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Healthcare Facilities Management

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HEALTHCARE FACILITIES MANAGEMENT

By

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Project submitted in partial fulfillment of the requirements of the

Bachelor of Integrated Studies Degree

Continuing Education and Academic Outreach

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FIELD OF STUDY
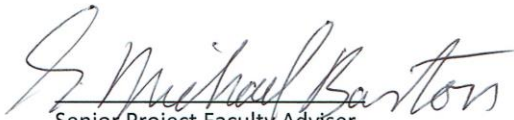**PROJECT APPROVAL**

I hereby recommend that the project prepared under my supervision by

Harold Brad Lucas,

entitled _Healthcare Facilities Management_, be

accepted in partial fulfillment of the requirements for the degree of

BIS 437.

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Abstract

Healthcare is an ever changing industry and signs show that this will most likely be the case for many years to come. In order to have healthcare, companies must have facilities in which to provide said care. This paper will focus on those facilities and what it takes to keep them operating at an optimum state. Facilities management is a quite broad topic when looking at any industry but when it comes to the facilities required to provide patient care the spectrum is mind boggling.

Healthcare facilities must have people to maintain them. These people are required to be knowledgeable in many areas including but not limited to maintenance and construction activities. Employees in the facilities management field are required to be trained in many fields including electrical, mechanical, plumbing, HVAC, and a host of other specialized areas. This paper will elaborate on the detailed training that facilities employees must complete in order to keep up with changes in the field.

With healthcare come regulations. This paper will elaborate on the many city, state, and federal regulations that are part of everyday life in a healthcare facility. These regulations are designed to keep patients, visitors and staff safe at all times. We will look into the reasoning behind the regulations and some new ones that are coming.

Taking care of patients is the number one priority in any healthcare organization. This paper will hopefully paint a clear picture of what goes on behind the scenes that makes it possible for surgeries to occur, babies to be born, food to be prepared and so much more. There are many people maintaining many moving parts of the machine that ensures each day is smooth for our patients and guests.

Introduction

For as long as there have been buildings there has been a need to maintain them. This need has had its challenges from day one and continues to offer challenges today. Large facilities, such as healthcare facilities, sometimes tend to take on a certain personality. Old buildings especially have a special presence that signifies a strong cornerstone in a community. Historic buildings are protected for this very reason. These buildings would be an eyesore in the community if the windows were broken out or the paint was peeling from the trim. The community would certainly complain if the grounds were overgrown or the gutters were falling from the soffit. These examples are not only unattractive but they can also be dangerous. For these very reasons facilities must constantly be maintained to ensure the property is in good working order not only aesthetically but also mechanically.

History

It is certainly not an easy task as large facilities such as healthcare facilities are very complex in their design and functionality. Sometimes with older, historic facilities, there are certain rules regarding how a facility must be maintained in order to preserve the historic designation. Many times new technology or architecture must be integrated into a historic facility without looking "modern". There are several ways to accomplish obstacles like this. Fortunately manufacturers today supply an abundance of choices for just about anything imaginable when it comes to maintaining or upgrading a facility of any age. Mass manufacturing has opened the door to endless possibilities while maintaining a façade that is desirable for the community at an affordable price. It's not surprise that the days of the craftsman are long gone but historic building can still maintain the majesty they projected the day original construction was

completed. Although the original materials installed by skilled craftsmen would be desirable this day and age, the option of the manufactured alternative does provide an attractive alternative for today's historic facilities.

Maintenance vs. Management

I've touched briefly on the maintenance of facilities but maintenance is just a small part of healthcare facilities management. Of course maintaining the facility is extremely important but managing that facility goes much deeper. When talking about managing a facility we look at the whole operation from the utilities entering the building to a happy customer going home well. All parts of the operation of a facility must work in unison and everyone involved must be on the same page. Facility engineers work with physicians, nurses, administrators, accountants and a host of other people to ensure that the facility as a whole is meeting everyone's needs. Each person or department in a hospital or healthcare setting has specific needs that must be met in some way or another by the facility team. It would sometimes seem that a healthcare facility is a living organism. It does provide life in ways that most people wouldn't think about. For instance, there are machines within a facility that make medical air that supplies patient ventilators that breath for a patient that is unable to breath on their own. This air is piped throughout the facility and connected to outlets in strategic locations. Large tanks that hold liquid oxygen are onsite to supply oxygen throughout the facility much like the medical air. Another utility is called medical vacuum. Large vacuum pumps provide piped vacuum throughout the facility to ensure that any patient requiring vacuum will have virtually an endless supply. These are life sustaining utilities that must be maintained constantly to ensure seamless availability 24 hour per day 7 days per week.

Utilities

There are many very important aspects of the heart of the healthcare facility. There are many more pieces to the puzzle to tie everything together for a successful operation. For instance, most everything that is critical to the operation of a healthcare facility has redundancy. Hospitals many times have their own electrical sub-station feeding electricity to the building so in the event of an outage, power can be restored much quicker. To go further than that, the sub-station may be fed from multiple locations within the city so if one fails, the other can provide power. From the sub-station we go to the facility itself. At this point there are many times two transformers in place before power ever enters the building. Again, if one fails, the other serves as a backup. Once the power is established at the transformer, it is now ready to enter the facility. At this point, the electricity enters a piece of equipment called a switchgear. This equipment, as the name suggests, is a switching mechanism that directs the electricity to various areas throughout the facility by way of distribution panels. These distribution panels further distribute the electrical circuits to various levels of the hospital stopping first in electrical rooms on each floor. Within these electrical rooms are breaker panels that supply power to lighting and receptacles much like the ones found in our own homes.

In a healthcare environment there must never be a time when the facility is without power. In this case healthcare facilities are equipped with emergency generators. This is not only a very good idea but as with many things within this environment it is required. Emergency generators are not meant to supply back-up power to every outlet in the facility but only the essential outlets, lighting and equipment. There are guidelines that direct facility managers and engineers regarding what are "essential". This takes us back to the switchgears discussed earlier. Each switchgear is assigned a level of importance. The first switchgear will provide what is

called the "critical" branch of power. Another will be called the "life support" branch and lastly the "utility" branch. The critical branch will supply power, for example, to exit lighting, emergency lighting and some electrical outlets. These outlets will be discussed a little later. The life support branch will supply power to life support equipment such as the medical air and medical vacuum machines discussed earlier. It may supply equipment on the floors to sustain life and some emergency outlets. The utility branch serves equipment such as air handlers, pumps, motors and various non-life support equipment. This is necessary to keep some heating or cooling available and other equipment that will allow operations to continue until power is restored.

Emergency Power

This brings us to the emergency outlets discussed earlier. When power is lost in a healthcare facility emergency generators start automatically to supply supplemental power. After the generators get a signal to start, a device called a transfer switch "transfers" power from the normal power side of the switchgear to the emergency side of the switchgear. At this point no outside power is coming into the facility. All power is being made at the generators. Most of the time generators are not sized to supply 100% power to the facility because the cost would be astronomical for a machine that big only to be used in emergencies. Therefore, as previously discussed, the level of importance is established. Earlier it was discussed that certain electrical outlets are powered during an outage. There is an easy way to tell which outlets will have power when the generators are running. These outlets will be red. Yes, red outlets provide an easy way to find power when the lights go out. It is important to know that these outlets are powered during normal power operations as well.

This may seem confusing and it may very well be for many people. Luckily most people don't have to or need to know how this intricate maze of wires, switches and machines work. It takes highly trained individuals to first design systems such as this and many more that will be discussed later. It takes another type of skill to maintain systems such as this. These system are tested, tested again, and then tested some more to ensure that in the event an emergency arises and power is needed, it will be there.

Just by looking at the chain of events involving emergency power, it is quite evident that managing a healthcare facility takes an extraordinary amount of expertise on many fronts. This expertise can come from in-house staff which has been the common practice for many years. On the other hand, many organizations today are moving to the option of outsourcing facility management. This outsourcing can cover any level of the management from just maintenance or environmental services to multiple departments. Todd Siple with Global Workplace Solutions says that consolidating energy savings with good sound maintenance practices is a smart decision with the pressure that organizations are feeling to reduce cost but still maintain the facilities. These agreements can and do save money and keep facilities maintained in a detailed and regulatory compliant way. The downside to this type agreement is the lack of flexibility with the contract. In-house labor and management tend to be more able to conform to the issues that come up in a healthcare facility that falls outside the lines of normal management. Not everything can be written into a management contract that can come up in a facility. For instance, contract services with certainly maintain a facility chiller, boiler or nurse call system but they are less likely to help out with that odd piece of equipment that no one really claims (this does happen). Other things that are not thought of are the community events that healthcare

companies are sure to be a large part of. There are always lots of needs for these events that would never be written out in a contract. This may be where in-house staff and management shines. These examples are certainly not going to make or break and organization and most likely the events or issues will be worked out somehow but they do come up and more often than one would think. As we all know in the healthcare business, we just have to make whatever is needed work when it is needed.

Facility Engineer

For facility management to work correctly there must be a credible facility manager. This person would likely be held at the same level as a human resources manager or unit director according to The Facility Management Handbook third addition. This person must have the authority to make decisions based on risk management, safety, security and the financial situation of the organization. This has not necessarily been the case in the past. Administrators are seeing the value in facilities when it comes to saving money with energy savings and smart facility operation. After all, the physical facilities are the largest and most valuable asset an organization has so this piece of the puzzle must have a great deal of emphasis put on it. A competent facility manager can save hundreds of thousands of dollars for an organization by simply running an efficient physical plant. Today this efficiency comes largely from technology. Almost gone are the days of "tweaking" controls by hand and hoping for the best outcome. Today computers run most everything in the world and the operations of a highly complex organization should be no different. In this high tech world, decisions must be made by the second and technology is the only real way to do that. The facility manager must ensure that technology is kept up to date and accurate. Outdated equipment will surely cause equipment to run inefficiently and in turn cost the organization thousands of dollars. In the past, facility

managers were thought of as a glorified maintenance technician that had found his or her way to an extra office outside the main mechanical room. This is so far from the truth today. In fact, many facility managers today have bachelors or masters degrees and sometimes may or may not have ever actually performed the hands on work of maintaining a facility. According to The Facility Management Handbook Third Edition, Facility Managers should possess most if not all of the following characteristics.

- Business Leader

- Strategic business planner and implementer

- Resource obtainer

- Financial manager

- Spokesperson and advocate

- Agile purchaser, lessor, and contractor with at major regard for ethics

- Information manager

- Environmentalist

- Networker

- Mentor

- Innovator

- Risk taker

- Survivor

Wearing this many hats requires someone with a broad range of expertise in many areas of not only facilities management but of life in general. Facility managers are actually more like internal business owners. They are expected to manage all aspects of the facilities portion of a healthcare operation and they are looked to for guidance in the many areas listed above. This

very important part of healthcare management weighs in heavily on the bottom line and demands

great attention to detail. A strong facility manager will constantly make adjustments to contracts,

staff, utility agreements, leases and a host of other areas to keep cost and usage at a minimum.

