Pandemic/Epidemic/Outbreak (Surveillance or Triage)

Because Protocol 36 may change EMS responses to certain patients, it must be implemented with a complete understanding of its use and underlying dispatch objectives. Since Protocol 36 is not used during normal (non-outbreak) operations, it requires advanced planning and setup, with “just-in-time” training and orientation for EMDs, as well as for EMS administrators and responders.

This Special Procedures Briefing is designed to give you the information needed to implement at dispatch, correctly triage, and set up potentially decreasing response levels to possible infected patients during an officially declared outbreak, epidemic, or pandemic.

Protocol 36 will help identify and manage suspected infected patients in a manner that utilizes scarce EMS, hospital, and community health care resources effectively and efficiently during a declared pandemic. Correctly routing patients at the first point of contact with the EMS system (9-1-1, 9-9-9, 0-0-0, 1-1-2, etc.) will be critical in an emerging outbreak environment.

Key Question 1 allows the EMD to select from two possible disease pathways: COVID-19 and Other disease outbreak. The COVID-19 pathway is more focused on gathering specific COVID-19 symptoms with emphasis on respiratory illness. The other disease outbreak pathway focuses on influenza or other potential outbreak symptoms. Both include certain flu-like symptom queries for both fever and new respiratory problems.
Limitations for Protocol 36 Use

Protocol 36 is to be used under the following circumstances only:

- When the public health authority (or head of government) in your district, county, state, province, or region has officially declared an outbreak/emergency, or when an outbreak is considered to be imminent by heads of government/public health authorities.
- When the EMS authority, system Medical Director, and the emergency communication center director have authorized its use.
- When a response plan for each of the Protocol 36 Determinant Codes (including the suffix codes designating each Triage Level) has been pre-approved by the local EMS authority and the system Medical Director.

Note: Announced elevation of WHO (World Health Organization), CDC (Centers for Disease Control), Health Canada, UK NHS, or other national/international public health threat scales does not necessarily require reduced/limited response in your EMS system. These announced levels may have nothing to do with what is happening in your area.

Implementing Protocol 36 for Surveillance Only (Triage Level 0)

Agencies may choose to implement Protocol 36 strictly as a surveillance tool to collect detailed case information from 9-1-1 callers before widespread EMS and hospital system resource depletion has occurred in their regions. This method of use therefore will not reduce or limit the standard EMS response during this initial stage—it remains as normal. The purpose of surveillance is to identify patterns, trends, and geographical clusters of symptoms. Such surveillance may be requested or required by local public health authorities to try to determine if an outbreak is occurring and/or spreading in your region.

Note: Surveillance-only situations that require simple enhanced caller screening for a specific disease outbreak such as COVID-19, without reduced response levels or alternate dispositions, are generally handled using the Emerging Infectious Disease Surveillance (EIDS) Tool. The advantage of using the EIDS Tool is that it requires less training and orientation, and it can be turned on quickly without changing response plans in your system.
Switching from EIDS Tool Surveillance to Protocol 36 Triage

Once widespread community transmission of the disease begins to stress the emergency medical system and threatens to overwhelm hospital capacity, EMS and emergency call center authorities should consider using Protocol 36. This decision should be a coordinated part of the community medical surge plan, involving all necessary stakeholders and decision makers. Once Protocol 36 is implemented, it is generally recommended to discontinue using the EIDS Tool, although continued targeted use of the tool can be authorized by the system medical director. (See Emerging Infectious Disease (EIDS) Surveillance Tool on page 8 of this document.)

Before implementing, local medical control authorities must consider both the benefits and potential drawbacks to handling cases using Protocol 36. In most systems, *approximately one-third of all medical cases* presented to 9-1-1 will be initially handled using Protocol 36 once it is implemented. This includes chest pain patients who may normally receive aspirin delivery instructions and asthma patients who may normally receive instructions on using a prescribed inhaler.

Should your agency implement Protocol 36 for surveillance purposes, use *only* the first Response Level (Level 0), which is the normal response setting, and *always* set the response for each of the Protocol 36 Determinant Codes in Response Level 0 to be equivalent to the *standard response* used for the corresponding Determinant Code from the (non-Protocol 36) Chief Complaint type for the patient's condition. For example, a code of 36-C-1 (Abnormal breathing with single flu-like symptom or Asthma/COPD) will be assigned the same response as a 6-C-1 (Abnormal breathing), since 6-C-1 is the code for this patient when Protocol 36 is not in use.

