p> <p>Staff <u>must</u> minimise direct contact with passengers. This involves minimizing hand shaking, passing items and other bodily contact (including removal of perfume testers etc)</p> <p><u>Disinfect</u> hand contact, <u>tables, counters</u> and <u>other hard</u> surfaces <u>which may be touched or sat upon</u> and equipment with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants) on continuous basis while in use and after closing each night.</p> <p><u>Disinfect</u> all soft furnishing <u>with an effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>All re-usable <u>fabric materials</u> to be disinfected by washing at a temperature of <u>70°C</u> or more <u>for min 5 minutes</u>.</p> <p>Avoid putting items on the deck</p> <p>Any towels provided must be bagged and sealed</p> |

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| GREEN | YELLOW | RED |
|-------|--|---|
| | <p>In addition to the level Green procedures as appropriate</p> <p>also be provided for the wiping down of equipment between use.</p> <p>Disinfect the "dirty" towel storage bin daily with <u>1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>Whenever possible, Shop Managers <u>must</u> limit the availability of merchandise that may be handled by passengers</p> | <p>In addition to level Yellow procedures as appropriate</p> <p>before removal and laundered after use <u>as above for fabric materials</u>.</p> <p>Disinfect the "dirty" towel bin each time it is emptied <u>with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>Close sauna</p> <p>Spray all soft furnishings with an effective virucidal disinfectant <u>as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u> and allow them to air dry over night.</p> <p>Vacuuming must be suspended. Any cleaning of carpets must be carried out by <u>spot</u> cleaning only.</p> <p>The back offices must be cleaned and disinfected at least daily <u>with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>Use of the outside tables for shop sales <u>must</u> be suspended; no anti-diarrhea medication <u>shall</u> be sold in the shops</p> |

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| GREEN | YELLOW | RED |
|---|--|--|
| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| 15.12. INTERNET FACILITIES / BUSINESS CENTRE / LIBRARY | | |
| <p>Hard surfaces <u>and all tables, counters and other hard surfaces or items which may be touched or sat upon</u> must be cleaned and sanitised at the end of each day <u>with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants)</u>. This includes: pens, computer keyboards, mouse and mouse pads, web cam, monitors, card swipe units, light switches, copy machine buttons, telephone receivers and keypads, drawer handles and knobs, door handles, waste bins, chairs and chair seats, etc. Disconnect all units from the electrical supply before <u>sanitizing</u>.</p> <p>Soft furnishings, such as carpets and couches or chairs, must be on a routine cleaning schedule. Administrative Offices must be cleaned and <u>sanitized</u> at least once per cruise <u>with chemicals, concentrations and contact times as above</u></p> | <p>Carry out the disinfection of all hard surfaces and accessories which may be touched at least twice per day (particularly between customers and at quiet times) using <u>1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>Disinfect all soft furnishings at least twice per day <u>with an effective virucide as AHP Accel-Virox/Oxivir RTU for 1 min or with AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u>.</p> <p>Clean and disinfect the back office targeting hand contact surfaces at least daily <u>with chemicals, concentrations and contact times as above</u></p> | <p>Sanitize all surfaces and accessories <u>continuously</u> throughout the day (particularly between customers and at quiet times) and nightly using <u>1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u>. Disconnect all units from power supply.</p> <p>Spray soft furnishings <u>on continuous basis</u> using effective virucidal disinfectant <u>as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p><u>Hand</u> sanitizer <u>to</u> be made available.</p> <p>Suspension of total vacuuming but only spot cleaning is to be implemented</p> |
| 15.13. CHILD ACTIVITY AND YOUTH CENTRES | | |
| <p>Particular attention <u>must</u> be taken in the cleaning of children's play clubs. Uncontrolled vomiting and diarrhoea is more likely in young children and therefore the play area and toys may be heavily contaminated. All the area and contents <u>must</u> be cleaned and <u>sanitized</u> daily <u>(with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP</u></p> | <p>Use <u>1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u> <u>three times a day (or more often if heavily used or surfaces become dirty) and at the end of the day</u> to clean and disinfect all hard surfaces and toys.</p> | <p><u>Continuously disinfect hard surfaces with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>Infants and toddlers must not be allowed to share toys. When an infant or toddler finishes playing with a toy, it should be retrieved from</p> |

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| GREEN | YELLOW | RED |
|---|---|--|
| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| <p><u>diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants).)</u> and <u>disinfected</u> immediately after an incident of vomiting and diarrhoea (<u>per section 14.1</u>)</p> <p>Toys in children's clubs <u>must</u> be capable of withstanding <u>sanitizing and</u> disinfection.</p> <p>All <u>chemicals solutions</u> must be labelled and kept (for max 30 days) in a lockable cabinet out of the reach of children.</p> <p>Soft surfaces such as carpets and soft furnishings, must be cleaned at least daily.</p> <p>Hard surface toys <u>must</u> be <u>sanitized with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants) daily.</u></p> <p>Computer and Video Games - buttons, joy sticks and other hand contact surfaces shall be wiped with <u>200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants)</u> at the end of each day.</p> <p>Toilets must be cleaned and sanitised <u>with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for</u></p> | <p>Tables and highchairs <u>and surfaces must</u> be cleaned and disinfected <u>with chemicals, concentrations and contact times as above.</u></p> <p>Nappy changing areas, toilets and hand washing facilities <u>must</u> be thoroughly cleaned and disinfected <u>with chemicals, concentrations and contact times as above.</u></p> | <p>the play area and put in a bin (out of reach) reserved for dirty toys.</p> <p>Toys must be cleaned and disinfected before being transferred to a bin for clean toys, <u>after each shift as follows (for hard plastic toys with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>This clean bin will then be disinfected with <u>chemicals, concentrations and contact times as above</u></p> <p>Blankets, sheets, pillow cases <u>must</u> be laundered at <u>70° C for min 5 mins</u>, if a hot wash is not possible, <u>white</u> fabrics may be disinfected by the addition of 150ppm of chlorine <u>or by pre-soaking in effective virucide as AHP Accel-Virox/Oxivir RTU for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>Normal ball play areas must be taken out of use during outbreak and balls removed.</p> <p>Fogging (<u>see section 14.7</u>) of child areas <u>to</u> be carried out overnight.</p> |

