Hot Topic: Evolution or Revolution: Technologist to Practitioner Are We Ready?

WELCOME

GET YOUR SMART PHONES OUT AND PLACE IN SILENT MODE

YOU WILL SOON BE VOTING BY TEXT MESSAGE
Meet the Panel & COIs

Karen Atkison
CT(ASCP)
BD Life Sciences employee
conflict of interest

Barbara Crothers
D.O.
Chair, CAP Cytopathology Committee
No financial conflicts of interest

Robert Goulart
M.D.
No financial conflicts of interest

David Wilbur M.D.
No financial conflicts of interest
Taking control of our future
Does our future really lead us to a whole new profession or an expanded cytotech role?

Yes we believe the evidence leads in the direction of a new profession.

Does this just impact cytotechnologists?

No Pathologists are impacted too.

Is this just more talk and no action

NO Talk. All Action
What is the vision of this highly trained professional?

Uses morph skills & the understanding of neoplasia to \textit{synthesize} clinical & lab data

Expand team based model of cytotechnologist & pathologist

Provide advanced and high quality diagnostic services

Increased diagnostic, companion dx, interventional, operational and triage responsibilities
practitioner

— prak'tiSH(ə)nər/
— Noun

A person actively engaged in an art, discipline, or profession, especially medicine.
— "patients are treated by skilled practitioners"

.....but let’s not jump ahead..
## Schedule: 7:00-9:00PM

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<td>Introduction and session logistics</td>
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Smart Phone Polling

Let’s test this out
Text Messaging

• To join the session, text **2015ASC** to **22333**

• Hit the **Send** button

• You will receive a text message confirming you have joined the session.
Text Messaging

• For each text message response, always send to the same code: **22333**

• Select your answer, and type the **letter** (A, B, C, etc.) corresponding to your choice into the body of the text message

• Hit the **Send** button

Example: What is your professional role?
A. Cytotechnologist  
B. Pathologist
C. Lab Supervisor
D. Educator
If you could be an animal, what would you be:

A. Turtle
B. Elephant
C. Leopard
D. Eagle
E. Wolf
F. Snake
If you could be an animal, what would you be?

- Turtle: 10%
- Elephant: 19%
- Leopard: 23%
- Eagle: 31%
- Wolf: 17%
- Snake: 1%

Total Results: 102
Can we learn more about you?

What is your primary professional role (what category best describes you)? 22333

A. Cytopathologist
B. Cytotechnologist
C. Educator (MD or CT)
D. Lab supervisor/manager
E. Trainee (resident/fellow/CT student)

4 questions
What is your primary professional role (what category best describes you)?

- Cytopathologist: 30%
- Cytotechnologist: 30%
- Educator (MD or CT): 14%
- Lab supervisor/manager: 15%
- Trainee (resident/fellow/CT student): 11%

Total Results: 107
How about a little more?

For pathologists, how would you describe the current point in your career? 22333

A. Early career (1-5 years)
B. Mid career (6-15 years)
C. Late career (15+ years)
For pathologists, how would you describe the current point in your career?

- Early career (1-5 years): 20%
- Mid career (6-15 years): 35%
- Late career (15+ years): 45%

Total Results: 95
..and for the cytotechs...

How would you describe the current point in your career?

22333

A. Early career (1-5 years)
B. Mid career (6-15 years)
C. Late career (15+ years)
For cytotechnologists, how would you describe the current point in your career?

- Early career (1-5 years): 29%
- Mid career (6-15 years): 31%
- Late career (15+ years): 39%

Total Results: 51
For the full audience, how would you describe your primary work setting? 22333

A. Academic Medical Center
B. Community Hospital
C. Private Practice Group
D. Commercial/Reference Lab
E. Other
For the full audience, how would you describe your primary work setting?

- Academic Medical Center: 64%
- Community Hospital: 16%
- Private Practice Group: 7%
- Commercial/Reference Lab: 1%
- Other: 12%

Total Results: 112
HOW DID WE GET HERE?
WHY IS THIS TIME DIFFERENT?

Dave Wilbur
Setting the stage

• What is being proposed?
• What has transpired in the past with this role?
• What are the conditions that make it desirable now?
  - Practice factors
  - Laboratory factors
  - Pathology factors
The Past

• CPEAC and the White Paper
• Forbes Report
• The Summit

• All reflected on the future of cytology with reference specifically to the role that cytotechnologists will play
• Higher level cytotechnology (AP) practice
Task Force on Cytology Education

CPEAC Report 2002
Task Force On Cytology Education: Programmatic Goals

I. To define the role [scope of practice] of the Cytopathology laboratory professional working in the context of the evolving practice of clinical pathology

CPEAC Report 2002
Task Force On Cytology Education: Programmatic Goals

III. To develop and implement strategies for teaching Cytopathology professionals including curriculum revision, providing resources and program structure

CPEAC Report 2002
Task Force On Cytology Education: Programmatic Goals

V. To identify and address the short-term workforce needs and to assess the long-term market demands on the profession to include automation and molecular diagnostic testing

CPEAC Report 2002
Why did it languish?

