

Community Care Response Unit A Collaborative Effort



of Orange County



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Pilot Project Title

Anaheim Fire & Rescue: Community Care Response Unit, (CCRU).

A. Pilot Description/Project Management & Partners/Geographical Area Served

Pilot Description

The Community Care Response Unit (CCRU) is an alternative and innovative response model that will deploy a single vehicle utilizing a mid-level provider and a paramedic to respond to non-urgent, low level call requests in place of a standard paramedic engine/truck and ambulance unit response.

The Affordable Healthcare Act focuses attention on healthcare organization's ability to integrate and share responsibility for providing care while, at the same time, reducing costs. Over the past two years, the Centers for Medicare and Medicaid Services (CMS) have solicited ideas for improved healthcare delivery models at lower costs for those enrolled in CMS programs, particularly those with chronic disease processes (Centers for Medicare & Medicaid Services 2013). Realizing the importance of the effects of healthcare reform on EMS, Anaheim Fire & Rescue addressed healthcare reform in EMS as one of our strategic recommendations within our Strategic Plan for 2013-2018.

At the time of dispatch, calls will be screened by an Emergency Medical Dispatcher (EMD) to identify non-emergency patients who may benefit from definitive care within the scope of practice of a nurse practitioner. Clinically appropriate, legally compliant, pre-determined dispatch protocols, created in collaboration with the local Emergency Medical Services Agency (EMSA), Medical Director would be followed. If appropriate, the Community Care Response Unit will then be dispatched to the patient location to provide on-site evaluation, treatment, and coordination of care and/or referral. A paramedic level response can be assessed at any time the CCRU crew felt the patient would benefit by transport to the emergency department. Conversely, the CCRU crew could be called upon if, after a paramedic assessment, the paramedic believed the patient could benefit from the care capacity of the nurse practitioner.

A mid-level provider such as nurse practitioners has provided patients with a variety of healthcare services for 40 years. Through advanced education, nurse practitioners promote a comprehensive approach to care and emphasize the overall health and wellness of patients of all ages. According to the Mayo School of Health Sciences, nurse practitioners obtain "health histories and provide complete physical examinations, diagnose and treat many common acute and chronic problems, interpret laboratory results and X-rays, prescribe and manage medications and other therapies, provide health teaching and counseling to support healthy lifestyle behaviors and prevent illness, and refer patients to other health professionals as needed" (Mayo School of Health Sciences, 2013).

A mid-level provider response will allow the department to provide alternative solutions to the way it currently manages patients. This unique response model aims not only to reduce total costs, but also to deliver appropriate healthcare services on scene, thereby preventing costly transports to the emergency department. The response model is intended to prevent unnecessary

hospital admissions and readmissions; and direct relevant services to meet the needs of the patient in Anaheim.

Project Management and Partners

Anaheim Fire & Rescue’s Emergency Medical Services (EMS) section is the originator of the CCRU Pilot Project for the City of Anaheim and will oversee the CCRU Program. Anaheim Fire & Rescue, with participation from Anaheim’s Metro Cities Fire Authority Dispatch (Metro Net), the Orange County Emergency Medical Services Agency (EMS), Kaiser Permanente of Orange County, and Care Ambulance Service Inc., will contribute to project management and collaborate on the CCRU Pilot Project. Roles, responsibilities, and meeting schedule will be determined. The pilot will be constructed to ensure compliance with existing laws, regulation and ordinances.

<p><u>Anaheim Fire & Rescue</u></p> <ul style="list-style-type: none"> • Fire Chief • Mayor, City Council Members • Physician Consultant • Deputy of Operations • EMS Coordinator • Senior Administrative Analyst • External Affairs Manager 	<p><u>Kaiser Permanente of Orange County</u></p> <ul style="list-style-type: none"> • Chief Executive Officer • Medical Director, Orange County • Physician Director, Medical Services • Chief Operating Officer • Director of Marketing
<p><u>Metro Cities Fire Authority, (MetroNet)</u></p> <ul style="list-style-type: none"> • Dispatch Manager • Dispatch Supervisor 	<p><u>Care Ambulance Service Inc.</u></p> <ul style="list-style-type: none"> • Chief Operating Officer • Operations Manager

Anaheim Fire & Rescue has been actively engaged with prospective pilot participants for approximately one year. It is important to note that Anaheim Fire & Rescue has secured the involvement of the Mesa Fire & Medical Department’s physician, Dr. Gary Smith, as our Physician Consultant.

