ORAL and SYSTEMIC DISEASE as it RELATES to the AGING PROCESS

FEBRUARY 6, 2013

ERIC SHAPIRA, DDS, MAGD, MA, MHA
DENTIST/CLINICAL GERONTOLOGIST

eric@drshapira.com
650-619-1251
WWW.AGINGMENTORSERVICES.COM
This course will cover the treatment of older, sometimes medically compromised individuals. We will discuss how oral disease and inflammation can be a direct cause and source of systemic disease. Various treatment modalities and alternative treatment plans will be discussed as well as methods of educating the patient about improving their own care, both at home and by the practitioner. Disease knows no boundaries. It affects all of us when we least expect it. Aging may compound disease processes due to decreased immune response, the lack of understanding and improper oral care as a result of no interest, to an inability to perform care at all.

You will:

• Learn how to recognize what may not be visible to your educated eyes
• Learn about the pathways of oral-systemic disease
• Learn how disease is rampant with statistics about common diseases
• Learn what diseases are prevalent in the aging patient
• Learn how to make choices in treating patients and their oral, systemic disease states
• Learn examination techniques for the older patient
• Learn how to communicate with the older patient
Oral and Systemic Disease as it Relates to the Aging Process

World Health Organization

1998
390 million people > 65 years

2025
780 million people > 65 years

300% increase in
>65 population in
developing countries
Oral and Systemic Disease as it Relates to the Aging Process

Source: Jones et al...International Dental Journal 53:327-334, 2003
Patient Health Factors

- **Age**: As one ages the ability to fight infection diminishes
- **Genetics**: Plays an important part in the long-term health of the patient
- **Diet**: Poor nutrition affects the overall health of an individual
- **Exercise**: Important for all of us to maintain
- **Attitude**: A good attitude is half the battle in overall health, especially mental
- **Knowledge**: Necessary in order to maintain proper care of oneself

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
Patient Health Factors

- **Time**: Affects ability to go for care
- **Money**: Without this modality, care is limited
- **Healthcare Providers**: Necessary for ongoing care; includes facility proximity
- **Products**: Needed to help in providing proper care

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
What is Disease?

- Hidden entities from the average human eye
- 1. A pathological condition of a part, organ, or system of an organism resulting from various causes, such as infection, genetic defect, or environmental stress, and characterized by an identifiable group of signs or symptoms.
- 2. A condition or tendency, as of society regarded as abnormal and harmful.

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
What is a chronic disease?

- Occurs over a long period
- Something that reoccurs
- An physical or psychological entity of persistence, possibly bringing morbidity with it
- A disease manifested from an acute disease which may take a turn for the worse...

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
Chronic Disease

- Diabetes
- Emphysema
- Cancer (Types)
- Lupus
- Pemphigus
- Herpes
- Osteoporosis

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
What is an acute disease?

- A condition of short duration
- An illness that may approach a crisis and then end abruptly
- A disease that can be treated and finds a permanent or temporary remission

Acute Disease

- Common Cold
- Measles, Mumps, Chicken Pox
- Headache
- Flu
- Appendicitis
- Tonsillitis
- Gingivitis
Oral and Systemic Disease as it Relates to the Aging Process

Oral-systemic Disease Implications

- Need for Diagnosis- What is it?
- Where is it?
- How it affects treatment
- Cost may increase for services
- Need decision on how one can tx pt.
- Referral may be forthcoming
- Decision of how it will affect ultimate care
Oral and Systemic Disease as it Relates to the Aging Process

Factors contributing to poor dietary intake among elderly people

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>SOURCES OF PROBLEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problems with food preparation &amp; eating</td>
<td>Visual acuity, joint problems, hand tremors</td>
</tr>
<tr>
<td></td>
<td>Mobility Problems, homebound</td>
</tr>
<tr>
<td>Depression</td>
<td>Isolation, bereavement</td>
</tr>
<tr>
<td></td>
<td>Homebound, disease</td>
</tr>
<tr>
<td>Dementia</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Edentulousism</td>
<td>Disease, loss of taste and sensory perception, depression</td>
</tr>
<tr>
<td>Medications</td>
<td>Diseased appetite, reduced salivary flow</td>
</tr>
<tr>
<td>Dental Disease</td>
<td>Hospitalization, anorexia, nausea, obstruction of G.I. tract</td>
</tr>
<tr>
<td>Institutionalization</td>
<td>Lack of supervision and assistance at mealtimes, lack of food choice</td>
</tr>
<tr>
<td>Oral Problems</td>
<td>Biting &amp; chewing problems, taste perception, lack of confidence about public eating, reduced enjoyment of food</td>
</tr>
<tr>
<td>Reduced Salivary Flow</td>
<td>Medications, sore mouth, oral infections, reduced taste perception</td>
</tr>
</tbody>
</table>