**Implementing Protocol 36 for actual Response Triage in a Declared Pandemic (Triage Level 1–3)**

Should a full-scale pandemic outbreak reach your region, it could rapidly overwhelm the capacity of your emergency medical system. At the height of the pandemic, EMS resources will likely be severely depleted due to extreme call load, overload and quarantining of receiving facilities, and a high incidence of EMS workforce illness. Hospitals may become full. Infected patients may require special treatment—including a response that is different from a standard mobile EMS response provided under non-outbreak conditions. Some patients initially treated by paramedics or ambulance personnel may be left at home. Sicker patients may be transported to designated patient collection points that will serve as makeshift treatment or other triage facilities. Other patients may be given a limited amount of care over the phone, with no mobile response from EMS units, due to isolation and quarantine measures—or simply from complete ambulance system depletion. Protocol 36 will identify potentially infected patients and assign a Determinant Code that accounts for both the patient condition and the locally designated Triage Level during an escalating outbreak, while the increasing Triage Level settings (1 through 3) modify or simply decrease response.

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**Figure 3. Triage Levels. Protocol 36. MPDS v13.3. © 1979–2020 PDC.**
Key Question 2 allows the EMD to enter the current Triage Level for your system. The higher the Triage Level, the more likely it is that a patient receives a reduced response or alternate care disposition.

Typically there are three factors that influence system depletion during an escalating outbreak. The letters VCR can help you remember them:

- **V = Volume** The increased volume of patients entering the system due to infected patients, suspected infected patients, and the “worried well.”
- **C = Capacity** The reduced capacity of the receiving facilities due to emergency department saturation, increased hospital admissions, and reduction in professional staff due to its own illness and quarantine.
- **R = Response** The need to reduce or eliminate EMS or mobile response due to high call load and responder workforce degradation due to illness and quarantine.

Selecting the Most Prominent Complaint

- Select the priority symptoms of Difficulty breathing and Chest pain (including discomfort) when they are explicitly mentioned in Case Entry.
- For typical sick person complaints mentioned in Case Entry, select a specific symptom mentioned by the caller.
- For other sick person complaints not mentioned in the list below, select General illness/Sick (other symptoms) on the bottom of the list in Figure 4, and type the symptom or condition in the dialog box when it displays.

The Key Questions and Key Question sequences may change based on the complaint selected in Key Question 3.

Rules

There are four rules that apply to Protocol 36. These can be found in the Additional Information section of Protocol 36 when in ProQA®. Note that Rules 2 and 4 are typically handled through the ProQA Key Question logic, so no additional EMD actions are required beyond selecting a new Chief Complaint when directed by the protocol.
High Protocol Compliance

Protocol 36 can only work effectively with precise and complete information. 100% compliance to the Case Entry and Chief Complaint Protocols is imperative in arriving at the correct Determinant Code and response. Cutting corners to save time actually makes the process less effective, saves little time, and may place certain patients at increased risk.

Modified Responses During a Pandemic (Officially Enacted Triage)

As previously mentioned, EMS responses during a pandemic may be significantly reduced compared to those under standard operating conditions. Each agency must develop a pre-approved response for each of the Triage Levels and Determinant Codes contained on Protocol 36. Remember that Level 0 is strictly for surveillance, so at Level 0, the response is always set to the same standard response assigned under (normal) non-pandemic/outbreak situations to a particular priority level (Ω, A, B, C, D, E) or specific individual Determinant Code.
Suffix Codes

The suffix codes reflect the locally designated Triage Level as set by your system administrators. There are eight suffixes used for the Protocol 36 Determinant Codes: S, A, B, C, X, L, M, and H.

<table>
<thead>
<tr>
<th>Suffix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Level 0 (COVID-19 surveillance only) – no change in response</td>
</tr>
<tr>
<td>A</td>
<td>Level 1 (COVID-19 low triage) – consider referral of ALPHA cases only</td>
</tr>
<tr>
<td>B</td>
<td>Level 2 (COVID-19 moderate triage) – consider reduced response for CHARLIE cases</td>
</tr>
<tr>
<td>C</td>
<td>Level 3 (COVID-19 high triage) – consider referral of some CHARLIE cases and reduced response for DELTA cases</td>
</tr>
<tr>
<td>X</td>
<td>Level 0 (other disease surveillance only) – no change in response</td>
</tr>
<tr>
<td>L</td>
<td>Level 1 (other disease low triage) – consider referral of some ALPHA cases and reduced response for DELTA cases</td>
</tr>
<tr>
<td>M</td>
<td>Level 2 (other disease moderate triage) – consider reduced response for CHARLIE cases</td>
</tr>
<tr>
<td>H</td>
<td>Level 3 (other disease high triage) – consider referral of some CHARLIE cases and reduced response for DELTA cases</td>
</tr>
</tbody>
</table>

These suffixes correspond with the outbreak disease and the announced Triage Level (0, 1, 2, and 3) for the current stage of outbreak in your system or region. The assigned Triage Level will depend on several factors as defined earlier in this document.