Geographic Area Served

With a population of approximately 346,000 - the City of Anaheim is the most populous in Orange County, California, the 10th largest in the State, and 54th in the United States. This data does not reflect the influx of our transient population. Anaheim is a worldwide tourist destination, attracting nearly 20 million visitors annually or 250,000 per day to the city, swelling its population beyond 600,000 during special holidays and/or events.

The City forecasts the local population to surpass 400,000 by 2035 due to expected rapid development in the Platinum Triangle area as well as Anaheim Hills. Anaheim also supports a thriving business and entertainment community with organizations such as Carl Karcher Enterprises, L3 Communications, and Disneyland Resort headquartered within the City. Additionally, world-class media and entertainment venues such as the Anaheim Convention

Center, Honda Center, City National Grove of Anaheim, Anaheim Garden Walk, and Angel Stadium offer unique opportunities and challenges in addressing the expanding healthcare needs of the community.

B. Purpose and Objectives

The purpose of the CCRU Pilot Program is to test, demonstrate and evaluate new healthcare delivery alternatives. The intent is to develop a more efficient healthcare delivery in the City of Anaheim through joint efforts with healthcare resource such as, Kaiser Permanente of Orange County and the City of Anaheim's transport provider, Care Ambulance Service Inc. The goal is to deliver appropriate care by appropriate care providers within an acceptable time frame that result in the best outcome and highest satisfaction for the patient.

Objectives of the CCRU Pilot Project

- Study the effectiveness of whether providing on-scene treatment and referral to appropriate service will improve efficiency of healthcare delivery
- Study how patients may benefit from receiving services within the scope of practice of a nurse practitioner
- Examine the impact of decreasing low acuity ambulance transports and emergency department visits
- Study the effects of the CCRU response model on patient satisfaction
- Examine emergency medical dispatch criteria
- Examine CCRU response protocols
- Examine CCRU nurse practitioner protocols
- Study and evaluate a cost effective model for the future. Test and evaluate a new modified Accountable Care Organization (ACO) payment model that works in conjunction with the proposed Community Care Response.
- Study the efficiency, effectiveness and sustainability of an ACO approach
- Study the opportunity to improve care management and efficiency by enabling patients to obtain post-EMS response care from the integrated health delivery systems from which they obtain the rest of their care

C. Estimated Project Length

Approximately 1 year (12 months)

D. Background Information

Problem/Opportunity Statement

Nine years of data shows that each year there is an increasing number of low acuity transports to hospital emergency departments by EMS. By integrating a mid-level provider program into fire-base EMS, the hypothesis is that it is possible and beneficial to avoid unnecessary ambulance transports and expensive emergency department costs.

While it is believed there may be many EMS pilots in the coming years that focus attention on the development of the community paramedic and expanding the role of the EMT- Paramedic

scope of practice, our pilot recognizes the importance of working with other healthcare providers in order to better serve the community through integration of delivery systems. By utilizing the care provisions within the scope of practice of a nurse practitioner, in coordination with an EMS paramedic, we can achieve this goal. We believe inclusion of the nurse practitioner in the healthcare reform process is an important step, as the nurse practitioner's practice is centered on coordinated care delivery. It makes sense then, to incorporate the mid-level provider into the EMS system (American Association of Nurse Practitioners 2012, p. 1).