SIGNS OF DISEASE

• REDNESS
• SWELLING
• WARMTH
• WHITE LESION
• RED LESION
• TEXTURE CHANGE
• PAINFUL AREA OR LESION
• NO PAIN
• SOMETHING NOTICEABLE- NOT THERE BEFORE
• CHANGE OR LOSS IN FUNCTION
• LACK OF ENERGY
• LOSS OF APPETITE
• HEADACHE
• UNCONSCIOUSNESS
• LOSS OF BALANCE
• GROWING NEVUS WITH CHANGE OF COLOR OR OTHER GROWTHS
• LOOSENING OF TEETH
• ODOR
• A LESION OR SORE THAT WON’T HEAL

• Source: Lecture Series on Geriatric Dentistry…Eric Shapira, DDS, MAGD, MA, MHA 2013©
RECENT STUDIES HAVE SHOWN....

- ORAL DISEASE CAN HAVE AN AFFECT ON SYSTEMIC DISEASE
- GLASS ET. AL., A STUDY in 2010, J. Prosth. Dent., HAVE SHOWN OVER 900 BACTERIAL AND FUNGAL ORGANISMS HABITATING IN DENTURE BASE MATERIAL
- ORGANISMS THAT COLLECT ON DENTAL MATERIALS AND TEETH ARE A NIDUS FOR INFLAMMATORY BY-PRODUCTS.
- INFLAMMATORY BY-PRODUCTS TRAVEL THROUGH THE BLOOD-STREAM TO ALL PARTS OF THE BODY
- DISEASE IS PREDICATED UPON INFLAMMATION AND EXACERBATION OF INFLAMMATION
- TNF, TISSUE NECROSIS FACTORS, ARE BELIEVED TO BE ONE OF THE CAUSES OF DISEASE AND ARE INSTIGATED BY THE INFLAMMATION PROCESS
- THERE IS A DIRECT RELATIONSHIP BETWEEN ORAL FLORA AND SYSTEMIC DISEASES SUCH AS: HEART DISEASE, DIABETES, KIDNEY DISEASE, FAILED PREGNANCY, BACTEREMIAS, SEPTECEMIAS, PNEUMONIA AND MORE...
New Statistics on Aging Diseases

- Arthritis - by 2020 59 Million people will have rheumatoid diseases over 65 yrs-leading disability over 75 yrs
- Hypertension - 62% over age 55; 63% women over 65 yrs
- Hearing Loss - 29% from 45-64 yrs; 43% over 65 yrs (36 million people affected in US)
- Visual Impairment - 20.5 million adults with cataracts increasing to 30.1 million by 2020
- Diabetes - 20 million adults; will double in next 20 years

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
Alzheimer’s Disease (Dementia)

- Affects 5 million people in US.
- 1 person every 70 seconds!
- Each day 1,232 people affected
- Each week 8,634 people affected
- By 2050 approximately 14 million people affected
- 6th leading cause of death in US
- 5% of men and women 65-74 yrs
- 50% of people over 85 yrs!
- Early onset= familial; Late stage= sporadic form
- People with family Hx are 3x more likely to get it
- Gene testing and cranial scans= Diagnosis

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
Common Diseases of Aging

- **Coronary Heart Disease**: 34% of Deaths in 65-75yr olds **Leading cause of death.** 85% over the age of 85 yrs CHD.
- **Cancer**: Over 65yrs there is a 10-fold increase; 80% of breast CA over the age of 50; 40-50% over 65 yrs have skin Ca at least once. Risk 1 in 2 men and 1 in 3 women.
- **Alzheimer’s Disease**: Begins at 45yrs+; 1 in 4 over 65 yrs. More women than men.
- **Parkinson’s disease**: Affects one in 100 over 60 yrs
- **Stroke**: After 50yrs the rate doubles with each 10 yrs
- **Osteoporosis**: 1 in 4 women over 60yrs, 50% over 75yrs...accounts for 70% of fractures over age 45 yrs
- **Arthritis**: Primarily in older age
- **STD**: Increase of 25-30% in 65yr olds +

Source: Biological Resource of Animals and People, 2006

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013 ©
Smoking is Associated with:

- Pulmonary diseases, including: Pneumonia, Emphysema, Asthma, COPD, & Chronic Bronchitis, Pulmonary hypertension
- Gingivitis and Periodontal Disease, including tooth loss over time
- Oral Cancers
- Lung Cancer
- Death

