



## Women's greater risk of dying after surgery: Transfusion-related immunosuppression

Women are more likely to die than men after surgery. A new study suggests it may be due to blood transfusion-related immunosuppression. Women tend to have lower hematocrit and hemoglobin than men and therefore are more likely to receive transfusions during surgery. Indeed, the study of Michigan Medicare patients found that women undergoing CABG were 3.4 times as likely to have received blood as men and generally received more units of blood (11.6 vs. 8.1), after accounting for factors such as age, race, and coexisting medical conditions. Patients who received transfused blood were nearly three times more likely to develop an infection than patients who did not (14.6 vs. 4.9 percent).

The prevalence of infection increased with the number of units (U) received during hospitalization from 13.6 percent for 1 to 4 U and 25.3 percent for 5 to 49 U to 30.8 percent for 50 to 99 U and 33.3 percent for 100 U or more. The risk of mortality attributable to female sex was 13.9 percent, but was no longer significant when adjusted for blood transfusion. Also, patients who received a transfusion were 5.6 times more likely to die within 100 days after surgery than those who did not receive a transfusion.

The risks of transmission of various infectious agents from allogeneic transfusion (from another individual with compatible blood type) are generally low. However, the presence of foreign leukocytes in donor blood may suppress the immune system of the recipient. Patients who have received nonleukoreduced blood are at increased risk of postoperative infections and multiorgan failure, explain the Michigan researchers.

The authors note that the United States has not adopted a universal leukoreduction policy and that by 2003, an estimated 70 percent of the nation's blood supply was leukoreduced. However, their findings were based on analysis of Medicare files of 9,218 Michigan patients hospitalized for CABG surgery from July 1, 1997 through September 22,

1998. The study was supported in part by the Agency for Healthcare Research and Quality (HS11540).

*Rogers AM et al Allogeneic blood transfusions explain increased mortality in women after coronary artery bypass graft surgery December 2006 American Heart Journal 152, pp. 1028-1034*

### OB/GYN CCC Editorial

#### Postoperative infection is increased with allogeneic blood during surgery also

While most of our patients are not involved with CABG, per se, many of our inpatients are involved with other surgical procedures, e. g., cesarean delivery, vaginal delivery with repairs, or gynecologic surgery.

The immunosuppressive activity of allogeneic blood has been known since the studies on renal allograft survival were published in the 1970s. Increasing attention has been directed towards the impact of the immunosuppressive effect of allogeneic blood (particularly the leukocyte component) on postoperative infection, tumor recurrence, and nosocomial infection in critically ill patients. This phenomenon has been termed "transfusion-related immunomodulation" (TRIM).

#### Nosocomial infections

The evidence that postoperative infection is increased in patients receiving allogeneic blood during surgery is compelling, though not absolute, as are the data implicating the leukocyte as the "culprit".

In a review of the records of 416 consecutive patients undergoing coronary artery bypass at one medical center, the 64 patients developing postoperative pneumonia and/or wound infection received a significantly higher volume of allogeneic plasma than those not developing infection (mean  $\pm$  SE: 957  $\pm$  181 versus 321  $\pm$  40 mL, respectively). However, on multivariate analysis, which included

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### 2007 National Women's Health and MCH Conference is a huge success

The conference, which last occurred in 2004, was well attended and covered most of the topics that would help departments improve their systems, to improve their outcomes. There were a record number of registrants, e.g., 260, from ITU facilities around the nation. There were internationally known speakers and benchmarks from major public and private organizations. It was such an energizing event that we have already started planning for the next conference, spring of 2009. Please let me know if you want any topics covered.

[nmurphy@scf.cc](mailto:nmurphy@scf.cc)

Now let's make the ACOG / IHS Postgraduate Course in Denver, September 16-19, as much of a success. 'Not too late to register. Contact [YMalloy@acog.org](mailto:YMalloy@acog.org)

#### Also on-line....

Subscribe to the listserv and receive reminders about this service. If you have any questions, please contact me at [nmurphy@scf.cc](mailto:nmurphy@scf.cc)

Dr. Neil Murphy  
Ob/Gyn-  
Chief Clinical Consultant (C.C.C.)

# IHS Child Health Notes

*“It doesn’t matter if the cat is black or white as long as it catches mice.”*

—Deng Hsiao P’ing (1904–1997)

## Quote of the month

*“I am dying with the help of too many physicians”*

—Alexander the Great, on his deathbed

## Articles of Interest

**Prevention of infective endocarditis: guidelines from the American Heart Association: a guideline from the American Heart Association Rheumatic Fever, Endocarditis and Kawasaki Disease Committee, Council on Cardiovascular Disease in the Young, and the Council on Clinical Cardiology, Council on Cardiovascular Surgery and Anesthesia, and the Quality of Care and Outcomes Research Interdisciplinary Working Group.**

*J Am Dent Assoc.* 2007 Jun;138(6):739-45, 747-60.

<http://dx.doi.org/10.1161/CIRCULATIONAHA.106.183095>

This is the first time that prophylaxis for infective endocarditis has been written using evidenced based guidelines. The difference is significant.

Overall the guidelines are much simpler and the need for antibiotic prophylaxis is greatly reduced. Reviewing numerous studies the workgroup determined that the overall risk of transient bacteremia is far greater in everyday activities such as tooth brushing and dental flossing than it is from dental procedures. They also acknowledge that recent studies show that even in the best of circumstances that antibiotic prophylaxis often fails to prevent infective endocarditis. They point out for patients without significant cardiac risk factors undergoing routine dental work that the overall risk of anaphylaxis and death is probably greater from reactions to antibiotics than the risk of death from infective endocarditis without the use of prophylactic antibiotics.

They recommend that only high risk patients need prophylaxis. They listed patients with the following: previous infective endocarditis, prosthetic cardiac valves, unrepaired congenital heart disease and surgically repaired hearts with prosthetic materials or residual defects. Prophylaxis is no longer required for mitral valve prolapse or any gastrointestinal or genitourinary procedure. the complete text can be read at the URL above.

### Editorial Comment

Another case in which less is more. Previous guidelines were based on expert opinion and fear. Numerous studies in the past decade have shown that the risk of infective endocarditis is less than expected from dental procedures. Share these guidelines with your colleagues in dentistry.

## Infectious Disease Updates.

**Rosalyn Singleton, MD, MPH**

**RPMS Immunization Package: Version 8.2 coming this summer**

A new version of the RPMS Immunization Package will be out soon.

Here are the important new tools for providers included in this update:

1. Human Papillomavirus (HPV) vaccine forecasting: Version 8.2 provides two forecasting options for HPV vaccine. Facilities can forecast HPV vaccine for 11-18 year old or 11-26 year old females.
2. New Adolescent Report: provides immunization coverage rates for single vaccines (HepB, HepA, Td/Tdap, MMR, Varicella, MeningCV4, Influenza and HPV vaccines) and combinations (e.g., 3HepB, 2MMR, 1Var, 1Td/ap) for adolescents 11-17 years old with 2 visits in the past 3 years.
3. New Lot Number Inventory System: A new inventory system monitors vaccine stock by lot number. When the pharmacist enters a new lot number, they will input the expiration date, starting number of doses, and unused doses. The “doses unused” decreases each time an immunization of that lot number is entered into RPMS. Providers get an alert notice if they enter an expired vaccine lot or the supply is low.
4. Meningococcal conjugate 4-valent (meningCV4, Menactra) forecasting is changed to forecast for all 11-15 year olds.
5. New forecasting options: Versions 1, 3, 5, 7, 9 and 11 forecast the first vaccines series at 6 wks; the others beginning at 2 months. All versions forecast Rotavirus at 2 (6 wks), 4, and 6 months, Hep A starting at 15 months, and Influenza between Sept and March for infants 6-59 months. Option 11 does not forecast Hep A or Hep B in persons over 18 years, regardless of prior doses. All options forecast Tdap, MCV4, and HPV for adolescents per ACIP recs. For each of the options, the site can choose to use or not to use the 4 day grace period. The options are:

Option	6 Mths	12 Mths	15 Mths
1) ....	IPV	Hib, MMR, Pn, Var	DTaP
2) ....	....	Hib, IPV, MMR, Pn, Var	DTaP
3) ....	IPV	DTaP, Hib, MMR, Pn, Var	....
4) ....	....	DTaP, Hib, IPV, MMR, Pn, Var.	
5) ....	IPV	Hib, MMR, Var	DTaP,Pn
7) Comvax	IPV	DTap, HepB, Hib, MMR, Pn, Var	
9) Comvax	IPV	HepB, Hib, Var, MMR	DTaP,Pn
11) ....	IPV	Hib, MMR, Pn, Var	DTaP

Figure 1-1: Screenshot of vaccine forecasting options

6. Additional tools added in the recent Version 8.1\*1 patch:
  - a. Forecasting for Rotavirus (rota-pent, RotaTeq®) vaccine for all infants at 2 months (or 6 weeks), 4 months and 6 months.
  - b. Influenza vaccine routinely forecast for children 6-59 months
  - c. 2nd dose of Varicella forecast at 4-18 years

## Recent literature on American Indian/ Alaskan Native Health

**Doug Esposito, MD**

In this issue of the IHS Child Health Notes, I will highlight two articles that report data on substance abuse in Native American communities. It is no secret that substance abuse poses a serious threat to the health of children, youth, families, and communities all across the nation. However, there is evidence to suggest that substance abuse might pose an even greater threat to AI/AN populations. The two studies being reviewed use different methods to investigate specific aspects of substance abuse in distinct and diverse Native American communities. Together, I believe these reports help shed considerable light on this extremely important subject.

