



# Medical-Dental Integration: A Case Study

Anastasia Coutinho, MD MHS  
While at La Clinica de la Raza

# Pediatric Oral Health



- Child oral health linked to prenatal and newborn oral health
- Vertical transmission of bacterial flora prior to tooth eruption
- Critical importance to future oral health
- Challenges of oral health care for children
  - Parental education of importance of oral health
  - Potentially unfamiliar services for some immigration populations
  - Limited appointment availability
  - Frequent no-shows

# Pediatric Integration

- Screening
  - Embedded in pre-defined note templates (SmartPhrases in Epic)
- Parental Education
  - As part of anticipatory guidance per Bright Futures
- Fluoride Administration
  - Training of medical assistants for fluoride application
  - Creation of handout for take-home knowledge
- Referrals
  - To Dental through an EMR referral (Epic Workqueue)



# Prenatal Oral Health

- Poor oral health linked to perinatal morbidity: preterm delivery, pre-eclampsia, gestational diabetes, etc
- Oral health of the childbearing person linked to child oral health
  - Vertical transmission of bacterial flora prior to tooth eruption
- Challenges of oral health care in pregnancy
  - Education of importance of oral health during pregnancy
  - Frequency of perinatal appointments
  - Limited appointment availability
  - Frequent no-shows





# Prenatal Integration



- Screening
  - Embedded in pre-defined note templates (SmartPhrases in Epic) during prenatal orientation

# Screening Questionnaire

1. Do you currently have a dentist?
2. Have you had your teeth cleaned in the last 12 months?
3. Would you like to be referred to our La Clinica Dental Team?
  - If no, ask: Can we share some information with you about the importance of oral health in pregnancy?
4. Do you have any swollen or bleeding gums, a toothache, mouth pain, problems eating or chewing food, or other problems in your mouth?
5. Do you have any questions or concerns about oral health care or getting oral health care while you are pregnant?

➤ If YES to any of the #4 triggers >> 'Urgent' dental referral

# Prenatal Integration

- Screening
  - Embedded in pre-defined note templates (SmartPhrases in Epic) during prenatal orientation
- Referral
  - To Dental clinic based on screening assessment (urgent v routine) via EMR Referral (Epic Workqueue)
- Parental Education
  - By the prenatal provider: as anticipatory guidance during prenatal orientation, during first prenatal visit, at fluoride administration, during postpartum visit
  - By the dental team: during initial telehealth intake, during dental visit

# Prenatal Integration

- Oral Examination
  - Training / confidence-building via dental in-service at our OB staff meeting with a 3-month refresher
  - Completed at the prenatal intake visit (~12 weeks)
  - EMR phrase for components of oral exam in templates



- Fluoride Administration
  - Benefit for adults in a low-income setting; no clear evidence for fetus
  - Training of our medical assistants for fluoride application via in-service
  - Applied at the 15-18 week visit of pregnancy
  - Creation of handout for take-home knowledge



# Discussion

## Successes

- Medical and Dental providers eager for interprofessional collaboration
- Referrals are sent and received electronically through a system shared by Medical and Dental
- Dental provided several in-services with Medical
- Dental and Medical are co-located

## Challenges

- Medical can't see Dental notes/schedule
- No mechanism for Dental to respond to medical provider for quick concerns
- Medical Assistants questioned their role in oral health
- Medical Assistants' reluctance to do fluoride application
- PCP buy-in and completion of oral exam (and documentation)



# Thanks!

Contact Information:

[anastasia.coutinho@dhcs.ca.gov](mailto:anastasia.coutinho@dhcs.ca.gov)

## Resources

Consortium for Oral Health Systems  
Integration and Improvement (COHSII)

<https://www.mchoralhealth.org/cohsii/>

National Maternal and Child Oral Health  
Resource Center (OHRC)

<https://www.mchoralhealth.org/>

Smiles for Life: A National Oral Health  
Curriculum

<https://www.smilesforlifeoralhealth.org/>

**Additional Slides for Information**

# Dental Referral Order

Insurance: O/P MEDICAL / O/P MCAI RESTRICTED

**General**

Referral #

Type

Priority

Class

Referral Reasons

**Referral Status**

Status

Auth Reason

Auto Assign

Last Updated: 9/7/2023

**Dates**

Referred On

**Referred By/To**

Referred By **CA** AKERA, CHIKA  
LCDLR MONUMENT MEDICAL  
LCDLR Monument

Referred To **LM** LCDLR MONUMENT DENTAL  
Dental

**Open Reason**

Reason

Reason for open

# Dental Referral Workflow

Once referral is placed in the EMR:

- Who schedules the dental appointment for patients with a referral and how?
  - Dental staff review Epic Workqueue and contact patient
- How does the dental clinic prioritize dental referrals for pregnant patients?
  - Appt schedule blocked to reserve space for prenatal pts
- How does the prenatal provider know they made it to the dentist?
  - Dental staff will change the status of the referral in Epic.



