

# I HEARD IT THRU THE STEAMLIN

Volume 24 Issue 2

SPRING 2012

NORTH CAROLINA ASSOCIATION FOR HOSPITAL CENTRAL SERVICE PROFESSIONALS

## OUTGOING PRESIDENT'S MESSAGE

Dear,  
North Carolina Hospital Central Sterile Professionals  
It has been a privilege to serve as your president and I thank each of you for your support and the opportunity to get to know you and work with you. I encourage each of you to stay involved and keep networking.

*Lana L. Haecherl*  
NCAHCSP-President 2011



We will not forget 9/11  
Pray for our troops

### Inside this issue:

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Dear NCAHCSP Members:

As your newsletter editor, my responsibility is to ensure you continue to receive news which not only educates you but imparts information of what is continuing to happen within the healthcare industry. For instance, the recall (so to speak) of the Steris System Ones. Hopefully all of you are now in compliance by either replacing the System Ones with the System One Es or by completely changing your method of sterilization.

Is your department notified when there is a recall of a product? For

instance, the Nicolet Cortical Stimulator Control Unit has been recalled by the US FDA. There is concern there may be a short circuit between the mapping unit and its amplifier that could result in the incorrect ID of areas of the brain as abnormal when they are not. This could cause normal brain tissue being removed when it was not necessary. Some of you may not know what this is if you are not a facility that does neuro surgery. Not all of us are going to be involved with all equipment on the market but I will try and let you know what is happening as we go forward.

Pam Caudell, Editor-in-Chief

### Incoming President's Message

Welcome NCAHCSP Members and Visitors,

When I was informed I would need to provide a message for the newsletter, I had no idea as to what to write about. My first thought was to read back through all the previous newsletters to get an idea of a theme for my year as your president. Then I changed my mind all together and thought I would use this as an opportunity to recognize Lana Haecherl, President 2010-2011, for her achievements during the past year.

At the beginning of her term Lana put in place an outstanding list of Committee chairpersons, who with the help of their teams, has produced yet another outstanding year. Pam Caudell continues to do an outstanding job with keeping this newsletter fresh and interesting, as well as providing a great source of continuing education units for our membership both locally as well as nationally. Paul Hess for continually updating the website, and if you haven't noticed sometimes it changes several times a day. Patricia Washington for doing an outstanding job with our Awards and Recognition committee, she continues to do a great job in defining and streamlining the awards process. Judith Carey works diligently to select commorative items that are both affordable and useful. I know she is always grateful for all the suggestions for items you would like to see in the future. Priscilla Worth does a great job in recording all the discussion and filtering out all the side bar information that comes up during our board meetings.

In addition to the committee structure, an outstanding achievement for the past year was to recognize Louise Rahilly as our Founding Member. For those of you who don't know Louise, along with a small group, actually founded this wonderful organization. It is truly an inspiration to work so closely with someone who had the foresight to recognize the need for continuing education and advancing the profession for Central Service/Sterile Processing.

As you can see the process of running an organization such as this is not the thoughts and actions of one person, but the collective efforts of many. Lana has demonstrated during the past year she is a master of getting the work done although she may have felt like she was herding cats occasionally. Join me in thanking Lana for a wonderful job this past year.

*Frank Sizemore*

*President-2012-2013*

*NCAHCSP*



## NCAHCSP MEMBERSHIP NEWS

### ***Diane Fink Outstanding Leadership Award***

This nominee has been a knight in shining armor for the SPD Department & for the OR as well as per the OR Lead Charge Nurse on night shift.

They have taken on being a lead technician for the past 4 years without even officially having the job title for 2 of those past years.

They do anything that needs to be done from working decontam to picking & pulling case carts & rounding back to check on a Medical Equip staff member as well. In their down time, which doesn't happen often, this nominee makes reference sheets or cheat sheets for their staff members to reference to when specifically working 3<sup>rd</sup> shift. Those reference sheets tell you exactly what to do from start to finish, i.e. run Bowie Dick Test in all 3 steam sterilizers @ 12:01 Work on completing OR needs list for next day surgeries; Scan all instrument trays into Censitrac before 6am, before my manager gets into work.

This nominee has the "Lightening Beam" in their eyes that says to anyone on the phone or @ the customer service window pick up that:

I am the leader of this ship & I am on Board & all of my staff are with me too!

