**AIRBORNE PATHOGEN EXPOSURE CONTROL POLICY**

The Gallatin River Ranch Fire Department (GRRFD) is committed to providing a safe and healthful work environment for our volunteers to the degree possible. Medical and fire incidents require volunteers to enter and work in hazardous environments and situations. The GRRFD endeavors to mitigate those risks to the degree possible, but the hazards remain. The following exposure control plan (ECP) is provided to eliminate, minimize and/or manage exposures to airborne pathogens.

**POLICY**

**Airborne Droplet Precautions:**

Will be used by all staff caring for patients with a cough or other symptoms of respiratory infection at a time when there are no epidemic or pandemic respiratory diseases that require universal application of airborne precautions (below), and where the patient has not been exposed to or traveled to an environment where they might be exposed to tuberculosis, measles, or another endemic pathogen known to spread by droplets.

Diseases that require airborne droplet precautions include:

1. Influenza
2. Colds
3. Croup
4. Whooping Cough
5. Epiglottitis
6. Influenza
7. Meningitis
8. German measles
9. Mumps; diphtheria.

Airborne droplet precautions include the following PPE:

1. Standard precautions:
	1. Wearing non-sterile EMS gloves.
	2. Application of hand disinfectant after doffing gloves.
	3. Hand washing as soon as practical afterward.
2. Contact precautions in some (meningitis):
	1. Wearing a disposable gown if available.
3. Wearing a level 1,2, or 3 procedure/surgical mask.
4. Eye protection with face shield mask, wraparound safety glasses, or goggles.
5. Engineering controls:
	1. Placing a simple mask on the patient.
	2. Improving air exchanges in the patient care environment.

**Airborne Precautions:**

Will be used by staff caring for patients whose symptoms, travel or exposure history, or other circumstances suggest the possibility of airborne contagious diseases such as Coronaviruses like SARS (SARS CoV-1) and COVID-19 (SARS CoV-2). Others include tuberculosis and measles. Ebola is included in these precautions even though it is not airborne; it requires enhanced protection due to its virulence and high mortality rate.

1. Standard and Contact precautions (above).
	1. Gowns are not needed with most tuberculosis patients.
	2. Gowns are mandatory with Ebola and measles.
	3. Gowns are mandatory if available for caregivers closer than 6 feet from a COVID-19 patient but not required for caregivers working more than 6 feet from the patient.
2. N95 respirator or Powered Air Purifying Respirator if available. A Level 3 surgical mask is a potentially appropriate alternative in the absence of the first two in times of PPE shortages.
3. Goggles or face shield.
4. Engineering controls:
	1. Placing a simple mask on the patient.
	2. Improving air exchanges in the patient care environment.
	3. Avoidance of aerosol-generating procedures if possible.

**ADMINISTRATION**

The Chief and Medical Officer are responsible for implementation of the ECP and will maintain, review, and update the ECP annually.

1. Volunteers who are determined to have an exposure to potentially infectious materials must comply with the procedures outlined in this ECP
2. The GRRFD will provide and maintain the personal protective equipment, engineering controls, labels, and biohazard bags required by this standard.
3. The Medical Officer will be responsible for ensuring that all medical actions required by the standard are performed and appropriate records are maintained.
4. The Medical Officer, Training Officer, and Chief will be responsible for training, documentation of training, and making the written ECP available to volunteers.

**EXPOSURE RISKS**

The risk for exposure to airborne infectious material is an inherent danger in fire, rescue, and emergency medical services. These include but are not limited to:

1. Emergency medical services where there may be exposure to secretions, airborne pathogens, and other potentially infectious material (OPIM).
2. Fire or Rescue services where injuries may include those to the victim(s) and emergency services personnel.
3. Airborne or other exposure from members of the public who may carry a communicable disease.
4. Airborne or other exposure from other firefighters or medical personnel who may have communicable diseases.

**METHODS OF IMPLEMENTATION AND CONTROL**

**UNIVERSAL PRECAUTIONS**

All volunteers will utilize universal precautions.

**EXPOSURE CONTROL PLAN**

This plan includes:

1. Instruction and training in the ECP upon implementation and annually.
2. This plan is available in hard copy and in electronic form to all volunteers.

