

Fall 2012

Health Service Region 1



DEPARTMENT OF STATE HEALTH SERVICES

Women's Health Literature Review



The evolution of the urine pregnancy test



"The history of the pregnancy test is embedded in magic, myth, politics, and science. Four thousand years ago, Egyptians developed the first diagnostic test to detect a unique substance in the urine of both women and domesticated animals. Perhaps the most famous Egyptian pregnancy test was a germination test which involved the female urinating onto bags of wheat and barley. If the barley grew, it meant a male child. If the wheat grew, it meant a female child. If neither grew, the women would not bear at all. When scientists tested this theory in 1963, they actually found that 70 percent of the time, the urine of pregnant women did promote seed growth. Middle-age pregnancy tests were characterized by an emphasis on the nonscientific method of visu-

ally evaluating urine. In Europe, physicians who claimed to diagnose pregnancy by the color of urine became known as 'piss prophets'. In a 1552 text, pregnancy urine was described as 'clear pale lemon color leaning toward off-white, having a cloud on its surface.' Other tests included mixing wine with urine and observing the results. Indeed, alcohol reacts with certain proteins in urine, so this may have had some merit. After the turn of the century, scientists in several independent European labs began to recognize a hormone that is found only in pregnant women, which they called hCG. To test for pregnancy, a woman's urine was injected into an immature rat or mouse. In the case of pregnancy,

the rat would go into 'heat' despite its immaturity. In 1903-1991 rats were replaced with rabbits. One would inject urine into the ear veins of a female rabbit. If hCG was present, the rabbit ovulated within 48 hours. Unfortunately, the only way to observe for ovulation was to kill the rabbit. When using mice, five mice had to be killed for each pregnancy test." Today women can use a home pregnancy test 8 days after conception and nothing has to be killed to get the result thank goodness." (<http://www.randomhistory.com/1-50/018pregnancy.html>)

Anal cancer is diagnosed more often than cervical cancer?



"Anal cancer is now diagnosed more often than cervical cancer in the United States, yet many healthcare providers are not doing anal Pap smears. Anal Pap smears are similar to cervical Pap smears in their ability to detect precancerous/cancerous cells. The pathology of anal carcinoma is similar to that of cervical cancer, in that dysplastic changes to squamous columnar epithelial cells occur in the anal transitional zone after HPV infection. The anal Pap smear is collected in the same way as it would be for a cervical smear, with the site of collection marked as anal. The swab is inserted about 2 inches and put in a liquid fixative. Anal dysplasia is classified as anal intraepithelial lesions (AIN). The anal Pap smear

cytology is thought to be similarly effective in detecting AIN. Anal dysplasia is classified according to severity; low-grade to high grade. The worldwide rate of HPV infection is about 10%. Approximately 75% to 80% of sexually active adults acquire an anogenital HPV infection before age 50 (unless HPV vaccinated). Cigarette smoking, receptive anal intercourse, HIV infection, and female gender (thought to be correlated with cervical coinfection with a high-risk strain of HPV) have also been associated with an increased rate of anal carcinoma. Symptoms of anal carcinoma include anal bleeding, the sensation of a mass, pruritus, anal discharge, irritation, and tenesmus (a feeling of incomplete defecation). Screening is recommended for high risk patients as well as for any symptomatic patient, when an abnormality is visualized, or anything concerning is palpated." (*Advance for NPs and PAs*, October 2011)

UV exposure and melanoma



"Research has shown for years that UV exposure in tanning beds increases the malignant melanoma risk. The risk is even increased in women who have had only one tanning bed exposure. The greatest risk is in women 45 and younger who reported tanning bed sessions longer than 20 minutes. Indoor tanners may also develop an addiction to tanning due to the production of

endorphins via exposure to UV light. One alternative as a provider is to suggest sunless tanning products. Sunless tanning products can be lotions or sprays. Sunless products have evolved over the years and produce much less of the undesirable concerns of the past such as streaking and orange tones." (*Advance for NPs & PAs*, June 2011)

