Hospital Communication Guide

A practical guide to optimizing the care pathway for patients and clinical staff
What is a care pathway?

An integrated care pathway is an outline of anticipated multidisciplinary care placed in an appropriate timeframe to help patients with a specific condition or set of symptoms move progressively through a clinical experience to positive outcomes.

Real-time communication technologies enable positive outcomes in many areas:

- Increased patient satisfaction, whether the patient calls the hospital, makes an appointment with a physician or stays in a hospital due to acute, chronic and long-term conditions
- Improved patient safety by providing instant access to the best available resources and sending the right information to the right person at the right time
- Enhanced support for complex interventions requiring mutual decision making

The following recommendations optimize the care pathway for patients and clinical staff.

Typical ratio of user types connected to the hospital communication system:

- Nurses 38%
- Patients 27%
- Physicians 19%
- Admin/medical-technical staff 16%

Real-time communications provides better outcomes, increases patient satisfaction and supports shorter stays and early discharge.
Recommendation 1

Create better central and care unit patient greetings

Care providers need to convey an appropriate greeting at all levels. A poor delivery may generate patient frustration and harm the hospital’s image. With the emergence of multiple social networks that constantly assess hospital and clinic performances, it is important to take the following measures:

- Improve the patient welcome by optimizing attendant team management. Provide your attendants with a real-time monitoring tool that displays performance metrics to help them quickly identify weaknesses and adopt corrective strategies.

- Relieve stretched care units’ resources from repetitive tasks. Roll out a flexible call routing strategy at the care unit level based on skills, calendar, location or presence.

- Prepare for mass casualty incidents (MCI). Deploy MCI solutions combining emergency conferencing and notification services

A typical use case in France

With hundreds of thousands of in-patient and millions of out-patient consultations every year, large hospitals need the best possible patient greetings that provide accessibility and support a reputation of excellence.

A customized greeting solution is designed to fit their specific traffic pattern.
Recommendation 2

Design a patient appointment process that off-loads teams by automating appointment reminder notices

Patient no-shows cost health care systems billions. While pediatric clinics might see a no-show rate of below 5 percent, urban family hospitals and clinics often see no-show rates between 10 and 20 percent. And in some outpatient and surgical clinics – for procedures such as colonoscopies, endoscopies, pulmonary tests that require special prep or diets by the patient – have even higher rates. In a given week, a 50 percent no-show rate – while quite high – is not unheard of at some specialty clinics (1).

• Off-load your reservation process by automating your patient appointment process through a voice portal
• Leverage the contact center infrastructure by having it send appointment reminders through media such as voice calls, SMS or email

Location: Chicago, Illinois, USA
Advocate Health Care USA is one of Chicago’s largest employers with more than 35,000 associates including 6000 affiliated physicians and nearly 10,000 nurses.

To meet the need of an increasingly digital hospital, Advocate Health Care has rolled out a full contact center infrastructure including a voice portal that optimizes the patient appointment process.
Recommendation 3

Provide a patient experience that makes them feel comfortable by using the same technologies they have at home

In an economy where people share billions of impressions every day, innovate to allow patients to have a better experience and ensure their satisfaction.

- 95% of patients are willing to pay for entertainment or premium food services (2). Integrate access to hospital services, TV and internet with telephony access
- Generations X, Y and Z as well as almost everyone else, are smart phone addicts. Equip them with a “bring your own device” (BYOD) application that becomes their hospital phone while providing them access to hospital services.
- As ambulatory surgery develops, make less acute patients reachable with a mobile softphone application in the hospital even if they haven’t been assigned to a room.
- VIP patients and relatives require the best room automation services to control heating, ventilation and air conditioning (HVAC). Using the room’s touch screen phone it’s possible to centralize control of the room’s appliances and benefit from hospitality services

Location: A luxury hospital on the French Riviera
2500+ employees with more than 155,000 inpatient days and nearly 200,000 external consultations.

The hospital offers patients care from highly qualified professionals, whether for a check-up or as an inpatient. Patients benefit from ultra high performance equipment in a luxury setting. Patients’ relatives can be offered VIP rooms. They benefit from a customizable patient experience where all room controls and hospital services are a touch of a screen away.
Recommendation 4

Ensure your patients’ safety via calls and text-based notifications to nurses

Communication problems have always cost hospitals in terms of lost productivity, insufficient time with patients and longer lengths of stay. U.S. hospitals could “waste” approximately $12 billion annually due to poor communication among care providers. Of that money, 40 percent, or about 5 billion dollars, is due to latency in nurse communications.

A typical 500-bed acute-care hospital could experience an annual economic burden of about $4 million due to wasted physician and nurse communication time and potential increase in length of stays (3). Cut costs by:

- Rolling out notification services based on flexible and secure alarm workflows to alert mobile nurses
- Having multiple notification forms such as nurse calls, patient wandering detection
- Offering situational awareness – such as location, calendar or availability
- Securing your clinical staff through handsets or smart phone applications providing alarm buttons and man down alarms capabilities
- Offering instant messaging capabilities between the nurse room and the physicians smart phones

Location: Stockholm, Sweden

The Läkarhuset Odenplan clinic has, among other practices, a leading gastroenterological and endoscopic care unit that has been in existence for almost twenty years. They have deployed notification services including a notification application for smart phones and a geolocation application to reinforce their patient security.
Recommendation 5

Knowing how and when clinicians are available to communicate thus eliminating two big time loss factors

Roll out real time communication technologies that help physicians and other clinicians to collaborate while better managing time-sensitive interruptions.

