Editor’s Note

Thanks for taking a break from the holiday shopping, decorating, and cooking to read our newsletter. We think it will be worth your while. This edition includes discussions about the new midwife sonography certificate as well as the pros and cons of being a contract sonographer. We also have an interesting case study on late onset PCS from this year’s board mentoree, Emily Bouchard. Wondering what PCS is? Read on…

NCUS President Chris Mann brings us the latest news in the development of the 2016 Spring Symposium. Have you put in your time off request to attend? As this year proved, time goes quickly and gets away from us easily so set aside April 8-10 now. And hey! April 8th is also my birthday in case you needed yet another reason to come to Winston Salem besides the lectures, the CMEs, the nifty new ultrasound machines, and those friends you haven’t seen since school.

As always, your input is not only welcome but encouraged for future newsletters. We want to provide material that is relevant to you so email me at hudson.okeefe@yahoo.com with any comments, suggestions, or critiques. I look forward to hearing from you.

Happy Holidays,

Hudson O’Keefe
President’s Letter

Happy Fall, everyone! Leaves are changing and the Holidays are right around the corner. Another year is drawing to a close.

In October, we enjoyed a day full of learning and fellowship at the Friday Center in Chapel Hill. Our thanks go out to board member and future president, Mike Foster for putting together a great line up of speakers for the fall meeting.

Participants also enjoyed visiting all of our valued vendors who came out to support the cause and show us the latest and greatest they have to offer. There is some exciting technology coming down the pike and NCUS conferences are a great way to learn about it.

It’s time to shift our focus to the Spring Symposium which is being held at the Benton Convention Center in Winston Salem on April 8-10, 2016. We are fortunate to have some favorite speakers join us again this year, such as Dr. Kremkau for “Physics Friday”, Mani Montezemi, as well as some new faces. In addition, Duke Cardiologist, Dr. Joseph Kisslo will be giving Saturday’s keynote address.

There will be some exciting rivalry between sonography schools during the Quiz Bowl competition with all new questions designed to test the knowledge of North Carolina’s best and brightest. Join us and cheer on your alma mater as they battle it out for the Golden Probe Friday night!

As always we strive to tailor these meetings around the wants and needs of our members, so if you have any suggestions of topics, speakers, or activities, please contact me personally as soon as possible. I will do my very best to make it happen and ensure that your time and money are well spent in Winston Salem this year!

Remember to renew your NCUS membership to receive the greatly reduced membership symposium rate. Check the website for registration information after the New Year. Everyone have a great rest of 2015 and we will see you at the Spring Meeting!

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Midwives and the ARDMS

This year, the ARDMS created a Midwife Sonography Certificate based on a needs analysis survey conducted in 2013 in conjunction with the American College of Nurse Midwives®. In Spring, 2016, the first examinations will be held in testing centers throughout North America. For more information and explanation of the certification requirements, visit the follow sites:

ACNM  www.midwife.org/midwife-sonography-certification

As with all things ultrasound, we sonographers have opinions, varied and frequently strong. We at NCUS were curious to learn more about the North Carolina Sonography and Midwife communities’ thoughts and/or concerns about this new program. NCUS board member and OB sonographer, Michelle Dail reached out to members of those communities for their opinions. Of course, no one person can speak for their entire community but perhaps what follows will be sufficient to begin the conversation.

The Midwives

A midwife who teaches at East Carolina University School of Medicine in the midwife program states that the midwife program does not consider ultrasound as a core competency. She says that at this level of study there is no need for further education in ultrasound. According to her, some of her graduating midwives were interested in the study of ultrasound hoping it would enhance their skills and land them a better job. She said when she was working as a midwife in a private practice they had sonographers at their fingertips so doing your own ultrasound was never needed.