Stroke treatment– It's time sensitive

"Much has changed in the past 15 years regarding stroke recognition and rapid delivery of acute treatment. Strokes are usually accompanied by symptoms, but they also may occur *without producing clinical findings* and be considered clinically silent. Both acute and chronic conditions may result in cerebral ischemia or stroke. Less thought of acute events that can lead to a stroke include cardiac arrest, drowning, strangulation, asphyxia, choking, carbon monoxide poisoning, and closed head injury. The more common etiology of stroke is large artery atherosclerosis, atrial fibrillation, left ventricular dysfunction, mechanical heart valves, diabetes, hypertension, and hyper-

lipidemia. Unlike 15 years ago, a treatment for stroke now exists and research shows it improves outcomes by reducing post-stroke disability. Time is the most important factor. The goal is to present to the emergency room within 3 hours of symptom onset, and door to CT in less than 25 minutes, and door to treatment in less than 60 minutes." (Advance for NPs and APS, June 2012)



Analogy to share regarding emergency contraception

"One way to explain emergency contraception to someone whose plan is to not have a plan, is to liken emergency contraception to the fire department: You are glad you can call the fire department if your house is burning down, but it's much better to have a smoke alarm, fire extinguisher, and a fire prevention plan. House fires are uncommon, so should birth-control failures and subsequent use of emergency contraception as well. The message to push is that pregnancy prevention is a proactive measure." (The Clinical Advisor, June 2011)



Antibiotics that impact the effectiveness of birth control pills-

"Most broad-spectrum antibiotics can inhibit the action of birth control pills. The most notable ones include amoxicillin, erythromycin, penicillin V potassium, tetracycline, clindamycin, and methonidazole. An alternate form of birth control should be used during treatment and for seven days after treatment is finished." (The Clinical Advisor, June 2011)



Misconceptions pregnant patients have about what is considered full term



"A national sample of 650 women who had recently delivered were asked what they believed 'full term' to mean, and how safe delivery was at different gestational ages. When asked when a baby was considered full term, a quarter of the sample (24%) said 34-35 weeks gestation, over half (50.8%) said 37-38 weeks gestation, and only a quarter (25%) correctly

identified 39-40 weeks. Respondents were then asked the earliest point in a pregnancy when it was safe to deliver a baby (in the absence of other health complications requiring early delivery). Among the group, over half (51.7%) said 34-36 weeks gestation, 40.7% said 37-38 weeks, and 7.6% said 39-40 weeks gestation. The American College of Obstetrics and Gynecologists recommends that 39 weeks of gestation is the earliest time to deliver safely. Of all births, 12.3% are pre-

term. Of these, 29% occur at less than 34 weeks gestation and 72% at 34-36 weeks gestation." (Women's Health Care: A Practical Journal for Nurse Practitioners, Vol.10 NO.9 Annual issue 2011. Editor's note: Perhaps the miscalculation is thinking of a pregnancy as nine months and multiplying 4 weeks times nine months and coming up with 36 weeks.

A few practical tips to help lower calories

"It has been said that only 30% of the food we eat is to ease hunger; the remaining 70% is eaten to quell stress, boredom, anger, or to perpetuate a habit. It is important to recognize that individuals eat for reasons other than hunger and that there are other ways to cope with stress boredom, and anger. Almost all of us need to learn portion control. Tip: using a smaller plate can make smaller food portions more appealing. Tip: patients may have greater ease resisting the second helping if the

extra food is kept out of site, or maybe even creating a 'to-go-box' at the restaurant before one starts the meal to resist over eating the extra large portions often provided. This may also help in the lack of urge to clean one's plate when 'food beyond need' is already removed. Tip: confining meals to the kitchen or dining room table to avoid distracted eating is also a way to avoid extra calories." (Women Health Care: A Practical Journal for Nurse Practitioners, Vol.10, No.9, Annual Issue 2011)

Two key points to make regarding treatment for genital warts

"The patient needs to understand two key points before the clinician embarks on therapy (especially if the lesions are few or small): 1) *watchful waiting may be appropriate*, to see if the lesions spontaneously regress, even without therapy. Lesions sometimes resolve spontaneously. It is also possible the lesions will persist or even increase in size and number; and 2) treatment may remove the warts, but it *is not designed for, nor it is capable of, eliminating HPV infection*." (The Female Patient, July 2011)

What a difference a few minutes could make in expanding the exam to include oral screening



