Cytopathology in focus: Gynecologic cytology PT appeals: where they started, where they stand

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May 2020—The CAP implemented proficiency testing for cervical cytology in 2006 as mandated by federal legislation. The performance of participants and granting of appeals on glass slides in the first year of the CAP Pap PT program was reported in detail by Crothers, et al.1 Once a participant initiates an appeal, the slide in question is pulled from the program for a blinded review by three board-certified anatomic pathologists who are members of the CAP Cytopathology Committee. In the first year, 155 participants failed the PT examination and appealed their testing results on 86 individual slides. After review, appeals were granted for 21 slides, resulting in 45 exam failure reversals. The overall appeal rate was 13/1,000 slides in the program.

Since 2006, the CAP Cytopathology Committee has continued to monitor the number and types of appeals in the Pap PT program. The number of appeals declined by more than 50 percent in 2007 and has continued to decline. In the past three years, the number of individuals submitting an appeal has ranged from five to 21 based on five to 12 slides. During this time, the appeals rate was only three per 1,000 slides. Since 2007, both pathologists and cytotechnologists can appeal a slide result, with pathologists generally appealing a result slightly more often. The number of test reversals and granted appeals has declined even more than the total number of appeals. Over the past 10 years, fewer than seven slide appeals have been granted per year, with zero to two slide appeals granted annually from 2014 to 2019. All granted appeals will result in the reversal of a test failure, sometimes for more than one person.

The largest number of appeals continues to be for slides that have a reference diagnosis of high-grade squamous intraepithelial lesion (HSIL)/cancer (category D in scoring system) that were interpreted by Pap PT participants as negative for intraepithelial lesion or malignancy (NILM) (category B). On average, about half of the appeals were for these misinterpretations. Cytotechnologists and pathologists automatically fail the Pap PT 10-slide test for interpreting a category D slide as NILM because five points are deducted for this error in addition to the standard 10 points lost for misinterpreting the case. The next largest categories of slides that were appealed were slides with a negative reference diagnosis but interpreted as either low-grade or high-grade SIL.

The results of this monitoring show that the quality of slides used in the CAP cytology proficiency testing program is high. The requirement for field validation prior to use of a slide in the PT program sets has contributed to having slides that participants view as fair. The total number of slides used in the Pap PT program is lower now than when the program began, and the number of participants in the program has also declined. Many laboratories have seen a drop in the number of gynecologic cytology case accessions because of changes in cervical cytology screening guidelines that include less frequent testing and the addition of human papillomavirus testing to screening protocols. Some of the pathologists who signed out cervical cytology cases in the past no longer do so because they do not see a sufficient volume of cases or had problems passing PT in the past.

Members of the CAP Cytopathology Committee are pleased with the significant reduction in the participant appeals and will continue to monitor this aspect of the Pap PT program.

 Crothers BA, Moriarty AT, Fatheree LA, Booth CN, Tench WD, Wilbur DC. Appeals in gynecologic cytology proficiency testing: review and analysis of data from the 2006 College of American Pathologists Gynecologic Cytology Proficiency Testing Program. Arch Pathol Lab Med. 2009;133(1):44-48. Dr. Davey is a professor of pathology and associate dean of graduate medical education, University of Central Florida. She is a former member of the CAP Cytopathology Committee. Kelly Goodrich is a senior cytology technical specialist and Rhona Souers is a senior biostatistician—both at the College of American Pathologists, Northfield, Ill. Dr. Booth is co-section head of cytopathology, Cleveland Clinic. She is chair of the CAP Cytopathology Committee.