# INSARAG MEDICAL WORKING GROUP

# COVID-19 DEPLOYMENT TECHNICAL REFERENCE NOTE

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# 1. Purpose

Urban Search and Rescue (known as USAR in the international community) is an emergency response capability utilised for rapid response to conduct life-saving actions during collapsed structure events, typically seen in the urban setting. This response capability, as is the case across many sectors, is facing new challenges due to COVID-19 and the many challenges presented by deploying as a group into an austere environment. USAR Teams have and must continue to adapt to how they respond during this pandemic. This document is intended to provide updated information to USAR teams seeking to enhance their field operations in the SARS CoV2 virus (COVID-19) environment.

General medical and public health guidance has continuously evolved providing updates regarding the nature of virus, risk mitigation strategies, treatment modalities and vaccinations. In addition, some USAR teams have gained deployment experience, which has been shared with the broader community through Lessons Learned workshops. Though the positive impact of vaccinations is beginning to be felt in many countries, it is too early to aggressively rescind mitigation measures. However, incorporating transition plans for when disease burden is significantly reduced is an important forward planning strategy.

There are now more resources available for teams to draw on than at any time before in the pandemic. This particular document takes into account this updated and expanded information and is intended to replace the document titled, *Guidance on USAR Operations in the Covid-19 Environment*, released on the 18th of March 2020 by the INSARAG Secretariat. Finally, this guidance is not intended to be exhaustive, mandatory or to supplant existing team documentation. It is merely provided as a reference to help enhance or further develop existing procedures.

All USAR Teams are strongly encouraged to establish a multi-disciplinary COVID-19 focus group to determine how best to implement the available guidance into their team operational procedures to ensure they remain mission ready for deployment in a COVID-19 environment. It is recommended this multi-disciplinary COVID-19 focus group includes representation from team management, medical, logistics, HAZMAT, safety and operations.

# 2. Introduction

The emergence of COVID-19 over the past year has drastically influenced how most of the world's citizens go about living their daily lives. Similarly, USAR teams have faced challenges in adapting to the new environment including new requirements related to equipment, training, and preparation of personnel. As with most traditional hazards encountered in the collapsed structure environment, proper planning and preparation can significantly reduce risks related to COVID 19, but not completely eliminate them.

In order to remain mission-ready, teams need to strike the balance, in a rapidly evolving environment, that enables them to achieve the two primary goals of:

- Protecting the workforce
- Maintaining operational capability and respond as required

PLEASE NOTE: As public health guidance continues to evolve, some of the information contained herein will change.

## 3. Personal Protective Equipment

SARS CoV2, the virus that causes COVID 19, spreads from person to person predominantly via respiratory droplets, either inhaled directly or from touching your eyes, nose or mouth after touching a contaminated surface. Aerosol transmission is potentially possible; however, it does not appear to be the primary mode of transmission. Contaminated respiratory droplets are produced when an infected person coughs, sneezes, or talks. Therefore, the transmission of COVID-19 is more likely when people are in close contact, hence the public health advice to maintain physical distancing of 1.5 – 2m (approx. 6ft).

One of the biggest challenges with SARS CoV2 is the demonstrated capability to spread from asymptomatic persons. Depending on the scientific source being cited, asymptomatic spread can occur in over one half of new cases. Therefore, certain measures are warranted in any congregate setting to prevent disease spread. The three most basic measures are:

- Maintaining physical distancing of 1.5-2m (approx. 6 feet)
- Regular hand washing / sanitizing
- Regular disinfection of surfaces

At this point in time, with the current prevalence of COVID 19 worldwide and with the fact that no vaccine is 100% effective, mitigation measures such as the above and below should continue for the foreseeable future.

Personal protective equipment (PPE) is another measure that assists in preventing spread. The highest levels of PPE protection are generally described for healthcare providers in the clinical arena where COVID 19 may be present. However, there are also some basic measures such as “face masks” that are worn by many in general public settings to help prevent disease spread. The different types of relevant respiratory protection are listed in Table 1 and the following general concepts apply to PPE in the USAR environment:

- The highest levels of PPE are generally described for personnel involved in the care of patients known to be or potentially infected with COVID 19. The following components are generally described for the PPE ensemble:
    - Nitrile gloves
    - Eye protection (safety glasses/face shields)
    - Respiratory protection (depending on country and setting may range from surgical mask to Powered Air Purifying Respirator (PAPR) – see Table 1)
    - Contact barrier such as Tyvek suit or medical gown.
- It is generally accepted in congregate settings that a face covering should be utilized to assist in prevention of spread of disease. In some countries or jurisdictions within

countries, this can be mandated by law. At a minimum, this should consist of a multilayer cloth face mask:

  - Given the austere environment and close billeting that are associated with USAR operations, teams may elect for higher levels of respiratory protection in congregate settings. For example, some systems, such as the US USAR system, have promulgated the use of N-95 respirators (or equivalent) when socially distancing is not possible and when in any indoor or vehicular environment.
  - This action increases the protective factor for USAR members and can significantly reduce the complexity of actions required during contact tracing operations.
  - This type of enhanced protection for USAR members in congregate field settings is obviously dependent on available stocks.

