Optimizing Patient Flow to Improve Patient Satisfaction

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About Vecna

- Privately-funded healthcare information technology company
- Patient engagement solutions
- Est. 1999 by a consortium of MIT engineers
- Interoperability with information systems
- Implementations in thousands of facilities
- Strong research & development partnerships in healthcare
- Processed over 12 million self-service check-ins

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Vecna’s Products

Patient Solutions

A set of solutions on one platform that allows patients to interact with their health information on any device.

- Pre-Registration
- On-Site Registration
- Intelligent Patient Queuing
- Digital Signage
- Wayfinding
- Questionnaires & Forms
- Clinical Messaging
- Business Analytics

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Agenda

• Patient Flow Today
• Improving Patient Flow
• Case Studies
• Best Practices
• Questions and Answers
Polling Question

What area are you looking to improve to optimize your patient flow?

A. Wait times
B. Wayfinding
C. Communications between hospital staff
D. Communications between hospital staff and patients
E. Some or all of the above
Patient Flow Today

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Patient Flow and Patients

Patients want to be seen by their doctor quickly and comfortably, but...

- 97% of patients are frustrated by wait times, and this frustration increases as wait times rise

- Patients often feel chained to their seats in the waiting room with little insight into how long they need to wait or where they are in the queue

- Once patients are called, they are often confused about where to go and who to see in their care process

Patient Flow and Patients

As wait time goes up, patient satisfaction drops

<table>
<thead>
<tr>
<th>Time spent waiting</th>
<th>Overall patient satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 minutes</td>
<td>95.4</td>
</tr>
<tr>
<td>6-10 minutes</td>
<td>93.7</td>
</tr>
<tr>
<td>11-15 minutes</td>
<td>91.6</td>
</tr>
<tr>
<td>16-20 minutes</td>
<td>89.8</td>
</tr>
<tr>
<td>21-25 minutes</td>
<td>87.7</td>
</tr>
<tr>
<td>25-30 minutes</td>
<td>86.1</td>
</tr>
<tr>
<td>More than 30 minutes</td>
<td>80.4</td>
</tr>
</tbody>
</table>

Hospitals want to keep patients moving through their system quickly and efficiently, but…

- Waiting rooms full of anxious and frustrated patients can be stressful for staff, leading to lower productivity and tension
- Staff often can’t tell where patients are in their care process, leading to bottlenecks
- Patients who walk out of a hospital without being seen can cost between $300-$500

What Causes Poor Patient Flow?

- Delays in patient handoffs
- Inadequate discharge planning
- Communication breakdown between different hospital departments
- Confusing wayfinding
- Poor communication between patients and hospital staff
Improving Patient Flow
Assessing Patient Flow

- HCAHPS scores
- Bed turnaround times
- Patient wait times
- Patient handoff process
- Procedures/services getting bumped or delayed
- Relationships between physicians, nurses, and hospital staff
- Staff vacancy rates
- Staff overtime hours
Vision for Managing Patient Flow

To provide a comprehensive patient tracking and management system, leveraging patient self-service, intelligent-based workflow, and reporting, for patients and healthcare staff to create the optimal convenient, information-rich and empowering experience for patients.

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Case Studies
Case Study: Boulder Community Health

Streamlining Patient Flow with a Patient Queuing Solution
Case Study: Boulder Community Health

- In fall of 2014, Boulder consolidated the majority of its inpatient acute care operations into one location.
- As part of this process, Boulder created a centralized registration area for all hospital services, which includes outpatient lab and imaging, as well as inpatient services.
- Given the anticipated increase in daily patient registrations, the hospital implemented a patient queuing system to streamline flow.

Case Study: Boulder Community Health

- Received input from many different areas: ED, lab, surgery, imaging, patients, families, physicians, and visitors.
- Identified how many and what types of patients were to come daily
- Looked at the skills needed to serve these types of patients and how many registrars would be required
- Evaluated the amount of time it would take to register, and calculated wait time thresholds to best serve patients

Case Study: Boulder Community Health

- Patients arrive at one centralized lobby, and are directed to check in on a kiosk, which prompts some general questions about the reason for the visit.

- Patients receive a ticket with a number that prioritizes them based upon the type and time that the services are needed.