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
Smoking and Lung Function of Lung Health Study Participants after 11 Years

1. Nicholas R. Anthonisen,
2. John E. Connett,
3. Robert P. Murray and
4. for the Lung Health Study Research Group

American Journal of Respiratory and Critical Care Medicine 9–1–02 Vol. 166 No. 5, 675–679

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
PARTIAL LIST OF DISEASES ASSOCIATED WITH AGING

A

Abrasions and Abfractions of teeth
Alcoholism
Anemia
Aneurysm
Alzheimer’s disease
Apraxia
Arthritis (Osteo, Rheumatoid)
Anxiety and Anxiety Disorder
Asthma

Aging Changes in: Hormone production, skin, sleep, muscle tone, female reproductive system, kidneys, liver, heart, lung function, male reproductive system, nervous system, senses

B

Balance disorder
Bell’s palsy
Blepharitis
Broken Bones
C

Cancer
Caries (Root, Occlusal, Interproximal)
Cataracts, Carotid Artery disease
Chalazion
Colds
Congestive Heart Failure (CHF)
Coronary Artery Disease (CAD)
Conjunctivitis
Chronic Obstructive Pulmonary Disease (COPD)
Corneal Abrasion

D

Dehydration
Depression
Dementia(s)
Diabetes I & II
Dry Eyes
Deep Vein Thrombosis (DVT)
PARTIAL LIST OF DISEASES ASSOCIATED WITH AGING

E

Ear Infections
Emphysema
Eye Disease(s)

F

Failure to Thrive
Falls & Mobility problems
Flu
Fungus Infections

G

Generalized Anxiety Disorder (GAD)
Glaucoma
Gingivitis
Grief

H

Hair Loss
Heart Attack (MI)
Oral and Systemic Disease as it Relates to the Aging Process

PARTIAL LIST OF DISEASES ASSOCIATED WITH AGING

Cont’d

Hearing Loss
Heart Disease(s)
Heart Failure
Hypertension (HBP)
High Cholesterol/Triglycerides
Hip Dislocation
Hip Fracture
Hyperkeratosis-Oral

I, J,

K
Keratosis-Solar, Oral

L
Lichen Planus

M
Macular Degeneration
Malaise
Memory Loss
Menopause
PARTIAL LIST OF DISEASES ASSOCIATED WITH AGING
Cont’d

Muscle Cramps

N

Nail Abnormalities
Neck Fracture
Neuropathy

O

Obesity
Oral Pathology (Tissue soft and hard)
Osteoarthritis
Osteoporosis

P

Pain (Neck, Back, Muscle and Joint)
Paraesthesia
Parkinson’s disease
Periodontal Disease
Pneumonia
Prostate (BPH- Benign Prostatic Hypertrophy)
Prostate Cancer
PARTIAL LIST OF DISEASES ASSOCIATED WITH AGING

Cont’d

Pseudo Bulbar Affect (Neurologic Disease Entity)

R

Rheumatoid Arthritis

S

Sinusitis

Snoring

Spinal Stenosis

STD’s

Stroke

Substance Abuse

Swelling

T

Taste Impairment

Thirst- Absence

Tinnitus

Transient Ischemic Attack (TIA)

Tremor

Trigeminal Neuralgia

U
PARTIAL LIST OF DISEASES ASSOCIATED WITH AGING

Urinary Tract Infections(s)
Urinary Incontinence

V
Varicose Veins
Vertebral Fracture(s)
Vertigo

W
Wheezing
Wrinkles

X
Xerostomia

*2012- Listed Information compiled by Eric Shapira, DDS, MA, MAGD, MA, MHA in association with the University of Pittsburgh Medical Center on Aging

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
How do we maintain the hospital geriatric patient?

- Frequent periodontal recall- what is enough?
- Minimally invasive procedures but esthetic, when possible. Functionality preferred
- Eliminating disease is a priori
- Much consultation and communication- Before, During and After Tx
- Teach the staff how to dentally care for Pt

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
**Maintaining the Hospital Compromised Patient**

1. Continuously update yourself on the patient’s medical condition
2. Make sure you know what the oral and systemic ramifications of dental treatment are or will be within the hospital setting
3. Crosscheck with the medical staff for contraindications to your treatment
4. Get a medical release for dental treatment in writing BEFORE care
5. Make sure you are aware of the possible iatrogenic effects of dental treatment on your medically compromised patient
6. Enlist the help of the hospital staff to care for your patient
7. Teach staff what kinds of procedures you would like them to initiate on a regular basis for you
8. Return at regular intervals to oversee care and provide care
9. Make sure the patient understands the nature of your care. If they do not, then make sure a family member or a caregiver is present who does. Give them a copy of your treatment plan in writing and get written, signed permission to perform your work
   Remember to “inform before you perform!”
10. Benchmark your care with future recall dates and make sure you have a baseline from a recent examination to compare the results of your treatment
11. Do quality control on your work and that of the hospital staff on your patient by using a survey, either written or oral and have them sign it, as well as personal charting the patient record