**ENGINEERING CONTROLS AND WORK PRACTICES**

Serve to minimize exposure. These include:

1. Engineering controls outlined in this policy.
2. Other policies and procedures.
3. Review of procedures and products by Medical Officer.
4. Scene safety supervision by Medical Safety Officer or designate.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

PPE is provided to volunteers though GRRFD. Training in use of the appropriate PPE for specific tasks is provided during department medical training and during new volunteer orientation. Types of PPE available include:

1. EMS Gloves.
2. Eye protection including wraparound safety glasses, face shield masks, and goggles.
3. Masks.
	1. N95 masks for high-level protection from respiratory pathogens, especially when performing aerosol generating procedures.
	2. Level 3 surgical masks for use at all medical scenes during pandemics or seasonal epidemics or pandemics of influenza.
	3. Level 1 procedure masks to place on patients and for outside team use.
4. Gowns.
5. Headcovers.
6. Booties.

All volunteers using PPE must observe the following:

1. Donning PPE:
	1. All necessary PPE will be donned before entering the scene.
	2. In pandemics, a single “scout” will be sent into a scene wearing incident-appropriate PPE to assess patient status and PPE needs.
	3. Other members of the EMS scene team will don incident-appropriate PPE, and;
		1. Organize the equipment needed before entering the scene.
		2. The medical safety officer will verify correct PPE and donning before the team member enters the scene.
2. During an active medical call:
	1. The caregiver team will be as small as possible.
	2. The Medical Safety Officer (appointed by IC) will man the QRU.
	3. Caregiver team members will not re-enter the QRU during the call unless there is no alternative.
	4. Other team members will bring equipment to the caregiver team.
3. Doffing PPE and Decontamination:
	1. Remove PPE according to CDC guidelines.
	2. Place all disposable PPE into red biohazard bags.
		1. These may go in general trash or drop off at the BDH ED if the team transported the patient to BDH.
	3. Medical Safety Officer will squirt hand sanitizer into caregiver team hands.
	4. Team members don fresh EMS gloves (and face shield masks if sprays are used in decontamination).
	5. Team members place all non-disposable equipment on paper towels and then wipe or spray with disinfectants as specified in the QRU Sanitation Policy.
	6. If EMS or other washable coveralls were worn for the call:
		1. Doff the second pair of gloves and dispose.
		2. Doff the coveralls and place them in a black trash bag.
		3. Designate one team member to launder the coveralls in the FD washing machine with detergent and water temperature on Hot.
	7. Medical Safety Officer will then dispense hand sanitizer into team member hands.
	8. Medical Safety Officer will then return decontaminated equipment and secure them in the QRU.
4. Care team members will self-monitor for fever or respiratory symptoms if the patient is later confirmed to have COVID-19, tuberculosis, or influenza, according the Risk Definition and Interventions section below or Gallatin County EMS guidelines.
5. Wash hands as soon as feasible after removing gloves.
	1. In lieu of this, use of alcohol-based hand disinfectant at a scene may be used, with hand washing as soon as feasible thereafter.

**HOUSEKEEPING**

Regulated waste will be placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled, and closed prior to removal to prevent spillage or protrusion of contents during handling.

1. Laundry:
	1. Disposable covers that may be contaminated shall be placed in waterproof biohazard bags and will be taken to Bozeman Deaconess Hospital for disposal.
	2. Used Linens will be placed in biohazard bags and taken to Bozeman Deaconess Hospital for laundering after use. New linens will be obtained from Bozeman Deaconess Hospital.
	3. Handling of linens requires use of gloves. A gown should be worn if the linens are bloody or contaminated with other body fluids or waste.
	4. Labels will be placed on the biohazard bags used for the above, listing contents (such as “Used laundry” or “contaminated laundry”).
	5. See above regarding laundering of fabric coveralls used in EMS incidents.
		1. Standard detergent washing with hot water regardless of fabric type.
		2. Standard drying at a hot setting.

**POST-EXPOSURE EVALUATION AND FOLLOW-UP**

Bozeman Deaconess Hospital or the Gallatin City-County Health Department will notify the Medical Officer if GRRFD has cared for an airborne exposure-risk patient. The Medical Officer or Chief will notify the volunteer so exposed. A medical evaluation and follow up can be conducted by the Medical Officer or the volunteer’s personal healthcare provider based on their preference.

