

Appendix B: Baltimore City Alternative Destination Pilot Program Protocol

The following Protocol is include in the Maryland Medical Protocols for Emergency Medical Service Providers, which is a publication of the Maryland Institute for Emergency Medical Services Providers. The most recent version of all medical protocols for EMS providers is available on the MIEMSS website.¹

V. BALTIMORE CITY FIRE DEPARTMENT ALTERNATIVE DESTINATION PROGRAM (ADP) NEW '17

1. PURPOSE

Emergency Departments (ED) across the country spend a disproportionate share of staff and financial resources providing non-urgent care to patients who, more often than not, would have been better served in a primary care setting. Based on a 2010 study by the RAND Corporation, between 14 to 27 percent of all ED visits were for non-urgent care cases and could easily be resolved in a different setting, such as a doctor's office, after-hours clinic, or a retail clinic with a potential annual cost savings of \$4.4 billion.² According to the Centers for Disease Control, 34% of ED visits are either semi-urgent or non-urgent.³

It is well-established that many 911 calls and emergency department visits are not true medical emergencies. Internal analysis conducted by the Baltimore City Fire Department (BCFD) show that at least 32% of the City's medical 911 calls are considered to be low-acuity incidents. These patients could be better served if they were transported to alternative healthcare facilities that provide suitable medical care using fewer critical resources.

The option of Alternative Destinations has been supported by numerous organizations. These include the National Highway Transportation Safety Administration in 1996,⁴ the American College of Emergency Physicians and National Association of EMS Physicians in 2001,⁵ and in a white paper published by the Department of Transportation and Health and Human Services in 2013.⁶ All of these organizations agree that Alternative Destinations would result in more efficient use of EMS and ED resources, while maintaining the delivery of appropriate patient care at lower costs.

In FY 2016, BCFD received 146,406 calls for service that resulted in 98,012 transports. Of these transports, 46% were billed as Basic Life Support (BLS) and 54% were billed as Advanced Life Support (ALS). The current EMS growth is not sustainable and BCFD must

¹ <http://www.miemss.org/home/ems-providers/protocols>

² Weinick, Robin M., Rachel M. Burns, and Ateev Mehrotra. "Many Emergency Department Visits Could Be Managed At Urgent Care Centers And Retail Clinics." *Health Affairs* 29, no. 9 (September 1, 2010): 1630–36.

³ Pitts, Stephen, Richard Niska, Jianmin Xu, Catharine W. Burt. "National Hospital Ambulatory Medical Care Survey: 2006 Emergency Department Summary." *National Health Statistics Reports*. 39 pp. (PHS) 2008-1250. August 6, 2008. <http://www.cdc.gov/nchs/data/nhsr/nhsr007.pdf>

⁴ Delbridge TR, et al. "EMS Agenda for the Future." *National Highway Traffic Safety Administration*. 1996. https://www.ems.gov/pdf/2010/EMSagendaWeb_7-06-10.pdf

⁵ National Association of EMS Physicians; American College of Emergency Physicians. "Alternate ambulance transportation and destination." *Prehospital Emergency Care*. 5, no. 3. (Jul-Sep 2001):289.

⁶ Department of Transportation, Department of Health and Human Services. "Innovations Opportunities in Emergency Medical Services." July 2013. https://www.ems.gov/pdf/2013/EMS_Innovation_White_Paper-draft.pdf

look for alternative patient delivery care models. In an effort to better encourage appropriate 911 use, BCFD and the University of Maryland Medical Center (UMMC) are piloting the Alternative Destination Program (ADP) to optimize EMS resource utilization and maintain appropriate patient care.

The objective of this pilot program is to assess the accuracy and safety of triaging patients identified by the International Academies of Emergency Dispatch (IAED) protocol as an 'Alpha determinant code Basic Life Support' to UMMC Urgent Care by applying the attached Provider Quick Form (PDF), . The BCFD identified a highly qualified Emergency Nurse Practitioner (ENP) with over 10 years of experience in emergency health care including the emergency department and urgent care settings to consistently apply the PQF, obtain patient consent, and make the destination determination, while maintaining patient safety.

a) Start Point: Due to the changing federal and state health care delivery systems, BCFD and UMMC are seeking to develop a process for improving the management of EMS and health care delivery systems for stable low-acuity patients. When reviewing the literature, there are multiple strategies to match the right patient with the right clinical resources.

