Emergency Medicine of the Future

Optimize for today, prepare for tomorrow

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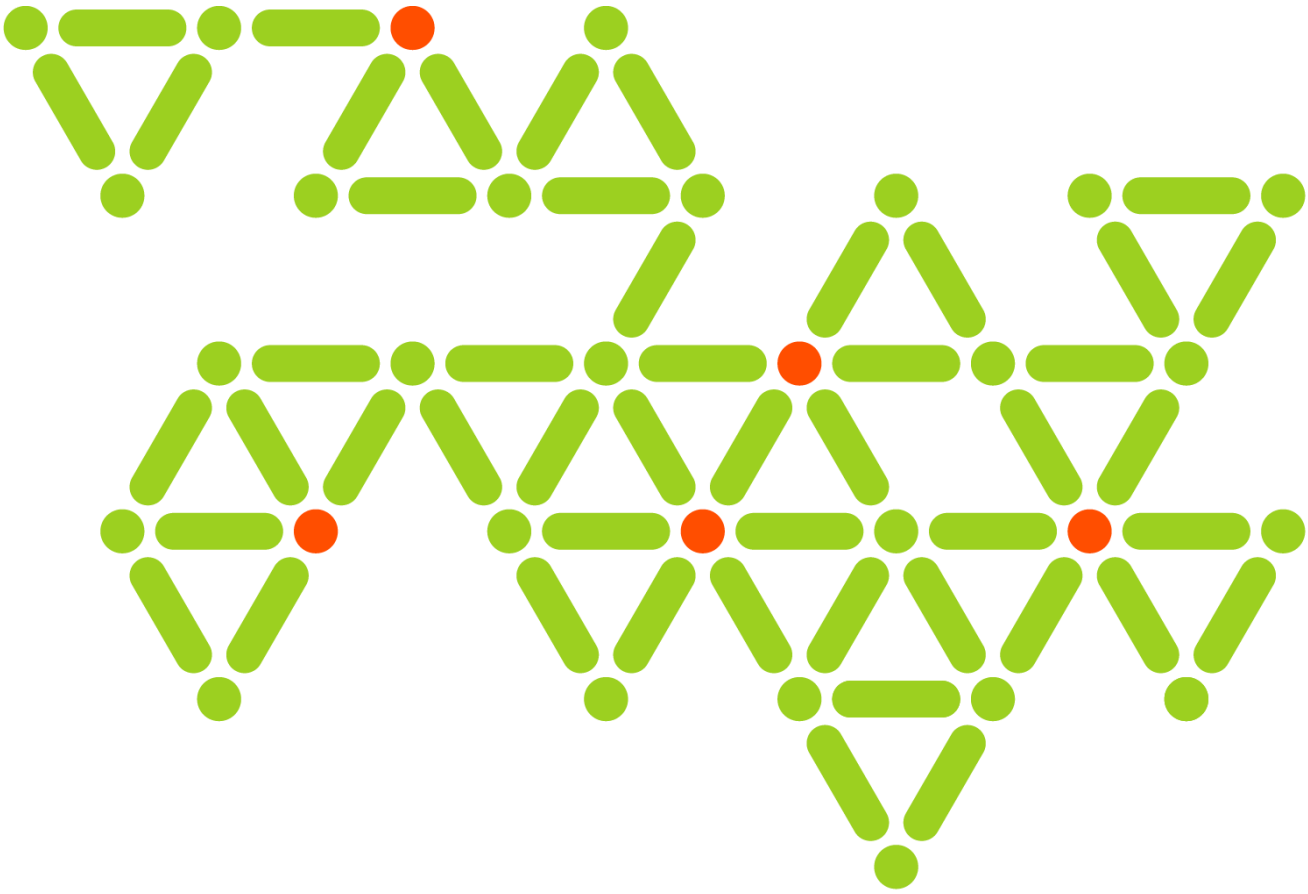
Executive summary

Emergency medicine leaders and their health systems are at a crossroads. They can continue traditional approaches and make incremental improvements, or they can look to innovative ways to partner with their communities to optimize care delivery and improve outcomes. Building a business case for the implementation of a new delivery framework with supporting strategies is one way to success.

This paper is a culmination of ongoing discussions among Emergency Department leaders from the University of Chicago Medicine, Johns Hopkins Medicine, BJC HealthCare, Parkland Health and Hospital System and WakeMed Health and Hospitals in conjunction with Vizient, Inc. The discussions focused on the concept of emergency medicine of the future.