# For Those with Outside Dentists

To whom it may concern,  
Advice for Dentists,

@NAME@ is under our medical care for pregnancy. Pregnant patients should have all necessary dental prevention and treatment, including procedures, performed, albeit with appropriate precautions.

Oral health - prevention, diagnosis, and treatment - is crucial during pregnancy and poor oral and dental health can be associated with adverse pregnancy outcomes. For example, abscesses and periodontal disease, are associated with preterm deliveries, low birth weight newborns, and poorer obstetrical health outcomes.

Routine radiographs, if needed, may be done at any time during the pregnancy and should be performed with shielding of the abdomen and thyroid.

Routine procedures, such as scaling/root planning, restoration (amalgam or composite), extractions, or root canals are not harmful to the fetus. If not otherwise contraindicated, she may receive local Category B anesthetics and pain medications at any point in her pregnancy. Inhalation anesthesia (NO) is safe in pregnancy and sedatives may be used with proper monitoring. NSAIDs should be avoided, particularly in the third trimester (after 28 weeks of pregnancy).

Antibiotics may be used during pregnancy. However, flouroquinolones and tetracyclines are contraindicated in pregnancy. Pregnant patients do not require antibiotic prophylaxis for pregnancy alone.

Please call our office with any concerns and thank you for supporting our mutual patient with the health of their pregnancy.

Sincerely,  
@ENCOUNTERPROVIDER@

# Educational Topics Discussed

- Oral health of Mom affects health of baby
  - Poor weight gain, preterm delivery, diabetes control
- Basics of when to call the dentist: warning signs
- X-rays are safe during pregnancy
- Certain anesthesia are safe during pregnancy
- Bacteria in parents' mouth can be transferred to baby before they even have teeth!
- Health dental practices: brushing, flossing, fluoride, regular dental cleanings!



## SEE A DENTIST WHILE YOU ARE PREGNANT



IT IS IMPORTANT TO TAKE CARE OF YOUR TEETH AND GUMS WHILE YOU ARE PREGNANT.

IF YOU HAVE MEDI-CAL, YOU PROBABLY HAVE DENTAL COVERAGE. CALL 1-800-322-6384 FOR MORE INFORMATION ABOUT THIS PROGRAM.

### STEPS TO TAKE

IF YOUR TEETH AND GUMS ARE NOT HEALTHY, YOU AND YOUR BABY CAN HAVE PROBLEMS:

- YOU MAY HAVE PAIN AND TOOTH DECAY
- YOU MAY HAVE BLEEDING GUMS
- YOU MAY LOSE YOUR TEETH
- YOUR BABY MAY BE BORN TOO EARLY AND/OR TOO SMALL
- YOUR BABY MAY GET TOOTH DECAY FROM THE GERMS IN YOUR MOUTH



FOR ALL THESE REASONS, IT IS IMPORTANT TO SEE A DENTIST WHEN YOU ARE PREGNANT.

- IF YOU DO NOT HAVE A DENTIST, ASK YOUR HEALTHCARE PROVIDER FOR A REFERRAL

#### YOU SHOULD:

- BRUSH AND FLOSS EVERY DAY
- SEE A DENTIST FOR A CHECK-UP
- GET YOUR TEETH CLEANED
- GET NECESSARY TREATMENTS FOR DENTAL PROBLEMS

#### YOU SHOULD SEE A DENTIST RIGHT AWAY IF:

- YOU HAVE NOT SEEN A DENTIST IN THE LAST YEAR
- YOU HAVE PAIN IN YOUR MOUTH
- YOUR GUMS BLEED OFTEN
- YOU HAVE LUMPS, SORES, OR ANYTHING UNUSUAL IN OR AROUND YOUR MOUTH



#### DENTAL X-RAYS:

- YOUR DENTIST WILL LIKELY RECOMMEND X-RAYS. X-RAYS ARE USUALLY FINE WHILE PREGNANT. RADIATION FROM DENTAL X-RAYS IS VERY LOW.
- BE SURE TO TELL YOUR DENTIST YOU ARE PREGNANT. YOUR DENTIST MAY COVER YOUR ABDOMEN WITH A PROTECTIVE SHIELD.



## DID YOU KNOW MOUTH PROBLEMS INCREASE DURING PREGNANCY??



### DO I HAVE MOUTH PROBLEMS??

THEY LOOK OKAY...

...BUT MAYBE THEY ARE NOT!!!



