NSP Medical Advisor Sub-Committee Recommendations for Masks and Personal Protective Equipment (PPE) during the COVID-19 Pandemic

** Note: The recommendations contained in this document are also included in NSP's Pandemic Response document, section 4.*

In accordance with CDC guidelines, NSP patrollers, while on duty, should wear an appropriate, comfortable, and well-fitting mask covering the mouth and nose at all times when interacting with the public or treating a patient.

Note: A bandana or thin neck warmer or balaclava is not felt to be adequate protection for patrollers while on duty.

Examples of specific situations and the appropriate mask would be:

- A three-layer cloth or surgical style mask should be worn in lift lines, the lodge or any situation where social distancing cannot be maintained.
- A surgical style mask or a N95 respirator mask should be worn when providing first aid to an individual.
- A N95 respirator mask and eye protection should be worn when involved in aerosolizing procedures.

Additionally, all patrollers while providing first aid to an individual should use personal protective equipment (PPE) including gloves, eye shields, and gowns as appropriate for the situation and location.

Background:

In response to this pandemic, the CDC has issued guidelines for the protection of emergency workers and the public they serve. The NSP, as a leader in provision of emergency care in the US, needs to adhere to these guidelines for the protection of its members and demonstrating their importance to the public.

With the arrival of COVID 19 we are faced with the issue of protection from airborne transmission of disease, and this is a new concern for NSP. As we continue to learn more about COVID 19 the preponderance of evidence that suggests that when everyone wears a mask it is mutually beneficial to all. Some masks are clearly better than others in the degree of protection they provide. In combination with eye protection, frequent and proper hand washing and gowns or other protective clothing we can significantly decrease transmission of this virus. As the health care experts on the hill it is not only our job to protect our patients and others as well as ourselves but to lead by example.

The CDC guidelines state in reference face masks:

- EMS personnel should wear a facemask at all times while they are in service, **including in breakrooms or other spaces where they might encounter co-workers**.
    - When available, facemasks are preferred over cloth face coverings for EMS personnel as facemasks offer both source control and protection for the wearer against exposure to splashes and sprays of infectious material from others.
        - Cloth face coverings should NOT be worn instead of a respirator or facemask if more than source control is needed.
    - To reduce the number of times EMS personnel must touch their face and potential risk for self-contamination, EMS personnel should consider continuing to wear the same respirator or facemask throughout their entire work shift, instead of intermittently switching back to their cloth face covering.
        - Respirators with an exhalation valve are not recommended for source control, as they allow unfiltered exhaled breath to escape.
    - EMS personnel should remove their respirator or facemask, perform hand hygiene, and put on their cloth face covering when leaving at the end of their shift.

Implement Universal Use of Personal Protective Equipment

- **EMS personnel working in areas with moderate to substantial community transmission** are more likely to encounter asymptomatic or pre-symptomatic patients with SARS-CoV-2 infection. If SARS-CoV-2 infection is not suspected in a patient (based on symptom and exposure history), EMS personnel should follow Standard Precautions (and Transmission-Based Precautions if required based on the suspected diagnosis). They should also:
    - Wear eye protection in addition to their facemask to ensure the eyes, nose, and mouth are all protected from splashes and sprays of infectious material from others.
    - Wear an N95 or equivalent or higher-level respirator, instead of a facemask, for:
        - Aerosol generating procedures (refer to Which procedures are considered aerosol generating procedures in healthcare settings FAQ)
    - Respirators with exhalation valves are not recommended for source control.
- **For EMS personnel working in areas with minimal to no community transmission**, the universal eye protection and respirator recommendations described for areas with moderate to substantial community transmission are optional. However, EMS personnel should continue to adhere to Standard and Transmission-Based Precautions, including use of eye protection and/or an N95 or equivalent or higher-level respirator based on anticipated exposures and suspected or confirmed diagnoses. Universal use of a facemask for source control is recommended for EMS personnel.

There are several varieties of acceptable masks available:

1. Cloth Face Covering – minimum 3 layer (natural fabrics better than synthetic) for any interaction where proper distancing cannot be assured.
    i. Pros: easier to use, more breathability, some droplet protection, protection of others from wearer.
    ii. Cons: limited droplet protection, very limited if any airborne protection, effectiveness unknown if soiled or wet. May interfere with communication.

2. Surgical/Medical Mask – strong recommendation for interaction with any person suspected of COVID. Can be used for any interaction, provides a higher level of protection than cloth mask.
    i. Pros: readily available, easy to carry, provides contact and droplet protection, provides some airborne protection for the wearer.
    ii. Cons: effectiveness significantly reduced with moisture or soiling. May require removal of helmet, balaclava to don correctly. May make breathing with exertion more difficult. Difficulty of use in outdoor climate with various weather concerns. Situational awareness concerns. May interfere with communication.
3. Filtering Face piece Respirator (N95 mask) strong recommendation for aerosolizing procedures (CPR, Suctioning airway, Noninvasive Ventilation (BVM use) or closed environment with known COVID patient. Provides the highest level of protection for both wearer and others.
    i. Pros: when properly fit tested and donned provides 95% filtration of viral particles. Provides contact and droplet protection.
    ii. Cons: Currently no education/training or support provided by OEC 6. Requires fit testing and proper training for donning/doffing. Facial hair extending under the edge interferes with the seal and makes the mask less effective. May make breathing with exertion more difficult. Effectiveness significantly reduced if wet, soiled or damaged. Round version (3M) at risk for damage when carried in pack.

Therefore, in accordance with the above CDC guidelines, NSP patrollers, while on duty, should wear an appropriate, comfortable, and well-fitting mask covering the mouth and nose at all times when interacting with the public or treating a patient.

Supporting References

CDC Coronavirus Disease 2019 (COVID-19): *First Responders, Law Enforcement and Public Services – Plan, Prepare and Respond* (May 28, 2020)

CDC Coronavirus Disease 2019 (COVID-19): *Interim Recommendations for Emergency Medical Services (EMS) Systems and 911 Public Safety Answering Points/Emergency Communications Centers (PSAP/ECCs) in the United States During the Coronavirus Disease (COVID-19) Pandemic* (July 15, 2020)

CDC NIOSH Science Blog: *Respiratory Protection During Outbreaks: Respirators versus Surgical Masks* (April 9, 2020)

CDC NIOSH Science Blog: *Proper N95 Respirator Use for Respiratory Protection Preparedness* (March 16, 2020)

BYU College of Life Sciences: *Making sense of the research on COVID-19 and masks* (August 21, 2020)

CDC Coronavirus Disease 2019 (COVID-19): *Strategies for Optimizing the Supply of N95 Respirators* (April 2, 2020)