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Evidence-based commentaries on women's reproductive health

ABSTRACT & COMMENTARY

Body Mass Index and Safety of Postpartum Tubal Ligation

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Dr. Rivlin reports no financial relationships relevant to this field of study.

SYNOPSIS: In a single-institution, retrospective review of 3,670 postpartum tubal ligations performed after vaginal delivery, there was no association between increasing body mass index and surgical morbidity.

SOURCE: Byrne JJ, Smith EM, Saucedo AM, et al. Examining the association of obesity with postpartum tubal ligation. *Obstet Gynecol* 2020;136:342-348.

Tubal sterilization remains one of the most commonly used methods of contraception in the United States.[1] Offering this service immediately postpartum during hospitalization may improve access for patients who face barriers to postpartum follow-up. Postpartum tubal ligation is permanent and more than 99% effective at preventing pregnancy. However, as many as half of patients who request postpartum tubal ligation ultimately do not undergo the procedure.[2]

A primary risk factor for not accessing this procedure is a higher body mass index (BMI).[3] Concerns about increased surgical morbidity may be at the root of these disparities. However, no data support or refute such concerns, since no study has evaluated the procedural risks of postpartum tubal ligation among patients with obesity.

In this retrospective review including all patients receiving obstetrical care at Parkland Hospital in Dallas between August 2015 and March 2019, data from the electronic medical record was extracted for patients who underwent a postpartum tubal ligation after vaginal delivery. The only patients excluded from analysis were those who underwent a planned additional surgery, such as an ovarian cystectomy, at the time of the tubal ligation. At Parkland Hospital, the postpartum tubal ligation method most commonly used is the Parkland technique, or a bilateral

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midsegment partial salpingectomy through a 2 cm to 3 cm infra-umbilical incision.

The study team calculated a composite morbidity for each patient, which summed all surgical complications and morbidities. Possible composite morbidities included blood transfusion; aborted procedure; intraoperative, anesthesia, and postoperative complications; return to the operating room; incomplete tube transection; or subsequent pregnancy.

Demographic characteristics, complications, and reproductive outcomes were compared across BMI categories. BMI was calculated from the patient's height at the first prenatal visit or hospital encounter and the patient's weight on admission to labor and delivery to reflect the patient's habitus at the time of the tubal ligation. Since no definitions for obesity exist in pregnancy, the authors used BMI categories from the National Institutes of Health — underweight or normal weight (BMI < 24.9), overweight (BMI 25-29.9), class I obesity (BMI 30-34.9), class II obesity (BMI 35-39.9), and class III obesity (BMI > 40).

The mean BMI of the 3,670 subjects who met inclusion criteria was 32.2. Most subjects identified as Hispanic, and the majority had given birth at least three times. All but one subject received a tubal ligation using the Parkland technique. Composite morbidity occurred in 49 subjects (1.3%) and did not vary by BMI ($P = 0.07$). No deaths occurred, and no morbidity events occurred in patients who were super-morbid obese (BMI ≥ 50). Six subsequent pregnancies occurred in the study population — three full term, two ectopic, and one pregnancy of unknown location. Twelve subjects had incompletely transected tubes on pathology specimen. These outcomes did not vary by BMI category. Estimated blood loss and length of hospitalization were similar across BMI categories. Operative times increased from a median of 23 minutes in normal weight patients to 31 minutes in patients with class III obesity ($P < 0.001$).

■ COMMENTARY

As rates of obesity increase in the United States, with two out of every five women meeting criteria for obesity (BMI ≥ 30), so too does the potential for bias and stigma surrounding this common medical condition. Patients with obesity are vulnerable and often do not receive optimal care.[4] This phenomenon has been documented in the setting of postpartum tubal ligation. In one study, patients with a BMI of 40 or higher were 3.7 times less likely to have a postpartum tubal ligation than patients with a normal BMI. Patients who seek but are denied postpartum sterilization have higher rates of pregnancy in the subsequent year than those who do not seek sterilization. Therefore, The American College of Obstetricians and Gynecologists (ACOG) considers postpartum tubal ligation to be an urgent surgical procedure.[5] Although not all patients with obesity will experience negative medical outcomes, obesity in pregnancy is associated with increased pregnancy risks, including early pregnancy loss, prematurity, low birth weight, gestational diabetes, hypertension, and cesarean delivery.[6] By disproportionally denying postpartum tubal ligation to patients with obesity, providers are disproportionally putting these patients at risk of subsequent pregnancy, as well as the possible sequelae of such pregnancies.