**FACT: MOUTH PROBLEMS IN PREGNANCY CAN BE ASSOCIATED WITH COMPLICATIONS LIKE PRETERM & LOW BIRTH WEIGHT BABIES**

Pre-existing conditions may flare up during pregnancy

Pregnancy Granuloma (swelling)



Fistula (gum pimple)



Impacted wisdom tooth



Gingivitis (gum inflammation)



Periodontitis (bone loss)



More than 60% of all pregnant patients have gingivitis

More than 30% of all pregnant patients have periodontitis

**IT IS SAFE TO GET ORAL TREATMENT DURING PREGNANCY. SCHEDULE YOUR DENTAL APPOINTMENT SOON!!**



References: [https://www.cdc.gov/news-and-information/newsroom/a-z/a-z-dental-treating-pregnant-dental-patients-cdc-answers-your-questions/cdc.com/content/1/1/5444?source=8132863120899715401KXPNBQ002613UM/ Wisdom%20tooth%20removal\\_784400.jpg](https://www.cdc.gov/news-and-information/newsroom/a-z/a-z-dental-treating-pregnant-dental-patients-cdc-answers-your-questions/cdc.com/content/1/1/5444?source=8132863120899715401KXPNBQ002613UM/ Wisdom%20tooth%20removal_784400.jpg)  
<https://dentaleducationhub.com/wp-content/uploads/2020/03/Buccal-Surfaces-300x285.jpg> In d.1. Periodontitis. Smiles For Life. Retrieved March 7, 2023, from <https://www.smileforlifecare.com/periodontitis/>  
<https://www.maidenlancental.com/parulis-fistula-dental-abscess-treatment-and-symptoms/> Maidenlancental (2018, August 21). Parulis Fistula: Dental Abscess Treatment and Symptoms. Maidenlancental.com. Retrieved March 7, 2023, from <https://www.maidenlancental.com/parulis-fistula-dental-abscess-treatment-and-symptoms/>  
Pirie, M., Cooke, I., Linden, G., & Irwin, C. (2007). Dental manifestations of pregnancy. The Obstetrician & Gynaecologist, 9(1), 21-26.

<https://images.squarespace.com>

# Oral Health Exam Phrases

User SmartPhrase – ACEXAMORALPREG [1571183]

Do not include PHI or patient-specific data in SmartPhrases.

Calibri Light 11 B Insert SmartText Insert SmartList

Mouth: no\*\*\* evidence of color changes, nodules, or asymmetry on the cheeks, palate, floor of mouth, or tongue; gingiva with {Gingival Exam:75548}, no\*\*\* abscess noted; teeth with {Tooth Exam:75549} plaque, {Tooth Exam:75549} caries, and \*\*\*no broken or missing teeth, pain not\*\*\* noted on exam

- healthy stippling
- localized inflammation/bleeding
- generalized inflammation/bleeding

User SmartPhrase – ACEXAMORALPREG [1571183]

Do not include PHI or patient-specific data in SmartPhrases.

Calibri Light 11 B Insert SmartText Insert SmartList

Mouth: no\*\*\* evidence of color changes, nodules, or asymmetry on the cheeks, palate, floor of mouth, or tongue; gingiva with {Gingival Exam:75548}, no\*\*\* abscess noted; teeth with {Tooth Exam:75549} plaque, {Tooth Exam:75549} caries, and \*\*\*no broken or missing teeth, pain not\*\*\* noted on exam

- no
- mild
- moderate
- severe

Calibri Light 11 B Insert SmartText Insert SmartList

Mouth: no\*\*\* evidence of color changes, nodules, or asymmetry on the cheeks, palate, floor of mouth, or tongue; gingiva with {Gingival Exam:75548}, no\*\*\* abscess noted; teeth with {Tooth Exam:75549} plaque, {Tooth Exam:75549} caries, and \*\*\*no broken or missing teeth, pain not\*\*\* noted on exam

- no
- mild
- moderate
- severe



HEALTHY

**Healthy Features-**

1. Color: Pale pink to brown (as per skin pigmentation)
2. Consistency: Firm and resilient
3. Texture: Stippling, Orange peel appearance
4. Contour: Knife-edge margins