b) Benefits: As Emergency department off-load times have increased, the alternative destination process may improve EMS resource availability. The UMMC Urgent Care, like the ED, accepts all patients regardless of insurance or ability to pay. The program is designed to provide patient cost and time savings while matching patient needs to the appropriate resources. The pilot is designed to improve continuity of care and patient satisfaction.

c) Risks: There will be no increased patient risk during this pilot. BCFD will be dispatching the normal resources to the patient. Additionally, the ENP will respond to the scene and make a determination if the patient meets pilot criteria. Also, the patient will be voluntarily participating in the ADP pilot and destination determination. Multiple safety checks are included within the ADP protocol to ensure that no patient is placed at increased risk. These include the following:

- All patients will have an EMS unit response as would normally occur.
- The use of IAED Medical Priority Dispatch (MPD) algorithm, which is highly accurate at determining low-acuity patients.
- The use of the qualified ENP with over 10 years of experience in emergency health care including emergency department and urgent care settings
- The medical director oversight group will assess and review all ADP medical records through UMMC with an objective review by the BCFD's EMS Medical Director.
- If at any time a patient at an alternative destination is identified to need additional resources, the patient will immediately be transferred to the UMMC ED located across the street.

d) End Point: The following are the identified end points:

- Anytime a patient has been identified as being placed at risk to an alternative destination with the proper use of the PQF.
- Anytime a quality assurance review demonstrates that a truly untoward outcome occurred.
- No demonstrated benefit to the delivery of EMS care.

- Costs of delivering this program exceed benefits gained to EMS, as determined by BCFD.

e) Analysis: The ADP pilot metrics will be compared before and after the implementation of the ADP pilot protocol to determine if there were system improvements. The PQF will be closely analyzed and compared for accuracy and patient safety.

f) Adoption of Results: Due to the use of an ENP in the program, the results of the ADP pilot cannot be expanded to all EMTs or EMS providers. If the PQF screening tool and the ADP pilot protocol prove to be accurate, safe, and reliable, EMS provider trials will be strongly considered. The program goal is that this ADP protocol and tool-set could be used to improve the delivery of EMS care and patient satisfaction demonstrated through patient satisfaction surveys.

g) Protocol Logistics: The ADP pilot will use one alternative destination: the University of Maryland Medical Center Urgent Care Center. This will provide for extensive evaluation of the PQF and the assurance that all patients will have access to the full array of diagnostic services and a full service emergency department in case of an under-triaged patient. This will also allow for comprehensive follow-up on all patient interactions.

The ADP pilot will run until the ENP has worked 250 hours. It may also be terminated early due to any untoward events, or if BCFD elects to terminate the pilot. Upon the conclusion of the pilot, a summary report will be generated for MIEMSS using the metrics outlined in the protocol. This ADP pilot protocol cannot be extended or modified including timeline without the approval of MIEMSS.

2. INDICATIONS

Certain low-acuity patients who match the ADP protocol criteria, within the geographic boundaries and available hours of the pilot, will be offered transportation to an appropriate receiving facility. The receiving facility will be offered based on the medical needs of the patient, and the corresponding capabilities of the receiving facility.

Receiving facility:

University of Maryland Medical Center Urgent Care Center
105 S. Penn St
Baltimore, MD 21201

3. CONTRAINDICATIONS

- a) Patients who have not yet reached their 18th birthday
- b) Patients who are 60 years of age or greater
- c) Patients who do not meet the criteria for the MIEMSS approved inclusion/ exclusion checklist
- d) Patients that are not able communicate with the ENP, including non-English speaking patients
- e) Patient who are not able to understand the consent process
- f) Patients who refuse to participate in the pilot

4. PROCEDURE

- a) This protocol may only be used by the ENP.
- b) EMS Providers will follow Maryland Medical Protocols.