The American Association of Nurse Practitioners advocates the nurse practitioner's role in coordinated care delivery. According to a round table discussion between the American Academy of Nurse Practitioners, the American College of Nurse Practitioners, the Gerontological Advanced Practice Nurses Association, the National Association of Pediatric Nurse Practitioners, the National Association of Nurse Practitioners in Women's Health, and the National Organization of Nurse Practitioner Faculties, "The healthcare needs of our nation are beyond the scope of any one individual health discipline. Addressing the healthcare challenges and developing a strong provider workforce will require individual disciplines and policy leaders to move past one profession's vantage and adopt definitions and concepts of care that reflect the overlapping ability of multiple and diverse disciplines to provide care to patients" (American Association of Nurse Practitioners 2012, p. 1).

As healthcare reform unfolds, it is important for all stake holders in healthcare delivery, including emergency medical dispatch centers, EMS providers, local EMS agencies, appropriate healthcare organizations, hospitals and insurance companies to integrate and share responsibility for providing patient care and keeping patients healthy (Centers for Medicare and Medicaid Services 2013).

Other States Serving as Models

As our department began to research potential pilot programs, we learned about the Mesa Fire & Medical Department's Physician Extender Program in partnership with Mountain Vista Medical Center in Mesa, Arizona. They coupled a paramedic fire captain with an advanced practice provider that has enhanced the delivery of medical services to the citizens and visitors of Mesa, Arizona. Anaheim Fire & Rescue was intrigued to learn that non-urgent, low level call requests were screened and redeployed more effectively. Patients were then evaluated and treated by care provisions within the scope of practice of a nurse practitioner and referred to appropriate resources for continued primary care. Patients were provided the appropriate resource to match their complaint.

In 2013, there were 1,250 patient encounters with 40% of them being treated and referred back to their primary care physicians, thereby diverting them away from expensive ambulance transports and emergency department visits. These services occur within the 911 system through a priority dispatch model leaving advance life support apparatus available for true emergencies and decreasing response times by 33 seconds. Mesa Fire & Medical Department was able to more effectively treat and refer medical and behavioral patients with a realized cost savings of just over \$3 million to the system since its inception.

The Mesa Fire & Medical Department's Physician Extender Program has been an exemplary example of providing quality care, while reducing costs by millions. The implementation of the Affordable Care Act will require EMS innovators to pave the way for rest of the nation. We believe the Mesa Fire & Medical Department and their partnership with Mountain Vista Medical Center are in an excellent position to do just that: pave the way. Anaheim is very pleased to have Dr. Gary Smith from the Mesa Fire & Medical Department, as our consulting physician.

Types and Number of Patients to be Seen

The City of Anaheim's demographics and 911 call requests are somewhat similar to Mesa, Arizona. A recent comparison of the Mesa Fire & Medical Department's 911 response call data with that of Anaheim Fire & Rescue data for 2013 showed that for low-level acuity patients, provider impression, and highest call volume by day of the week and time of day were found to be similar between the two cities. Consequently, Anaheim's pilot may have outcomes comparable to those of Mesa when the department implements its mid-level provider program.

Anaheim Fire & Rescue annually manages about 24,000 calls that are medical in nature with an approximate 40% being low-level acuity calls. The top provider impressions are mild trauma (skin tears, lacerations, and abrasions), mild musculoskeletal complaints, flu-like symptoms, abdominal pain, nausea and vomiting, and psychiatric/depression/behavioral issues. Data shows the age groups that most frequently access 911 for these types of complaints are 20-65 years of age. The primary insurance noted for these patients are those without healthcare coverage, followed by MediCal and Medicare, respectively, and a small number with private insurance.

Anaheim Fire & Rescue used patient data to map the location of these the low-level calls within the City, and found the call volumes were highest in the West Anaheim area. The department believes the CCRU will make the greatest impact if placed in this section of the city.

E. Program Management

Operational Methodology

The operational methodology is to develop alternative response model solutions within the 911 system to provide a lower cost, innovative approach to non-urgent, low level call requests by coupling a paramedic with a mid-level provider to provide care capacity within the scope of practice of a nurse practitioner.

