The Hospital Room of the Future

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Have any of you been a patient, that is, an inpatient lately? Most of us, I'm sure, would prefer to be a provider rather than a patient! Patients are the ultimate captive audience. They're tired, scared, often in pain, sometimes lonely, and usually desperate to go home. Now, in contrast, graft onto this situation the application of an existing technology promoted by a start-up firm that has the potential to revolutionize the tedium of an inpatient stay and, in turn, create the hospital room of the future.

A firm that may have a head start in this vision is called the Get Well Network (GWN), a start-up company based in Washington, DC. The idea began in a hospital bed at Johns Hopkins Hospital in April 1999 as the founder, Michael O'Neil, was recovering from surgery to treat non-Hodgkin's lymphoma. As the company literature states, “Too uncomfortable to read, I spent countless hours each day staring aimlessly at the outdated 13-inch television with poor color, muffled sound, and limited channels hanging from the ceiling. The days grew longer as I longed for information about my new condition, communication with my family and friends, and connectivity to the outside world.”1

Two years later, GWN was installing state-of-the-art, Internet-based interactive video, and email in patients' rooms in some of the leading integrated delivery systems in the nation. The company is performing the installations using the televisions already bolted to the walls! I'd like to describe the current applications, future developments, and potential research applications of the GWN framework for P&T readers.

Current Applications

GWN has several key modules, including (1) an entertainment module with movies on demand and email, (2) a patient education module with key on-demand informative videos, and (3) a unique survey feedback module. These three modules form the current backbone of GWN.

The survey feedback module enables a hospital to create dynamic information tools from such mundane data as visiting hours, special events, and a site map. This relatively boring material can be animated and customized in multiple formats through the existing hospital room-based television screens. This module also includes real-time interactive patient surveys that would enable hospital administrators and other leaders to literally “feel the pulse” of patients through online patient satisfaction surveys. In short, imagine a hospital administrator logging in first thing in the morning and checking patient satisfaction scores in real time on a unit-by-unit basis. That's the power of the survey feedback module.

The customer service module enables a full-time GWN concierge-type employee to monitor patient complaints and to service the hardware and software throughout the institution. This module also delivers systemwide orientation to all nursing shifts and serves as a platform for future software and content upgrades.

Future Developments

Planned developments with various hospital partners include projects such as bed flow tracking, in which administrators would be able to streamline the turnover of beds and improve workflow among the transport, cleaning, and admissions functions.

Other anticipated developments include an automated discharge instruction tool with which nurses could streamline the somewhat lengthy and cumbersome discharge process using videos, interactive surveys, and, eventually, a self-checkout function. Imagine the opportunities with this module for outstandingly focused and reliable pharmaceutical education for patients.

Finally, future developments will also include a dietary planner, an electronic gift shop, and an online schedule that would enable patients and their families to review their care itineraries from the comfort of the inpatient bed.

Research Applications

I am very honored to be playing a small role as the first chairman of the Get Well Network Outcomes Advisory Board. GWN is committed to doing action-oriented research on its innovative modules, and I believe that the Outcomes Advisory Board will be able to tackle several key projects in the near future.

One project might be related to online functional status assessment using well-regarded and reliable research tools to do prefunctional and postfunctional status assessments on hospitalized patients. This would give hospital leaders detailed information on the outcomes of medical care.

A second project might involve assessing adherence to clinical pathways. We would recruit patients to help monitor their own care in the hospital, as compared with published hospital-wide critical pathways. This task is not for the weak-kneed leader or hospital administrator but for the visionary of the future who is willing to involve patients in their own care. This follows the current motto of “Nothing about me without me!”

Another potential project envisioned by the Outcomes Advisory Board might involve an error-reduction tracking system that would actually recruit patient support for recognizing, reporting, and helping to eradicate hospital errors, especially those related to pharmaceutical care. Through online photographs of pills and through emails about their drugs, patients would be encouraged to report any inconsistencies or adverse effects. Imagine the impact on adverse drug-reaction reporting, allergy notation, and related functions.

If we think about the current applications, future developments, and research opportunities inherent in GWN, it is truly an exciting picture. I can also conjure up an administrative dashboard whereby hospital leaders could visualize the number and types of currently occupied beds, the patient satisfaction scores on a bed-by-bed basis, and the performance of each unit vis-à-vis patient functional assessment scores. Instead of waiting weeks or months for printed patient surveys to be returned and collated, hospital leaders of
the future would have all of this information at their fingertips in real time.

P&T committee members might think of additional applications for this existing technology. I’m sure that our Outcomes Advisory Board would benefit from broad-based input. The hospital room of the future will be a patient-centered room, with online orchestration by the only appropriate maestro.

As usual, I am interested in your views. You can reach me at my email address: david.nash@mail.tju.edu. You can contact Dr. O’Neil, the founder of GWN, at moneil@getwellnetwork.com.

Reference