Leading strategies and business case consideration are outlined around the framework of medical practice, hospital operations and population health/social determinants in an innovative future state.

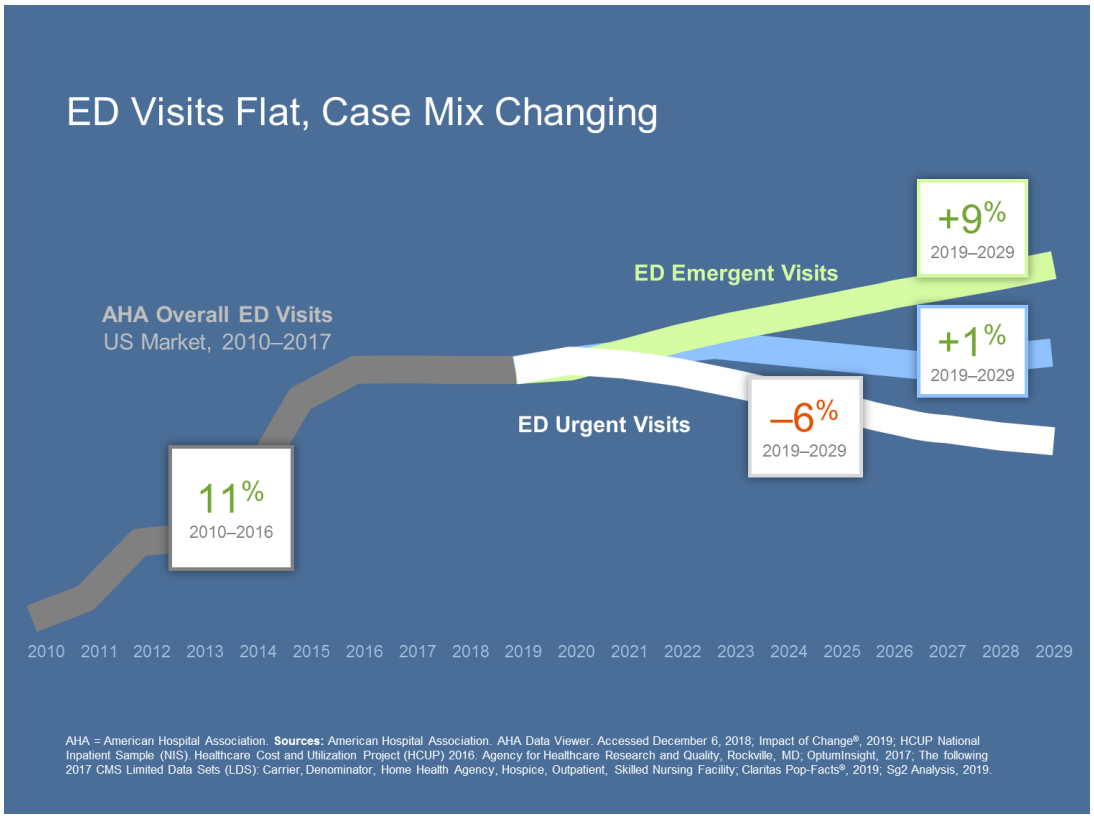


Introduction

Emergency departments (EDs) have been described as the front door for access to health care organizations. As one of the most complex areas in hospitals, the emergency department is one that impacts admissions, revenues, health outcomes, and the overall patient experiences including satisfaction and safety.

Figure 1 displays information accessed from Sg2®'s (a Vizient® company) Impact of Change report[1] discussing expectations that overall growth in ED volumes will remain nearly flat. However, emergent visits in the ED are projected to grow by 9% over the next decade. While urgent ED visits currently constitute a sizeable number of overall ED volumes, these visits are expected to increasingly shift to lower-cost sites of care. As emergent visits surpass urgent visits in ED volume, this will lead to a higher-acuity ED patient population, necessitating more hospital resources.

Figure 1



This shift towards increasing acuity and decreasing urgent visits in the ED is already occurring. The Health Care Cost Institute (HCCI) [2] analyzed 11.8 million ED procedure code claim lines of employer-sponsored insurance between 2009 and 2016 and found that the severity of ED visits has increased, with the use of the two highest-severity ED codes rising 38 percent and the lowest severity code falling by 41 percent.

The shift of urgent visits away from the ED is the result of three converging trends.

