SELF-STUDY SERIES

HEALTHCARE PURCHASING NEWS

June 2008

The self-study lesson on this central service topic was developed by 3M. The lessons are administered by KSR Publishing, Inc.

Earn CEUs

The series can assist readers in maintaining their CS certification. After careful study of the lesson, complete the examination at the end of this section. Mail the complete examination and scoring fee to Healthcare Purchasing News for grading. We will notify you if you have a passing score of 70 percent or higher, and you will receive a certificate of completion within 30 days. Previous lessons are available on the Internet at *www.hpnonline.com.*

Certification

The CBSPD (Certification Board for Sterile Processing and Distribution) has pre-approved this in-service for one (1) contact hour for a period of five (5) years from the date of original publication. Successful completion of the lesson and post test must be documented by facility management and those records maintained by the individual until re-certification is required. **DO NOT SEND LESSON OR TEST TO CBSPD.**

For additional information regarding certification contact CBSPD - 2 Industrial Park Road, Suite 3, Alpha, NJ 08865. For more information direct any questions to Healthcare Purchasing News (941) 927-9345, ext 202.

Learning Objectives

1. ***Discuss the design and planning processes involved when building a new Sterile Processing Department.***
2. ***Describe the steps involved in moving to a new facility.***
3. ***Develop a list of lessons learned from a recent facility move.***

Sponsored by:

CBSPD

3M Health Care

Taking SPD to a "whole new place":

Designing a new sterile processing department

by Rose Seavey, RN, BS, MBA, CNOR, ACSP

If we were to take a survey of Sterile Processing Professionals across the country and ask how many have recently remodeled, are currently in the middle of a remodel or are at least discussing a future remodel of their department, I would venture to guess it would be close to unanimous.

Over the course of 30 plus years, I have been involved in five Sterile Processing Department (SPD) remodels and most recently building an entire new hospital – from the ground up. The latter was the most exciting and most challenging of them all. I feel very fortunate to have had the opportunity to accomplish this in my career.

In August of 2002, The Children's Hospital of Denver (TCH) announced it would be moving to a new healthcare campus on the site of the former Fitzsimons Army Medical Center, eight miles away in the neighboring city of Aurora. On September 29th, 2007 TCH moved the entire hospital to the new location, patients and all, in one day!

As the Director of Sterile Processing, I was given the "challenge" of building a new, state-of-the art SPD. It was very exhilarating to think about starting with a blank slate to build my dream department. No walls to move, no department to interrupt, no process flow restrictions, no limitations, and the sky was the limit. Well, sort of….

New beginnings

We had six years to plan and build this new hospital. Once we knew the decision to move was imminent, we started regular construction meetings. It was one thing to look at an existing facility and imagine what a remodel would look like, but when starting from scratch, it was a bit overwhelming.

Location, location, location

First things first, where should we locate SPD? Should it be adjacent to the OR, in the middle of the OR as a sterile core, on a floor above or below, or offsite all together?

At this stage of the project it was known that the University of Colorado Hospital and the Veterans Hospital were also going to be built on this new healthcare campus. There was initial thought of building one large Sterile Processing Department offsite for all three facilities. We brought in a third party offsite processing company to help us evaluate this idea. For many reasons we decided to have our own SPD within The Children's Hospital.