**Healthy Gums & Teeth**



**Concerning Features (look for)-**

1. Redness of gums
2. Swelling
3. Red/White patches on soft tissues
4. Asymmetry

PERIODONTITIS

**Gingivitis/Periodontitis**



**Moderate Periodontitis**



**Advanced Periodontitis**



CARIES

**Dental Caries**



**Advanced Caries**



**Decayed tooth (Root stump)**



OTHERS

**Pregnancy Granuloma**



**Parulis/Fistula**



**Healthy Tongue**



**Oral Lichen Planus**



**References:**

Malderlane dental (2019, August 21). Parulis Fistula: Dental Abscess Treatment and Symptoms. Malderlanedental.com. Retrieved March 7, 2023, from <https://malderlanedental.com/parulis-fistula-dental-abscess-treatment-and-symptoms/> • Pirle, M., Cooke, I., Linden, G., & Irwin, C. (2007). Dental manifestations of pregnancy. The Obstetrician & Gynaecologist, 9(1), 21-26. • Immediate Implant Placement by Interradicular Bone Drilling before Molar Extraction: Clinical Case Report with One-Year Follow-Up. • Zou, J., Meng, M., Law, C. S., Rao, Y., & Zhou, X. (2018). Common dental diseases in children and malocclusion. International journal of science, 10(1), 7. • (2015, December 4). 5 Things You Should Know About Gum Disease (Periodontitis). Estheticdentalpa.com/5-things-you-should-know-about-gum-disease-periodontitis/. Retrieved March 7, 2023, from <https://www.estheticdentalpa.com/5-things-you-should-know-about-gum-disease-periodontitis/> • (2021, July 20). The Risk Of Dental Caries From COVID-19. Yonge Eginton Dental. Retrieved March 7, 2023, from <https://www.yongeegintondental.com/2021/07/20/dental-carries-cavities/> • (n.d.). Periodontitis. Smiles For Life. Retrieved March 7, 2023, from <https://www.smilesforlifeoralhealth.org/topic/periodontitis/> • (n.d.). Tongue Disorders. Medline Plus. Retrieved March 7, 2023, from <https://medlineplus.gov/tonguedisorders.html>



# Provider Fluoride Script

- Having good oral/dental health in pregnancy is important for both you and your baby.
- Having bacteria or infections in the mouth can go through your bloodstream and cause infections during your pregnancy which can lead to preterm births and small babies.
- Having bacteria or infections in your mouth can pass to baby when he/she is born when you kiss and love on them, which can increase their risk of cavities and issues with teeth when they are kids.
- Fluoride application is a way to create strong teeth for you and for your baby – who develop their teeth while they are still in your belly!
- It is very safe for you and your baby and can help both of you!

# Patient Handout

## **Directions for Fluoride After Care for Pregnant Women**

Fluoride varnish was applied to your teeth today. This treatment safely delivers fluoride through a protective coating to the surface of the teeth. Fluoride helps YOU to support strong, healthy teeth, preventing cavities and decay in the future. Decay can cause bacteria to be passed to your baby during kissing and caretaking, which can cause tooth issues in baby as a child. Additionally, fluoride is passed to YOUR BABY through the bloodstream. Baby's teeth are already forming during pregnancy, so this fluoride helps YOUR baby create strong, healthy teeth. To obtain the maximum benefit, please follow these recommendations:

- Do not brush or floss for at least 4-6 hours.
- If possible, wait until tomorrow morning to start brushing and flossing again
- Eat a soft food diet for the rest of today.
- Avoid hot drinks and products containing alcohol for the rest of today.
- You will be able to feel the varnish on your teeth. Once brushing or flossing is re-started, the varnish will be removed from the tooth surface over the next several days.

+ ADD ORDER



After Visit Procedures

Name	Code	Type	Section	Pref List	Re
Application Topical Fluoride Varnish By PHS/QHP	99188	Procedures	Other	SA186 PROCEDURES	

During Visit Orders

# Fluoride Varnish Workflow

Application Topical Fluoride Varnish By PHS/QHP

Accept Cancel

Priority: Routine ASAP STAT After office visit After xray Today Routine Wet Read

Status: Normal Standing Future

Class: Normal Outside Back Office Internal Referral

Quantity: 1 The maximum orderable quantity for this procedure is 999

Comments: Insert SmartText 100%

CC Results: My List PCP Other

Enter recipients

Dx association: = Add

Additional Order Details

Next Required Accept Cancel

Encounter for prophylactic administration of fluoride

Z29.3- Encounter for prophylactic fluoride administration

Need for prophylactic fluoride administration

Preferred

Z29.3- Encounter for prophylactic fluoride administration

Encounter for prophylactic fluoride administration

Preferred

Z29.3- Encounter for prophylactic fluoride administration

Prophylactic fluoride administration

Z29.3- Encounter for prophylactic fluoride administration

Prophylactic fluoride treatment

Z29.3- Encounter for prophylactic fluoride administration

Standard

After Visit

Application Topical Fluoride Varnish By PHS/QHP  
Routine, Normal, Qty-1, Dx: Encounter for prophylactic fluoride administration

Select a pharmacy

Name	IMO Clin-Term	ICD-10 Codes
Declined dental fluoride treatment		Z53.20- Procedure and treatment not carried out because of patient's decision for unspecifi...
Dental fluoride treatment declined		Z53.20- Procedure and treatment not carried out because of patient's decision for unspecifi...