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
Oral and Systemic Disease as it Relates to the Aging Process

Hierarchy of Needs

From Maslow

- Self-actualization
- Self-esteem
- Love and Belonging
- Safety
- Physiological

Potential to be an individual:
- Teach people to be authentic-aware of self
- Transcend cultural conditioning
- Discover a calling
- Acceptance of self
- Personal needs satisfied
- Teach people how to make good choices

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
STATISTICAL FACT’S

◆ A person turns 50 years old every seven seconds
◆ 1000 people an hour turn 65 years
◆ Fastest growing cohort in America = those over 85 years of age
◆ 150 People/Hour diagnosed with Cancer
◆ Falls are the number one cause of injury and death in the elderly

1-3. U.S. Census Bureau, 2004
4. American Cancer Society, 2010
5. Fall Prevention Association, 2010

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
How Does the Patient’s Personal Loss Affect our Practice?

- Minimal Attention Span
- Can’t Make a Decision
- Hostile
- Avoidance Behavior
- Defensive Behavior
- No eye-contact
- Won’t open their mouth
- Cries Incessantly
- Acts out
- Will not talk
- Mumbles
- Talks to self
- Can’t hear us or see us
- Doesn’t understand us

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
How do we deal with loss?

- We need to **acknowledge it**
- We need to allow people the **time to grieve**
- We need to use **direct communication**, write things down and use active listening techniques when giving instructions
- We need to hold our patients’ hand and we need to **listen**
- **Provide adequate care**...

“No one cares how much you know until they know how much you care!”

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
Sight-Impairment Leads To:

- Frustration
- Distrust
- Depression
- Nervousness
- Anger
- Irritability
- Isolation
- Poor self-esteem
- Need for glasses
- Consider costs
- Larger print
- Bigger models for explanation
- Possible guide dog
- Use of Braille
- Extra care by practitioners

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
Hearing Loss Can Lead To:

- Distrust
- Depression
- Nervousness
- Anger
- Irritability
- Isolation
- Poor self-esteem
- Feelings of Inadequacy
- Feelings of Incompetence
- Feeling marginalized
- Burden to family and others
- Constant maintenance of equipment
- Affordable equipment
- Frustration of provider’s of care
- Extra care by practitioner’s

The Importance of Communication

- Establishes a Bond
- Builds Rapport
- Builds Trust
- Allows for the Expression of Feelings
- Builds Mutual Respect
- Allows for Expression of Wants and Desires
- An exchange of Information

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
Communication is....

- WORDS..... 7%
- BODY LANGUAGE... 38%
- TONE OF VOICE..... 55%

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
Oral and Systemic Disease as it Relates to the Aging Process

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
WHAT TO LOOK FOR IN THE DIAGNOSIS OF
THE GERIATRIC ORAL CAVITY AND HEAD AND NECK

1. H = HEARING
2. E = EYES (MOVEMENT, PERLA, NEVI, SCLERA, COLOR)
3. A = ALIGNMENT (OCCLUSION, EXCURSIVE MOVEMENTS)
4. D = DILUENT (SALIVA - CONSISTENCY/ FLOW)
5. A = ANATOMY (INTRA-ORAL/EXTRA-ORAL LANDMARKS)
6. N = NODES (AURICULAR, CERVICAL, OCCIPITAL, SUBMAND.)
7. D = DEXTERITY (OPENING/CLOSING, EXCURSIVE MOVEMENT)
8. N = NERVOUS SYSTEM (SWALLOWING, TONGUE MOVEMENT)
9. E = ENAMEL (WEAR, CARIES, EROSION, ABRADION, RESTORE)
10. C = CERVICAL GINGIVAL HEALTH/PERIODONTAL DISEASE
11. K = KICK OR GAIT (BODY LANGUAGE, MOVEMENTS)
12. E = EVALUATE
13. X = RADIOGRAPH
14. A = ASSESSMENT
15. M = MANAGEMENT (TREATMENT PLAN)

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
EXAMINATION TECHNIQUE FOR A NEW DENTAL PATIENT AT THE OFFICE... RULES OF ENGAGEMENT