- Teams should be cognizant that whatever protection they plan to utilize may be influenced by local requirements and laws in the impacted country and area of operations. Differing local requirements can require USAR Teams to enhance their anticipated procedures.
- Whatever requirements are anticipated, USAR Teams should engage their Logistics component to ensure adequate stocks of required equipment are available for deployment with the team as resupply can be challenging in an impacted country.
- It is recommended that PPE "Kits" be issued to each team member. The PPE kit should be carried on their person at all times (team members may be required to interact with members of the public at unexpected times). Recommended items include:
  - Safety glasses / face shield
  - Nitrile gloves
  - Surgical masks
  - N95 masks (or country equivalent such as surgical face mask)
  - Hand sanitiser
  - Disinfectant wipes (effective against bacteria and viruses)

Table 1: Types of Respiratory Protection

| | |
|---|---|
| Cloth Face Mask | This is not a form of PPE nor does it require any regulatory approval. These masks provide a form of source control, meaning that it has the potential to reduce the wearers' ability of transmitting disease. Recent evidence also demonstrates that cloth mask materials can also reduce wearers' exposure to infectious droplets through filtration. The prevention benefit of wearing a mask is derived from the combination of source control and personal protection for the mask wearer. Cloth face coverings should be worn in public when social distancing measures are difficult to maintain, and some jurisdictions have made it mandatory to wear them in public. |

| | |
|---|---|
| Surgical Mask | Surgical Mask provide barrier protection against large-particle droplets and do not effectively filter inhaled small particles. A surgical mask is primarily used to protect the provider from people who may have a respiratory infection. In addition, when worn by a person with a respiratory infection, it protects others in the surrounding area. The following are examples of when a surgical mask should be used:<br>• During a patient encounter<br>• Placement on any patient being assessed, unless medically contraindicated<br>Team members should wear a surgical mask if they are symptomatic for COVID-19 or if they had a concerning exposure without wearing proper PPE or had a breach in the PPE. |
| Air Purifying Respirator - N95 (or equivalent) Respirator | Filtering Facepiece Respirator (FFR) – electrostatic, non-woven face covering. Effectiveness is highly dependent upon proper fit and use. N-95s (or equivalent) can be used in the delivery of patient care when used in conjunction with other PPE. |
| Air Purifying Respirator - Elastomeric Respirator | Elastomeric Respirators –Full or half-face mask cartridge protection system. Masks must be equipped with appropriate filter/s. Masks can be decontaminated for re-use. Although having better performance in wet conditions than N-95s and commonly utilized on the rubble pile, some individuals may find regular use of an elastomeric mask to be less comfortable and communications hampered. |
| Powered Air Purifying Respirators (PAPR) | Powered Air-Purifying Respirators (PAPR) –Full mask/cartridge protection system. Masks can be decontaminated for re-use. Limited applicability in USAR environments, consider for brief use intubating a known or suspected COVID-19 patient if available for use. |
| Self-Contained Breathing Apparatus (SCBA) | Used with a compressed air supply. Provides a high level of respiratory protection. Masks can be decontaminated for reuse. It has limited applicability due to burden of use and typically compressed air is in limited supply for internationally deployed USAR teams. |

# 4. Activation

## 4.1 Go / No Go Deployment Decision

Specific country and regional profiles of COVID-19 infections are dynamic and variable, not all countries and regions are at the same point in their COVID-19 rates of transmission or response. These factors, in addition to public health control measures implemented, can severely challenge a USAR Team's ability to execute their deployed mission. USAR Team's should consider the operational implications of the following and how to address them **before deploying**:

- The disease burden in the affected country (affected area/s) relative to the disease burden in your own country
- Ability to meet public health requirements and restrictions in place in the affected country. For example:
    - Proof of vaccination (countries may stipulate what brand of vaccine is permissible)
    - Producing a negative COVID-19 test result that was administered immediately prior to deployment (usually a polymerase chain reaction (PCR) test is required as opposed to other currently less accurate tests).
    - Additional testing and quarantine on arrival in the affected country (negating any operational assistance offered for time critical USAR operations)
- Ability to meet contingency requirements during the deployment such as when:
    - Team member/s display signs and symptoms of COVID-19
    - Team member/s test positive for COVID-19
- Repatriation considerations should a team member/s contract COVID-19 while on deployment
- Re-entry requirements for the deployed team returning home, e.g., the need for mandatory quarantine

## 4.2 Embedded Personnel

It is common practise for organisations to embed representatives that are non-team members in a USAR Team when it is being deployed, these may include among others, government representatives, safety and security personnel and media. During this time of COVID 19 transmission, it is important for USAR Teams to re-evaluate the necessity of bringing any additional personnel.

In order to gain access to transportation and accommodation being used by the USAR Team, it is important that all embedded personnel undergo the same pre-deployment COVID-19 screening process, comply with all risk mitigation measures, including the use of PPE, and be included in daily health and welfare monitoring.

If embedded personnel bring their own PPE, this should be inspected to ensure that it is compliant with the USAR team's standard. If not up to standard, they should be issued with the appropriate PPE.

Any non-team members embedded in the USAR Team should also be screened for willingness to comply with any COVID 19 public health mitigation measures as prescribed by the team.

# 5. Mobilisation

## 5.1 Medical Intelligence Gathering

Medical intelligence gathering (MIG) should always be conducted prior to deployment and re-evaluated in an on-going fashion throughout a mission. During times of COVID 19, this process takes on increased importance.

Public health actions imposed by an impacted country can impact a team's ability to carry out its mission in a timely fashion, especially if no waivers are available. Critical components of medical intelligence on the impacted country prior to departure could include:

- COVID-19 prevalence of the country generally and more specifically in areas where the team is likely to be operating
- Public health mitigation measures in use/enforced[1]
  - Country entry requirements (and potential waivers available)
    - Testing required prior to entry into country
      - Acceptable time frame for testing prior to entry (e.g., 3 days)
      - Acceptable test type (e.g., antigen testing, PCR testing)
      - Required type of documentation (paper, electronic, etc)
    - Documentation requirements for prior infection
    - Documentation requirements for COVID 19 vaccination
    - Quarantine requirements
  - Required methods for contact tracing (including local IT applications that must be utilized)
  - Mandated use of face coverings, standard of face covering / respiratory PPE required, etc.
  - Limitations on public gatherings
  - Mass transportation restrictions (e.g., internal to country such as bus, train, etc)
- Status of healthcare system in the affected country generally and specifically in the area of operations
  - Include impacts from COVID 19 on healthcare system
  - Include options to obtain testing for COVID 19 for USAR Team members while in country (to include type of testing available)
- COVID-19 Designated facilities:

[1] NOTE: In some countries, these requirements may differ at different levels of government (sometimes significantly). For example, national level government could dictate international entry requirements while provincial/state/municipal or other local forms of government could have a different set of requirements for domestic cross-border entry. Teams must be aware of all public health actions that could impact operations. Finally, teams should take into account public health requirements for countries they intend to transit through to get to the intended destination.