The CCRU will respond from one of Anaheim's existing strategically located stations on the west end of Anaheim to all patients appropriate for the pilot. In no way does this pilot intent to isolate and respond to only Kaiser Patients. The CCRU will respond 10 hours per day, four days per week, during peak call times. The CCRU will respond to one call at a time. If a second call appropriate for the CCRU is identified at Metro Net dispatch, the current ALS level response will be dispatched.

Local Governance and Medical Control

Anaheim Fire & Rescue, along with pilot participants, Kaiser Permanente of Orange County, the Orange County EMS Agency, and Care Ambulance Service Inc., will collaboratively engage in the design and implementation of the CCRU Pilot Program.

Clinically appropriate, legally compliant, pre-determined emergency medical dispatch protocols, nurse practitioner standardized protocols – obtaining a health history, physical examination, diagnosis, treatment, medication administration, interpretation of lab results, appropriate referral and follow up will be pre-determined by the pilot stakeholder physician group.

The paramedic will continue to follow his/her current Orange County Standing Order Protocols and Policies and Procedure, as necessary, as written by the Orange County EMS Agency medical director. System oversight for protecting patients' safety will remain at the level of the local EMS agency medical director. The pilot is structured to ensure compliance with existing laws, regulation and ordinances.

Discipline and Scope of Practice

The CCRU will partner a paramedic and a nurse practitioner, each working within his/her discipline and scope of practice to achieve optimal patient outcomes.

Nurse Practitioner: The nurse practitioner, for the purposes of this pilot, shall be an employee or contracted employee of Kaiser Permanente of Orange County or Anaheim Fire & Rescue. Liability for the nurse practitioner will rest with the institution hiring the nurse practitioner. It is important to note that the nurse practitioner functions independently of a physician, but under supervision, and has the authority to prescribe certain pharmacologic agents and non-pharmacologic modalities, as well as implement interventions, monitor the effectiveness of these interventions, and has a global understanding of the healthcare system to communicate patient needs with other members of the multidisciplinary medical community (American Association of Nurse Practitioners 2012). For the purposes of this pilot proposal, the nurse practitioner will not furnish controlled substances.

The nurse practitioner will follow standardized protocols developed in coordination between the Orange County Emergency Medical Services Agency medical director, Kaiser Permanente of Southern California supervising physician and Anaheim Fire & Rescue's physician consultant. If needed, medical direction shall be available to the nurse practitioner anytime the CCRU is in service and during patient telephonic follow up care.

In order to function within the Orange County EMS system, the nurse practitioner will comply with the OC EMS P&P #400.00 Mobile Intensive Care Nurse (MICN) authorization. While it is the intent of an authorized MICN to provide directives per the Base Hospital Treatment Guidelines to pre-hospital care personnel, this is not the intent for the nurse practitioner involved in this pilot. The intent is for the nurse practitioner to comply with Health and Safety Code, Division 2.5, Section 1797.56; California Code of Regulations, Title 22, Sections 100168 to function as an "Authorized registered nurse" within the EMS system.

Paramedic: The paramedic shall be an employee of Anaheim Fire & Rescue. The paramedic will continue to comply with OCEMS Policy & Procedure #430.10 Accreditation to Practice EMT-Paramedic. As stated previously, calls will be screened by the emergency medical dispatcher (EMD) to identify non-emergency patients who may benefit from definitive care within the scope of practice of a nurse practitioner. If appropriate, the Community Care Response Unit would then be dispatched to the patient location to provide on-site evaluation, treatment, and coordination of care and/or referrals. These low level calls would not require any ALS care from the paramedic.

A paramedic level response could be requested at any time the CCRU crew felt the patient would benefit by transport to the emergency department. If immediate patient deterioration occurred, the CCRU paramedic would establish scene control and contact Metro Net Dispatch to request an ALS level response. The paramedic shall initiate ALS care, and will comply with all existing OC EMS Treatment Guidelines and Policies & Procedures until relieved by an ALS response unit. The nurse practitioner will assist the paramedic per standardized protocols.