- Need for CTs in their traditional role
- Difficulty in adding new skills to the curriculum
  - Resources lacking for teaching
- Regulatory hurdles
  - Scope of practice
- Pathologists’ turf issues
  - Reimbursement
  - Scope of practice
- Lack of interest??
What’s different now?
Differences

- Declining Pap test volume
- Primary HPV screening
- HPV vaccination
- Declining CT school enrollment
- School closures
- Declining traditional roles for the CT
Differences

• Potential pathologist shortages
• Expansion of high complexity testing
• Affordable Care Act – “ObamaCare”
  – Decline of “fee for service” reimbursement
  – Need for efficiency/Cost-effectiveness
• Increased regulatory burden on laboratories
  – Meeting the needs of inspections/quality/management rising
• Rise of CT-based advanced practice models
  – Molecular procedures
  – Digital pathology
  – Laboratory administration
  – Adaptation to these models is ongoing even without us!
Pathologist Workforce in the United States

I. Development of a Predictive Model to Examine Factors Influencing Supply

Stanley J. Robboy, MD; Sally Weintraub, MBA; Andrew E. Horvath, MD; Braden W. Jensen, MD; C. Bruce Alexander, MD; Edward P. Fody, MD; James M. Crawford, MD, PhD; Jimmy R. Clark, MD; Julie Cantor-Weinberg, MPP; Megha G. Joshi, MD; Michael B. Cohen, MD; Michael B. Prystowsky, MD, PhD; Sarah M. Bean, MD; Saurabh Gupta, BPharm; Suzanne Z. Powell, MD; V. O. Speights Jr, DO; David J. Cross, PhD; W. Stephen Black-Schaffer, MD; and additional members of the Workforce Project Work Group

Context.—Results of prior pathology workforce surveys have varied between a state of equilibrium and predictions of shortage.

Objective.—To assess the current and future supply of pathologists, and apply a dynamic modeling tool for assessing the effects of changing market forces and emerging technologies on the supply of pathologists’ services through 2030.

Design.—Data came from various sources, including the literature, College of American Pathologists’ internal data, and primary research through custom-developed surveys for the membership and for pathology practice managers.

Results.—Through 2010, there were approximately (FT) pathologists or 3.7 per 100,000 in the coming 2 decades. This projection reflects that beginning in 2015, the numbers of pathologists retiring will increase precipitously, and is anticipated to peak by 2021. Including all types of separation, the net pathologist strength will begin falling by year 2015. Unless workforce entry or exit rates change, this trend will continue at least through 2030. These changes reflect the closure of many training programs 2 to 4 decades ago and the substantially decreased number of graduating residents.

Conclusions.—This comprehensive analysis predicts that pathologist numbers will decline steadily beginning in 2015. Anticipated population growth in general and...
This comprehensive analysis predicts that pathologist numbers will steadily decline beginning in 2015......Will lead to a net deficit of 5700 FTE pathologists.” (by 2030 – out of need for ~20,000).
Robboy et al, 2013

“In the future pathologists will likely have to assume new roles, develop new expertise, and become more efficient in practicing medicine to accommodate new value-based delivery models.”
Robboy et al 2015
The approximately 240,800 active primary care physicians comprised 32% of the workforce, with another 125,600 (16%) in medical specialties, 155,300 (20%) in surgical specialties, and 245,500 (32%) in the remaining specialties (Exhibit 2).
Exhibit 18: Projected Supply and Demand for Other Specialties, 2013-2025

- Full Time Equivalent Physicians
- Year
- Demand (+ACA)
- Demand (+ACA + MC)
- Supply (Retire Later +2)
- Demand (Demographics)
- Demand (+ACA + APRN Moderate)
- Supply (GME Growth)
- Demand (+ACA + APRN High)
- Supply (Status Quo)
- Supply (Millenial Hours)
- Supply (Retire Earlier -2)
Leads to......

