Top Things to Know
Use of Mobile Devices, Social Media, and Crowdsourcing as Digital Strategies to Improve Emergency Cardiovascular Care

Background

To optimize care and outcomes for cardiovascular conditions, timely recognition of symptoms and initiation of treatment are critical factors. Social media has more than a billion users who share information including posts, status updates, and location identification which presents a promising platform to improve care for cardiovascular conditions.

5 Key Opportunities

1. Since more than 90% of Americans have mobile phones, the use of mobile devices can potentially enhance EMS systems by supporting medical dispatch communication with bystanders through the use of advanced location tracking (e.g., global positioning systems), text messaging, and real-time video and photo capabilities.

2. Digital tools such as crowdsourcing can be used to collect important data and maintain databases about health systems, people, and other factors important for studying the presentation and management of cardiovascular conditions across populations.

3. Mobile devices are capable of tracking and transmitting biometric signals which could help to recognize acute cardiovascular conditions. Such signals include heart rate, respiration rate, fall detection, and activity.

4. Social media platforms offer promise as research tools for studying networks, posted health information, and data dissemination related to emergency cardiovascular conditions.

5. Visual sharing of data such as videos and pictures can enhance just-in time education of the public to potentially improve early recognition of symptoms and early response for emergency cardiovascular conditions.

5 Key Challenges

1. Data quality and access remain important issues for the optimal utilization of digital tools to improve care and outcomes.

2. Important research questions remain regarding the effectiveness of such approaches in the use of such data to potentially improve emergency cardiovascular care; these questions provide important areas for future research.

3. There is generally a lack of scientific evidence supporting the effectiveness and safety of specific digital strategies to improve emergency cardiovascular care.

4. The use of digital strategies should be evaluated in similar way other medical interventions are implemented by health systems and other stakeholders.

5. Rigorous research on the effectiveness and safety of digital strategies for emergency cardiovascular conditions is needed as their use can have unintended consequences (e.g., irrelevant and incorrect information, medical errors, or higher costs).