For the purposes of this pilot, the CCRU will respond in a dedicated ambulance or response apparatus equipped with the supplies, equipment and medications identified within the Anaheim CCRU Standardized Protocols. ALS unit medications and unit inventory, as outlined in OC EMS Policies & Procedures #320.00 Advanced Life Support Unit Medications and Policies & Procedures #325.00 Advanced Life Support Unit Inventory, will be available on the CCRU apparatus for emergency situations. The CCRU team will provide the patient and family, as applicable, with the appropriate tools to allow for patient-centered decision making.

Provisions for Protecting Patients Safety

Patient safety will be assured in a number of ways. Each patient will receive on-site evaluation, treatment, and coordination of care and/or referral. For each patient contact, the nurse practitioner will make a courtesy call to the patient's primary care physician (PCP) for continuity of care. For those patients who do not have a primary care physician, a physician referral will be provided to the patient. Anaheim Fire & Rescue and Kaiser Permanente of Orange County are developing a physician referral process within the City of Anaheim.

Each patient will receive a follow-up phone call by the nurse practitioner within 48 hours. Care outcomes, further treatment needs, referral follow up questions and documentation will occur based on the information obtained from the call. The CCRU physician consultant will be available during the patient telephonic follow up.

See the "Evaluation, Data Collection, Continuous Quality Improvement" section for further information.

Anticipated Sources of Funding

The anticipated funding sources are derived from the City of Anaheim Fire & Rescue Department's annual operating budget for a total of one year. The amount will cover the paramedic compensation, including salary and benefits, totaling \$174K. The budget will also cover the cost of maintaining both the CCRU equipment and the ambulance (mobile clinic),

totaling an estimated \$250K the first year and then \$40K each year thereafter. Kaiser Permanente will provide funding support of \$210,000 for the startup year of operation.

In addition to developing a more cost-effective model of pre-hospital care delivery, the CCRU Pilot Program will also evaluate a newly modified ACO payment model.

Paramedic and Mid-Level Provider Eligibility

Anaheim Fire & Rescue in collaboration with Kaiser Permanente of Orange County plan to hold a selection process to identify a paramedic and nurse practitioner best suited for the CCRU Pilot Program. Criteria for selection will include, but not be limited to a global understanding of healthcare reform and its impact on the patient throughout the continuum of care, knowledge and understanding of the CCRU program objectives, demonstrated professional competence, appropriate licensure in good standing, excellent patient communication and problem-solving skills, relationship building abilities with internal and external partners, and a strong work ethic.

Paramedic qualifications will include a minimum of 5 years of continuous paramedic service with Anaheim Fire & Rescue. Paramedic level knowledge will be assessed during the oral interview process.

Nurse practitioner qualifications will also include a minimum of 5 years of experience within an acute healthcare setting, such as an emergency department or urgent care center. Nurse practitioner level knowledge will be assessed during the oral interview process.

Local Training

The Anaheim Fire & Rescue EMS office has created a training curriculum for the CCRU Pilot Program. Program partners will be an integral part of the crew's orientation and training to the CCRU Program.

F. Evaluation, Data Collection, and Continuous Quality Improvement

The Anaheim Fire & Rescue Physician Consultant will perform 100% retrospective call review once a week to monitor appropriate call response and to monitor the nurse practitioner's adherence to the CCRU Standardized Protocols.

The paramedic will be responsible to document the patient care event into the Orange County EMS, Medical Electronic Data System (OC-MEDS) for electronic capture of real-time information for evaluation of the CCRU Pilot. The paramedic will use a modified version of the Image Trend Service Bridge Critical Care Module. The nurse practitioner will be responsible to document the system defined research questions for each patient encounter.

