213 Development of a Quality Scorecard for Mobile Integrated Health

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Study Objectives: Mobile integrated health has expanded, and been implemented in a number of academic settings and health care companies. According to the National Association of Emergency Medical Technicians, hundreds of programs exist in at least 33 states. It has reached a critical mass, given its reach, and now requires quality measures to ensure high quality health care is offered, to allow comparison to other health care innovation models, and to disseminate best practices. The objective of this study was to develop a dashboard of quality metrics utilizing the National Academy of Medicine's six domains of health care quality.

Study Design/Methods: To construct a list of proposed measures, we conducted a review of the literature on PubMed and Google Scholar. Search terms included quality measurement and one of the following: mobile urgent care, emergency medicine, urgent care, hospital at home, mobile integrated health, community EMS and community paramedicine. Studies were included if they offered concrete quality metrics. Selected publications underwent a secondary review by the research PI. Early versions of proposed measures were reviewed independently by four academic leaders with expertise in quality improvement and/or mobile integrated health. Metrics were selected based on their feasibility, reliability, validity, interpretability, actionability, and importance. Quality metrics included broad measures (assessing whether organizations are meeting goals) and granular measures (assessing organizational errors and mistakes).

Results/Findings: Our study developed a set of quality metrics across the six domains of health care quality: safety, effectiveness, efficiency, timeliness, patient-centeredness, and equity. Provider satisfaction was included as a seventh category.

Conclusion: Our study offers a first pass at creating a set of quality metrics for mobile integrated health for both academic-based and community-based programs. A larger conversation is needed across stakeholders, including government, academic and community mobile integrated health providers, payors, and patients, to develop a standardized set of quality metrics that can be used across settings.

Domain	Core Metrics
Safety	-death rate at 30 days -adverse event rate -chart review of specific trigger events
Effectiveness	-emergency department avoidance at 7 days -hospital admission rate within 7 days -declined visit rate -repeat visit rate within 7 days -percentage of predetermined conditions for which at least 80% of objectives were reached
Efficiency	-average time on task -average visit cost compared to hospital admission, ED visit, and PCP visit -cost for patients that visit ED within 7 days
Timeliness	-wait time
Patient-centeredness	-patient Net Promoter Score (NPS) -patient satisfaction and feedback collected via small surveys throughout intervention, a post-intervention survey, and using AI analytics for qualitative data
Equity	Access: -declined visit rates by race/gender -triage categorization by race/gender Treatment: -waiting time by race/gender -analgesia offered by race/gender Outcome: -death rate by race/gender -adverse event rate by race/gender -ED avoidance rate by race/gender
Provider satisfaction	-satisfaction survey

Table 1. Mobile integrated health scorecard by domain.

No, authors do not have interests to disclose

214 Characteristics of OHCA Survival and EMS Interaction During the COVID-19 Pandemic

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Study Objective: Since the start of the COVID 19 pandemic much research has focused on the characteristics associated with increased mortality of COVID-19 patients both in the hospital and in out-of-hospital cardiac arrest (OHCA). Our analysis aimed to expand the understanding of characteristics associated with OHCA and mortality in our emergency response district and establish correspondence between out-of-hospital provider impression and treatment on the rate and survival of OHCA during the COVID 19 pandemic by comparing data abstracted from EMS charting on patients with OHCA from the March 15-May 30, 2020 as compared with the same period from 2019.

Study Design/Methods: This is a retrospective case series comparing all responses of Robert Wood Johnson Mobile Health Services to OHCA from March 15-May 30, 2019 with those March 15-May 30, 2020. After abstraction frequencies of patients are presented for demographic and medical information. Medical categories assessed include impression, medications given by EMS, past medial history, and home medications. Demographic categories include age, sex, race, and insurance status. Bivariate analyses compare each demographic or medical variable with year and then with death or not. Logistic regression is used to evaluate predictors of death among those presenting to EMS with cardiac arrest.

Results/Findings: The effect of year as a main effect was statistically significant (p=0.018, OR=1.84 for odds of death in 2020 vs. 2019; 95% (CI: 1.11, 3.06) and there was a significantly increased risk for death in males. An impression of known COVID-19 exposure or diagnosis at the time of OHCA was no associated with higher rate of death but a confirmed negative COVID-19 was associated with a statistically decreased risk of death. Impressions of cardiac arrest, unconsciousness, and pulmonary issues were all associated with lower rates of death. Those with cardiac arrest prior to EMS evaluation were more likely to die than those with cardiac arrest after. Many medications given by EMS were associated with death/no death as well. Of the medications taken at home, steroids and diabetes medication were significantly associated with higher rates of death. Comparing 2019 to 2020 significant increases in absolute and relative mortality were most commonly associated across categories with classification including "unspecified/unknown/other".

Conclusions: There was demonstrable excess mortality from OHCA during the COVID-19 pandemic. While much of our data characterizing OHCA during COVID-19 reflects similar findings from other global studies, our focus on first responder impressions and interventions shows increased utilization of the "unspecified/unknown/other" classifications, hypothesized to reflect the increase in at-home OHCA, as reflected in other studies globally during the early days of the pandemic and show a decrease in responder- gathered data on those deaths. Understanding and addressing the contributions to gaps in data is important to properly evaluate excess deaths. This clarifies the need for a framework for investigation of OHCA and death in the setting of pandemic or other endemic outbreak to allow adequate development of training and field protocols.

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215 Fixed-dose vs. Weight-Based 4-Factor Prothrombin Complex Concentrate Dosing for Reversal of Warfarin-induced Intracranial Hemorrhage

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Study Objectives: Four-factor prothrombin complex (PCC) is first line treatment for rapid International Normalized Ratio (INR) reversal for major warfarin-related bleeding/emergent procedures. Nationwide, institutions have transitioned to fixed-dose PCC to save product during shortages, minimize associated costs, and improve time to administration. However, the precise dosing recommendation for warfarin reversal in intracranial hemorrhage (ICH) has not been effectively investigated. Our study aims to determine whether fixed-dose PCC 1500 IU achieves INR reversal < 1.4 and similar clinical outcomes when compared to weight-based dosing in patients with ICH (including subarachnoid and hematoma) anticoagulated on warfarin.

Study Design/Methods: Retrospective cohort study over a 6-year period at a system of 15 hospitals. Inclusion criteria: All adults (≥18 years old) with ICH on initial head computed tomography, on warfarin, and treated with PCC on admission. Exclusion