

Designing urgent
care centers

Think 'Lean'

(hed) By Marc Margulies and John Duggan

Healthcare costs are of great concern to all those who bemoan an ever-increasing payroll deduction, but are of no less concern to the insurance companies and clinics who must cover those costs. Emergency department coverage constitutes a large percentage of the average monthly insurance premium, so reducing the ED expense could have significant cost-saving benefits. Fifty-five percent of visits to emergency departments are for routine care or minor medical problems. The cost of those visits is greatly influenced by the fixed overhead costs associated with 24/7 maintenance of staff and resources in a hospital environment. Urgent care centers provide lower cost and more readily accessible care by qualified but less specialized medical personnel. This is the rationale behind the nationwide effort to build new urgent care centers.



It is difficult to imagine plunging into a brand new patient-care delivery model, but that's what Fallon Clinic recently did in central Massachusetts. It did so knowing that "Ready-Med," its new free-standing, extended-hours urgent care center, could both bring in new patients and decrease its costs and the patients' expenses. The new Ready-Med model was enthusiastically embraced by all members of the staff because of being immersed in Lean process discussions. The staff had learned how to think about improvement and efficiency on an ongoing basis, and was eager to implement discoveries.

Fallon Clinic employed the Lean process model to improve the customer experience and operational efficiencies in the 5,000-square-foot urgent care facility. There are several components of the Ready-Med UCC that influenced the design, including staff selection, layout and operations. The following considerations can be applied to similar UCC projects:

Exam and procedure rooms are fully outfitted to deal with a wide range of non-life-threatening healthcare issues, including X-ray and minor lab tests.

STAFF SELECTION

Unlike a more traditional family practice, UCCs are intended to be open at least 12 hours per day, seven days per week; patients do not expect to see any particular practitioner. Given the hours of operation, many different staff combinations are possible, with significantly different visit volumes at different times and days of the week. Staff must therefore be flexible and cross-trained. Admitting and checkout needs to be done by whoever is available. At Ready-Med, the medical assistants often complete these tasks in addition to traditional patient-focused clinical duties. All processing is done through "Epic," the electronic medical records system, so no hardcopy files are maintained.

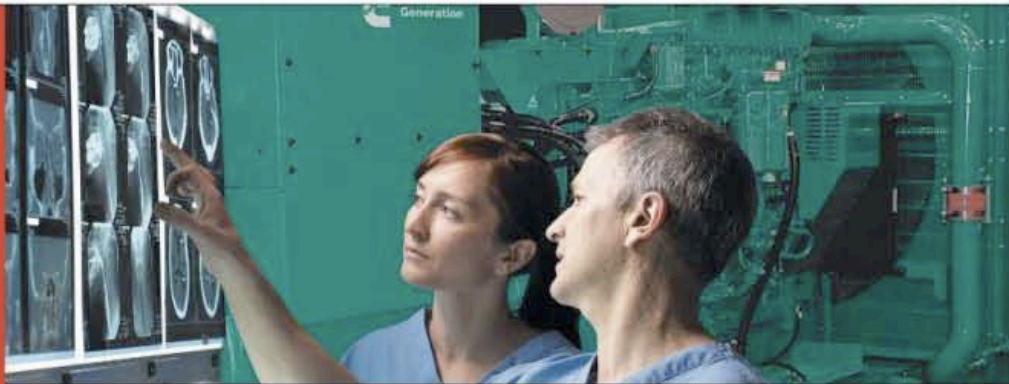
Just as the patients must be flexible as to which practitioner they see, UCC caregivers should be willing to abandon the traditional "doctor with an office" paradigm in favor of a workplace that is more dynamic and less individualized. Clearly this environment will not be universally accepted, so selection of doctors, nurses, physician's assistants and medical assistants who can

work well together in an open environment is essential. Like an emergency department, centralized nursing and physician stations need to be fully outfitted to provide everything required.