The Anaheim Fire & Rescue, EMS coordinator will be responsible to create, distribute and report pilot outcome data during weekly meetings. A copy of the report will be submitted to OC EMS. Commitment to regularly scheduled meetings with pilot participants will ensure that all system participants remain involved in continuous improvement efforts.

A commitment to the delivery of high quality clinical care and the accountability for continuous improvement in pre-hospital care will remain the cornerstone of the CCRU Pilot Program. A

collaborative environment among pilot participants will emphasize patient safety, healthcare accountability, and transparency with outcome data.

All such data collection would be conducted in accordance with laws governing patient confidentiality and privacy.

Data Collection

- Total runs/Total patient by month
- Total runs/Total patients per shift
- Average time to scene
- Average time on scene
- Number of calls by day of week and time of day
- Age breakdown by month
- Provider impression by month and percent
- Type of referrals, coordination
- Medications and procedures by month and percent
- Patient disposition
- Hospital destination by month
- Insurance coverage by month
- Quarterly data summary – totals and/or % of the above data

System Research Defined Questions

- Has the CCRU responded to this patient in the past?
- How many times?
- Is the patient being evaluated for a new problem?
- Is the patient managing a chronic illness? (CC)
- Is the patient managing multiple chronic illnesses? (MCC)
- What is/are the chronic diagnosis(s), e.g. Congestive Heart Failure, Hypertension, High Cholesterol, Ischemic Heart Disease, Diabetes Mellitus, Heart Failure, Chronic Kidney Disease, Chronic Obstructive Heart Disease, Alzheimer's Disease, Atrial Fibrillation, Osteoporosis, Asthma, Stroke, Human Immunodeficiency Virus, Arthritis, Cancer, Infection, Depression, Substance Addiction
- Does the patient have an assigned primary care physician (PCP)?
- What is the name of the physician?
- What is the name of the health/hospital network of the PCP?
- Did the patient follow up with his/her primary care physician
- How often does the patient see his/her primary care physician?
- If chronic diagnosis, does the patient have an RN case manager assigned by primary care physician. How often does the case manager evaluate the patient?
- If provided with a referral, who was the patient referred to?
- If provided with a referral, did the patient receive follow up care?
- If the patient did not follow up with the referring physician, why not?
- Did the patient fill RX and take prescribed medication?
- In your opinion, is the patient managing their CC effectively?

- Is the patient receiving any in home services, e.g. registered nurse, physical therapy, Meals on Wheels?
- Was the patient satisfied with the services provided?
- Was the Anaheim Fire & Rescue consulting physician contacted while on the CCRU call?
- If the Anaheim Fire & Rescue consulting physician was contacted while on the CCRU call, what was the need and outcome of the consultation?

G. Contact Information

Contact Person	Name of Local Agency
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Anaheim, CA 92805	(714) 765-4035
E-Mail	Fax Number
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*For purposes of the Anaheim CCRU Pilot Proposal, Kaiser Permanente of Orange County refers to Southern California Permanente Medical Group, Kaiser Foundations Hospitals (Anaheim and Irvine), and Kaiser Foundation Health Plan, Inc.

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Draft - Work Product

Take Home Points

- While it is believed there may be many EMS pilots in the coming years that focus attention on the development of the community paramedic and expanding the role of the EMT-P's scope of practice, the Anaheim Pilot recognizes the importance of working with other healthcare providers in order to better serve our community through integration of delivery systems.
- The purpose of the Community Care Response Unit Pilot Program is to test, demonstrate and evaluate new healthcare delivery alternatives within fire-based EMS.
- The goal of the Anaheim Pilot is to deliver proper care by appropriate care provider within an acceptable time frame that result in the best outcome and highest satisfaction for the patient.
- The Anaheim Pilot will study how patients may benefit from receiving services within the scope of practice of a nurse practitioner, whereby decreasing low acuity ambulance transports and emergency department visits.
- The Anaheim Pilot will study the effects of the CCRU response model on patient satisfaction.
- The Anaheim Pilot will study and evaluate a cost effective model for the future.