This nominee's most needy customers, the OR, used the following words to describe them:

*Polite, Professional, Dynamite to work with, Always Johnny On the Spot*

**Charito Pesantez** is the winner and works @ CMC NorthEast!

### **Joe Stanley Memorial Award**

This award winner nominee is always courteous & helpful to all customers as well as all co-workers inside & outside of their immediate work area.

This nominee was voted on by their peers as their MEQ employee of the year 2011. Always willing to work over, come into work early if needed, where ever the shortage is. They are just a phone call away if off work as well.

This individual has Perfect attendance for the past 2 years & counting. Always greeting everyone with a warm, inviting, friendly smile. This individual never complains when day-to-day workflow doesn't go as expected or as planned for that day. This individual just goes with the flow, to make things happen for the patients.

Great cheerleader for: Hand Hygiene Practices, Patient Safety Champion for the dept. United Way Campaign Captain, Sponsor a Senior for Christmas, Can Food Drive

Chair person, & any thing else that needs a champion. This nominee took over the Hospira Pump library upgrade of +800 & said bring it on. Excellent role model, excellent preceptor & a very high performing Tech III. None other than **Ms. Crystal Eller** Instrument Tech III from Carolinas Healthcare Systems, NorthEast.

### **Ray Manning Sr Achievement Award**

This winner has worked their way up from a technician level 1 to technician level 4 within the Central Service field of professionals. This is a vibrant person that never meets a stranger. Always giving excellent customer service within as well as outside of their immediate work facility. They are always willing to lend a helping hand whenever needed. This person has served as a member on our Advisory Council Committee @ our facility hospital. This Council team works on issues within our immediate work area that needs day-to-day work flow improvements. This nominee is known for writing & putting up day-to-day inspirational quotes for reflections of the day. They will also go above & beyond by singing the own tune to uplift the mood within the dept.

This year's Ray Manning Senior Achievement Award winner is **Ms. Remattie Henry** from Carolinas Healthcare Systems, CMC Main!

**NCAHCSP MEMBERSHIP NEWS (cont.)**

**Bill Dennis Merit Award**

The Bill Dennis Memorial Merit Award was established to honor the memory of Bill Dennis, who passed away in January 2001.

Bill was an active member of our Association and served many roles within the chapter.

Bill was also an active member of ASHCSP for more than 20 years. He served in numerous positions while being a member of ASHCSP.

He was a nationally recognized leader within the Central Service field.

This year's winner is cut from the same cloth. He works tirelessly to ensure all his staff are educated sufficiently. He is totally committed to Central Sterile both while at work and he speaks about CS to anyone who will listen.

This year's 2012 Bill Dennis Memorial Merit Award winner is:

**Richard Blackburn from Gastonia Memorial Hospital.**

**Way To Go, Richard!!!!**

**2012-2013 Committee Assignments**

**Education**-Karen Furr-Chair

**Finance**-Frank Sizemore-Chair

**Membership**-Pricilla Worth-Chair

**Editorial**-Pam Caudell-Chair

**Public Relations**-Judith Carey-Chair

**Recognition**-Patricia Washington-Chair

**Nominations**-Frank Sizemore-Chair

If you would like to help with any of these committees, please let the chairperson know. We always take assistance.

**HOW TO BE HAPPIER**

Just like you exercise to get stronger, you can also train your mind to be happier. It's true! (And it doesn't involve pull-ups!)

This week, before you get out of bed every morning, do three things.

First, think of something you are going to do today that is meaningful to you. How you will accomplish this? Is there a relative you've wanted to call? Think about how that phone call will make your loved one happy and connect you with your family. Or maybe there's an area of your house that needs de-cluttering. Even if you can spend only 15 minutes organizing a drawer, matching unmatched socks, or putting the Wham concert T-shirts on eBay, think about how much better

Second, be appreciative of something. Is it the warm summer sun? The fact that it's Friday? An upcoming trip? Your Wham CD? Hold that thought for 20 seconds. Do this again at lunch and before you go to sleep.

Lastly, smile. Fake a smile or find something to smile about. Research shows that putting your face into a smiling position can actually lead to happier feelings. On the flipside, frowning can lead to darker feelings.

These exercises will train you to appreciate the small things and bring meaning to each day.

