Chicago Mobile Integrated Healthcare Pilot Program (MIHP) Plan - Revision for COVID-19

Needs Assessment

The COVID-19 pandemic has caused a decrease in overall EMS call volume during the end of March, but an increase in COVID-related cases. The EMS transports and refusals were analyzed to assess ambulance utilization and call type in preparation for a potential surge in call volume in April. While public health measures such as stay at home orders and social distancing have helped to flatten the curve, it is anticipated that there may be more demand for EMS resources than are available.

A review of the COVID-19 calls showed three categories of patients, patients that were emergently ill with abnormal vital signs or an emergency medical condition, patients that were less acutely ill but high risk based on age or medical comorbidities or an unsafe home situation, and those with minor complaints. The majority of COVID-19 related EMS responses are for shortness of breath or other respiratory complaints. There is also a significant call volume for flu-like symptoms including nausea, vomiting, diarrhea, fever, body aches, cough, rhinorrhea, and sore throat. A review of many of these runs found that the acute illness hindered compliance with chronic disease management including daily medication use. The presence of medical comorbidities places COVID-19 patients in a high-risk population for more severe illness or death. Additionally, many COVID-19 responses are centered around zip codes with lower socioeconomic status and may not have access to medical care.

There is category of patients that call 911 for suspected or confirmed COVID with minor symptoms such as fever, body aches, cough, rhinorrhea and sore throat with a component of anxiety. Examples include:

- Recent positive test with continued symptoms
- Pending test results with continued symptoms
- Exposure to a COVID-19 positive friend, person, or co-worker
- Recurrent fever despite antipyretics
- Malaise and unable to take chronic medications

This population is initially assessed by a 911 EMS response, but for various reasons, refuse transport to the hospital. These patients may benefit from a follow-up by a Community Paramedic. This can be accomplished through an initial phone call and if needed a follow-up visit. The Community Paramedic team can spend more time with the patient providing explanation on their illness, treatment, and self-quarantine procedures. Since COVID symptoms can last two weeks, patients may need follow up medical care or have additional questions. The Community Paramedic program has the potential to help the patient and healthcare system in many ways; to keep minor illness at home, to maintain ambulance availability for emergency responses, to decrease emergency department visits for minor symptoms.

Communities and agencies involved/consulted as part of the planning/implementation

The Chicago Department of Public Health team and resource page have provided the following:

- COVID Information Line
- COVID Patient Education forms
- Resources for Community Health Clinic (CHC) follow-up

Described Program Plan

The Community Paramedic program will serve three main goals:

1. Establish a follow-up mechanism for COVID-19 refusals of transport
2. Provide clinical reassessment and early intervention of potentially worsening illness
3. Improve patient education of a new or suspected COVID-19 diagnosis.

As detailed on the below Access Diagram, referrals can come from multiple sources. Initially, the priority of referrals will be from EMS refusals of transport that are COVID-related. The Community Paramedic team will be able to review the "Suspected COVID" tagged EMS encounters and create a database of encounters and follow-up. The patient will initially receive a phone call follow up from a Community Paramedic within 24-48 hours of the initial EMS visit. In-person visits may be scheduled based on initial EMS documentation and the follow-up phone call with the patient.

Each phone call or in-person visit by the Community Paramedic team will follow as appropriate:

1. Suspected COVD-19 Protocol
2. COVID-19 Triage and Transport Policy
3. COVID-19 Patient Wellness Check Procedure
4. COVID-19 Assessment Guidelines (MIH)

In-person visits will consist of the following:

1. Documentation or establishment of primary care provider
2. Patient Safety Assessment Form (COVID Follow-Up Visit)
3. Medication Reconciliation List
4. COVID-19 Patient Wellness Check
5. COVID-19 Patient Assessment Documentation

The Community Paramedic team is proposed to be in operation seven days a week, 12 hours a day, subject to change based on staffing limitations. The Chicago South EMS System will provide oversight to the Community Paramedics but the teams may be geographically spread to cover other areas of the city. Dr. Tataris is the medical oversight of the program and review all in-person visits and provide direction on any medical question. Community Paramedic visits will be documented on the existing electronic patient care report. Performance metrics will be tracked and reported to IDPH quarterly.