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| GREEN | YELLOW | RED |
|--|---|--|
| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| recommended disinfectants) twice daily at a minimum. Regular checks must be made every 2 hours and <u>toilets</u> cleaned as required | | |
| 15.14. PURSER'S /CRUISE DESK / RECEPTION | | |
| <p>Pursers / Cruise Staff must:</p> <ul style="list-style-type: none"> inform the Doctor of the name, cabin number and any illness details arising from passenger complaints which may otherwise go unreported. advise the individual to remain in his/her cabin and have the Duty Nurse contact him/her. <p>If the individual presents at the Reception/Front Desk, have him/her escorted to his/her cabin to await contact from the Medical Centre staff.</p> <p>Reception/Front Desk counters must be cleaned and sanitised with <u>200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants) daily.</u></p> <p>Staff are <u>to</u> avoid all hand to mouth contact exposure, especially after handling money, credit cards, pens and other items, etc. that may have been handled by passengers or other crew members.</p> | <p>Clean and disinfect all hard surfaces at least three times daily using <u>1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>Surfaces and items requiring special attention include: cash drawers, phones, keyboards, printer and copier command boards, 2 way radio buttons, passport holding pens, ATM machine command boards, Wifi cards, laptops, etc.</p> <p>Disinfect pens/pencils after each use <u>with chemicals, concentrations and contact times as above.</u></p> | <p>Disinfect all hand contact surfaces (e.g., counters, hard surfaces and equipment <u>on continuous basis with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>Soft furnishings and carpets <u>must</u> also be treated with an effective disinfectant <u>virucidal as AHP Accel-Virox/Oxivir RTU for 5 mins or with AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u> during periods with minimal activity.</p> <p>Remove shared contact items (e.g., pens, pencils, brochures, etc.) from passenger areas to avoid cross contamination.</p> |

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| GREEN | YELLOW | RED |
|---|--|--|
| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| 15.15. MEDICAL CENTRE | | |
| <p>The Medical Centre is to undergo a strict sanitation procedure at the end of each clinic and additional cleaning procedures adopted each time gastroenteritis illness patients are treated within the facility as detailed below. Medical Staff must comply with universal precautions by wearing disposable gloves and aprons when examining all patients with gastroenteritis symptoms.</p> <p>The general <u>sanitation</u> in the Medical Centre <u>is with 200 ppm chlorine solution for 30 sec or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants).</u></p> <p>Examination tables and hand touch surfaces in the consulting/examination/treatment rooms <u>must</u> be cleaned and disinfected after each patient with GI illness <u>1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>Disposable gloves must be changed between the cleaning of separate areas of the Medical Centre to avoid possible cross-contamination. All waiting room chairs, examination/treatment rooms, x-ray room,</p> | <p>All waiting room chairs, examination/ treatment rooms, x-ray room, wards, dispensary and nurses' station must be cleaned and disinfected with <u>1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u> after each clinic.</p> <p>All carpets must be sprayed with effective disinfectant (<u>AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u>) and HEPA vacuumed at the end of each day.</p> <p>Hand touch and food contact surfaces must be cleaned and <u>disinfected with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants)</u> <u>three times a day (including at the end of each clinic)</u></p> | <p>All surfaces which may be touched or sat upon in the medical centre, waiting room and reception Area must be <u>disinfected continuously</u> throughout opening hours and after the end of clinic with <u>with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 5 mins or AHP diluted concentrate 1:16 for 5 mins (see section 16 for recommended disinfectants)</u></p> <p>All magazines, pamphlets and other shared materials in waiting areas must be removed and discarded.</p> |

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| GREEN | YELLOW | RED |
|---|--|---|
| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| <p>wards, dispensary and nurses' station must be cleaned and disinfected after each evening clinic.</p> <p>Vinyl floors, sluice, sinks, and toilets must be cleaned <u>sanitized with chemicals, concentrations and contact times as above</u> after evening clinic.</p> <p>Replace any linen on all couches or used with patients being examined after each clinic.</p> <p>All carpets should be HEPA vacuumed after evening clinic and cleaned using shampoo machines with <u>AHP Accel-Virox/Oxivir RTU/wipes for 30 sec or AHP diluted concentrate 1:16 for 30 sec (see section 16 for recommended disinfectants)</u> between each voyage.</p> | | |

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| GREEN | YELLOW | RED |
|---|--|---|
| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| FOOD & BEVERAGE | | |
| 15.16. FOOD AND BEVERAGE (F&B) - Galley and Food Preparation Areas ("Back of the House") | | |
| Hand Washing frequencies and methods must be effectively managed. Staff must wash <u>and dry</u> their hands immediately upon entering any food area. This is to include any authorised visitors or members of the Technical Department carrying out repairs. | All passenger galley tours <u>if any</u> must be suspended | <p>Daily spot checks of all galleys (by the Officer responsible for sanitation) to ensure highest standards of hygiene are maintained and to remind crew of situation and its control.</p> <p>F&B areas are to be <u>washed, rinsed and sanitized</u> with <u>50-200 ppm chlorine solution continuously including</u> all tabletops, work surfaces, hand contact surfaces and all food contact equipment.</p> <p><u>1000 ppm chlorine can be used in food areas only if there has been a vomit or diarrhea incident, otherwise the max chlorine concentration is 200 ppm. If 1000 ppm chlorine has been used on food contact surfaces in cases like the above incidents, after its contact time of 10 mins, the surfaces are to washed, rinsed and sanitized with 50-200 ppm chlorine</u></p> <p>All self-service in buffets and counters must be suspended if possible and all food incl. wrapped items and beverages must be served to passengers</p> <p>Information relating to virus outbreak and the added importance of illness reporting to be displayed throughout galley.</p> <p>Refresher training to emphasize outbreak dangers and modes of spread.</p> <p>Galley Personnel to change the uniform twice a</p> |

