

# MANAGEMENT OF VIRUS OUTBREAKS IN PUBLIC TRANSPORT

CASE STUDIES AND PRACTICES AGAINST COVID19 AND ADDITIONAL REFERENCES

## SHENZHEN BUS

- All bus and taxi drivers have to compulsorily wear gloves and a face mask;
- All vehicles have to undergo regular sanitisation;
- All people entering our premises and depots have to have their temperature checked;
- Any staff returning from Wuhan are asked to be isolated for 7 days;
- SZ Bus continues to provide essential public transport services for major transportation hubs;
- For the city wide area, reduced and essential services are provided as people are advised to limit their traveling;
- A special service was carried out for a cruise ship returning from Vietnam with some 5,000 passengers and staff some of them have high temperature and flu symptoms and some from Wuhan. Our staff were asked to wear protective clothing as and face masks

## HTM, THE HAGUE

- See : The Pandemic scenario of HTM :  
<https://mylibrary.uitp.org/Record.htm?idlist=289&record=19339868124911570409>

# SMRT, SINGAPORE

- All staff require twice daily temperature and symptoms check for cough, runny nose and breathlessness.
- All visitors and contractors have their temperatures checked at all premises' access points and recorded.
- PPE (surgical masks) are worn by staff who are unwell / attend to the unwell / conduct temperature screening (include gloves). Leaders also exercise discretion where donning of masks is necessary for frontliners.
- Non-essential large-scale events have been cancelled / deferred or proceeding with precautionary measures implemented.
- Business Continuity Plans; split teams are being reviewed and validated.
- Increased frequency of cleaning and disinfecting of premises and vehicles
- Frequent ground engagements by all levels of leadership, including distribution of CARE (drinks, fruits, vitamins) packages
- Contact tracing procedure be implemented
- Provision of hand sanitizers for public use.

Examples:

**A Safety Moment** **OUR PRECAUTIONARY MEASURES FOR DORSCON ORANGE**

Singapore raised its Disease Outbreak Response System Condition (DORSCON) to Orange on 7 Feb 2020. Since then, SMRT has enhanced our precautionary measures to protect and safeguard our staff and the public.

**Temperature Screening at Work Place**

All staff to take their body temperature and check for respiratory symptoms at least **twice a day**, and declare via HealthBot (on Work Chat)

Staff to conduct temperature screening and document all visitor and contractor access at all SMRT premises, including stations and interchanges

**HealthBot**  
Health Declaration

**Personal Protective Equipment (PPE) for Staff**

- ✓ Staff who are unwell and who attend to the unwell should wear masks
- ✓ Staff conducting temperature screening should wear masks and gloves

**Step Up Cleaning of Work Place Premises**

Increased cleaning, as per LTA's Orange Baseline Cleaning Regime for our Trains, Buses, Stations and Interchanges

Be calm. We are prepared. Let's take care of our health and serve the public with confidence!

SMRT Safety & Security Hotline: 9663 8045

SMRT Safety & Security

iSTARTsWithMe

**A Safety Moment** **PRACTISE GOOD PERSONAL HYGIENE**

**CORONAVIRUS DISEASE (Covid-19)**

**PRACTISE GOOD PERSONAL HYGIENE**

**WASH** your hands regularly with soap and water.

**AVOID** touching your face with your hands.

**8 STEPS TO CLEAN YOUR HANDS**

- 1 Palm to palm
- 2 Between fingers
- 3 Back of hands
- 4 Base of thumbs
- 5 Back of fingers
- 6 Ringenails
- 7 Wrists
- 8 Rinse and wipe dry

We can all play our part by maintaining good personal hygiene. Wash your hands frequently – keep them clean.

Source: Ministry of Health

SMRT Safety & Security Hotline: 9663 8045

SMRT Safety & Security

iSTARTsWithMe

**A Safety Moment** **OUR RESPONSIBILITIES**

As a precaution, we have set up an emergency preparedness meeting to coordinate our readiness efforts. We are also working closely with Ministry of Health and Land Transport Authority.