- When a patient’s number gets called, a display monitor in the lobby lists the patient’s number along with a corresponding station, and an automated auditory message announces the patient number.

Case Study: Boulder Community Health

Improved Productivity and Metrics

• Received ability to monitor and trend patients by type, task, and time.
• Reduced wait times by 67% (from 15-20 minutes down to 10 minutes)
• Decreased registration times, as there were less distractions in queuing the patients, versus asking if they were next or where to go
• Increased patient satisfaction levels, as patients found the system “efficient” and “simple,” and also expressed confidence in knowing their status in the queue


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Case Study: Boulder Community Health


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Case Study: Walter Reed National Military Medical Center

Utilizing integrated digital signage to enhance patient tracking and flow management

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Case Study: WRNNMC

Challenge & Opportunity:

• Complex, multi-station patient encounters
• Optimize patient flow beyond just the check in
• Track patient's status, progress, and location during clinic visit
• Save significant amounts of time searching for patients
• Harness existing visit status information to increase situational awareness
• Improve communication and coordination among staff
Case Study: WRNNMC – Integrated Digital Signage

Results:

• Easily see where patients are, their status (e.g. Vitals, With Nurse, With Provider, etc.)

• Display in real-time patients in a certain visit status. All staff seeing and working off of same status information.

• Filtered views eliminate need to scan through entire patient queue

• Staff alerted of a given patient’s status at appropriate time

<table>
<thead>
<tr>
<th>Dermatology (Team A)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NAME</strong></td>
</tr>
<tr>
<td>CAR, W</td>
</tr>
<tr>
<td>COE, D</td>
</tr>
</tbody>
</table>

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Best Practices
Best Practices: Pre-Registration

- Provide web-app, optimized for all screen sizes, regardless of device
- Give patients a pre-registration boarding pass for “express” check-in while on-site
- Give patients actionable information
  - Pay bills online
  - Update insurances and demographics information
  - Fill out questionnaires or clinical screening questions

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Best Practices: On-Site Registration

• Deliver patient check-in workflows through mobile, tablet, and web accessible interfaces
• Give patients the ability to scan a barcode for “express” check-in from their mobile device
• Capture and manage walk-in’s
• Integrate with HIS to populate data fields

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Best Practices: Patient Communications

- Reminders about appointment dates/times
- Give patients insight into expected wait times pre- and during service
- Allow for easy communication from patients about delays or early arrivals
- Ability to re-route patients based on certain departmental wait times
Best Practices: Wayfinding

- Deliver directions to patients via mobile, tablet, and web accessible interfaces
- Guide patients to respective locations
- Provide directions from patients’ homes to hospital/doctor’s office, and, once within a location, to a specific department
Best Practices: Intelligent Patient Queuing

- Manage patient flow
- Audio and visual reminders
- Waiting room displays
- Wait status and times
- Monitor patients through flags and alerts
- Ideal for lab and pharmacy
- Integrate with HIS or have it stand alone

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Best Practices: Patient & Family Preferences

- Understand your patient demographic
- Address specific preferences, such as wifi for an adult setting or games/toys for a pediatric setting
- Provide entertainment and/or infotainment
- Circulate patient education materials by type of appointment
Best Practices: Patient Tracking

- Real-Time Location Systems (RTLS) technologies can help track:
  - Patient location and status
  - Assets, such as key equipment used to move or discharge patients
  - Staff actions, such as time spent with patients and how often a patient was seen
- Can be integrated with HIS or EMR
Best Practices: Real-Time Dashboards

- Identify bottlenecks, peaks and valleys, and areas where daily schedules are off-course
- Empower hospital staff in making changes and improvements to patient flow strategies
- Enhance staff productivity and efficiency by establishing optimal allocation of resources

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Benefits of Patient Flow Management Solutions

- Reduced patient wait times and overall length of stay
- Lower risk of infection
- Increased patient and provider satisfaction
- Enhanced quality of care
- Improved staff productivity and efficiency
- Higher revenue through elevated patient satisfaction scores

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Polling Question

Have you implemented a strategy to address patient flow management?

A. Yes, we’ve implemented
B. Yes, in the process of implementing
C. We’re in the preliminary planning stages
D. Not at all
Contact Us

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