**Whitesell NR, Beals J, Mitchell CM, Novins DK, Spicer P, O'Connell J, Manson SM. Marijuana initiation in 2 American Indian reservation communities: comparison with a national sample.**

*Am J Public Health. 2007 Jul;97(7):1311-8.*

### Editorial Comment

The authors assess risk of marijuana (MJ) initiation in two birth cohorts (birth between 1944-1959 and between 1960-1976) in two distinct tribal communities (Northern Plains and Southwest), and compare these data with a national sample. Overall, findings show that MJ initiation follows a similar pattern across study populations. MJ initiation risk peaked at an identical point during adolescence in all groups suggesting that prevention efforts should be focused before and during adolescence. Between birth cohorts, MJ initiation peaked two years earlier in the younger (at 16 years of age) cohort than in the older (at 18 years of age) cohort, consistent with findings from other studies showing that MJ initiation is occurring at a younger age over time. Females were found to use MJ significantly less than males. This gender difference was consistent across sample groups.

There were, however, some disparities in MJ initiation identified. Risk for MJ initiation in the older birth cohort was highest among the national sample, followed by the Plains group, with the Southwest population having the lowest risk. In the younger birth cohort, risk in the two American Indian populations was found to exceed that of the national sample, with the Northern Plains group having the highest and the Southwest group having an intermediate risk for MJ initiation. Although the peak risk was similar in magnitude between the two birth cohorts for the national sample, there was a significant shift upward in risk of MJ initiation at all ages in the younger American Indian birth cohort relative to the older birth cohort, i.e. American Indians born later were significantly more likely to use MJ at each age. As the authors point out, "although the trend toward earlier MJ initiation crossed cultural lines, cohort differences in the degree of risk at each age were apparent only in the American Indian communities." One potential explanation for this finding is the possibility that certain protective cultural factors present in the older AI cohort might have eroded over time and have been less prevalent and therefore less protective in the younger AI birth cohort.

One additional concept strengthened by this report is that of the distinctness of individual Native American cultures. In many studies and national surveys, the reporting of data gathered from Native

Americans is often lumped together under the "AI/AN" designation. This practice represents a gross and potentially dangerous oversimplification, resulting in an incomplete understanding of the Native American experience. Native American cultures are distinct and highly diverse, with varied histories, traditions, customs, and realities. Although there are certainly some commonalities (i.e. poverty, geographic and social isolation, cultural disintegration, inter-generational trauma, limited access to care, etc.), the degree to which these and other factors impact health and influence disease are not uniform. The collective history of each culture has an important impact on health, and the histories of Native Americans are not uniform. For these populations, health status, health problems, and the determinants of health are as diverse and variable as the individual cultures themselves.

In the process of over generalizing, much important information is lost, leading to an incomplete or erroneous understanding of health problems and the eventual generation of ineffectual and poorly focused interventions. More culture-specific information is desperately needed pertaining to Native Americans and their health and wellness, and this study represents a step in the right direction.

**Angstman S, Patten CA, Renner CC, Simon A, Thomas JL, Hurt RD, Schroeder DR, Decker PA, Offord KP. Tobacco and other substance use among Alaska Native youth in western Alaska.**

*Am J Health Behav. 2007 May-Jun;31(3):249-60. [http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=ShowDetailView&TermToSearch=17402865&ordinalpos=7&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed\\_ResultsPanel.Pubmed\\_RVDocSum](http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=ShowDetailView&TermToSearch=17402865&ordinalpos=7&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum)*

### Editorial Comment

This study was based on a medical records review of a sample of 680 children ages 6-18 who presented for a Well Child Assessment in the Yukon-Kuskokwim Delta (Y-K Delta) region in Southwestern Alaska over a 12 month period in 2001-2002. The authors report very high rates of early initiation of tobacco products, which was overwhelmingly in the form of smokeless tobacco (ST). Twenty five percent of the 6-10 year olds in this study report having ever used tobacco. Compare this to a national survey of middle-school students in which only 8.4% reported having smoked their first cigarette before age 11 and only 3.7% of middle-school students reported having used ST before age 11. In the Y-K Delta region/culture, use of a home made form of ST known as "Iqmik" is very common, and although tobacco is not used ceremonially, Iqmik is a culturally sanctioned activity with few adverse health effects perceived by the population.

Although not surprising, the authors also report a steady increase in tobacco use rates with age; rates that are substantially higher than national rates at all ages, and that female use rates were consistently higher than those seen for males. Factors associated with early tobacco use were found to be receipt of offers to use tobacco and maternal tobacco use. No other psychosocial or school achievement factors were found in association as is typically reported in studies of other populations.

Despite the limitations of this study (which are thoroughly described by the authors), this article reports important information that will certainly be of use in developing targeted tobacco prevention interventions in the communities of the Y-K Delta.

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# From Your Colleagues

## Chronic disease and Illness

### Exposing the Great Bottled Water Scam

This University of Alaska at Anchorage Newsletter issue tackles their first environmental health topic: Americans' addiction to bottled water, and it's ramifications for the environment. I think you will be as shocked as I was when you learn more about the size and speed of growth of this social phenomenon. It's hard to believe we are drinking more bottled water than milk, coffee or beer; only carbonated soft drinks are more popular!

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<http://consortiumlibrary.org/hsis/about/newsletters/Jul07.pdf>

## Chuck North, HQE

### Ann Bullock is the new Chief Clinical Consultant for Family Medicine

I am pleased to announce the appointment of Dr. Ann Bullock as the new Chief Clinical Consultant for Family Medicine (CCC-FM).

Dr. Bullock has impressive skills in administration, communication, teaching, and clinical practice. She has served in a national leadership capacity with the Diabetes Program and is a well known speaker. Her understanding and ability to articulate the nature of family medicine and the underlying theoretical framework of modern clinical practice are key factors in this appointment.

It is privilege for me as the Acting Chief Medical Officer and as the CCC-FM for the past 23 years to pass on to Dr. Bullock the lead roll in coordinating activities that we have developed in family medicine. Dr. Bullock will continue directing the Advances in Indian Health CME course, consulting with service units and tribes nationally, and serving on national committees and work groups. Dr. Bullock previously served as the first Deputy CCC-FM and is currently the Medical Director for the Eastern Band of Cherokee.

Dr. Bullock embodies the purpose of the National Council of Chief Clinical Consultants "...to improve American Indian and Alaska Native (AI/AN) health and wellness by providing experienced, expert discipline and specialty medical support and consultation to the Director, IHS, Tribes, Urban Indian health care programs and others involved in AI/AN health care."

Please join me in welcoming Dr. Bullock in her new role.

### You can learn more about Ann at her CCC website

[www.ihs.gov/NonMedicalPrograms/nc4/nc4-fp.asp](http://www.ihs.gov/NonMedicalPrograms/nc4/nc4-fp.asp)

## OB/GYN CCC Editorial

### Ann Bullock new coordinator for the Primary Care Discussion Forum

Dr. Bullock has also just taken over the reins as coordinator for the Primary Care Discussion Forum from Neil Murphy, CCC-OBG after 4 years. The Primary Care Discussion Forum is a highly successful quarterly discussion forum of hot topics with a national subject matter expert moderator.

You can directly converse with the moderator, or with any of you colleagues, on topics of immediate import. The actual discussion, and the many resources that are developed out of the discussion, are then captured and posted at the Primary Care Discussion Forum website.

### Primary Care Discussion Forum

[www.ihs.gov/MedicalPrograms/MCH/F/PCdiscForum.cfm](http://www.ihs.gov/MedicalPrograms/MCH/F/PCdiscForum.cfm)

Please see the many topics that have been discussed to date

[www.ihs.gov/MedicalPrograms/MCH/F/PCdiscForumMod.cfm](http://www.ihs.gov/MedicalPrograms/MCH/F/PCdiscForumMod.cfm)

# Hot Topics

## Obstetrics

### Low-dose aspirin has benefits when used for prevention of pre-eclampsia

**AUTHORS' CONCLUSIONS:** Antiplatelet agents, largely low-dose aspirin, have moderate benefits when used for prevention of pre-eclampsia and its consequences. Further information is required to assess which women are most likely to benefit, when treatment is best started, and at what dose.