The specific MIH Protocols for the initial diagnosis groups (Asthma/COPD, Hypertension, Diabetes, CHF, Orthopedic Injury/Falls, Mental Health) will not be utilized at this time. However, the Community Paramedics have received training regarding these categories and while they will not be actively managing these chronic medical conditions, they are likely to encounter it during the COVID Follow-Up visits and can emphasize the importance of daily medication use, proper nutrition, and exercise as is appropriate.

Mobile Integrated Healthcare COVID-19 Access

Participant Referral to MIH Program:

- Recent COVID-19 related refusal of transport
- EMS Provider Referral
- EMS/911 System High Utilizer
- Other Medical Providers

Community Paramedic follow up phone call within 24-48 hours.

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Community Paramedic in person visit based upon:

- Documentation by EMTs or Paramedics during the initial visit
- Evaluation from follow-up phone call

Within the COVID-19 written assessment guidelines and during the in-person visit, the Community Paramedics will provide the following:

- Documentation or establishment of primary care provider
- Patient Safety Assessment Form (COVID-19 Follow-Up Visit)
- Medication Reconciliation List
- COVID-19 Patient Wellness Check
- COVID-19 Patient Assessment Documentation

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Emergent/Life-threatening condition or Life Safety Issue.

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Treat patient per EMS protocols and/or activate emergency response transport to the closest appropriate hospital with the direction of medical control.

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Urgent – Obstacles that can be overcome. Patient can remain in environment.

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Establish follow up plan with Mobile Integrated Health team

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Schedule additional follow up phone call or in person visit based on the patient's condition.

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Coordination of care with the Primary Care Provider

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Routine – No issues. Patient can remain in the environment.

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No follow up required.

Describe how this program will improve patient care in the following ways:

It is anticipated the program will improve patient care by focusing on the following:

Individuals and families – Enable individuals and families to better manage their health

- Establish Partnership among individuals, and families and caregivers for medically and socially complex patients that will identify a family member or friend who will be supported and developed to coordinate services among multiple providers of care.
- Customize care at the level of the individual (patient-centric care)
- Reducing COVID virus transmission by encouraging home care for stable patients

Redesign of care models – Collaborate with an integrated team that can provide necessary medical and health-related services to the targeted population.

- Foster collaboration and coordination with other specialties, hospitals and community services related to population health
- Establish primary care provider follow-up as needed for care coordination
- Facilitate COVID testing if resources and capabilities expand

Prevention and Health Promotion – Promote and link program participants to education resources that support health promotion, disease prevention and illness/injury management.

- Use patient referral data base to identify who is in need of an MIH assessment to advocate for healthy lifestyles and illness/injury prevention
- Review COVID patient information documents and answer questions

System Integration – Data is used from health risk assessments, medical history and prior resource utilization to select the targeted participants.

* Partner, not compete, with existing care delivery models and/or services
* Insure that strategic planning with all communities of interest are informed by the needs of the population
* Match capacity and demand for healthcare and social services across suppliers
* Set and execute strategic initiatives related to reducing inequitable variation in outcomes or undesirable variation in clinical practice

Per capita cost reductions (Hospital and ED utilization rates; EMS response reductions) - Reduce cost by developing cooperative relationships with hospitals, physician groups and other healthcare organizations and reward healthcare providers, hospitals, and heath care systems for their contributions to producing better health for the population.
Orient the patient journey over time to achieve the best feasible outcomes at the most value-driven cost.

Metrics:

Data will be collected electronically for each patient enrolled in the MIH program to assess specific metrics.