She stated that she felt ultrasound competency in assessing amniotic fluid volumes, fetal position, and fetal heart tones would be beneficial to midwives who open their own practice, worked at a birthing center, or in rural areas. She stated that after being a midwife for years she did not feel midwives should be doing Detailed OB/GYN studies.
The High Risk OB Sonographers

A Maternal Fetal Medicine Specialist trained in ultrasound felt it would be difficult for a midwife to perform the volume of scanning required to maintain proficiencies in OB/GYN ultrasound studies. She was concerned that the artifacts and pitfalls of ultrasound would easily be misinterpreted by those not highly skilled and experienced in this field. She was also concerned that the focused OB/GYN ultrasound scan would be reduced to some quick look or cut down version. She felt images of normal anatomy would be misinterpreted. (Example hernia of bowel, marginal cord insertion, etc).

She said the two ultrasound studies most helpful for midwives to perform would be fetal heart tones and fetal position. Competency in these types of ultrasound studies would prevent the midwife working at a Health Department or rural area from having to send that patient to the hospital for a limited ultrasound study. Some OB/GYN sonographers feel this midwife ultrasound certificate oversimplifies the difficulty of obtaining an OB/GYN degree. After years of experience in performing focused, targeted, detailed OB/GYN studies; these highly trained sonographers realize how scans could be misinterpreted.

The General Medicine Folks

A faculty member at East Carolina University School of Medicine feels having a Midwife ultrasound exam is great. More and more branches of medicine are performing ultrasound. To have an exam that will prove competency is always a good thing for the public safety.

Do you have any thoughts, questions, or concerns about the Midwife Sonography Certificate offered through ARDMS? To contribute to the conversation, please post your comments or opinions on our Facebook page. We look forward to hearing from you.
Life as a Contract Sonographer

My name is Teresa and I have been a Registered Diagnostic Medical Sonographer for 34 years. I am a charter member of the North Carolina Ultrasound Society and have been involved with the society in one capacity or another ever since. 34 years. That’s longer than a lot of you have been on this earth! I was asked to write an article for this newsletter about my experience as a contract sonographer. I have scanned for 35 years but it’s been longer than that since I’ve had to write a paper, so bear with me!

I was fortunate to have attended school for Sonography in a time when 99% of sonographers had to learn on the job. I attended the UNC/NC Memorial Hospital certificate program for one year. My first job was with Bowman Gray School of Medicine (now Wake Forest University Medical School) teaching in their Postgraduate Course in Medical Sonics.

I taught scanning labs in most specialties which exposed me to almost every ultrasound instrument being made, since the school did not own its instruments. All the instruments used for teaching were loaned by the manufacturing companies. Of course the instruments weren’t as sophisticated as they are now, but I worked with every instrument brought into the scanning labs. This taught me to not be intimidated by new technology and equipment - I knew I could not permanently damage an instrument (within reason) and that if I pressed a wrong button, it would not explode!

Through my job at BGSM, I got to know the sales reps and applications specialists for the companies and I met physicians in NC that came through the course. Occasionally a company would need applications work for a new installation and I would work per diem for the company to help the users learn their new instrument. This gave me the idea, when my husband and I decided to start a family, that perhaps I could do occasional per diem work for manufacturers and provide as-needed scanning services for physicians in their own office. That way I could keep my skills honed and stay home with my child. Great idea!

That is how my contract business started, more or less. I have worked as a self-employed/contract sonographer now for 25+ years. Initially, I started out as a sole proprietor, but now my business is incorporated which provides more tax advantages. I started slowly through the years working ½ day per week to a couple of days to 5 days
per week, if needed. My main advertisement was word of mouth, filling in for sonographers on vacation, maternity and sick leave. When I decided to work more steadily, I reached out to other sonographers to find offices looking for help. Attending the NCUS meetings were (and still are) a great opportunity for networking.

Sometimes I would cold call an office and speak to the office manager or physician to see if they needed sonography service. Being self-employed is like being a salesperson because you are selling yourself and your skills. You get rejected more than you get hired. In the early days, the contracts weren’t always written; sometimes they were agreements by a handshake or gentleman’s agreement. Not so much anymore. My last contract was over 30 pages!