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| GREEN | YELLOW | RED |
|---|--|--|
| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| | | day (if possible) Dishwashing machines <u>must</u> be cleaned and then sanitized with Chlorine 200-ppm <u>solution with a contact time of 10 mins</u> after every meal. The temperatures <u>are</u> to be monitored <u>continuously</u> (min wash temperature 70°C/160°F, min rinse temperature 82°C/180°F) |
| 15.17. FOOD AND BEVERAGE (F&B) - Dining Rooms, Restaurants, Buffets, Food Outlets | | |
| <p>An approved hand sanitiser dispenser must be installed near the entrance of the Buffet/Restaurant with appropriate and correct signage and the dispenser should be checked before each service</p> <p>Tongs and other serving utensils must be replaced at a minimum of every 30 minutes and also if dropped, or if handles come into contact with open food.</p> <p>Surfaces <u>are to be washed, rinsed and sanitized with 50-200 ppm chlorine solution daily</u></p> <p>At the end of service or earlier whenever an area is heavily soiled, the three bucket system (<u>wash-rinse-sanitize</u>) must be used, then a final disinfection as above can follow</p> <p>Tables or seating areas that are preset with utensils and dishware must not exceed a 4 hour set up time.</p> | <p>A staff member shall encourage all passengers to use the wall mounted or portable hand sanitisers provided in buffet areas.</p> <p>Tongs and serving utensils shall be replaced at least every 15 minutes and always kept under sneeze guards.</p> <p>Use of paper napkins vs cloth ones is to be implemented</p> <p>All cutlery polishing must be suspended. Exposed cutlery must be minimised. All utensils shall be covered with food grade plastic wrap or rolled up in a single service cloth / paper napkin.</p> <p>Buffet Stewards must wear disposable gloves (clear) and hand all clean dishware and wrapped utensils to passengers in the buffet line.</p> <p>Ensure passengers do not return to buffets and reuse dirty tableware</p> <p>Complete disinfection regime (<u>wash, rinse,</u></p> | <p>All food & beverages <u>must</u> be serviced, suspend self-service and buffet.</p> <p>Shared items such as salt and pepper shakers, sugar, mustard, ketchup, sauces, etc. shall be provided only on request and disinfected after each use before storage. Where possible, individual packets of these items will be provided rather than bottles or dispensers.</p> <p><u>Surfaces (including seating areas, table tops, chair arms, hand rails, buffet tray rails, sneeze guards and other likely contact surfaces) in food areas are to be washed-rinsed- sanitized with 200 ppm chlorine solution on continual basis during service times and between sittings and then again at the end of each service period (or every 4 hours for operations which remain open for long periods)</u></p> <p><u>1000 ppm chlorine can be used in food areas only if there has been a vomit or diarrhea incident, otherwise the max chlorine concentration is 200 ppm. If 1000 ppm chlorine has been used on food contact surfaces in cases</u></p> |

LOCAL WORKING INSTRUCTION (LWI) # 52
OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

| GREEN | YELLOW | RED |
|---|--|---|
| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| | <p><u>sanitize with 50-200 ppm chlorine</u>) must be carried out every hour on all waiter stations, all beverage stations, any hard surfaces which may be touched by passengers such as hand rails and door handles, counters, chair backs and arms, condiment items etc.</p> <p>Ensure that taps and push buttons, etc. on drink machines are frequently disinfected too.</p> <p>Condiments including salt and pepper shakers must be removed from the table in self-service buffets and individually provided to guests on request or must be provided in single service sachets. Reusable condiments must be disinfected before returning to storage.</p> <p>Where possible, displayed foods shall be individually plated or wrapped, in order to minimise any possible contamination from passenger handling during service. Or all displayed food <u>must</u> be discarded at the end of the service.</p> | <p><u>like the above incidents, after its contact time of 10 mins, the surfaces are to washed, rinsed and sanitized with 50-200 ppm chlorine</u></p> <p>Carpets <u>must</u> not be vacuumed.</p> <p>Once a dining room table has been occupied, even partially, all unused silverware and chinaware must be removed from the table and processed through dishwasher machines <u>(the temperatures to be monitored continuously (min wash temperature 70°C/160°F, min rinse temperature 82°C/180°F))</u></p> <p>All dining, specialty food outlet and restaurant staff must shower and change on completion of their duty.</p> <p><u>Ice machines and ice scoops are to be washed, rinsed and sanitized with 50-200 ppm chlorine every 48 hours</u></p> <p>Maitre D' to report all missing tables and their room numbers to Chief Housekeeper and Sanitation Officer/Doctor.</p> |
| 15.18. BARS AND PANTRIES | | |
| <p>Daily <u>wash-rinse-sanitize with 50-200ppm chlorine solution including at the end of the day service</u></p> <p>If tables become soiled they shall be cleaned using the 3 bucket system and then disinfected as above</p> | <p>All bar areas must be <u>washed, rinsed and sanitized with 200 ppm chlorine solution</u> between passengers and at least every hour during service and after the end of service</p> <p>An adequate supply of pens should be kept at each bar and once used by passengers to sign for drinks, each pen should be disinfected</p> | <p>All bar outlets <u>and contact surfaces (table-tops, bar-stools, chair-arms, hand rails, oens, chit folders, telephones etc) in bar (food areas)</u> must be <u>washed, rinsed and sanitized with 200ppm chlorine solution</u></p> <p><u>1000 ppm chlorine can be used in food areas only if there has been a vomit or diarrhea</u></p> |