**PROCEDURES FOR EVALUATING THE CIRCUMSTANCES SURROUNDING AN EXPOSURE INCIDENT**

The Medical Officer will review the circumstances of all exposure incidents to determine:

1. Engineering controls in use at the time.
2. Work practices followed.
3. Description of the device being used (type and brand).
4. Protective equipment or clothing that was used at the time of the exposure (gloves, eye shield, masks, etc).
5. Location of incident.
6. Procedure being performed when the incident occurred.
7. Volunteer’s training.
8. Review of this policy to determine if any changes to the policy or other procedures are necessary.

**VOLUNTEER TRAINING**

All volunteers who may have infectious, whether air- or bloodborne pathogen exposure will receive initial and annual training conducted or supervised by the Medical Officer. This may include completion of online training with verification. This training will include information about epidemiology, symptoms, and transmission of bloodborne and airborne pathogen diseases. The training program will include the following elements:

1. This policy.
2. An explanation of:
	1. Methods to recognize tasks and activities that may involve exposure to droplet and airborne pathogens, including what constitutes an incident.
	2. The use and limitations of engineering controls, work practices, and PPE.
	3. The basis for PPE selection.
3. Information on:
	1. Specific airborne pathogens.
		1. This will include detailed information about any organism that is endemic, epidemic, or pandemic at the time of training.
		2. Special training will be conducted when epidemics and pandemics occur.
	2. The appropriate actions to take and persons to contact in an emergency involving droplet and airborne pathogens.
	3. The procedure to follow if an exposure should occur.
	4. The post-exposure evaluation and follow-up.
4. Recordkeeping:
	1. Training records include:
		1. Dates of training sessions.
		2. Summary or training sessions.
		3. Names and qualifications of persons conducting training.
		4. Names of those attending.
		5. These records will be available to volunteers upon request within 15 working days.
	2. Medical records for each volunteer with an occupational exposure are kept in accordance with 29 CFR 1910.1020 “Access to Employee Exposure and Medical Records”.
		1. The Medical Officer is responsible for maintenance of the required medical records. These confidential records are kept in the Department’s confidential files for the duration of the volunteer’s service with GRRFD plus 30 years.
		2. These records are available upon request of the volunteer or anyone with written consent of the volunteer within 15 working days. These requests should be submitted to the Medical Officer.
	3. An exposure incident is evaluated to determine if the case meets OSHA Recordkeeping Requirements (29 CFR 1904) by the Medical Officer.

**Risk Definition and Interventions**

If a volunteer has COVID-19 symptoms, they will self-quarantine and not respond to GRRFD calls. They will be instructed to contact their healthcare provider or the Health Department for further directions. The Medical Officer will provide guidance but not care.

Definitions for below: HCP = healthcare personnel, PPE = personal protective equipment

Close contact: being within 6 feet while caring for a person with COVID-19.

**Prolonged close contact with a COVID-19 patient who was wearing a facemask:**

|  |  |  |  |
| --- | --- | --- | --- |
| RISK FACTOR | EXPOSURECATEGORY | RECOMMENDED MONITORING (UNTIL 14 DAYS POST EXPOSURE | WORK RESTRICTIONS FOR 14 DAYS POST EXPOSURE ASYMPTOMATIC HCP |
| HCP PPE: none | Medium | Active | No work |
| HCP PPE: not wearing facemask | Medium | Active | No work |
| HCP PPE: no eye protection | Low | Self with delegated supervision | None |
| HCP PPE: no gown or gloves | Low | Self with delegated supervision | None |
| HCP PPE: wore all recommended PPE | Low | Self with delegated supervision | None |

**Prolonged close contact with a COVID-19 patient who was not wearing a facemask**

|  |  |  |  |
| --- | --- | --- | --- |
| RISK FACTOR | EXPOSURECATEGORY | RECOMMENDED MONITORING (UNTIL 14 DAYS POST EXPOSURE | WORK RESTRICTIONS FOR 14 DAYS POST EXPOSUREASYMPTOMATIC HCP |
| HCP PPE: None | High | Active | No work |
| HCP PPE: Not wearing facemask | High | Active | No work |
| HCP PPE: no eye protection | Medium | Active | No work |
| HCP PPE: no gown | Low | Self monitoring with delegated supervision | None |
| HCP PPE: wore all recommended PPE | Low | Self monitoring with delegated supervision | None |