Taken from Dr Oz , "Transformation Tips"



**Any form of exercise will help make you feel better.**

## Plasma Sterilization: Mysteries Unveiled

By: Pamela H Caudell, RN, CNOR, CSPDS, ASCP

### Objectives:

Describe what plasma sterilization is

Discuss how plasma is made

Describe how plasma is used in the sterilization process

Plasma was named after an American physicist, Irving Langmuir. Plasma refers to a group of positive ions and electrons with an electric charge created by an electrical discharge, and plasma physics is the study of the physical properties of plasma. Plasma is considered to be the fourth (4<sup>th</sup>) state of material and 99% of all the materials in space are plasma. Plasma sterilization is known to have started in the great year of 1968, when Menashi reported the use of a pulsed RF (radio frequency) field to kill spores (10<sup>6</sup>) in time scales on the order of seconds rather than minutes.

Electrical plasma, used in sterilization, can be classified into two types broadly: volume and surface plasma. Plasma is classified as volume plasma when it is generated by injecting a gas at a specific flow rate into a chamber fitted with electrodes and grounded sufficiently. When the circuit was closed, the gas inside the chamber would be subjected to an electric field and hence ionized, creating plasma. Surface plasma is usually when the electrodes (power and ground) are embedded into a dielectric and hence plasma is generated on the surface of the dielectric itself.

Now that we've done the hard to understand stuff, let's break it down into an understandable language. The reason we look at sterilization itself is because up

until now, we have had reputable methods of sterilization, steam and gas that will sterilize almost everything. Those items that couldn't be re-sterilized were considered to be disposable. However, with the increasing cost of medical care, we can't afford just to throw things away. Also, the newer pieces of equipment are more expensive, more delicate, more intricate, and as a consequence, do not hold up under the steam and gas sterilization processes. Ergo, plasma sterilization is the newest sterilization process in our arsenal of safe sterilizations. Another reason we look at plasma sterilization is the amount of time it takes to run a cycle. If we use ethylene oxide, the cycle takes anywhere from 8-16 hours depending on the manufacturer and the set-up of the machine. If plasma is used, the cycle usually takes anywhere from 45 to 75 minutes for wrapped and dry instruments and devices at which time these products are ready for use. One of the nice things about this sterilization type is the lower temperatures of sterilization. Temperatures are maintained in the 104-122 F (40-50 C) range. This helps ensure the delicate instruments we are now seeing in our units are being maintained without any damage. With the use of a plasma sterilizer, the sterilization cycle can do more than one item at a time, depending on the size of the sterilizer. Another advantage to using this type of sterilization over the peracetic acid process happens at the end of the cycle. Peracetic acid sterilization is an at-point-of use sterilization. In other words, the item sterilized must be used within a very short period of time as this is a wet sterilization and there isn't any way to store the sterilized

items. With the plasma sterilization process, the items are wrapped or placed in sterilization containers that meet criteria so that at the end of the cycle, the items, if not used, can be stored on the shelf like any item that has been steam sterilized or Eto sterilized. Another reason to look at plasma sterilization is that it has no downside to the environment and poses no threat to either the staff using it or the patient receiving the sterilized items. The sterilized items have no down time waiting for an aeration cycle unlike ethylene oxide.

One of the down sides to this particular type of sterilization is it's inability to reach all the way thru certain lumens. The lumen size must be greater than 3 mm in diameter and the scopes must also be less than 400 mm long.

We can't use plasma sterilization for flexible scopes either. Another downside for the use of plasma sterilization deals with the wrappings. Paper items and cloth cannot be used to wrap instruments or peel pouch anything going into the sterilizer. In the sterilization process, the wraps used must be designed to specifically be used in plasma sterilizers.

The second part to this disadvantage hinges on the dryness of the item to be sterilized. If there is any wetness to the instrumentation being sterilized, the cycle will abort. Another downside to the plasma sterilization process is the inability to sterilize liquids, powders or any item containing cellulose as this will absorb the plasma.