LOCAL WORKING INSTRUCTION (LWI) # 52
OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

| GREEN | YELLOW | RED |
|---|---|--|
| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| | <p><u>outside food areas</u> before being reused <u>(with 1000 ppm chlorine solution for 10 mins or with an alternative effective virucide as AHP Accel-Virox/Oxivir RTU/wipes for 1 min or AHP diluted concentrate 1:64 for 5 mins (see section 16 for recommended disinfectants))</u></p> <p>All shared peanuts and bar snacks must be immediately removed. Individual size portions or packets may still be issued upon request.</p> <p>All bar menus must be removed from tables and provided on request only. All used menus must be disinfected <u>outside food areas (with an alternative effective virucide as AHP Accel-Virox/Oxivir wipes for 1 min (see section 16 for recommended disinfectants))</u></p> | <p><u>incident, otherwise the max chlorine concentration is 200 ppm. If 1000 ppm chlorine has been used on food contact surfaces in cases like the above incidents, after its contact time of 10 mins, the surfaces are to be washed, rinsed and sanitized with 50-2000 ppm chlorine</u></p> <p>All straws are to be capped, glasses inverted or covered and bar items used in drinks kept as far away from passengers as possible to help prevent any viral contamination.</p> <p>Glass washer <u>temperatures to be monitored continuously (min wash temperature 70°C/160°F, min rinse temperature 82°C/180°F)</u></p> <p><u>Ice machines and ice scoops are to be washed, rinsed and sanitized with 50-200 ppm chlorine every 48 hours.</u> Scoop handles <u>must</u> not be allowed to touch ice.</p> <p>On turnaround days Hotel Director / F&B Manager / Bars Manager to develop a system for opening/closing bars, to minimise risk of cross contamination between embarking and disembarking passengers.</p> |
| 15.19. SHORE EXCURSIONS | | |
| <p>Ensure supply of sick bags, disinfectant wipes, plastic bags, scoops and sanitising solution to all coaches (or tenders)</p> <p>Driver/guide to ensure all passengers aware of vomit bags at the front of the coach.</p> <p>If a passenger feels ill, nausea, about to vomit, if</p> | <p>Shorex Manager to supply Doctor with all tour cancellations (names, cabin numbers) to account for the maximum number of unconfirmed cases.</p> | <p>Shorex desk and tour escorts:</p> <ul style="list-style-type: none"> • Supplied with alcohol hand sanitiser • Advised of the importance of using sanitiser • Informed of modes of viral spread, • Report any information re suspect cases to the Doctor |

LOCAL WORKING INSTRUCTION (LWI) # 52
OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

| GREEN | YELLOW | RED |
|---|---|---|
| | In addition to the level Green procedures as appropriate | In addition to level Yellow procedures as appropriate |
| <p>possible stop the bus and have passenger to vomit outside in a sick bag.</p> <p>If a pax vomits or has diarrhoea on a coach (tender), where possible, an alternative coach (tender) should be provided and passengers moved to it.</p> | | <p>It is forbidden for any passengers or crew with symptoms of diarrhoea to take tours.</p> <p>Only those that have been symptom free for 48 hours will be allowed on tours.</p> <p>Passengers taken ill during an excursion should be sent back onboard if possible using taxis (or separate transport) to help minimize the spread.</p> |

|

16. EFFECTIVE DISINFECTION AGENTS (IN ADDITION TO PURE CHLORINE/BLEACH) AND THEIR APPLICATION IN ORDER OF PREFERENCE

16.1. General

16.1.1. Efficacy

16.1.1.1. Efficacy testing of disinfectants for Norovirus is done using a surrogate virus, typically the feline calicivirus (FCV).

16.1.1.2. Heat inactivation of FCV:

- 56°C for 60 minutes, complete inactivation
- 70°C for 3 minutes, 6.5 log₁₀ reduction
- 70°C for 5 minutes, complete inactivation – for laundry washing (and/or steam cleaning)
- 100°C for 1 minute, complete inactivation

16.1.2. Criteria for choosing disinfectant:

- Efficacy
- Spectrum
- Versatility
- Ease of use
- Safety profile
- Cost
- When selecting a disinfectant, it's important to consider the product's entire formulation since there may be significant disinfectant action synergism produced by the specific combination of ingredients

16.1.3. Supply of disinfectants

16.1.3.1. As managed vessels trade worldwide, apply this OPRP also worldwide (ie not only in US waters) and have a variety of suppliers - a chart of effective Norovirus disinfectants is given below for ordering as available and as per the criteria above.

16.1.3.2. The US EPA also lists registered antimicrobial products effective against Norovirus at: <http://1.usa.gov/1siO2II>

16.1.3.3. Product labeling information and data on the EPA registered can be obtained at: <http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1>

16.1.4. Chart of recommended effective disinfectants against (FCV as a surrogate for) Norovirus

16.1.4.1. Products listed as non-toxic may still cause mild eye and/or skin irritation in some people.

16.1.4.2. Some compounds may leave a surfactant residue on various surfaces.

16.1.4.3. You should test any specific disinfectant for adverse effects on your own ships' environmental surfaces prior to its general use.

16.1.4.4. Ppm solutions below are to be determined using test strips, 1:xx dilution ratios by dispensing equipment where available, or by mixing proportions as follows: 1 ounce per US gallon of water (3.78 L) = 1:128; 2 ounces per gallon = 1:64; 4 ounces per gallon= 1:32; 8 ounces per gallon = 1:16

16.1.4.5. It is a violation of US Federal law to use products in a manner inconsistent with their labelling.

LOCAL WORKING INSTRUCTION (LWI) # 52
OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