Although retrospective and limited to a single institution, this study has a large sample size. The authors noted that their sample size is more than twice that of the postpartum partial salpingectomy cohort in the U.S. Collaborative Review of Sterilization data set, a commonly cited source for the cumulative 10-year pregnancy risk after postpartum tubal ligation.[7] Study subjects were predominantly Hispanic, which may limit generalizability. In addition, most tubal ligations were performed using the Parkland technique — which may not reflect practices at other institutions, such as the commonly used modified Pomeroy technique and bilateral salpingectomy. Finally, the authors could only analyze those patients who successfully accessed postpartum tubal ligation, and not those at Parkland Hospital who were denied care, which may bias results.

The authors concluded that even for patients in the highest BMI category, postpartum tubal ligation is a safe procedure, which is vitally important to clinical practice. On a busy labor and delivery unit, when decisions are made about prioritizing procedures, concerns about surgical risk and complications may motivate decisions. This study argues that

BMI should not play a role in this decision. In their Committee Opinion on Ethical Considerations for the Care of Patients with Obesity, ACOG recommends that providers be aware of implicit bias toward patients with obesity, that they engage in self-reflection, and that they take steps to ensure that such bias does not interfere with high-quality care.[8]

Providers who find themselves denying postpartum tubal ligation to patients with obesity also should consider the risks to their patients that result from withholding such care. ■

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ABSTRACT & COMMENTARY

Is Universal Rescreening of Pregnant Women for Hepatitis C Cost-Effective?

By Ahizechukwu C. Eke, MD, MPH

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Dr. Eke reports no financial relationships relevant to this study.

SYNOPSIS: In this cost-effectiveness analysis study, the authors assessed the cost effectiveness of offering hepatitis C virus (HCV) antenatal rescreening to U.S. women who previously were screened HCV negative in a prior pregnancy. The authors demonstrated that universal HCV rescreening in pregnant women was cost-effective when compared to risk-based HCV screening, with an incremental cost of $47 (95% confidence interval [CI], $10 to $91) and an increase in quality-adjusted life years of 0.008 (95% CI, 0.001-0.015) per pregnant woman screened when compared to risk-based screening at baseline.

SOURCE: Chaillon A, Wynn A, Kushner T, et al. Cost-effectiveness of antenatal rescreening among pregnant women for hepatitis C in the United States. *Clin Infect Dis* 2020; April 13. doi: 10.1093/cid/ciaa362. [Online ahead of print].

Hepatitis C virus (HCV) is one of the major causes of liver cirrhosis, and a leading indication for liver transplantations.[1] Very recently, the U.S. Preventive Services Task Force recommended that adults be screened for HCV once in their lifetime.[2] With a prevalence rate of approximately 4% during pregnancy[3] and a 5% potential for maternal to fetal transmission of HCV,[4] as well as the advent of effective therapies,[5] some obstetrical societies are recommending and encouraging universal HCV screening during pregnancy,[6] with the aim of offering therapy during the postpartum period and after breastfeeding. However, there are no cost-effectiveness analyses to evaluate the efficiency of HCV rescreening in pregnant women who previously were screened in a prior pregnancy without evidence of HCV exposure. In this study, Challion and colleagues reported their findings on the cost-effectiveness of HCV prenatal rescreening in U.S. women who previously screened negative during a prior pregnancy and without evidence of past HCV exposure.[7] The baseline population included pregnant women with a mean age of 30 years and a mean interpregnancy interval of three years.

To parameterize their Markov model of HCV progression and treatment, the authors made a number of assumptions. First, because of the absence of data for HCV prevalence in pregnant women who tested negative to HCV in a prior pregnancy, the authors estimated HCV prevalence by multiplying the estimated proportion of pregnant women who were injection drug users (IDU) with the prevalence of HCV among women who had screened negative to HCV antibodies in their prior pregnancy but remained at high risk for HCV. Second, they estimated a 17/100 person-years incidence of HCV infection among females who use injection drugs. Third, they estimated a 38% spontaneous HCV clearance rate among women; and fourth, they

estimated that 1.25% of pregnant women would use injection drugs at baseline. Fifth, they estimated that all pregnant women who screened HCV negative during a prior pregnancy were assumed to have a Meta-analysis of Histological Data in Viral Hepatitis (METAVIR) F0 stage. Sixth, they assumed a 75% per year loss to follow up after a diagnosis of HCV is made during pregnancy. The authors assumed that all women incorporated into the model were secundigravidas, with a fertility rate of 1.7 births per woman in 2018.[7]