**Reminder:** Suffixes S and X (surveillance only) do not change the response.

The EMS authority, in consultation with the system Medical Director or Medical Advisory Group and Public Health Authority in your region, will determine (and may modify) the Triage Level at any time.

**Response Plan Settings in ProQA**

- Use the ProQA Admin Utility to set responses.
- As Triage Level increases, assigned response decreases or varies.

Figure 7. Determinant Suffixes. Protocol 36. MPDS v13.3. © 1979–2020 PDC.

Triage using Protocol 36 sometimes means that certain patients with a critical need during system-overload situations will get a delayed or reduced response. This degree of robust triage provides added gravity to the Star Trek statement, “The good of the many outweighs the good of the few, or even the one!”
The EMD center must be in regular communication with EMS authorities so that any changes in the Triage Level are recorded and activated quickly and properly within the Medical Priority Dispatch System™.

ProQA will automatically assign the correct Triage Level suffix to the case once the currently enacted triage level is recorded in Key Questions. This Key Question will be displayed as a (blue) operator question in ProQA (see Figure 3).

The current triage level suffix is always attached to each Determinant Code, so that a unique and different response can be assigned for each Triage Level within that code. For example, a code of 36-A-3B may receive a different (reduced) response than a 36-A-3A. A coding of 36-A-3C could receive a different (and even more reduced) response than a code of 36-A-3B, to reflect the current, increasing degree of system depletion with its corresponding diminished response or disposition.

Responder Notification of Flu Symptoms and Infection Control

In order to facilitate the responder's correct use of infection control measures, the first responders and EMS crew dispatched to the scene (when a locally determined EMS response is required) should be given the Chief Complaint, Determinant Descriptor, and Determinant Code during the call notification and unit-dispatch process. It will be at the direction of the local medical control authority (physician Medical Director or Medical Control Board) to provide specific policies, procedures, and protocols for crew notification, protection, and infection control during an outbreak. The EMD may (at the direction of local medical and 9-1-1 authorities) provide a detailed responder script (see Figure 10) for the responding crews. Typically, this responder script will include the patient's age, gender, status of consciousness, status of breathing, and Chief Complaint—including the Determinant Descriptor text, and the existence of any dispatch-determined flu-like/pandemic symptoms.

Figure 9. Determinant Code and Suffix combinations. Protocol 36. MPDS v13.3. © 1979–2020 PDC. This sample response setup displays a Determinant Code matched with possible example responses for each of the triage levels (S, A, B, C, X, L, M, H). This image is for demonstration only. The local Medical Director and EMS system authority will set actual responses and dispositions.

Figure 10. Sample case. Protocol 36. MPDS v13.3. © 1979–2020 PDC.
Emerging Infectious Disease Surveillance (EIDS) Tool

In addition to Protocol 36, the Medical Priority Dispatch System (MPDS®) also contains a separate surveillance tool for flu-like/pandemic symptom identification: the Emerging Infectious Disease Surveillance (EIDS) Tool. This Tool is designed to be a first step in emerging disease surveillance, as a way to do enhanced caller screening of possibly infected patients and pass on the findings of that screening to responding crews—allowing them to use personal protective equipment (PPE) when necessary and invoke any special EMS treatment and transport protocols for suspected patients. The Tool is accessed by clicking on the “COVID-19” (V) button on the ProQA Toolbar. This Tool is designed and actively updated by a special CBRN (Chemical, Biological, Radiological, and Nuclear) FastTrack Committee within the International Academies of Emergency Dispatch (IAED). The EIDS Tool may be used independently with or without using Protocol 36. Using the EIDS Tool, Protocol 36, or both, is an operational and clinical decision to be made by your local system authorities, including the Medical Director.

Currently the EIDS Tool is designed specifically to handle the COVID-19 outbreak. Since specific symptoms may change as a particular outbreak spreads and more information becomes known about the disease, the IAED may update this screen at any time, based on information from various public health organizations such as the Centers for Disease Control (CDC), the World Health Organization (WHO), Health Canada, United Kingdom National Health Service (NHS), and the Australian Commonwealth Department of Health, among others. Expert data-mining software (such as FirstWatch™) can track special ProQA data in near real-time to detect potential outbreaks within specific geographic regions, so emerging patterns and subsequent alerts can be made to the proper public health and governmental authorities.