        - COVID-19 dedicated facilities (wards within facilities)
        - Mortuaries (permanent and temporary)
    - Points of Contact:
        - Ministry / Department of Health
        - Public Health
        - Local health services

Medical and Team Managers should conduct medical intelligence gathering on the affected country in general, and if possible, specifically the affected area where they will likely be working as the risk profile within a country can vary significantly. It is important to note that not all of the required information will be available prior to departure, therefore MIG needs to be an ongoing activity throughout all phases of the deployment.

Up to date information on COVID-19 prevalence in the affected country (area) can be gathered through different resources, including:

- Ministry of Health of the affected country
- World Health Organisation (WHO), https://www.who.int
- Office for the Coordination of Humanitarian Affairs (OCHA), https://www.unocha.org
- Centre for Disease Control and Prevention (CDC) website, https://www.cdc.gov
- Other online forums, e.g., media, VOSOCC

## 5.2 Arrival at Check-in Area

When arriving at the meeting point, all team members begin immediate adherence to the team's issued public health mitigation measures. For example:

- Wear a facemask, optimally this should be a N95 or equivalent (Facemasks should be available at the point of entry for anyone who arrives without one)
- Maintain physical distance of 1.5 -2m (approx. 6 ft), as per local public health guidance
- Minimise touching communal surfaces, e.g., pens, computer keyboards, door handles, etc
- Frequently use hand sanitiser

Apply the same procedure when arriving at each new location, e.g., airport.

## 5.3 COVID-19 Pre-deployment Screening Questionnaire

COVID-19 specific screening is required in addition to the USAR team's standard pre-deployment medical screening which should include a temperature check on each individual.

In order to minimise the potential risk of exposure to COVID-19, team members should be subject to a series of questions that gauges their risk for being infected by COVID 19. USAR Teams that do not have their own set of questions can consider adopting the **COVID-19 Pre-Deployment Screening Questionnaire presented in Annex A.** This questionnaire can be

completed telephonically, electronically or manually, e.g., an interviewer completes the questionnaire while the team member remains in their car and awaits direction prior to entering the check-in area. Each individuals' questionnaire should be reviewed prior to their advancing farther in the mobilization process.

If candidate answers Yes to any questions, they should be referred to the Medical Team Manager for further evaluation. Answering Yes to any of the questions should not be considered an automatic disqualification but requires additional investigation.

IMPORTANT NOTE: This COVID-19 Pre-deployment Screening Questionnaire **does not** replace the normal pre-deployment medical screening team members are required to undergo. The interview and physical examination that forms part of the normal pre-deployment medical screening should still occur.

## 5.4 Pre-deployment Medical Screening

The USAR system, since its inception, has emphasized a robust medical pre-deployment medical screening process for team members and search canines. In the current context of the COVID-19 pandemic, the importance of conducting a comprehensive, thorough pre-deployment medical screening should be emphasized to all deploying USAR Team members.

The Pre-deployment medical screening should be conducted as early as possible in the check-in process.

Focus on potential COVID-19 related symptoms for exclusion from deployment should be emphasized, i.e., temperature greater than 38°C / 100.4°F and or other recognised signs and symptoms, e.g., runny nose, cough.

Team members that show signs and symptoms potentially related to COVID-19 should be separated from the rest of the team and referred for further evaluation.

In order to minimise the potential risk of exposure to COVID-19, screening personnel may wish to wear PPE (eye protection, N 95 respirator or equivalent, gloves) and it is strongly recommended that the medical personnel conducting the pre-deployment medical screening **do not** deploy with the team.

If a team member is found to be medically non-deployable, they should be referred to their organisations health representative for follow up action based on the public health guidance.

## 5.5 Pre-deployment COVID-19 Testing

USAR Teams should anticipate the need for COVID-19 testing at the time of deployment. When properly selected and integrated into mobilization procedures, screening testing for COVID-19 is a valuable tool.

Pre-deployment testing requirements are dictated by:

1. Team policy
2. Impacted country requirements

There are many different types of tests and platforms available internationally to perform COVID 19 testing. The following considerations are relevant:

- The more accurate tests (e.g., RT-PCR) generally take longer to obtain the test results. Faster tests, such as antigen tests, can be less accurate. There is the need to balance accuracy (PCR) and speed (antigen). PCR tests tend to be more commonly mandated in the international arena. However, as research and development of antigen testing continues, this testing modality may play a more prominent role in future.
- If PCR testing (or any test with a delayed response) is utilized, teams should account for actions required if a positive test returns after the team has deployed. Therefore, USAR Teams need to develop robust plans to deal with a team member who subsequently returns a positive test result once they have already deployed. This reinforces the recommendation for wearing optimal respiratory protection, i.e., N95 respirator or equivalent during general interactions as it reduces the risk of transmission between team members.
- Teams will have to account for any country or local mandates for specific types of tests.
- For the time being, individuals who have been vaccinated will still require testing as no vaccine is 100% effective.
- Individuals who have recently recovered from COVID 19 infection can test positive using PCR testing even though they are not infectious (detection of genetic "debris" from the recent infection). This can be very hard to discern in the USAR environment and Medical Managers should be aware of testing requirements and waivers for those who have recently recovered. If permissible to travel without testing, carrying proof of the recent infection and the timing of occurrence will be required.