A two-way sensitivity analysis was performed to evaluate uncertainties in the base model by varying two parameters (IDU and interpregnancy interval) to change simultaneously, and examining the potential effect of such variation on the model's result within a specified range. The authors varied the prevalence of IDU among pregnant women during a subsequent pregnancy without evidence of HCV infection and interpregnancy interval between 0.25% and 1.5% and one to four years, respectively. One-way analyses also were performed by varying single parameters in the model, one at a time, including fibrosis progression rate (0.95/year vs. 0.11/year) and treatment eligibility based on staging (no restrictions based on METAVIR stages vs. treatment restriction until at least METAVIR stage F1). Probabilistic sensitivity analysis also was performed, with parameters sampled randomly from distributions to generate 10,000 iterations. Mean incremental cost-effectiveness ratios (ICERs) were used to express cost-effectiveness under a willingness to pay threshold of $50,000/quality-adjusted life year (QALY) gained. Costs were expressed in 2019 U.S. dollars, and health utilities were expressed in QALYs and discounted at 3%/year.

The authors demonstrated that universal HCV rescreening in pregnant women was associated with an incremental cost of $47 (95% confidence interval [CI], $10 to $91) and an increase in QALY of 0.008 (95% CI, 0.001-0.015) per pregnant woman screened when compared to risk-based screening at baseline. Rescreening for HCV during a second pregnancy was cost-effective compared to rescreening based on risk factors, with a mean ICER of $6,000 per QALY gained, which is below the willingness to pay threshold of $50,000/QALY gained. Universal screening for HCV during pregnancy remained favored over risk-based screening in one-way, two-way, and probability sensitivity analyses, including in situations of low IDU (0.25%) and short interpregnancy interval (one year). Sensitivity analyses results also remained robust to low fibrosis progression rates and treatment restrictions by fibrosis status.

■ COMMENTARY

Cost-effectiveness analysis is a major tool used by health policy analysts to predict costs and health outcomes that may be associated with various screening and treatment modalities, with the goal of making healthcare decisions from economic evaluation that are inexpensive, yet effective. Most cost-effectiveness analyses incorporate a number of assumptions in their data, and these can introduce uncertainties in the results.[8] Sensitivity analysis is a good way to measure and evaluate uncertainties in cost-effectiveness data, since sensitivity analyses examine the potential effect of a wide range of uncertainties within a model.[8] Results of cost-effectiveness analyses are best reported as an ICER, with a willingness to pay threshold of $50,000 being the most used and cited in cost-effectiveness analysis literature.[9,10]

The authors demonstrated that rescreening for HCV in pregnant women in the United States without prior history of HCV infection or exposure was cost-effective compared to rescreening based on risk factors alone. The authors argued further that if rescreening of this low-risk population for HCV is cost-effective, then rescreening of pregnant women at higher risk for HCV (active IDUs) would be even more cost-effective during pregnancy. Although the finding from this study is impressive and important for health policy decision-making during pregnancy, it is important to keep in mind the intricacies of universal testing, and put things into perspective when advocating for universal screening, as described by the Wilson and Jungner criteria.[11] Wilson and Jungner's criteria, when applied to HCV screening, imply that HCV should be an important health problem; should have a latent stage, and the natural history of HCV should be adequately understood; should have a suitable testing algorithm for diagnosis and treatment that are readily available, with an agreed policy on the population that would benefit from therapy; should involve a continuous process for HCV case finding rather than just a one-time venture; and should have an economically plausible total cost of finding a case of HCV during pregnancy. The last two criteria more specifically support universal testing and the findings from this study for rescreening of HCV during pregnancy in low-risk pregnant patients so they could benefit from therapeutic interventions for hepatitis C during the postpartum period.

In conclusion, HCV universal rescreening is not yet a widely accepted practice during pregnancy. Until more data are available, universal rescreening of HCV during pregnancy in low-risk women who tested negative to HCV in a previous pregnancy is not advised or recommended. ■

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ABSTRACT & COMMENTARY

A New Nonhormonal Vaginal Gel Contraceptive

By Rebecca H. Allen, MD, MPH, Editor

SYNOPSIS: In this single-arm, open-label, Phase III study of a novel vaginal pH regulator gel among 1,384 sexually active women aged 18 to 35 years, the seven-cycle cumulative pregnancy rate was 13.7% (95% confidence interval, 10.0% to 17.5%).

