

Date: December 1, 2008

To: Regional Pathology Services Clients

From: Randi Nelson, Business and Marketing Coordinator

Re: Yearly compliance notification

SENSITIVITY OF THE PAP TEST FOR CERVICAL INTRAEPITHELIAL NEOPLASIA (CIN)

The Pap test is the most effective cancer screening test ever devised; however, it is not perfect, as numerous studies have shown that an inherent false negative rate exists. The reported sensitivity of a single pap test for CIN varies between 47 and 94 percent (1-3), depending on the design of the study, selection bias, type of preparation (conventional vs liquid-based), the definition of an "abnormal" test (ASCUS vs. LSIL), and the grade of CIN considered to be significant disease. In a recent controlled study, in which selection bias was eliminated since all participants had followup testing, the sensitivity of a single abnormal conventional Pap smear (ASCUS or SIL) for CIN 2 or 3 or invasive carcinoma was 79% (4). Although evidence indicates that the sensitivity can be improved by liquid-based methods, one should never assume that significant disease is excluded by a single negative pap test, regardless of the method of preparation..

The effectiveness of the Pap test as a screening tool is dependent on serial testing at defined intervals, since the slow biologic progression of CIN gives us several chances to detect disease. American Cancer Society recommendations for cervical cancer screening (5) suggest basic screening intervals of one year with conventional methods or two years with liquid-based methods. The American College of Obstetricians and Gynecologists (ACOG) recommends that women up to age 30 years be screened annually, and that the screening interval may be increased to 2-3 years in women older than 30 after negative results on three consecutive annual tests (6). These screening intervals may be modified under special clinical circumstances, such as immunosuppression, history of DES exposure, or history of cervical neoplasia.

To discuss this matter further, please contact Dr. John Baker, 552-3363, jbaker@unmc.edu .

References:

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2. Fahey MT et al. "Meta-analysis of Pap Test Accuracy." *Am J Epidemiol* 1995; 141:680-689.
3. Belinson J et al. "Shanxi Province Cervical Cancer Screening Study: A Cross-Sectional Comparative Trial of Multiple Techniques to Detect Cervical Neoplasia." *Gyn Oncol* 2001;83:439-444.
4. Hutchinson ML et al. "Utility of Liquid-Based Cytology for Cervical Carcinoma Screening: Results of a Population-Based Study Conducted in a Region of Costa Rica with a High Incidence of Cervical Carcinoma." *Cancer(Cancer Cytopathol)* 1999; 87:48-55.
5. Saslow D et al. "American Cancer Society Guideline for the Early Detection of Cervical Neoplasia and Cancer." *CA Cancer J Clin* 2002;52:342-362.

6. ACOG News Release, www.acog.org/from_home/publications/press_releases/nr07-31-03-1.cfm, July 31, 2003.