• Need for a new pathology “assistant”
  – Akin to the grossing Pathologists’ Assistant
  – “Build it and they will come” concept

• Freeing up of MD time for the more complex
  – Molecular interpretation
  – Special study interpretation
  – Clinician/Patient consultation

• Off-loading of some interpretations/procedures
  – Reimbursement independency of ACO environment

• ? independent practitioner
  – Akin to medical nurse practitioner
Burying my head in the sand over climate change is much easier now that half the world’s turned to desert!
What’s different about now?

- CPRC changes – multi-organizational sponsorship
- Interested parties together in the same room
- Revamping of the entry level competencies
- Development of resources (CELL Committee)
- Active brainstorming about curriculum of the future
- The advent of distance learning
- Sharing of resources digitally
Get out your phones

POLLING TIME

5 QUESTIONS
What do you think is different now?

In your opinion, what is your best answer as to why this point in time is different?

A. Affordable Care Act (ObamaCare)
B. Multi-society sponsorship of the CPRC (Cytotechnology Programs Review Committee)
C. Explosive growth of molecular testing and complexity of tumor biopsy evaluation
D. Pathologists are “tired and overwhelmed” with some routine duties – and are ready to pass them to this new practitioner
E. Decreasing Pap tests due to adoption of updated screening guidelines
F. None of the above, something else
In your opinion, what is your best answer as to why this point in time is different?

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Affordable Care Act (ObamaCare)</td>
<td>19%</td>
</tr>
<tr>
<td>Multi-society sponsorship of the CPRC (Cytotechnology Programs Review Committee)</td>
<td>1%</td>
</tr>
<tr>
<td>Explosive growth of molecular testing and complexity of tumor biopsy evaluation</td>
<td>39%</td>
</tr>
<tr>
<td>Pathologists are “tired and overwhelmed” with some routine duties – and are ready to pass them to this new practitioner</td>
<td>2%</td>
</tr>
<tr>
<td>Decreasing Pap tests due to adoption of updated screening guidelines</td>
<td>19%</td>
</tr>
</tbody>
</table>

Total Results: 97
Pathologist shortage:

There is debate as to whether a pathologist shortage looms before us. Over the next 5-10 years, which of the following do you believe best describes the pathologist workforce nationally?

A. The pathologist workforce will be right-sized with no major workforce issues.
B. A significant pathologist shortage will develop.
C. No pathologist shortage will exist, in fact with decreasing fee-for-service payments, the number of anatomic pathology specimens decreases nationally.
D. There is too much uncertainty to predict at this time.
Over the next 5-10 years, which of the following do you believe best describes the pathologist workforce nationally?

- The pathologist workforce will be right-sized with no major workforce issues: 7%
- A significant pathologist shortage will develop: 44%
- No pathologist shortage will exist—the number of anatomic pathology specimens decreases nationally: 21%
- There is too much uncertainty to predict at this time: 28%

Total Results: 102
For the pathologists and cytopathologists in the audience, which of the following best describes your current work week, as compared to 5-10 years ago?

A. I am working less hours per week
B. I am working more hours per week
C. I do not see any significant change in my workload
For the pathologists and cytopathologists in the audience, which of the following best describes your current work week, as compared to 5-10 years ago?

- I am working less hours per week: 10%
- I am working more hours per week: 68%
- I do not see any significant change in my workload: 23%

Total Results: 40
Current work week

For those working more hours per week, which of the following best fits the primary reason for the increase?

A. More AP specimens to sign-out
B. More non sign-out duties
C. A combination of A and B
For those working more hours per week, which of the following best fits the primary reason for the increase?

- More AP specimens to sign-out: 21%
- More non sign-out duties: 23%
- A combination of A and B: 56%

Total Results: 39
Karen Atkison

DETAILS OF THE PROPOSAL

SCOPE OF PRACTICE
Morphology

Perform morphologic evaluation and interpretation of selected pathologic specimens with triage for appropriate ancillary studies under the direction of the pathologist.
Morphology

- Gynecological and Non-gynecological specimens (including fine needle aspirations)
- ROSE - triage
- Immunohistochemical stains
- Special stains
- Chromogenic in situ hybridization / Fluorescent in situ hybridization
- Tumor identification for molecular studies
When given a histologic section, the graduate will be able to microscopically identify, discriminate and explain the significance of the following entities in the context of a given patient:

a. specimen adequacy
b. cellular components within normal limits
c. microbiologic entities and associated cytomorphology
d. cellular features of degeneration
e. benign cellular changes
f. cellular features of benign neoplasms
g. cellular features of malignant neoplasms
h. cellular effects of radiation, chemotherapy and other modalities, when available
i. altered cellular morphology due to collection methods.
ELC: Independently evaluate specified non-gynecologic cytology specimens with sufficient competence to issue the final report for negative specimens.
Clinical procedures:

Perform superficial FNA procedures under the supervision of a pathologist.
Synthesize clinical information

Employ morphologic expertise to coordinate and organize multiple test elements for the pathologist and treating clinician.
• Facilitate appropriate and timely test utilization
• Serve as a clinical liaison between clinicians and the laboratory
• Prepare preliminary interpretation of molecular tests
• Integrate multimodality results into a preliminary report
• Assess, solve or triage clinical inquires
Companion Diagnostics

• ELC: The graduate, in addition to explaining the theory, principles and indications of the following, will be able to clinically integrate and actively participate in clinical management of:
  – Flow cytometry
  – Molecular signal detection
  – HPV DNA testing
  – Molecular and cytogenetic oncology testing
  – DNA ploidy with digital image analysis
  – Circulating tumor cells
  – FISH, ISH
Digital Pathology:

Utilize digital pathology for various applications in the laboratory.
Digital Pathology:

- **Transmit** digital material to remote sites for consultation (e.g., images and non-image content)

- Develop, organize and **present** digital images (e.g., medical consultations, tumor board and educational sets)

- **Manage files** to include organization, annotation, and image archiving

- **Perform image analysis** (e.g., quantitative immunohistochemistry and molecular procedures)
Laboratory Operations:

Apply a higher level of education and knowledge base in laboratory operations

• **Across pathology disciplines** that allow for consistent delivery of high quality, cost effective laboratory testing.

• Lead and apply **process improvement** methodologies (e.g., Lean and Six Sigma) within pathology

• Manage **new test** development, validation and/or verification plans

• Assure **regulatory compliance** with requirements for pre-analytic, analytic, and post-analytic testing and lab accreditation
Education:

Design, develop, and deliver programs to educate healthcare professionals and students; and serve as an advocate for the pathology profession and community.
Bob Goulart

SPONSOR RESPONSES & LIKELIHOOD OF ACCEPTANCE
Sponsors

- College of American Pathologists
- ASCC - American Society of Cytopathology
- ASCP - American Society for Clinical Pathology
- American Society for Cytotechnology
Let’s remember...

“If at first the idea is not absurd, then there is no hope for it.”

— Albert Einstein
Let’s remember...

“It's supposed to be hard. If it were easy, everyone would do it.”

— Tom Hanks in “A League of Their Own”
T1: Acceptable; proceed immediately to develop

T2: Plausible; hold/investigate; reconsider in time

T3: Unlikely to be accepted; consider dropping
<table>
<thead>
<tr>
<th>Topics</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform morphologic evaluation and interpretation (enhanced gyn and nongyn)</td>
<td></td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Rapid onsite evaluation</td>
<td>√</td>
<td>√</td>
<td></td>
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<tr>
<td>Pre-Screen ISH/FISH/Special Stains – Tumor identification</td>
<td>√</td>
<td>√</td>
<td>√</td>
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<tr>
<td>Perform Superficial FNAs</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Facilitate appropriate and timely test utilization</td>
<td>√</td>
<td>√</td>
<td>√</td>
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<tr>
<td>Use of Digital pathology</td>
<td>√</td>
<td></td>
<td></td>
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<tr>
<td>Lab Administration</td>
<td>√</td>
<td></td>
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<tr>
<td>Medical Education</td>
<td>√</td>
<td></td>
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</table>
Proposed scope of practice

CHALLENGES AND HOW TO OVERCOME THEM
Challenges & how to overcome them

- Legislative
- Regulatory
- Legal
- Risk management
- Financial
Challenges & how to overcome them

Fee For Service  
Accountable Care Organization
### Challenges & how to overcome them

<table>
<thead>
<tr>
<th>Fee For Service</th>
<th>Accountable Care Organization</th>
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</thead>
<tbody>
<tr>
<td>Each specialty working relatively independently</td>
<td>Team Work</td>
</tr>
<tr>
<td>If you don’t do...you don’t get paid</td>
<td>Do only what is medically necessary and of proven benefit (outcomes measures, value, safety)</td>
</tr>
<tr>
<td>Profitable to do more</td>
<td>Profitable to do less when appropriate</td>
</tr>
<tr>
<td>The person who performs the job...is the one who can get paid</td>
<td><strong>The person who performs the job is the most cost-effective practitioner who can do the job well</strong></td>
</tr>
</tbody>
</table>
Morphology – enhanced sign-out privileges

- Requires changes in federal and state regulations
- Medico legal liability; insurance premiums for MLPP
- Loss of reimbursement for pathologists
- Hospital privileges would be required for FNA performance and independent non-gynecologic sign out

T3: Unlikely to be accepted; consider dropping
Rapid Onsite evaluation

• Challenge:
  • Loss of reimbursement for pathologists sign out

T1: Acceptable; proceed immediately to develop

T2: Plausible; hold/investigate; reconsider in time
Perform superficial FNA procedures under the supervision of a pathologist.