SOURCE: Thomas MA, Chappell BT, Maximos B, et al. A novel vaginal pH regulator: Results from the phase 3 AMPOWER contraception clinical trial. *Contracept X* 2020;2:100031.

The authors of this study evaluated the contraceptive effectiveness of a novel nonhormonal vaginal pH regulator gel that contains three active ingredients: L-lactic acid, citric acid, and potassium bitartrate. The goal of the gel is to maintain an acidic environment in the vagina inhospitable to sperm. The brand name of the product is Phexxi.

This was a multicenter, single-arm, open-label, Phase III trial performed to obtain Food and Drug Administration (FDA) approval for a vaginal contraceptive gel that regulates the vaginal pH. The primary endpoint was the seven-cycle cumulative pregnancy rate with typical use. The study had 90% power to ensure the upper limit of the 95% confidence interval (CI) of the pregnancy rate to be no more than 21%. Eligibility criteria included females between the ages of 18 to 35 years who were deemed at risk of pregnancy with normal menstrual cycles.

Women were asked to have at least three acts of sexual intercourse per month with their male partner. Exclusion criteria included women with frequent urinary tract infections (UTIs) and vaginal infections, pregnancy, breastfeeding, and infertility. The vaginal gel was administered immediately before or up to one hour prior to intercourse. Women maintained electronic diaries to record adverse effects, acts of vaginal intercourse, use of concomitant medications, and menses. Women were followed for seven cycles, and at the end of the study were asked to report their satisfaction with the study drug. Qualifying cycles for analysis had to include a 21- to 35-day cycle length, no backup or emergency contraception, and at least one recorded act of vaginal intercourse in that cycle.

The investigators enrolled 1,384 women across 112 study sites between July 2017 and November 2018. The mean age was 27.7 (± 4.5) years, mean body mass index of 28.8 (± 8.1) kg/m^2, and 37.5% of the sample was nulligravid. Of the women enrolled, 46.7% completed the entire seven cycles. The remainder left the study early, with being lost to follow up (18.1%) or withdrawal by the subject (12.3%) most common. Nevertheless, 1,114 women were included in the efficacy analysis based on the cycles they contributed. For contraceptive efficacy, 101 pregnancies occurred, resulting in a seven-cycle cumulative pregnancy percentage of 13.7% (95% CI, 10.0% to 17.5%), which was below the pre-specified upper boundary 95% CI of ≤ 21%. The most frequent adverse events reported by women were vulvovaginal burning sensation (20%), vulvovaginal pruritis (11.2%), UTI (5.7%), vulvovaginal pain (3.8%), vaginal candidiasis (2.9%), and bacterial vaginosis (2.8%). However, less than 2% of women discontinued the study because of an adverse event, and more than 82% were very satisfied or satisfied with the contraceptive vaginal gel.

■ COMMENTARY

The goal of this product was to create a nonhormonal, female-controlled contraceptive that could be used when needed. The gel maintains the acidic environment of the vagina, even in the presence of alkaline sperm. The

gel's viscosity is such that it adheres to the vaginal walls for up to eight to 10 hours. The gel can be used with any type of condom and diaphragm, but not with the contraceptive vaginal ring. According to the authors, the rates of vulvovaginal burning and pruritis are similar to those seen with male and female condoms. Unlike over-the-counter spermicides, this new vaginal pH regulator gel (Phexxi) is available only by prescription. It is dispensed in single-use disposable applicators in a box of 12, with instructions to insert immediately before or one hour prior to vaginal intercourse.

The failure rate in this clinical trial was 13.7%, which may or may not reflect typical use in the real world, since women in the study were subject to study reminders and electronic diaries that may have changed their behavior. This puts this method in a similar range to spermicides (typical use failure rate, 21%; perfect use failure rate, 16%), diaphragm (typical use, 17%; perfect use, 16%), the female condom (typical use, 21%; perfect use, 5%), and the male condom (typical use, 13%; perfect use, 2%).[1] The product obtained FDA approval on May 22, 2020, and now is available on the market.