With this level of attention spent on the business aspect of the operation, a facility manager must

have a strong and competent staff they can depend on. There must be a supervisor to lead the day

to day activities such as corrective and preventive work orders. The facility manager will be

much too consumed with administrative tasks to be able to focus on the physical operation of the

plant. This supervisor will most likely have background in a particular trade or maybe various

trades. Healthcare demands expertise in all trades. Making good choices regarding staff to

maintain facilities, grounds, housekeeping, food services and security is key to an efficient

operation that meets the needs of the patient, the patient's family, visitors and internal customers

within the facility. In an article from Healthcare Facilities Today, the topic of acquiring

millennials and introducing them to healthcare facilities management is a growing trend. With

baby boomers at or near retirement age, healthcare organizations must look toward the future and

recruit tech savvy 18-34 year olds that are hungry for knowledge and are ready to take on the

challenge of an ever evolving industry. The article goes on to say that millennials have a need to

connect their work to the bigger picture which is witnessing a change or improvement coming

from the work they do. Community involvement and advancement is a very important to them

and it drives them to do even more. Millennials thrive on advancing their career so in order to

keep abreast of the latest technology and general knowledge they must be continually trained in

their field like never before. Many times proper training is neglected and good employees can

fall behind fast due to the rate that technology evolves. It is evident in this day and age that

money is not the sole driver for employees. The article speaks of flexibility being a huge pleaser

for millennials. This flexibility comes in the form of work hours, the environment or simply

rotating assigned tasks regularly so not to cause employees to get burned out or bored with redundant tasks. This will increase productivity and job satisfaction which in turn decreases turnover and provides a more positive work environment overall. (How Can Health Care Facility and Design Leaders Engage Millennials?, 2017)

Personalities

Blending millennials with baby boomers can offer some challenges in itself. Baby boomers tend to be more structured in their work and like the status quo. Millennials hunger for new technology and new and better ways to accomplish their tasks. These differences don't mean that the two cannot work together, but managers must be aware of such differences and adjust accordingly for the staff as a whole to work smoothly. It's not always about two generations getting along, sometimes it's just that they are reared differently and look at the world in completely different ways. As the article stated, millennials have a need to see what's around that next corner, a hunger to try new things and make big, noticeable changes. Baby boomers are a calmer steady type. They like to get the job done with little hype. This is not to analyze types of workers or people in general, just to show that getting work done within a healthcare facility can be challenging even down to the personalities working within.

Support

It takes so many more people than is listed above to operate a healthcare facility. The facility consists of the operation as a whole. Managing a facility takes in so much more than keeping the lights on and the elevators running. Support services, as it is called in healthcare,

consists of facilities, environmental services, food services and materials management generally speaking. These are the departments that "support" the operation of taking care of patients and families. Most people don't realize what it takes to keep a hospital clean and sanitized. There are strict standards for infection control as well as general cleanliness. This operation takes many people and a 24/7 schedule to remain in compliance. With this never ending responsibility comes the task of maintaining this level of care along with cutting costs. This is no surprise as this trend is common in all industries today and will likely continue for some time. A survey released in 2015 from Proctor & Gamble stated that the main concerns for accomplishing this task is providing the proper training for staff as well as using the correct product for the job. "With labor costs accounting for almost half of overall operational costs, it is understandable that cleaning managers want effective products that get job done right the first time, reducing the time it takes to thoroughly clean," said Paul Edmonson, Director, P&G Professional Americas, in a company release. (Tabar, 2017) Lean initiatives are an attractive way of reducing costs that will affect the bottom line. Crestwood Medical Center used lean processes to reduce their operating room turnaround from 14 minutes to just 9. (Morgan, 2016) As stated earlier, a high focus on infection control, along with higher customer standards today, demand attention to detail when it comes to cleanliness in a healthcare setting. Having the right people on the job with the right training using the right products is sure to be a success in any healthcare setting. Todd Wilkening, CEO of FMadvantage LLC, says that environmental services leaders "must consider many things when preparing a departmental budget. However, the most critical element is alignment with the future vision of the health care organization." (Morgan, 2016)

Environmental Services

According to the Society for Human Resource Management (SHRM), an environmental services worker is described as this: The environmental service worker maintains environmental and infection control standards within established policies and procedures of the health care center. The position performs a variety of general cleaning tasks to maintain patient rooms, offices, hallways and other assigned areas of the facility. The position distributes and tracks clean linens to user departments and maintains stock levels on nursing floors. The position follows standard practices and procedures and complies with regulatory requirements. With this being said, it becomes very obvious that an environmental services worker is a very important part of the team in a healthcare setting. Not only do they perform tasks that ensure a patient's stay is pleasant and clean, they also maintain infection control standards and regulatory compliance. So many times housekeepers, floor finishers, linen distribution and so many other functions like these in a hospital setting are overlooked as behind the scenes workers that are essential but often forgotten. These people are a large part of infection control compliance every single day. They take care of the tasks no one else wants to take care of. The spills, accidents and messes most people never see but never the less happen. This is why training is so important for environmental services workers. These folks are trained on the correct chemical to use in every situation. Each person must know "kill times" related to the chemicals they are using as well as safety precautions each one must take while using such chemicals.

Environmental services staff are often low paid and overlooked individuals within a healthcare organization. The work they perform is not necessarily "seen", therefore it is not often recognized so the worker is not recognized. The fact is, the work that environmental services perform is quite possibly one of the most important tasks that are performed. Battling infections

in a hospital is on the forefront of every news publication today. Infections lead to lawsuits and lawsuits lead to higher healthcare costs and possibly even becoming the demise of some organizations. **Daniel Morgan, MD, MS,** assistant professor of epidemiology and public health at the University of Maryland made this statement; "Having dedicated people who are focused on cleaning and trained more than the average cleaning person is probably the key to a really clean environment," Morgan said. "Cleaning staff are often low-paid individuals who are not trained well, and haven't been considered an important part of how a hospital functions." (Philip C. Carling, 2014)To have dedicated people in this and any job, managers must make sure that the correct people are placed in each position and then properly trained. Lastly but certainly not least, each person must know that they are important to the patients, families, visitors and the organization. This is a leadership task that can't be taken lightly. Everyone is important and making each person feel important will increase quality and patient satisfaction.

Food Services

Speaking of satisfaction, everyone needs to eat. Food service is a very important part of managing a healthcare facility. There are many parts of the food services aspect of a healthcare organization starting with the patient. Every single day each food service prepares and delivers food for the patients 3 or more times per day. This is a major undertaking that requires a lot of planning and organizing to be successful. Hospitals are scored on patient satisfaction and reimbursements come from those satisfaction scores. Good food and prompt service are very important to a patient that has to stay in a bed for days or more. In the old days hospital food was avoided like the plague. Most of the time it was bland, cafeteria style dishes that would serve the purpose but left much to desire. The menu was very sparse and the choices were the same every day. This left the patient and the family aggravated because it was bad enough to have to be in

the hospital and then the choice and quality of the food was terrible. Today patients demand higher quality in most everything as they should. We live in a world where most everything is possible and at our fingertips. Why then couldn't someone in the hospital be able to order up anything they want to eat just as they would in a restaurant? The trend today is to provide patients with just that. Hospitals are moving toward a room service type program where the patient calls from the room and orders from a menu 24 hours a day. As hospitals continue to be reimbursed based on patient satisfaction scores, it becomes more and more important to make sure that the patient is completely satisfied. When the patient is satisfied the family is satisfied as well. "This shift to a more individualistic foodservice delivery model has improved the quality, freshness, and convenience of hospital foodservice," Lent says. "From an ARAMARK Healthcare perspective, our recipes were developed in partnership with The Culinary Institute of America, our internal culinary design team, and chefs across the country working in our partnering facilities to meet the special nutritional requirements of respective patient diets." (Keller, 2009) Aramark is a 3rd party employer that is used by many hospitals for food services among other areas of service throughout the healthcare arena. Hospitals are moving to this business model more and more in search of a more cost effective way of maintaining a high quality product while meeting more stringent healthcare guidelines. Reductions in Medicare and Medicaid reimbursements force hospitals all over the country to think outside the box when planning for the future. Hospitals are held accountable to benchmarks that sometimes seem unreasonable. "We'll continue to see pressure on healthcare food and nutrition departments to find the best balance for the three performance indicators: the budget and use of resources; patient satisfaction as determined by surveys from HCAHPS, Press Ganey and National Research Corporation; and productivity measured by benchmarking data," says foodservice consultant Betty Perez, RD, DHCFA, of Suffern, N.Y. (Boss, 2016) Healthcare as well as all

other industries are constantly looking for ways to cut costs without cutting quality. Benchmarks like the ones mentioned here serve as a guide for organizations to operate as efficiently as possible and still maintain a quality outcome. It is not necessarily an easy task sometimes asking staff to do more with less and without going over in man hours while remaining under budget. These are just a few of the challenges facility managers encounter on a daily basis. Working with less staff in any department is a challenge but then the manager must factor in the reality that people get sick, take vacation, or life happens and now the manager is faced with maintaining that level of quality with even less staff. Sometimes it can get to the point that extra tasks that are not necessarily essential may be postponed or eliminated. Many hospitals cater events within the organization for various celebrations or holiday events. As with any hospital, the patient comes first so sometimes special events must either be eliminated or contracted to an outside vendor.

Patients and family expect more from a hospital stay today than they did 25 years ago. We live in a fast paced just in time world where most anything a person could want is at their fingertips. Patients admitted into a hospital expect luxuries in their room to be as modern if not more modern as what they have at home or at a fine hotel. After all, the cost of a hospital stay would lead one to expect Ritz Carlton amenities. Facility managers realize this expectation and are responding to their patients with services such as in room movie rentals, extremely large rooms, and room service. Gone are the days of three choices for dinner and a take it or leave it assumption from the dietary staff. Hospitals are offering on demand room service to patients 24 hour a day for nearly anything they want and are allowed to eat by a physician. This meets the simplest of expectations that patients have at home or on vacation. "Patient satisfaction is linked to patients having a say in how they are treated and served," says Schirg. "Studies prove that hospitals can impact satisfaction scores with the overall experience of the hospital stay." (Boss, 2016) It really is all about the patient and their comfort while in the hospital. The patient doesn't

want to be in the hospital to start with so it is important to make their stay as comfortable and accommodating as possible. Their opinion really does link to reimbursements that the hospital receives. Aside from the reimbursements it is the right thing to do. Taking care of patients is top priority and making sure their meal is pleasing to them is just one small thing hospitals strive to get right with each and every patient.