| | | | | | |
|---------------------------------------|---|--|--|---|--|
| <u>Disinfectant's Type and Brand:</u> | <u>Chlorine Bleach 5.25%</u> | <u>Accelerated Hyrdogen Peroxide (AHP) -</u> <u>Accel TB RTU, Accel 5 (Virocide) RTU, Accel concentrate (Accel also branded as Virox on some markets)</u> | <u>Accelerated Hyrdogen Peroxide (AHP) –</u> <u>Oxivir TB RTU, Oxivir wipes, Oxivir Five 16 Concentrate</u> | <u>Peroxy- mono-sulphate</u> <u>- Virkon (powder)</u> | <u>Quaternary Ammonium Compounds (QUAT)</u> <u>– Mikro-Quat</u> |
| <u>Manufacturer</u> | <u>(Generic)</u> | <u>Virox Technologies Inc</u> | <u>Johnson Diversey</u> | <u>E.I. Dupont de Nemours and Co.</u> | <u>Ecolab</u> |
| <u>US EPA registration No.</u> | <u>(Generic)</u> | <u>74599-1</u> <u>74599- 8</u> <u>74599-4</u> | <u>70627-56</u> <u>70627-60</u> <u>70627-58</u> | <u>71654-7</u> | <u>1677-21</u> |
| <u>Main Active Ingredients</u> | <u>Sodium hypochlorite 0.1% (1000 ppm)</u> | <u>Hydrogen peroxide 0.5% (RTU) to 4% in concentrate</u> | <u>RTU: Hydrogen peroxide 0.5%; benzyl alcohol 1 -5 % ;</u> <u>Concentrate: Hydrogen peroxide: 1-5%, phosphoric acid 1-5%</u> | <u>Sodium chloride 1.50%; Potassium peroxymonosulfate 21.45%</u> | <u>Alkyl Dimethybenzyl Ammonium Chloride 9.5%</u> |
| <u>Pre-cleaning required?</u> | <u>Yes</u> | <u>No, as is a cleaner also itself (unless is a heavily soiled surface)</u> | <u>No, as is a cleaner also itself (unless is a heavily soiled surface)</u> | <u>No, unless grossly dirty</u> | <u>If grossly soiled</u> |
| <u>Product use</u> | <u>Virucidal disinfectant</u> | <u>All in one multi surface one step disinfectant cleaner and deodorant; general virucide, bactericide, fungicide, sanitizer compatible with all surfaces (non-food)</u> | <u>One step germicidal disinfectant cleaner and deodorant for hard, non-porous surfaces</u> | <u>Broad Spectrum Disinfectant; One step cleaner and disinfectant for hard non-porous surfaces including food areas</u> | <u>Detergent, Germicide, Deodorizer; Cleans, disinfects and deodorizes in one operation; for hard, non-porous surfaces</u> |
| <u>Application</u> | <u>Clean properly. Apply by cloth, disposable wipe or</u> | <u>Pre-clean heavily soiled surfaces; apply solution by spray from 15-20</u> | <u>Pre-clean heavily soiled areas; apply by spray from 15-20 cms</u> | <u>Remove gross dirt , prepare 1% solution; apply to surface</u> | <u>Apply with cloth, mop or hand</u> |

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OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

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|--|---|---|--|---|---|
| | | <u>Accel TB RTU, Accel 5 (Virocide) RTU, Accel concentrate (Accel also branded as Virox on some markets)</u> | <u>Oxivir TB RTU, Oxivir wipes, Oxivir Five 16 Concentrate</u> | <u>- Virkon (powder)</u> | <u>– Mikro-Quat</u> |
| | <u>mop</u> | <u>cms, cloth, disposable wipe or mop to hard non-porous environmental surfaces (non-food); all surfaces must remain wet per the contact times below (1 min RTU or 5 mins diluted concentrate 1:16 for Norovirus). Wipe surfaces dry (or rinse)</u> | <u>or apply by wipes; wet thoroughly; all surfaces to remain wet per the contact times below (1 min RTU and wipes; 5 mins diluted concentrate 1:16 for Norovirus) ; wipe surfaces dry (or rinse) (or allow to air dry); All food contact surfaces must be rinsed with potable water;</u> | <u>using a sponge, brush or spray device till surface visibly clean; let stand for 10 mins and air dry</u> | <u>spray bottle; wet surfaces to remain wet for min 10 mins.</u> |
| <u>Food Contact Surface application</u> | <u>50-200 ppm only; (1000ppm for 10 mins only in case of a vomit or stool incident, after which wash, rinse and sanitize 50-200ppm)</u> | <u>No</u> | <u>No (unless rinsed with potable water); do not apply on glassware, utensils, dishes</u> | <u>Yes</u> | <u>No</u> |
| <u>Soft Furnishing use</u> | | <u>Yes</u> | <u>No data</u> | <u>No</u> | <u>No data</u> |
| <u>Dilution / Concentration and contact time (at 20°C)</u> | <u>Virucide at 1000ppm for 1 min Disinfectant at 1000ppm for 10 mins</u> | <u>Sanitizer for Non-food contact surfaces: - If ready to use (RTU) – no dilution and: 30 seconds; -If concentrate: 1:16 for 30 secs or 1:128 for 3 mins</u> | <u>Sanitizer: -if Ready to use (RTU)– no dilution and wipes: 30 seconds contact; -If Concentrate non-food contact sanitizer: 1:16 for 30 secs or 1:128 for 3 mins</u> | <u>Virucide and disinfectant; 1 % solution for 10 mins. (1 % solution preparation: 40 g tablets or 10 teaspoons in one US</u> | <u>Sanitizer for non-food contact surfaces : 1/3 ounce per US gallon of water ie 1:384 (235</u> |

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|---|--|---|--|--|--|
| | | <u>Accel TB RTU, Accel 5 (Virocide) RTU, Accel concentrate (Accel also branded as Virox on some markets)</u> | <u>Oxivir TB RTU, Oxivir wipes, Oxivir Five 16 Concentrate</u> | <u>- Virkon (powder)</u> | <u>– Mikro-Quat</u> |
| | | <u>Virucide and disinfectant: -If ready to use (RTU) – no dilution and 1 minute; -if concentrate: 1:16 to 1:64 for 5 mins</u> | <u>Virucide and disinfectant; - if RTU – no dilution / wipes for 1 minute - if Concentrate: 1:64 for 5 mins as Virucide and 1:16 for 5 mins as disinfectant</u> | <u>gallon water; 1x 50g sachet in 160 ounces (oz) or 5 Quarts of water)</u> | <u>ppm) for 1 min; Virucide and disinfectant: 1:128 (1 ounce per gallon (700 ppm)) for 10 mins</u> |
| <u>Shelf life</u> | <u>Unmixed with water: 3months. Mixed: 24hours. Keep in an airtight container away from light.</u> | <u>24 months; 90 days diluted concentrate</u> | <u>36 months, 90 days use solution stability</u> | <u>1% solution stable for 7 days</u> | <u>One day for fresh solution</u> |
| <u>Safety profile / health risks</u> | <u>Irritant to mucous membranes, eyes and skin.</u> | <u>RTU: no hazards to health Concentrate: May be mildly irritating to skin; moderate eye irritation; irritation to mouth, throat and stomach if ingested;</u> | <u>RTU and wipes: no hazards to health Concentrate: moderately irritating to eyes, mildly irritating to skin; may be irritating to mouth, throat and stomach if ingested</u> | <u>Powder is corrosive – burns to skin and eye damage; harmful if swallowed or absorbed through skin</u> | <u>-As sold: Corrosive, eye damage and skin burn; harmful if swallowed; acute toxicity -At use dilution; No health risks under normal conditions</u> |
| <u>Exposure Controls / Personal Protective Equipment (PPE):</u> | <u>Increased ventilation. PPE for >200ppm:</u> | <u>RTU: no PPE; Concentrate; General ventilation;</u> | <u>RTU/wipes: no PPE; Concentrate; Adequate general</u> | <u>Appropriate ventilation Powder:</u> | <u>-As sold: Protective clothing and</u> |