**All staff should:**

- ✓ Familiarise ourselves with our Standard Operating Procedures and measures
- ✓ Take individual responsibilities and observe good personal hygiene
- ✓ Look out for your colleagues, contractors and visitors
- ✓ Look out for information and updates (e.g. Safety Alerts, Circulars)
- ✓ Be updated about the coronavirus situation by visiting the Ministry of Health website (<https://www.moh.gov.sg/>)

QR Code for Mobile Reporting

Provision of information and transparency is the way to allay unnecessary fears.

SMRT Safety & Security Hotline: 9663 8045

SMRT Safety & Security

ISTARTsWithMe

**A Safety Moment** **SMRT PANDEMIC RESPONSE – PERSONAL PROTECTIVE EQUIPMENT**

Surgical masks can help reduce the spread of the coronavirus.

They are meant to help block large-particle droplets and splatter from reaching the wearer's mouth and nose, and reduce exposure of the wearer's saliva and respiratory secretions to others.



As a precaution, all meeting rooms in SMRT premises should be provided with **sanitizers and surgical masks** for use, when necessary.



Surgical Masks



Hand sanitizers

**Be Socially Responsible. All of us can play our part:**

- ✓ Observe good personal hygiene at all times.
- ✓ Look out for your colleagues for signs and symptoms if they have been travelling
- ✓ If you feel unwell, go to the doctor for medical advice immediately
- ✓ Use your own thermometer and do not share.



QR Code for Mobile Reporting

Work with Procurement and Supply and Safety & Security to draw essential items if required.

SMRT Safety & Security Hotline: 9663 8045

SMRT Safety & Security

ISTARTsWithMe

## ATM, MILANO

Following the recommendations issued by the Health Ministry

- Despite the outbreak, public transport will continue to run for the time being.
- No use of mouth caps
- Avoid close contact with people suffering from acute respiratory infections
- Do not touch your eyes, nose and mouth with your hands
- Cover your mouth and nose when you sneeze or cough
- Do not use antiviral medicines or antibiotics unless directed by your doctor
- Clean the surfaces with chlorine or alcohol-based disinfectants
- Only use the mask if you suspect that you are sick or are helping sick people
- Products and packages received from China are not dangerous
- Contact the toll-free number 1500 if you have a fever or cough and have returned from China for less than 14 days
- Pets do not spread the new corona virus

See : Nuovo Coronavirus: Dieci comportamenti di sigure

<https://mylibrary.uitp.org/Record.htm?idlist=295&record=19339870124911570529>

## MVG, MUNICH

Following the recommendations issued by the German Organisation for civil protection.

MVG has a pandemic plan since 2009 which is under review since early 2019.

The plan mainly focusses on own staff and operations. The aim is to provide a basic pt service even during pandemics. In case of pandemics measures include:

- Reduction of service level
- Reduction of staff in critical infrastructures (e.g. operations control) to ensure to always have a „healthy reserve“
- Hygiene advice to staff
- Personal protective equipment and disinfection possibilities for staff
- Information to staff

See : Handbuch Betriebliche Pandemieplanung: zweite erweiterte und aktualisierte Auflage

<https://mylibrary.uitp.org/Record.htm?idlist=303&record=19339871124911570539>

## TPG, GENEVA

Following the recommendations issued by the authorities

Special message sent to staff:

- Wash hands regularly or disinfect with a hydro alcool solution
- Sneeze and cough in arm instead of hand
- Use disposal handkerchief
- Limit physical contacts when greeting (handshaking or kiss)

See: TPG: Informations sur le Coronavirus

<https://mylibrary.uitp.org/Record.htm?idlist=313&record=19339872124911570549>

## DPP, PRAGUE

Are using active oxygen - Ozone (O<sub>3</sub>) for deep cleaning. Are able to clean approximately 10 – 12 trams per day.

## METRO DE SANTIAGO

No virus outbreak for the moment and not virus cases. But already did some simple preventive actions:

1. On February 3rd, Metro de Santiago started an internal communication campaign about Coronavirus indicating its characteristics, known ways of infection and recommended preventive measures. This information was distributed to the workers through e-mail, it was uploaded in the intranet and posters with information were installed in the most crowded places. Later, this campaign was enhanced with messages broadcast on the LCD screens located in some facilities.
2. Similar campaigns were carried out in the past. In addition, periodic cleaning actions were carried out with disinfectant substances inside the trains and in their A/C systems to reduce the risk of spreading.

