

Forward March: Master's Degree Here We Come

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The decision to move to a Master's Level degree (MS) in Cytology is not new news but the conversation is far from completed. The time of talk, data gathering, and speculation has morphed into action with the coming year focused on execution and implementation towards this goal. Although the overall process may be a long and steady forward march over the next 3-5 years, we have nevertheless begun this new journey.

In alignment with our goal, the CPRC (Cytotechnology Program Review Committee) has committed to facilitating and providing multiple communication touch points to inform the profession of our progress. The objective of these communications is to listen, learn, facilitate, and assist each program with the resources needed to support curriculum and degree program development.

To begin, we refer you to the previous issue of the *Bulletin*, which started this communication series with these two articles:

- *The Road to the Master's Degree*, Jennifer A. Brainard, MD, Chair, Cytotechnology Programs Review Committee, Cleveland Clinic Cleveland, Ohio and
- *A Perfect Storm in Pathology: Restructuring of Traditional Pathology Roles in Response to Evolving Workforce, Practice Patterns and Healthcare Reimbursement*, Brenda J. Sweeney, SCT(ASCP)CLA, Editor, *The ASC Bulletin*, Massachusetts General Hospital Boston, Massachusetts

Next in keeping with our commitment to ongoing conversation, this article will review and share the discussion points from the Strategies in Cytotechnology Education Session (SCE) conducted at the ASC Annual Scientific Meeting (November 2017) for the segment titled *Professional Growth Factors - Moving to a Master's Level Profession*. For interest sake, the SCE program included topics on:

- Education Innovations and Workplace Awareness

- Anytime/Anywhere Cytotechnology Training Skills
- How to Set up a Virtual Screening Exercise
- The Learning Environment and Learner Mistreatment
- Mentoring: The Cleveland Clinic Foundation
- *Professional Growth Factors: Moving to a Master's Level Profession*

The Professional Growth Factors session was designed in a 2-hour interactive round table format consisting of six focused topics relevant to the Master's Level discussion. SCE registrants were not pre-assigned to any topic and had the option to be randomly placed or could move to a topic of their interest. The intent of using this type of forum was to continue the discussion on awareness of challenges, to promote experience shares and to brainstorm opportunities with a broader peer/professional audience to provide future direction and assistance for all programs.

Each topic was assigned a facilitator from a current Master's Level Program in Cytotechnology. A few starter questions were provided to prime the conversations. Each table was responsible for providing a summary of their table discussion to the entire group as a wrap up. Topics, facilitators and questions were assigned as follows:

Student Recruitment:

Facilitator: Jenna Benson LeBlanc, MS, CT(ASCP) (Program Director) Albany College of Pharmacy and Health Sciences

Questions: Would a Master's level curriculum and increased scope of practice (SOP) lead to better and more student recruitment? What are the roadblocks to overcome?

Faculty Development:

Facilitator: Keisha Burnett, MS, CT, MB(ASCP) (Education Coordinator), University of Tennessee Health Science Center

Questions: What is necessary to increase the level of faculty expertise in the current non-Master's programs? How can this be accomplished?

Consortium Programs:

Facilitator: Donna Russell, MEd, CT(ASCP)HT (Program Director), Daemen College/Roswell Park Cancer Institute

Questions: Are consortiums an optimal way to address the issues of moving to all Master's level programs? If so, how should consortiums be developed?

Scope of Practice and Student Placement:

Facilitator: Kelly Lennen, MS, CT(ASCP) (Program Faculty), Thomas Jefferson University,

Questions: Is there a need to show that the proposed SOP leads to employability and a salary appropriate for the level of training? If so, how should/can this be accomplished?

Budgets:

Facilitator: Barbara Benstein, PhD, SCT(ASCP) (Program Director), University of Tennessee Health Science Center

Questions: Will there be additional budget dollars needed to up the Programs to Master's level? If so, what are best sources? What has worked in the past with current programs to convince administrators to financially support this transition?

Needs Assessments:

Facilitator: Nadia Saadeh, MS, CT(ASCP) (Education Coordinator), University of Rhode Island

Questions: Is the survey presented today enough? What more information/additional questions need to be addressed? Are there other major challenges (and opportunities) to explore?