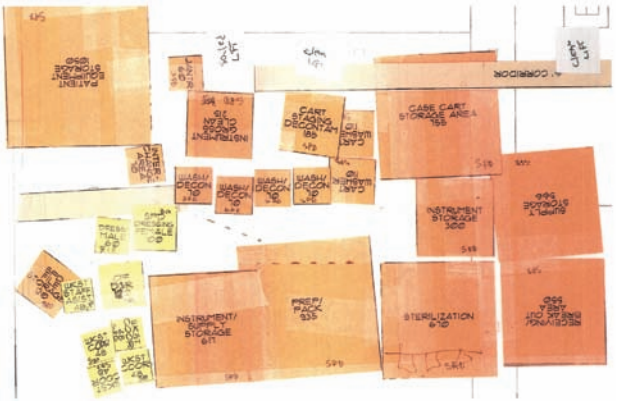

Figure 1 - Post-it Note plan

The new Children's hospital was designed to have nine procedure rooms on the first floor, fourteen operating rooms on the second floor, two cardiovascular operating rooms on the third floor and a dental clinic on the campus. The final decision was made to put SPD in the lower level (LL). We avoided saying the "B" word because basement just doesn't sound as nice. By placing SPD in the LL, directly below the Operating Rooms (OR) and the procedure center, we were able to have designated elevators, both clean and dirty as well as a small dumbwaiter lift. This dumbwaiter allows us to send packs, small items, or instrument sets to the OR and the procedure center without having someone leave the depart-

ment. Having the SPD in the LL also allows for easier expansion in the future. And as history had shown us, expansion would be needed.

Putting ideas on paper

The next step was to actually design the department. We took our wish list to the architects about four to five years before the move. After a few iterations the costs were plugged in, the gasping began, and the budget cutting started. The budget was trimmed until we arrived at a figure everyone could live with and we could afford. My suggestion – wish big to begin with so you have more things to pare down. Having just gone through it, I can tell you a lot of things changed in those five years. When we started this phase some of the newer reprocessing technology was not even available. Once we began working with architect's drawings, there was some opportunity for changes but they got fewer and fewer as the phases continued.

The SPD footprint was one of the first requirements to establish. One thing that came out of our early meetings with the third-party offsite processing company was their recommendation that we needed an additional 25% more space than what the architects originally slated for us. Yes, room for growth and to design the department with a linear workflow that made sense.

What goes where?

Ok, now we had the department location, the elevators, and the footprint. Next came the time when we needed to decide what went where. The architects had us take Post-it® Notes representing the approximate size of areas such as instrument storage, cart washers, etc., and place them where they made the most sense. (See figure #1 and #2)

During this process we relied heavily on the American National Standards Institute, (ANSI) and the Association for the Advancement of Medical Instrumentation (AAMI) standards to help us with these design considerations. The AAMI design considerations section offers guiding principles for the design and maintenance of the workplace to facilitate effective and efficient processing and personnel safety, diminish environmental contamination, and preserve the sterility of processed items.[1]

Figure 3 - OR pass through

The AAMI standards were very instrumental in our work area design and functional work flow, as well as the physical facilities space requirements, mechanical systems, electrical systems, and other area requirements or restrictions. At that time we had to look at many different AAMI documents. Since then, however, the majority of the recommendations have been combined into one document, ANSI/AAMI ST79:2006, *Comprehensive guide to steam sterilization and sterility assurance in health care facilities*.[2]