- Challenges:
  - Need for hospital clinical privileges
  - Competition with trainees in pathology and clinical disciplines
  - No reimbursement
  - Need for skills in physical exam, knowledge of anatomy

T3-T2
Molecular

Employ morphologic expertise to coordinate and organize multiple test elements for the pathologist/treating clinician.

<table>
<thead>
<tr>
<th>T1 / T3</th>
<th>• Facilitate appropriate and timely test utilization</th>
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<tbody>
<tr>
<td>T2 / T3</td>
<td>• Serve as a clinical liaison between clinicians and the laboratory</td>
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<tr>
<td>T1 / T3</td>
<td>• Enhance workflow and throughput in the laboratory testing environment</td>
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<tr>
<td>T1 / T2</td>
<td>• Prepare preliminary interpretation of molecular tests</td>
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<tr>
<td>T1 / T2</td>
<td>• Integrate multimodality results into a preliminary report</td>
</tr>
<tr>
<td>T1 / T2 / T3</td>
<td>• Assess, solve or triage clinical inquires</td>
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Utilize digital pathology for various applications in the laboratory.

**T1**
- Transmit digital material to remote sites for consultation (e.g., images and non-image content)
- Develop, organize and present digital images (e.g., medical consultations, tumor board and educational sets)
- Manage files to include organization, annotation, and image archiving

**T1 / T2**
- Perform image analysis (e.g., quantitative IHC and molecular Procedures)
Apply a higher level of education and knowledge base in laboratory operations across pathology disciplines that allow for consistent delivery of high quality, cost effective laboratory testing.

T1: Acceptable; proceed immediately to develop
Design, develop, and deliver programs to educate healthcare professionals and students; serve as an advocate for the pathology profession and community.

T1: Acceptable; proceed immediately to develop
Agreement on many points

T1

T2

T3
PARTNERS IN CHANGE:
THE COLLEGE OF AMERICAN PATHOLOGISTS

The views expressed in this presentation are solely those of the presenter and do not represent the views of the US Army, Department of Defense, Department of Health Affairs or the US Government.
Cooperate or Compete?
Cooperate or Compete?

• Common goals
• Cooperation is synergistic
• More benefit at less cost
• The more effort put into cooperating, the greater the reward
• Cooperation collapses when ratio of costs to benefits becomes too high
• Higher rewards for teamwork with ACO
CAP Concerns

- Reimbursement for services
- Devalue existing services (e.g.; ROSE)-high complexity testing
- Inappropriate use of FNA
- Legislation (CLIA, state regulations)
- Licensing for MLPP
- Scope of practice
- Competition for services (perform FNA, interpret NGs)
- Reduced numbers of biopsies, surgicals, cytologies
- ? Reduction of pathologists
Threats

PATHOLOGISTS
- Less compensation
- Status
- Job replacement
- Commoditization
- Outsourcing
- Assuming screening
- Workload limits

CYTOTECHNOLOGISTS
- Loss of specialization
- Job obsolescence
- Devaluation
- Retraining
- Less compensation
- CT school closure
- Lack of CT supervision
Let’s Face the Facts

- Model projecting pathologist workforce through 2 decades (75% were > 45 yo in 2010; 41% > 55 yo)
- Number of pathologists will steadily decline, beginning in 2015
- Decrease in pathology recruitment (residents)
  - 9% dropout rate
  - Decreased funding for residencies and fellowships
- Increased part-time, retirees (earlier), women (53%)
- Increasing subspecialty group models
- Lack of international pathology programs

CAP Support of CT Curriculum

- Morphologic evaluation of cytology IAW current regulations
- Rapid On-Site Evaluation (ROSE) for adequacy and triage
- Morphology and initial interpretation of ISH/FISH
- Tumor ID for molecular studies/microdissection
- Preparation of molecular tests and report integration

Image from: Pinterest.com
CAP Support of CT Curriculum

• Digital transmission of specimens
• Digital image manipulation without independent activity related to direct patient care
• Manage digital files; initial image analysis in support of pathologist interpretation
• Lead and apply PI methodologies
• Manage new test development/validation
• Assure regulatory compliance/accreditation
• Design educational programs
Cytopathology Practice Survey

• Survey to describe current practices in cytopathology for 2014 to use as a baseline for evolving cytopathology practice trends
• Identify areas where pathologists currently use cytotechnologists
• Identify areas where pathologists might use cytotechnologists
• Identify areas where pathologists are reluctant to use cytotechnologists
Meanwhile, back on the farm...