## 5.6 Vaccinations

At the time of writing, vaccinations are being rolled out in many countries. There are numerous vaccines currently in use, with many more in various stages of development. As the research and development on these vaccines is completed and they are approved for use, they will increasingly enter into circulation. Currently, there is no vaccine or combinations of vaccines that offers 100% protection.

Certain industries are introducing policies mandating demonstration of receipt of vaccinations in order to access services, e.g., air lines. It is likely that country and enterprise policy regarding vaccines will evolve rapidly in the coming months as vaccination roll outs gain momentum. It is not possible to predict what these policies will look like. As an example, there are currently significant differences of opinion on how to reflect proof of vaccination and how this might impact access to travel.

It is therefore incumbent on USAR Teams to ensure comprehensive and accurate records of COVID-19 vaccinations of its personnel are established and regularly updated. Additionally,

any major new developments could require teams to move rapidly to adopt them as required.

## 5.7 Personal Prescriptions

Team members should ensure that they have access to a 1-month supply of personal prescriptions, so that they are able to access their personal medication for the duration of their deployment in addition to a potential 14-day quarantine period.

## 5.8 Health Monitoring of USAR Team Members

The USAR medical element has primary responsibility for monitoring the health and welfare of USAR Team members throughout all phases of the deployment. Regular (e.g., minimally daily) health monitoring should be initiated as soon as the team is mobilised, should continue throughout the deployment and should continue for a period of time, e.g., 10 – 14 days after returning home.

USAR medics should have thermometers, ideally non-contact, on hand so they are easily able to check on members throughout all phases of deployment, including while in transit.

It is recommended that the daily health monitoring be used as an opportunity to emphasise:

- Use of masks, as required by team and local government policies
- Maintaining social distancing
- Frequent use of hand washing / sanitizer, especially after contact with communal surfaces
- Early reporting of symptoms, even if minor

## 5.9 Pre-departure Briefing

In addition to the USAR Team's standard pre-departure briefing, risk mitigation methods to reduce the possibility of COVID-19 exposure are to be emphasized and should include:

- Review of COVID-19 signs and symptoms
- Reminder of the importance of early reporting of signs and symptoms, no matter how minor
- Avoid physical contact if at all possible. If physical contact is required, e.g., to render medical care, ensure appropriate PPE is worn
- Face coverings / masks should be worn:
    - During transit
    - When physical distancing is not possible
    - During interaction with any non-team members
- Maintain a physical distance of 1.5 -2m (approx. 6 ft), where possible
- Safe disposal of PPE (PPE disposal sites need to be established by logistics)
- Minimising touching communal surfaces
- Wiping down communal surfaces with disinfectant wipes before and after use
- Regular application of hand sanitiser
- Regular handwashing with soap and water

- Carrying a PPE kit on their person at all times

### 5.10 Deployment Documentation

Ensure the USAR Team has access to electronic and hard copies of the following COVID-19 specific documents for all deployed team members:

- Proof of PCR test status (providing test results do not delay deployment – refer to Section 5.5)
- Proof of Vaccination:
    - Vaccination generic name
    - Vaccination trade name
    - Single or multi-dose vaccination regime
    - Dose
    - Date of administration/s
    - Lot number
- Proof of prior infection

## 6. Transportation

### 6.1 Air Transportation

- Each team member should have their personal PPE kit immediately accessible
- USAR Medics should have easy access to thermometers, ideally non-contact, to monitor team members while in transit
- Wear face mask (in accordance with team / local policy) at all times while in airport terminal buildings and onboard the aircraft
- Avoid crowds as far as possible
- Minimise interaction with non-team members as far as possible
- Sanitize your hands after each interaction when documents/items have changed hands, e.g., check-in and security procedures
- Sanitize your hands after touching communal surfaces, e.g., handrails, elevator buttons
- While waiting for departure, limit movement throughout the airport terminal, staging team members in remote / isolated parts of the airport terminal
- When flying with a commercial operator, try and ensure that all team members are seated in the same area; avoid if possible, team members being seated next to non-team member travellers
- Try and maintain social distancing as far as possible while onboard the aircraft
- Team members will be required to adhere to the COVID-19 safe operations plan mandated by the carrier, whether this be commercial or military. This may include:
    - Mandatory wearing of masks in flight
    - Spaced out seating arrangements to enable physical distancing
    - Adhere to all instructions provided by airline crew
- Using alcohol-based wipes, each team member may wish to sanitize their seating area, including arm rests, seatbelt buckles and tray tables when taking their seat

### 6.2 Ground Transportation

The information contained herein applies to both ground transportation in your home country as well as the affected country.

- Each team member should have their personal PPE kit immediately accessible
- USAR Medics should have easy access to thermometers, ideally non-contact, to monitor team members while in transit
- Unless in the vehicle alone, a face mask should be worn
- Ensure drivers vison, including peripheral vision, is not obstructed by face masks or fogging of glasses/face shields caused by face masks
- If possible, disinfect vehicle before and after use
- Ensure hand sanitizer is available in the vehicles so that hands can be sanitized after touching communal surfaces, e.g., door handles, seatbelt buckles
- Attempt to space individuals apart as is technically feasible
- If circumstances permit (e.g., weather), travel with windows open
- Set air conditioner units to allow fresh air to enter the vehicle
- If rest and relief stops are required on route:
    - If possible, avoid larger facilities where there are high numbers of members of public
    - Send out an advance team to locate a safe area for rest stops
    - Ensure team members adhere to physical distancing requirements
    - Ensure team members abide by the people limits stipulated by the facility
    - Ensure team members wear masks
    - Ensure team members sanitize their hands before exiting and re-entering the vehicle
- If a team member becomes symptomatic while travelling:
    - Ensure they don a face mask (preferably surgical face mask) if they are not already wearing one
    - Relocate them to a smaller vehicle and redistribute as many other passengers as possible from that vehicle into other vehicles
    - Monitor their clinical condition carefully
    - Arrange for a formal medical consultation as soon as possible