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|---------------------------------------|---|--|--|---|---|
| | | <u>Accel TB RTU, Accel 5 (Virocide) RTU, Accel concentrate (Accel also branded as Virox on some markets)</u> | <u>Oxivir TB RTU, Oxivir wipes, Oxivir Five 16 Concentrate</u> | <u>- Virkon (powder)</u> | <u>– Mikro-Quat</u> |
| | <u>eyewear protection, respiratory protection, protective clothing, chemical gloves</u> | <u>chemical safety goggles; chemical resistant gloves; respiratory protection in case of fogging</u> | <u>room ventilation; Concentrate: chemical splash goggles</u> | <u>Protective clothing, rubber gloves, goggles, face shield, or safety glasses; respiratory protection with high dusting levels and spray mists; wash hands after use</u> | <u>rubber gloves, protective eyewear (goggles, face shield or safety glasses); wash hands after use. -At use dilution; General ventilation; no PPE.</u> |
| <u>Env issues / disposal</u> | <u>Toxic to aquatic organisms; do not dispose in waterways</u> | <u>Prevent large spills from entering sewers or waterways</u> | <u>Do not discharge effluent into waterways or sewers</u> | <u>Do not discharge effluent into waterways or sewers</u> | <u>Do not discharge effluent into waterways or sewers</u> |
| <u>Disadvantages</u> | <u>If mixed with ammonia or acidic products can create poisonous chlorine gas; Can cause damage to floor finishes, metals, carpets, clothing and other fibres at higher concentrations (>500</u> | <u>Avoid high temperatures; when heated to decomposition releases oxygen which may intensify fire</u> | <u>Decomposition releases oxygen, which may intensify fire</u> | <u>Do not use on acid-sensitive surfaces such as marble and soft metals such as copper, brass, aluminum; do not use on textiles and carpets; Avoid powder exposure to moisture;</u> | <u>As sold health risks and PPE</u> |

LOCAL WORKING INSTRUCTION (LWI) # 52
OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

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|---------------------------------------|--|---|---|--|---|
| | | <u>Accel TB RTU, Accel 5 (Virocide) RTU, Accel concentrate (Accel also branded as Virox on some markets)</u> | <u>Oxivir TB RTU, Oxivir wipes, Oxivir Five 16 Concentrate</u> | <u>- Virkon (powder)</u> | <u>– Mikro-Quat</u> |
| | <u>ppm). Inactivated in the presence of organic matter (therefore prior cleaning with a detergent is essential for full efficacy) and by light and some metals</u> | | | <u>decomposes into sulphur dioxide, chlorine, oxygen</u> | |
| <u>Advantages</u> | <u>Does not leave toxic residues, unaffected by water hardness, inexpensive and fast acting. Non-flammable</u> | <u>Not flammable; Non-toxic; active ingredient Hydrogen Peroxide breaks down into water and oxygen, leaving no active residuals; no PPE for RTU product</u> | <u>Non-flammable; active ingredient Hydrogen Peroxide breaks down into water and oxygen, leaving no active residuals ; no PPE for RTU product</u> | <u>Non-flammable;</u> | <u>Non-flammable</u> |

17. Procedures to protect passengers and crew from exposure to disinfectants

17.1. Safety Management System (and Risk Assessments)

In addition to related procedures already included in the vessel's Safety Management System on occupational health and safety and Control of Substances Hazardous to Health (COSHH), the requirements below shall be reinforced

17.2. Storage of Disinfectants

Disinfectants shall be so stored as to prevent incompatible chemicals coming in contact and creating a chemical reaction with hazards to crew and passengers.

Expiry date of disinfectants shall be controlled and expired one shall be treated as hazardous waste.

17.3. Crew familiarization

Crew who may be exposed to disinfectants will be familiarized with their proper use and information per their MSDS and the use of appropriate PPE minimizing respiratory and dermal exposure (see table in Section 16 above – last/rh column).

The familiarization of crew who perform disinfection will include proper dosing / dilution of disinfectants either by means of test strips (ie for chlorine ppm solutions), dosing stations when provided, or mixing ratios (ie 1 ounce per US gallon of water (3.78 L) = 1:128; 2 ounces per gallon = 1:64; 4 ounces per gallon = 1:32; 8 ounces per gallon = 1:16)

17.4. Restricted access and exposure limitation

Disinfectants chemicals storage will be secured in places with restricted access (to passengers and to crew without related operational duties), with adequate signage


Disinfection should normally be planned for out of passengers' service hours and notices in affected areas will be posted that disinfection with chemicals is in progress restricting crew and passengers exposure in the area.