A summary of discussion points is outlined by topic. Remember the objective of these sessions was to raise questions that might not have been considered before, to confirm what we already know and to ensure more stakeholders were surveyed in order to better direct future efforts in support of moving to a Master's degree level.

Round Table 1: Student Recruitment

Recruiting

- Selling cytology to increase interest and enrollment is critical. Prospective students need to know what the field is about and we need to do a better job to get the word out there.
- Better branding and possibly a new name is needed to pique interest and be competitive in the health science industry.
- Google and other web-based search engines provide current information and there may be some blogs online that malign the profession. There is a need for more positive and updated news out there, especially with the idea of the MLPP (mid-level pathology practitioner). Although, gynecologic specimen volume has decreased, non-gynecologic specimens are increasing. Cytotechnologists are now assisting with onsite immediate adequacy assessments, performing and interpreting ancillary testing—among many other duties. A future practitioner level is going to have even more responsibilities. That message needs to get out there.

- There is a need for more literature on how we are experiencing a shortage and how non-traditional duties are increasing.
- Who does the recruiting? Is it health advisors, is it cytotechnologists pounding the pavement? It is hard for a non-cytotechnologist to promote the field, but educators may not have time to recruit in person. We need to make sure we have an admissions team that can competently talk about the profession/programs. We also need to rely on professional societies to help promote the field.
- We should identify specific groups of students to be targeted. Recruiters need to look at specific programs at institutions where recruitment is occurring. Are there degrees or certain populations of students that fit well with your program?
- Not only should we be reaching out to students, but also to their advisors. Many advisors are not able to inform students about these other opportunities in the medical field, because they don't know about them. We need to make sure they have up to date and complete information about the field of cytology.
- There is a definite need to educate people about the profession and to make sure good news is available on all search links.

Higher level degree impact and salary

- A common question is *“What will I get out of this higher degree requirement vs a lower level degree like a BS (Bachelor of Science)? Are there any additional benefits such as ‘will the pay be higher’? Will I be promoted more quickly?”*
- Most likely the tuition will increase with an associated Master's degree over BS. It will be necessary to correlate increased cost with salary expectations in the job market. Is there any evidence that the cytotechnologists coming out of the MS programs are making more money?
- Higher salaries could be a primary driver for student recruitment.
- Three people indicated their cytotechnologists who did additional duties got paid more.
- Having a MS degree will open opportunities for faster promotions based on some participants' experience to date.

General

- We need support and resources from societies and institutions to move to a MS degree and improve recruiting practices. The Programs have limited infrastructure. How do we adequately hold the professional societies to this type of commitment?
- Obtaining clinical sites can be difficult due to limited willingness to participate and contract agreements. We need a process to make it easier. This is critical with the new Entry Level Competencies (ELCs).

- Housing and facilities need to accommodate an increase in student capacity.
- Distance learning is a draw, but infrastructure and resources to expand technology is a potential roadblock.
- What do we do with those already out in the field that can't go back to school? Will there be grandfathering? Some were concerned that this would also cause a problem between the two groups/levels.
- What will the curriculum look like? Is it worth the additional time and money, especially if the additional items in the curriculum are already being learned through on-the-job training (OJT) in some laboratories.

Round Table 2: Faculty Development

- To satisfy the new ELCs, faculty must be trained and will therefore require more one-on-one time with pathologists to learn the processes in surgical pathology that may transfer to cytopathology.
- The need for higher level degreed instructors such as MS and PhD or EdD faculty may be a challenge requiring additional academic institutional support and financial resources.
 - Time is required to get this additional higher-level degree – will this be done while holding a full-time position?
 - Does the institution provide tuition reimbursement and time to get an advanced degree?
 - What type of Master's degree will be accepted as appropriate for the Program Director/Education Coordinator or any faculty? Will it be in Education, Management or Public Health?
 - Salaries for instructors should be commensurate with the degree required.
 - Pathologist support and commercial lab support is essential.
- To develop faculty, it may be necessary to use outside resources such as companies that use medical devices to be included in the ELCs. There is a need to get more experience on these technologies.
 - Are grants through medical technology companies feasible? If yes, are they sustainable?
- Participation in grant writing workshops may be beneficial to obtain additional funds.
- IT support – instructional design technology should be incorporated. Addressing the new generation on didactic demands such as eLearning, distance learning, mobile technology etc.
 - Will academic institution support technical instruction on use of these new technologies?