- CAP Cytopathology Committee Surveys yielded answers through other avenues

*Spring on the farm* by Robin Moline
From 2011 GYN Practice Survey:

• Only 8% of laboratories performed hrHPV in the cytopathology laboratory, but 29% performed in the institution
• 68% do not use image-guided Pap screening
• Mean # of GYN slides screened per hour= **8.9**

(N=573; mostly nonprofit + proprietary labs)

From 2010 FNA Practice Survey:

- 95% laboratories interpret FNA (N=906)
- 35% have pathologists perform FNA
- Most common locations: Bedside > Outpatient > Pathology FNA clinic
- Frequency ≤ 1x weekly
- Number of FNA - up to 2775/ year (mean 133)
- Common sites aspirated by pathologists = LN > salivary = soft tissue > thyroid > breast
- Most FNA’s were obtained under radiographic guidance or EUS/EBUS
From 2010 FNA Practice Survey:

• 75% of laboratories provide immediate adequacy (ROSE) of FNA
• Adequacy most common with radiology (91%), OR (42%), pulmonary (41%), GI (27%) and outpatient clinics (25%)
• Pathologists provide most of the ROSE (68%)
• CT’s provide ROSE 30% of time but prescreen FNA 41% of time
From 2015 NGC Practice Survey:

• 48% of laboratories perform touch imprints for adequacy of needle core biopsies (N=844)
• Most NCB are performed in CT (92%), ultrasound (81%), pulmonary (46%)
• Most TI are performed for adequacy of lung>liver>LN>retroperitoneum
• CT independently perform ROSE on TI (19%; 73/386)
From 2015 NGC Practice Survey:

- 40% (28/73) allow CT to evaluate TI of NCB without pathologist oversight over 75% of time
- Most common sites for CT only: lung > LN > liver
- 80% CT receive no specific training to assess TI of NCB; of those that do, 96% get on the job training or (45%) review of TI cases with supervisor/pathologist
- CT prepares 50% (193/388) of TI slides for ROSE
Unanswered Questions

• Ratio of pathologists to CTs
• Prevalence of cytopathologists in practice
  – Largest BC fellowship in pathology
• Nontraditional duties assigned to CTs
• Reasons for restriction of CT activities
• CT role in teaching
• Time cytopathologists spend in certain activities
• Perceived areas for CT participation
Tasks from the CPRP for CELL

• CT Workload Recording
  – PowerPoint, References, Questions and Quizzes

• Error Identification and Evaluation
  – Self-study
  – Case Studies
  – Quizzes

• Lab Inspection Questions

• LIS Training
  – Under consideration
NGC/ FNA Digital slide sets

- 10 nongynecologic/FNA cases each quarter
- Peer-reviewed; biopsy confirmed
- Scanned prior to entry into glass slide program
- Clinical information, IHC, ancillary studies
- Hosted by CELL website
- Available for 3 years
  - Reviewed/refreshed
- Organized by body site
Bob Goulart
Impact to educators

EDUCATIONAL CONSIDERATIONS AND TASKS
COMPLETED, IN PROCESS AND TO FOLLOW SOON
“All Hands On Deck”

When we:
Collaborate...
Communicate...
Cooperate...
The result is ACTION
The Past Year

MLPP subcommittee of the CPRC:

- Representatives of the co-sponsors (ASC, ASCP, ASCT, CAP) and CAAHEP commissioners/liaisons

Working with the full CPRC membership:

- Completion of draft of the Entry-Level Competencies (ELCs) for MLPP program curricula and graduate expectations
- Preparation of a Focused Strategy Session (Advanced Anatomic Pathology Practitioner)
  - Senior administration and education leadership from “Early Adopter” programs
    - *Most of whom are in the audience tonight*
  - Two-hour session tomorrow morning
## New Entry-Level Competencies

Standards and Guidelines for the Accredited Educational Program in Advanced Pathology Professional (mid-level)

Draft Entry Level Competencies Working Document

<table>
<thead>
<tr>
<th>CPRC/CAAHEP Standards Committee Approved 2013 “Cytotechnologist” Wording</th>
<th>CPRC Suggested Wording for MLPP</th>
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I. SCREENING AND INTERPRETATION

8. The ‘MLPP’ graduate will be able to independently evaluate specified non-gynecologic cytology specimens, e.g., urine cytology, with sufficient competence to issue the final report for negative specimens.
II. BASIC LABORATORY TECHNIQUES