*Duley L et al Antiplatelet agents for preventing pre-eclampsia and its complications. Cochrane Database Syst Rev. 2007; (2):CD004659*

OB/GYN CCC Editorial

#### Just cut and paste this into your facility's guidelines

After 12 weeks GA consider prophylactic low dose ASA 81 mg po every day to prevent or decrease severe pre-eclampsia and/or IUGR.

Indicated if:

- Chronic hypertension
- Renal Disease
- Past severe preeclampsia
- Pre-existing diabetes

### Oral Antidiabetic Agents in Pregnancy and Lactation: A Paradigm Shift

**CONCLUSIONS:** Neither glyburide nor metformin has caused developmental toxicity in humans. Glyburide has been used for the treatment of gestational diabetes, and metformin has been used in women with PCOS who eventually became pregnant. Additional trials are needed to better define the benefits and risks of oral antidiabetic agents in pregnancy. Metformin, glyburide, and glipizide appear to be compatible with breast-feeding.

*Feig DS, Briggs GG, Koren G. Oral antidiabetic agents in pregnancy and lactation: a paradigm shift? Ann Pharmacother. 2007 Jul;41(7):1174-80*

OB/GYN CCC Editorial

#### Glyburide is first line agent, while metformin is awaiting more data

Studies of glyburide and glipizide have found little or no transfer of these drugs across the placenta, whereas metformin and rosiglitazone cross readily. Animal studies have found no evidence to suggest that glyburide, glipizide, metformin, or rosiglitazone are teratogenic. In gestational diabetes, glyburide was safe and efficacious; however, 16-19% of women failed to achieve optimal glucose control. No developmental toxicity in infants was observed when metformin was used before and throughout pregnancy in women with polycystic ovarian syndrome (PCOS). Some of the studies involving patients with type 2 diabetes had methodological problems. A randomized controlled trial using metformin for gestational diabetes in the third trimester is underway. The human information is inadequate to evaluate the risk of glipizide or the thiazolidinediones in pregnancy. In breast milk, 3 studies measured nonsignificant amounts of metformin and one study was unable to detect either glyburide or glipizide.

Links to stories at [www.ihs.gov/MedicalPrograms/MCH/M/OBGYN01.cfm](http://www.ihs.gov/MedicalPrograms/MCH/M/OBGYN01.cfm)

## Gynecology

### Liquid prep no more accurate than conventional cytology, RCT

**CONCLUSION:** Liquid based cytology showed no statistically significant difference in sensitivity to conventional cytology for detection of cervical intraepithelial neoplasia of grade 2 or more. More positive results were found, however, leading to a lower positive predictive value. A large reduction in unsatisfactory smears was evident

*Ronco G et al Accuracy of liquid based versus conventional cytology: overall results of new technologies for cervical cancer screening: randomised controlled trial. BMJ. 2007; 335(7609):28*

### Laparoscopically guided minilaparotomy reduces intraperitoneal spillage

**CONCLUSION:** Laparoscopically guided minilaparotomy, when compared with laparoscopy, is able to reduce intraperitoneal spillage in patients with presumably benign large adnexal masses, with minimal increase in patient short- and long-term discomfort. Because data regarding the importance of intraperitoneal spillage during surgery for benign and malignant pathologies, as well as rupture rates during traditional laparotomy, are scarce, traditional laparotomy still represents the standard treatment. In women desiring a minimally invasive strategy for large cysts, laparoscopically guided minilaparotomy should be considered. **LEVEL OF EVIDENCE: I.**

*Panici PB, et al Laparoscopy compared with laparoscopically guided minilaparotomy for large adnexal masses: a randomized controlled trial. Obstet Gynecol. 2007 Aug;110(2 Pt 1):241-8*

## Child Health

### Educate parents about new pre-adolescent vaccine recommendations

The 2007 Pre-Teen Vaccine Campaign was recently launched to increase awareness among parents and health professionals of three new vaccine recommendations for 11- and 12-year-olds. The campaign, launched on August 1, 2007, by the Centers for Disease Control and Prevention (CDC) to coincide with National Immunization Month, also encourages parents to schedule a routine check-up for their children in this age group, as recommended by the American Academy of Pediatrics, the American Academy of Family Physicians, and CDC. The campaign provides educational materials (including posters and flyers in English and in Spanish) about vaccines to protect children from meningitis, tetanus, diphtheria, whooping cough, and cervical cancer. It also includes outreach to mainstream and ethnic media, as well as information on the creation of partnerships with national and state organizations that reach parents and health professionals.

[www.cdc.gov/vaccines/spec-grps/preteens-adol/07gallery/default.htm](http://www.cdc.gov/vaccines/spec-grps/preteens-adol/07gallery/default.htm)

# Features

## ACOG, American College of Obstetricians and Gynecologists

### Prevention of Deep Vein Thrombosis and Pulmonary Embolism

#### Summary of Conclusions and Recommendations

The following recommendations are based on good and consistent scientific evidence (Level A).

- Alternatives for thromboprophylaxis for moderate-risk patients include the following:
  1. Graduated compression stockings placed before initiation of surgery and continued until the patient is fully ambulatory
  2. Pneumatic compression devices placed before the initiation of surgery and continued until the patient is fully ambulatory
  3. Unfractionated heparin (5,000 units) administered subcutaneously 2 hours before surgery and every 12 hours after surgery until discharge
  4. Low molecular weight heparin (dalteparin 2,500 antifactor-Xa units, or enoxaparin 40 mg) administered subcutaneously, 12 hours before surgery and once a day postoperatively until discharge
- Alternatives for prophylaxis for high-risk patients undergoing gynecologic surgery include the following:
  1. Pneumatic compression devices placed before surgery and continued until hospital discharge
  2. Unfractionated heparin (5,000 units) administered subcutaneously 2 hours before surgery and every 8 hours postoperatively and continued until discharge
  3. Low molecular weight heparin (dalteparin 5,000 antifactor-Xa units or enoxaparin 40 mg) administered subcutaneously, 12 hours before surgery and once daily postoperatively until discharge

The following recommendations are based on limited scientific evidence (Level C).

- Alternatives for prophylaxis for highest-risk patients include the following:
  1. Combination prophylaxis (such as the combination of pneumatic compression and either low-dose unfractionated heparin or low molecular weight heparin)
  2. Consideration of continuing low molecular weight heparin prophylaxis as an outpatient for up to 28 days postoperatively
- If administration of low molecular weight heparin 12 hours before surgery is impractical, initial dosing should commence 6–12 hours postoperatively.
- Low-risk patients who are undergoing gynecologic surgery do not require specific prophylaxis other than early ambulation.
- Until more evidence is accumulated, patients undergoing laparoscopic surgery should be stratified by risk category (and provided prophylaxis) similar to patients undergoing laparotomy.

*Prevention of Deep Vein Thrombosis and Pulmonary Embolism. ACOG Practice Bulletin No. 84. American College of Obstetricians and Gynecologists. Obstet Gynecol 2007; 110:429-40.*

## Ask a Librarian

**Diane Cooper, M.S.L.S./NIH**

### Prevent Fetal Alcohol Spectrum Disorders: A Toolkit

A toolkit to help Native communities protect their children from the harm caused by drinking alcohol during pregnancy is now available from the Substance Abuse and Mental Health Services Administration.

The American Indian/Alaska Native/Native Hawaiian Resource Kit is designed to help mothers-to-be and their friends, relatives, health professionals, and leaders understand and prevent fetal alcohol spectrum disorders. FASD describes the range of effects that can occur in an individual whose mother drank alcohol during pregnancy. These effects may include physical, mental, behavioral, and/or learning disabilities with possible lifelong implications.

Each year, at least 40,000 babies are born with an FASD in the United States, and Native communities have some of the highest rates. This new resource will support prevention and treatment efforts in American Indian, Alaska Native and Native Hawaiian communities.

The kit, which was developed and reviewed by representatives from Native communities and FASD experts, includes the following:

- Current data and statistics on FASD
- Fact sheets and brochures for women, men, youth and communities on how to prevent FASD and how to find help
- Strategies for FASD education and prevention
- Posters that can be copied and shared
- FASD--The Basics, a slide presentation for people with no prior knowledge of or experience with FASD
- A CD with an electronic version of the entire resource kit

The American Indian/Alaska Native/Native Hawaiian Resource Kit is available on the Web at:

<http://ncadistore.samhsa.gov/catalog/productDetails.aspx?ProductID=17702>.

Copies may be obtained free of charge by calling SAMHSA's Health Information Network at 1-877-SAMHSA-7 (1-877-726-4727). Request inventory number SMA07-4264.