## 7. Arrival in the Affected Country

### 7.1 Interaction with Non-Team Members

When interacting with other members of the response community and the public:

- Wear a face mask
- Maintain a physical distance of 1.5 -2m (approx. 6 ft), where possible
- Avoid physical contact including hand shaking
- Perform regular hand washing / sanitizing, especially after touching communal surfaces

- Meetings should be conducted in well ventilated / outdoor areas where possible. If meetings have to be held indoors, ensure the venue is:
    - Ventilated as far as possible, e.g., open windows / doors
    - Large enough to allow meeting participants to maintain physical distancing
- Where possible, conduct virtual meetings

## 7.2 Reception Departure Centre (RDC)

- The RDC should be established in a large, well-ventilated area
- Only essential USAR team personnel should interact with the RDC
    - RDC should negotiate with the airport authorities to identify a remote / isolated area of the airport where the arriving team/s can be held temporarily while they are being processed
    - Teams must be encouraged to leave the airport as soon as possible to minimise crowding
- The number of people attending the RDC must be limited and controlled
    - RDC personnel should seek assistance from the airport personnel to ensure people attending the RDC do so in a controlled and organised manner while adhering to social distancing
    - Interactions with arriving teams should be limited to a maximum of one or two team representative's maximum
- A floor marking should be place 1.5m from the RDC receiving table to maintain physical distancing
- Ideally all documents should be exchanged electronically and before team arrival
- All persons attending the RDC should be instructed to wear a face mask
    - The RDC should have a supply of face masks available for those that do not have one
- A hand sanitizing station should be available at the RDC
- Frequent hand sanitization should occur, especially after handling items handled by others

## 7.3 USAR Coordination Centre (UCC)

- The UCC should be established in a large, well-ventilated area
- Only essential personnel should interact with the UCC
- The number of people attending the UCC must be limited and controlled
- UCC Meeting Area:[2]
    - The meeting area must be well ventilated
    - The area must be large enough to accommodate meeting participants while maintaining physical distancing
    - Participants from teams should be limited to a maximum of one or two and ideally should be the same participant each day
- Ideally all documents should be exchanged electronically

[2] If IT support requirements will permit, consider establishing UCC meetings online through commonly accepted meeting platforms.

- All persons attending the UCC should be instructed to wear a face mask
    - The UCC should have a supply of face masks available for those that do not have one
- Hand sanitizing stations should be available at the UCC
- Frequent hand sanitization should occur, especially after handling items handled by others
- UCC should evaluate the feasibility of conducting meetings virtually

# 8. Base of Operations (BOO)

In addition to the usual considerations of the BOO locations, such as safety, security and access, enhanced considerations must now be given to **infection control**.

Team management needs to consider whether non-team members will be allowed access to the BOO), e.g., local translators, drivers, visitors from other USAR teams or local responders. Where feasible, UCC should work with the host country to avoid co-location of multiple teams in the same areas. When not feasible, e.g., multiple teams in a sports stadium, interaction between the teams should be limited.

## 8.1 Temporary Structures

All INSARAG USAR Team are required to be completely self-sufficient, including all elements of the BOO, including accommodation, shower, toilet and catering facilities.

**It is recommended that USAR Teams preferentially use their own BOO facilities** due to:

- Increased ability to limit interaction with non-team members
- Increased ability to implement hygiene procedures
- Increased ability to conduct infection control procedures
- Increased control over cleaning schedule

USAR Teams currently using communal sleeping arrangements (e.g., multiple people sleeping in one tent) should consider using smaller 1-2 person tents. If tents are shared, sleeping head-to-toe is recommended. Maximise the ventilation in the tents, weather permitting.

## 8.2 Fixtured Structures

In certain types of deployments, e.g., tropical storms, explosions, teams may have the option of establishing their BOO in fixed structures, e.g., hotels, warehouses, gymnasiums, recreation centres.

If this type of BOO is utilised, ensure:

- Hotels:
    - Minimise using multiple floors, try and contain all team members to floors that are dedicated to the team

    - If possible, assign team members to individual rooms. If this is not possible, limit room occupancies to a maximum of two / room
    - Ensure meeting rooms are dedicated to the USAR Team and are not accessible to members of the public
    - Avoid congregating in high traffic areas, e.g., hotel lobbies
    - Practise frequent hand sanitizing, especially after touching communal surfaces, e.g., lift buttons, door handles
    - Consider eating in rooms to avoid large, communal eating areas
- Warehouses, gymnasiums, recreation centres:
    - Ensure the floor space is large enough to allow physical distancing
    - Limit access to team members only

## 8.3 BOO Access

- All BOO entry and exit should occur through a single point, which is access controlled
- This access point should be located at the start of the decontamination corridor
- The team member controlling the access point should:
    - Record who is arriving and leaving the BOO
    - Take the temperature of **everyone arriving** at the BOO
    - Ensure everyone sanitizes their hands prior to entering the BOO
    - Ensure that everyone is wearing a mask upon entering the BOO
        - All non-team members will be required to wear masks at all times while they are in the BOO
    - All visitors granted access to the BOO will be given a briefing regarding the need to:
        - Undergo screening for COVID-19 signs and symptoms upon entry
        - Wear a mask at all times – a supply of masks should be available at the point of entry into the BOO, so they are readily available for anyone visitor that does not have their own mask
        - Maintain physical distancing
        - Frequently use hand sanitizer
        - Remain clear of out of bounds areas within the BOO
- All USAR Team members returning from worksites will be required to follow the decontamination corridor, starting with the boot washing station, to the dirty / clean area and follow the normal decontamination procedures prior to entering the general BOO areas
    - Team members that have not been engaged in USAR operations at work sites and visiting non-team members do not have to go through the complete decontamination corridor

## 8.4 BOO Hygiene and Infection Control

High levels of hygiene and infection control are not only important to reduce the risk of COVID-19 transmission, but they are also important to reduce the risk of exposure to other pathogens.