4. When given a histologic preparations, the “MLPP” graduate will be able to identify and properly troubleshoot tissue processing artifacts including but not limited to:

   a. inappropriate fixation
   b. embedding and microtomy issues (orientation, chatter, folds)
   c. staining issues (true staining vs. background staining).
III. Laboratory Operations

9. The MLPP graduate will be able to understand and applies the principles of a quality management program including:

a. quality indicators in the pre-analytic, analytic, and post-analytic phases of testing  
b. quality control vs. quality assurance  
c. internal audits and assessments  
d. non-conforming events management (including root cause analysis, failure mode and effects analysis)  
e. process and performance improvement (including principles of LEAN and Six Sigma).
The Past Year

ASC-ASCP Workgroup:

– Focus: Enhancing the practice of cytotechnology for new, current and future cytotechnologists

– Domain Subgroups (Education, Practice, Trending Data)

– Modern CT practice today sets stage for future practice models

– Alignment with CPRC, CELL committee and MLPP subcommittee
ASC-ASCP Workgroup

Domains:

- **Education:** Liaison role
  - Evaluation of several modern and interactive platforms for e-learning
  - Development of on-line educational modules
- **Practice:** Business case/model development
- **Trending Data:** Data collection
ACE: Advanced Cytopathology Education

ACE 2015 (June 13-14, 2015)
- Thomas Jefferson University
- Philadelphia, PA
- 102 paid registrants

ACE 2016 (May 21-22, 2016)
- Loyola University
- Chicago, IL
Cytology e-Learning Lab (CELL)

- Current resources
- New interactive e-learning modules
- Expert contributors
- Committee oversight
- Value to:
  - Current CT programs (new/updated ELC’s)
  - Cytotechnologists in current workforce
  - International programs
  - Future MLPP programs
  - Others? (Cytopathology Fellows, AP residents)
This Meeting: Presentations

Strategies in Cytotechnology Education

- “Navigating Through Changing Times”
- “Providing Resources and Guidance for Cytopathology Leaders During Times of Change”
- ASCT Companion Session

Hot Topic

Panel Luncheon Seminar #2 (Sunday)

- “Reinventing Our Profession: Experiences, Challenges and Opportunities”
- ASCP Companion Session
This Meeting: Committee Work

- Executive Board
- CPRC
- CELL
- ASC-ASCP Workgroup
- MLPP subcommittee with Senior Leadership of potential “Early Adopter” CT Education Programs
  - ASC Foundation financial support of a CPRC grant proposal
2016 Activities: More To Be Done

- Complete & Analyze Survey Data
- Evaluate Business Model (Health Care Economist)
- Research Accreditation Options
- Petition Accrediting Agency of Intent to Develop New Discipline
- Curriculum Planning and Program Development
- Resource Development (CELL)

2016 Activities: More To Be Done
2016 Activities: *and More To Be Done*

- Documents, Tools and Processes for Program Review
- Consortium Building
- Development e-Self-Study Review Tool
- Site Visit Inspector Training
- ASCP-BOC Test Development Credentialing Certification Exam

2016 Activities: *and More To Be Done*
The Wave is Cresting...
Polling

Almost done
Wake up
10 questions
Names are important. The name Mid-Level Pathology Practitioner (or “MLPP”) has been used as a place-holder for this new position, and as such it may or may not be the best choice. Although the evolution of the position is not complete, which of the following names is your first choice for this new practitioner, based upon what you currently know about the model?

A. Mid-Level Pathology Practitioner (MLPP)
B. Advanced Pathology Practitioner (APP)
C. Anatomic Pathology Advanced Practitioner (APAP)
D. Anatomic Pathology Practitioner (APP)
E. Advanced Pathology Technologist
F. Cytopathology Practitioner
G. I don’t like any of them (keep working on it...)
Which of the following names is your first choice for this new practitioner, based upon what you currently know about the model?

- Mid-Level Pathology Practitioner (MLPP) 8%
- Advanced Pathology Practitioner (APP) 11%
- Anatomic Pathology Advanced Practitioner (APAP) 
- Anatomic Pathology Practitioner (APP) 22%
- Advanced Pathology Technologist 31%
- Cytopathology Practitioner 17%
- I don’t like any of them (keep working on it...) 6%

Total Results: 95
Would your practice benefit?

Based upon what you knew previously and what you have learned tonight, would your practice benefit from having a MLPP graduate in your pathology department/group?

A. Yes
B. No
Based upon what you knew previously and what you have learned tonight, would your practice benefit from having a MLPP graduate in your pathology department/group?