## Featured Website

### David Gahn, IHS MCH Portal Web Site Content Coordinator New Online Training Tool Available for Treatment of Adolescents with HIV

A new online training program developed for health care providers entitled Treating Adolescents with HIV: Tools for Building Skills in Cultural Competence, Clinical Care, and Support will be launched Monday, July 23. Continuing education credits are available for participating in this training which can be accessed at [www.hivcareforyouth.org](http://www.hivcareforyouth.org)

This project is supported by the Department of Health and Human

Services' Health Resources and Services Administration's HIV/AIDS Bureau. The series begins, and is framed, by an introductory module covering best practices in adolescent care and the impact of the AIDS epidemic on minority youth. The four additional modules in this series: Psychosocial Issues, Antiretroviral Treatment and Adherence, Transitioning Care, and Prevention with Positives address core issues in HIV care for adolescents. The expert authors and editors come from diverse clinical settings around the country, and present course information from the perspective of a culturally aware care provider. Throughout the course, practical tools are provided to assist with "operationalizing" culturally sensitive best practices in the clinic setting.

<http://hab.hrsa.gov/>

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## International Health Update

Claire Wendland, Madison, WI

Sex, Soap & Social Change—

The Sabido Methodology

As anyone who's gotten seriously hooked on a TV drama knows, viewers can start thinking of fictional characters as real, even as friends. Health educators worldwide take advantage of this response by using serial dramas—soap operas—to reach diverse audiences with behavior-change messages through what has come to be called the "Sabido method." Miguel Sabido, a Mexican TV executive in the 1970s, built on the social learning theory of Albert Bandura to produce telenovelas encouraging Mexican couples to use contraception. Sabido's key insight was that television characters could be role models, allowing viewers to learn vicariously from the troubles and successes of others. To work, the shows had to be entertaining, and the audience had to become attached to the characters.

Acompaname, "Come Along," was Sabido's first serial drama to address health. It spared viewers none of the drama for which soaps are famous: infidelities, amnesia, unwanted pregnancies. Among the suffering heroines and evil villains, however, was Martha, the "transitional character" with whom the audience was meant to identify—a fallible but likeable protagonist who envied her sister's small and happy family, and feared sharing the fate of her mother, burdened with too many children and not enough resources. As Martha and her husband tentatively began to use family planning, many of the members of her audience did too. Sales of over-the-counter contraceptives rose nearly twenty-five percent the first year the show was on the air, and there is evidence suggesting that

Acompaname and Sabido's next four telenovelas were important factors in the 34% drop in Mexico's population growth rate over the next few years.

Fine-tuning the shows through audience research is an important part of their design. *Wila Kasta* (an Aymara-language radio show in Bolivia focused on HIV/AIDS and condom use) initially made the mistake of putting prevention messages in the mouth of a Western-trained doctor character. Though handsome, musical, and powerful, he was a far less popular character than anticipated. The show fared better, and the audience paid greater attention, when the same messages came through a grandmother midwife.

The formula for producing such dramas was exported by the mid-1980s, and serial dramas intended to create social change have hit the airwaves in a hundred countries, from Ethiopia (where the radio drama *Yeken Kignit*, "Journey of Life," is credited with tripling HIV-testing rates among listeners) to India (where the musical soap *Tinka Tinka Sukh*, "Happiness Lies in Small Pleasures," convinced at least one village to abolish the dowry system) to Burma (where the military junta has made listening to a shortwave drama on health and civil engagement a treasonous offence). They have addressed topics from literacy to agricultural techniques to women's rights to condom use. In the twenty-first century, the urgent need to interrupt the HIV epidemic has spawned even more shows.

Do they work? It is very difficult to distinguish correlation from causation, and to some extent the jury is still out. After all, people who own a television or radio may also be better off, more comfortable with Western lifestyles, and already more likely to use a condom or get an HIV test than those who don't. What little evidence there is, however, suggests an effect greater than that seen in more traditional public health campaigns. Perhaps it's time to try the Sabido method in the US?

- Readers looking for more can find an overview in *Global Health Watch* at <http://www.global-health.org/reports/>—click on "Sex, Soap & Social Change - The Sabido Methodology."
- The best available summary of evidence on these programs' efficacy is an open-access article from <http://her.oxfordjournals.org>—Bertrand JT, O'Reilly K et al. Systematic review of the effectiveness of mass communication programs to change HIV/AIDS-related behaviors in developing countries. *Health Education Research* 21(4):567-597, 2006.
- Interested in making a serial drama for your own community? You can download a step-by-step guide free from the United Nations Population Fund at [www.unfpa.org/upload/lib\\_pub\\_file/538\\_filename\\_training\\_guide.pdf](http://www.unfpa.org/upload/lib_pub_file/538_filename_training_guide.pdf)

## Information Technology

Save 750 mega watts/hour per year:  
It is easy with Blackle

If Google had a black screen, taking in account the huge number of page views, according to calculations, 750 mega watts/hour per year would be saved.

In response, Google created a black version of its search engine, called Blackle, with the exact same functions as the white version, but with lower energy consumption: <http://www.blackle.com/>

## MCH Headlines

### Judy Thierry HQE

#### Motor vehicle restraint use in American Indian children: Meaningful interventions

Results: Of 775 children age 1-8 years, 29 percent were properly restrained, 30 percent were incorrectly restrained, and 41 percent were completely unrestrained in the vehicle. The strongest associations with proper child restraint use, rather than no restraint use, were seat eligibility (Odds Ratio [OR] for infant seat vs booster seat: 25.1; OR for child seat vs booster seat: 8.7), driver seat belt use (OR: 6.5), and driver relationship to the child (OR for parents vs non-parents: 3.9). Being subject to a state seat belt law was associated with both proper (OR: 4.4) and incorrect restraint use (OR: 6.6), rather than no restraint use, compared to children riding in areas with no law. Being subject to a tribal seat belt law was also associated with incorrect restraint use (OR: 2.4), rather than no restraint use, compared to children riding in areas with no law. The three factors that were differently associated with proper and incorrect restraint use were the child's seat eligibility (OR for infant seat vs booster seat: 15.7; OR for child seat vs booster seat: 7.5), seating position (OR for rear-outboard seated vs front seated: 1.9), and whether or not the child was riding with his or her own parent (OR for parents vs non-parents: 2.9).

Conclusions: AI/AN children are at risk for incorrect and non-use of motor vehicle restraints. Understanding barriers and facilitators to the use of child passenger restraint systems in tribal communities can guide prevention efforts for American Indian communities across the United States. Such interventions might include strategies to get all occupants (adults and children) to use proper restraints; stressing importance of regular use, even for short trips; increase availability of proper seats for all vehicles that children ride in regularly; include training on proper use, not only for parents, but all regular caregivers.

Nicole Smith, MPH

MCH Biostatistician

Northwest Portland Area Indian Health Board  
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#### Toolkit Supports Efforts in Native Communities to Prevent FAS Disorders

The American Indian/Alaska Native/Native Hawaiian Resource Kit is available on the Web at <http://ncadistore.samhsa.gov/catalog/productDetails.aspx?ProductID=17702>.

Copies may be obtained free of charge by calling SAMHSA's (working hours) Health Information Network at 1-877-SAMHSA-7 (1-877-726-4727).

Request inventory number SMA07-4264.

For related publications and information, visit <http://www.samhsa.gov/> and the FASD Native Initiative Web site at <http://fasdcenter.samhsa.gov/nativeinitiative/indexhtmlorflash.cfm>

#### Sister Study seeks more Native women

The study must have 50,000 women participate; and in order to ensure accurate research results representative of the entire U.S. and Puerto Rican population, organizers hope to have at least 750 American Indian participants. As of August, 565 Native women were enrolled in the study. "Breast cancer is the second leading cause of cancer death among Native women, and their five-year survival rate is lower than that of white women," said Sara Williams, the Sister Study's recruitment coordinator in charge of Native recruitment.

Previous breast cancer research has been limited to mostly white women, Williams said, and scientists are hoping to learn a great deal from the study. The participants must be between the ages of 35 and 74, must never have had cancer and must have a sister who was diagnosed with breast cancer.

Because there is so little known about the environmental causes of breast cancer, many women are compelled to join the study to try and help future families. The study was officially launched in 2004 after a few years of planning. Organizers have worked diligently to spread the word of the study, publicizing their intent and creating a user-friendly Web site. Reaching Indian country can be more difficult. "We want the cohort to really be diverse and not have everyone in the study be white and middle-aged and work at a desk job," Williams said. Native women who sign up must be residents of the United States; however, they do not need to give their tribal affiliation.

"Because this is not a study comprised of only Native women, it was never the intention to study any differences in breast cancer risk at a tribal level," Williams said. "There will only be broad analyses done among all Native women generally, regardless of tribal affiliation. Still, so much is going to be learned at this level."

The Sister Study is a long-term research project. When participants sign up, they'll be asked to take part in two hour-long phone interviews in which they'll give detailed information about their medical history, environment and lifestyle. Then, the individual will set up an in-home appointment with a female examiner, who will draw blood and take a urine, house dust and toenail sample.

The participants will receive a kit in the mail that has all the information and questionnaires orga-

## Chronic Illness

### Soda consumption linked with metabolic syndrome

CONCLUSIONS: In middle-aged adults, soft drink consumption is associated with a higher prevalence and incidence of multiple metabolic risk factors.