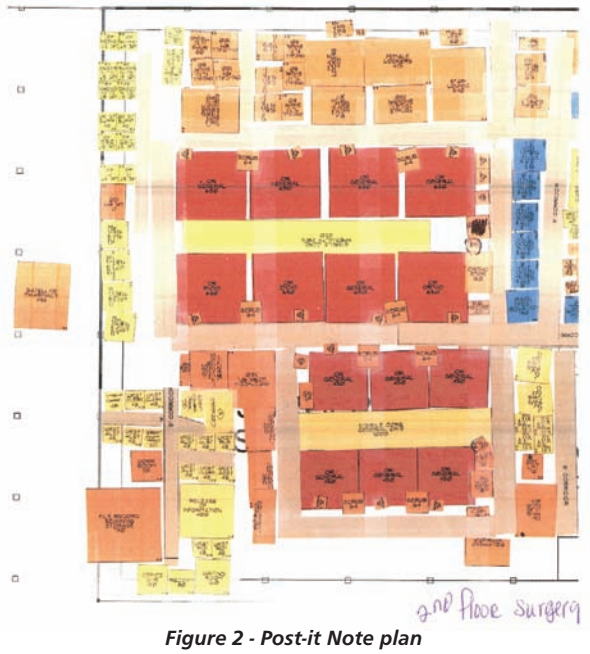

Figure 2 - Post-it Note plan

Satellite decontamination

AAMI states: "Whenever possible, centralized processing (i.e., decontamination, preparation and packaging, and sterilization processing in one department) is encouraged. Sterilization is a complex process requiring environmental controls (e.g., controlled air changes, exhaust ventilation, temperature, and humidity, as recommended in 3.3); appropriate equipment and supplies; adequate space; qualified, competent personnel who are provided with ongoing training and personal protective equipment (PPE); and monitoring for quality assurance. From both safety and cost-effectiveness standpoints, centralizing these functions is preferred to replicating them in several areas of the healthcare facility."[2]

We understood what AAMI was recommending; nevertheless, we decided to design a small decontamination area for each of the two sets of sterile cores in the OR. These decontamination areas were designed solely for the emergent need of items and to discourage staff from using non-decontamination areas to wash an item that had been dropped. These decontamination areas were designed with pass-through windows and pass-through sterilizers. To address the need for qualified staff, a sterile processing instrument technician was assigned to this area. They are immediately available via phone to help process items in these satellite decontamination areas. (See figure #3)

How much equipment?

Making decisions on the number and the type of equipment was no small task. Because the workload will more than likely increase in the next few years, we needed to plan for this volume growth. One thing we did know was that we did not want to be limited by only having "one" of anything. As an example, if we had decided on one large cart washer and something happened to it we would lose our efficiency and create a bottleneck. Therefore, we elected to go with two smaller cart washers that are independent from each other.

Explore your options!

Do not just limit yourself to one or two vendors. Explore your options. Make inquiries about alternative technologies or manufacturers in addition to your preferred vendors.

- Work with your Materials Management Department to see what is available;
- Ask your colleagues for their opinions;
- Log onto "list serves" such as:
  - The Association of periOperative Nurses (AORN) MemberTalk at www.aorn.org
  - AORN's Specialty Assembly for Sterile Processing and Materials Management at http://

*See **SELF-STUDY** on page 60*

Self-Test Answers: 1. B, 2. A, 3. B, 4. A, 5. A, 6. B, 7. A, 8. A, 9. B, 10. A

SELF-STUDY *from page 59*

communities.aorn.org/COP, or
- The International Association of Healthcare Central Service Materiel Management (IAHCSMM) at www.iahcsmm.org;

- Scour the healthcare trade journals for equipment and ideas, and;
- Attend trade shows and vendor fairs, locally and nationally, featuring OR and SPD equipment.

Do site visits

I cannot stress enough the importance of doing site visits. Not just one or two locations. Time needs to be invested in this process depending on the amount of new equipment you will be purchasing. Go and see the actual equipment in use. Assess every piece of equipment. Talk to colleagues who were involved in the decision making process, as well as to the staff who use each piece of equipment. Ask about equipment reliability, capacity, preventative maintenance, training, and most of all customer service from the front-line equipment technicians.

When doing a site visit, also look at things like instrument work stations and wrap tables. Ask what works well and what they would change if they had to do it over again. These suggestions and ideas will be invaluable in making future decisions.

Prepare for new technology

It is also very important to do your homework up front. Research what is currently available and what the trends are for future development of processing equipment. There is so much new technology that is being developed; make sure your new facility has the latest and greatest. The biggest consideration with this is the infrastructure preparation such as electrical power, data networking, and plumbing capabilities. Now is the time to think of these things. The last thing needed after moving into your new facility is to require additional construction to accommodate new technology.

Be invested

Get ready for a life full of meetings. Developing and designing a new or renovated department takes a lot of planning. This means lots of meetings. My advice: do not miss any of the meetings where your department will be discussed. There will be times when you have to stand up for what you need. This is where good negotiation skills come into play. If you are prepared with the knowledge gained from earlier research such as the AAMI design considerations sections discussed above, infection control procedures, workflow needs, and equipment requirements, you can better argue your point.

