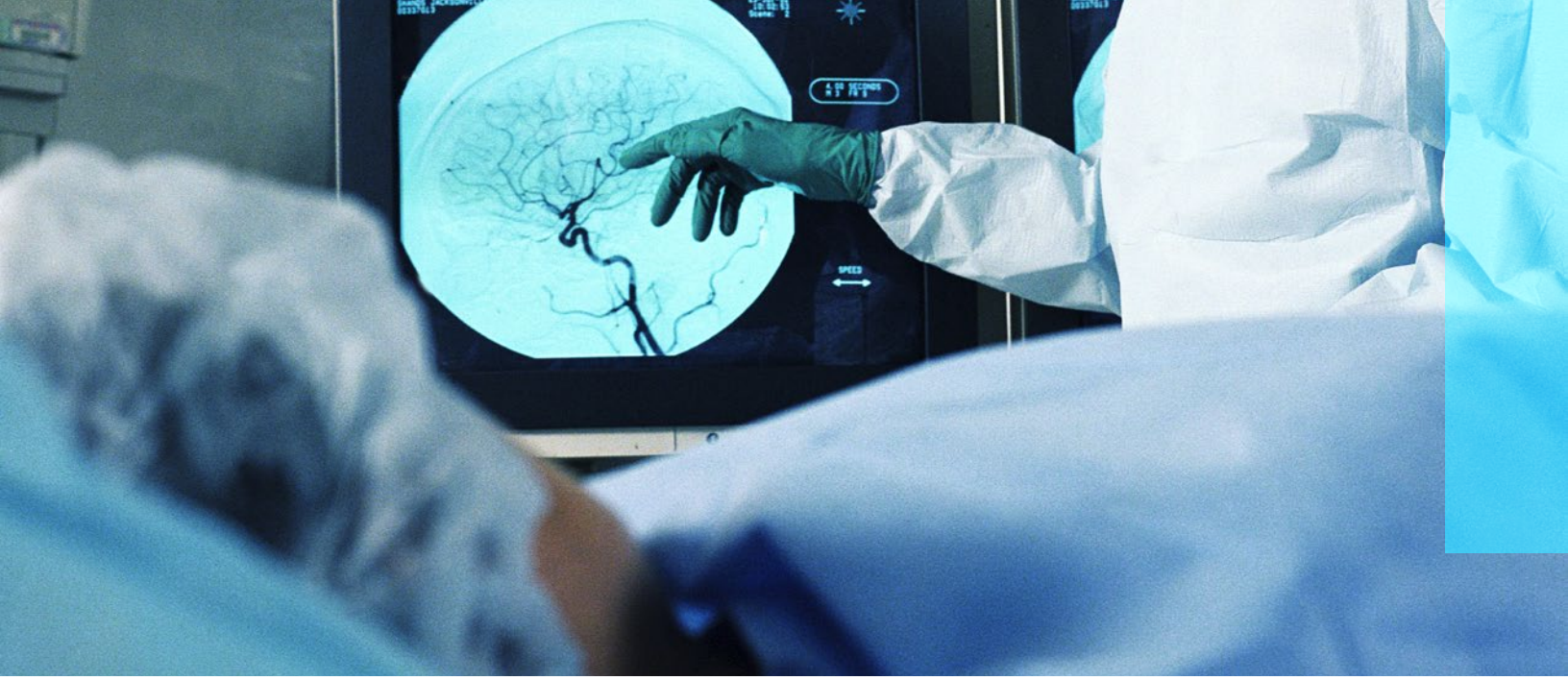


A New Class of Patients

By Jens Mammen

Rapidly changing diagnostic & treatment modalities—predicated on emerging technology, an increasingly chronic patient population, new and less-invasive care processes, new care delivery models in response to reimbursement reform initiatives, and a patient-centered care philosophy—are mandating that we redefine our patients and how they are best cared for.

Advances in minimally invasive surgical technologies have spawned two important trends: one on the inpatient side and the other on the outpatient side. For inpatients, procedures are becoming less invasive and post-surgical length of stay is projected to continue its steady decline. On the outpatient side, minimally invasive procedures have actually enabled increasingly complex interventions. This has paradoxically increased the acuity of many ambulatory patients and outpatient post-procedural stays over several hours to nearly a day have become fairly common.

This dynamic is indicative of many long-term trends facing healthcare managers and care givers today. Technologic advances notwithstanding, as an industry we are promoting increased consumerism, increased patient and family involvement in care, continuing system consolidation, more quality and safety initiatives, and a growing community health philosophy.

Additionally, political challenges notwithstanding, the ACA reform legislation will significantly affect care delivery and require profound change and transformation in the U.S. healthcare delivery system. Common themes which underlie the legislation are affordability, efficiency, accountability and quality, which can be interpreted to mean "providing comprehensive higher value

quality healthcare to the U.S. population, as a whole, while managing/reducing the cost of such care"; i.e., population-based health. Most notably, the healthcare industry faces an environment characterized by:

- Increasing service demand driven by improved access to care by those currently uninsured as well as an aging population with various chronic diseases or comorbid conditions who demand more individual care.
- Constraints on care delivery and utilization growth due to caregiver shortages, insufficient primary care capacity, and anticipated payment model restrictions necessary to control overall system-wide healthcare costs.
- New care delivery models and health delivery system restructuring in response to the implications inherent in bundled payment initiatives, standardized clinical practice efforts, CMS guidelines for hospital admissions, and select payments for wellness initiatives.
- Population-based care management as implied by such initiatives as Medicare preventive care programs, Accountable Care Organizations (ACOs), and the Medical Home concept.