*Dhingra R, et al Soft drink consumption and risk of developing cardiometabolic risk factors and the metabolic syndrome in middle-aged adults in the community. Circulation. 2007 Jul 31;116(5):480-8.*

nized in tabbed form. After the initial period, the women will then be contacted every year for 10 years to provide updated information, such as any changes to their health.

“You don’t have to take any medicine, you don’t have to go anywhere,” Williams stressed. “You never even have to leave your house ... I think the most important message now is that you just have to step up to the plate and realize that this is really important to do for future generations of women.” Women are not paid for their participation and their motivation to join comes from their desire to contribute to scientific research.

The study is being conducted by the U.S. Department of Health and Human Services through their National Institute of Environmental Health Sciences; and because it is a federally funded program, there isn’t an open-ended budget. “I wish we could say, ‘Join this program and we’ll give you \$500!’ Williams said. “We are at the mercy of people’s good will. To me, it’s almost like a social justice issue. We’re really working hard to encourage these women to enroll because we know so little [about Native breast cancer].”

**To learn more about the study, visit**

[www.sisterstudy.org/English/index1.htm](http://www.sisterstudy.org/English/index1.htm)

**To sign up,**

call toll-free (877) 4SISTER.

## Medical Mystery Tour

### Nausea and Vomiting in Pregnancy

As you recall from last month, we presented 3 case scenarios and then asked 3 questions. Here are the questions. The correct answers and explanations are given below.

#### Editorial Note

This month’s Perinatology Picks CCC Corner submission (See Perinatology Picks online) offers background on Nausea and Vomiting of Pregnancy for these 3 questions. This background is based on the Perinatology Corner CME module on Nausea and Vomiting of Pregnancy

After you peruse this material and answer the questions, you should go to the link directly below, take the Posttest and receive free CME credit. <http://www.ihs.gov/MedicalPrograms/MCH/M/NVP01.cfm>

The module itself has many other available references and links to hundreds of other resources.

#### Case 1

MTB is a 24 y/o G1P0 at 10 weeks by her dates who presents to her first prenatal visit complaining of morning sickness. Her symptoms are not incapacitating, but she would like to feel better. She has tried various herbal teas without much relief. Your most useful recommendation at this initial visit would be:

- reassurance, small frequent intake, pyridoxine (vitamin B-6)
- prescribe a cholinomimetic agent (e.g., metoclopramide)
- prescribe a 5-HT-3 receptor inhibitor (e.g., ondansetron)
- clear liquid diet and bismuth subsalicylate (Pepto-Bismol)

#### Case 2

HB is a 30 y/o G3P2 at 9 weeks by her dates who presents for her first

prenatal visit complaining of nausea with vomiting that lasts pretty much all day, but she is able to keep some food down. She says this has occurred with each of her pregnancies, but this time it is especially troublesome. She has had a small amount of spotting but no cramping. She appears to be well hydrated. Your initial work up at this time should include:

- complete metabolic panel, thyroid functions, amylase and lipase
- electrolytes, alanine aminotransferase, pelvic ultrasound
- upper abdominal ultrasound, H.pylori antigen testing, stool guaiac testing
- no laboratory studies are indicated at this time

#### Case 3

EP is a 19 y/o G1P0 at 11 weeks by her dates who presents to the emergency department complaining of severe nausea and vomiting. She is writhing, appears ill, and is only able to produce a small amount of concentrated urine that is strongly positive for ketones. Your initial management should include:

- oral hydration, mental health consult
- intravenous hydration, admit for parenteral alimentation
- intravenous hydration, nasogastric tube, H2-blocker drip
- intravenous hydration, parenteral anti-emetics

#### Case 1

Correct answer: a

Ms B is a primigravida at 10 weeks who has mild pregnancy associated nausea. It should begin to resolve by 12 weeks as serum HCG levels taper. In the meantime, reassurance that this is a normal pregnancy symptom is appropriate. Dietary modification in the form of small, frequent, usually dry, not fatty, meals is often helpful. Pyridoxine, which is vitamin B6, is the pharmacotherapy that most often is helpful for mild cases such as that described here, and usually has no side effects. If pyridoxine is not helpful for her, she may supplement it with over the counter doxylamine (the ingredient in mild sleep aids such as ‘Sominex’). This combination was formerly marketed as ‘Bendectin®’, which is no longer available, but which is definitely not a teratogen. It may also be supplemented with a phenothiazine or an antihistamine anti-emetic for more severe symptoms, but she should know that these are usually quite sedating. If these interventions are not helpful, metoclopramide or a 5-HT-3 receptor inhibitor, such as ondansetron, can be added, but mild symptoms, such as described, usually will not require these more costly drugs, at least initially. Oral hydration is important, but fasting is not helpful. Bismuth subsalicylate is often helpful for nausea in non-pregnant individuals, but the high dose of salicylate is not recommended during pregnancy, and may also cause constipation.

#### Case 2

Correct answer: b

Ms H is a multiparous woman at 9 weeks with symptoms which are quite distressing, but she is able to accomplish some oral intake and does not appear to be dehydrated. When we aren’t able to offer a great deal therapeutically, we often ‘go overboard’ diagnostically! Such

'mega work ups' for a problem that the patient knows is recurrent each pregnancy is usually not cost-effective. A simple basic workup is helpful however, and might include electrolytes (hypokalemia is the most common abnormality encountered) and a screen for hepatitis. The alanine aminotransferase (ALT, formerly known as SGPT or the serum glutamic pyruvate transaminase) is usually the most sensitive. If it is abnormal, you can investigate further from there. There is usually a history to suggest other gastrointestinal problems (colicky RUQ pain radiating to the shoulder for gallbladder disease, epigastric pain and pyrosis for peptic ulcer disease, a history of ethanol ingestion, etc.). If your initial therapy proves unhelpful and the symptoms become worse or evolve, then more of a GI work up may certainly be indicated later. While nausea and vomiting is not a common symptom of hyperthyroidism, it has somehow become routine to order thyroid functions on these women. If you have read a former 'Perinate's Corner' on thyroid disease in pregnancy, you will recall that these women, who typically have high human chorionic gonadotrophin (HCG) levels, will frequently have an assay for TSH that often returns very low, suggesting hyperthyroidism. This may occur in up to 20% of pregnant women in whom the newer third generation, ultrasensitive TSH assays are obtained. These women may even have a mildly elevated free T<sub>4</sub>, but they will be clinically euthyroid, without tremor, tachycardia, hyperreflexia, or the other signs of hyperthyroidism. Both these biochemical abnormalities will resolve by 18 weeks and anti-thyroid medications should not be started. (They will not help the nausea and vomiting either!) They may cause the fetus, who is totally dependent on its mother's thyroxine until its own gland becomes functional at about 18 weeks, to become hypothyroid, with the accompanying later intellectual deficits. 'Primum non nocere' (first do no harm)!

## Case 2

Correct answer: d

Ms P is a 19 y/o primigravida at 11 weeks with symptoms probably severe enough to be characterized as hyperemesis gravidarum. She is clinically dehydrated and may well need to be admitted. She certainly needs an IV for hydration as she is unlikely to tolerate PO. Despite a common belief that this disorder is largely 'psychological', there is no evidence that these women have any higher incidence of mental health issues than other pregnant women who do not have such severe symptoms. This patient will almost certainly need parenteral antiemetics. Either a phenothiazine or an antihistamine type may be very helpful here. Severe symptoms such as these may also benefit from IV metoclopramide and/or dolasetron or ondansetron. These classes of drugs are usually very effective, but the 5-HT-3 receptor inhibitors are quite costly, usually upwards of \$50 a dose, so they should be reserved for women who are unresponsive to other forms of therapy. Nasogastric suction and therapy aimed at reducing gastric acidity are usually not helpful for this disorder. Further work up may well be indicated in patients such as this who have severe and recurrent symptoms that are not amenable to therapy. Specific therapy can then be tailored to any pathology that may be uncovered. Parenteral nutrition was formerly used in hyperemesis patients who were unable to maintain oral intake, but, as noted above, they have fallen out of favor because of the associated complications.

After you absorb (sic) the material above and the Background in the Perinatology Picks below, you should go to the link directly below, take the Posttest and receive the free CME credit. <http://www.ihs.gov/MedicalPrograms/MCH/M/NVPor.cfm>

## Menopause Management Study Supports HRT Use for Short Term, but Little Benefit in Older Women

**CONCLUSIONS:** Hormone replacement therapy increases cardiovascular and thromboembolic risk when started many years after the menopause. The results are consistent with the findings of the women's health initiative study and secondary prevention studies. Research is needed to assess the long term risks and benefits of starting hormone replacement therapy near the menopause, when the effect may be different.