Each patient will have the following assessed on the MIH visit:

1. Documentation or establishment of primary care provider
2. Completed Patient Safety Assessment Form
3. Completed Medication Reconciliation List
4. COVID Education Packet Provided or Reviewed

Once enrolled in the MIH program, the Community Paramedic team will schedule an in-person visit. The number of enrolled MIH participants will be tracked for the above items and each participant will be monitored for the number of EMS responses, ED visits, and hospital admissions that will be followed up at one and three months.

EDUCATION:

Each of the paramedics on the roster successfully completed the University of Wisconsin-Milwaukee Community Paramedic program, which includes 120 hours of online didactics and one week of in-person clinical time. Additionally, the majority completed a ride time with the Milwaukee Fire Department Community Paramedics and all completed the Medical Home Network (MHN) Care Coordination seminar held 3/11/20 at University of Chicago.

MIH-Community Paramedic COVID-19 Orientation Schedule:

HOMEWORK: ***Successful completion of Target Solutions assignments:***

1. Suspected COVID-19 Protocol
2. COVID Triage and Transport Policy

0800-1000:

1. MIH-CP Program Overview
    a. Vision and Goals
    b. COVID-19 Response
2. Framework of MIH Pilot Program
    a. Organizational structure
        i. Illinois Department of Public Health
        ii. Region 11 EMS System
        iii. Chicago Fire Department
    b. Scope of practice
    c. Community Paramedic Policy
3. Needs Assessment
    a. CFD COVID-19 data
    b. Refusal analysis
4. Community Paramedic Role
    a. Job Description
    b. Logistics
    c. Safety

1000-1200:

1. Region 11 EMS System Protocol, Policy, MIH Guidelines
    a. COVID-19 Protocol
    b. COVID-19 Triage and Transport Policy
    c. COVID-19 Patient Wellness Check Procedure
    d. COVID-19 Assessment Guidelines (MIH)
    e. Medical Control
2. MIH Program Plan

    a. Referral Process
    b. Follow up call
    c. Follow up visit
    d. Documentation
3. MIH Forms
    a. Patient Safety Assessment Form (COVID-19 Follow-Up)
    b. Medication Reconciliation List
    c. MIH ePCR documentation
4. Equipment Overview
    a. Inventory and replacement
    b. PPE
5. Quality Improvement
    a. Review of all visits and documentation
    b. Metrics
    c. Community Paramedic collaboration and feedback

1300-1500:

1. City of Chicago Resources
2. Community Resources
3. Healthcare Resources
4. Health Insurance: Medicaid, Medicare, Private, Governmental
5. Patient Education files
6. Case Studies

1500-1600:

1. Scenario role play
2. Evaluations

Slides and scenarios to be developed and to be submitted to IDPH on request

Region 11 EMS Mobile Integrated Healthcare (MIH)

Patient Safety Assessment Form (COVID Follow-Up Visit)

Patient Name: Date: _____/____/____

Living Room	YES	NO	N/A
Phone is readily accessible near seating areas.			
Emergency numbers are printed near all phones in house.			
Kitchen			
Items used most often are within easy reach.			
Step stool is present, is sturdy and has handrail.			
Present and accessible food and water source			
Bathroom			
Water source is functioning correctly			
Soap products are present and accessible			
Tub and shower have non-slip surface.			
Tub and/or shower have grab bar.			
Pathway from the bedroom to the bathroom is free from clutter and well lit for ease of movement at night.			
Bedroom			
Free from clutter.			
Light is near bed and easy to turn on.			
Phone is next to bed.			
General			
Medical information is readily available and in an area emergency providers will easy find.			
COVID Resource Packet available			
MIH contact information available			
Facemask for patient is available			
Acetaminophen and/or ibuprofen is readily available			
Thermometer available and functional			
All heaters are away from any type of flammable material.			
All assistive walking devices are readily accessible and in good condition.			
Oxygen tubing is less than 50 feet and is not a tripping hazard.			
All medications are properly stored and labeled to avoid confusion on dosage, frequency, and compliance			
Equipment			
Scale is in working condition and easily accessible location			
Blood glucose monitor is working.			
The patient knows how to use the blood glucose monitor.			
The patient has a working inhaler.			
The patient knows how to use the inhaler.			
Oxygen is at sufficient level.			
The oxygen is in a location to not cause a tripping hazard.			
The patient knows how to operate the oxygen and oxygen safety.			
The patient knows whom to call if the oxygen is low.			
Comments:			

