



## CHOOSING WISELY XXXIV

*Recommendations from American Academy of Pediatrics Section on Pediatric Pulmonology and Sleep Medicine, American Society for Metabolic and Bariatric Surgery, American Society for Reproductive Medicine*

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This is my 34th article on Choosing Wisely from the Board of Internal Medicine Foundation. As previously noted, each specialty group is developing “Five or more Things that Physicians and Patients Should Know.”

### I. RECOMMENDATIONS ON PEDIATRIC PULMONOLOGY

**1. Asthma therapy should not be stepped up (by adding new drugs or going to higher doses) before assessing current asthma medications for adherence, appropriateness of device and technique.** The 2007 Expert Panel report from the National Asthma Education & Prevention Program discusses in detail the importance of monitoring asthma control in pediatric patients, stepping up therapy, and stepping down therapy, when appropriate.<sup>1</sup> There is no reason to step up to a higher-dose steroid inhaler or to combination therapy if the patient is not using the lower dose asthma controller with correct technique and frequency.

**2. LABA/steroid combination drugs should not be used as initial therapy for intermittent or mild persistent asthma.** Children with mild persistent asthma are usually well-controlled with a single agent -- either a leukotriene modifier or a low-dose inhaled corticosteroid medication. The addition of a LABA (long acting beta agonist) is not recommended in these circumstances and should be reserved for children with moderate persistent or severe persistent asthma.

**3. Avoid administering nebulized medications by “blow by,” or by placing the mask or nebulizer tubing near the child’s nose and mouth.** A t-piece with mouthpiece or face mask is used instead. During a nebulizer treatment, a well-fitting, properly-placed mask to the face is required in a quietly breathing, younger patient who is not crying. An older cooperative child may use a t-piece with mouthpiece. If the drug being delivered can be converted to an inhaler, or administered using a valved holding chamber with a face mask, this change should be considered. Finally, it is important to note that if treatment failure is occurring with a nebulized steroid, it could be due to the family administering the medication using the “blow by” method, by placing the mask or

nebulizer tubing near the child’s nose and mouth rather than securing the mask properly to the face. Studies have shown that there is a 40% to 85% decrease in aerosol delivery when a mask is held 2 centimeters away from a child’s face while giving a nebulizer treatment.

**4. Pediatric sleep studies should be performed and interpreted according to pediatric standards, not adult standards, even if performed in a laboratory that predominantly studies adults.** Clinicians should use the AAP “Clinical Practice Guideline: Diagnosis and Management of Childhood Obstructive Sleep Apnea Syndrome” to determine who might benefit from ordering a sleep study or polysomnogram.<sup>2</sup> In addition, the practitioner should determine in which laboratory the polysomnogram may be most appropriately conducted. Testing should evaluate physiological parameters that include cardiac, respiratory, and central nervous system functions.

**5. Airway clearance therapy should not be routinely used in conditions such as asthma, bronchiolitis, and pneumonia.** There is little evidence that airway clearance techniques play any significant role in the management of children with an acute respiratory problem or, chronically in the outpatient setting, for any condition other than bronchiectasis. Airway clearance techniques appear to be safe and somewhat effective for children with stable bronchiectasis and suppurative chronic bronchitis (such as cystic fibrosis) and may account for improvements in sputum expectoration, selected measures of lung function, symptoms, and health-related qualities of life. There may be some advantages to certain techniques and devices in neuromuscular disease with impaired ability to expectorate airway secretions, both acutely and chronically. Physicians should not routinely prescribe airway clearance techniques in previously healthy children with acute bronchiolitis, pneumonia, or an exacerbation of asthma.

### II. RECOMMENDATIONS ON BARIATRIC SURGERY

**1. An open approach for primary bariatric surgical procedures should be avoided.** Laparoscopy offers several advantages compared with an open surgical

approach, including shorter hospital lengths of stay, and decreased morbidity and mortality.<sup>3</sup>

**2. Routine postoperative antibiotics should be avoided.** Preoperative parenteral antibiotics should be administered within a designated time frame to patients undergoing bariatric procedures as prophylaxis against surgical site infection. Extending the duration of prophylactic antibiotics may increase the risk of superinfection with *Clostridium difficile* and the development of antimicrobial resistance.

**3. The Intensive Care Unit should not be used routinely for postoperative monitoring.** Most patients undergoing bariatric surgery do not require an ICU for postoperative monitoring; it poses the risk of higher rates of nosocomial infections, and exposes patients to resistant microorganisms.

**4. The gallbladder should not be removed routinely unless clinically indicated.** The incidence of bile duct injury has increased since the introduction of laparoscopic cholecystectomy. Removal of normal and asymptomatic gallbladders at the time of bariatric surgery has not been shown to be necessary, and it may expose patients to the risk of complications without proven benefit.

**5. Routine use of invasive monitoring should be avoided.** Arterial and central venous catheters are associated with the risk of nosocomial infections and associated morbidity. Objective data do not support routine use of invasive monitoring for patients undergoing bariatric procedures at this time.

### III. RECOMMENDATIONS ON REPRODUCTIVE MEDICINE

**1. Routine diagnostic laparoscopy should not be performed for the evaluation of unexplained infertility.** This procedure should only be done if there is a suspicion of pelvic pathology based on clinical history, an abnormal pelvic exam, or abnormalities identified with less invasive testing. In patients with a normal hysterosalpingogram or the presence of a unilaterally patent tube, diagnostic laparoscopy typically will not change the initial recommendation for treatment.