Particulate care is to be taken to restrict passengers and crew exposure when applying disinfectants in high concentrations like chlorine at 1000 ppm

Adequate ventilation where possible shall be provided limiting respiratory exposure


18. HOTEL OPERATIONS – RECOMMENDED /EXAMPLE ILLNESS OUTBREAK KIT (FOR APPROX. A VESSEL OF 600 PAX) AND INVENTORY LIST

RECOMMENDED ILLNESS OUTBREAK KIT (for approx. 600 passengers)

| ITEM | DESCRIPTION | EXAMPLES of Equipment with Notes | UNIT | MIN. REQ'D TO BE HELD O/B | TOTAL (HELD IN STORES) | VARIANCE | EXPI R DATE |
|------|--|---|------|---------------------------|------------------------|----------|-------------|
| | EQUIPMENT | | | | | | |
| 1a | Vacuum / Extraction Dry - Wet Machine (Hepa) [with a spare filter and bag kit] | <p>(1.Pullman Holt 86ASB 54C Wet Dry Vacuum Cannister HEPA; 2.George - NaceCare GVE370W with A26kit)</p>  | EA | 1 | | | |
| 2a | Foggers [with 15cs x spare plastic bag liner filters] | <p>1.Fogmaster Micro Jet ULV 4701; 2.Fogmaster Tri-Jet 6208</p>  | EA | 3 | | | |
| 3a | (Wide Area) Sprayer | <p>1.RL Flo-master PRO 2 Gal; 2.RL Flo-master backpack 4 Gal</p>  | EA | 5 | | | |
| 4a | electrical extension cord | 30 metres | EA | 1 | | | |



LOCAL WORKING INSTRUCTION (LWI) # 52
OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

RECOMMENDED ILLNESS OUTBREAK KIT (for approx. 600 passengers)

| ITEM | DESCRIPTION | EXAMPLES of Equipment <u>with</u> Notes | UNIT | MIN. REQ'D TO BE HELD O/B | TOTAL (HELD IN STORES) | VARIANCE | EXPI R DATE |
|------|---|--|-----------|---------------------------|------------------------|----------|-------------|
| | EQUIPMENT NON DURABLE | | | | | | |
| 1b | Full Facial PPE Mask with CARBON filter | to be used only when fogging | EA | 3 | | | |
| 2b | Goggle Safety non vented | to be used only for body fluid cleaning / picking up | EA | 15 | | | |
| 3b | Dustpan Long Handle & Brush Long Handle | | EA | 6 | | | |
| 4b | Bucket Plastic ~10 liters | white, grey, red (wash rinse sanitize) | EA | 3x6 | | | |
| 5b | Bottle Spray Plastic | with nozzles; 20oz- 32oz; ECOLAB | EA | 50 | | | |
| 6b | Scraper /Spatula for cleaning | approx size L= 25 cm x W = 10 cm ; Extendo  | EA | 10 | | | |
| | CONSUMABLE | | | | | | |
| 1c | Bag laundry dissolvable | Recommended standard sizes: 28" X 39" or 3' X 5' OR 660 X 840 mm; Sani Melt <u>Hamper Liner</u> by <u>Medline</u> (<u>Bag ties dissolve at 40 degrees F, the bag itself dissolves in hot water flush at 149 degrees F</u>) | Case/50 | 7 | | | |
| 2c | Plastic bag garbage | (biohazard (red or yellow)) | Case/1000 | 1 | | | |
| 3c | Dust Mask disposable | airborne respirator; respiratory PPE; to be used only for body fluid cleaning / picking up | Case/20 | 15 | | | |
| 4c | Glove vinyl blue size M 100ea/box | disposable, non or slightly powdered | Case/10 | 1 | | | |
| 5c | Glove vinyl blue size L 100ea/box | disposable, non or slightly powdered | Case/10 | 1 | | | |

LOCAL WORKING INSTRUCTION (LWI) # 52
OUTBREAK PREVENTION AND RESPONSE PLAN (OPRP)

RECOMMENDED ILLNESS OUTBREAK KIT (for approx. 600 passengers)


| ITEM | DESCRIPTION | EXAMPLES of Equipment with Notes | UNIT | MIN. REQ'D TO BE HELD O/B | TOTAL (HELD IN STORES) | VARIANCE | EXPIR DATE |
|------|---|---|------------|---------------------------|------------------------|----------|------------|
| 6c | Shoe cover disposable | | Case/200 | 2 | | | |
| 7c | Towel hand paper 150ea 1Pty | | Case/15 | 2 | | | |
| 8c | Disposable cloth towels / multi purpose cloth | 1. Chix  | Case/25 | 50 | | | |
| 9c | Apron disposable plastic 100eac | | Case | 5 | | | |
| 10c | Bag sea sick disposable plastic case 500 | | Case | 1 | | | |
| 11c | absorbent body fluid spillage granules | 1. Virusafe (10 g absorbs 1 litre of fluid)  | Tub /1 kg | 5 | | | |
| 12c | caution / hazard warning tape |  | Roll /100m | 3 | | | |
| | PAPER CONSUMABLE | | | | | | |
| 1d | Plate disposable | 1. approx size 9 3/4inch | Case/400 | 9 | | | |
| 2d | Plate disposable | 1. approx size 6 3/4inch | Case/1400 | 3 | | | |
| 3d | Bowl disposable | 1. soup approx size 16 oz | Case/1000 | 4 | | | |
| 4d | Cup coffee disposable | 1. approx size 9 oz | Case/800 | 5 | | | |
| 5d | Lid, plastic disposable | | Case/1000 | 4 | | | |

RECOMMENDED ILLNESS OUTBREAK KIT (for approx. 600 passengers)

v.3 Nov, 2014

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| ITEM | DESCRIPTION | EXAMPLES of Equipment <u>with</u> Notes | UNIT | MIN. REQ'D TO BE HELD O/B | TOTAL (HELD IN STORES) | VARIANCE | EXPI R DATE |
|-----------|--|--|-------------|---------------------------|------------------------|----------|-------------|
| 4f | <u>Chlorine (Bleach)</u> <u>Generic</u> | <u>Generic, 1000 ppm solution</u> | <u>LTRS</u> | <u>50</u> | | | |
| 5e | Dispenser - Endure Hand Sanitizer | Ecolab | EA | 4 | | | |
| 6e | Sanitizer Endure 300; 540 ml with pump | Ecolab product #61430327 | EA | 18 | | | |
| 7e | Sanitiser Alcohol hand gel 1litre | Hand Gel Bag 1000 ml Endure -300; Ecolab product number: 61430340 | Case/6 | 10 | | | |
| 8e | Chlorine Test Strips, 1000ppm | e.g.: http://bit.ly/1tEILQu  | Pk / 100 | 10 | | | |
| | UNIFORMS & LINEN | | | | | | |
| 1f | suite disposable M white | Plastic whole body with Hood ; Tyvek | EA | 30 | | | |
| 2f | suite disposable L white | Plastic whole body with Hood ; Tyvek | EA | 30 | | | |