Any contraceptive new to the menu of options is a welcome addition because women need access to multiple types of contraceptives throughout their lives. The company is marketing this as a nonhormonal option for patients that can be used at the moment of sexual activity. It is not clear to me how this product differs in that sense from spermicides, and we do not have any head-to-head trials comparing spermicides to this product in terms of efficacy and side effects. Nevertheless, for patients who do not want to use condoms or are seeking to augment the contraceptive efficacy of condoms or other methods and are looking for a contraceptive that does not need to be used daily, this is another option. It is possible women will see this as a more natural alternative compared to spermicides because it keeps the vaginal environment acidic rather than using a chemical (nonoxynol-9) that kills sperm. However, I suspect this product will not be widely used until the company applies for it to be moved to over-the-counter status. ■

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SPECIAL FEATURE

Pap Smear Management: An Update on Recent Recommendations

By Mitchell Linder, MD

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Dr. Linder reports no financial relationships relevant to this field of study.

According to the World Health Organization's most recent reporting, cervical cancer is the fourth most common malignancy in the world. In 2018, there were 12,831 new cases in the United States and 4,207 patients who died of cervical cancer. This amounts to eight new cervical cancer cases per 100,000 women per year. Looking more broadly, an estimated 579,000 women were diagnosed worldwide, and there were 311,000 deaths.[1] Nine-tenths of the worldwide deaths attributed to cervical cancer come from developing countries.[1]

Despite its current prevalence in the care of patients, the Pap smear has been used for less than 100 years. The Pap smear test was first developed and reported by Dr. Georgios Papanicolaou in the 1940s.[2] Despite initial enthusiasm in the medical community, it was not until 1957 that annual cytologic screening was advocated by the American Cancer Society (ACS) and then by the American College of Obstetricians and Gynecologists (ACOG) in 1975. The next major advancement in the field of screening came in the late 1970s and early 1980s with the identification that the human papilloma virus (HPV) and, eventually, more specifically that HPV 16 and 18 were responsible for the large majority of squamous cell carcinomas of the cervix.[3]

Over time, efforts were undertaken to consolidate disparate terminologies and provide a common language in reference to cytologic and pathologic specimens. This included the introduction of the Bethesda naming system in 1988, which has been updated over time, most recently in 2014.[4]

Since the year 2000, there have been multiple progressive cycles of updates to both screening and management guidelines as the result of our rapidly evolving understanding of HPV regarding its prevalence, mechanism of action, and its time course for carcinogenic transformation. This new understanding, coupled with the introduction of the initial quadrivalent HPV vaccine series (2006) and then the expansion

to a 9-valent vaccine (2014), has worked to refine those guidelines to strike the right balance for testing frequency in regard to benefits and harms.

The most recognized and implemented screening guidelines were published most recently in 2012 as a joint effort by the American Society for Colposcopy and Cervical Pathology (ASCCP) in conjunction with the ACS and the American Society for Clinical Pathology.[5] This strategy relied on cervical cytology testing, with and without HPV testing, based on patient age. In 2015, these received a needed update to incorporate new testing technologies, such as primary HPV testing. Since that time, the United States Preventive Services Task Force and the ACS each has released its own recommendations that increasingly are inclusive of primary HPV testing.[6,7] Each of these provides slight variations on testing strategies, depending on what is available to the individual practitioner.

Although there are a variety of similar but not exactly overlapping screening recommendations, when it comes to management, ASCCP has produced the definitive guidelines. The seminal publication of strategies for how to handle abnormal test results was in 2012. Earlier in 2020, ASCCP, in conjunction with the National Cancer Institute, published their updated management guidelines.[8]

This new management update brought a paradigm shift regarding how abnormal results are treated. Previously, management of results was based on a generic algorithm dictated by the patient's age, pregnancy status, and, most importantly, the cytology/HPV screening results themselves. Although this was a very straightforward and accessible way to provide management direction, it failed to take into account prior patient history and to provide a customized recommendation based on that particular scenario. In addition, as new testing technologies emerge, including primary HPV testing, these need to be able to be added to allow for appropriate management recommendations. The newly published management guidelines attempt to improve those prior algorithms by incorporating the patients' prior results in an effort to create individualized risk estimates.[9]

