INTER-PROFESSIONAL COMMUNICATIONS: MEDICINE AND DENTISTRY

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OBJECTIVES

- Interprofessional Communications
  - Interprofessional Education
- Oral-Systemic Health Connection
- How Physicians and Dentists communicate
  - Clinical Case Studies
  - Information Mastery
“Health care providers should be ready, willing, and able to work in collaboration to provide optimal health care for their patients. Having informed health care professionals will ensure that the public using the health care system will benefit from interdisciplinary services and comprehensive care.”
INTER-PROFESSIONAL COMMUNICATION AND EDUCATION
What are the merits of inter-professional collaboration?

- Clinical Questions
- Consultations
- Understanding the “whole” patient
- Making informed decisions
- Providing comprehensive care
2nd Report, Committee on the Quality of Health Care in America, 
*Crossing the Quality Chasm*¹:

- Focuses on how the health system can foster innovation and improve care.
- Formulated set of ten rules to inform efforts for health system redesign:

  "10. Cooperation among clinicians is a priority. Clinicians and institutions should actively collaborate and communicate to ensure an appropriate exchange of information and coordination of care.”

Evidence suggests that inter-professional collaboration yields positive outcomes, in acute and primary care settings. 

- Higher patient satisfaction
- Fewer hospital readmissions
- Decreased medical errors
- Improved outcomes among individuals
- Decreased mortality rate among hospitalized patients

Effective methods of communication, both among caregivers and between caregivers and patients, are critical to providing high-quality care.
Importance is recognized by many organizations.

Poor inter-professional collaboration (IPC) can negatively affect the delivery of health services and patient care.
Communication failures are the leading root cause of the sentinel events reported to the Joint Commission from 1995 to 2004.

- Communication failures - leading root cause for medication errors, delays in treatment, and wrong-site surgeries.\(^5\)

- Interventions that address IPC problems have the potential to improve professional practice and healthcare outcomes. (Cochrane)
Challenges exist...

Training of health professionals is often isolated by discipline\(^1\)...
Inter-professional education (IPE) is an educational process that provides health professions students with experience across professional disciplinary lines as they acquire knowledge and skills in subject areas required in their respective educational programs.³

- “Allows students to learn about the training and experiences of other health professionals.”

- “Can play a key role in creating top-performing interdisciplinary teams².”
Potential solution:

- IPE taught to faculty and in health professional schools/curriculum.

- “Academic institutions should ensure that education occurs in an inter-professional environment that emphasizes communication and collaboration among health professional students.”
  - Many committed institutions
  - Conference
RELATIONSHIP BETWEEN ORAL/SYSTEMIC HEALTH
During the last 20 years, extensive research has been published about the relationship of oral infection and inflammation to diseases of tissues and organs at other sites. These connections further establish the importance of inter-professional communications between physicians and dentists.

THE RELATIONSHIP BETWEEN ORAL AND SYSTEMIC HEALTH
Periodontal Disease—clinical complication of diabetes mellitus\(^7\).
- “Bidirectional relationship between diabetes mellitus and periodontitis.”

“Approximately 30 percent of people with diabetes mellitus have undiagnosed diabetes mellitus(2008).”
- Dental offices can help identify undiagnosed diabetes mellitus, which can assist in care of patients with diabetes\(^8\).

Patients with diabetes and associated periodontal disease may experience improved glycemic control with periodontal treatment\(^6\). Evidence is inconsistent.
In addition to DM/periodontal disease there are many other oral-systemic health relationships (oral disease/distant inflammation) that have been evaluated over the years:

- Cardiovascular disease, cerebrovascular disease, respiratory diseases, adverse pregnancy outcomes, among others. 

Interdisciplinary patient care is needed to improve health care practice. 

- Our knowledge about oral-systemic links necessitates collaboration between dental, medical and health insurance professionals.
Diagnosis of systemic disease may occur based on oral findings. This may be done via the Dentist or Physician on routine exams, etc.

- Highlights the importance of health care professionals providing comprehensive care to patients.
  - Also necessitates having certain knowledge
- May allow for early diagnosis and treatment
- Coordination of care with dental or medical subspecialists and referrals should occur as indicated.
Examples include:

- **Mucosal pallor, atrophic glossitis, and candidiasis** - Anemia
- **Oral ulceration** - lupus erythematousus, pemphigus vulgaris, or Crohns disease.
- **Diffuse melanin pigmentation** - early manifestation of Addison disease.
- **Severe periodontal inflammation/bleeding** - diabetes mellitus, human immunodeficiency virus infection, thrombocytopenia, and leukemia.
- **Dental erosion** - GERD, bulimia, or anorexia.
Obtaining dental consultation *before/during* a specific treatment to avoid potential complications:

- Cancer chemotherapy, radiation, bone marrow transplants - consider oral evaluation
- Antibiotic prophylaxis
- Bisphosphonate therapy$^{12}$
HOW DO DENTISTS AND PHYSICIANS COMMUNICATE?


Members from dentistry, medicine, academic community, insurance industry. (July 23-24, ‘07)

Consensus Opinions from Workshop:

- All health care professionals, both medical and dental, need to be aware of established links or associations between periodontal disease and systemic diseases.