Patients are whisked directly into exam rooms with little or no time spent in a waiting room. All consultation happens in exam rooms, which also means exam rooms need to be large enough for a practitioner, a patient and one or two family members. Churning rooms rapidly is key to reducing patient waiting time, so staff needs to recognize their responsibility to identify the status of any room that they have had contact. Only if the whole staff works as a team can a UCC reach its full potential.

LAYOUT

The "AIA Guidelines for the Design and Construction of Health Care Facilities," section 3.5, sets the standard for freestanding urgent care facilities, and often becomes the de-facto standard for public health agencies as well. Sizes of rooms, adjacencies, HVAC standards, dimensions of components and acoustic and visual



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privacy requirements are all specified. With four to six exam rooms, two procedure rooms, and the associated offices, radiology and support spaces, this becomes a facility of 4-5,000 square feet. Given this highly prescriptive and regulated format, the opportunities for thinking "outside the box" come mostly from the improvement of patient and practitioner flow within the space. Cutting down on wasted motion saves time, which leads both to greater patient satisfaction and profitability. Better visual management of rooms, i.e., knowing which doctors are where and what patients require, likewise increases efficiency.

Equipment, furniture, furnishings and medical technology have become more componentized. Rather than field-constructing traditional mill-work, storage units, or pharmaceutical storage/dispensing systems, they can be purchased and installed as units. A higher degree of quality control and flexibility can be achieved, and small opportunities for improvement are thus not thwarted by the high cost of change.

Part of the Lean design philosophy employed during the design of Ready-Med

Centrally located, with visual connection to the entire facility, the nurses, medical assistants and doctors all work from an open area ringed by exam rooms.



Few people actually wait in the reception area, as most go directly to the exam rooms. Those who do wait can see directly into the clinical area, reducing the sense of mystery and anxiety about their upcoming medical care.

included the collaborative sessions with all members of the staff, facilities and executive leadership. By using interactive 3-D visualization technology, wide variety of layouts were investigated and critiqued. When the final layout had been resolved, all mem-

bers of the team were sufficiently involved in the design. The discussions about relative value of various clinical components were easy to weigh against image and aesthetics, since both the cost and 3-D images were readily accessible.

Two medical trends that affect layout are the increase in the use of electronic technologies and the heightened sensitivity to infection control. Given that testing, monitoring and recording equipment is increasingly networked, and portable records management is more the norm, well-planned and ubiquitous network jacks connected to the local area network are essential to the future success of a UCC. Eventually this capability will be done wirelessly. In the meantime, it is important for flexibility and functionality that a robust IT infrastructure is in place.

The second trend that affects layout is the increased concern over regular hand washing. Studies have proven that frequent hand washing is one of the most effective means of preventing the spread of disease, so UCCs

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must have a full network of sinks throughout the facility. Sinks must be in each exam and procedure room, in soiled utility storage areas, in the staff lounge and in equipment cleaning areas. The cost of the associated plumbing can be substantial, particularly for existing single story slab-on-grade conditions, but the health benefits are indisputable.

OPERATIONS

While managing the cost of construction is always an important part of the success of any project, the cost of staffing a UCC is 15-20 times the real estate cost. Designing the space in a way that reduces the number of staff required and increases the quantity and quality of care delivered will have enormous impact on the profitability of the operation. The first step is for the processes and procedures, both medical and financial, to be clearly identified prior to beginning design. A big part of Lean is the development of standardized procedures for all parts of operations. Standardization leads to efficiency through familiarity, but it also promotes easy flexibility of staff assignments. If all equipment and supply locations are uniform from room to room and time to time, whoever is on duty will quickly find items needed.

Unlike hospital EDs, UCCs may have the ability to be selective about their client base. If associated with a subscriber network, they may have the benefit of an electronic medical records database that gives immediate access to patients' medical history from any room. This can eliminate the wasted time, personnel and space.

The healthcare system requires great creativity to be able to function efficiently and effectively. Those responsible for design and construction of UCCs should encourage Lean process discussions, not just to make construction less costly, but to actually improve the way clinical and administrative processes are performed. Engaging all stakeholders early in the design process can yield highly satisfactory results: rich dialogue from various perspectives, better design and an efficient medical facility that provides quality and affordable healthcare. ■

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