- How to deal with difficult students and faculty. A new generation of learners requires a different approach.
- It may be impossible to discuss faculty development until the curriculum is determined. The curriculum must match with the demands of the marketplace.

Round Table 3: Consortium Program

- What is the strict definition of a consortium? Should we have considered more of a network versus classic consortium?
 - Definition: *an association, typically of several business companies.*
- The CPRC is an example of a consortium with sponsorship from the ASC (American Society of Cytopathology), ASCP (American Society of Clinical Pathology), ASCT (American Society for Cytotechnology), and CAP (College of American Pathologists).
 - Definition for memorandum of agreement/ understanding (MOA/MOU): *a written document describing a cooperative relationship between two parties wishing to work together on a project or to meet an agreed upon objective.* An example is the agreement made between the ASC and ASCP to host the ACE Education series (Advanced Cytopathology Education).
- Consensus of the group was that centralization of a program with satellites did not meet the criteria for a consortium.
- We should not consider consortium programs because of the difficulty of tracking and allocating revenues. Who gets the money from a consortium? Is it the Hospital, the University? No one is eager to share an already limited pool of money. Issues regarding tuition across state lines and who will issue the degree must be considered.
- Who is liable for the health and welfare of the students at various sites in a classically defined consortium? This and other liability issues need to be considered.
- How would budgets for consortiums be configured?
- Student recruitment and geographic challenges exist in a consortium environment.
 - In a consortium, intellectual material crosses state lines, who owns it? What is the governance structure for this?
- Distance learning and blended learning as illustrated by the University of Nebraska model are ideal but this single program is not a consortium in the true sense.
- A positive outcome for working in a consortium would be the ability to share experiences on a broader scale and get better outcome of knowledge share. Resources for all needs may be more readily available. Focus would be on best practices and shared technology.

Round Table 4: Scope of Practice and Student Placement

- There is a need to standardize curriculum even though the ASCP Board of Registry certifies students graduating from Certificate, BS and or MS Programs.
- ASCP Board exam – how do you get all the degrees to sit for the exam? There is no difference on cytotechnologist skills based on current graduates from various types of certificate versus degreed programs.
- How long will a program be to accommodate an expanded scope of practice? Many have currently expanded from 12 to 18 months. There is pushback from students about the intensity and length of the expanded program.
- Doesn't it ultimately come down to skill of practice, and the ability to perform regardless of degree?
- How do we marry the board exam requirements, tuition and expected salary?
- What is the difference in salary based on degree obtained? In Philadelphia, all salaries are the same but there is better employability with the MS degree.
- There are challenges and impacts with an expanded scope of practice to include:
 - Hospital-based programs may not survive.
 - There is a need for additional faculty. How many are currently qualified to teach Master's level students. Would we need Master's level instructors?
- Salary and Master's degrees – are we already functioning as Mid-level Pathology Practitioners and aren't we already offering Master's degrees? Is this just a push for recognition?
- How do we manage cytotechnologists who receive cross training on the job (OTJ) versus having students that have graduated and are credentialed to perform expanded scope of practice?
- On the job training to expand scope of practice must be more accountable and standardized. However, OTJ enriches the employee and is currently a good option for professional growth for existing cytotechnologists.
- Does a Master's student progress more quickly in the workplace – yes, our experiences shows they move into supervisor or education roles.
 - Look at your institution's strategic plan and find where your program fits in or fulfills a need: diversity, talent development, access to care and tools for lifelong learning.
 - Project your enrollment (along with revenue) & costs for next 5-10 years
 - Show how new revenue may eventually recover costs to start a new program.
 - Experience Share: for instance, *"when we (Univ. of Tennessee) submitted our proposal to THEC, they required us to list all of the new programs approved by THEC over last 10 years – including implementation date, projected & actual enrollment & actual budget. The #1 reason for program failure was lack of doctoral-prepared faculty."*

Round Table 5: Budgets

- What has worked in the past with current programs to convince administrators to financially support this transition?
 - Demonstrate how your program will fit into your "state's master plan" (e.g. raise the level of education for citizens of Tennessee) or institution's strategic plan (e.g. movement toward more graduate level education)
 - MS students must do more research, potentially partnering with other medical programs, including pathology residents.
 - Sell educational materials that you develop to other Programs.
 - Get financial support from institutions/employers who need your graduates
 - Create certificates within your program to generate revenue.

