In-Room Monitoring for Dementia and Wandering Patients and Residents

BACKGROUND

In long term care and residential settings, a significant number of patients and residents can require in-room monitoring, although caregivers cannot always be directly present. Situations which include dementia, frailty and other health related issues can lead to falls from bed, wandering from unlocked rooms, and other occurrences which can be detrimental to positive health outcomes. While there are a number of products on the market that address specific aspects of these problems, only an IMS solution provides an integrated solution that non-intrusively monitors these concerns, and that respects the dignity of the individual, while maximizing their independence.

In evenings, as an example, many facilities will downsize their staffing numbers due decreased care giving requirements. Typically, a facility will lessen the number of evening staff to balance anticipated patient and resident demands, with sufficient staffing numbers, and in regard to applicable legislative requirements. While many long term care and residential settings will include a mix of patients and residents with varying levels of dementia and frailty, an outgoing issue in evenings is how to ensure that each individual’s needs are met with less staff.

In a caring environment, patients and residents are typically provided with the freedom to get out of bed, go the washroom themselves, and to leave their rooms at their discretion. Nevertheless, varying patient and resident capabilities can make this challenging to staff, which are required to ensure their care. The problem of how to maximize an individual’s independence, while still providing caregivers with the necessary information to allow them to provide positive and on-going care, is through an IMS in-room monitoring solution.

THE IMS SOLUTION

Many monitoring systems for the elderly and dementia patient attempt to address individual aspects of a patient’s or resident’s anticipated care requirements, which may include bed falls, help in a washroom, leaving a room, etc. – Only an IMS in-room solution provides an integrated solution by monitoring and reporting on the interaction of the individual, and their environment, through learned behaviours. And, only an IMS in-room solution provides the flexibility to address both open and closed units through its EDX™ backbone, which can accommodate a mixed sensory array that is tailored to the environment of the individual.

THE IMS IN-ROOM SOLUTION

In the evening, and once in-bed, patients and residents may sleep continuously through the night, or have the flexibility to get up, go to the washroom, or leave the room for varying reasons; nevertheless,
with that freedom is the concern that ‘at-risk’ patients and residents could fall from their bed, leave the room and wander, or go into distress while out of their beds. One solution is 24 hour in-room staffing, which is neither feasible nor cost-effective. As well, this may be considered intrusive and disrespectful to the dignity of the individual. Alternatives may include a mix of call buttons, and open door alerts, which only work in a limited number of situations, i.e., for call buttons to work the individual must depress one, and for door alerts to work, the door must be closed. In either of these examples, there are numerous situations in which a patient or resident may go into distress, and cannot push a button, or in which room doors are not closed, and the alerts will not work.

IMS has addressed these issues by monitoring the setting in which an individual interacts, by tailoring the solution to their needs, and by learning how the individual interacts with their environment. IMS in-room solutions learn patient and resident behaviours, and report on anomalies that relate to their interaction, which can also be pre-programmed by staff.

Some examples of different ways in which an IMS solution can support care giving staff are described in the following narratives:

A significant concern for evening staff is when a patient or resident gets out of bed and a distressful situation occurs, which may include a fall, loss of consciousness, etc. An IMS solution not only monitors whether an individual is in or out of bed, but the IMS intelligent solution learns when the individual typically leaves their bed, and for how long. If the individual leaves at an atypical time, or does not return within a ‘typical’ or pre-programmed time, the system can alert care givers of the situation through a text message alert. The text message alert can take the form of a single notification, or a hierarchical alert that will be escalated if the first level care giver does not respond within a preset time period. In addition to learning an individual’s behaviour, IMS solutions also provide staff with the flexibility to pre-set the notification parameters, which may include an out-of-bed alert after 10 minutes, regardless of patient or resident history.

Another concern for evening care givers is when a patient or resident leaves their room unattended. In rooms that have a door closed, this can be accomplished through the monitoring of an ‘open’ door condition; however, in various situations, room doors are not necessarily closed. Through the EDX™ open architecture, IMS is able to monitor either a door opening, or whether an individual crosses the door threshold; even if the door is open. In the event that an individual is detected leaving their room, an IMS solution can allow care givers the flexibility to identify whether such an event should issue a notification alert for ‘at-risk’ individuals, or remain in a non-alert situation.

An out of bed ‘at-risk’ situation (e.g., a fall or loss of consciousness) is always a key concern for after-hour caregivers, and at some times has resulted in patients and residents remaining out of bed and in an
‘at-risk’ situation throughout the night. Using an IMS intelligent solution, care givers are able to monitor multiple conditions, including ‘out of bed’ conditions, motion, door thresholds, etc., and to set up multiple parameters to determine ‘at-risk’ alerts. For example, if an individual is out of bed, has not left the room, and there is no room motion for a 10 minute period, an IMS solution can be set up to alert the primary care giver of the situation, and if the primary care giver does not respond within a pre-set time, the system will escalate the notifications and send out a secondary alert to another designated care giver.

OTHER IMS SOLUTION ATTRIBUTES

IMS solutions provide the comprehensive means through which care givers can non-intrusively monitor in-room activities for dementia and wandering patients and residents, as well as for other ‘at-risk’ individuals. IMS solutions provide fully integrated views of single and multiple facility applications through a web-enabled interface that learns from patient and resident interactions, as well as through user programmable parameters. Through the provision of a hierarchical notification protocol, care givers can also ensure that ‘at-risk’ situations are responded to in a timely manner. In addition, IMS solutions include an event audit log to record each time an event notification occurs, who responded to it, and the follow-up action that was taken to correct the situation.

IMS provides flexible solutions that are fully programmable, and which can be tailored to meet both the needs of the ‘at-risk’ individual, and the care giver vested with the responsibility to provide a secure and caring environment.

FURTHER INFORMATION

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