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New York State Leading the Way in Establishing Guidelines for Oral Care in Pregnancy

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In 2001, a case of a pregnant woman from upstate New York who had difficulty accessing dental care underscored the importance of oral health care. This case spawned increased awareness of issues related to access to care and the need for healthcare delivery systems that promote oral health care during pregnancy. Also brought to the forefront was the tremendous knowledge gap that exists among dentists and obstetricians regarding the safety of dental treatment during pregnancy.

The growing body of knowledge that suggests that there is an association between periodontal infection and adverse pregnancy outcomes highlights the need for guidelines for the oral health care of women of childbearing years. New York State appears to be the first in the country to take such action. In the first initiative of this kind, the New York State Department of Health, Bureau of Dental Health convened a task force of dental and medical experts to develop guidelines on oral health care in pregnancy and early childhood. The expert panel pointed out that “since it is highly unlikely that a sufficient number of studies will be available in the near future to make evidence-based recommendations for all clinical situations, the group relied on expert consensus when controlled studies were not available to address specific issues and concerns”. Despite these limitations, the panel was able to agree on specific advisory statements to assist prenatal care providers and oral health professionals in the care of pregnant women. The panel also included recommendations aimed at improving the oral health of children. The New York State guidelines, entitled “Oral Health Care during Pregnancy and Early Childhood”, have recently been published.

It is appropriate to make oral health an integral part of prenatal care, and it is widely recognized that providing dental care during pregnancy is beneficial for both mother and child. Accordingly, prenatal care providers are encouraged to screen for oral problems and make appropriate referrals to oral health professionals. The task force concluded the following recommendations:

- Pregnancy by itself is not a reason to defer routine dental care and necessary treatment for oral health problems.
- Dental care is safe and effective during pregnancy.
- First trimester diagnosis and treatment, including needed dental x-rays, can be undertaken safely to diagnose disease processes that need immediate treatment.
- Needed treatment can be provided throughout the remainder of the pregnancy; however, the time period between the 14th and 20th week is ideal.
- Oral health care should be coordinated among prenatal and oral healthcare providers.
- Elective treatment can be deferred until after delivery.
- Delay in necessary treatment could result in significant risk to the mother and indirectly to the fetus.

The report also provided specific guidance to the dental community by providing answers to what actions are in the best interest of the pregnant woman. Dentists are urged to:

- Plan definitive treatment based on customary oral health considerations including:
  - ✓ Chief complaint and medical history
  - ✓ History of tobacco, alcohol and other substance use
  - ✓ Clinical evaluation
  - ✓ Radiographs when needed

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- ➢ Develop and discuss a comprehensive treatment plan that includes preventive, restorative and maintenance care.
- ➢ Provide emergency care at any time during pregnancy as indicated by oral condition.
- ➢ Provide dental prophylaxis and treatment during pregnancy, preferably during early second trimester but definitely prior to delivery.

The Food & Drug Administration (FDA) created a drug classification system to help clinicians determine whether a therapeutic agent should be used during pregnancy (Table 1). Most medications prescribed for common diseases can be used with relative safety. It is also important to note that untreated diseases or conditions may pose a greater risk to the mother and fetus than the medications. Most drugs are in category C (66%) or B (19%) while only 0.7% are category A. Table 2 lists drugs that may be used during pregnancy and some that should be avoided.

Perhaps the most useful guidelines addressed by the task force include advice on specific treatment modalities and medications. There has been some confusion on the use of local anesthetics during pregnancy. The task force endorsed the use of xylocaine with epinephrine (2%) which is a category B drug. One should note that mepivicaine 3% is a category C drug. While there is speculation that epinephrine may have an effect on uterine muscle, there have been no scientific studies to confirm this effect on a pregnant woman. The task force also addressed the use of 30% nitrous oxide. The panel endorsed its use when topical and local anesthetics are inadequate. When using nitrous oxide the dentist may wish to consult with the prenatal provider. Precautions should be taken to prevent hypoxia, hypotension and aspiration. Because anatomical and physical changes related to pregnancy have anesthetic implications, most anesthesiologists prefer to use local and regional anesthesia whenever possible.

The task force also addressed the use of radiographs during pregnancy by concluding that diagnostic radiographs are safe during pregnancy and recommended the use of shielding for pregnant women's abdomen and neck. The number of radiographs which should be ordered should depend on the clinical condition, and dentists are urged to follow guidelines issued by the FDA. It is important to note that the guidelines do not need to be altered because of

Table 1
FDA use-in-pregnancy ratings for drugs

Category A — Controlled studies show no risk – Adequate, well-controlled studies in pregnant women have failed to demonstrate risk to the fetus.

Category B — No evidence of risk in humans – either animal studies show risk (but human findings do not) or, if no adequate human studies have been done, animal findings are negative.

Category C — Human studies are lacking and animal studies are either positive for fetal risk or lacking as well. However, potential benefits may justify the potential risk.

Category D — Positive evidence of risk – investigational or post marketing data show risk to the fetus. Nevertheless, potential benefits may outweigh the risk, such as some anticonvulsive medications.

Category X — Contraindicated in pregnancy – studies in animals or humans, or investigational or post marketing reports have shown fetal risk, which clearly outweighs any possible benefit to the patient, such as isotretinoin and thalidomide.

Table 2
Prescription drug use and pregnancy

These drugs <u>may be used</u> during pregnancy

Antibiotics	*FDA Category*
Penicillin	B
Amoxicillin	B
Cephalosporins	B
Clindamycin	B
Erythromycin (except for estolate form)	B

Analgesics	*FDA Category*
Acetaminophen	B
Acetaminophen with Codeine	C
Codeine	C
Hydrocodone	C
Meperidine	B
Morphine	B
After 1st Trimester for 24-72 hours only	
Ibuprofen	B
Naprosyn	B

These drugs <u>should not be used</u> during pregnancy

Antibiotics	*FDA Category*
Tetracyclines	D
Erythromycin in the estolate form	B
Quinolones	C
Clarithromycin	C

Analgesics	*FDA Category*
Aspirin	C

pregnancy. Nevertheless, since it is prudent to minimize radiation at all times and especially during pregnancy, routine dental x-rays, panoramic and cephalometric films may be deferred.

Finally, the guidelines' take away message for the oral healthcare and the prenatal care provider team is that pregnancy in itself is not a contraindication for dental care. There may be other medical conditions concurrent with pregnancy that may alter treatment choices and the timing of dental procedures may best be performed during certain times, but necessary dental care should not be delayed because of pregnancy. In fact, dental intervention during pregnancy may have a very beneficial effect on the health of the mother and fetus. It is incumbent on the oral health and prenatal providers to work as a team to maximize the probability of a good outcome by addressing the oral health needs of the mother.