The IAED recommends using the Emerging Infectious Disease Surveillance (EIDS) Tool for the following Chief Complaints (at a minimum):

- Sick Person (Specific Diagnosis) (Protocol 26)
- Breathing Problems (Protocol 6)

Also, the EIDS Tool should be used for other Chief Complaints when the caller offers information that would lead the Emergency Medical Dispatcher (EMD) to suspect a respiratory-type illness:

- Chest Pain/Chest Discomfort (Non-Traumatic) (Protocol 10)
- Diabetic Problems (Protocol 13)

*FirstWatch website: [www.firstwatch.net](http://www.firstwatch.net)
Note: Your Medical Director will determine which EIDS Tool questions will be asked and for which Chief Complaint. They are not required by the IAED as part of the standard questioning sequence.

The EIDS Tool has several sections. The first captures travel history and contact history (i.e., contact with a potentially infected person). Check if asked and enter findings in box:

![Travel History/Patient Contact History](image1)

**Note:** A “Yes” answer is indicated by checking the box to the left of the question.

The next section contains the primary COVID-19 symptoms. Check if the item was found (positive):

![Symptoms section](image2)

The below primary symptom questions are Medical Director–approved additional questions:

- [ ] Is the patient over 65 years of age?
- [ ] Does the patient have any chronic illnesses?
- [ ] Is the patient in a nursing home?
Adding Medical Director–approved additional questions to the EIDS Tool is done in the Admin Utility under the Restricted Settings section:

The EIDS Tool has two settings that each agency can select based on its operating procedures and the local frequency of suspected cases:

1. **Surveillance mode** – This setting will simply record positive answers in the ProQA case record and pass this information to CAD/MDTs.
2. **Trigger mode** – This setting will display a warning message on the screen and an Urgent Message from ProQA to CAD/MDTs for the Tool’s findings regarding possibly infected patients.

These two settings are selected in the ProQA Admin Utility:
In **Trigger Mode**, multiple symptoms (2 or more) will display a warning message:

- measured body temperature ≥ 100.4°F (38.0°C)
- fever (hot to the touch in room temperature)
- chills
- difficulty breathing or shortness of breath
- persistent cough
- any other new respiratory problems (e.g., persistent sneezing, wheezing, congestion, etc.)

**Medical Director-approved additional questions:**
- Is the patient over 65 years of age?
- Does the patient have any chronic illnesses?

Fever (hot to the touch in room temperature) and/or measured body temperature ≥ 100.4°F (38.0°C) count as 1 symptom.

**Note:** Medical Director questions 1 and 2 count separately as trigger questions.

A blue (operator) Key Question within Protocol 26 will assign the “C” suffix to the Determinant Code when COVID-19 symptoms are discovered.

The EIDS Tool also can be launched automatically with a user-controlled (optional) Key Question in four protocols: Protocol 6 (Breathing Problems), Protocol 10 (Chest Pain/Chest Discomfort (Non-Traumatic)), Protocol 13 (Diabetic Problems), and Protocol 26 (Sick Person (Specific Diagnosis)).
Once the EIDS Tool has been completed, a second question records the findings:

**Figure 19. Launch EIDS Tool answer choice. Protocol 6. MPDS v13.3. © 1979–2020 PDC.**

Removing Travel History/Patient Contact History Questions

Once community transmission of the disease outbreak is confirmed in your region, travel history and even patient contact history may be of little value in determining the risk of an infected patient, since many in the general population will have been exposed to possibly infected persons. To accommodate such an event, the ProQA Admin Utility contains a
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***Protocol Improvement***

The Academy welcomes written feedback on the improvement of the protocol. Use the Proposal for Change (PFC) process to make recommendations. It can be found at http://www.emergencydispatch.org/proposal-for-change-becomes-a-protocol

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**Checkbox control feature for turning off the travel history and patient contact history section** of the EIDS Tool when authorized by the system medical director. This feature is a single checkbox located in the Restricted Settings section, just below the Medical Director-approved Special Instructions entry fields:

| Medical Director–approved Special Instructions: |
|-------------------------------------------------
| 1. All Symptomatic Nursing Home Patients: Notify Public Health Dept. 1-800-123-4567  |
| 2. (Home/Apt) If you can, meet the paramedics at the door & follow their instructions.  |
| 3. (Coughing) Place a cloth over your mouth & nose while talking to the paramedics.  |

☑ Turn off (hide completely) early phase Travel History/Patient Contact History

Figure 21. Option to turn off Travel History/Patient Contact History. Admin Utility. MPDS v13.3. © 1979–2020 PDC.

Please check the Academy website frequently for new versions and use updates: www.emergencydispatch.org

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