Working as a contractor has some great advantages but also disadvantages. Advantages include: flexibility in scheduling/time off when needed, potential higher income, and some tax benefits. Disadvantages: no work=no pay, self-pay insurances like health and disability or malpractice insurance, and no matching funds for retirement account. Owning a business also requires professional tax and legal services, which is another expense. It can be stressful going into an office for the first time: not having an established work routine, learning the office procedures, and working with people you’ve just met. It requires being confident in your skillset and being professional.

It’s critical that you meet your client’s needs week-in and week-out. If you aren’t able to do the scans they need you to do, they will look elsewhere for coverage. Which brings up another point: a client can end your contract at any time. You have to be on top of your game and approach every work day like it’s a performance review day. Although many of the qualities I just listed (skillset confidence, professionalism, reliability, flexibility, etc.) are important whether you’re a contractor or not, I feel more responsibility for my work because it is a direct reflection (no pun intended) of my business. Although your work should always reflect your abilities as a sonographer, it somehow feels more critical when you work for yourself.

With changes in healthcare and more physician practices being owned by corporations, I find it is becoming increasingly difficult to find practices that utilize contract sonographers. There are approximately 2,000 registered sonographers in NC and new sonographers are continually graduating from the eight sonography programs in our
state. The job market is already tight for full-time employment with many of the new graduates having to take prn or part-time jobs.

Contract Sonography is best suited for someone with experience, not just in years but in different work environments and with the ability to work with a level of uncertainty. For the right person, contracting can be a breath of fresh air; creating opportunities to meet new colleagues, expand your technical skillset, and earn a higher income.
Meet the Mentoree

The 2015/2016 NCUS Board Mentoree is Emily Bouchard, a first year student at Johnston Community College. We were able to talk with her at the fall conference in Chapel Hill, NC.

What led to your interest in becoming a sonographer?

A personal interest in biology coupled with a personal history of various sonograms first piqued my interest in sonography. A strong family history of breast cancer led me to want to pursue a career in breast health care. Sonography allows me to work in breast health care with limited radiation exposure while still providing one-on-one care to patients. Furthermore, the versatility of sonography allows for diversity in the future, whether that be exploring other specialties within sonography or exploring research opportunities.

What do you hope to do once you graduate?

I hope to work in a breast health care facility upon graduation, with an ultimate goal of working in a research environment.

What has been your experience so far working with the NCUS as a mentoree?

I received valuable feedback on my case study from my mentor. I learned a great deal from the various lectures that I was able to attend during the Fall symposium, as well.
Do you think being an active member of NCUS will aid you in your sonography career? If so, how?

I feel that being an active member of NCUS will provide valuable networking opportunities, as well as access to useful learning and training material. I think that it is important to continue to learn in any career path. Making connections with other sonographers can be gratifying as well. Whether to commiserate or share interesting new techniques or success stories, I hope to feel part of a community as a NCUS member.

What would you like NCUS members to know about you?

I am pleased to be part of the NCUS mentor program and look forward to meeting fellow members in the future.

Can you tell us about an interesting or impactful patient interaction you have had in your clinical rotations? (without violating HIPAA)

I have been fortunate to have learned from a compassionate group of sonographers during the first 8 weeks of clinical rotation. I have been taught directly and by example that professionalism, kindness and patient dignity are essential to sonography. Furthermore, I have observed the importance of being thorough and doing my best to provide clear images that allow for accurate diagnosis and treatment of patients.
Patient presented in emergency room with abdominal pain. Patient’s wife indicated that patient underwent cholecystectomy several years prior. Review of previous records confirmed laparoscopic converted to open cholecystectomy for cholelithiasis and gangrenous cholecystitis five years prior. Surgery notes indicated a drastically diseased gallbladder characterized as entirely necrotic rotting and leaking with gallstones. However, gallbladder sonogram was ordered during this most recent ER visit when acute cholecystitis was suspected following an inconclusive CT of abdomen/pelvis with contrast and magnetic resonance imaging cholangiopancreatography (MRCP). The gallbladder sonogram demonstrated a thickened gallbladder wall measuring 6.0 mm, echogenic stones and common bile duct measuring 5.6 mm. Acute cholecystitis was considered.