- Need for coordination and cooperation between dental and medical health professionals with regard to screening for and diagnosing diseases or conditions that affect patients who traditionally have been cared for by other health care providers. Medical practitioners need to be aware of oral diseases and make appropriate referrals. Dental providers need to be aware of the conditions that may be affected by poor health, seek referrals for their patients when appropriate and be familiar with alterations in patient care necessitated by underlying systemic diseases.

Discussion Points:

1) Teamwork
2) 3-way Communication: Patient-Dentist-PCP
   - Patient needs to be aware of diagnoses
   - PCP/Dentist directly in contact when questions/concerns arise
3) Obtaining consultation
1) Good communication encourages collaboration, fosters **teamwork**, and helps prevent errors.

- Effective teams are characterized by:
  - Common purpose and intent
  - Trust
  - Respect
  - Collaboration^5
SUCCESSFUL TEAMWORK

Table 1

Components of Successful Teamwork

- Open communication
- Nonpunitive environment
- Clear direction
- Clear and known roles and tasks for team members
- Respectful atmosphere
- Shared responsibility for team success
- Appropriate balance of member participation for the task at hand
- Acknowledgment and processing of conflict
- Clear specifications regarding authority and accountability
2) 3-Way Communication: Patient-Dentist-PCP

- Not an abundance of literature about provider-provider communication; more on provider-patient communication:
- Do we communicate enough?
- Send the message/question through the patient?
- Telephone call/message?
- Consult report or summary statement from Dentist or Physician?
  - What should it include? How do we ask clinical questions to get the information needed?
Consultation Form for Pregnant Women to Receive Oral Health Care

Referral to: ___________________________ Date: __________________

Patient Name: (Last) ___________________ (First) ___________________

DOB: __________ Estimated delivery date: ________ Week of gestation today: ______

KNOWN ALLERGIES: ____________________________________________

PRECAUTIONS: □ NONE □ SPECIFY (If any):
________________________________________________________________________

This patient may have routine dental evaluation and care, including but not limited to:

- Oral health examination
- Dental prophylaxis
- Scaling and root planing
- Extraction
- Dental x-ray with abdominal and neck lead shield
- Local anesthetic with epinephrine
- Root canal
- Restorations (amalgam or composite) filling cavities

Patient may have: (Check all that apply)

- Acetaminophen with codeine for pain control
- Alternative pain control medication: (Specify) _____________________________
- Penicillin
- Amoxicillin
- Chloramphenicol
- Cephalosporins
- Erythromycin (Not estolate form)

Prenatal Care Provider: ___________________________ Phone: ________________

Signature: ___________________________ Date: __________________

DO NOT HESITATE TO CALL FOR QUESTIONS

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DENTIST’S REPORT
(for the Prenatal Care Provider)

Diagnosis: ________________________________________________________________

Treatment Plan
________________________________________________________________________

NAME: ___________________________ Date: __________ Phone: __________________

Signature of Dentist: _______________________________________________________

California Dental Association (CDA) Perinatal Oral Health Practice Guidelines, 2010
DEPARTMENT OF
FAMILY DENTISTRY

FAMILY DENTISTRY CLINIC

GENERAL DENTISTS
Brook C.R. Kerr, DDS
M. Reed Parker, DDS

SPECIALISTS
Ann M. Diaz-Arnold, DDS, MS (Pedodontics)
David C. Holmes, DDS, MS (Periodontics)

Michael Spector, DDS, MS
Cheryl Straub-Monrad, DDS

Marcel A. Vargas, DDS, MS (Aesthetic Dentistry)
Richard A. Williamson, DDS, MS (Pedodontics)

Date: ______________________

Patient name: ______________________
Patient address: ______________________
Patient phone: ______________________  Cell phone: ______________________

Requested consultation/treatment:
- [ ] Comprehensive care
- [ ] Limited care only (specify): ______________________
- [ ] Consultation only (specify): ______________________

Comments (including special instructions): ______________________

- [ ] Please return patient for general care to referring dentist.

Appointment:
- [ ] Dr. Diaz-Arnold
- [ ] Dr. Kerr
- [ ] Dr. Spector
- [ ] Dr. Vargas
- [ ] Dr. Holmes
- [ ] Dr. Parker
- [ ] Dr. Straub-Monrad
- [ ] Dr. Williamson
- [ ] Faculty with first available appointment

Radiographs preferred on film or compact disc:
- [ ] Enclosed
- [ ] Patient will bring
- [ ] None provided
- [ ] Will be sent

To e-mail radiographs, send to dent-over@sciences.uiowa.edu and include e-mail: your office name/phone number, patient name/dates of birth, and date radiographs made.

Referring dentist: ______________________
Address: ______________________
Telephone: ______________________  E-mail: ______________________

Please contact Family Dentistry by telephone, Fax, or mail to set up an appointment.

