Cervical Cancer Screening Interval

Denise M. Linton, DNS(c), FNP, BC

Cervical cancer is preventable, but it is the second most common gynecologic cancer worldwide and the third most common cancer in women in the United States (American College of Obstetricians and Gynecologists [ACOG], 2003). Approximately 11,070 new cases and 3,870 deaths from cervical cancer occurred in 2008 in the United States (American Cancer Society [ACS], 2008). The incidence and mortality rates of cervical cancer are higher among women who do not obtain regular cervical cancer screening (ACS; Centers for Disease Control and Prevention, 2005).

Cervical cancer screening with the Papanicolaou (Pap) smear has been identified as an effective method of prevention (Berman, 2006; Camillo, 2006; Farley, McBroome, & Zahn, 2005; Feldman, 2003; Sirovich, Feldman, & Goodman, 2008; Solomon, Breen, & McNeel, 2007). The Pap smear detects precancerous lesions, for which effective treatments exist (Brink, Snijders, Meijer, Berkhof, & Verheijen, 2006; Feldman; Miller et al., 2003; Valdespino & Valdespino, 2006). The five-year survival rate for localized cervical cancer is 92%, whereas women with invasive cervical cancer have a five-year relative survival rate of only 72% (ACS, 2008). However, the relative survival rate is 100% if precancerous lesions are detected and treated (ACS).

A clinician recommendation is one of the strongest predictors of adherence with Pap smear testing (Markovic, Kesic, Topic, & Matejic, 2005; Ruffin, 2003). Yet despite the recommendations depicted in Table 1, Pap smear intervals are inconsistent among clinicians. Some clinicians have extended the screening interval among 35-year-old women with three documented negative Pap smears (Murphy et al., 2003; Sirovich et al., 2008). The reviewed literature does not provide the required evidence because: (a) most studies involved triennial cervical cancer screening intervals for women 30 years or older with an intact cervix, (b) most studies involved triennial cervical cancer screening using Pap smear results (Vo et al., 2004) and in cervical cancer (Denny & Wright, 2005; Merck & Co., Inc., 2006; Waggoner, 2003) (see Figure 1). Infection with HPV may be transient (ACOG, 2003; Berman, 2006; Goldie, Kim, & Wright, 2004; Sykes, Reddy, & Peddic, 2005) or persistent (Brink et al., 2006). Additionally, a long latency period occurs between infection with the virus and cervical cancer (Berman; Sirovich et al., 2008; Waxman, 2004). Newer liquid-based cytologic tests (e.g., ThinPrep®, Cytoc Corporation; SurePath™, BD Diagnostics) that facilitate HPV testing are in use (Walling, 2003). They may be used alone or in conjunction with cytology (Denny & Wright, 2005). The newer tests are more sensitive than the regular or conventional Pap smear (Biscotti et al., 2005; Mariani, 2004; Mayrand et al., 2007).

Literature Review

A literature review for 2003–2008 was conducted to determine evidence-based practice recommendations regarding optimal cervical cancer screening intervals for women 30 years or older with an intact cervix. Nonexperimental studies are used in the discussion because no randomized clinical trials are available to assist in determining cervical cancer screening intervals (Van den Akker-van Marle, van Ballegooijen, & Habbema, 2003; Sirovich et al., 2008). The reviewed studies did not provide the required evidence because: (a) most studies involved triennial cervical cancer screening using predominantly the conventional Pap smear with or without three previous consecutive negative results, and (b) only...