If you do miss a meeting, decisions will likely be made for you and you will have to live with them. The construction planning process is very precise, sequential, and time dependent. Once some decisions are made, it is frequently too late to go back and undo them.

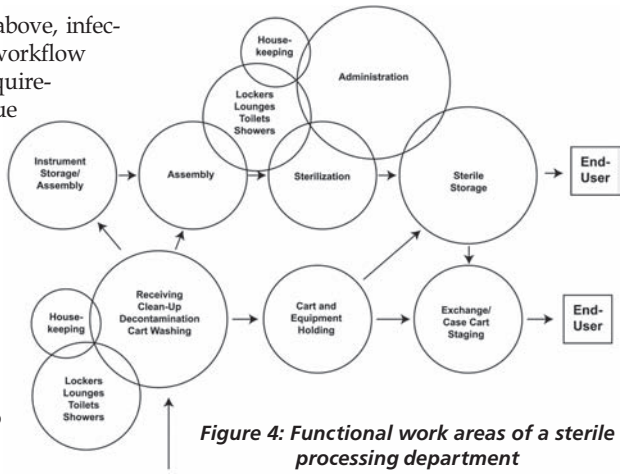

Figure 4: Functional work areas of a sterile processing department

Reprinted from ANSI/AAMI ST79:2006 with permission of the Association for the Advancement of Medical Instrumentation, Inc.© 2006 AAMI www.aami.org. All rights reserved.

Storage, office and staff areas

Besides the actual work area, make sure you have adequate storage, office space, locker rooms, and a break room away from the work area. Think about the future and growth when designing these areas. Your storage area needs for today will probably double in five years, so plan ahead. Future construction project/opportunities might be years away. For new construction, plan for future growth when deciding the location of SPD. AAMI has an example figure of a functional work area for a sterile processing department on page 16 (see Figure 4).[2]

Involve staff

Staff should be involved in the process as much as possible from the very beginning. Depending on the duration of the construction project, staff input is invaluable. The front line workers have different viewpoints and ideas which may help you see things you may have missed. As with anything, the more staff can be involved with the planning the more they feel they are a part of the process and will more readily buy into any changes. Having one staff member as the move coordinator also helped us with the transition. They attended meetings, gathered information, helped in design, communicated with their peers, and oriented other staff members.

Planning for the emotions of the move

It is a big change when you move into a new department or space. Be prepared for some reactions to the change, both positive and negative. Staff will most likely miss some of the old while embracing some of the new. It is important to celebrate both aspects. When we left the old hospital we asked the staff to say good bye. We asked them to list what they would miss on large poster boards and then had a moment of silence for each item. When completely moved into the new hospital we did the same thing to say hello and list what they were looking forward to in the new location. This process seemed to help ease the transition from old to new.

Orientation

Orientation to the new space and education on the new equipment is a must. Don't skimp on these activities. Try to do them before the actual move-in day. The more the staff knows ahead of time, the smoother the move-in day will go. Work with the vendors of the new equipment to set up in-services in small groups. Make sure the staff is ready and understands all of the new equipment by having them perform demonstrations. This will pay off in the long run.

Lessons learned

Reflecting back on this major undertaking, there were many lessons we took away. Here are some of the ones to remember:

- There is never enough space; plan for growth,
- Plan ahead for new technology changes,
- Design for smooth workflow
- Avoid equipment bottlenecks
- Do homework; explore new technologies and vendors,
- Do multiple site visits,
- Invest in the time to attend all meetings; never miss or send someone in your place
- Don't forget storage space, office space locker room space, break room space
- Involve staff from the beginning; assign a move coordinator
- Express emotions; say goodbye and hello,
- Training and orientation before hand is critical.