1. Federal agencies, through payment changes in public health insurance (i.e. Medicare), have pushed patients to lower-cost sites of care.
2. Commercial payers have accelerated this shift through passive and active steerage of patients to lower-cost sites of care.
3. Finally, greater consumer demand for access to lower-cost, convenient care has been a primary driver of the shift of urgent volumes from the ED to lower-cost sites including retail clinics, urgent care centers, and physician clinics.

The changing ED landscape was the impetus for a group of healthcare organizations to begin face-to-face meetings to explore strategic ideas to optimize the delivery of emergency medicine in the future.

Beginning in October 2017 and ending in January of 2019 five organizations met together with Vizient® to share their organizational successes and barriers, as well as brainstormed ideas related to improving emergency medicine in the future.

The innovation team

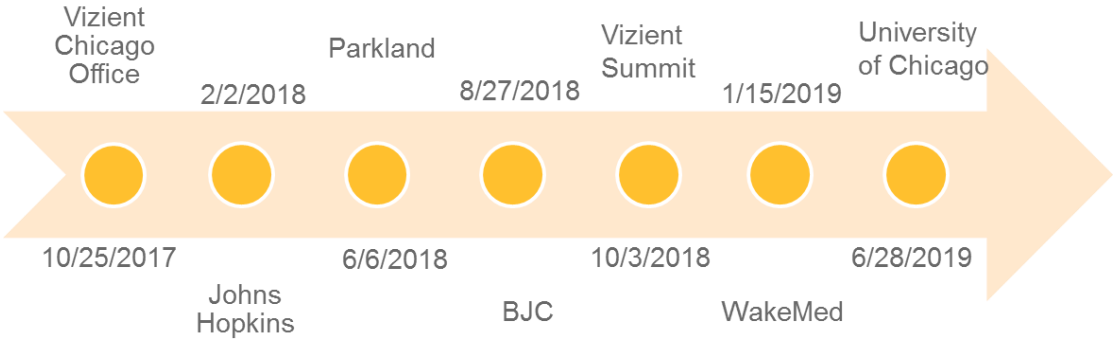
The five healthcare organizations who participated in these discussions were:

- University of Chicago Medicine, Chicago, Illinois
- Johns Hopkins Medicine, Baltimore, Maryland
- Parkland Health and Hospital System, Dallas, Texas
- BJC HealthCare, St. Louis, Missouri
- WakeMed Health and Hospitals, Raleigh, North Carolina

The group discussions were facilitated by Vizient staff from the Performance Improvement (PI) Collaborative Team. The PI Collaborative team identifies potential innovative topics each year and provides a forum for member organizations to discuss the continuous evolution of the area of focus.

The dates and locations of the meetings for this group are displayed in figure 1. During the 2018 Vizient fall clinical summit, the group led a panel discussion where insights were shared with a larger group of health care organizations. Organizations participated in round table discussions to provide additional input and guidance to the innovation team's current and future body of work.

Figure 1. Timeline



Current state vs future state

Emergency medicine leaders and their health systems are at a crossroads. They can continue traditional approaches and make incremental improvements, or they can look to innovative ways to partner with their communities to optimize care delivery and improve outcomes. Building a business case for the implementation of a new delivery framework with supporting strategies is one way to success.

Much of the discussion centered on the assumption that ED medicine is expensive and using the ED is to be discouraged. The discussion geared towards turning these assumptions upside down. Three themes emerged to consider as concepts for what emergency medicine of the future might entail.

1. ED as a site for advanced, real time, diagnostics
2. ED as a front door for access to entire health system
3. ED as a place to integrate the social determinants of health into clinical practice

Four key aspects were considered for building the business case:

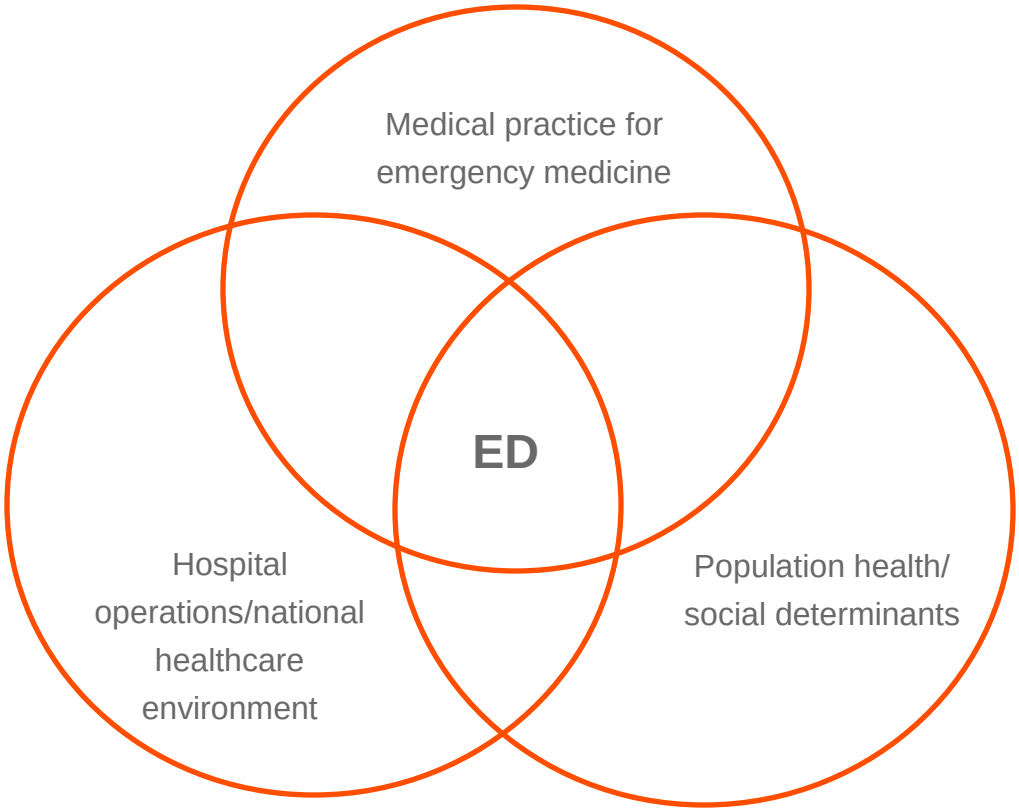
1. Access
2. Outcomes
3. Cost
4. Consumerism

The business model considerations will be explained in more detail later in this discussion.

The framework

Under the umbrella of Emergency Medicine there is a continuum of medical practice scope of care. On one end is the life and limb saving care and on the other end is the availability of “convenient” medical care. In the middle of this spectrum is a place where most EDs operate: as an acute diagnostic and treatment center, as an entry point for access to health care, and as an integration point of social determinants. Keeping this in mind, three distinct areas of Emergency Medicine needing further exploration and discussion were identified by the group. This led to the framework illustrated in figure 2, and the supporting strategies and related business case considerations.

Figure 2. Model framework



Supporting strategies

As EDs fit into hospital operations, each ED operates within a larger system, the hospital itself. Several important impacts and relationships will be considered including the national health care policy and payer model, viable financial model, system capacity management, desired versus undesired growth and positive versus realistic patient experience. Community and population health connections recognize that the factors that impact the ED extend well outside of the hospital walls. The group discussed current projects that address the “social” aspects of Emergency Medicine which include the role of emergency medicine in the community including partnerships and collaborations such as school-based health centers, social needs/social determinants of health data integration, mobile integrated services, community health workers, and peer navigators. Figure 3 outlines the framework and associated supporting strategies.

Figure 3. Model framework and supporting strategies

The framework for the Emergency Medicine Future Model with Supporting Strategies		
Medical practice for emergency medicine strategies	**Hospital operations/national healthcare environment strategies**	**Population health/social determinants strategies**
Acute diagnostic and treatment center	National health care policy and payer model	Role of EM in community with partnerships and collaborations
Type of providers and training of providers	Viable internal financial model	Social needs/social determinants of health data integration
Model fulfills EMTALA* requirements	System capacity management	Mobile integrated services (community paramedicine, telehealth, social work)
Inclusive of population and public health	ED is part of every service line (the portal for desired growth)	Healthcare organization navigators, community health workers, peer navigators
	Positive patient experience which leverages technology, is culturally sensitive and equitable	

*Emergency Medical Treatment and Labor Act

** Centers for Medicare and Medicaid Services

The business case

The view of the ED as the front door into health care organizations and systems is the ideal state, as opposed to viewing the ED as an independent service line and a resource utilizer. The ED can be a driver of desired growth for all other service lines. Each of the strategies discussed require a thoughtful business case to drive implementation. As previously mentioned each business case incorporates the consideration of access, outcomes, cost and/or consumerism. Figure 4 presents a starting point for foundational concepts of business case considerations for each of the supporting strategies.