313 Dental Science Bldg, South, Iowa City, Iowa 52242-1001

6/2015
3) Considerations in obtaining a Consult ('84/94)⁷,⁸:

- Assuming the other specialist has the same depth-of-knowledge that we do about the question/issue raised.
- Important to know when consultation is needed, what information must be communicated, and what info is requested.
- The importance of written documentation
- Telephone calls when urgent decision needed
- How do we use Information Mastery techniques to assist in our care of the patient?
CLINICAL CASE STUDIES
CLINICAL CASE 1:

59 year old male with a past medical history of DMII, HTN, HLD, GERD and Allergic Rhinitis presents to his PCP for 3 month DM check-up. Recent HbA1c is 7.8%. He is compliant with his DM medications, has seen opthalmology and podiatry and has been working to lose weight. His last HbA1c was 8.6 three months prior.

His physical exam is relatively unremarkable however visual inspection of the mouth shows diffuse gingival erythema and swelling. In addition, the patient has receding gums with exposure of the root of the tooth.
What Questions Might Arise?

- Does this patient need a dental evaluation? And why?
- What is the risk of hypoglycemia if the patient requires a dental procedure and patient fasting?
  - How is this communicated to the dentist?
  - How can this be managed in the dental office?
- If the patient has hyperglycemia, what procedures need to be in place?
  - Delay any procedures? Which?
- During postop/healing phase- what procedures are in place to ensure good blood sugar control?
  - Will the PCP know when the patient will have procedure?
  - How will dentist and PCP coordinate post-procedure care for the patient?
From a dental perspective, if a patient with no known medical history presents with Periodontal Disease, how can the dentist facilitate evaluation of the patient for DM, etc?

- Advise the patient to see PCP?
- Send correspondence (fax/consult letter) to the patient’s PCP advising on dental findings?
- Give the patient a list of PCP’s in the area if the patient has no PCP?
27 y/o female presents to her PCP’s office for nausea and vomiting. She is 12 weeks pregnant and complains of excessive vomiting for the last couple of weeks. In addition, she complains of swelling and bleeding gums.

Her PMHx, PSurgHx, and Soc Hx are non-contributory and she currently denies taking any medications. She has recently established care with an ObGyn.

On visual inspection of the oral cavity you notice swollen gingivae and some teeth with brown surface enamel and increased opacity.

She would like treatment for her nausea and vomiting and she would like to know what she can do about her gums.
Physiologic changes during pregnancy may result in noticeable changes in the oral cavity. These changes include:

- pregnancy gingivitis
- benign oral gingival lesions
- tooth mobility
- tooth erosion
- dental caries
- periodontitis
Only 22 to 34 percent of women in the United States consult a dentist during pregnancy. Even when an oral problem occurs, only one half of pregnant women attend to it.\textsuperscript{11}

Although most obstetricians acknowledged a need for oral health care during pregnancy, 80% did not use oral health screening questions in their prenatal visits, and 94% did not routinely refer all patients to a dentist (ACOG)\textsuperscript{10}. 

PREGNANCY AND ORAL HEALTH
What Questions Might Arise?

- When and how often should a pregnant patient have preventive dental screenings?
- How can hyperemesis gravidarum affect a pregnant patient’s dental care?
- What antibiotics can be safely used in pregnancy?
  - When are antibiotics indicated?
- Can the patient receive x-rays?
  - If so, when in pregnancy?
- Can tooth extractions or root canals be performed during pregnancy if needed?
  - Is there a specific trimester that is best for this?
- Can lidocaine and other anesthetics with or without epinephrine be used for dental procedures?
HOW DO WE COMMUNICATE?

Best practice?

Ways to communicate:

- Written Consult
- Telephone call
- Fax
- Educating the patient
In addition to communication between physicians and dentists, other resources are needed to provide answers to clinical questions:

Information Mastery...
Health care providers should encourage all women to schedule a dental examination if it has been more than 6 months since their last examination or if they have any oral health problems.

Patients often need reassurance that prevention, diagnosis, and treatment of oral conditions, including dental X-rays (with shielding of the abdomen and thyroid) and local anesthesia (lidocaine with or without epinephrine), are safe during pregnancy.

Conditions that require immediate treatment, such as extractions, root canals, and restoration (amalgam or composite) of untreated caries, may be managed at any time during pregnancy.

Delaying treatment may result in complex problems. Counseling should include reinforcement of routine oral health maintenance, such as limiting sugary foods and drinks, brushing twice a day with fluoridated toothpaste, flossing daily, and dental visits twice a year.

For patients with vomiting secondary to morning sickness, hyperemesis gravidarum, or gastric reflux during late pregnancy, the use of antacids or rinsing with a baking soda solution may help neutralize the associated acid.
REFERENCES


2. Interprofessional Collaboration Led by Health Professional Students: A Case Study of the Inter- Health Professionals Alliance at Virginia Commonwealth University. Journal of Research in Inter-professional Practice and Education Vol. 3.3 February, 2014


6. Oral Manifestations of Systemic Disease. ANGELA C. CHI, DMD; BRAD W. NEVILLE, DDS; JOE W. KRAYER, DDS; and WANDA C. GONSALVES, MD, Medical University of South Carolina, Charleston, South Carolina. Am Fam Physician. 2010 Dec 1;82(11):1381-1388


13. Cochrane Library

14. Dynamed