*Vickers MR et al Main morbidities recorded in the women's international study of long duration oestrogen after menopause (WISDOM): a randomised controlled trial of hormone replacement therapy in postmenopausal women. BMJ. 2007 Aug 4;335(7613):239.*

## Midwives Corner

Lisa Allee, CNM, Chinle

### Group prenatal care reduces preterm births and increases breastfeeding initiation: RCT

**RESULTS:** Mean age of participants was 20.4 years; 80% were African American. Using intent-to-treat analyses, women assigned to group care were significantly less likely to have preterm births compared with those in standard care: 9.8% compared with 13.8%, with no differences in age, parity, education, or income between study conditions. This is equivalent to a risk reduction of 33% (odds ratio 0.67, 95% confidence interval 0.44-0.99, P=.045), or 40 per 1,000 births. Effects were strengthened for African-American women: 10.0% compared with 15.8% (odds ratio 0.59, 95% confidence interval 0.38-0.92, P=.02). Women in group sessions were less likely to have suboptimal prenatal care (P<.01), had significantly better prenatal knowledge (P<.001), felt more ready for labor and delivery (P<.001), and had greater satisfaction with care (P<.001). Breastfeeding initiation was higher in group care: 66.5% compared with 54.6%, P<.001. There were no differences in birth weight nor in costs associated with prenatal care or delivery.

**CONCLUSION:** Group prenatal care resulted in equal or improved perinatal outcomes at no added cost.

**LEVEL OF EVIDENCE:** I.

*Ickovics JR, et al Group prenatal care and perinatal outcomes: a randomized controlled trial. Obstet Gynecol. 2007 Aug;110(2 Pt 1):330-9*

## Navajo News

**John Balintona, Shiprock**

### Evaluation of the pregnant patient for non-obstetric surgery

This is Part one of a two Part series on evaluation of the pregnant patient for non-obstetric surgery.

Nonobstetric surgical conditions that occur during pregnancy require communication between obstetric providers specialists. One large retrospective study cited the incidence of nonobstetric surgical intervention as occurring in roughly 0.75% of pregnancies. The anatomic and physiologic changes that occur during pregnancy can be profound and the obstetric provider should be familiar with the effects that surgical illness can have on pregnant patients. Furthermore, the obstetric provider can be called on to direct the evaluation of a pregnant patient who may require a surgical procedure. The purpose of this paper is to review generalizations for care and offer a rational approach for management. Pre-operative evaluation with specific focus on physiologic changes in the cardiovascular, pulmonary, gastrointestinal, and renal systems will be addressed. Other topics that will be reviewed include laboratory data, imaging techniques, anesthetic and surveillance considerations.

### Maternal Adaptation in Pregnancy

At term, the pregnant uterus can reach a capacity of 500 to 1000 times the capacity of a nonpregnant uterus. The sheer size of this organ may complicate the evaluation of a patient. After the 12th week of pregnancy, the uterus typically has grown out of the pelvis and can be considered an abdominal organ. As the pregnancy progresses and the uterus enlarges, the intestines are displaced laterally and superiorly. This fact is specifically important when evaluating a patient for suspected appendicitis as McBurney's Point is directed toward the right upper quadrant. The growth of the uterus can also be a cause for abdominal pain. Tension is exerted upon the broad and round ligaments that subsequently can be manifested as pain in certain patients.

The large pregnant uterus is known to compress the venous system in the lower half of the body, which can reduce cardiac filling and cardiac output. Placing the patient in the left lateral recumbent position can alleviate this effect. It has been reported that uteroplacental blood flow ranges from 450 to 650 ml/min in term pregnancies. Placental perfusion by maternal blood is dependent in turn upon blood flow to the uterus through the uterine and ovarian arteries; therefore hypoperfusion before, during, and after surgical procedures must be properly addressed.

The resting pulse increases on average 10 to 15 beats per minute during pregnancy. Sinus tachycardia, however, is not considered normal during pregnancy and should be evaluated. The cardiac output of a pregnant patient at rest is markedly increased, in part this is due to increase in maternal weight and increase in basal metabolic rate. Arterial blood pressure in a pregnant individual tends to decrease to a nadir during mid-pregnancy and rises thereafter, however, hypertension in an otherwise non-hypertensive pregnant patient does deserve an evaluation. It is reported that normal pregnancy induces no characteristic change in an ECG other than a slight left axis deviation. The heart is displaced in the thorax to the left and upward due to the elevation of the diaphragm. This in turn leads to an increase in the size of the cardiac silhouette on chest x-ray.

During pregnancy, the diaphragm rises appreciably and the subcostal angle widens, both of which can be seen on plain chest x-ray. This physiologic change affects certain aspects of pulmonary function in these patients, but overall pulmonary function is not impaired during pregnancy. It is known that the tidal volume, minute ventilatory volume and minute oxygen uptake increase as pregnancy advances. It is believed that the increased tidal volume is responsible for the increased perception of breathing in these patients, which may be interpreted as dyspnea. Evaluation of the cardiovascular and pulmonary systems under this circumstance tends to be within normal limits. Normal pregnancy is associated with little change in the respiratory rate, therefore, tachypnea does deserve further evaluation. The lung sounds of a pregnant patient should be similar to a nonpregnant individual and any finding on auscultation should be addressed.

As previously noted, during normal pregnancy the uterus displaces the stomach and intestines. This physiologic change, along with hormonal factors, contributes to the delayed gastric emptying and intestinal transit times in pregnant patients. This condition is especially significant during cases requiring general anesthesia where regurgitation and aspiration is a risk. Pregnancy can induce a focal highly vascular swelling of the gums, known as epulis of pregnancy. Patients with this condition often complain of bleeding when brushing their teeth. An exam of the oral cavity by a qualified provider should rule out most other causes of bleeding gums. This condition usually regresses spontaneously after delivery and pregnancy is not known to promote tooth decay. Hemorrhoids are also common during pregnancy that is caused in large part to constipation and elevated pressure in veins below the level of the enlarged uterus. This condition may regress after delivery and therefore many general surgeons may defer definitive treatment until the postpartum period. Bloody stool or blood from the rectum may be associated with the aforementioned hemorrhoids, but other more serious conditions may exist or result and therefore at a minimum a rectal exam should be performed on these individuals.

The urinary system undergoes a remarkable number of changes during normal pregnancy that need to be recognized when evaluating the pregnant patient. There is a normal dilation of pelvis, calyces, and ureters, which can be shown during ultrasound and IVP. Typically this phenomenon is more evident on the right. In absence of other clinical findings, this should not automatically be interpreted as obstructive uropathy.

Renal length can increase about 1 cm during pregnancy and decrease after delivery should not necessarily be interpreted as parenchymal loss.

### Stay tuned for next month's Navajo Corner for the conclusion which will include discussion of:

Laboratory Data and Imaging Studies and Anesthetic and Operative Considerations

### Questions? Contact John Balintona.

[John.Balintona@ihs.gov](mailto:John.Balintona@ihs.gov)

## Nurses Corner

Sandra Haldane, HQE

### Nursing education scholarship opportunities

I want to alert you to the HRSA web site below where you can get information on nursing education scholarship opportunities.

Questions

[Carolyn.Aoyama@ihs.gov](mailto:Carolyn.Aoyama@ihs.gov)

[www.hrsa.gov/help/healthprofessions.htm](http://www.hrsa.gov/help/healthprofessions.htm)

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## Office of Women's Health, CDC STD Treatment Guidelines—Personal Digital Assistant Version

This point-of-care tool includes the complete 2006 STD Treatment Guidelines. The recommendations for each category have been moved to the top of the screen for efficiency, and the table of contents has been prioritized according to the needs of clinicians.

[www.cdc.gov/std/treatment/PDA/default.htm](http://www.cdc.gov/std/treatment/PDA/default.htm)

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## Osteoporosis SSRI Use in Older Women Linked to Accelerated Hip Bone Loss

**CONCLUSION:** Use of SSRIs but not TCAs is associated with an increased rate of bone loss at the hip in this cohort of older women.

*Diem SJ, et al Use of antidepressants and rates of hip bone loss in older women: the study of osteoporotic fractures. Arch Intern Med. 2007 Jun 25;167(12):1240-5*

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## Patient Information Women's Health Booklets

Colleagues: Below are URLs that will take you to a Medicare site offering patient education materials on women's health topics. For example, one booklet explains the mammogram and provides information about breast health. (24 pages), another answers to commonly asked questions from older women about Pap tests, HPV, and the Medicare benefit for Pap test screening. (2 pages), includes information women need to know about heart disease. (2 pages). There is a charge for these booklets. Link to other CMS women's health publications.