Security

Hospitals are supposed to be a place of healing offering peace and tranquility for the patient and the patient's family. Most of the time this scenario holds true but more and more stories are being released about hospital shootings and other acts of violence within hospital walls. This is obviously very alarming and unfortunately it is a reality that must be dealt with. Hospital security is another part of healthcare support services that is often overlooked until they are needed. It is actually surprising that there isn't more violence acted out within healthcare with the stress that comes with bad news from a check-up or losing a loved one on the operating table. When it comes to loved ones we all have a side of us that is ready to fight for the ones we love. Violence many times can come from financial troubles and hospital bills can get to an astronomical rate in a hurry.

Lately there are other security challenges involving the elderly and mental patients. These are not typically what one would think of when news of a shooting is heard but lately it is a reality. Guns that are used in shootings many times come from within the hospital which is why so many organizations opt to use unarmed security staff. The perpetrator typically takes a gun from an armed security guard or from a family member or friend visiting. Tony York, the chief operating officer for Healthcare Security Services in Denver, Colorado, which monitors security at hospitals throughout the nation, says there has been an "explosion of patient-generated

violence" in the past several years – both from patients themselves and, often, the people accompanying them to the hospital. "Those are things that have driven this industry immensely," York says. (Crane, 2014)

Facility managers must plan ahead with staffing and budgetary items in order to stay ahead of this ever evolving issue with hospital security. Many hospitals focus on not only training the security personnel themselves but also training nurses and other healthcare staff so they will know what to do in the event that a threat arises in their area. Hospital security can only be so many places at once so facility managers have found that by training other staff in the facility to defuse a situation until security arrives, it is less likely that the threat will elevate. When looking at the chart below, it becomes obvious how much of the time the threat is against hospital staff. When the staff is trained to handle situations like this, they become part of the security for the hospital which ensures a safer environment for all.

Top incident increases over the last 12 months

■ Increase ■ Approximately the same amount ■ Decrease

	Increase	Approximately the same amount	Decrease
Patient/family violence against staff in emergency department	51%	43%	6%
Patient/family violence against staff in hospital, excluding emergency department	44%	50%	6%
Attacks/assaults	38%	55%	7%
Trespassing	34%	58%	9%
Elopements/patient wandering	26%	67%	7%

Source: Health Facilities Management/ASHE 2016 Hospital Security Survey

(Kehoe, 2016)

The security guards themselves must have training beyond how to use a baton or Taser. It is extremely important that they too can defuse a situation before it gets out of hand. In a heated

situation the police will most likely be called to the scene but it could take several minutes for them to arrive. The security staff must know how to evaluate the person and the situation and to keep the person at a reasonable level until the police arrive. This takes detailed training and re-training on a specified schedule. This training can mean the difference literally between life and death. Hospitals all over the country are debating over the issue to have security officers carry firearms. The arguments can go either way depending on the situation. Some facility managers feel that having the firearms in the facility poses a threat by the presence of the firearm itself. If the firearm falls into the hands of a mentally ill patient or disgruntled family member, the outcome could be tragic. The absence of firearms leaves a gap that could be filled by a highly trained security officer or police officer that is on staff at the hospital. Either way, proper training is the answer to the question. Chris Van Gorder, CEO of Scripps Health is talks about a "swat team" type group to handle violence in the hospital. "While we wouldn't generally arm security, I've been thinking about having a small, highly trained response team of ex-law enforcement or former military police, put them through all the necessary screening and training, and have them on call to respond to a threat anywhere in our health system," he says. "Introducing guns to a hospital increases risk for gun violence, but a small rapid response team doesn't carry the same risks as if you armed all security officers." (Rosin, 2016) Keeping a hospital safe while providing a peaceful atmosphere that promotes health and healing can be a very difficult thing to do. We all want to think that nothing will happen in a hospital or other places of tranquillity but the fact is that violence is occurring from bar rooms to churches all over the country and facility managers must deal with this issue head on. While many feel strongly against arming guards or having any form of weapon within the hospital walls, it comes down to the individual hospital. The culture of the community and the vision of the executive team will guide the organization to making the right decision for the hospital in question. Violence is all around us unfortunately and it's up to

facility leaders to keep its occupants safe and secure regardless of the avenue taken to accomplish the task.

Clinical Engineering

When you walk into a hospital patient room or you are rolled into and operating room you notice a plethora of blinking lights, alarms beeping, cords going everywhere and computer screens on everything. One would think they were in some sort of science fiction movie. The fact is that technology abounds in a hospital setting. In order to stay abreast of the latest techniques and procedures it is crucial to have the latest technology in the hands of a highly qualified physician. As anyone these days would know, if there is technology available then there needs to be someone to work on it when it breaks. This is where the clinical engineering department, sometimes called biomed, comes in. In most cases clinical engineering departments consist of a biomed manager and a handful of technicians. This group fields calls on broken clinical equipment from a simple thermometer to a multi-million dollar MRI. This group will also perform preventive maintenance on literally thousands of pieces of equipment each month. With doing the preventive maintenance on each piece of equipment, that means there are records to keep with each piece of equipment as well. These records are extremely important and are asked for during surveys such as a Joint Commission survey. The records become crucial in the unfortunate event that someone is hurt or dies from complications with the equipment or something related to the equipment.

Hospitals that have in-house biomed staff are fortunate because not all hospitals have this luxury. These hospitals rely on the manufacturer to send someone in the event of a failure. This can cost time and many times more money. You have 3 options when a piece of OR equipment breaks down and is in need of repair: Send it to the original equipment manufacturer, send it to a

third-party repair facility or, if you're fortunate to have one, call your in-house biomedical staff. Two-thirds (66.7%) of the 40 surgical facility leaders we surveyed use some combination of all 3 options. "Cost and quality are always factors when deciding who repairs what," says Deborah Henning, RN, BSN, CNOR, director of surgical services at J.C. Blair Memorial Hospital in Huntingdon, Pa. (O'Connor, 2013)

Biomed technicians have a fairly broad range of knowledge they must have before going into the field to repair medical equipment. A minimum of and associates degree in biomedical engineering is required to become a biomedical technician. Bachelor's degrees are available for people who would like to move on to be leaders in the field. This person may be a department manager or supervisor. The technician gains knowledge both from classroom education and hands on training. Much of the work a technician may do involves highly technical training. Equipment that a technician may encounter includes CT scanners, MRI equipment, EKG machines, patient ventilators and a host of other medical equipment. The responsibility that a biomedical technician has is a great one. Every time that person performs preventive maintenance or makes a repair on a piece of equipment, that technician is verifying that the piece of equipment is ready to be used on a patient and is free of defects. This assurance is critical to the patient and everyone involved with that patient because it could very easily come down to a life or death matter with a simple device. This is the reason for all of the training and re-training biomed technicians must attend to stay on top of their game. It's not something most people would even think of when they go into the hospital but the peace of mind that knowing the equipment is going to operate flawlessly will surely in some way make the patient's stay that much better.
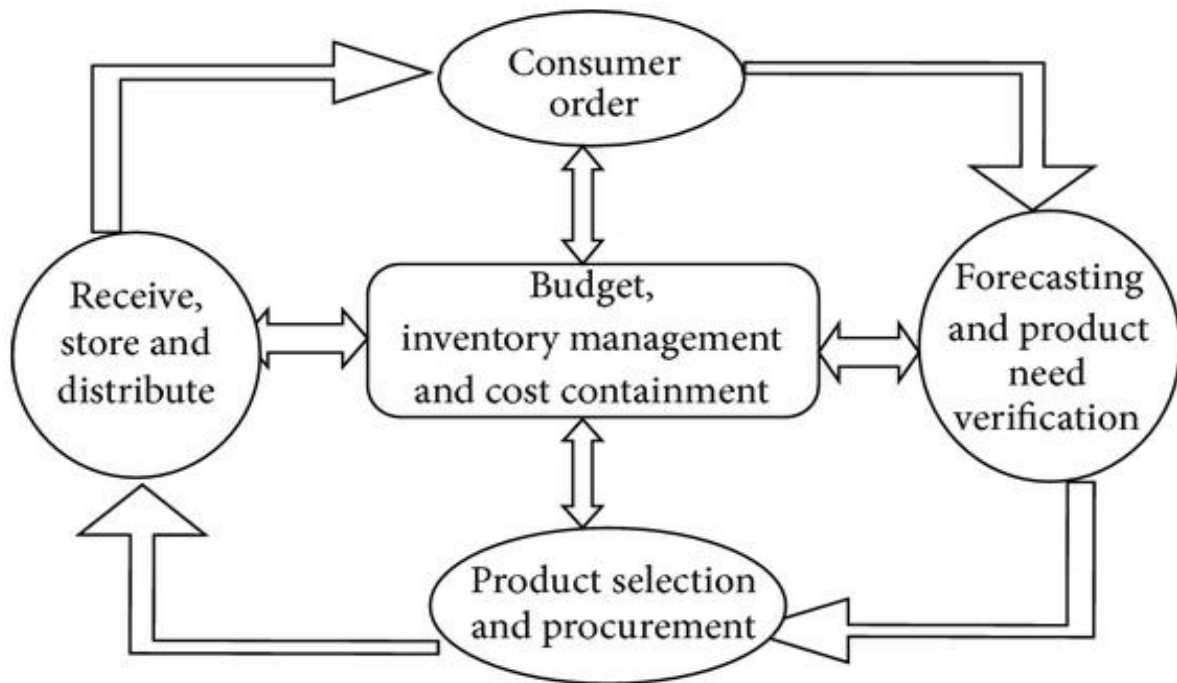
Materials Management

There is obviously a lot of "stuff" that comes into a hospital every single day. There is so much stuff that it takes a complete department just to manage what comes in, what goes out and where in the hospital it will get delivered to. This is where materials management comes in. Materials management is the shipping and receiving of the hospital. This department keeps critical surgical stocks, supplies that are needed on the nursing floors, paper for the printers throughout the facility, pieces and parts for the engineering department and just about anything else a person could think of. It is a very important part of running a healthcare facility because if the supplies are not in place patients will not get taken care of. The bottom line is the patients must get taken care of.