- Establish COVID-19 safe internal and external meeting spaces
- Attempt to locate those working in assigned groups, e.g., rescue squad, to the same sleeping area within the BOO
- Access to communal areas within the BOO, e.g., command tent, should be restricted to essential personnel only
- Daily disinfection of the BOO needs to be carried out using hospital grade, non-toxic, clearly labelled disinfectant. It is important to make sure the disinfectant is effective against bacteria and viruses. Particular focus needs to be applied to:
    - Entry to all communal areas
    - Communal surfaces, e.g., tables, computer keyboards, portable radios
    - Designated eating areas (**requires cleaning multiple times daily**)
    - Showers
    - Toilets (**requires cleaning multiple times daily**)
- Hand sanitizing stations need to be readily available and easily accessible throughout the BOO, notably at:
    - BOO entry / exit
    - Entry / exit of any tent
    - Designated eating areas
    - Toilets
    - Showers
    - Decontamination corridor
- Soap must be provided at all handwashing stations
- Avoid placing personal items, e.g., toothbrush on communal surfaces
- Restrict communal eating
- Waste collection: USAR teams will produce more waste due to the increased PPE and cleaning requirements
    - Ensure that regular collection of waste is arranged
    - Confirm with LEMA if there any specific requirements with regard to the disposal of PPE, e.g., can it be disposed of in general waste or must it be disposed of in biomedical waste

## 8.5 Isolation and Quarantine Areas

The INSARAG Guidelines have always recommended that USAR Teams have the capacity to isolate a team member who becomes ill with a potentially infectious disease in a dedicated area. Due to COVID-19, teams need to be prepared to isolate a larger number of team members.

Some relevant concepts include:

- Individual sleeping tents can be used to augment isolation capacity
- In a hotel setting, isolate in a separate room
- Equipment used in the isolation area should be dedicated and not transferred between the isolation area and the BOO medical station
- Any equipment removed from the isolation area needs to be thoroughly disinfected prior to being used elsewhere

- Set up a dedicated toilet for those in isolation
- If possible, set up a dedicated shower for those in isolation
- Arrange for meals to be delivered and consumed in the isolation area
- Affected individuals, depending on their clinical condition, would not need to be confined to isolation 24/7. For example, they may be permitted time outdoors if they can do so without interacting with other team members or members of the public and can be monitored
- Depending on their clinical condition, they may require referral to a formal clinical facility
- Medical personnel assigned to work in the Isolation area are required to:
    - Don full clinical PPE:
        - Disposable gown
        - Eye protection/face shield
        - N95 (or equivalent) facemask
        - Nitrile gloves
    - Used PPE must be disposed of in biohazardous medical waste, unless otherwise indicated by LEMA
- Quarantine requirements (for those that have been exposed and have not been vaccinated) are similar
- The Medical Manager must regularly liaise closely with the Team Manager to provide updates on isolation and quarantine requirements and to determine the threshold for when they may negatively impact the feasibility of continuing USAR operations

## 8.6 Nutrition

- In an austere environment, e.g., an earthquake, meals ready to eat (MRE's) / field ration packs are the recommended food source
- Food consumption areas must be disinfected regularly but especially before and after meals
- It is impossible to wear a mask while eating, therefore strict physical distancing must be maintained
    - Consider staggering mealtimes
- Sharing food is **strongly discouraged**
- As is the recommended norm, avoid eating / drinking anything from the affected area. Do not accept any food donations
- Do not share any eating / drinking utensils (knives, forks, spoons, chop sticks, plates, bowls, cups)
    - All eating utensils should be disposable
- Any non-disposable food service items should be handled with gloves and washed with dish soap and hot water
- During the course of the deployment, when in areas with intact infrastructure, either on route to or returning from the affected area, avoid:
    - Areas where people congregate for meals, e.g., restaurants
    - Self-serve buffet style eating
- Take-away options are more ideal

# 9. Daily Health and Welfare Monitoring

Regular monitoring of all USAR Team members is an important risk mitigation strategy.

- Non-field personnel, e.g., command support, BOO logistics should be evaluated once daily
    - Embedded non-team members should be included in daily health and welfare monitoring
- Field personnel should be evaluated before and after the completion of each operational work cycle
- The evaluation should include:
    - Temperature checks.
        - Elevation in an individual's temperature should be evaluated against the broader context of that individual's symptoms
    - Questions regarding COVID-19 symptoms
    - Questions regarding other injuries or illness
    - Questions regarding emotional status
    - Questions regarding high-risk exposures
- If a team member describes having any symptoms, they should be immediately isolated and further evaluated

## 9.1 High-risk Exposures

A high-risk exposure is defined as coming into contact with someone known or suspected of having COVID-19.[3]

All team members having had a high-risk exposure should be evaluated by the Medical Team Manager and the Safety Manager to determine the most appropriate course of action.

