Meeting the challenge of private patient rooms with mobile alert messaging

Historically, patient rooms were designed to maximize caregiver efficiency and patient interaction. As a result, multi-patient rooms were the preferred configuration. Over the past two decades, however, that mindset has changed, prompting hospital administrators to seek other alternatives in delivering effective patient care.

This paper looks at the trend toward private patient rooms and the key drivers for this change, as well as the consequences and challenges for caregivers. It also addresses how hospitals are responding to this new environment through enhanced clinical integration coupled closely with mobile communication.

Why the shift to private patient rooms?

Today's patient is positioned as a valued consumer who has choices and a say in the healthcare market. Patient engagement initiatives have encouraged these consumers to take ownership of their health and care. Patient satisfaction scores and access to web-based medical information have empowered them to be more discerning. The result is a savvy consumer who is more likely to value peace and privacy over having a hospital roommate.

On the other side of the issue are healthcare provider organizations. While there are many benefits of private patient rooms for them, as well, they also are challenged with delivering effective care to a more widely dispersed patient population.

Driving forces

Numerous factors and objectives have come together to get us to this point in which "the private, single-occupancy hospital room has become the gold standard in new hospital construction."[1] They include:

Better infection control

The number one argument for private rooms is infection control. Thousands of patients each year acquire infections during their hospital stay, health officials report, and having multiple sick patients in the same room increases this possibility.[1] The private patient room helps reduce the risk of infection transmission among patients and makes it easier to quarantine and clean a patient room if an infection is present.

Fewer medical errors

If two patients share a room, that close proximity can increase the risk of delivering medication to, or performing a procedure on, the wrong patient. While private patient rooms are not immune to medical errors, the risk is reduced.[2]

> *In 2011 the Center for Disease Control estimated that 720,000 patients acquired an infection during their hospital stay resulting in ~75,000 deaths.[2]*

Patient privacy protection

Patient privacy continues to be an overriding concern from both a patient and regulatory perspective. Whether it's a doctor discussing sensitive health information with a patient, or a patient having a health-related conversation with a loved one, the multi-patient environment is not conducive to privacy and confidentiality. Privacy worries also can inhibit straightforward communication, adding to the stress level of both patient and caregiver and impeding informed decision-making.

Less patient stress – enhanced patient environment

According to research, factors that can induce stress in patients include lack of privacy, noise and crowding. Thus, it is easy

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to see the connection between private rooms and the patient experience. There are, of course, health implications, as well. Excess noise can lead to increased anxiety and pain perception, loss of sleep and a prolonged convalescence, while stress caused by any source can impair the healing process.[3]

Keeping caregivers and patients connected

It is reasonable to expect that patients in private rooms will spend less time around their caregivers. So how do providers keep patients and caregivers connected?
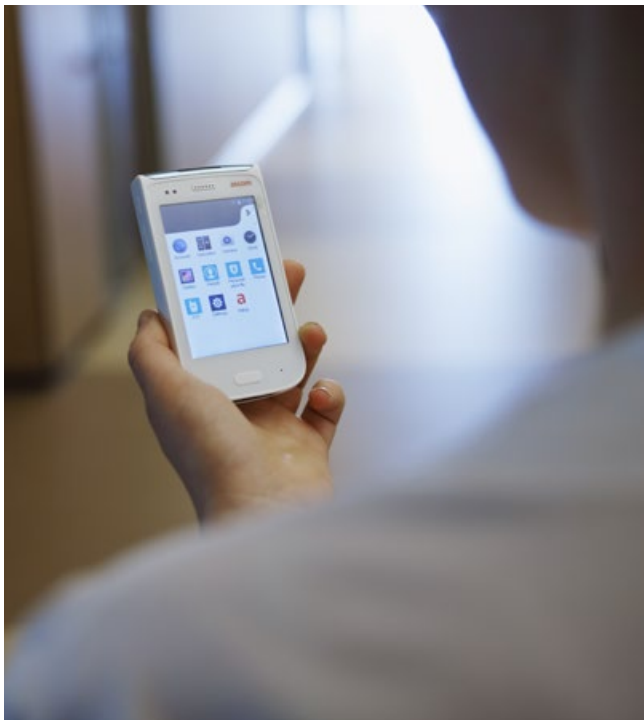
Today, there's an easy answer found in mobile communication software and technology that keeps help close at hand. Administrators are overcoming the challenge of distance and separation by integrating their clinical systems, such as nurse call and patient monitoring, with specially designed software to enable mobile communication, including voice and interactive messaging.

Messaging integration to these clinical systems delivers mobile alert notifications to the caregiver regardless of his or her location in the unit or ward. This allows the caregiver and patient to stay connected, even though they are not physically present in the same room.

For example, nurse call integration with mobile communication software delivers message alert notifications to the caregiver's mobile device when the patient presses the bedside call button. These messages are typically delivered with a soft key, so a caregiver can easily speak directly with the patient. Rather than feeling disconnected, a patient can express his or her needs directly to the caregiver, attaining peace of mind by the immediate response.

> *A waveform image, attached to an alert message, can enhance a caregiver's decision of how and when to respond to a patient event.*

In addition to alert messages, additional information can be provided to help the caregiver quickly assess the appropriate response required. As an example, a patient-monitoring alert message can be enhanced by also providing a waveform image. The ability to quickly review a waveform enhances the caregiver's decision on how and when to respond — for instance, whether to respond immediately or continue with their current task. For caregivers who are constantly on the go, such specific information can have a meaningful impact on patient care and safety and overall clinical efficiency.

Mobile communication software solves many of the mission-critical communication issues in healthcare today and can have a positive impact on clinical workflow. It also will play an ever-increasing role in the care environment, as mobile access to patient health records is more fully integrated with bedside clinical systems and operational processes. These interactive solutions are a crucial component in helping hospitals deliver effective patient care.

1. Rachael Zimmerman, *Why Shared Hospital Rooms Are Becoming Obsolete,* Common Health, September 16, 2011. Accessed at: www.commonhealth.legacy.wbur.org/2011/09/shared-hospital-rooms-disappearing.
2. Center for Disease Control (CDC), *HAI Data and Statistics,* March 2, 2016. Accessed at: www.cdc.gov/hai/surveillance/.
3. Mahmood, A., Chaudhury, H. and Valente, M. (2004). *Use of Single Patient Rooms versus Multiple Occupancy Rooms in Acute Care Environments,* The Center for Health Design. [online] Health design.org. Accessed at: https://www.healthdesign.org/chd/research/use-single-patient-rooms-versus-multiple-occupancy-rooms-acute-care-environments.

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