Contact [Carolyn.Aoyama@ihs.gov](mailto:Carolyn.Aoyama@ihs.gov)

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## STD Corner, Lori de Ravello, National IHS STD Program Culture, context, and sexual risk among Northern Plains American Indian Youth

American Indian adolescents have two to four times the rate of sexually transmitted diseases

(STDs) compared to whites nationally, they shoulder twice the proportion of AIDS compared to their national counterparts, and they have a 25% higher level of teen births. Yet little is known about the contemporary expectations, pressures, and norms that influence American Indian youth or how those might be shaped by today's lived cultural experiences, which frustrates attempts to mitigate the apparent disparity in sexual health. This paper used data from focus groups, in-depth interviews, and surveys with American Indian adolescents and young male and female adults from a Northern Plains tribe to contextualize sexual risk (and avoidance). Placing the findings within an adapted indigenist stress-coping framework, we found that youth faced intense pressures for early sex, often associated with substance use. Condoms were not associated with stigma, yet few seemed to value their importance for disease prevention. Youth encountered few economic or social recriminations for a teen birth. As such, cultural influences are important to American Indian sexual health and could be a key part of prevention strategies.

*Kaufman CE et al Culture, context, and sexual risk among Northern Plains American Indian Youth Social Science & Medicine. 64(10):2152-64, 2007 May*

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## Alaska State Diabetes Program Barbara Stillwater

**Within eight years, 75% of adults will be obese or overweight**

An astonishing doubling in American obesity took place in the two decades after the nation's bicentennial, epidemiologists reported.

By 2015, 75% of adults will be overweight or obese, and 41% will be obese. In conclusion, obesity has increased at an alarming rate in the United States over the past three decades. The associations of obesity with gender, age, ethnicity, and socioeconomic status are complex and dynamic. Related population-based programs and policies are needed.

*Wang Y, et al. The Obesity Epidemic in the United States -- Gender, Age, Socioeconomic, Racial/Ethnic, and Geographic Characteristics: A Systematic Review and Meta-Regression Analysis Epidemiol Rev. 2007;29:6-28.*

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## Women's Health Headlines Carolyn Aoyama, HQE

**APN scope of practice: colonoscopy?**

Study Finds Colonoscopy Most Effective Method of Colon Cancer Screening (especially for women!) Colon cancer is the third leading cause of cancer deaths for AI/AN women and the second leading

## Primary Care Discussion Forum

**Ann Bullock,  
Cherokee, NC  
Chronic Kidney Disease:  
CKD is Part of Primary Care!**

Moderator: Andrew Narva, MD

September 4, 2007

- What is the burden of CKD in AI/AN?
- How should CKD patients be identified and followed?
- What should we be doing for CKD patients in the primary setting?
- When should patients be referred?

How to subscribe/unsubscribe to the Primary Care Discussion Forum?

Subscribe to the Primary Care listserv at <http://www.ihs.gov/cio/listserv/index.cfm?module=list&option=list&num=46&startrow=26>

cause of cancer deaths for AI/AN men. Given the prevalence of colon cancer among AI/AN people, one would assume that colonoscopy would be available at the majority of IHS hospitals. This is not the case. Consideration is being given to training interested APNs in colonoscopy.

I have heard from two APNs who include colonoscopy within their scope of practice; one practicing in a Tribal facility and one in a federal facility. If you are interested in broadening your scope of practice to include colonoscopy, please email me. If there is sufficient interest in colonoscopy, I will convene an advisory group to consider this change in scope and the necessary training. Contact Carolyn.Aoyama@ihs.gov

*Schoenfeld P, et al Colonoscopic screening of average-risk women for colorectal neoplasia. N Engl J Med. 2005 May 19;352(20):2061-8*

### Templates for Protocols and Procedures for Maternity Services 2nd Edition

The Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) has developed a reference entitled, "Templates for Protocols and Procedures for Maternity Services". The reference (hard copy and disc) can be used to update intrapartum, postpartum, and newborn protocols and procedures, plus discharge instructions and sample orders.

I have scanned in a few pages of this reference to give you an idea of content. The Division of Nursing at Headquarters will supply any IHS facility with a copy.

Contact Carolyn.Aoyama@ihs.gov

## ACOG

### Sexual Misconduct

**ABSTRACT:** The physician-patient relationship is damaged when there is either confusion regarding professional roles and behavior or clear lack of integrity that allows sexual exploitation and harm. Sexual contact or a romantic relationship between a physician and a current patient is always unethical, and sexual contact or a romantic relationship between a physician and a former patient also may be unethical. The request by either a patient or a physician to have a chaperone present during a physical examination should be accommodated regardless of the physician's sex. If a chaperone is present during the physical examination, the physician should provide a separate opportunity for private conversation. Physicians aware of instances of sexual misconduct have an obligation to report such situations to appropriate authorities.

*Sexual Misconduct. ACOG Committee Opinion*

*No. 373. American College of Obstetricians and Gynecologists. Obstet Gynecol 2007; 110:441-4*

## AHRQ, Agency for Healthcare Research and Quality

### Women: Stay Healthy at Any Age, Your Checklist for Health

The Agency for Healthcare Research and Quality (AHRQ) now has available 2 evidence-based checklists designed to help men and women understand which medical checkup tests they need to stay healthy at any age. Each list uses the US Preventive Services Task Force (USPSTF) recommendations to inform patients about screening tests, preventive medicine, and other healthy lifestyle behaviors.

You can download these checklists for distribution to your patients, by clicking on:

### Women: Stay Healthy at Any Age, Your Checklist for Health

[www.ahrq.gov/ppip/healthywom.htm](http://www.ahrq.gov/ppip/healthywom.htm)

### Men: Stay Healthy at Any Age: Your Checklist for Health

[www.ahrq.gov/ppip/healthymen.htm](http://www.ahrq.gov/ppip/healthymen.htm)

## Breastfeeding

### Cup feeding not be recommended over bottle feeding as a supplement to breastfeeding

**AUTHORS' CONCLUSIONS:** Cup feeding cannot be recommended over bottle feeding as a supplement to breastfeeding because it confers no significant benefit in maintaining breastfeeding beyond hospital discharge and carries the unacceptable consequence of a longer stay in hospital.

*Flint A, et al Cup feeding versus other forms of supplemental enteral feeding for newborn infants unable to fully breastfeed. Cochrane Database Syst Rev. 2007 Apr 18;(2):CD005092*

## Family Planning

### Various Implantable Contraceptives Equally Effective in Preventing Pregnancy

**CONCLUSIONS:** Implanon, Norplant and Jadelle are highly effective contraceptive methods. No significant differences were found in contraceptive effectiveness or continuation. The most common side-effect with all implants was unpredictable vaginal bleeding. Time taken for removal of Implanon and Jadelle was less than that for Norplant. Although this systematic review was unable to provide a definitive answer on relative effectiveness, tolerability and acceptability of contraceptive

## Obstetrics

### Preventive Approach to Cutting Cesarean Delivery Rates Appears Feasible

**CONCLUSIONS:** A preventive approach to reducing cesarean deliveries may be possible. This study found that practitioners who often used risk-guided, prostaglandin-assisted labor induction had a lower cesarean delivery rate without increases in rates of other adverse birth outcomes. Randomized controlled trials of this method of care are warranted.

*Nicholson JM, Yeager DL, Macones G. A preventive approach to obstetric care in a rural hospital: association between higher rates of preventive labor induction and lower rates of cesarean delivery. Ann Fam Med. 2007 Jul-Aug;5(4):310-9.*

[www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=ShowDetailView&TermToSearch=17664497](http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=ShowDetailView&TermToSearch=17664497)

implants in comparison to other contraceptive methods, it has raised issues around the conduct of contraceptive research.

*Power J, French R, Cowan F. Subdermal implantable contraceptives versus other forms of reversible contraceptives or other implants as effective methods of preventing pregnancy.*

*Cochrane Database Syst Rev. 2007 Jul 18;(3):CD001326*

## Child health

### Tobacco Smoke Exposure During Pregnancy Increases Blood Pressure in Infants

Infant offspring of mothers who had smoked during pregnancy had 5.4 mm Hg (95% CI: 1.2 to 9.7; P=0.01) higher systolic blood pressure levels than offspring of mothers who were not exposed to tobacco smoke in pregnancy, taking account of birth weight, infant age, gender, nutrition, and age of mother. No associations were found between maternal exposure to tobacco smoke in pregnancy and diastolic blood pressure. A positive association between maternal exposure to tobacco smoke and heart rate was largely explained by confounding. It can be concluded that maternal exposure to tobacco smoke in pregnancy has a substantial increasing effect on systolic blood pressure in early infancy.

*Geerts CC, et al Tobacco Smoke Exposure of Pregnant Mothers and Blood Pressure in Their Newborns. Results from the Wheezing Illnesses Study Leidsche Rijn Birth Cohort. Hypertension. 2007 Jul 30*

### MCH Alert

#### School based programs decrease rates of violence among adolescents

“On the basis of this evidence, the Task Force on Community Preventive Services recommends the implementation of universal, school-based programs to prevent violent behavior,” state the authors of a report published in a supplement to the August 2007 issue of the American Journal of Preventive Medicine. Violence is widespread and causes considerable morbidity and mortality in the United States. Research has shown that childhood violence is predictive of later violent pathways.