## 9.2 COVID-19 Safe Behaviours

Regularly reinforce the following behaviours:

- Perform hand hygiene frequently, especially after touching communal surfaces e.g., door handles, using:
    - Alcohol-based (minimum 70%) hand rubs (e.g., hand sanitizer)
    - Soap and water (20 seconds)
- Coughing or sneezing:
    - Cover your nose and mouth with a flexed elbow or paper tissue
    - Dispose tissue immediately and perform hand hygiene
- Avoid touching eyes, nose and mouth with unwashed / unsanitized hands
- Avoid touching food or drinks with unwashed / unsanitized hands
- Keep 1.5 -2m (approx. 6 feet) apart when possible

[3] Some countries have more specific definitions. The US CDC defines a close contact as no PPE, within 6 feet for 15 minutes or more within a 24-hour period. The 15 minutes do not have to be consecutive.

- When wearing a mask:
    - Mask sure mask fits correctly
    - Remove mask without touching outside of the mask and dispose in appropriate waste container immediately
    - Perform hand hygiene immediately after removing PPE

# 10. USAR Operations

Operational plans and assignments will need to be modified based on the risk analysis of the assigned area of operations. By way of example, conducting an ASR 2 poses far less of a risk than assisting with a hospital evacuation where there are known COVID-19 patients.

Prior to deployment on any mission, the Team Leader (Deputy), Safety Officer, Medical Manager and Rescue Officer should determine what measures should be implemented to minimise the risk of COVID-19 exposure.

Avoid, as far as possible, transferring individuals between groups, e.g., rescue squads.

Ensure all team members have access to their stocked PPE kit at all times.

## 10.1 Patient Encounters

**Personal Protective Equipment**

Due to the nature of USAR operations, in most instances it will not be possible to accurately determine the patients COVID-19 status. Therefore, it is safest to assume that any patient encountered is high-risk for COVID-19. Accordingly, all patient encounters require USAR Team members to:

- Wear eye protection (googles/face shield)
- Wear a N95 mask (or equivalent)
    - Apply a face mask, minimally a surgical mask, to the patient as long as it is not medically contra-indicated
- Wear nitrile gloves
- Disposable gown/coverall (e.g., Tyvex) – wearing of disposable gowns / coveralls in the rubble is not practical. If **not** wearing a disposable gown/coverall when coming into physical contact with a known/suspected COVID-19 patient, remove uniform as soon as possible for cleaning and disinfecting

Based on the World Health Organisation (WHO) recommendations, the sequence for donning (putting on) PPE is as follows:

1. Perform hand hygiene
2. Apply gown/coverall, e.g., Tyvex suite (if being worn)
3. Apply face mask – ensure good fit (ensure nose and mouth are covered) and seal
4. Apply eye protection (goggles/face shield)
5. Apply nitrile gloves – extend glove cuffs to cover sleeves

Based on the World Health Organisation (WHO) recommendations, the sequence for doffing (removing) PPE is as follows:

1. Remove gloves
    a. Grasp outside of glove with opposite hand and peel off, holding in gloved hand
    b. Slide fingers under cuff of remaining glove and peel off
2. Remove gown/coverall – touch only the inside surface
3. Perform hand hygiene
4. Remove eye protection by grasping earpieces/head band
5. Remove mask – grasp ties or inside of the mask
    a. If re-usable ½ face masks are used, decontaminate prior to next use
6. Discard all used PPE in appropriate waste containers
7. Perform hand hygiene

Logistics should carefully track the PPE consumption rate to ensure continued availability of stock. PPE consumption rates and predicted resupply needs should be reported on a daily basis.

**Patient Assessment**

In addition to the normal clinical assessment, all patients should be screened for COVID-19. Take a history, including:

- Fever > 38°C / 100.4°F – Check temperature
- Chills
- Runny nose
- Nasal congestion
- Sore throat
- Cough
- Shortness of breath
- Loss of smell
- Loss of taste
- Nausea/vomiting
- Diarrhoea
- Persistent muscle/joint pain
- Use of any fever reducing medication, e.g., paracetamol/ibuprofen
- Close contact of someone who is COVID-19 positive, e.g., co-worker / family member
- History of quarantine or self-isolation

Contact with patients should be limited to essential personnel only.

## 10.2 Aerosol Generating Procedures

Aerosol generating procedures (AGPs), e.g., nebulisation, bag-valve-mask ventilation, intubation, cardiopulmonary resuscitation (CPR) are high risk procedures for healthcare professionals and expose them to the greatest risk of COVID-19 transmission.

If AGPs are required:

- Minimise exposure to essential personnel only
- Ensure healthcare professionals are wearing full PPE, including:
    - Disposable gown/coverall (e.g., Tyvex)
    - Eye protection
    - N95 (or equivalent) facemask
    - Nitrile gloves
- If possible, ensure procedures are performed in a well-ventilated area
- Ensure PPE is disposed of in biohazardous medical waste
- Ensure non-disposable equipment is thoroughly cleaned and disinfected

## 11. Symptomatic Team Member/s

A Team member should be considered symptomatic for COVID-19 if they display any of the following:

- Fever > 38°C / 100.4°F
- Chills
- Runny nose
- Nasal congestion
- Sore throat
- Cough
- Shortness of breath
- Loss of smell
- Loss of taste
- Nausea / vomiting
- Diarrhoea
- Persistent muscle/joint pain (unexplained)

If a team member become symptomatic:

- Notify the Medical Manager; Team Leader (Deputy); Safety Manager
- Verify the symptoms are related to COVID-19. There are many reasons why a team member could display the abovementioned symptoms. Therefore, assuming that the symptoms are due to COVID-19 would be medically inappropriate. A thorough assessment is required
- Monitor their clinical condition to ensure they do not require immediate medical care and or transfer to a medical facility
- Perform contact tracing, going back 48 hours prior to the onset of symptoms
- Ensure the team member/s are isolated:
    - If there is more than one team member, they may co-isolate
    - Ensure they have access to shower and toilet facilities, preferably restricted for their use only
    - Provide their meals in the isolation area
    - Minimise interaction with other team members