## WIENER LINIEN, VIENNA

At the moment (24/02/2020), we have provided general information on the topic and SOPs for daily life and daily operations to our employees. We are very careful not to cause panic, this is absolutely crucial, not only for our businesses, but also for the city. At the moment, masks are not in use. Because of the situation in northern Italy, there is a state crisis management already in place, but only regarding assessment and possible preparations, especially for the transit across Tirol and for the southern border of the country.

## LISBON METRO

Following the recommendations from the Portuguese Public Health Authorities

- Organized an informal contingency group (HR, Operation and safety/security) to follow the situation and propose measures;

- Placed general information placards, from the authority, in public places of the network and in all the working buildings of the company. These placards are in Portuguese, English and mandarin languages.
- Increase awareness in the cleaning personnel that work in stations, in the daily cleaning of the trains and in rolling stock maintenance.

- Provisioning of disinfectant liquid, gloves and masks to use in case of serious alert.

Examples:



## VDV, GERMANY

See: Influenza - Pandemieplanung in Verkehrsunternehmen

<https://mylibrary.uitp.org/Record.htm?idlist=317&record=19339874124911570569>

## TRANSDEV

See:

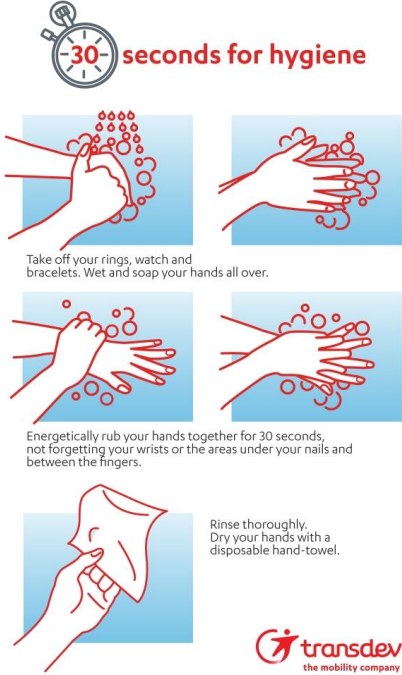
- Novel Coronavirus (2019-nCoV) and You  
<https://mylibrary.uitp.org/Record.htm?idlist=279&record=19339861124911570439>
- Novel Coronavirus information for travelers arriving to New Zealand  
<https://mylibrary.uitp.org/Record.htm?idlist=279&record=19339863124911570459>

- Pandemic : protecting ourselves to protect others

<https://mylibrary.uitp.org/Record.htm?idlist=285&record=19339865124911570479>

Examples:

**PROPER HAND WASHING**




**30 seconds for hygiene**

Take off your rings, watch and bracelets. Wet and soap your hands all over.

Energetically rub your hands together for 30 seconds, not forgetting your wrists or the areas under your nails and between the fingers.

Rinse thoroughly. Dry your hands with a disposable hand-towel.



**HAND WASHING for HEALTH**




**HAND WASHING for HEALTH**





## MTA, NEW-YORK

From Metro Magazine: <https://www.metro-magazine.com/security-and-safety/news/737568/ny-mta-issues-update-on-precautions-against-coronavirus>