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RECOMMENDED ILLNESS OUTBREAK KIT (for approx. 600 passengers)

| ITEM | DESCRIPTION | <u>EXAMPLES</u> of Equipment <u>with</u> Notes | UNIT | MIN. REQ'D TO BE HELD O/B | TOTAL (HELD IN STORES) | VARIANC | EXPI R DATE |
|------|--------------------------------|--|------|---------------------------------------|------------------------------|---------|-------------------|
| 3f | suite disposable XL white | Plastic whole body with Hood ; Tyvek | EA | 30 | | | |
| 4f | Bag Mattress Covers plastic | king and twin | EA | 50 +50 | | | |

19. ANNEXES

19.1. Cruising Tips

Cruising Tips

Each year millions of U.S. citizens enjoy cruise vacations. In 2010, approximately 10 million passengers embarked from North American ports for their cruise vacation (from Cruise Lines International Association).

Traveling on cruise ships exposes people to new environments and high volumes of people, including other travelers. This exposure can create the risk for illness from contaminated food or water or, more commonly, through person-to-person contact.

Follow these tips to help prevent the spread of illness:

1. Wash your hands often!

Before:

- eating,
- drinking, and
- brushing your teeth.

After:

- touching your face, and
- going to the bathroom.

When your hands are dirty.



2. Leave the area if you see someone get sick (vomiting or diarrhea).

Report it to cruise staff, if not already notified.

You could get sick if you ingest germs that travel through the air.

3. Take care of yourself.

Get plenty of rest and drink lots of water. Resting helps rebuild your immune system. Drinking water helps prevent dehydration.



4. Be considerate of other people's health.

If you're sick before taking a cruise, call the cruise line to find out if there are alternative cruising options. If you're sick during a cruise, report your illness to the crew and stay in your room until your symptoms are gone.

CDC's Vessel Sanitation Program helps the cruise industry control and prevent the spread of gastrointestinal illnesses aboard cruise ships and assists them in monitoring ships if they have an outbreak. Learn more about CDC's Vessel Sanitation Program at www.cdc.gov/nceh/vsp.

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August 2012

19.2. Hand washing

Keeping Your Hands Clean on a Cruise

To stay healthy and clean, wash your hands with warm water and soap.

When to wash your hands:

Before:

- Touching your hand to your mouth, including
 - » Eating,
 - » Drinking, and
 - » Brushing your teeth.
- Helping a sick person.

After:

- Going to the bathroom.
- Changing diapers.
- Touching high-hand contact surfaces such as
 - » Door knobs,
 - » Elevator buttons, and
 - » Railings.
- Returning to your cabin.
- Helping a sick person.
- Blowing your nose.

How to wash your hands:

1. Wet your hands with warm water.
2. Apply a generous amount of soap.
3. Rub your hands together for 20 seconds.
4. Rinse your hands.
5. Dry your hands with a paper towel.
6. Use the paper towel to turn off the faucet and open the door.



What about alcohol-based hand sanitizers?

- CDC recommends that cruise ship passengers use warm water and soap to wash their hands. Washing is always best.
- If water and soap are NOT available (perhaps on excursions), use an ethanol alcohol-based hand sanitizer, preferably in a gel form. The sanitizer should be at least 62% ethanol. Hand sanitizers do not get rid of all types of germs.

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19.3. Norovirus Factsheet



Facts About Noroviruses on Cruise Ships

What are noroviruses?

Noroviruses are a group of viruses (previously known as Norwalk-like viruses) that can affect the stomach and intestines. These viruses can cause people to have gastroenteritis, an inflammation of the stomach and the large intestines. Gastroenteritis is sometimes called a calicivirus infection or food poisoning, even though it may not always be related to food.

What are the symptoms of norovirus?

- **Common symptoms:** vomiting, diarrhea, and some stomach cramping
- **Less common symptoms:** low-grade fever, chills, headache, muscle aches, nausea, and tiredness

How long do the symptoms normally last?

This illness often begins suddenly, and the infected person may feel very sick. Normally the illness lasts about 1 to 2 days. Children often vomit more than adults.

How noroviruses are spread

People can become infected with the virus by:

- Eating food or drinking liquids infected with noroviruses
- Touching surfaces or objects infected with noroviruses and then touching own mouth, nose, or eyes
- Having person-to-person contact (with a norovirus-infected person) by
 - being present while someone is vomiting
 - sharing food or eating from the same utensils
 - caring for a sick person
 - shaking hands
- Not washing hands after using the bathroom or changing diapers and before eating or preparing food.

What to do if you get a norovirus

Advise the medical staff of your illness. Drink plenty of fluids. Wash hands often.

Norovirus infections are not usually serious

January 29, 2004

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
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Noroviruses are highly contagious, but infections are not usually serious. People may feel very sick and vomit often or get diarrhea, becoming dehydrated if lost liquids are not replaced. Most people recover within 1 or 2 days and have no long-term adverse health effects.

Where noroviruses are found

Noroviruses are found in the stool or vomit of infected people and on infected surfaces that have been touched by ill people. Outbreaks occur more often where there are more people in a small area, such as nursing homes, restaurants, catered events, and cruise ships.

Reasons why noroviruses are associated with cruise ships

- Health officials track illness on cruise ships. Therefore, outbreaks are found and reported more quickly on a cruise ship than on land.
- Close living quarters may increase the amount of group contact.
- New passenger arrivals may bring the virus to other passengers and crew.

How to prevent getting and spreading noroviruses

- Wash hands often. Wash hands after using the bathroom or changing diapers and before eating or preparing food. Wash hands more often when someone in your home is sick. For hand washing tips, click on the following link:
<http://www.cdc.gov/ncidod/op/handwashing.htm>
- Avoid shaking hands during outbreaks.
- Use alcohol-based hand sanitizer along with handwashing.

For more information, visit <http://www.cdc.gov/nceh/vsp/default.htm>, E-mail vsp@cdc.gov, or call the CDC public response hotline at (888) 246-2675 (English), (888) 246-2857 (Español), or (866) 874-2646 (TTY).