        - If required to interact with other team members, ensure they wear a N95 respirator (or equivalent) and maintain a separation of 1.5-2m (approx. 6 feet)
    - There may be instances where team member/s will have to be isolated for an extended period in the field
- Medical personnel assessing/caring for symptomatic team members are required to wear full PPE as stipulated in Section 10.1
- Ensure the team member/s wear a face mask
    - A surgical mask is sufficient
- Arrange for COVID-19 testing as soon as possible
    - If testing is not available, isolate the team member/s in the BOO
    - If COVID-19 test result is positive:
        - Continue with isolation
        - Evaluate the feasibility of repatriating the team member/s
    - If COVID-19 test result is negative but the team member has symptoms consistent with COVID-19:
        - Consider the possibility of a false negative
        - Evaluate the test used
        - Repeat COVID-19 test after 24 hours
        - If second result is negative, team member/s can return to work after resolution of symptoms
        - If it is not possible to repeat the test, see guidance for ending isolation below

**Guidance for Ending Isolation and Quarantine**

- Follow the published guidance according to your home country Public Health advisory.
- ISOLATION: According to the Centre for Disease Control and Prevention (CDC):
    - 10 days after the onset of symptoms first started and 3 days since the recovery from symptoms
    - Recovery is defined as resolution of fever without the use of fever reducing medications (e.g., paracetamol; ibuprofen) and improvement in respiratory symptoms
- If the team member/s clinical condition is serious or deteriorates, arrange for transfer to a medical facility

If team member/s are asymptomatic but are known to have been exposed to a COVID-19 patient:

- Provide separate accommodation within the BOO
- Ensure they wear a mask at all times
- Ensure they do not eat in communal eating areas
- Ensure they practice regular hand washing / sanitizing
- Monitor twice daily
- QUARANTINE: The following risk management strategies can be considered:

    - 14-day isolation to cover the incubation period
    - 10-day isolation provided there have been no symptoms
    - 7-day isolation with a negative PCR test result conducted on day 5

As is required by INSARAG, all USAR Teams are required to maintain a Medical Incident Log (MIL). It is recommended that in addition to the standard MIL, USAR Teams implement a COVID-19 Incident Log, which includes among others, information on close contacts of COVID-19 suspected / positive individuals. This log will serve to identify individuals who need to be watched closely for signs and symptoms and may help to decrease the risk of transmission by putting in place early self-isolation measures.

## 12. Search Dogs (K9)

- The USAR Team Vet (if present) and or search dog handlers have the primary responsibility for the health assessments and monitoring of the search dogs
- All search dogs should be thoroughly evaluated for signs of injury or illness after each operational period
- Currently, there is no evidence that dogs are able to transmit COVID-19 to humans
- If a search canine has come into contact with a known COVID-19 patient:
    - Consider wiping down search dogs with a disinfectant wipe (e.g., 2% chlorhexidine) after work. Avoid contact with the eyes, nose and mouth
    - Allow for 10 minutes of contact time and then wipe down with water-soaked towel
    - Wipe down collars and leashes with a disinfectant wipe (e.g., 2% chlorhexidine)
- During rest periods, keep dogs in kennels

## 13. Demobilisation

- Demobilisation testing may be a requirement by your home country:
    - Before you leave the affected country. If required, schedule testing in a timely manner to ensure test results are obtained prior to departure
    - Once you arrive home. Multiple tests may be required at a predetermined interval
- Determine what, if any, self-isolation or quarantine requirements are in effect for returning team members
    - If quarantine is required, ensure all team members are briefed accordingly
- Perform all standard demobilisation procedures, as required by the INSARAG Guidelines
- As far as possible, all equipment and vehicles should be disinfected prior to being packed for the return home
- Upon returning home, perform an exit medical assessment on team members prior to them be released home
    - Notify team members of symptoms to watch out for

    - Notify team members of the procedures to follow if they develop symptoms
    - Inform team members of any mandatory COVID-19 testing requirements
- Monitor team members for the onset of symptoms for 14 days after returning from mission
    - If any team members develop symptoms, consider their exposure to the other team members and close contacts
- Contact team members for a wellness check upon returning home
    - If any team member is experiencing any symptoms, whether they be physical or mental, refer them to the appropriate department for evaluation
- Include COVID-19 specific deployment lessons identified in post mission reporting

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Correspondence can be directed to the INSARAG Secretariat via insarag@un.org

## Annex A - COVID-19 Pre-Deployment Screening Questionnaire

| | | | |
|---|---|---|---|
| Date: | | Mission Name: | |
| Name: | | Position | |
| Email: | | Tel: | |

Place an ✓ for Yes X for No

| **In the past 10 days have you experienced any of the following symptoms?** | **Yes** | **No** |
|---|---|---|
| Fever > 38°C / 100.4°F | | |
| Chills | | |
| Runny nose | | |
| Nasal congestion | | |
| Sore throat | | |
| Cough | | |
| Shortness of breath | | |
| Loss of smell | | |
| Loss of taste | | |
| Nausea/vomiting | | |
| Diarrhoea | | |
| Persistent muscle/joint pain | | |
| Have you used any fever reducing medication, e.g., paracetamol/ibuprofen? | | |
| Have you been in close contact of someone who is COVID-19 positive, e.g., co-worker/family member? | | |
| Have you been in quarantine or self-isolation? | | |
| Have you been vaccinated against COVID-19? | | |

| | | |
|---|---|---|
| **If Yes:**<br>Vaccination Brand | | |
| Date/s of Vaccination | 1st | 2nd |

If candidate answers Yes to any of the above, refer to the Medical Team Manager for further evaluation. Answering Yes to any of the above **should not** automatically disqualify a team member from deploying.

**Able to enter meeting point?**

( ) Accept ( ) Reject

Interviewer Name: _____

Interviewer Signature: _____