“Someone loses their life to oral cancer every hour of every day in the United States. What is disappointing is that the survival rate for oral cancer has not improved in the past 50 years, perhaps because there have not been any major changes in the screening process. In the perfect world every adult should get a oral screen initially and annually. Because of the lack of early detection, the 5-year survival rate is only 30%, but could be 90% when the diagnoses is made early while the patient is still in stage I. *The oral screen is simply to look for any abnormal mouth tissue such as ulcers, masses, or oral lesions.* Oral squamous cell carcinoma accounts for 90% of all oral cancers. Early detection and treatment is often delayed because *pain typically is not a factor* until the lesion has reached a remarkable size. The most common locations are the tongue and floor of the mouth. **Clinical tip: Any lesion lasting for more than two weeks should be suspicious for oral cancer.** Lesions are difficult to see because it is dark inside the mouth, therefore, *65% of oral cancers are not diagnosed until advance stages.* Oral cancer increases with age, and is con-

sidered the eight most common malignancy in the world. Seventy-five percent of all U.S. cases of oral cancer are related to tobacco and alcohol abuse. The other 25% may be associated with sun exposure, human papillomavirus (HPV), and diets low in fruits and vegetables. Given the devastating consequences of delayed diagnosis, and the fact those incidences of oral cancer increase with age, health care providers have a professional obligation to perform oral cancer screening for early detection. Because dental care is not covered by Medicare, but the physician's exam is, it makes sense to incorporate the oral screen into the regular medical checkup. This assures more individuals will be screened and cancer caught earlier so that the chances for survival is increased. The geriatric patient is seven times more likely to have oral cancer. *Only 20% of all adults have ever had an oral exam in their lives regardless of age.* The problem is most medical visits do not regularly include detailed mouth screenings because attention is focused on chronic medical conditions. Things to look for are white patches that cannot be removed by scrapping called leukoplakia. Leukoplakia is the most common premalignant lesion and

should be viewed as well with a high degree of suspicion. Erythroleukoplakia, which is both red and white lesions are the most likely to undergo malignant change. Some adjunctive techniques have emerged in recent years to help facilitate the detection of pre-malignant oral disease, much like what has been used for the past 40 years in detecting abnormal lesions on the cervix. Certain solutions such as acetic acid swished in the mouth in conjunction with a certain light, generates an acetowhite change. There are additional adjunctive techniques, but at a minimum the *oral cavity should be visually screened and any abnormality found should be reassessed in two weeks after the initial discovery to see if the lesion is gone.* If still present after two weeks, the lesion should be referred” (*Journal for Nurse Practitioners*, February 2012)



Sinusitis– to treat or not to treat, that is the question

“Although the vast majority of sinus infections are caused by viruses, when bacteria is the cause, antibiotics *should* be used. This information comes from new guidelines issued by the Infectious Disease Society of America and is available at www.idsociety.org. The guidelines provide specific characteristics to help distinguish between viral and bacterial sinus infections. According to the guidelines, a sinus infection is likely to be caused by bacteria rather than a virus if any of the three following conditions are present: (1) symptoms last for at least 10 days without any evidence of clinical improvement; (2) symptoms are severe, including fever of 102F or higher, and nasal discharge and facial pain enduring for at least three to four consecutive days at

the beginning of the illness; and (3) symptoms worsen, as characterized by a new fever or headache developing or nasal discharge increasing, typically after a viral upper respiratory infection that lasted five to six days and initially seemed to improve. (The *Clinical Advisor*, May 2012)



Cutaneous angiosarcoma– aggressive and deadly

“Angiosarcoma (AS) is a group of rare malignant sarcomas originating from neoplastic transformation of vascular endothelial cells. Most are very aggressive with a high rate of metastasis and death. Although they may arise in almost any organ, the skin and soft tissue are most commonly found to be the primary site. The tumor initially appears as an ill defined bluish macule that is often mistaken for a bruise or cellulitis. With time, the tumor grows and evolves into an indurated bluish nodule or plaque that is usually asymmetric, nodular, or ulcerated. Spontaneous localized bleeding, satellite nodules, intratumoral hemorrhage, and a peripheral erythematous ring are other distinguishing features of AS of the head and neck. Systemic bleeding or altered coagulation are ominous signs, and usually indicative of metastases.” (Editor's note: The pictures of angiosarcoma look so *much like* things one sees often, that it is alarming this could so easily not receive the quick attention it deserves. At which point do you not just refer anything and everything?)