The generalized principle for the new guidelines takes the current patient results in conjunction with prior results to determine the immediate risk of cervical intraepithelial neoplasia (CIN) 3+ being present and/or the five-year risk of CIN 3+ (if the immediate risk is low). Then, it uses that risk as the marker on which to base recommendations for management strategies. Simply put, using large-scale data models, the guideline authors created clinical action thresholds where, after a patient is estimated to have an X% immediate or five-year risk for CIN 3+, the recommendation always would hold true. Having these clinical action thresholds will allow for future integration of new testing options as they become available. The clinical thresholds themselves will not change, just the means by which the specimen was collected/tested.[10]

The important clinical action threshold to understand for this is 4%. If a 4% or greater immediate risk of CIN 3+ is calculated, then the recommendation will be to proceed for further evaluation (and possible treatment.) On the other hand, if the risk is < 1% for CIN 3+ in a five-year timeframe, then the recommendation will be to perform some type of retesting surveillance. What combination of factors came together to create that calculation (a long history of abnormal results vs. a particularly high result on one test vs. some other sequence of events) is immaterial regarding this risk-based management strategy. The simple fact is that the calculated risk (immediate risk of CIN 3+ is ≥ 4% or < 1% in the next five years) is the driving factor. There may be some situations where the risk is in between 1% and 4%. In these circumstances, clinical judgment may be indicated.

Outside of the large shift in the basis of how recommendations are crafted, there were other changes of note in this new set of management guidelines. One of these is related to management of certain first-time abnormal results (low-grade changes after prior negative screens) that previously would have been recommended for immediate colposcopy that can now be followed with repeat testing in one year instead (because of the low risk of CIN 3+ over time). This more conservative approach extends to the preferred treatment for CIN 1 results on colposcopic-directed biopsies as well.

Another change involves increasing the amount of time surveillance is recommended following treatment of high-grade lesions from 20 years post-treatment to 25 years post-treatment. In addition, the guidelines outline that excisional treatments are preferred over ablative treatments for high-grade lesions. The new recommendations also provide increased clarity regarding who should receive expedited treatment (i.e., skipping colposcopy and going directly to an excisional procedure). Each of these refinements helps to create a more standard approach to the care of the patient with abnormal cervical results.

A major issue with having a risk-based algorithm is the complexity of the data tables required to assess any patient's specific risk because of the need for comparison to similar cases in a large database. As such, gone are the beloved PDF flow diagrams that had been the mainstay of the 2012 guidance. In their place, ASCCP has developed an app that allows providers to input patient information about current and prior results and then calculates risk based on the input. Recently, they also made a web-based tool available as well.

As our collective knowledge regarding HPV and cervical cancer continues to evolve at a rapid pace, it is

comforting to know that efforts in refining the guidance about screening and management of results also are working to keep up. Future directions may include starting to develop a clearer picture on whether patients who received the HPV vaccine series need the same guidelines for screening and management as patients who did not, and further incorporation/adoption of primary HPV testing as the standard of care. ■

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CME/CE QUESTIONS

1. **In the study by Byrne et al, which of the following body mass index (BMI) categories was associated with higher surgical morbidity in patients undergoing postpartum tubal ligation after vaginal delivery?**
   a. Class III obesity (BMI > 40)
   b. Underweight or normal weight (BMI < 24.9)
   c. There was no association between BMI category and surgical morbidity.
   d. Super-morbid obesity (BMI ≥ 50)
2. **Which of the following tests is *not* one of Wilson and Jungner's criteria for screening, as applied to screening for hepatitis C virus (HCV) infection during pregnancy?**
   a. HCV should have a well-defined convalescence phase.
   b. HCV should be an important public health problem.
   c. There should be therapy available for treatment of patients who test positive to HCV.
   d. The natural history of HCV should be known.
3. **In the study by Thomas et al, what is the method of action of the novel contraceptive vaginal gel studied?**
   a. Progestin released into the vagina to thicken cervical mucus
   b. Acidifying agents to maintain a low vaginal pH
   c. Microbicide containing tenofovir to prevent the transmission of human immunodeficiency virus
   d. Nonoxynol-9 spermicidal effect
4. **Which of the following is the foremost advantage of moving to use of the American Society for Colposcopy and Cervical Pathology new risk-based management?**
   a. It is cheaper for the patient in terms of out-of-pocket costs.
   b. It aligns all screening recommendations into one unified recommendation.
   c. It creates algorithms based on single results.
   d. It allows for individualization of treatment plans and, in some instances, a more conservative approach to management.

[IN FUTURE ISSUES]

The Utility of Nuchal Translucency Screening for Fetal Aneuploidies in the Era of Cell-Free Fetal DNA Testing