- Physicians, nurses and therapists need to agree on patient protocol through virtual meetings. Plan real-time collaboration to empower multidisciplinary team meetings (MDT) with voice, instant messaging (IM) as well as screen and documents sharing.

- Physicians dislike being paged by nurses who are often challenged to find them. Introduce IM containing a link that pulls up patient data for review. This can speed up a patient’s discharge saving millions each year as beds won’t be temporarily blocked.

- Tele-consultation is a trend that continues to gain acceptance worldwide. Implement video technologies where patients can connect with doctors for a virtual visit.

- Non-resident physicians need to be reached. Roll out an application that can be added to their smartphone, which will then integrate them into the communication system.

Location: Sydney, Australia

Liverpool Hospital needed a robust, highly available fixed and wireless data network that was capable of supporting current and emerging clinical, corporate and innovative collaboration applications and services.
Recommendation 6

**Build redundancy into your communication system for a very short recovery time objective (RTO)**

Whether for a single clinic or a hospital with hundreds of locations, care providers require a robust and resilient telecom infrastructure. Along with the electronic health record, mobility is also at the heart of the healthcare transformation; mobility enables a fluid clinical workflow.

- Plan a robust core telephony infrastructure with a very short RTO
- Create a system that can be fully virtualized and easy to manage
- Roll out a platform that supports an increasingly mobile, connected and remote healthcare workforce over multiple networks such as WLAN, DECT or cellular

**Typical use case**

A public health system comprising a large number of hospitals as well as other facilities for aged care and community services across 200+ sites.

Its core telecommunication infrastructure serving more than 30,000 users relies primarily on a real time communication system that has the smallest footprint. This enables real time core communications across a very wide geographic area. The interconnected servers provide a fully transparent view for the end users. A single image across servers also simplifies the network configuration and monitoring. This real-time communication infrastructure is responsive and highly available with a very short recovery time objective.
Recommendation 7

The network supports many applications, systems, phones and sensors. Despite a growing consumption of LAN ports and access points, convergence brings further simplification

A hospital’s network is the foundation for the critical applications that run on it. The return on the investments made on electronic medical records (EMR), picture archiving and communication systems (PAC), clinical imaging systems and IP communication can only be realized if those assets connect people reliably, securely and with very high performance (4).

- Integrate unified access that natively powers VoIP phones, prioritizes and differentiates real-time applications over those more tolerant of latency and jitter.
- Deploy a WLAN infrastructure supporting 802.11ac as the majority of devices in healthcare depend on being mobile – user devices such as VoIP phones/apps, CoWs (computer on wheels), clinical devices like infusion pumps, mobile image capture (radiology, magnetic resonance imaging) and other sensors.
- Right size the core of your hospital infrastructure for a redundant and resilient performance that matches the one available on the communication system.

Location: Shenyang, China

Shenyang Shengjing Hospital is a very large hospital with 4750 beds. It is a leading hospital in digitalization and hospital information system (HIS) application in China. They rolled out a network and communication system (voice and contact center) suitable for their future expansion. The combination of IP telephony, medical application and medical management systems and the underlying network saves at least 30 seconds per emergency per patient. The shortened patient-in-hospital cycle increased the use rate of the beds to be close to 99% while reducing the hospital’s operational costs by 0.2 million ¥ each year.
Optimize the care pathway

The Alcatel-Lucent Enterprise communication and converged solution optimizes the care pathway for patients and clinical staff as it provides:

- Better call support centrally, in the care unit and in emergency situations
- Better appointment taking and reminders
- Unique patient experience
- Instant mobilization of patient and nurse security
- Optimization of the physician’s time
- Robust and resilient real-time communication and network infrastructure enabling a very short recovery time objective

With the Alcatel-Lucent Enterprise communication suite, care providers benefit from differentiated solutions and services practices. Their reliability, performance and resilient environments allow care providers to focus on those who matter the most – their patients.

Solutions for Recommendation 1
OmniPCX Enterprise attendant solutions with customized Soft Panel Manager for metrics display
Visual Automated Attendant and OpenTouch Notification Service for MCI

Solutions for Recommendation 2
OpenTouch Contact Center Suite including Voice Portal

Solutions for Recommendation 3
Integration of real time communication with hospital services such as e-Concierge, IP TV, triple play
Mobile Guest Softphone and Smart Guest Applications

Solutions for Recommendation 4
OpenTouch Notification Service, WLAN infrastructure and WLAN handsets and notification via a smart phone application
DECT infrastructure and handsets range including man down capabilities

Solutions for Recommendation 5
OpenTouch Suite Web conferencing, IM, Video including 8088 Premium DeskPhone endpoints for huddle rooms
IP Desktop Softphone

Solutions for Recommendation 6
OmniPCX Enterprise

Solutions for Recommendation 7
OmniSwitch for the access and core network infrastructure, OmniAccess for WLAN infrastructure, converged with OmniPCX Enterprise

(1) Source No-shows cost health care system billions But clinics, hospitals may be as much to blame as patients February 2013 Bill Toland Pittsburgh Post
(2) Hospinnov “le divertissement et les loisirs à l’hôpital” November 2015
(3) Accenture 2013 “ A call to action: Overcoming Communication Challenges in Hospitals”
(4) Alcatel-Lucent Enterprise Hospital Networking Guide October 2016
Find out how we can help you become a Connected Hospital.

ADDITIONAL INFORMATION
http://enterprise.alcatel-lucent.com/?solution=Healthcare&page=overview

BLOGS FOR MORE PERSPECTIVE
http://blog-enterprise.alcatel-lucent.com/