**2. Advanced sperm function testing, such as sperm penetration or hemizona assays, should not be performed in the initial evaluation of the infertile couple.** Studies document that extreme variability exists among these tests, with very little correlation between results and outcomes. They also are not cost-effective and often lead to more expensive treatments.

**3. A postcoital test (PCT) for evaluation of fertility should not be performed.** This test suffers from poor or reduced reproducibility, and its predictive value for pregnancy is no better than chance. It leads to

more tests and treatments but yields no improvement in cumulative pregnancy rates.

**4. Thrombophilia testing should not be routinely ordered for patients undergoing a routine infertility evaluation.** They have no benefit in someone with no history of bleeding or abnormal clotting, and no family history. The testing is costly, and there are risks associated with the proposed treatments, which would not be indicated in this routine population.

**5. Immunological testing should not be performed as part of the routine infertility evaluation.**<sup>4</sup> Although immunological factors may influence early implantation of the embryo, routine immunological testing of couples with infertility is expensive and does not predict pregnancy outcome.

**6. A karyotype should not be obtained as part of the initial evaluation of amenorrhea.** Amenorrhea can be attributed to many causes. A karyotype (chromosomal analysis) is not a screening test and is not indicated as an initial test for amenorrhea. It is indicated to further evaluate the etiology of an elevated follicle-stimulating hormone (FSH) in a woman under 40 years of age or in the presence of physical findings suggestive of a disorder of sexual development.

**7. Testosterone or testosterone products should not be prescribed to men contemplating/attempting to initiate pregnancy.** Testosterone therapy is widely used as treatment for hypoandrogenemia and associated symptoms such as sexual dysfunction. It is well established, however, that exogenous testosterone and other androgens can lead to decreased or absent sperm production, low sperm count, and infertility. Also, these effects are not always reversible, even after removing the exogenous androgens.

**8. Follicle-stimulating hormone (FSH) levels should not be obtained in women in their 40s to identify the menopausal transition as a cause of irregular or abnormal menstrual bleeding.** Menopause is defined as the absence of menstrual periods for 1 year when no other cause can be identified (it is often accompanied by symptoms such as hot flashes and night sweats). Menstrual bleeding patterns for women after age 40 are less predictable than in the younger years due to normal menopausal transition. During this time, blood levels of FSH vary both from woman to woman and from day to day in the same woman. An FSH level does not predict when the transition to menopause will occur, diagnose that it has begun, or provide reassurance that contraception is no longer necessary.<sup>5</sup>

**9. Endometrial biopsy should not be performed in**

**the routine evaluation of infertility.** Endometrial biopsy performed for histologic dating does not distinguish fertile from infertile women. Chronic endometritis on endometrial biopsy does not predict the likelihood of pregnancy in general, nor is it associated with live birth rates in assisted reproductive technology cycles.

**10. Prolactin testing should not be performed as part of routine infertility evaluations in women with regular menses.** It has become common practice to obtain prolactin levels in the routine infertility evaluation, but there is no reason to expect clinically significant elevation of prolactin levels in a woman with normal menstrual cycles and no galactorrhea (milk discharge from breast).

## Top Tips

### LOOK ON BRIGHT SIDE OF LIFE, EVEN IN A PANDEMIC

A new study published in the Proceedings of the National Academy of Sciences was based on survey data collected from 69,744 women and 1,429 men by researchers from the Boston University School of Medicine, the National Center for PTSD at VA Boston Healthcare System, and Harvard University. The women were followed for 10 years, the men for 30 years.

The study found that when individuals were compared based on their initial levels of optimism, the most optimistic men and women averaged an 11%-15% longer lifespan, and had 50%-70% greater odds of reaching 85 years of age compared with the least optimistic groups.

Interestingly, they say optimism may be modifiable using relatively simple technics or therapies. Other research suggests that more optimistic people may be able to better regulate emotions and behaviors, as well as bounce back from stressors and difficulties more effectively.

The researchers also consider that more optimistic people tend to have healthier habits--they are more likely to exercise and less likely to smoke --- which could extend life span. The results were maintained after accounting for age, demographic factors such as educational attainment, chronic diseases, and depression, and health behaviors such as alcohol use, exercise, diet, and primary care visits.

### MENINGOCOCCAL B IMMUNIZATION

Meningococcal serogroup B (Men B) caused 62% of all meningococcal cases in the United States from 2015-2017, and 31% of all meningococcal cases from 2007-2016.

Teens and college students share common risk

factors. The preferred ages to give Men B are 16-18 years of age, but it can be given from 16 to 23 years. The CDC reports peak incidence at about 17 years of age, so it is not just a college disease.

The Advisory Committee on Immunization Practices (ACIP) recommends that the decision to give a Men B primary series should be based on shared clinical decision making. This distinction clarifies the importance of a discussion between the provider and the patient or parent, and a joint decision about giving Men B to the patient. Don't forget to document the discussion in the chart.

The ACIP recommends vaccination for those 10 years of age and older with increased risks for Men B due to underlying health conditions, outbreak situations, or occupational exposure. For those at increased risk, Men B is recommended one year after they receive the Men B series and every 2-3 years if still at risk.

Men B vaccines are available for VFC-eligible adolescents in Pennsylvania through the Vaccines for Children Program through age 18. (See PA Department of Health Vaccines for Children Provider Notice February 2019)

There are two available Men B vaccines (Bexsero® and Trumenba®). LGHP uses Bexsero® given in a two dose series, the second dose at least one month after the first. It can be given with Menveo® (the conjugate Meningococcal vaccine that targets strains A, C, Y and W-135). Bexsero® does not replace Menveo® but is given in addition and can be given concomitantly. Bexsero® cannot be interchanged with Trumenba®.

### REFERENCES

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