A hydrogen peroxide solution is dispersed into a vacuum chamber which creates a plasma cloud. The gas works by changing the cellular components of the microorganisms which causes them to be inactivated and destroys them. Once the sterilizer is turned off, the plasma cloud no longer exists. When the energy is taken away, water vapor and oxygen is formed. There is no toxic residue, harmful emissions or the need for environmental monitoring. There are five (5) phases of the hydrogen peroxide processing cycle:

- ◆ First is the vacuum phase. The pressure drops to less than one pound per square inch. This part lasts about 20 minutes.
- ◆ Next is the injection cycle where the liquid hydrogen peroxide is injected into the chamber where it is turned into a vapor which in turn creates a gas. This causes the pressure to rise caused by an increase in the molecules within the chamber.
- ◆ The third stage is called the infusion stage.

Here the gas spreads throughout the chamber and the increasing pressure forces the sterilant into the packs. This exposes the instrument surfaces and kills the microorganisms.

- ◆ In the fourth phase, radio frequency waves are applied, causing some electrons to be removed from the molecules. This produces a low-temperature plasma cloud. After this reaction occurs, all active elements lose their energy and recombine to form oxygen and water. The first three phases are then run again to assure optimal sterilization for those items that are harder to sterilize.
- ◆ The final phase is the venting stage. This puts filtered air into the chamber and returns the chamber to atmospheric pressure so we, mere humans, can open the door

If the item can be changed by exposure to low pressure or the makeup of the plasma, this type of sterilization should not be used. If you have a product that is made of anodized aluminum, there is an increased risk of the item fading or turning colors with continued exposure to the hydrogen peroxide

vapor that is produced.

Just like every other sterilization process, quality assurance monitoring has to happen. QA is always considered to be an ongoing process. Because of our alignment with the Association of Perioperative Registered Nurses, those of us working in the Central Sterile arena follow both the AAMI guidelines and the AORN guidelines for sterilization monitoring. The other guiding body is each facility's own policies and protocols. Each sterilization method has its' own biological indicator/integrator. This is also true with the plasma sterilizer. *Geobacillus Stearothermophilus* is the spore used to test plasma sterilization. Most facilities don't just have one method of sterilization. Because of the variation of the items we are responsible for, most of us have two and sometimes three alternatives for sterilization. Only by studying our own instrumentation sterilization needs, the manufacturer's recommendations and our finances can we be informed



enough to make a decision on whether or not plasma sterilization is something we need in our own departments.

Plasma Sterilization: Mystery Unveiled Spring 2012

1. Plasma was named after an American physicist, Irving Langmuir.  
True False
2. Plasma refers to a group of positive ions and electrons with an electric charge created by an electrical discharge  
True False
3. The newer, more delicate pieces of equipment we are now seeing, can be treated with steam without problems.  
True False
4. Plasma Sterilizer temperatures are maintained in the 170-240 F range.  
True False
5. Plasma sterilization poses no threat to either the staff using it or the patient receiving the sterilized items.  
True False
6. The same paper items and cloth used for steam sterilization can be used to wrap instruments or peel pouch anything going into the plasma sterilizer.  
True False
7. If the item can be changed by exposure to low pressure or the makeup of the plasma, this type of sterilization should not be used.  
True False
8. *Geobacillus Stearothermophilus* is the spore used to test plasma sterilization.  
True False
9. At the end of the plasma cloud formation, all active elements lose their energy and recombine to form alcohol and water.  
True False
10. The lumen size must be greater than 3 mm in diameter and the scopes must also be less than 400 mm long in order to be sterilized in a plasma sterilizer.  
True False

**EVALUATION**--Please evaluate this in-service by selecting a rating between 0 and 4.

**0=Not Applicable, 1=Poor, 4=Excellent**

Author's Knowledge of the Subject **0 1 2 3 4**

Author's Presentation, Organization, Content **0 1 2 3 4**

Author's Methodology, Interesting/Creativity **0 1 2 3 4**

Program Met Objectives **0 1 2 3 4**

To receive 1.0 contact hours toward certification from CBSDP, complete the in-service "quiz" after reading the article. Send the entire page with the completed "quiz" to:

Lana Haecherl  
P.O. Box 568  
Pineville, NC 28134  
Please do not send certified mail

Lana will issue a certificate if your score is greater than 70%. Please be sure to fill in the information requested below.

If you are **NOT** a member of NCAHCSP, please include a fee of \$20.00 for instate membership and \$20.00 for out of state membership. Your fee will provide you a 1-year membership in the Association and will also entitle you to submit the next in-service offerings for the cost of a postage stamp. That is potentially six in-service programs for your registration fee. Remember you will not be issued a certificate unless you are a member of NCAHCSP.