**The caregiver team of any proven COVID-19 patient will wear masks while interacting in person with GRRFD members and on all subsequent calls for 14 days as long as they remain asymptomatic.**

**3/30/20 GALLATIN COUNTY EMS COVID-19 GUIDANCE FOR RESPONDERS**

**Response for patient with COVID-19 symptoms**

* **Fever, temp 100.4 or greater**
* **Shortness of breath**
* **Cough**

**WAS APPROPRIATE PPE USED?**

**YES**

**NO**

**Low Risk Exposure**

**No further steps needed**

**No**

**Provider within**

**6 feet of patient?**

While awaiting test results

or

Patient was not tested

* Notify Medical Officer
* Self-monitor (use sheet)
* Check your temperature twice a day

**YES:**

**POTENTIAL EXPOSURE**

**Patient tests negative**

**PATIENT NOT TESTED**

**PATIENT TESTS POSITIVE**

**If symptoms or temp > 100.4 F:**

**Notify Medical Officer and GCHD @ 582-3100**

**Gallatin County Health does priority testing on symptomatic first responders and their household family members**

**Follow CDC in-home quarantine guidelines including:**

**1. Live and sleep in separate quarters if possible.**

**2. Wear a surgical mask when around your family.**

**3. Avoid family contact.**

**4. Hand hygiene**

**5. See CDC website for details.**

**MONITORING PLANS**

Where Gallatin County and CDC protocol differ, GRRFD will follow Gallatin County protocol. Gallatin County protocols and policies define a fever as a temperature of 100.4 degrees F or greater, while some CDC guidelines define it as a temperature of 100.0 degrees F or greater.

**Self-monitoring:**

1. The HCP takes and records their temperature twice a day
2. The HCP remains alert for symptoms such as temperature greater than 100.4 degrees F, sore throat, cough, shortness of breath, loss of sense of smell or taste.

**Self-monitoring with Delegated Supervision:**

1. HCP performs self-monitoring with oversight by the Medical Officer or designate.
	1. This may include phone, text, or email symptom and temperature reports instead of face-to-face meetings (we are a volunteer department).
	2. During the COVID-19 pandemic, this will not involve face-to-face supervision but will be done as in a. above.
2. If fever or symptoms occur, the Medical Officer or designate will advise the volunteer to contact their health care provider to report the symptoms.
3. The Medical Officer or designate will follow up with the volunteer regarding the outcome and interventions made by the volunteer’s healthcare provider.

**Active Monitoring:**

1. The Gallatin-City County Health Department or State, or their designate according to Gallatin City-County Health Department or MT DPHHS policies, assume responsibility for establishing regular communication with the exposed volunteer.
	1. The mode of communication may include telephone calls or any electronic or internet-based communication.
	2. Active monitoring may be delegated by the above authority to the Medical Officer or designate if both the Health Department and the GRRFD are in agreement.
2. The Medical Officer should maintain contact with the active monitoring authority regarding the volunteer’s health status as allowed by HIPAA and other relevant statues and laws.

**See** <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html>

**for details of the basis for this plan and the risk/intervention assessment.**

**AIRBORNE PATHOGEN POST-EXPOSURE CHECKLIST**

This will be used when the Medical Officer or designate is informed by BDH or the Gallatin City-County Health Department informs GRRFD of an airborne infectious disease exposure such as COVID-19 or tuberculosis. In these cases, the Medical Officer or designate will meet with the volunteers so exposed.

Name:

Date of Incident:

Location of incident:

Job duties at the time of the incident:

Distance from patient:

Procedure being performed at the time of the incident:

Circumstances of exposure:

Engineering controls in use at the time of exposure:

Work practices followed:

PPE in use at the time of exposure:

Temperature of volunteer at meeting: \_\_\_\_ degrees F.

Volunteer symptoms since exposure:

 [ ]  No [ ]  Yes Fever (temp>100.4 degrees F). Temp: \_\_\_\_; Onset: \_\_\_\_\_\_

 [ ]  No [ ]  Yes Cough. Onset \_\_\_\_\_

 [ ]  No [ ]  Yes Shortness of breath. Onset: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 [ ]  No [ ]  Yes Chest pain. Onset and description: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 [ ]  No [ ]  Yes Loss of sense of smell or taste. Onset: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 [ ]  No [ ]  Yes Muscle aches. Onset: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_