- c) Under the pilot, all patients will be offered an appropriate definitive care destination.
- d) For inclusion in the ADP pilot, the patient must provide consent and must have:
 - (1) No chief complaint consistent with a comprehensive evaluation that would traditionally need the capabilities of a full service ED
 - (a) High risk chief complaints are currently defined as dyspnea, altered mental status, syncope, chest pain, focal neurological deficits, unexplained back or abdominal pain, seizures, and sometimes fever.
 - (2) No physical findings consistent with time dependent needs for assessment or stabilization
 - (a) Signs on exam that indicate a threat to airway, breathing, circulation, circulation to an extremity, disability (deficit) or deformity, as well as severe tenderness (ABCDE, etc.).
 - (3) No reasonably foreseeable signs or suspicion of any deterioration of condition (e.g. airway or hemodynamic compromise)
 - (4) No requirement for any ALS monitoring or ALS interventions
 - (5) All affirmative answers on the ADP Consent form.
- e) In order to include the patient in the ADP pilot, the ENP must obtain a complete set of vital signs, a complete medical history, complete the PQF, and obtained a signed pilot consent
- f) If the patient does not agree to be included in the pilot, the consent form will have the “declination” box checked and the patient will be transported to the ED per normal BCFD practice.
- g) If the patient is stable, is deemed by the ENP to meet the criteria of the ADP protocol, and has a disease/injury process which can be safely treated at the Urgent Care Center:
 - (1) The consenting patient will be transported to UMMC Urgent Care Center
 - (2) If patient refuses to participate, the patient’s condition deteriorates, or during transport the patient changes their mind and declines to participate, the patient will be taken to the nearest full service emergency department
- h) The EMS unit will transport the patient to the Alternative Destination and provide both a written and verbal report to the receiving health care professional.
- i) If patient refuses to participate, patient condition deteriorates, during transport changes their mind and declines to participate or the receiving facility refuses the patient, the patient will be transported to nearest appropriate full service emergency department without delay.
- j) The transporting unit will complete an eMEDS® report which will include a sign off from the receiving licensed health care professional.

5. QUALITY ASSURANCE

The pilot is under the shared medical direction of the BCFD EMS Medical Director who will collaborate with the provider designee from the UMMC Urgent Care Center to ensure that triage protocols are safe and effective for each receiving facility. At the start of the pilot, the local site medical directors will be accountable for ensuring adherence to pilot protocols, communication and training. This group, along with the MIEMSS State EMS Medical Director, will meet or hold weekly teleconferences during the duration of the pilot to review all cases evaluated by the ENP and evaluate emergent trends, ensure that pilot protocols are not leading to suboptimal triage and, as needed, for any sentinel events. In addition, the Medical Directors and BCFD Operational Leadership will meet weekly to review and report to the State EMS Medical Director at MIEMSS within 3 days of the conclusion of these meetings. The report will include:

- Report on PILOT METRICS (below)
- Patient Satisfaction Survey results

- Unscheduled reentry of patient into health care system within 72 hours of transport
- Any untoward events or formal patient complaints with detailed explanation
- Any deviation or challenges of the ENP's implementation of the ADP protocol or PQF.

a) Pilot Metrics:

- (1) Each patient transported to and treated at the alternative destination must have discharge diagnosis and capture any patients that are secondarily transported to another facility
 - (a) Number and type of upgrades from alternative destination (Specific signs/symptoms on presentation, where slipped though Inclusion/ Exclusion criteria, and final diagnosis)
- (2) Number of patients that qualified, and the number that accepted transport to an alternative destination, the number that refused (ideally with reason for refusal)
- (3) Collect and report the number of patients that were screened, but failed one or more items on the PQF checklist
- (4) Any failures of patients to be accepted at the alternative destinations and reason for refusal
- (5) Any identified problems by the ENP to comply with or apply the pilot protocol
- (6) EMS average "arrival destination to back in service" time (turnaround time) for UMMC Urgent Care Center
- (7) Time from when unit is first notified until unit is back in service (Total call duration time) for these calls
- (8) Patient standardized satisfaction survey results:
 - (a) Did the patient have additional unscheduled re-entry into urgent care, Primary Care or ED within 72 hours of alternative destination discharge?
 - (b) Was patient satisfied with choice?
 - (c) Rate EMS care 1-5
 - (d) Rate Destination Care 1-5
 - (e) Any complications or complaints associated with your care decision?
- (9) What are their pre-implementation performance measures (above) for the units in the pilot area?

**Baltimore City Alternative Destination Program Protocol
Provider Quick Form (PQF) Page 1**

Yes No

1. Patient is an Alpha MPD and meets MIEMSS triage and Treatment category Priority 3.
2. Patient is between the ages of 18 and 59 years of age.
3. **Criterion 1:** Vital Signs are within these limits
 - a. Respirations 12-18 BPM
 - b. Blood Pressure:
systolic 100 – 140 mm/hg
diastolic 60 - 100 mm/hg
 - c. Pulse: 60-100 BPM
 - d. Temperature: less than 101 °F and greater than 96 °F
4. **Criterion 2:** High-risk indicators are Absent
 - a. Severe Pain
 - b. Chest or Abdominal Pain
 - c. Shortness of breath or respiratory distress
 - d. Altered Mental Status or new neurologic deficit
 - e. Unable to walk (if able to walk before illness/injury)
 - f. Patient high-risk condition:
 - i. Active malignancy
 - ii. HIV
 - iii. Immunosuppressive therapy
 - iv. Transplant

5. **Criterion 3:** Physical exam performed to assure patient does not have any exclusion criteria.
6. **Criterion 4:** Patient has one or more of the non-emergent complaints (see list)
7. EMS provider and patient are able to clearly communicate (no barriers to communication noted).
8. Patient verbalizes understanding of the process and is able to consent.
9. Patient has read and signed the BCFD ADP Pilot Consent Form.
10. Paperwork is completed for Alternative Destination Case Review
 - a. eMEDS report
 - b. BCFD ADP Pilot Consent Form
 - c. PQF

**Baltimore City Alternative Destination Program Protocol
Provider Quick Form (PQF) Page 2**

Criterion 4: Non-emergent Chief Complaints

1. Allergy or hay fever
2. Back pain, mild; able to walk without assistance
3. Contusions or abrasions, minor
4. Cough, mild; without hemoptysis or respiratory impairment
5. Non-traumatic dental problems
6. Dental pain; without facial swelling or airway compromise
7. Diarrhea, without dizziness or other signs of dehydration
8. Dizziness, chronic (recurrent or known history)
9. Dysuria, mild; female
10. Ear pain
11. Ingrown toenail
12. Itching without systemic rash
13. Eye irritation without signs of active infection, minor
14. Fractured, distal extremity (forearm, lower leg), isolated injury, not open, neuro/vascular intact
15. Headache, minor without neurological impairment
16. Injury follow-up
17. Joint pain
18. Mouth blisters
19. Muscle aches
20. Nausea, vomiting
21. Neck pain (no history of acute trauma)
22. Nosebleed (resolved)
23. Painless urethral discharge
24. Physical exam requests (excluding patients with diabetes, CHF, kidney failure, cancer)
25. Plantar warts
26. Rectal pain/itching, minor
27. Sexual disease exposure
28. Simple localized rash
29. Sinusitis, chronic
30. Skin infection or sore, minor
31. Sore throat without stridor
32. Sunburn (localized without blisters)
33. Vaginal discharge
34. Vaginal bleeding (HX non-pregnant, not postpartum, and requires less than 1 pad in 5 hours)
35. Upper respiratory infection
36. Work release or disability
37. Wound checks

**Baltimore City Fire Department
Alternative Destination Program
Patient Consent Form**

The Baltimore City Fire Department normally transports all ambulance patients to the closest appropriate Emergency Department. However, based upon the evaluation of the Emergency Nurse Practitioner, you can participate in a pilot program in which we will transport you to University of Maryland Medical System's Urgent Care Center. The goal of this pilot is to improve your experience by providing you with more appropriate health care, in addition to allowing EMS units to return to service more quickly.

The State of Maryland has only allowed this pilot program to be performed under specific criteria, in certain parts of the City. That means that there may be other patients in the area with health concerns like yours who do not get the option of being transported to the Urgent Care Center. This pilot may not continue in the future.

If you understand the above information and want to be a part of the pilot, please check the 'Yes' box and sign below. If not, check 'No' and sign.

- ☐ Yes, I want to be taken to the Urgent Care Center
- ☐ No, I want to be taken to the nearest available Emergency Department

Patient Name

Signature and Date

Witness Name

Witness Signature and Date

**Coverage and Reimbursement for Emergency Medical Services Care Delivery Models and
Uncompensated Services**

Reports required under Senate Bill 682, January 2019