Three Sources Consider the Future: What About CT Education?

Marty Boesenberg, MSEd, SCT(ASCP)
The Iowa Clinic Pathology Laboratory

Conflict of Interest

• No conflicts of interest
Three Takes on the Lab’s Future

• The Forbes Report

• “How Are Cytotechnologists Responding to Changes in Their Profession?” survey

• “Time for a Reality Check: The Hospital-Based Laboratory’s Perspective”

The Forbes Report Findings
Lab Industry Faces Workforce Shortages

- The Forbes Report states that it is the shortage of physicians NOT technologist that is driving the needs for new professional relationships in Cytopathology.

- Pathologists face a decline in productivity due to administrative overhead, increasing regulation and paperwork.

Trends in Laboratory Medicine

- Lab industry experiencing a crisis with finding and keeping skilled labor
  - In 2007, 44% of labs report to ASCP it is difficult to find laboratory personnel
  - Average age lab professionals is 49.2 years

- Predictions – worsening shortage
  - Gap between supply and demand will continue and the age demographics will cause this gap to widen
### 2006 Market Value

- **Clinical Pathology**: 69%
- **Molecular/Esoteric**: 8%
- **Anatomic Pathology**: 19%
- **Cytology**: 4%

### Annual Growth Rate

- **Clinical Pathology**: 15%
- **Molecular & Esoteric**: 10%
- **Anatomic Pathology**: 6%
- **Cytology**: 2.4%
One Factor Missing

• Cytotechnologists performing molecular testing was absent from the report.

• In 2007, molecular testing was valued at $4.1B and represents the fastest-growing and most-profitable segment of the lab industry.

• This market is expected to grow 19% per year over the next 3 years (2007 – 2010).

Forbes Report Concluded

• Changes in cytopathology would create new demands on support functions, such as sample harvesting, quality analysis, and management, that cannot be met by today’s CT.

• Digital pathology requires technical skills in digital imaging and data management that do not exist outside the radiology department.
How Are Cytotechnologists Responding to Changes in Their Profession?

CTs Surveyed Spring 2008

- Sent to membership of National, Regional, and State professional societies
- 558 valid responses
  - Subset of 121 selected to examine comments on open-ended questions
  - Five telephone interviews selected from those who represented one of the themes from comments
Few Themes Emerged

• There was a huge response
  – 231 took the survey in the first three days
  – 558 in less than a month
• Obviously this is something on CTs minds

Few Themes Emerged

• Only thing for sure – CTs over 46 think they will retire before changes in the profession affect them. (70% N= 74)

• Many had seen a drop in Pap volume in their lab (39.4% N=213), but few had lost FTEs (24.6% N=135).
Actions Taken by Participants

What Individual CTs Recommend for Their Colleagues

- Continuing Education
- Cross Training
- Leave Cytology
- Molecular Technology
- Be Open/Flexible
Time for a Reality Check: The Hospital-Based Laboratory’s Perspective
by
Richard C. Friedberg, MD, PhD
Archives of Pathology & Laboratory Medicine Online

Bottom-line for Physicians

• Average physician wants help in making a diagnosis and doesn’t care what analyzer is used or what the label on the department doorway is

• The prediction is that the distinction between clinical and anatomic pathology will disappear

Friedberg R. Time for a Reality Check
Arch Pathol Lab Med, May 2008
**Trends in Laboratory Medicine**

- Need well-educated personnel with solid expertise in science, engineering, informatics, and medicine

- Need well-trained, subspecialty-focused, “digitally intact,” and “clinically intact” pathologists

Friedberg R. Time for a Reality Check
Arch Pathol Lab Med, May 2008

**New Paradigms**

- A blended diagnostic department made up of medical imaging, molecular diagnostics and radiology

- Morphologic ‘workcell’ might include:
  - Flow cytometry, bone marrow, histology, cytology and ISH?
How Can Cytology Training Programs Address This Future?

Two Primary Challenges for Programs

• Remain Viable

• Ensure Graduates’ Employability
Remaining Viable

• Act on the ideas that have come from today’s session (and previous PFS)

Remaining Viable

• Be creative in becoming budget neutral
  – Meet the growing need for distance education for CTs in the field
  – Meet CTs need for guidance in approaching MP training and exam
  – Coordinate cross training in your lab
Remaining Viable

• Increase your visibility and value
  – Use your instructional design knowledge to direct/enhance Lab training (Clinical & AP) for compliance and continuing education
    • Technical writing
    • Adult learning theory
      – Performance-based objectives
      – Outcomes-based training

Remaining Viable

• Collaborate
  – With other CT programs
  – With other ‘players’ in medical education
Ensure Graduates’ Employability

• Expose Students to All Aspects of Lab
  – Histology
  – Molecular Technology
  – Clinical Lab
  – Radiology

• Look carefully of what can be eliminated from current training to make time for this

Ensure Graduates’ Employability

• Educate beyond the microscope

  – Broaden student skills
    • LEAN, Six Sigma mindset
    • Outcomes-based medicine
    • LIS, data management
    • Digital Image management
Ensure Graduates’ Employability

- Help students develop flexibility
  - Eliminate ‘silos’ mentality from the start
  - Help them see Cytology (morphology) as one unique tool in their skill set
  - Easier with GenNet mindset

Collaboration Can Help

- Educators need to collaborate to ease the workload, share ideas and resources
- One way to do that is with a wiki
To Join the CytologyEd wiki

• Respond to the coming invitation to everyone on the educators’ list serve

OR

• Email me at martyboes@gmail.com

Basic Questions to Ask

• What is our program’s charge?
• Who does the program serve?
• Are we successful?
  – How do we know? What about future?
• Conduct SWOT
• Build on program strengths
• Build a base of support and financial partnerships wherever possible
Be Flexible