Figure 4. Supporting strategies business case

Framework component	Business case considerations
Medical practice for Emergency Medicine strategies	
Acute diagnostic and treatment center	Meeting the patient need for quick responsive evaluation in a cost-effective way. This re-examines the assumption that we need to keep people out of the ED and that the ED must always be an expensive site of care. The ED as a one stop shop.
Type of providers and training of providers	Emergency medicine providers address urgent and emergency medical issues. Staff ED with other specialty providers, behavioral health, internal medicine or hospitalists, pediatricians, geriatricians, etc., to address non-urgent or non-emergent needs. Apply resource matching to patient needs.
Model fulfills EMTALA requirements	ED as the front door for access. How might we use the fact that people come to the ED as a mechanism for navigation and entry into other provisions of care?

Framework component	Business case considerations
Inclusive of population and public health	The ED as a place to integrate the social determinants of health into clinical practice. Many patients seeking care in the ED have social risk factors.
Hospital operations/national healthcare environment strategies	
National health care policy and payer model	Use a system perspective to drive patients to appropriate sites of care. Allow flexibility if healthcare policy changes. Consider the payer drivers: nature of contracts, denial patterns and volumes and payer objectives.
Viable internal financial model	Take a close look into your organization's financial strategies. What's working? What isn't and why? What changes need to be made and how will they impact the future state?
System capacity management	The ED as a mechanism for navigation and connections to other parts of the health system, which can benefit patients as well as help manage capacity. For example, patients can be directed to observation units, primary care clinics, infusion centers, etc.
ED is part of every service line (the portal of desired growth)	This may be a mindset change at the organization's executive level. Let the ED drive the growth of all of the other service lines in the organization. Consider the financial impact of this change of focus. Consider everything the ED does and embrace it as a new model of care delivery.
Positive patient experience which leverages technology, is culturally sensitive and equitable	This is a critical component to drive the goal that all patients receive equitable care. Set realistic expectations for patients and the care they will receive. Partner with internal colleagues to establish goals for expedited referrals. Leverage the technology to support the encounter. Drive care team's focus on patient and family centeredness.
Population health/social determinants strategies	
Role of EM in community with partnerships and collaborations	Recognize the ED as a key component of the patient safety net. Build community partnerships around the issues that impact patients and lead them to seek non-emergent care at the ED with a goal to encourage patients to seek appropriate/alternative sites of care outside of the ED. Partner with emergency medical services, police and fire departments, skilled nursing facilities, clinics, home health, social service agencies, etc. identify opportunities to improve access, care and outcomes in effective, efficient ways.
Social needs/social determinants of health data integration	Build capacity to screen, refer, and navigate to address health-related social needs. Address issues, in real time, while patients are in the ED. Addressing these factors can help to improve access and health outcomes and impact downstream utilization and cost. For example, organizations may create their own, or utilize community, food banks. Build adjacent homeless shelters, or partner with existing community shelters. Partner with churches and other community organizations to provide basic resources to meet patient needs (food, shelter, etc.).
Mobile integrated services (community paramedicine, telehealth, social work)	Target interventions at the neighborhood level. Take the care out to the community. Consider mobile units and other care models to bring access to schools, churches, homeless shelters, and other various community sites in resource-efficient ways.
Healthcare organization navigators, community health workers, peer navigators	It can be difficult for patients to locate and access settings outside the ED that meet their healthcare and social needs. Navigators and community health workers can help patients connect with appropriate resources in ways that are patient-centered.