The facility development response: the 23-Hour Hospital

In response, providers are developing least-cost operational models and strategies to capture additional market share. In order to provide enhanced value and quality in this environment, facility design is being driven toward more efficient operations, reduced duplication of equipment and staff, adoption of technology-assist modalities, and enhanced physician and hospital productivity.

One of the most complex trends we are facing is that of technology growth and its rate of adoption, and how best to respond to the demands involved. In general, substitution technologies are decreasing procedure invasiveness and radically changing the related procedure venue and required care model—one result being significantly shorter lengths of stay. Even the traditional definitions of outpatient and inpatient surgical procedures no longer seem adequate and will potentially be redefined as elective and non-elective procedures, reflective of more predictable time frames and thereby allowing better resource management.

A new care delivery model—the 23-hour hospital—is developing in support of this new patient type:

- **Ambulatory or "vertical" patients.** A patient who does not need a bed, or horizontal surface, for appropriate care. This level of care includes simple imaging procedures, lab-sticks, counseling sessions, etc.
- **Mid-patient or "horizontal" patients.** A patient requiring up to a 23-hour stay on a horizontal bed surface in the most appropriate strategic setting, consistent with quality care processes, optimal operational efficiency, and applicable codes and regulations. This level of care would include, among others, patients requiring pre- and post-procedural care, including selected pre-admission diagnostic testing procedures (with a stay of up to 23 hours) or chronic disease management (e.g., those requiring infusion services, etc.).

Why worry about "horizontal" ambulatory patients? Aren't they still inpatients?

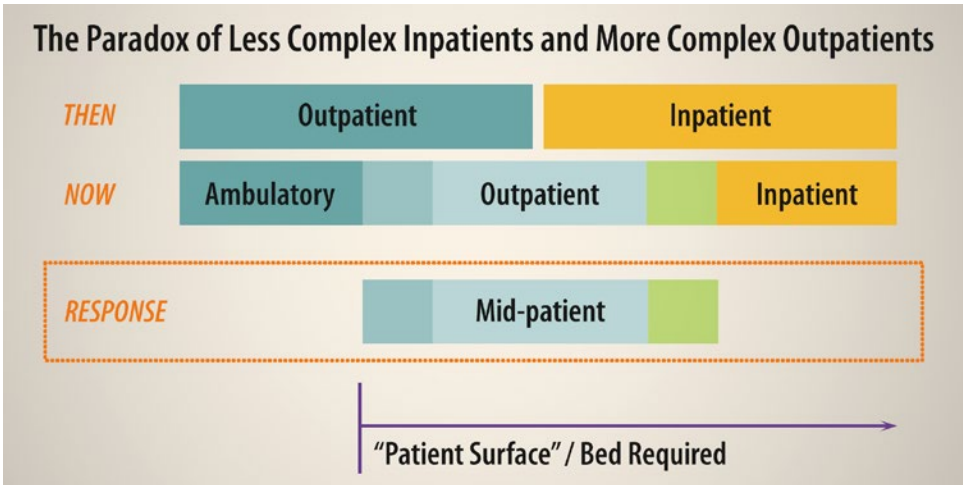
The major premise in designing healing environments is a patient-centered philosophy. As such, we strive to create appropriate care settings for patients and their care partners. By definition, the "horizontal" ambulatory patient is not an acute care patient; most are not acutely ill. They are, rather, a growing population of pre- and post-procedural patients or patients who periodically return to the hospital for the management of their chronic disease(s). Their use of hospital resources is lower than that of an acute patient; yet their needs for patient amenities, education and family support is increased.

The design of an appropriate environment for these patients should optimize hospital resource utilization, which allows enhanced marginal revenue and appropriate patient management—in other words, the right resources at the right time. Operational timeliness and quality and safety of services remain the key drivers behind this new classification. For example, a fair amount of ancillary process engineering may be required to ensure timeliness and safety.

- Pharmacy may well trend toward a retail or rapid response perspective.
- Typical, scheduled laboratory inpatient batch processing tends to slow the care process down in this population; therefore, newer point-of-care technologies may prove beneficial.
- Imaging may require a refocus on quicker scheduling and reading.
- Logistics of services such as dietary and housekeeping may also trend toward a more rapid response model.

Optimizing new patient types in the context of industry transformation

Healthcare facilities are strategic resources; they must be optimally responsive to foster clinical programs, enhance culture, and ensure efficient operations. They should enhance healthcare quality and safety and respond to technological change. Most important, they should be grounded in the development of appropriate clinical care delivery models and facility settings that optimize the use of finite resources. If one embraces the philosophy that resources are strategic, then it follows that emerging patient types require a strategic organizational and facility response.



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Jens Mammen has over 20 years of experience in strategic planning and architectural design. He recognizes that the built environment is a memorable reflection of a hospital's vision and mission, and that facilities are a strategic resource in the delivery of healthcare. He offers experiences in developing new care delivery models, operational concepts, clinical care models and the facilities to support them. Jens is a founding editorial board member of HealthcareDesign, the journal sponsored by the Center for Health Design, and helped to develop and launch a new graduate healthcare architecture program at the University of Detroit Mercy, one of only a handful of such programs in the country.