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## Gardening and Your Health: Protecting Your Knees and Back

### Knees

Many gardening tasks require knee strength and stability, whether kneeling, sitting, standing, or walking. The best way to protect knees from the stress and strain is to condition them with strengthening exercises and stretching.

The muscles that protect the knees are the quadriceps (front of thighs) and the hamstrings (back of the thighs). To ease strain on the knees, practice strengthening exercises regularly, and stretch before starting gardening activities. Your doctor should recommend specific exercises and stretches that are appropriate for you.

Squatting can put unnecessary strain on the knees if done incorrectly or for long periods of time. When squatting, keep feet flat with weight evenly distributed. Squatting with heels off the ground can potentially damage knee ligaments. Preferred work positions would be having one knee on the ground, working on hands and knees using a kneeling pad, or sitting on a chair or stool (Figure 1). If you use a chair or stool, place it close to the area where you are working and use long handled tools to avoid straining the upper body. If a kneeling pad is inconvenient to carry, then try using strap-on knee pads. Raised beds can make gardening easier, reducing the need to stoop or bend down to get close to the soil. The height of raised beds can be adjusted to suit the gardener's needs. Raised beds with wide borders can offer a convenient place to sit while working (Figure 2). The width of raised beds should be narrow enough to allow the gardener to work without straining or reaching. Some people may find it easier to use beds high enough to stand at, while others may want to design a bed to slip their knees under while sitting.

### Back

Lower back pain, whether caused by muscle aches or a herniated disk, can make gardening a difficult task. Research has shown that, in most cases, prolonged bed rest can actually make pain from acute or chronic back problems worse. Studies show that individuals who continue their normal activities as much as possible after an initial 24 hour rest period experience less pain, have more flexibility, and are better able to do work than are individuals who stay

in bed.\* While each case is different and persons should consult with a doctor before resuming activities, many individuals will be able to continue gardening activities with some minor adjustments recommended by their physician.

Exercise can have many benefits for individuals recovering from back injury. It can improve mood and reduce pain by releasing endorphines, the "feel good" hormones, to the brain. Exercising can help to maintain flexibility and fitness level, preventing the muscles and tissues around the injury from tightening up, which can increase susceptibility to strain. Lastly, exercise can strengthen the muscles that support the back and reduce the likelihood of re-injury.

To avoid aggravating a back injury, it is important to know how to move, sit, stand, and work in ways that will reduce strain. When walking keep a

slight arch in the lower back, slightly tensing the abdominal muscles, and don't slouch. Sit with feet supported and knees level or higher than hips. Use correct postures when doing garden chores such as raking, shoveling, hoeing, etc. Take care of these parts and they will take care of you.



Taken from Virginia Extension Services

We're on the web!!  
[WWW.NCAHCSP.ORG](http://WWW.NCAHCSP.ORG)



North Carolina Association for Hospital Central Service Professionals will establish itself state-wide as the leading educational organization through innovative programs that enhance the development of the Central Service Professionals.

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## Committed to the Needs of Healthcare Providers

**General Surgical Instruments:** Repair and sharpening of all instruments, needle holder insert replacement, repair or replace broken parts.

**Eye/ENT/Micro Instruments:** Repair and sharpening of all instruments.

**Laparoscopic Instruments:** Sharpening, repair, parts replacement, hinge pin repair, subassembly replacement, shaft re-insulation and re-coating.

**Re-application of Diamond Coating:** Diamond welding on micro needle holders and tissue forceps, cardiovascular forceps.

**Welding/Soldering:** Repairs on instruments needing welding or soldering.

**Repotting:** Bipolar and monopolar forceps with or without irrigation tubes.

**Kieppinger Forceps:** Repair, rebuild and re-insulate.

**Biopsy Forceps/Ronguers:** Repair of all types of biopsy punches, forceps and ronguers. Parts replacement and sharpening.

**Ortho Instruments:** Repair and sharpening of all types of curettes, chisels, osteotomes, gouges and elevators.

**Neuro Instruments:** Repair of all delicate types of pituitary ronguers, micro forceps and specialty items.

**Color Dipping:** Application of standard or custom colors to almost any instrument.

**Etching:** Electro etching on your instruments.

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