Based on this Patient Safety Assessment, the following referrals were made

☐ Primary Care Provider ☐ Community Health Center (CHC) ☐ CDPH COVID Information Line

MIH Team Member: _____

Patient Assessment Form/ePCR Documentation:

The electronic patient care report will be used to document the Community Paramedic visit including vital signs and narrative. This will allow for linking of initial EMS response to the follow-up MIH visit and improved tracking and metrics.

Medication Reconciliation List:

(Same as initial submission)

Equipment List:

Airway/Respiratory:
Bag Valve Mask
Viral filter
Nasal cannula
Non-rebreather mask
Portable oxygen tank
Pulse oximeter

Vital signs:
Blood pressure cuff
Stethoscope
Thermometer
Glucometer

Personal Protective Equipment:
Gloves
Gowns
Surgical facemasks
N-95 Masks
Paper bag

Medication:
Acetaminophen (Tylenol)
Ibuprofen (Motrin)
Ondansetron (Zofran)

Wound care:
Sterile Water
4x4 dressing
Ace wrap
Kerlex
Shears

Additional equipment:
AED
Flashlight
Tablet
Radio
Disinfectant wipes
Hand sanitizer
Documentation forms
COVID Resource Packet

REGION 11 CHICAGO EMS SYSTEM - SOUTH
MOBILE INTEGRATED HEALTHCARE (MIH) PROGRAM

COVID-19 PATIENT WELLNESS CHECK PROCEDURE

I. CLINICAL INDICATORS:

A patient requires non-emergency Community Paramedic services for a presumed non-urgent safety, medical or social situation related to COVID-19. Patients may be referred by:

A. EMS/911 System High Utilizer: The patient has requested EMS/911 more frequently than expected and/or there has been a recent refusal of EMS/911 that may be high risk for adverse outcome.

B. EMS System Referral: EMS assessment based on EMS/911 call(s) indicating that additional non-emergency services/resources may be of benefit.

C. Other medical providers including, but not limited to (primary care physician, discharging hospital or home health agency).

II. CONTRAINDICATIONS:

Any patient for whom an emergency exists should be evaluated under Region 11 Chicago EMS System Protocols and Policies, treated within the paramedic scope of practice based on resources available and an ALS emergency response activated as indicated based on emergency care protocols.

III. PROCEDURE:

A. A member of the MIH team will contact the patient and a voluntary meeting will be arranged with the patient and a family member or caregiver if available.

B. Politely introduce yourself to the patient, family, and/or support system.

C. Determine the nature of the visit as a suspected COVID-19 follow-up and document the referral source of the patient. Referral sources may include but are not limited to OEMC (dispatch agency), hospital request, primary care provider request, EMS/911 request, and other medical provider request.

D. Perform **Patient Safety Assessment** and **Medication Reconciliation** on initial visit. Assessments should include persons identified by the referral source. If visit was initiated based on dispatch frequency, assess for possible illness identified during prior dispatch calls.

E. For recently discharged patients or patients needing follow-up, review and verify needed appointments noting provider and specialty, date and time.

F. Determine and document **Primary Care Provider** name and contact information. If there is no primary care provider, provide referral to a Community Health Clinic or through the patient's insurance provider.