See ***SELF-STUDY*** *on page 63*

SELF-STUDY SERIES
Sponsored by 3M Health Care

SELF-STUDY *from page 60*

These lessons can be very helpful whether you are building a brand new site, expanding an existing space or just remodeling your department. If you are not currently in any of these construction phases; just wait, I am sure you will be soon! HPN

Ordering Information
AAMI
ANSI/AAMI ST79:2006, *Comprehensive guide to steam sterilization and sterility assurance in health care facilities*
Order code: ST79 or ST79-PDF
Available in an attractive binder featuring sturdy metal rings, ledger-weight pages, and a laminated tab for each section for easy navigation. AAMI will issue revised pages that can be substituted into the binder when changes are made.
Also available in PDF format and as part of AAMI's electronic CD and subscription products.
Price/Member discount price: $200/$100

AAMI documents can be purchased through AAMI by credit card using the following four options:
Internet: http://marketplace.aami.org/eseries/ScriptContent/Index.cfm
1. Call: 1-800-332-2264, ext 217 or 1-703-525-4890, ext 217
2. Fax: 703-525-1424
3. Mail: AAMI, Customer Service Center, 1100 N. Glebe Road, Suite 220, Arlington, VA 22201-5762

References

1. The Association for the Advancement of Medical Instrumentation. Steam sterilization and sterility assurance in health care facilities. ANSI/AAMI ST46:2002.

2. The Association for the Advancement of Medical Instrumentation. Comprehensive guide to steam sterilization and sterility assurance in health care facilities. ANSI/AAMI ST79:2006.

Rose Seavey RN, BS, MBA, CNOR, ACSP is the President/CEO of Seavey Healthcare Consulting, Inc, and the former Director of the Sterile Processing Dept. at The Children's Hospital of Denver. Seavey is an active member of the Association of periOperative Registered Nurses (AORN). She was honored with AORN's award for Outstanding Achievement in Clinical Nurse Education in 2001. She served as the President of the American Society of Healthcare Central Service Professionals (ASHCSP) in 2003 and is the 2002 recipient of ASHCSP National Educator of the Year award.

CONTINUING EDUCATION TEST • JUNE 2008

Taking SPD to a "whole new place":

Designing a new sterile processing department

Circle the one correct answer:

1. **The best place to locate a Sterile Processing Department is in the middle of the Operating Room.**
   A. True
   B. False

2. **Planning for infrastructure for future technology is very important.**
   A. True
   B. False

3. **AAMI stands for the American Association for Medicine and Instruments.**
   A. True
   B. False

4. **AAMI states "From both safety and cost-effectiveness standpoints processing functions should be centralized whenever possible".**
   A. True
   B. False

5. **The department workload today will more than likely be increased in a few years.**
   A. True
   B. False

6. **Doing a site visit to one location is usually enough.**
   A. True
   B. False

7. **Developing and designing a new or renovated department takes a lot of planning and time investment.**
   A. True
   B. False

8. **You should think about future growth in all areas including work areas, storage, office space, locker rooms and break rooms.**
   A. True
   B. False

9. **It is best not to involve the front line staff until just before the move.**
   A. True
   B. False

10. **It is important to celebrate by saying goodbye to your old space and hello to your new "home".**
    A. True
    B. False

CONTINUING EDUCATION TEST • JUNE 2008

Presented by
HEALTHCARE PURCHASING NEWS

Sponsored by
3M Health Care

Request for Scoring

- I have enclosed the scoring fee of $10. (*Payable to **KSR Publishing, Inc.** We regret that no refunds can be given. Multiple submissions may be paid with a single check.)*

Detach exam and return to:
Continuing Education Division
KSR Publishing, Inc.
2477 Stickney Point Road, Suite 315B
Sarasota, FL 34231
PH: 941-927-9345 Fax: 941-927-9588

Please print or type. Return this page only.

Name	
Title	
Hospital Name	
Mailing Address	
Apt/Suite	
City, State, Zip	
Daytime Phone	
E-mail	