The materials management department is operated much like any supply house or warehouse that one may see in other industries. Large rooms filled with shelving and cardboard boxes containing anything and everything used in a hospital. Inventory is kept and tracked much like any other business. Trucks deliver goods to a dock and the goods are checked in by receiving staff to ensure the proper goods ordered did in fact get delivered. From that point the goods are either put on the shelf in the storeroom or they are delivered somewhere within the hospital. It is hard to imagine how much inventory goes out and comes into a hospital. As with any business cost is always at the forefront in terms of priorities for the day, week, month or year. Controlling cost can sometimes be challenging in healthcare because there is so much competition involving products that are crucial to a good patient outcome. Unfortunately companies know the demand for such products and many times the cost is inflated. There are ways of course to overcome this with contracts and agreements with vendors to lock in preferred pricing. This is where the director or manager of the department comes in. It is this person's job

to make sure the hospital gets the best product at the lowest cost possible while making sure availability meets the hospital's expectations. Materials management departments are many times operated as a "hub and spoke" configuration. This involves a central warehouse that in turn supplies other smaller supply rooms throughout the hospital. This concept works but also causes inefficiencies. This causes departments to over order so they don't run out of supplies in a case where many supplies are used up at one time. The answer to this is a concept used in other industries called "just in time" distribution. Supplies are delivered as they are needed versus ordering heavy stock that can sit on shelves for extended periods of time. The idea is that supplies are delivered more often but in smaller quantities and the supplier delivers the supplies to the point of use, bypassing the receiving portion of the process. This process virtually eliminates the need for a warehouse because now the supplier becomes the warehouse. With this being said, there are several other parts to the process involving supply chain management in healthcare. Below is a chart showing the typical path taken in order to get supplies from the initial source to the end user.

As the image shows, the main focus on hospital materials management is on the budget, inventory management and cost containment. This focus will continue to be at the forefront of all hospital's future planning. With healthcare costs rising and reimbursements dependent on patient satisfaction, having everything on hand and ready to serve each patient is paramount.

Healthcare Reimbursement

When a person is admitted into the hospital and treatment is rendered, in a perfect world the patient would either receive a bill and pay that bill or their insurance company would pay all or a portion of that bill. The hospital would then be paid for the service they provided based on a matrix that bill for each service appropriately. The patient would receive a receipt and be on their way. This is similar to how things worked in the old days but things have changed drastically. In the old days, and by that I mean pre-Kennedy era, physicians charged basically whatever they wanted for services regardless of the outcome. There was no recourse for failed procedures and if

readmission was necessary the patient was charged again. This behavior caused healthcare costs to rise at an alarming rate with no change in sight. Physicians were getting rich while insurance companies were losing money to the point of bankruptcy for some. In the 1930s Blue Cross was formed to allow patients to pre-pay for services in order to control what was spent on healthcare. This threatened physicians because up until this point they were charging whatever rate they wanted to with no pushback from anyone. It was actually a monopoly because doctors had a service that no one was monitoring and they were providing a service that only they could provide. Physicians saw what was happening with Blue Cross and feared a hospital take over so they formed Blue Shield which worked much like Blue Cross only it was operated by the physician group. This worried private insurance companies because it left little on the table for them. So, in the 1960s the Kennedy administration mandated that people 65 and older be enrolled in to Medicare part A which is a hospitalization segment of Medicare. This was the first initiative toward universal healthcare.

Only 5 years ago it was speculated that payment for services would be based on patient satisfaction and patient outcomes. In other words, if a procedure was performed and the patient was not satisfied or had to be re-admitted for some complication, the hospital would have to cover the charge for the follow up procedure and/or hospital stay, whichever the case. This would cause hospitals to focus on quality care and good outcomes in order to be reimbursed from CMS. This speculation has now become a reality. With healthcare costs already at an all-time high, CMS is pushing for quality and satisfaction in order to reduce readmissions. Readmissions cost hospitals a lot of money because they have to "fix" the problem they have already worked on previously at no charge plus they now have one less bed available for a new patient. Pushing for high quality and the best outcome should be the top priority anyway but tying quality to

reimbursements just assures that the patient will have the best outcome possible the first time.
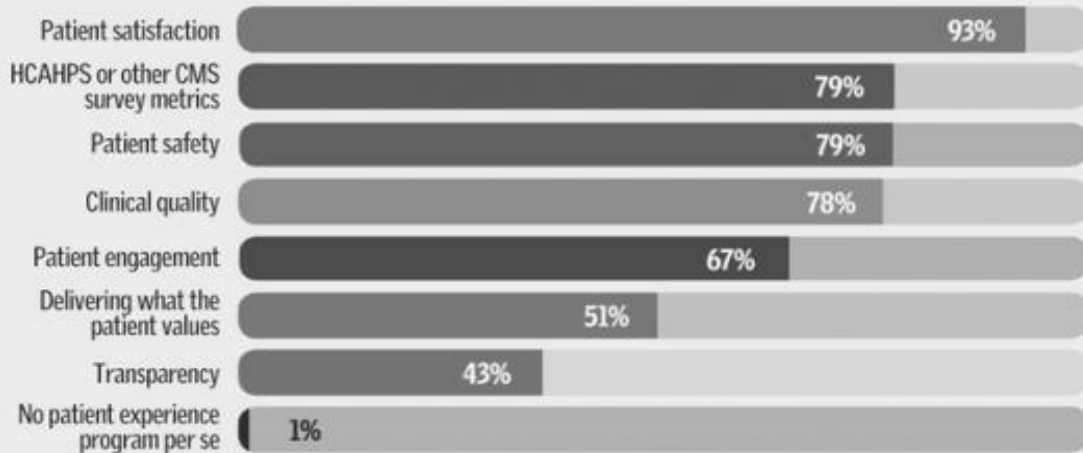(BRYANT, 2012)

Patient Satisfaction

Patient satisfaction comes from much more than the physician and the procedure that is carried out. A patient's experience begins when they walk into the clinic or hospital for the first time. They are watching to see how the volunteer at the front desk greets them and are seeing if they are helpful in showing them where to go for the appointment. As that patient walks down the halls they notice the housekeeper and if that housekeeper smiles at them when they walk by. Remember, this patient doesn't want to be there to start with. Having a procedure performed or even a check-up completed is not on most people's list of favorite things to do. With this in mind, just about everyone this patient comes in contact with during their visit is being scrutinized. One might ask how an organization knows if a patient is satisfied with their visit. Everyone has an opinion about everything these days so what better way to find out if a patient is satisfied other than simply asking them. CMS, Centers for Medicare and Medicaid Services, uses a method known as an HCAHPS survey. This stands for Hospital Consumer Assessment of Healthcare Providers and Systems. As seen in the name, this covers most anything and everything within a hospital from the perception of the road entering the facility to the grounds to the cleanliness of the restrooms. The survey is meant to cover the complete experience, not just the procedure. Below is an example of the areas scored by patients on an HCAHPS survey.

HCAHPS AND PATIENT EXPERIENCE EFFORTS

Which of the following are the main concepts incorporated into your organization's patient experience program or initiative?

Category	Percentage
Patient satisfaction	93%
HCAHPS or other CMS survey metrics	79%
Patient safety	79%
Clinical quality	78%
Patient engagement	67%
Delivering what the patient values	51%
Transparency	43%
No patient experience program per se	1%

Multi-response

SOURCE: HealthLeaders Media Intelligence Report, *Patient Experience: Cultural Transformation to Move Beyond HCAHPS*, August 2015; hlm.tc/1IOtMOJ.

The HCAHPS survey is a broad questionnaire that covers most anything that the patient may experience while being in the hospital. It goes beyond finding out what the patient's pain level is or how long the patient waited for pain medicine after pressing the nurse call button. The HCAHPS survey takes a holistic approach to evaluating the patient's experience during their stay. A hospital strives to get everything right for each patient. Many times the procedure itself is a blur if the patient remembers anything at all. The experience they have comes from how well the food was cooked to how clean their room was. This is where facility managers must be on top of their game each and every day. Again, the patient does not want to be in the hospital in the first place so everything must be right. Many people are involved in this process so the challenge that facility managers face is getting everyone on the same page to make sure each and every aspect of the patient's stay is a pleasant one. Below is the scoring process that is used to show where each hospital ranks in terms of each aspect of the survey.

HCAHPS PERCENTILES

Hospital Percentile*	Communication with Nurses	Communication with Doctors	Responsiveness of Hosp. Staff	Pain Management	Comm. About Medicines	Cleanliness of Hospital Env.	Quietness of Hospital Env.	Discharge Information	Care Transition	Hospital Rating	Recommend the Hospital
TOP-Box Score [1]											
95th (near best)	90	92	86	82	78	88	81	93	65	87	88
90th	87	89	81	79	74	85	76	92	61	83	84
75th	83	85	74	74	69	79	69	90	56	78	78
50th	80	81	68	71	64	73	62	87	52	72	72
25th	77	78	62	68	61	68	55	85	48	67	65
10th	73	75	58	64	57	64	50	82	44	61	59
5th (near worst)	71	74	55	62	55	62	46	80	41	57	55
BOTTOM-Box Score [2]											
5th (near best)	1	1	1	2	8	2	1	7	2	2	0
10th	1	1	3	3	10	3	3	8	3	3	1
25th	3	3	5	5	14	5	5	10	4	5	3
50th	4	4	8	6	18	8	8	13	5	7	4
75th	5	5	11	8	21	11	12	15	6	9	6
90th	7	7	15	10	24	14	16	18	8	12	9
95th (near worst)	9	8	17	12	26	15	18	20	9	15	11

Patient satisfaction may mean many different things for different people. One of the challenges with the HCAHPS survey is the fact that the results are strictly the patient's opinion on many levels of their experience while in the hospital. Every person looks at a situation differently and what one person may deem appropriate another may find simply inexcusable. The survey outcome is highly variable and depends on the individual's demographics, socioeconomic status, family, health status, residence, genetics, employment, and many more factors. (Berwick, D., Nolan, T., & Whittington, J. (2008). The triple aim: Care, health, and cost. *Health Affairs*, 27(3), 759-769) This alone makes assessing a patient's level of satisfaction extremely difficult. Some believe that it is unfair to hospitals and providers to have reimbursements hinge on a patients opinion on proper care since the patients knowledge of proper healthcare is very limited.

It can be viewed that a patient satisfaction survey can lean toward catering to patients wants vs. their needs. Price, Elliott, Cleary, Zaslavsky, and Hays ([2014](#)) questioned whether healthcare providers should be held accountable for a patient's experience with his or her care. The list of criticisms included such ideas as:

- consumers do not have experience evaluating care quality;

- the term patient satisfaction is subjective and not valid;

- emphasis on improving patient experience may focus providers on fulfilling patient desires and lead to ineffective care;

- ultimately this emphasis may lead to a trade-off between the provision of a good experience and the provision of quality clinical care;

- patient scores are beyond a provider's control;

- response rates to patient experience surveys are low; and

- Customized ways to survey patients about their experiences exist and may contribute to bias. (Anhang Price, R., Elliott, M.N., Cleary, P.D. et al. J GEN INTERN MED (2015) 30: 253. doi:10.1007/s11606-014-3111-7)

  The article points out that a patient does not have the expertise to evaluate care; they only have their opinion of their stay based on many factors other than their care and treatment. This makes a valid point since physicians providing the treatment have no control over many of the items on the survey. By fulfilling the patient's desires instead of their health outcome can have a negative effect on the patient outcome. When the satisfaction survey

score is based on patient appeasing the patient solely, the care of the patient has the potential to suffer.