G. Perform a follow-up call in 24-48 hours to assess patient symptoms and need for additional resources.

IV. DOCUMENTATION:

Assessment findings shall be documented on the electronic patient care report, including assessment of need for additional resource involvement for the patient. Assessment findings that warrant immediate action should be referred for primary care follow up or more urgent medical evaluation.

Written: 4/2/20
Reviewed:
Revised:
EMSMD Approval: 4/2/20
IDPH Approval:
Implementation:

REGION 11 CHICAGO EMS SYSTEM - SOUTH
MOBILE INTEGRATED HEALTHCARE (MIH) PROGRAM

COVID-19 ASSESSMENT GUIDELINES

I. CLINICAL INDICATORS:

A patient requires non-emergency services for known or suspected COVID-19. Patients may be referred by:

A. Prior EMS evaluation indicating that additional non-emergency services/resources may be needed.

B. Other medical providers (i.e. primary care provider, discharging hospital, or other referring agency).

C. At-risk referral as requested by primary care provider or Emergency Department providers.

II. LIMITATION OF ASSESSMENT GUIDELINE:

A. Any patient for whom an emergency exists should be treated under Region 11 Chicago EMS System Protocols and Policies.

B. Community Paramedics should follow the "Suspected COVID-19 ALS Protocol" and the "COVID Triage and Transport Policy" in addition to the procedure below.

III. PROCEDURE:

A. Prior to the visit, review the initial EMS call and referral request.

B. Wear appropriate PPE. Place a surgical mask on the patient and any family members that are required for the visit.

C. Introduce yourself to the patient, family and/or caregiver. Minimize exposure between the patient and family members.

D. Identify the nature of the visit and record in the narrative as the reason the patient requires a Community Paramedic assessment.

E. Review any recent discharge instructions and obtain the name of the primary care provider.

F. Assess for viral syndrome symptoms including fever, chills, headache, sore throat, rhinorrhea, nausea, vomiting, diarrhea, chest pain, cough, shortness of breath, abdominal pain, bodyaches, fatigue, loss of appetite, loss of smell or taste.

G. Assess vital signs, oxygen saturation, and temperature as well a complete physical examination including lung sounds.

H. Perform medication reconciliation and evaluate patient's medication compliance. Chronic disease management is important in addition to management of the acute illness.

I. For Temperature > 100.4 degrees F, Tylenol or Ibuprofen may be administered. First line is Acetaminophen. Acetaminophen (Tylenol) dose is 650 mg every 4-6 hours and the max dose is 4 grams in 24 hours. Acetaminophen should be limited in patients with liver disease. Ibuprofen (Motrin) is second line and the dose is 600 mg every 6-8 hours. Ibuprofen should be limited in patients with kidney disease. Ask the patient for allergies to these medications prior to administering these medications.

J. For nausea or vomiting, Ondansetron (Zofran) ODT may be administered. Ondansetron dose is 4 mg ODT every 12 hours. Ondansetron should be limited in patients with known long QT or liver disease. If the patient has signs of dehydration and requires IV fluids, they require transport to the hospital (Refer to ALS Protocol D-5 "Acute Nausea and Vomiting").

K. For patients with diabetes, obtain current blood glucose level and document findings.

L. Review discharge instructions and assess patient compliance within applicable scope of practice. Answer patient/caregiver questions and provide explanations if necessary. If needed, refer patient back to primary care provider.

M. Compare findings with patient's discharge baseline and/or previous EMS assessment and determine if symptoms have worsened.

N. Document findings and communicate to primary care provider if established. If there is no primary care provider, provide referral to a Community Health Clinic or through the patient's insurance provider.

O. If patient has concerning or worsening symptoms and requires transport to the hospital, discuss this with the patient and contact OEMC for an ALS ambulance response.

P. If the patient has minor or improving symptoms, provide COVID Resource Packet if the patient has not already received it and review education documents.

Q. Contact designated physician for Online Medical Control consultation.

R. Document the patient visit in the electronic patient care record.

Written: 4/2/20
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Implementation: