Introduction
MedStar Franklin Square Medical Center is part of MedStar Health and the third largest hospital in Maryland with 380 licensed beds. The emergency department treats more than 108,000 patients annually. The Hospital is certified as a Primary Stroke Center and has earned some of the nation’s most prestigious quality awards and recognitions including Magnet Designation for excellence in nursing, the Delmarva Foundation Award for Quality Excellence and inclusion in the U.S. News & World Report Best Hospital specialty ranking for three consecutive years.

MedStar Franklin Square is one of the top 25 community teaching hospitals in the United States. It is also one of the largest employers in Baltimore County with more than 3,000 skilled professionals, including over 1,000 nurses and 400 staff physicians. More than 750 independently practicing physicians have applied for privileges, choosing MedStar Franklin Square as their hospital of choice for surgical referrals and radiology and laboratory services. As one of the fastest growing and most highly regarded hospitals in the region, MedStar Franklin Square is committed to providing the highest quality healthcare service to each individual as well as the entire community.
The Challenge
At MedStar Franklin Square the Clinical Engineering / Clinical Technology group partnered with nursing to develop and implement a plan to improve workflow throughout the hospital. Both groups had goals of improving patient care, reducing the number of devices the staff members need to carry, lowering the noise level in the hospital and reducing the risk of alarm fatigue. The hospital also wanted to make sure that everything it was doing could be measured to ensure that actual workflow improvements were occurring and that it was maximizing its investment.

MedStar Franklin Square was in the process of building a new patient tower and decided that the time was ideal to evaluate all of its current communications platforms. The Hospital decided that whatever it chose for the new tower would be made available hospital-wide. At the time, pagers and overhead paging were widely used for internal communication, making the hospital environment very noisy. In addition, the Hospital used an old 900Mhz on-site wireless system which was aging and had limited capabilities. The new patient tower was designed with many architectural improvements for a better healing environment including private rooms that are quieter and more attractive. However, these improvements also introduce new challenges such as limiting the ability to hear audible alarms generated within the room, increasing the square footage that staff was required to cover, as well as inhibiting line-of-sight patient observation from the corridors and nurse stations.

The Ascom Solution
Tony Gwiazdowski, Director, Clinical Engineering and Clinical Technology, was one of the key team members at MedStar Franklin Square that evaluated the clinical requirements, met with various vendors and ultimately chose Ascom IP-DECT for their new on-site wireless communication system. Tony stated, “Many people assisted in evaluating the system, from nurses, technicians, doctors and technology experts to ensure the project was viewed with different perspectives.” Tony stated, “We chose the Ascom IP-DECT system because DECT operated on a safe, independent frequency that offered more calls per Base Station than other systems that we evaluated. IP-DECT also offered much better coverage including the ability to cover elevators and stairwells that are typically very difficult to cover with fewer Base Stations. Based on our evaluation, Ascom was our best choice as they offered a single, durable device that is easy to use and enhanced all of our direct communications.”

While building the new patient tower, MedStar Franklin Square invested in a more efficient communication platform from Ascom. To compensate for the more isolated environment created by all private rooms, the Hospital provided caregivers with new Ascom d62 handsets so they could quickly reach colleagues with the necessary competence during emergencies. Staff also uses the group messaging function on their d62s to request lift help which has eliminated the need to make multiple voice calls while searching for available assistance. Additionally, the Hospital upgraded its nurse call system and integrated it to the d62 handsets for 2-way interactivity between nurses and patients, making sure that the nurses answered calls and that everyone was easily reachable.

The Ascom system allowed the Hospital to tie into various clinical systems and send the nurses automated text messages and alerts directly to the appropriate caregiver. These integrations proved beneficial to the hospital by virtually eliminating all overhead paging, which resulted in a positive change to the Hospital’s HCAHPS scores for noise reduction.

“Nursing and Biomed were often working in their own silos but through the support and collaborative team work of both organizations in implementing the Ascom system we demonstrated that working together helped us as an organization to become more efficient.”
— Deborah Hall, Administrative Director Medicine Line Services, RN, MSN, MBA, CCNS
Deborah Hall, Administrative Director Medicine Service Line and Tony went on to say, “Our noise-reduction scores were in the mid-50% range before the Ascom system was installed and as staff adapted to the new system, those scores have been increasing. Recent scores have shown positive results with a progressive increase from 63% in August 2011, to 69% in February 2012. We are continually adjusting and improving our work processes and expect to see further improvements.”

Deborah stated that, “The Ascom phone is much more than a phone. It is the wireless hub of all communication. Our clinical people are much more mobile and productive by having these devices on them at all times wherever they are in the hospital.”

The nurse call integration is set up as a 2-way interface that allows nurses to call back to the room and speak directly with a patient after they request assistance by pushing their bedside nurse call button. If the nurse is busy, they can push one of the soft keys on the handset and escalate the message to their backup Tech. There is also an automatic escalation built into the system if nobody answers within 3 minutes.

Even the buttons on the headboard all automatically alert the appropriate caregivers’ Ascom handsets. For example, if a nurse pushes the red staff emergency button then there will be an audible “Staff Emergency” announcement at the Nurse Call Central Station as well as text messages sent out to all nurses on the floor that have Ascom handsets to ensure a fast response.

Other clinical equipment like BiPap machines are also integrated to the Ascom system and alarms are sent to the nurses as well as a respiratory therapist, if needed. This saves valuable time and streamlines the communication process between the two departments.

MedStar Franklin Square installed the WestCall I Dome product that is integrated with the Ascom system to send text messages regarding patient and room status. Nurses receive messages to their Ascom handsets alerting them when a physician has entered the room so they do not miss the discussion regarding their patients’ care.

“We do not want the technology revolution to drive the human process but instead let the human process drive the technology that we use.”

— Tony Gwiazdowski, Director, Clinical Engineering & Clinical Technology
Nurses can also receive text messages to their handsets at 20 minute intervals that remind them when to reassess pain levels. In addition, the system also sends out text messages every two hours to remind nurses to turn a patient in their bed if they are susceptible to pressure ulcers.

The team also chose the Ascom handsets because they have a “Services” menu that allows nurses the ability to quickly summon “Rapid Response Teams”. All Ascom handsets are pre-programmed with nine different quick access group alert options.

When someone pushes the soft key on the Ascom handset for one of these Rapid Response Teams, the Ascom system automatically sends out an alert to the handsets of all members of the specified team. Team members can press one button to join the other Response Team members on a full-duplex conference call. This allows the Response Team to discuss the situation and coordinate their efforts as they make their way to the location. When someone chooses the button for “Lift Help”, an alert will go out to all handsets on the floor and as soon as the first person accepts, the system will cancel the alert for all others.

All Ascom handsets have an “Emergency” button on the top that is pre-programmed to dial “5555”, which is answered by the hospital operator anytime a staff member needs quick assistance. In addition, the hospital has pre-loaded a departmental phonebook and a central phonebook on every Ascom handset so that staff can easily perform a directory lookup and call one another.

The hospital has pre-programmed a language line on all Ascom handsets so staff can call for language assistance with a patient and put the handset on speaker phone so both can hear and communicate. This feature has helped out tremendously because in the past there were only a few special phones that could be used for translations. Now everyone has this capability on their Ascom handset anytime and from anywhere within the hospital facility.

Gary Holquist, Clinical Engineering and Clinical Technology Specialist, who is involved in many of the day-to-day issues with the Ascom system stated, “I have been very satisfied with the durability and consistency of the system. The DECT infrastructure has been running with minimal issues, has required minimal service hours and the handsets have proven to be very durable with minimal service.” Deb and Tony added, “The continued reliability of the system has provided us the time and opportunity to engage clinical teams and our vendors to explore new technologies to enhance the clinical experience.”

Preset messages on Ascom handsets allow nurses to quickly summon response teams with the touch of a button. Options are:
1. Adult Rapid Response Team
2. Behavioral Health Rapid Response Team
3. ED Rapid Response Team
4. ED Stroke Rapid Response Team
5. Peds Rapid Response Team
6. STORK Rapid Response Team
7. Pain Meds Reminder
8. Lift Help Needed
9. Bariatric Lift Help Needed
"It is hard to imagine how we were able to function without the Ascom IP-DECT system that we have now. The Ascom handset has become a standard tool for all of our clinicians. We are now looking at adding a couple of more AP’s outside of our building to provide extra coverage at emergency entrances and parking lots."
— Tony Gwiazdowski, Director, Clinical Engineering & Clinical Technology

Summary
The Ascom on-site wireless system has exceeded MedStar Franklin Square’s initial expectations. It has clearly made a significant improvement in the way the staff communicates. The staff continues to streamline their communications through additional integrations with the goal of lowering the overall amount of messages through proper training and monitoring of escalation times.

In August of 2011, there were on average 11,000 messages per month on their busiest floors. They have been able to reduce this to 9,400 calls per month by streamlining this technology. The Hospital has also been able to improve response time to patient calls by 16%. The current goal is to continue to reduce messages and improve responsiveness by further optimization of the use of the Ascom system. The Clinical Engineering and Technology group, in collaboration with Nursing Services, carefully plan every detail of the communication system. The two departments methodically roll out new changes making sure that everyone is properly notified and trained; then every change is measured to ensure success.

The Ascom system has proven so reliable in the Hospital’s day-to-day operations that it is used as a mobile communications system for the Command Center during major emergencies. Ascom handsets are deployed to key personnel throughout the Hospital during natural disasters, blizzards as well as planned state and corporate emergency simulation drills. The Hospital is now looking at adding a couple of more AP’s outside of their building to provide extra coverage at emergency entrances and parking lots.

In fact, in a recent phone outage the Ascom system was used as the only available and true emergency communication system. Mr. Gwiazdowski stated, “We actually cannot see how we would be able to function without our Ascom IP-DECT system now. The Ascom handset has become a standard tool for all of our clinicians.”
About Ascom
Ascom is the Americas’ market leading developer of workplace wireless communication solutions providing system users with greater freedom of movement, better service and increased safety. Our research and development focuses on products and solutions for our core business of on-site wireless communication. We are committed to providing the Americas with products that are unique, durable and innovative.

Questions About Ascom Wireless Solutions
Learn more about dependable Ascom solutions at www.ascom.us, or call our experts today at 877-71ASCOM to learn how we can improve the efficiency of your business.