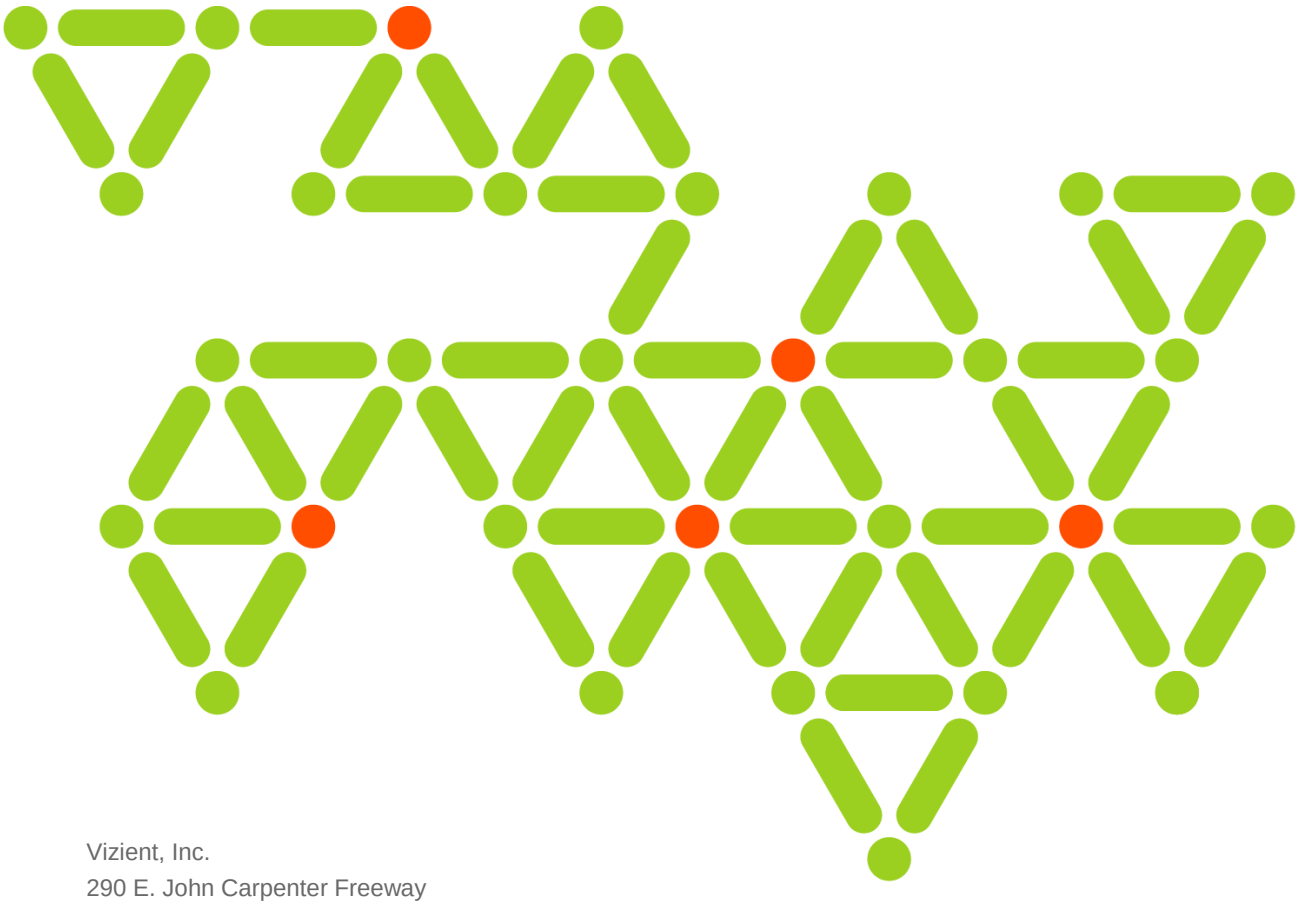
Next steps and concluding thoughts

This work is just beginning. This group of organizations plans to extend its size and grow into a larger network, which will transition from an emergence of ideas to the realization and fulfillment of the vision. They plan to discuss how various projects within hospitals are preparing the groundwork for future patient care. The group will also discuss how their vision of the spectrum of the ED scope of care can be combined with the complex environment of hospital operations and the community or population health connections into a series of “playbooks” or models of care specific to the operating environments of an individual ED. The group believes these models will be relevant to any organization, regardless of hospital size, location, or profitability status.

Finally, there is a commitment and belief that this is the future of emergency medicine, and the proposed changes are innovative, evolutionary, and exciting. Without a doubt, there will be more to come with the end goal to provide the right care, in the right setting, at the right time for the patients as consumers of health care.

References

1. McDowell, M., Slama, L., 2019–2029 Impact of Change® Forecast. Sg2 Healthcare Intelligence. Accessed August 13, 2019.
2. Livingston, S., ER spending rises with increasing prices, severity of visits. Modern Healthcare. May 30, 2018. https://www.modernhealthcare.com/article/20180530/NEWS/180539997/er-spending-rises-with-increasing-prices-severity-of-visits. Accessed March 2019.



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