## ADDITIONAL REFERENCES

### UITP PUBLICATIONS

- Pandemic preparedness at SMRT  
TAN Terence  
2010 - Public Transport International (PTI)  
<https://mylibrary.uitp.org/Record.htm?idlist=42&record=19173455124919916379>
- PTSPOTLIGHT – Preparing PT systems for an avian influenza pandemic (VIRUS H5N1)  
SILVA NEVES Armando; MANCINI Lindsey  
2007 - UITP finalised studies - PTSpotlight  
Please note the report is only available to Advantages and Premium members.  
<https://mylibrary.uitp.org/KENTIKA-19172933124919901159-213-PTSPOTLIGHT---PREPARING-PTSYS.htm>
- UITP Asia working group - Public transport operator's preparation in tackling epidemic diseases common to Asia Pacific region: Avian Influenza  
TANG Siman  
UITP Events - Congress Asia Pacific (5th) - Seoul 2006  
<https://mylibrary.uitp.org/KENTIKA-19168883124919860659-213-UITP-ASIA-PACIFIC-WORKING-GROU.htm>
- SARS Impact to the Hong Kong MTR  
HUI Eric Yip-Hung  
UITP Bodies - Assembly Asia Pacific (5th) - Sydney 2003  
<https://mylibrary.uitp.org/KENTIKA-19168497124919866799-213-SARS-IMPACT-TO-THE-HONG-KONGM.htm>



## FROM OTHER SOURCES

- Prevention and Management of High Threat Pathogen Incidents in Transport Hubs  
2018  
[http://pandhub-fp7-security.eu/?page\\_id=93](http://pandhub-fp7-security.eu/?page_id=93)
- Public transit emergency preparedness against Ebola and other infectious diseases:  
Legal issues  
HENSON Trudy; TIMMONS Megan ; McDANIEL James  
TCRP Legal Research Digest, 2017  
<https://mylibrary.uitp.org/KENTIKA-19318333124911365159-213-Public-transit-emergencyprepa.htm&context=0>
- A Guide for Public Transportation Pandemic Planning and Response  
TRB's National Cooperative Highway Research Program (NCHRP) Report, 2016  
<https://mylibrary.uitp.org/Record.htm?idlist=36&record=19330126124911583089>
- Legal Issues in Public Transit Emergency Planning and Operation  
Transportation Research Board - TCRP Legal Research Digest 44, 2014  
<https://mylibrary.uitp.org/Record.htm?idlist=36&record=19330133124911583159>
- Securitas guidelines on Preparing public transport systems for an influenza pandemic  
SOEHNCHEN Andrea  
Securitas 2009  
<https://mylibrary.uitp.org/KENTIKA-19177646124919958289-213-SECURITAS-PANDEMICGUIDELINES.htm&context=0>
- APTA SS-SEM-RP-005-09 RECOMMENDED PRACTICE: DEVELOPING A CONTAGIOUS VIRUS RESPONSE PLAN  
American Public Transportation Association (APTA) 2009  
<https://mylibrary.uitp.org/KENTIKA-19179636124919978189-213-APTA-SS-SEM-RP-005-09-RECOMMEN.htm&context=0>
- Interim Guidance for Passenger Railcar (Transit Vehicle) Cleaning When a Passenger or Crewmember is Visibly Ill During an Influenza Pandemic  
<https://www.cdc.gov/flu/pandemic-resources/archived/cleaning-railcars.html>

- Interim Guidance for Cleaning Transit Stations During an Influenza Pandemic  
<https://www.cdc.gov/flu/pandemic-resources/archived/cleaning-transit-stations.html>
- Interim Guidance for Cleaning Passenger and Cargo Vessels during an Influenza Pandemic  
<https://www.cdc.gov/flu/pandemic-resources/archived/cleaning-vessels.html>
- Selected EPA-registered Disinfectants  
<https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants>
- Travel industry pandemic influenza planning checklist  
<https://www.cdc.gov/flu/pandemic-resources/pdf/travelchecklist.pdf>
- Travel and transport risk assessment: Interim guidance for public health authorities and the transport sector  
[https://apps.who.int/iris/bitstream/handle/10665/132168/WHO\\_EVD\\_Guidance\\_TravelTransportRisk\\_14.1\\_eng.pdf?ua=1](https://apps.who.int/iris/bitstream/handle/10665/132168/WHO_EVD_Guidance_TravelTransportRisk_14.1_eng.pdf?ua=1)
- Guidance Note - Contingency Planning Arrangements for a Flu Pandemic  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/85922/flu\\_atoc\\_nr\\_guidance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/85922/flu_atoc_nr_guidance.pdf)
- Confederation of Passenger Transport UK PANDEMIC FLU CPT BRIEFING – CS4  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/85923/flu\\_ctp\\_guidance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/85923/flu_ctp_guidance.pdf)