The Environment

The healthcare environment itself can have as much effect on how a patient views their stay as much as anything. Things as simple as being able to navigate the hospital easily and having a clean room when they arrive can improve satisfaction score exponentially. The American Hospital Association finds that noisy environments for example can keep patients from falling asleep which can in turn affect how the rest of their stay will play out. "To help improve patient satisfaction, hospital and health system leaders should ensure they are taking a holistic, team approach that uses their organization's available resources—including the health care physical environment and the professionals who manage those spaces," AHA concludes. (Lohse, 2016)There are ways to reduce noise within the patient care area. Adding noise dampening artwork or acoustical ceiling tiles are a couple easy options. The fact is that noise has actually increased in the last several years due to technical equipment with multiple alarms. Cell phones ringing constantly are a major source of added noise most anywhere these days. With these noises coupled with overhead paging and footsteps down the hall people actually have to raise their voices just to talk with one another, adding to the noise. This noise within the healthcare environment has been called "abuse" by Florence Nightingale in her 1859 book titled Notes on Nursing. (Nightengale, 1859) The abuse comes from negative effects that noise in the environment has on the patient. When a patient is trying to rest and sudden noises are introduced, it causes increased heart rate and blood pressure levels which can of course affect the patient's outcome. As important as the patient's

outcome is, this noisy environment affects the caregiver as well. Studies have shown that healthcare workers subjected to these highly noisy areas are more irritable, depressed and many of them take these issues home with them. In addition to the issues named, mistakes are made due to the noise as well. Cognitive skills are diminished causing wrong medications to be delivered as well as mistakes made by surgeons during surgery. "Since noise breaks concentration, it can contribute to the number of medication errors that is becoming a costly and dangerous situation in many healthcare facilities "according to Linda Greenburg, clinical consultant. (Herman Miller , 2017)

It has been established that healthcare is a very noisy place. The question that has to be answered is what can be done about it? A facility manager must find solutions to challenges like this every day. One would think that there wouldn't be much that could be done to resolve a noise issue within a building but actually there are many things that can be done to lesson or eliminate many noises. It is recommended that a healing environment should be kept at an average of 50db to maintain a pleasant sound level that promotes healing. In order to know if any changes made are effective, the facility manager must measure the sound in the environment first and record the findings. Once this is done, measurements must be taken after each change to see if there is a difference. There are several areas, processes and objects that make noise in a hospital. Talking, walking, cell phones, medical equipment and TVs are just a few. Each one has its own unique set of problems and ways in which to lessen the noise level. At Northside Hospital (Atlanta), for example, the sonorous sound of the pneumatic tube system (an old and still functional technology) caused alarm to nearby ICU patients. The decibel level was brought down to 50dB (over 400% quieter) by the careful use of padding. And of course, any kind of padding or acoustic material used must conform to fire and infection

control regulations. ([Health facilities management](#) 15(5):24-6 · June 2002) TV volumes can be limited to keep from disturbing other patients nearby. This will be a patient and caregiver satisfier as noisy TVs come up frequently on patient satisfaction surveys. Many hospitals enforce quiet time hours in which noise levels are required to be lower between predetermined hours. Facility managers must ensure that all equipment is working properly. Bearings and belts on machines can be a large part of the noise issue when not properly maintained. Although this should be an obvious checkpoint, it is not always on top of the list. Many times when trying to solve complex issues like sound management, the simple fixes make the most difference. Silencing cell phones when on the patient floor is a simple yet highly effective means of reducing noise. Although noise within the healthcare environment is not the only disturbance that affects patient care, it is a significant one. Facility managers play a major role in making the environment appropriate for patients and employees. Not only does a pleasant environment improve patient satisfaction scores, more importantly it is the right thing to do for each patient. It takes a lot of time and attention to detail to maintain a facility that promotes healing. Many times this is accomplished by just noticing what is going on and reacting to it. More often than not it is the simple things that make the biggest impact and cost the least. Most people would not and should not give the healthcare environment a second thought. That is for the facility managers to worry about. The environment is just as it sounds. It is everything that is seen and can be touched which includes walls, floors, lighting, signs, beds and so on. Why would anyone even think anything about this boring topic? In healthcare the environment is an extremely important part of the patient experience and the healing process. Colors, sounds and ease of navigation are directly related to the quality of the patient stay as well as the experience the family has too. Hospitals are

actually scored on how well the facility maintained in regards to fit and finish as well as the safety features built into the environment. These topics are much more scrutinized than they would be in facilities such as a department store or restaurant. Healthcare facilities are built to much higher standards due to the need for increased safety and security for the patients. These higher standards are upheld by the facility manager. This person understands the need and the reasoning behind the design and construction of a hospital. Hospitals are over built with safety features not found in most other structures.

Hospital Construction

One would probably ask the question; why is a hospital built in such a way? Isn't it unnecessary to design and build a structure that costs many times more than the average commercial facility? This is a fair question but the answer is a little more complicated. Hospitals are built to be fire safe first and foremost the reasoning for this is that most patients in a hospital are not capable of helping themselves in the event of a fire or smoke situation. Therefore, hospitals are designed to compartmentalize areas within the facility to limit the passage of smoke and fire to protect patients that can't escape on their own. Facility managers maintain what is called smoke walls, fire walls, smoke doors and fire doors. These "assemblies" as they are technically named, are in place to act as a barricade to smoke and fire. Hospitals are a "defend in place" design meaning that if the event of a fire, hospital personnel can stay in the "smoke compartment" that they are currently in or move horizontally to another "smoke compartment" to gain safety for the patients. The reason for defend in place design is to avoid a full evacuation of a hospital in the event of a fire. This can be almost impossible with so many patients bed ridden and

so few staff to move them. A full evacuation would be very difficult even with the assistance of the fire department.

Fire Safety

Facility managers must maintain fire safety above all else within a healthcare environment. With so many potential sources for a fire, facility managers must stay on top of the regulations that are mandated from organizations such as The Joint Commission, Office of Inspector General, Centers for Medicare and Medicaid Services as well as the State Fire Marshal and the local fire department. All of these entities have a role in the safety of the healthcare environment. Each has a specific set of safety specifications they look for when surveying or inspecting facilities. Facility managers must learn each of these specifications and stay a step ahead to ensure constant compliance and patient and staff safety at all times. With almost endless opportunities for a fire within a healthcare facility, managers are in constant fire safety mode. Hospitals inherently have more machines, lighting, electronics and more people than most other commercial facilities. Also, most hospitals are one of the taller buildings in town which adds to the danger if a fire broke out within the facility. For this reason, many fire departments partner with hospitals to simulate fire emergencies and potential evacuations. This benefits both the fire department and the hospital. In many cities the hospital has many chemicals that fire departments wouldn't encounter anywhere else. For instance the laboratory has a plethora of flammable solvents and combustible chemicals that firefighters must be trained on in the event a fire breaks out in the lab. On a hospital floor there are chemicals such as alcohol based hand foam dispensers everywhere. Supply rooms on a floor may contain isopropyl alcohol and other flammable chemicals. Oxygen

bottles are sprinkled throughout a nursing floor and must be managed to prevent tipping over and must also be kept from ignition sources. There are inherently a lot of paper products within a hospital including cardboard boxes, dressings, wrappers of all sorts and piles of printer and other such papers. Many regulatory agencies such as OIG (Office of the Inspector General) regulate the amount of loose paper that can safely be in an area. It may seem insignificant to regulate simple office paper within an area of the hospital but many small fires result from piles of paper left unmanaged in a healthcare setting. A [study released by the New York City Fire Department](#) reported that between 2004 and 2006, healthcare provider facilities nationally averaged 6,400 fires a year, with those open 24 hours a day accounting for 89% of the incidents. The fires caused five civilian deaths, injuries to 175 people and about $34 million in annual property loss. (Thurmond, 2014) Numbers like these are the reason hospitals are so highly regulated. Healthcare facilities are prone to accidents such as these because there are simply more chances for accidents to happen within a healthcare setting. For this reason regulatory agencies have mandated stringent regulations to ensure the safety of all occupants within these facilities.

Regulatory Compliance

Regulations are not dreamed up out of thin air. Most regulations are the result of a tragic accident or series of incidents that have led to property damage or worse, loss of life. Unfortunately, most of the time regulations do not exist until something happens somewhere to warrant a certain regulation. At that time, regulations go into effect to hopefully keep that tragedy from happening again. Hartford Hospital in Connecticut was the site of the deadliest hospital fire in America since 1960, when 16 people perished after smoldering cigarette ash went down a trash chute, causing a multi-story flame pillar.

This tragic incident and the subsequent investigations led to the majority of current hospital fire codes and regulations. (Thurmond, 2014)Many times fires start in the least obvious places within a hospital. Who would think about fires being an issue in surgery suites? While doing surgeries, there are procedures that require oxygen, alcohol and cautery equipment to be used within the same surgical site. This combination makes an extremely likely opportunity for a fire. Although steps are taken to prevent this, there is always the human factor that can and does make mistakes. Measures have been taken to reduce the chances for surgical fires such as using medical air to mix with oxygen to and using medical air to run pneumatic instruments. These procedures greatly reduce the chances of surgical fires but they do not eliminate them. It is ultimately the clinician's responsibility to be safe in the operating room.

Fire safety in a healthcare organization can be greatly increased by having a complete sprinkler system in place. This seems like a standard component of any facility and for the most part today it is but it hasn't always been. Automatic **sprinkler** systems were installed in new construction, while retrofitting existing health care facilities has increased significantly in recent years. Between 1980 and 1984, automatic sprinkler systems were present in less than half of the reported hospital fires, whereas between 2006 and 2010 automatic sprinkler systems was present in four out of five reported hospital fires, and sprinklers were present in almost two-thirds of the fires. (Stiene, Fire Safety: Firefighting in Hospitals, 2014) Of course, with automatic fire sprinkler systems, facility managers must ensure that they are maintained by a quality sprinkler testing contractor that will have proper documentation that the system is operating properly. This testing is a requirement of regulatory agencies and is one of the most cited deficiencies.

Fire safety is a very important component of keeping a hospital safe but it is only one of many areas that regulatory agencies focus on when they come to visit. Hospitals are complex facilities with vast networks for IT, electrical, HVAC, pneumatic and mechanical systems. Facility managers must maintain each system to ensure each provides the service required to serve patients and staff. The healthcare environment starts at the drive in from the main highway. Hospitals are critiqued on how the roads and the grounds look. This is to ensure that there are no issues that could cause harm to a visitor or a patient as they come onto the property. Things like pot holes in the road or deteriorating curbing are not present that could damage a vehicle. Surveyors also look closely at campus lighting to ensure all areas are well lit and that the correct areas have the correct level of lighting. Agencies such as OIG require two bulbs per fixture for outside building egress lighting so if one bulb goes out there is another one in place in the event it is needed. Patient safety is top priority and outdoor lighting is an area that if not addressed can cause serious issues. Many people visiting a hospital are there for the first time and are naturally disoriented. Dimly lit parking areas and walkways provide an easy hiding place for thieves or attackers.