- Yes: 90%
- No: 10%

Total Results: 73
Type of Program

The new pathology position will require training, certification and continuing education. As training programs develop, what type of program do you feel is most-appropriate and best-suited to provide the educational requirements of this new professional?

A. New (de novo) program – Bachelor’s level
B. New (de novo) program – Master’s level
C. Modified existing university-based cytotechnology program (Bachelor’s level)
D. Modified existing university-based cytotechnology program (Master’s level)
E. Modified existing hospital- or university-based certificate cytotechnology programs (4+1)
As training programs develop, what type of program do you feel is most-appropriate and best-suited to provide the educational requirements of this new professional?

- A: 2%  
- B: 28%  
- C: 5%  
- D: 54%  
- E: 10%

Total Results: 81
Which of the following do you think is the major challenge faced by the first class of MLPP program graduates?

A. Earning an income which is on par with their responsibilities and education level
B. Acceptance by patients
C. Acceptance by clinicians
D. Acceptance by pathologists
Which of the following do you think is the major challenge faced by the first class of MLPP program graduates?

- Earning an income which is on par with their responsibilities and education level: 36%
- Acceptance by patients: B
- Acceptance by clinicians: 16%
- Acceptance by pathologists: 47%

Total Results: 85
Who will enter the training program?

Which group of individuals do you anticipate will be first to enter training programs as they become available?

A. New students (not currently working in healthcare)
B. Students currently enrolled in cytotechnology programs
C. Students currently enrolled in other allied health care training programs
D. Cytotechnologists currently working in the field
E. Other persons working in health care who wish to change/advance their position
Which group of individuals do you anticipate will be first to enter training programs as they become available?

- A. New students (not currently working in healthcare) - 15%
- B. Students currently enrolled in cytotechnology programs - 17%
- C. Students currently enrolled in other allied health care training programs - 32%
- D. Cytotechnologists currently working in the field - 36%
- E. Other persons working in health care who wish to change/advance their position

Total Results: 88
No money, no mission. Would you hire this individual?

A. Yes
B. No
No money, no mission. Would you hire this individual?

- Yes: 80%
- No: 20%

Total Results: 74
If you answered "Yes", which of the following best fits your primary reason why?

A. Our pathologists need help
B. Financially makes sense for us
C. Would significantly benefit our interactions with clinicians
D. We've needed someone like this for years for many reasons
E. We don't want the morphologic expertise of the cytotechnology community to be lost
If you answered "Yes", which of the following best fits your primary reason why?

A. Our pathologists need help
   - 18%

B. Financially makes sense for us
   - 12%

C. Would significantly benefit our interactions with clinicians
   - 6%

D. We've needed someone like this for years for many reasons
   - 37%

E. We don't want the morphologic expertise of the cytotecnology community to be lost
   - 26%

Total Results: 65
If you answered "No", which of the following best fits your primary reason why?

A. Great idea, but we cannot afford this person
B. We don't have a need currently
C. Our pathologists would not accept this change
D. This person doesn't fit our current model; maybe if things change in upcoming years
E. We have non-MD employees already fulfilling much of the roles of the proposed MLPP
If you answered "No", which of the following best fits your primary reason why?

- Great idea but we cannot afford this person: 10%
- We don't have a need currently: 7%
- Our pathologists would not accept this change: 14%
- This person doesn't fit our current model; maybe if things change in upcoming years: 28%
- We have non-MD employees already fulfilling much of the roles of the proposed MLPP: 41%

Total Results: 29
If no change now, what will the future hold?

If we do nothing at this time, if we continue to allow external forces to affect cytotechnology education infrastructure and the daily demands on pathologists, which of the following best describes anatomic pathology practice in ten years (2025)?

A. CT school closures have left just a handful of viable programs remaining
B. Pathologists continue to feel frustrated and overworked "pushing glass"
C. Practicing cytotechnologists looking for career advancement take their skills and strengths elsewhere
D. Pathology is the only medical field without a mid-level practitioner position
E. All of the above
If we do nothing at this time, which of the following best describes anatomic pathology practice in ten years (2025)?

- CT school closures have left just a handful of viable programs remaining
- Pathologists continue to feel frustrated and overworked “pushing glass”
- Practicing cytotechnologists looking for career advancement take their skills and strengths elsewhere
- Pathology is the only medical field without a mid-level practitioner position
- All of the above

Total Results: 78
After attending the Hot Topic session are you:

A. Supportive of the new profession
B. Not supportive of the new profession
C. Not sure, have to think about it
After attending the Hot Topic session, are you:

- Supportive of the new profession: 83%
- Not supportive of the new profession: 12%
- Not sure, have to think about it: 15%

Total Results: 81