Solution Overview:

AeroScout® Patient Flow

Enterprise Visibility and Analytics to Improve Patient Experience and Operational Efficiency

Challenges
Outpatient clinics, the Emergency Department (ED), Operating Room (OR) and other departments impact a high percentage of a hospital’s revenue. In the midst of a changing healthcare landscape and economic strain, the need for constant improvement in these departments is paramount to maintain the highest level of patient care, optimal use of resources, and the most efficient workflow.

Caregivers are challenged in these complex environments with efficiently moving patients through the different areas and stages of care. It is essential to know where patients, staff and equipment are located, as well as understand which rooms are available. These processes require time-consuming documentation and communication, which may result in errors, extended wait times and unnecessary labor costs—ultimately, adversely impacting patient experience and outcomes, financial stability and staff satisfaction.

Solution
STANLEY Healthcare’s Patient Flow solution provides hospital- and clinic-wide visibility to improve patient experience and operational efficiency. By monitoring the status, location and interactions of people and resources, it provides data for real-time enterprise awareness coupled with powerful visual analytics to measure performance, identify trends and pinpoint opportunities for process improvement. As a part of STANLEY Healthcare’s Wi-Fi RTLS platform, the Patient Flow solution offers several options and integrations to expand security, increase patient safety and support efficient workflow.

Benefits

- Improves patient throughput and increases revenue
- Improves operational decision making and workflow optimization through powerful visual analytics
- Improves patient experience and family satisfaction with reduced wait times
- Enhances quality of care
- Enhances staff productivity through reduced manual processes and real-time visual data to streamline care transitions
- Reduces costs through improved utilization of resources, capacity and equipment

The solution combines real-time visibility on patient, staff, room and resource status with powerful analytics to improve performance.
How It Works

Upon admission, patients are easily assigned a small, battery-powered Wi-Fi badge, enabling tracking of their real-time location hospital-wide during their stay. Staff, such as nurses, OR staff, transporters and environmental services, may carry a Wi-Fi badge or a Wi-Fi device. This enables rapid location of colleagues, association of caregivers to patients and rooms, and workflow optimization based on historical data. In addition, by leveraging the facility-wide Wi-Fi network, patients and staff can be located outside the clinic in ancillary units and even outside on campus grounds.

Tags can be mounted on medical devices and equipment to increase the availability of gurneys and wheelchairs for patient transport and improve accessibility of medical and surgical equipment required for procedures. The enhanced visibility and communication improves overall staff efficiency and satisfaction through reduced search and wait times.

Visual Controls

STANLEY Healthcare MobileView® is a web browser-based application that provides an intuitive and easy to use at-a-glance view of key information to manage patient flow:

- Floor map or list view of specific departments and the entire facility
- Status dashboard providing overview of current patients and rooms
- Real-time location of patients, staff and assets
- Status of rooms based on color codes (e.g., available, occupied, requires cleaning, being cleaned)
- Alerts on outstanding events (e.g., patient is waiting for too long or off the nursing unit)
- Patient status information may also be shared with family members
- User friendly search tool enables sophisticated queries

The Patient Flow solution offers a wide variety of automated alerts sent in real-time. Alert notification options include instant alerts on workstations and smartphone or tablet devices; e-mail, text page or message; and VoIP phone alerts. Examples of Patient Flow alerts include:

- Long patient wait times (e.g., waiting over 10 minutes in a room for a provider)
- Calls for environmental services to clean room and indications when room is clean
- Absence of equipment required for patient treatment or transport
- Patient moving within (e.g., from OR to PACU) and between departments (ED to ICU)
- Call buttons used to notify staff when a patient is ready for discharge
- Patient call for assistance

The solution comes with a variety of compact Wi-Fi and ultrasound patient and staff badges. Key badge options include rechargeable battery, bi-directional functionality, programmable call/alert button, and low-profile, waterproof design for easy sterilization.

The RoomCheck™ application is a digital corridor room sign that provides real-time patient and room status.

T3 tags can be mounted in-room to trigger room events, such as lab draws, patient ready for physician and room availability.
Analytics

The Patient Flow solution provides powerful, visually-driven analytics to help hospitals or clinics to improve immediate operational decision making, understand underlying trends for process improvement and ultimately develop predictive modeling to anticipate patient loads and staffing and resource needs. Built using best of breed business intelligence software from industry leader Tableau, MobileView Analytics transforms complex data into easily understood visual information on key performance measures:

- **Patient experience**: wait times, patient-provider contact time and cycle time by patient milestones
- **Efficiency**: utilization rates for rooms and equipment
- **Workflow**: staff rounding performance and contact time, and cycle times and wait times by care team

MobileView Analytics includes standard dashboards for each care environment, but also supports a high degree of customization based on the customer’s unique workflows. In contrast to static reports, it enables dynamic exploration of the data to uncover new insights or to investigate root causes of a particular issue. For example, an individual patient’s experience—wait times, contact time, time at phase of care—can be quickly seen to investigate possible causes of a poor HCAHPS evaluation. For frontline staff, real-time status dashboards show the current status of patients and resources, with visual cues to highlight when performance is not meeting the benchmark.

The Patient Flow solution also provides traditional reports, including patient wait times, staff-patient contact time, patient and staff historical location, room utilization and cycle times. These can be generated on demand or scheduled to be sent automatically.

**Integrations**

Using the HL7 protocol, the MobileView software easily integrates with a variety of other hospital information systems, including the ADT system, ORIS or EDIS and EMR system. Real-time location data can be displayed in these systems, and MobileView can pull patient data and staff records automatically to eliminate the need for double data entry and reduce errors. To further utilize patient and staff location data, additional standard integrations to communication devices, alert management solutions and nurse call systems can streamline processes and enhance the Patient Flow solution.
Solution Highlights

- Visual displays for improved real-time decision making: department or clinic map, status dashboards and list views with the location, status and condition of patients, staff, equipment and rooms
- Automated workflow alerts delivered to specific caregivers using a wide variety of communication devices, such as tablets, VoIP phones, smartphones and Vocera® pendants
- Provides department specific location accuracy (e.g., room and bay level) while leveraging existing Wi-Fi network to provide hospital-wide awareness
- Delivers powerful analytics for workflow analysis and optimization, providing business intelligence around wait times, contact times, cycle times, staff workflow and room and resource utilization
- HL7 open architecture and flexible API allows for synergistic integrations to existing systems such as EMR, EDIS, ORIS, ADT, nurse call and capacity management solutions
- MobileView, a unified enterprise platform, provides a broad range of advantages, such as visual analytics, interoperability, scalability, lowest cost of ownership and more
- Additional MobileView applications for Asset Management, Environmental Monitoring, Infant Protection and Staff Security/Safety

At-a-glance views enable enterprise visibility of room status, patient location and wait times, staff, and equipment

About STANLEY Healthcare

STANLEY Healthcare provides over 5,000 acute care hospitals and 12,000 long-term care organizations with enterprise solutions that transform safety, security and operational efficiency. The STANLEY Healthcare solution set enables customers to achieve organizational excellence and superior care in five critical areas: Patient Safety, Security & Protection, Environmental Monitoring, Clinical Operations & Workflow and Supply Chain & Asset Management. These solutions are complemented by consulting, training, implementation and integration services. STANLEY Healthcare is proud to be part of Stanley Black & Decker, Inc. For more information, visit www.stanleyhealthcare.com.