It has been said that bringing the outside in promotes healing and a level of comfort for the patient. Many times patients are bedridden for many days or longer and the only thing they see is the TV and the four walls of the room. This can become quite monotonous and stressful for most anyone. Questionnaire studies have found that bedridden patients assign especially high preference to having a hospital window view of nature (Verderber, 1986). Mounting research is providing convincing evidence that visual exposure to nature improves outcomes such as stress and pain. For example, a study in a Swedish hospital found that heart-surgery patients in ICUs who were assigned a picture

with a landscape scene with trees and water reported less anxiety/stress and needed fewer strong doses of pain drugs than a control group assigned no pictures (Ulrich, 1991). Another group of patients assigned an abstract picture, however, had worsened outcomes compared to the control group. Ulrich (1984) found that patients recovering from abdominal surgery recovered faster, had better emotional well-being, and required fewer strong pain medications if they had bedside windows with a nature view (looking out onto trees) than if their windows looked out onto a brick wall. (Roger Ulrich, Role of the Physical Environment in the Hospital of the 21st Century, 2004) Gardens and nature areas also give staff a refuge from their stressful day as well. Nurses have very little access to windows during their busy days so having a place to go outside and eat lunch or just decompress can greatly reduce their stress. Hospital gardens not only provide restorative or calming nature views, but can also reduce stress and improve outcomes through other mechanisms, for instance, fostering access to social support and providing opportunities for positive escape and sense of control with respect to stressful clinical settings (Cooper Marcus & Barnes, 1995; Ulrich, 1999). Based on post occupancy evaluations of four hospital gardens in California, Cooper-Marcus and Barnes (1995) concluded that many nurses and other healthcare workers used the gardens for achieving pleasant escape and recuperation from stress. Other post occupancy studies indicate that patients and family who use hospital gardens report positive mood change and reduced stress (Whitehouse et al., 2001). These reports also suggest that gardens and nature in hospitals can heighten patient and family satisfaction with overall quality of care. (Roger Ulrich, Role of the Physical Environment in the Hospital of the 21st Century, 2004)

Wayfinding

When a family member brings a patient to the hospital for a procedure there is already a high stress level present. The last thing an organization wants to do is add to that stress. Wayfinding on a healthcare campus can be very confusing to someone that has never visited before. There seems to be signs everywhere pointing to areas that make no sense to the patient. It is very important to make wayfinding on the campus very simple and easy to understand. Healthcare providers often forget that the general public doesn't understand the technical names for the services they provide. Once patients find their way to the building from the parking lot, they are faced with the prospect of identifying the destination. Informational handouts, information desks, you-are here maps, directories, and signage along the way is critical wayfinding aids (Carpman, Grant, & Simmons, 1983-84; Levine, Marchon, & Hanley, 1984; Nelson-Shulman, 1983-84; Wright, Hull, & Lickorish, 1993). In an experimental study, researchers found that patients who had the benefit of an information system (welcome sign, hospital information booklet, patient letter, orientation aids) upon reaching the admitting area were more self-reliant and made fewer demands on staff. In contrast, uninformed patients rated the hospital less favorably and were found to have elevated heart rates (Nelson-Shulman, 1983-84). (Roger Ulrich, Role of the Physical Environment in the Hospital of the 21st Century, 2004)
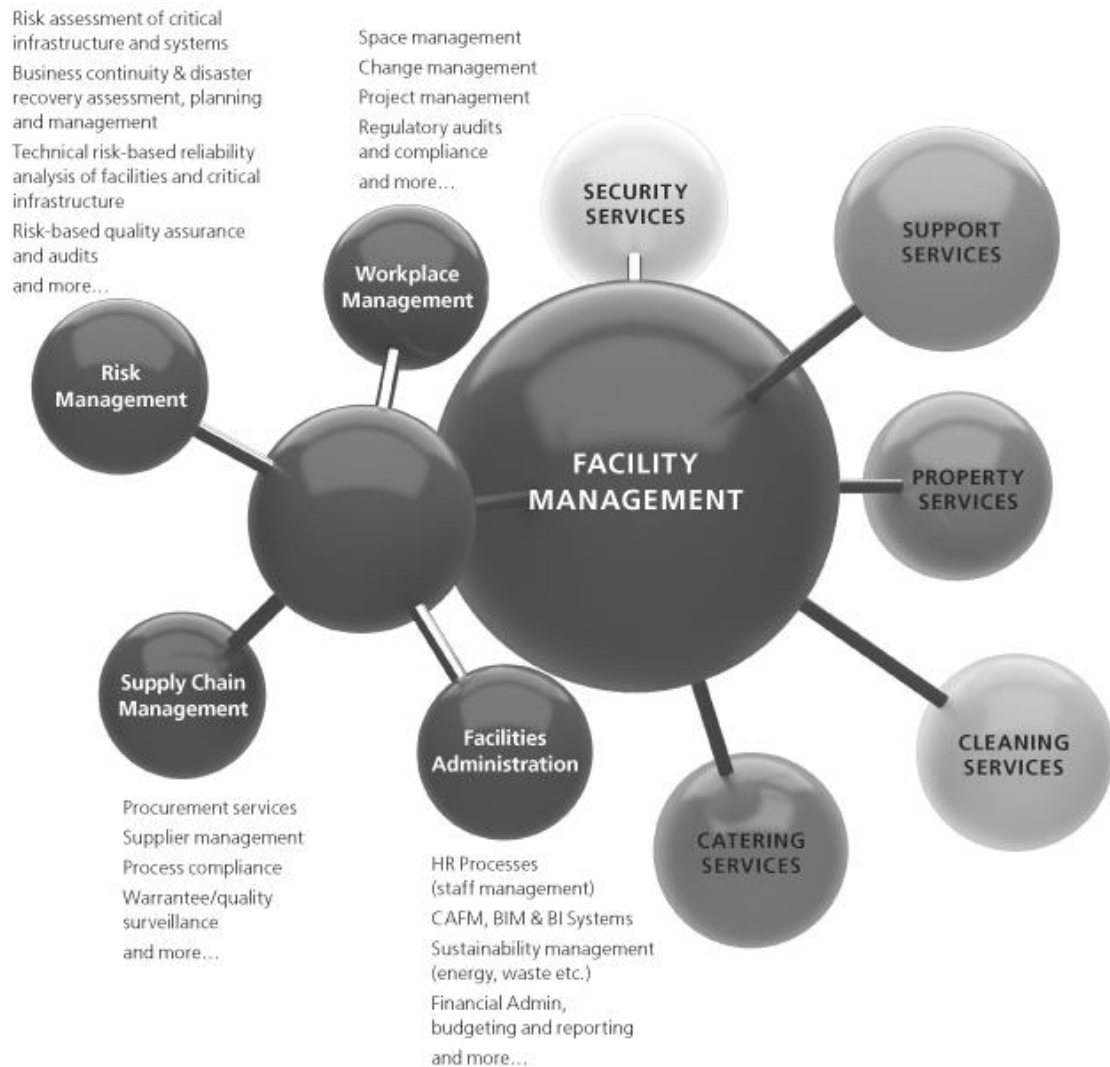
Once patients and family members make their way into the building, they are then faced with navigating the maze of corridors that are inherent to hospitals. It is the job of the facility manager to ensure wayfinding within the hospital is kept accurate and up to date. Departments move and names change so it is of the utmost importance to stay on

top of these changes to keep patients and guests from getting lost and adding to their frustration. Many hospitals today are implementing digital wayfinding along with color coding to assist visitors and patients on the way to their destination. Although this is modern technology and is helpful for many people, this technology frustrates the older generation who just wants to find the sign to show them the direction they need to go. This is where the facility manager must compromise and implement both avenues for wayfinding. Good old fashion signs are still the preferred method of wayfinding even for the younger generation. In an article in Healthcare Design Kristin D. Zeit wrote; If I'm visiting a hospital for the first time—or maybe for the first time in a while, or it's a department I'm unfamiliar with—I'm there with an illness or injury to be addressed. All I care about is getting where I need to go, quickly. If I'm walking along, trying to find Unit C, and suddenly I notice I've gone from a blue area to a yellow one, then I know I've entered a new zone. But where? My eyes immediately seek out the signs. (Zeit, 2014) It is important to keep decision making simple. Patients have many more things to worry about without undue stress trying to locate a procedure area or simply trying to find the cafeteria. Facility managers must always be in tune to the needs of the patient in order to make their visit as pleasant as it can be. Making their navigation through the facility easy is a simple task that goes a long way.

Management Challenges

Facility managers have the task of taking care of everything that can be seen and touched in a healthcare facility. This is a vast book for work that takes focus and insight into what is required to take care of the patient. The patient is the center of what

healthcare workers do. Even though facility managers may not directly interact with the patient, the work they do impact the patient or the patient's family every day. It is said that every department and every employee in a hospital is the customer of the facility manager. Doctors, nurses, cooks, housekeepers, accountants, administration and many others depend on the facility manager to make sure each of them have the ability to do their jobs which in turn allows them to serve the patient. In order to accomplish this task the facility manager must have good people in place. Hospitals are complex in their needs so there is a broad range of expertise needed to care for the facility. Facilities must be cooled, heated, well lit, grounds must be kept, plumbing must be in order, walls must be painted and the facility must be cleaned. It takes a small army working with the facility manager to accomplish these tasks. As stated earlier, managing a facility is literally everything that can be seen and touched. Most people don't realize what this actually means. Imagine having to know everything about all areas of a hospital and how it operates. One would have to be a super computer to house all of the knowledge needed for that. This is why facility managers surround themselves with the expertise needed to accomplish this task. Each member of the support services/facilities team has an area or multiple areas that they are competent in. It is only by this teamwork that a task of this size can be managed. Below is a graph that illustrates how the facilities management entity is organized.

Risk assessment of critical infrastructure and systems

Business continuity & disaster recovery assessment, planning and management

Technical risk-based reliability analysis of facilities and critical infrastructure

Risk-based quality assurance and audits

and more...

Space management
Change management
Project management
Regulatory audits and compliance
and more...

SECURITY SERVICES

SUPPORT SERVICES

Workplace Management

Risk Management

FACILITY MANAGEMENT

PROPERTY SERVICES

Supply Chain Management

Facilities Administration

CLEANING SERVICES

CATERING SERVICES

Procurement services
Supplier management
Process compliance
Warrantee/quality surveillance
and more...

HR Processes (staff management)
CAFM, BIM & BI Systems
Sustainability management (energy, waste etc.)
Financial Admin, budgeting and reporting
and more...

The facility manager wears many hats as the illustration shows. Risk is always present in a hospital setting and is one of the main focuses that a facility manager must concentrate on. There is more to managing a facility than just keeping the lights on. Environmental issues are ever present within all facilities and even in residential structures. When environmental issues arise in a hospital the risk goes up. The risk is more pronounced in healthcare due to immunocompromised patients or patients that are highly susceptible to infection and the like. One would think that a hospital is the cleanest place a patient could be with that issue and for the most part it is. Patients with weak

immune systems are sensitive activity that a healthy person would have no issue with at all. This is where the facility manager must be educated on the risks that are present with this type of patient. For a relatively healthy person a construction project taking just outside their patient room would have no effect on their health. What little dust may come into the room would be unnoticed for the most part and dismissed as just another construction site. For an immunocompromised patient, dust getting into their room could mean extreme health problems or even death. This is where the risk comes in. Facility managers must be diligent in caring for the occupants of their facility while they move forward with projects and maintaining the facility.

Environmental Challenges

Sometimes environmental issues arise that are not part of a planned construction project. These issues are especially concerning because they can happen without the knowledge of facility personnel and can be present for extended periods of time before they are found. Water infiltration into a facility can be detrimental to both structural integrity and more importantly patient well-being. Of course with water comes the "M" word that everyone knows about but doesn't talk about. Mold is the aftermath of water intrusion and can cause sickness in many healthy people and can mean death to an immunocompromised patient. Water can enter the facility through roof leaks, foundation leaks, plumbing leak or even condensation from ductwork. Of course, the first step when mold is found would be to stop the source of the water infiltration. The more important task once the source is found would be remediation. The important thing here is to incorporate a competent and proven remediation contractor under the guidance of an environmental testing company. Remediation should never be taken on by the hospital

alone. Hospital personnel do not have the expertise to properly test and remove the bacteria. However, the remediation should be a joint effort between the hospital, testing firm and the remediation contractor to ensure all measures are taken to keep everyone involved safe and to conclude with a safe area for the patients.

Compliance Surveys

Managing a healthcare facility of any size is multi-faceted to say the least. It truly takes a team effort to successfully juggle facility operations, patient satisfaction, community relations and regulatory compliance. All of these things must come together for the good of the patient. After all, without the patient none of these things would be important or even needed. All aspects of facility management and healthcare management for that matter revolve around the patient. With that being said, who is making sure that what the healthcare team is doing is the right thing to do? Who watches from afar to regulate safety standards and enforces regulatory compliance with a non-biased perspective? Even the best facility managers and healthcare teams are not perfect and require guidance in some area or another. The answer to these questions are multi-faceted in that regulating healthcare takes many entities looking at the facility operations from different angles and with varying perspectives.

Hospitals are partially funded from reimbursements from CMS (Centers for Medicare and Medicaid Services). CMS is part of the U.S. Department of Health and Human Services and it oversees federal healthcare programs. CMS has minimum quality standards in place to ensure that healthcare organizations provide the best possible care to their patients. The reimbursement that the healthcare organization receives is now tied to the patient's satisfaction which further drives hospitals to perform at a higher level of

service than ever before. By linking quality to payment, hospitals are challenged to find ways to increase quality and decrease readmissions. Facility managers play a big role in this in that patient satisfaction is linked to many facility attributes. Patient rooms must be kept clean and properly acclimated. Clinical staff must have the facility resources needed to care for the patient such as all building utilities functioning properly and facility equipment readily available and properly maintained. Even the clarity of the TV is of utmost importance to a patient spending several days in a hospital room. This is where global teamwork is of utmost importance. Ensuring every patient is properly taken care of is the right thing to do in any case and by linking reimbursement to that care just provides an extra layer of confidence for the patient's well-being.

CMS surveys are carried out by designated state survey agencies such as The Joint Commission, Office of the Inspector General or CMS themselves. These agencies ensure that the conditions of participation are met. The conditions of participation include a governing body responsible for effectively governing affairs of the institution, a quality assurance program to evaluate ,entity-wide patient care, medical record service responsible for medical records, a utilization review that reviews the services furnished by the entity and its staff and a facility constructed, arranged and maintained according to a life safety code that ensures patient safety and the deliverance of services appropriate to the needs of the community. (The American Health Lawyers Association)Having these functions in place ensures that the necessary functions are in place to provide quality care to all patients. They are a joint effort to provide best practice care while maintaining continuous compliance with state and federal agencies. Healthcare is a vast and complicated business that has multiple disciplines that must be maintained. It takes a team such as this and more to ensure continuous care and compliance. The governing

bodies within a healthcare organization are geared to work with outside agencies for the good of the patient and the organization. The Federal Government relies on two types of external review to ensure hospitals meet the minimum requirements for participating in Medicare: accreditation, usually by the Joint Commission on Accreditation of Healthcare Organizations, and Medicare certification, by State agencies. (BROWN, 1999)

The Joint Commission

An independent, not-for-profit organization, The Joint Commission accredits and certifies nearly 21,000 health care organizations and programs in the United States. Joint Commission accreditation and certification is recognized nationwide as a symbol of quality that reflects an organization's commitment to meeting certain performance standards. (The Joint Commission, 2017)Hospitals manage the environment correctly by adhering to standards set forth by several regulatory agencies. The Joint Commission reviews healthcare organizations by making sure they are adhering to their own standards and processes that are included in their documentation. Of course these processes must be in line with standards enforced by agencies such as NFPA, AIA, NEC, CMS, OIG and The Joint Commission themselves. The entities names here are related to facilities management as there are many others handed down for clinical and administrative purposes. Facility managers are required to comply with and stay current on regulations from all of these organizations as they change frequently. Sometimes the changes are subtle but can impact the organization and its operations greatly. The Joint Commission website is a valuable tool that facility managers can use to collaborate with TJC in order to stay current on new regulations and changes to older ones. Facility managers have a resource from TJC called the Joint Commission Connect in which facility information

and survey activity is reflected for their individual facilities. This resource allows managers to stay on top of their individual facility and have direct contact with TJC for guidance and it gives them options when trying to comply with regulations. Not all standards apply in the same way at all facilities. Each organization is constructed in a different way and has different equipment and processes. The Joint Commission is reasonable in working with hospitals to make each safe and functional regardless of which standard is in question. Staying in continuous compliance is challenging at times none the less. According to an article from Becker's Infection Control and Clinical Quality there are 5 areas that are frequently missed during a Joint Commission survey. Those 5 areas are lacking a culture of safety, not being prepared, failing to meet environment of care and life safety standards, failing to maintain records and lacking a sufficient performance improvement plan. (Rodak, 2013)

Findings such as the ones just mentioned would seem to be hard to miss by a seasoned facility manager but the fact is these findings are all too common. Facility managers must be in constant contact with the facility and the people maintaining the facility. Hospitals have many hidden areas that if left unchecked can mean serious findings from regulatory agencies and increased work for the facilities staff. For many of the hospitals that are cited, it is the simple little issues that get them in trouble. So many times managers are caught up in what they feel are the big issues and the small ones end up causing the issues. Surveyors from The Joint Commission and other agencies know what to look for in the facility because many times the surveyor is a facility manager themselves. A TJC survey team is usually made up of an administrator, nurse and a physician. There is also a life safety surveyor added to the team for facility, life safety and environment of care components. Depending on the size of the facility this team will

be on site for 3-5 days. The overall process is which the survey takes place is for the most part conducted the same no matter where the survey team goes.

The survey for hospitals is what is called an unannounced survey. Even though the hospital liaison will usually know within a few days of the arrival of the team, the survey is technically a surprise visit. This survey is conducted 18-36 months from the last documented survey and can happen any time in that window. Facility managers have the responsibility to have the facilities in constant compliance. This not only makes the survey process go much smoother but it is the right thing to do. When the facility is always ready for a survey it gives the administrative team a peace of mind that patients and staff are in a safe, well managed facility and there is never a need to scramble during survey time. Surveyors expect to see the facilities and the supporting documents in order when they arrive. On the first morning the surveyors will sit down with administration and/or the quality team and become oriented with the facility documents and get a general description of the facility layout and processes. The important thing to remember is that the survey team has most likely never been to the facility and they are taking everything in as this is their first impression of the operations of the organization. On the first day they ask for many documents because they truly are trying to get to know how the hospital operates. First impressions are very important with the survey process. Surveyors are critiquing the organization from the time they get out of their car until they leave on the last day. Facility managers must make staff aware of the surveyors and what to expect while they are onsite. Staff must be ready to answer questions the surveyors may have and if they cannot answer on the spot they must be ready to get the information back to the surveyor. Having the staff prepared for the surveyors just makes a positive first impression that the organization works as a unit and all staff are engaged in the day

to day activities. The important information that all staff should know is that the Joint Commission survey is conducted to make the hospital better. It is not meant to make the organization look bad or cause failure. It is simply a means of evaluating the work that so many are involved in to provide quality patient care. The leadership and staff should be proud to show off their accomplishments.

Once the surveyors have settled into the facility and met the appropriate staff that will escort them for the remainder of the survey, they will want to hold an opening conference with the leaders of the organization to introduce themselves and let everyone know what they will be doing and the schedule they will be on to get this accomplished. The agenda for a survey is quite extensive and a tight schedule must be kept in order to keep everyone on track to be complete in the allotted time. The TJC liaison will be instrumental in working with the surveyors to get them where they need to be at the designated times. The surveyors will go their separate ways after the opening conference has concluded. This opening conference will be how the surveyors start each day of the survey. They will notify leaders of issues found the day before and will give a summary of the areas they will be looking at that day. At this point the facility manager will meet with the Life Safety Consultant as this is the person that will be most interested in the facilities portion of the survey although all of the surveyors can and do cite deficiencies within the environment of care and life safety areas of the survey.

Document preparation is the most important link to a facilities manager's success during a TJC survey. If the work is not documented, it didn't happen! This statement holds true regarding all of the work facilities managers and their staff does. It would be a tragedy to have an extremely polished facility with good working processes and a

building anyone would be proud of but not have any documentation showing that the work is completed and regulatory compliant. Surveyors do not know the facility or what the facilities staff is capable of. All they know is what the documentation shows them has been done (or not done). Now, once the document review has been completed, then the surveyor will want to do a facility tour to validate that what was written in the books did indeed happen. Jan Allison, RN, CHSP, director of accreditation and survey readiness at Deerfield says this about documentation, "This may be in the form of missing elements in the governing body meeting minutes or in the reports from vendors that conduct maintenance and testing," she says. "We have to remember that documentation tells the story of the activities taking place in the facility and, in a number of situations, that is all the surveyor has to look at." If the facility manager has maintained thorough and accurate records of all activity that has taken place in the facility, it give the surveyor a comfort level that the facility is being taken care of. This documentation is part of the "first impressions" that are observed by the surveyors. If a document is required and it is missing, incomplete or is difficult for the facilities manager to find, the surveyor will most likely look harder for deficiencies on the building tour because now the impression is that the program is unorganized and incomplete. Again, this is the time to brag on the accomplishments that the team has made and show the surveyors that the hospital is a high performing organization that takes their patients and their facilities seriously.

There are several pieces of material that the life safety specialist will be looking for during the document review. Although this information may have been viewed during the first morning meeting, the consultant will review the material in greater detail during the document review. The Joint Commission doesn't give leniency if the document cannot be produced immediately for the surveyor. While surveyors in other areas may

allow a "reasonable" amount of time for documents to be found, that will not be the case with LS and EC documents, TJC has warned. Citing an NFPA requirement that records of inspections, tests and maintenance of fire protection systems and its components "shall be made available to the authority having jurisdiction upon request," TJC Engineering Director George Mills has said LS and EC documentation must be produced on demand or the hospital will be cited with an RFI. (Plunkett) This is the reason for the high importance that must be placed on keeping documents current, organized and available at all times, not just survey time.

There are many documents in the EC (Environment of Care) and LS (Life Safety) standards that the facility manager must maintain continuous compliance on and be able to convince a surveyor that the work is being done correctly and at the prescribed intervals. Most all of the standards within these areas have very specific timelines that the work must be completed in or the finding would ultimately be that the standard is out of compliance and will most likely be cited. Therefore facility managers must be in tune with not only that the work is being done but that it is being done on time. Some of the work may be done by a vendor or contractor and some may be completed in house but regardless who completes the work it is the responsibility of the facility manager to ensure that it is completed to the satisfaction of the Joint Commission or other regulatory agencies that may be surveying at the time. Below is an example of the items that must be completed on time and by manufacturer's recommendations to the satisfaction of the Joint Commission.

Self-Assessment Tool

Standard	Item	Frequency	Checked
LS.01.01.01	***Life Safety Code***		
LS.01.01.01 EP 1	Individual assigned to assess compliance with the Life Safety Code, complete the eSOC and manage the resolution of deficiencies	N/A	
LS.01.01.01 EP 2	Current Statement of Conditions (eSOC) has been prepared	N/A	
LS.01.01.01 EP 3	Plans for Improvement (PFI) meets the timeframes in the PFI	N/A	
EC.02.03.05	***Fire Safety Equipment is Tested and Maintained***		
EC.02.03.05 EP 1	Supervisory Signals (except tamper switches)	Quarterly	
EC.02.03.05 EP 2	Tamper switches & water flow devices	Semiannually	
EC.02.03.05 EP 3	Duct, heat and smoke detectors, pull boxes, electromechanical releasing devices	Annually	
EC.02.03.05 EP 4	Notification devices (audible & visual including speakers)	Annually	
EC.02.03.05 EP 5	Emergency services notification transmission equipment	Quarterly	
EC.02.03.05 EP 6	Fire pump(s) tested under no-flow conditions	Weekly	
EC.02.03.05 EP 7	Water storage tank high & low level alarms	Semiannually	
EC.02.03.05 EP 8	Water storage tank low water temp alarms (cold weather only)	Monthly	
EC.02.03.05 EP 9	Sprinkler systems main drain tests at system low point or at all system risers	Annually	
EC.02.03.05 EP 10	Fire department water supply connections inspected	Quarterly	
EC.02.03.05 EP 11	Fire pump(s) tested annually underflow	Annually	
EC.02.03.05 EP 12	Standpipe systems tested with water flow	Five years	
EC.02.03.05 EP 13	Kitchen auto extinguishing systems inspected (no discharge required)	Semiannually	
EC.02.03.05 EP 14	Carbon Dioxide and other gaseous extinguishing systems inspected (no discharge required)	Annually	
EC.02.03.05 EP 15	Portable fire extinguishers inspected	Monthly	
EC.02.03.05 EP 16	Portable fire extinguisher maintenance	Annually	
EC.02.03.05 EP 17	Fire hoses hydro tested 5 yrs. after install, every 3 yrs. after that	5 yrs. / 3yrs	
EC.02.03.05 EP 18	Smoke & fire dampers operated. 1 Year after installation, every 6 years thereafter. Note inspection 1 year after installation only applies to fire dampers installed on or after 1/1/08	6 Years	
EC.02.03.05 EP 19	Smoke detection shutdown devices for HVAC tested	Annually	
EC.02.03.05	Sliding and rolling fire doors tested for proper operation and full	Annually	

EP 20	closure		
LS.01.02.01	*Interim Life Safety Measures (ILSM)*		
LS.01.02.01 EP 1	Fire department notified and fire watch initiated when the fire alarm or sprinkler system is out of service more than 4 hours in a 24-hour period. Documentation required.	As applicable	
LS.01.02.01 EP 2	Signage posted for alternate exits	As applicable	
LS.01.02.01 EP 3	ILSM policy developed and in place. Includes criteria for evaluating deficiencies & hazards to determine when and to what extent ILSM measures apply.	N/A	
LS.01.02.01 EP 4 - 14	ILSM elements initiated as needed based on the criteria in the organization's policy	N/A	
EC.02.05.07	*Emergency Power Systems are Maintained and Tested*		
EC 02.05.07 EP 1	Battery-powered lights required for egress (30 second test)	30 days	
EC 02.05.07 EP 2	Battery-powered lights required for egress (1 1/2 hour test or replace all batteries and test 10% of those replaced	Annually	
EC 02.05.07 EP 3	Stored Emergency Power Supply Systems (SEPPS) for Life Safety tested 5 min. or as specified for its class (whichever is less)	Quarterly	
EC 02.05.07 EP 3	SEPPS tested at full load for 60% of full duration of its class	Annually	
EC 02.05.07 EP 4	Generators tested 12 X Yr. (not <20 days or >40 days apart) for 30 continuous minutes under load.	Monthly	
EC 02.05.07 EP 5	Generator tests performed with 30% or greater of nameplate rating dynamic load or the exhaust gas temperature during test meets manufacturer's recommendations. If not, a test is performed every 12 months using a supplemental load as per EC.02.05.07 EP 5.	Annual if required	
EC 02.05.07 EP 6	Transfer switches 12 X Yr. (not <20 days or > 40 days apart/	Monthly	
EC 02.05.07 EP 7	Test generator 4 continuous hours every 36 months.	36 Months	
EC 02.05.07 EP 8	36 month tests performed with a dynamic or static load of at least 30% of nameplate rating or the exhaust gas temperature during test meets manufacturer's recommendations.	See EC.02.05.07 EP 7	
EC 02.05.07 EP 9	If a required emergency power system test failed, measures were implemented to protect patients, visitors and staff until repairs or corrections are completed	As applicable	
EC 02.05.07 EP 10	If a required emergency power system test failed, a retest was performed after repairs are made	As applicable	
EC.02.05.09	*Medical Gas and Vacuum Systems are Inspected and Tested*		
EC.02.05.09 EP 1	Review maintenance program and testing documentation	Set by policy	

EC.02.05.09 EP 2	Review test results for correct gas, purity & pressure when med gas or vacuum systems has been installed, modified or repaired.	As applicable	
EC.02.05.09 EP 3	Med gas supply and zone valves are accessible and clearly labeled	N/A	

Surveyors are meticulous in reviewing life safety and environment of care documents because ultimately if the work in these documents is not done, in some cases a patient could have a very bad outcome. It is the surveyor's intention to ensure that organization is doing what they say they are doing and also to protect the patient. Once the surveyor feels that the documents are in order he or she will be ready to go on an actual facility tour where the work shown in the documents are realized.

The Environment of Care facility tour will take the bulk of the Life Safety surveyor's time. This part of the review will be the physical viewing of all the components that are listed in the EOC and LS documents and verification of completion will be confirmed. The facility manager will most likely escort the surveyor throughout the facility and answer any questions they may have. This is not generally a teaching session but depending on the surveyor, many will offer advice along the way to help facility managers do a better job in certain areas or maybe show them easier ways to get the same result in some areas. For the most part, though, this is a verification that what the facility manager says is being done in the documents is in fact being done. The surveyor will usually want to start at the highest level of the facility and work their way down the stairs. This allows them to check fire doors and egress paths as they descend the stairs. At each level the surveyor will likely stop and tour that floor but not necessarily every floor. On each floor he or she will look at mechanical rooms, laundry chute rooms, housekeeping closets, isolation rooms and pressurization for each, clean and soiled utility

rooms, electrical rooms and medication rooms. During the tour the surveyor will look at

the date on fire extinguishers and test fire and smoke doors. While on the tour the

surveyor will be looking at life safety drawings of the facility to locate fire and smoke

barrier walls. These walls must be free of penetrations from data cables, plumbing pipes,

etc. This is where the surveyor will ask for a ladder and flashlight to inspect for

themselves that the walls are smoke tight. As the surveyor moves along they will likely

ask staff questions such as the location of the nearest fire alarm pull station or who is

authorized to turn off medical gas? This will be the bulk of the tour on a typical patient

floor.

When the surveyor gets to the main mechanical room they will want to look at the

emergency generators, electrical distribution, fire pump, medical gas containment,

medical air and vacuum machines and the main fire panel location. Most likely they will

want to see the location where the fire panel and other alarms are monitored 24 hours a

day. It is the facility manager's job to ensure all of these areas are kept in compliance and

kept in clean, operating condition at all times. This is not only for joint commission

readiness but it is the right thing to do. The facility tour and document review is the

showcase that facility managers present to The Joint Commission and other regulatory

agencies that makes a statement that "this is my facility and this is how I take care of it".

Facility managers should be diligent in keeping the facility in the very best condition

possible at all times. The patients depend on facility managers even though they may not

realize it.

Conclusion

The equipment and the environment as a whole that patients and visitors utilize during their stay are a product of the hard work facility managers and their staff put in every day. They are the invisible force and often unrecognized part of the healthcare force that provides so many functions to make the process work. The pieces of the process that most people never give a second thought to are the ones managed and executed by the facilities individuals. When a patient arrives at the hospital, the beautiful flowers, trees, freshly mown lawn and clean sidewalks are a product of the grounds staff. When the patient enters the front door and the temperature is pleasant the air is clean, this is a product of the HVAC team. The food that is prepared hot, fresh and delivered just in time is a product of the food services team. The cleanliness of the room, the fresh sheets and the courteous smile is a product of the environmental services staff. There are so many more involved in making every patient's stay a pleasant one. Healthcare is truly a team effort. Each aspect of a patient's stay takes hard work from everyone from the volunteer at the front desk to the physician treating that patient. A well-oiled machine would be a proper way of describing the full description of a patient's successful visit. Everyone must work together as a team with the focus on the patient. The facility manager is an important part of that team that must never forget that what they do every day is for the good of the patient.

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