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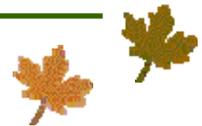
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Methamphetamine use in pregnancy- Human studies suggest that children exposed to Meth in utero are more likely to exhibit aggressive behaviors, delays in language and math skills, difficulty with physical fitness activities, and poorer visual recognition memory. Newborns exposed to meth are 3.5 times more likely to be small for gestational age than are non-exposed infants. Small for gestational age infants are at increased risk for asphyxia in utero, aspiration at birth, hypothermia, polycythemia, congenital malformations, continued growth difficulties, and cognitive difficulties. Clinicians must remember that users most often abuse other substances, including alcohol and tobacco, and have co-morbid psychosocial problems, all of which can affect outcomes, making it difficult to determine the impact of meth alone. (*The Clinical Advisor*, May 2012)

Tanning one's life away- "Teens need to be told that cancer that grows on the skin is no less devastating than cancer that grows in the lungs, bones, or brain. One person dies every 62 minutes from melanoma, which is the second most common cancer. Tanning increases a teen's risk of melanoma by 75%. Parents warn kids of drugs and alcohol, but fail when it comes to the dangers of tanning." (*The Clinical Advisor*, May 2012)

Visit to visit variability in systolic blood pressure and the link to stroke- Despite current assumptions that one's systolic blood pressure varying from visit to visit does not require attention, studies show that patients with the most variation of systolic blood pressure over the course of seven clinic visits were six times more likely to have a stroke. (*The Clinical Advisor*, May 2010)

Legal reminders– 3 minutes can make a difference



"The research is clear, the relationship we have with a patient is the biggest risk and the biggest protection against a malpractice claim. Effective communication is a preventive tool. In reviewing depositions on why plaintiffs decide to bring a malpractice action, it is the *process* of the care, rather than the bad *outcome* that seemed to determine the decision to file a claim. Researches then compared the data of primary care physicians who had never had a claimed filed against them. The differences is that providers who seemed to have the greatest satisfaction from their patients appeared to better educate patients on what to expect, used more humor, had better communication skills in general, made sure patients understood their instructions, and spent an average of 3.3 more minutes with the patient. In addition to communication, the next key words are documentation and follow-up. *If a patient complains of a potentially serious complaint at one visit but does not mention it the next visit, it is the duty of the clinician to follow-up on the previous complaint even if the patient does not continue to complain of that symptom.* In addition, for example, if a patient is seen for a breast lump and is followed up with a mammogram and ultrasound with negative results, a follow-up visit should still be scheduled the next month to recheck the lump, and if still present, to be referred to a

specialist regardless of the negative imaging. All telephone conversations should be documented regardless of how trivial the conversation may seem. This documentation may be important later. Be aware that electronic health records document the time you open a note or encounter. This may not reflect when the task was performed. It is also important to record all no shows and canceled appointments. If these are not documented, the provider will have no proof that the patient canceled appointments for follow-up. When a patient cancels an appointment, the receptionist should send a note to the clinician notifying him or her of this cancellation. Without a note, the provider will have no idea that a follow-up booked for an abnormal result was cancelled. Phone calls made to patients to check on symptoms and status should be documented. In addition to constituting good customer service, phone calls demonstrate the conscientious nature of the clinician. Letters sent and calls made to remind the patient of a necessary test should be included in the record or documented as a phone message. Non-adherence and discussions intended to improve adherence should be documented. It may be helpful to record verbal responses such as "I am not going to have a colonoscopy". If a patient refuses to have a particular procedure or screen, have the patient sign a note acknowledging that the discussion

took place and that he or she refused the recommendation. A few lawsuits have also been filed in connection to negligent nondisclosure. Negligent nondisclosure describes a situation in which an abnormality is found, but the patient was not told. All facts to assist the patient in making decisions about the problem need to be discussed and documented. Also, remember breach of confidentiality can take place when patient information is discussed within earshot of others. It can be a breach of confidentiality even if names are not used because it does not always take a name for identification if the patient's situation is recognizable or identifiable. Even discussing a patient's medical information with a family member without signed consent is a breach of confidentiality. When medication is prescribed, inform the patient about the most common side effects and document that this was done. If the medication is associated with sedation, warn the patient and document this as well. According to a recent study, the following four issues are the cause of the majority of cases: 1. Perceived unavailability; 2. Devaluing the patient's or family's views; 3. Poor delivery of medical information; and 4. Failure to understand the patient's perspective. (*Advance for NPs& PAs*, June 2012)