



Statement to the Clinical Laboratory Improvement Advisory Committee (CLIA) on the topic of technology workforce in the United States

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The American Society of Cytopathology (ASC) has been concerned about the diminishing cytotechnologist workforce since November 2001 with the advent of changing algorithms for cervical cancer screening, implementation of human papillomavirus (HPV) testing, and initial trend of closure of cytotechnology schools. The status of the workforce has remained a priority of the ASC, which has invested in multiple efforts to recruit, retain, maintain and transform the specialties of cytopathology and cytotechnology.

As projected, there has been a decline in Pap test volume that has coincided with the decline in workforce to partially alleviate the urgency of addressing the workforce shortage until now. The predicted decline in pathologists has resulted in the transference of pathologists' duties to cytotechnologists in some laboratory settings, primarily in areas such as screening and reporting fluorescent in situ hybridization (FISH) slides, assisting with intra-procedural on-site specimen adequacy, screening histology slides for microorganisms, assuming quality assurance activities, assisting with telepathology validation and implementation, selecting tissues for ancillary testing, and anatomic pathology laboratory management duties. Cytotechnologists have also been increasingly cross-trained to fill laboratory vacancies of pathologist's assistants, histotechnologists, and molecular technologists. Their unique morphologic training qualifies them as an ideal pathologist extender, a role which is becoming increasingly common and has resulted in new skill integration into current cytotechnology curricula.

The following statistics summarize the potential severity of the cytotechnologist and cytopathologist shortages in the near future:

- Reduction of cytotechnology schools to 24 (from a high of 147) with approximately 60% fill rates and small (2-3 student) classes, which exacerbates the risk for closure
- 45% decline in CT schools since 2005 (projected to be 20 next year)
- 43% of the 10,450+ CTs certified since 1970 were certified between 1970-1980, placing them in a retirement-eligible status (30+ years)
- Approximately 50% decline in CTs participating the proficiency testing since 2005. PT is required for all practicing cytologists
- Less than 100 CT newly-certified by ASCP in 2016 (60% decrease since 2005). Nearly all laboratories require ASCP certification for cytotechnology practice
- Approximately 500 current cytotechnologist vacancies in US
- Decline in pathology residency programs and recruitment; only half of the pathology residency positions were filled by US allopathic medical students in 2015
- Reduced exposure to pathology due to changes in medical school curricula, resulting in less exposure to the pathology specialty

Currently, there are insufficient pathologists to provide primary screening of cytology specimens (which include Pap tests, fine needle aspiration specimens, and nongynecologic cytology specimens). This task is performed by cytotechnologists. CLIA limits all primary "screeners" of cytology specimens to 100 slides per 24 hours of screening time; this includes pathologists. This limitation on primary screening, along with diminishing cytotechnologists and cytopathologists, endangers the viability of cytology as a diagnostic test. The shortage of



both cytotechnologists and cytopathologists is not likely to be alleviated by foreign trainees. Most countries do not have the level of specialty training nor a sufficient number of cytotechnologists/ cytopathologists to support their own cytology volume and have turned to the US organizations to help to establish these programs.

In 2010, the ASC published a white paper, “Facing the Future of Cytopathology: Discerning the Future Needs of Our Profession” that has served as a partial roadmap for our current efforts to remedy workforce shortages.

These include:

- Creation of Advanced Cytotechnology Education (ACE) annual conferences at a “grass-roots” level to take advances in training to local practices
- Formation of ACE University on line, to provide cytotechnology programs with expertise in new methodologies, technologies and evolving practices
- Establishment of a Journal of the American Society of Cytopathology (JASC) to ensure ongoing research supporting cytologic diagnostic methods in the molecular era
- Issuance of research grants for investigators and travel grants for junior members
- Marketing campaigns to highlight the rewarding practices of cytopathology and cytotechnology
- Transformation from “technology” program training to master’s level training

The ASC requests that CLIAC strongly consider the following actions in support of cytopathology and cytotechnology:

- Support funds for cytotechnology and cytopathology training and grants
- Improve government awareness of the importance of laboratory medical specialties and programs for quality medical care
- Recommend addition of Allied Health Programs to STEM funding
- Support current CLIA personnel guidelines and advanced educational requirements for future technologists

In summary, the shortage of the cytology workforce is at a tipping point and the losses that were previously offset by changes in technology will not be alleviated without further intervention. Thank you for the opportunity to address these issues with you.

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