The report summarizes the findings of a systematic review of the effects of universal, school-based programs intended to prevent violent behavior. Information on interpreting and using the recommendation are provided. [http://www.ajpm-online.net/issues/contents?issue\\_key=S0749-3797\(07\)X0126-0](http://www.ajpm-online.net/issues/contents?issue_key=S0749-3797(07)X0126-0)

The other systematic reviews of the effectiveness of selected population-based interventions designed to reduce or prevent violence by and against children and adolescents are available from the Guide to Community Preventive Service at <http://www.thecommunityguide.org/violence/default.htm>

### MCH Headlines

#### One size doesn't fit all: Helmet Safety Poster

Three page poster with chart and narrative matches helmet with activity from CPSC's Neighborhood Safety Network

The Neighborhood Safety Network has a very special poster to share with you this month. In March of this year, the Raffaelli family of San Mateo, Calif., tragically lost their son Casey, 20, after he fell from his skateboard. Casey's parents and uncle have courageously partnered with CPSC to share a powerful safety message about the unquestionable importance of wearing a helmet when out on a bicycle, skateboard, scooter, etc. The visual and written message from the Raffaellis should motivate everyone to “strap a helmet on – it could save your life!”

To honor Casey and to help create a safer community where you live, we ask that you download this poster ([www.cpsc.gov/nsn/helmets.pdf](http://www.cpsc.gov/nsn/helmets.pdf)) and share it with friends, family and neighbors.

### Menopause Management Caffeine Reduces Cognitive Decline in Women

**CONCLUSIONS:** The psychostimulant properties of caffeine appear to reduce cognitive decline in women without dementia, especially at higher ages. Although no impact is observed on dementia incidence, further studies are required to ascertain whether caffeine may nonetheless be of potential use in prolonging the period of mild cognitive impairment in women prior to a diagnosis of dementia.

*Ritchie K, et al The neuroprotective effects of caffeine: a prospective population study (the Three City Study). Neurology. 2007 Aug 7;69(6):536-45*

### Midwives Corner

#### Skin-to-skin care with the father after cesarean birth and its effect on newborn crying and prefeeding behavior

**CONCLUSIONS:** The infants in the skin-to-skin group were comforted, that is, they stopped crying, became calmer, and reached a drowsy state earlier than the infants in the cot group. The father can facilitate the development of the infant's prefeeding behavior in this important period of the newborn infant's life and should thus be regarded as the primary caregiver for the infant during the separation of mother and baby.

*Erlandsson K; et al Skin-to-skin care with the father after cesarean birth and its effect on newborn crying and prefeeding behavior. Birth. 2007; 34(2):105-14*

## Osteoporosis

### Lifestyle Intervention and BMD in Adolescent Girls

Results: Of 228 girls, 113 were randomized to the intervention group. The intervention group had significantly higher BMD at the spine and trochanter regions at one year compared with the control group; they maintained this increase during year 2. The intervention group also had biomarkers for bone turnover that were more consistent with an increase in bone building. Compared with the control group, the intervention group had greater consumption of calcium and fruits and vegetables in both years and vitamin D consumption in the first year. There were no differences between the two groups with regard to soda consumption or exercise rates.

### *(Women's greater risk of dying after surgery..., continued from page 1)*

25 confounding variables (eg, repeated surgery, endotracheal intubation, time on bypass pump), the association between infection and volume of infused allogeneic plasma was no longer statistically significant.

One study compared the incidence of postoperative infection in 50 patients receiving two or three allogeneic transfusions to that in 34 patients treated with autologous transfusions. Infection was much less frequent with autologous transfusions (three versus 32 percent).

Another report found that the incidence of postoperative infection was much lower in patients treated with leukocyte-depleted blood (two versus 23 percent with whole blood). Patients receiving whole blood had decreased natural killer cell function that may have contributed to the development of infection.

### *(Child Health Notes..., continued from page 3)*

#### Additional Reading

Centers for Disease Control and Prevention (CDC). Prevalence of Cigarette Use Among 14 Racial/Ethnic Populations—United States, 1999—2001. *MMWR* 2004;53(03):49-52.

Renner CC, Patten CA, Enoch C, Petraitis J, Offord KP, Angstman S, Garrison A, Nevak C, Croghan IT, Hurt RD. Focus groups of Y-K Delta Alaska Natives: attitudes toward tobacco use and tobacco dependence interventions. *Prev Med*. 2004 Apr;38(4):421-31.

**CONCLUSIONS:** The authors conclude that increasing BMD in adolescent girls can be accomplished through a comprehensive health care-based lifestyle intervention. They note that this study is the first nonschool-based intervention that emphasized self-directed behavior changes.

*DeBar LL, et al. YOUTH: a health plan-based lifestyle intervention increases bone mineral density in adolescent girls. Arch Pediatr Adolesc Med December 2006;160:1269-76*

Several meta-analyses have been performed using slightly different approaches and have yielded conflicting results. Therefore, it is premature at this time to recommend routine use of leukocyte-depleted blood in order to diminish the risk of postoperative infections.

In summary, I am not suggesting that we abandon the successful use of leukoreduction to prevent complications of blood transfusion. Rather I submit that we need to be more circumspect each time we consider a transfusion in our post procedure patients. The risk of post procedure infection and even mortality need to be considered along with the other known risks of contamination with infectious agents, e. g., HIV, hepatitis, etc....when counseling our patients.

*References: Online*

## Announcements from the AAP Indian Health Special Interest Group

### Sunnah Kim, MS

#### Locums Tenens and Job Opportunities

If you have a short or long term opportunity in an IHS, Tribal or Urban facility that you'd like for us to publicize (i.e. AAP Web site or complimentary ad on Ped Jobs, the official AAP on-line job board), please forward the information to indianhealth@aap.org or complete the on-line locum tenens form at [www.aap.org/nach/locumtenens.htm](http://www.aap.org/nach/locumtenens.htm)

## Obstetrics

### No advantage to bulking agent after primary repair of obstetric anal sphincter injury

**RESULTS:** Pain scores were similar in the two treatment groups; but incontinence in the immediate postnatal period was more frequent with the two preparations compared with lactulose alone (32.86% versus 18.18%, P = 0.03).

**CONCLUSIONS:** This study does not support routine prescribing of a stool-bulking agent in addition to a laxative in the immediate postnatal period for women who have sustained anal sphincter injury at vaginal delivery.

*Eogan M et al Randomised clinical trial of a laxative alone versus a laxative and a bulking agent after primary repair of obstetric anal sphincter injury. BJOG. 2007; 114(6):736-40*

## SAVE THE DATES

### IHS/ACOG Obstetric, Neonatal, and Gynecologic Care Course

- September 16–20, 2007
- Denver, Colorado
- Contact Yvonne Malloy at 202-863-2580 or [YMalloy@acog.org](mailto:YMalloy@acog.org)

### 2<sup>nd</sup> National Summit on Preconception Health

- October 29–31, 2007
- Oakland, California
- CDC, March of Dimes
- [www.marchofdimes.com/california/4947\\_24789.asp](http://www.marchofdimes.com/california/4947_24789.asp)

### 2008 National Conference of State Breastfeeding Coalitions

- January 26–28, 2008
- Arlington, VA.
- United States Breastfeeding Committee
- <http://usbreastfeeding.org/>

## Abstract of the Month

- Women's greater risk of dying after surgery: Transfusion-related immunosuppression

## IHS Child Health Notes

- Prevention of infective endocarditis: guidelines from the American Heart Association:
- Infectious Disease Updates—RPMS Immunization Package
- Recent literature on American Indian/Alaskan Native Health—Marijuana initiation in 2 American Indian reservation communities: comparison with a national sample.

## From Your Colleagues

- Chuck North, HQE—Ann Bullock is the new Chief Clinical Consultant for Family Medicine; Ann Bullock new coordinator for the Primary Care Discussion Forum

## Hot Topics

- Obstetrics—Low-dose aspirin has benefits when used for prevention of pre-eclampsia
- Gynecology—Liquid prep no more accurate than conventional cytology, RCT
- Child Health—Educate parents about new pre-adolescent vaccine recommendations

## Features

- ACOG—Prevention of Deep Vein Thrombosis and Pulmonary Embolism
- Ask a Librarian—Prevent Fetal Alcohol Spectrum Disorders: A Toolkit
- Featured Website—New Online Training Tool Available for Treatment of Adolescents with HIV
- International Health Update—Sex, Soap & Social Change—The Sabido Methodology
- Information Technology—Save 750 mega watts/hour per year: It is easy with Blackle
- Chronic Illness—Soda consumption linked with metabolic syndrome
- MCH Headlines—Motor vehicle restraint use in American Indian children: Meaningful interventions
- Medical Mystery Tour—Nausea and Vomiting in Pregnancy
- Menopause Management—Study Supports HRT Use for Short Term, but Little Benefit in Older Women
- Midwives Corner—Group prenatal care reduces preterm births and increases breastfeeding initiation: RCT
- Navajo News—Evaluation of the pregnant patient for non-obstetric surgery
- Nurses Corner—Nursing education scholarship opportunities

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