Patient’s symptoms improved overnight. He had stable vital signs, soft and completely non-tender abdomen, lack of fever, normal white blood cell count and no evidence of jaundice. Final assessment was resolving acute cholecystitis of gallbladder remnant with a second cholecystectomy, if necessary, performed as an elective procedure. Patient was cleared to resume normal diet and activity.
“Post-cholecystectomy syndrome (PCS) consists of a group of abdominal symptoms that recur and and/or persist after cholecystectomy (Girometti, et al., 2010)” both biliary and extra-biliary in origin. Early PCS is characterized as within the immediate post-operative period, while late PCS is characterized as having onset months to years following cholecystectomy. This patient would be categorized as late PCS with onset was five years post-cholecystectomy. Transabdominal sonography is the preferred imaging modality for the initial evaluation of PCS. Further studies may include a CT followed by direct cholangiography and/or magnetic resonance cholangiopancreatography (MRCP) to further assess the biliary tract (Girometti, et al., 2010). An endoscopic ultrasound (EUS) followed by endoscopic retrograde cholangio-pancreatography (ERCP) are possible studies for patients with elevated liver function tests and/or common bile duct stones and/or dilated common bile duct (> 10 mm identified by sonography). Although results of EUS and ERCP are quite accurate, these exams are invasive procedures with significant risk of complications (Terhaar, Jan 2005).

Table 1

<p>| Main Causes of Post-Cholecystectomy Syndrome (PCS) |</p>
<table>
<thead>
<tr>
<th>Early PCS</th>
<th>Extrabiliary Causes</th>
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<tbody>
<tr>
<td>Retained stones in the cystic duct stump and/or common bile duct</td>
<td>Gastrointestinal causes</td>
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<tr>
<td>Bile duct injury/ligature during surgery</td>
<td>Acute/chronic pancreatitis (and complications)</td>
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<td>Bile leakage</td>
<td>Pancreatic tumours</td>
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<tr>
<td><strong>Late PCS</strong></td>
<td>Papillary tumors</td>
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<tr>
<td>Recurrent stones in the common bile duct</td>
<td>Sphincter of Oddi dysfunction</td>
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<tr>
<td>Bile duct strictures</td>
<td>Oesophageal diseases</td>
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<tr>
<td>Cystic duct remnant harbouring stones and/or inflammation</td>
<td>Peptic ulcer disease</td>
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<tr>
<td>Gallbladder remnant harbouring stones and/or inflammation</td>
<td>Mesenteric ischaemia</td>
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<tr>
<td>Papillary stenosis</td>
<td>Insufficient cholecystectomy</td>
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<tr>
<td>Biliary dyskinesia</td>
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Symptoms of PCS may include abdominal pain, colic, nausea and vomiting, jaundice, with or without fever (Jensen, 2014). It is important to note that complications from surgery may be mistaken for severe symptoms of early PCS. Treatment for PCS is based on underlying cause determined by previously discussed testing and may range from medication to surgery.

Figure 1: Sagittal liver and gallbladder image with thickened gallbladder wall measurement of 0.60 cm.

Figure 2: Sagittal image of gallbladder in LLD. Color flow verifying hypoechoic structure is, in fact, the gallbladder.

Figure 3: Sagittal image of gallbladder with hyperechoic thickened wall and echogenic gallstone.
Works Cited


Parting Thought…

Life is like riding a bicycle.
To keep your balance, you must keep moving.

- Albert Einstein