Safer Transition from the ER Using Asynchronous Virtual Care

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Conflict of Interest

Matthew Muller, MD
Ownership Interest: *de minimis* stock ownership, CirrusMD
Agenda

• Unscheduled acute care, setting the scene
• Re-imagining the Emergency Room visit
• Utilization
• Outcomes
Learning Objectives

• Describe patient safety benefits of a post-ER discharge virtual care program
• Identify adoption rates in this unique post-acute ER application of telehealth
• Contrast patient satisfaction data before and after implementation of the program
• Assess financial value of the program to a health system
Setting the Scene

Number of days to appointment with family medicine doctor in Dallas

<table>
<thead>
<tr>
<th>Year</th>
<th>Days to Appointment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>8</td>
</tr>
<tr>
<td>2014</td>
<td>5</td>
</tr>
<tr>
<td>2017</td>
<td>12</td>
</tr>
</tbody>
</table>

Percent physicians accepting Medicaid in Dallas

<table>
<thead>
<tr>
<th>Year</th>
<th>Acceptance Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>50</td>
</tr>
<tr>
<td>2014</td>
<td>38</td>
</tr>
<tr>
<td>2017</td>
<td>13</td>
</tr>
</tbody>
</table>

The ER remains a hub for medical issues which come up suddenly

- Providing 35% of nation’s acute care
- Providing more than two-thirds of all care of the uninsured
ER contribution to hospital-associated health care

One-half of hospital-associated care

48%
Access to post-ER care

Access to post-ER urgent primary care within one week of ER discharge

- Commercial: 31%
- Medicaid: 26%

CONNECTICUT

Active PCPs by state

<table>
<thead>
<tr>
<th>State</th>
<th>PCP/100k Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT</td>
<td>107.4 #12 of 50</td>
</tr>
<tr>
<td>TX</td>
<td>71.4 #47 of 50</td>
</tr>
</tbody>
</table>

Chou, Shih-Chuan. Insurance Status and Access to Urgent Primary Care Follow-up After an Emergency Department Visit in 2016, Annals of Emergency Medicine, 9 Oct. 2017
Access to post-ER care

One-third of patients with chronic conditions have no follow-up appointment after an ER visit
Within 3 days of an ER visit, 8% of patients have a re-visit.

One-third of those patients choose a different institution.
“We find that patients come back to the ER because they are **anxious** about symptoms, **unsure** of what else to do, and have **lost trust** in the healthcare system’s interest in serving as their advocates.

We suggest that to deliver patient-centered care, the medical community must learn to better **meet patients when and where they want.**”
Unreliable Transitions

Fragmented Care

Unmet Expectations
At risk:

- Safety
- Quality
- Satisfaction
Reimagine the ER visit

What if the 3-hour ER visit became a week-long relationship?
Safer Transition

Available 24/7

Instant care for a week following ER discharge

ER Physicians

Direct access to a physician with access to their EMR
Safer Transition

- No additional charge
- Easy to use
- Text first
- HIPAA secure
Utilization

7,500+ encounters to-date and growing everyday

90 second median response time to connect to a doctor

34% encounters repeat users
Asynchronous

42 minute median encounter time

96.5% text-based

7/8 average messages sent by patient/doctor

4-6 parallel encounters
Adoption

3.4% of ER discharges using the service

Marketing
By Age Group

ER patient satisfaction scores by age
By Time of Day
Outcomes
Quadruple Aim

Health
Experience
Value
Resilience
Outcomes Health

Encounter Resolution:

- Virtual Care 86%
  - add’l Rx 15%
- Return to ER 14%
  - admit to hosp 2%
Outcomes Health

Of those treated completely via virtual care:

- Medical care 85%
- Results 7%
- Administrative 6%
- Service recovery 2%
Outcomes Health

Of those treated via virtual care with add’l Rx:

- Analgesic 41%
- Antiemetic 18%
- Antibiotic 19%
- Other 21%
Outcomes Health

A Safer Transition back to the ER represents a safety story.

100+...

- Mary, 85F small bowel obstruction, admit
- Jane, 77F shock, kidney injury, admit
- Trystan, 9F meningitis, transferred to Cook’s
- Bryan, 34M facial cellulitis, admit
- Jerome, 54M acute cholecystitis, OR/admit
- Signe, 2F facial dog bite, to Plastic Sx
- Alexis, 19F groin abscess, OR/admit
- Jerry, 72F lower ext cellulitis, admit
- Randy, 36M meningitis, admit
- Lisa, 44F, Steven Johnson Syndrome, admit
Because of your use of [program], are you more likely to recommend the [health system] to your friends and family?
Outcomes Experience

“It’s a wonderful service. I truly felt they cared about my health. The physician listened and really wanted to help.”

“Having access to this was AMAZING… everyone that leaves the ER has questions, its great being able to get answers so easily.”

“I love this new system, it is awesome. It shows the doctor’s care. It puts several doctors on your side.”
Outcomes Value

If you didn’t have access to [program], how would you have resolved your issue?

800+ surveys

- Go to different ER
- Go to same ER
- Go to urgent care
- Make appt
- Look up online
- Other

ER Return Diversion

- $2M in avoided ER charges
- $20/patient discharge

10% Other

46% Look up online

30% Go to urgent care

6% Go to same ER

3% Make appt

11% Go to different ER
Outcomes Workforce Resiliency

40+ Emergency Medicine physicians interacting with patients post-ER discharge, providing continuity of care

“I was so impressed with Dr. Bradford Commons that I copied, printed and shared my experience with the 10 people of my early A.M. breakfast group.”
Outcomes
Quadruple Aim

Health
Experience
Value
Resilience
As a patient, why access a portal or a healthcare app...

if it doesn’t deliver care when and where you want it?
Why invest in a tool, if it doesn’t...

- Deliver care when and where patients need it
- Build trust
- Strengthen relationships
Questions

Please complete online session evaluation

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