- Advertise to graduates who want to obtain certificates for specific molecular techniques, management, histology, EBUS (Endobronchial ultrasound), etc. Generally, certificate programs may be only 9-12 credit hours (3-4 courses) & don't require the approval levels that other degree programs require at most institutions
- Courses can be taught on-line with content already developed within your curriculum
- How to go forward:
 - Increase quality and tuition to raise revenue.
 - Couple with medical student classes or other allied health/clinical science classes that overlap with the program's curriculum.
 - If a program cannot afford to hire full time faculty, then hire adjuncts as this status does not require additional payroll for benefits.
 - Partnering with hospital systems via consortiums to cover what you might not be able to fund
 - Convince your administrators where the budget fits into a strategic plan and demonstrate that you are meeting the employer's needs.
- What do you do with different levels of cytotechnologists that are currently working in the field?
- What is the impact of that for CLIA 88, ASCP BOC, etc.? Will there be any grandfather clauses? Who manages changes and updates to personnel qualifications and requirements to sit for the registry?
- How will the ASCP exam / certification and new Master's degree programs be updated and correlated? What about content?
- What about molecular – is this cytology only or will it be expanded to include tissue and lab testing as well? Is it intended to be directed to morphology based only or to instrument testing or both?
- Billing – how do we manage this and will it be changed?
- Are there other opportunities and challenges?
 - Leaders may view productivity as screening only - meaning productivity may be slide based
 - Changing culture of leaders is required
 - How can we convey the sustainability that this change might create?
- Can a cost-effective team model such as using the mid-level pathology practitioner be persuasive of decision makers to do lower level pathologist work? This might include:
 - PDL-1 (Immuno-Oncology testing)
 - TMAs (tissue microarrays)
 - MSI (microsatellite instability) Testing which can be screened for by IHC.
- Quality aspects are an opportunity, but will an MS degreed level professional actually increase quality? A Master's level cytotechnologist may offer increased quality over pathologist doing same activity which has patient care implications.

Round Table 6: Needs Assessment

- Were the recent surveys enough? The round table indicated: “NO, we want more”. The perception is that there is still not enough data provided to support the Master's level decision. What do we need going forward?
 - Find out what roles laboratory directors need from cytology professionals in the laboratory.
 - What and who was assessed specifically in ASC/ASCP workgroup study? More specific information on study design should be provided.
 - *Note: “In 2014, through a memorandum of understanding and in support of the evolving cytopathology profession, a new workgroup, the “ASC/ASCP Workgroup: Focusing on Emerging Roles in Cytopathology,” was named by the leadership of both the American Society of Cytopathology (ASC) and the American Society for Clinical Pathology. The collaboration between ASC and the ASCP is designed to help cytotechnologists identify emerging opportunities and strengthen their skill sets to ensure that they continue to be considered an essential part of clinical care team as the industry evolves”.*
 - Poll private versus academic labs to identify current practice needs and determine any variabilities. Investigate the impact of any changes on union environments. Ensure that union environments are engaged in the conversation.
 - Information about incentives for increasing salary and what type of lab is that based on?

Conclusion and Next Steps

The outcome of this session not only corroborated what prior surveys and research have demonstrated but it indicated that the profession is moving in the right direction. The discussion points will serve as a beacon to follow as we build up our support to move to the Master's degree level. But as indicated in the beginning of this article, the conversation is not finished and to that point we implore all our readers, students, cytotechnologists, pathologists and residents to provide feedback, thoughts, and comments on any or all the topics discussed in this article by sending in your ideas to:

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A special thanks to all the facilitators and Strategies in Cytotechnology Education participants for sharing their time and ideas to provide the necessary support in moving to the Master's Level.