1. PERSONALLY GREET THE PATIENT IN THE RECEPTION ROOM.
2. INTRODUCE YOURSELF, QUESTION THE PATIENT AS TO WHETHER THEY ARE INDEED THE PATIENT IN QUESTION AND ASK HOW THEY WOULD LIKE TO BE ADDRESSED (IE: Mr. Smith of Joe).
3. Take the patient to a relatively quiet private office or your personal private office, if applicable.
4. Thank the patient for being there and choosing you as their new dentist. Make sure they can hear you and see well enough what you will show them.
5. Inform the patient about the nature of the discussion about to ensue. Go over all the forms and what they are all about.
6. Use the addendum form and tell the patient that “these are the really hard questions because no one usually thinks about them.”
7. Go over the history forms with the patient including medical and dental histories.
8. Don’t forget to ask if they are taking any medicines or “pills.” Then ask if they take vitamins or herbal supplements. I explain to the patient that these can all affect the patients overall health and it is important to know what they take on a routine basis.
9. Go back to the treatment room introducing the patient to the staff and the office along the way. Do not walk ahead or behind the patient, but next to them, perhaps holding their arm for support.
10. Once in the operatory, take facial photo and blood pressure and begin the examination process.
11. Ask the patient if it is ok to recline them in the chair. Use touch on the arm or shoulder when you ask and when the chair is being reclined. This is done for reassurance,
12. Be aware of any change in the patients’ body language as the chair is reclined and be prepared to address the patient’s apparent emotions at the time.

13. Tell the patient what you are doing or intend on doing before you do it, in order to assuage any anxiety (most fear comes from not knowing what to expect).

14. Give the patient permission to raise their hand should they wish to stop at any time. Be sure to honor this as it affects the level of trust you will have with the patient.

15. After completing the examination process and any intraoral photos, assess the need to take radiographs and impressions for study models.

16. Give the patient any literature about periodontal disease or TMJ, etc... before leaving them.

17. Tell the patient what to expect at the next visit, the treatment conference.

18. Thank the patient for coming into the office and ask if the experience was a good one for them or if they had any concerns about the exam, yourself, or the assistant (this will help to alleviate any future problems the patient may have in the office).

19. Be sure to shake the patient’s hand when thanking them or touch them gently on the shoulder. Remember ‘touch’ is our most intimate form of communication. Just watch where you touch!

© Dr. Eric Shapira, 2013

Source: Lecture Series on Geriatric Dentistry... Eric Shapira, DDS, MAGD, MA, MHA 2013©
HOW TO HANDLE DEMENTIA PATIENTS...

- DIRECT EYE CONTACT AT EYE LEVEL
- SPEAK LOUDLY AND CLEARLY
- FOCUS
- REPEAT IF NECESSARY
- ASK FOR FEEDBACK
- ASK IF THEY UNDERSTAND YOU
- MAKE DRAWINGS
- ASK THEM TO MAKE A DRAWING
- TAPE RECORD THE SESSION AND GIVE IT TO THEM
- SEE THEM EARLY IN THE DAY
- MAKE SURE THEY HAVE HAD THEIR MEDICATION
- DO NOT OVER MEDICATE THEM OR SEDATE THEM
- MAKE SURE THERE IS A CAREGIVER WITH THEM WHO UNDERSTANDS WHAT YOU ARE TELLING THEM
- USE HUMOR AND KEEP SMILING!

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
Once you have a baseline...

- It protects you
- Gives you a legal record of pretreatment status
- Gives you a reference point
- Gives you information to compare to
- Allows you to work up a diagnosis
- Let’s the patient see what he or she has
- You can use it to plan a treatment strategy
- Will allow the patient something to compare to after treatment
- Gives you the satisfaction of knowing that you have what you need to form an opinion

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013 ©
Questions to Answer When Treatment Planning for Older Patients

♦ PATIENT ATTITUDE: To what degree does the patient desire dental treatment and will he or she give their informed consent to institute treatment?

♦ Quality of Life: How much is the patient affected either physically or emotionally by the dental problem and how will he or she respond to different levels of tx?

♦ Limitations of treatment: How much do existing medical, psychological, or social problems limit the patient’s ability to benefit for treatment?

♦ Iatrogenic Potential: How much possibility is there of creating iatrogenic problems, either by medical emergency, a drug reaction, or a dental problem associated with the projected or accepted treatment plan?
Questions to Answer When Treatment Planning for Older Patients…cont’d

- **Prognosis**: What are the consequences of not treating the dental problem, and how long should the treatment be delayed?

- **Dentist’s Limitations**: Does the doctor have the equipment, skill and experience to provide the appropriate therapy at the appropriate site?

- **Staff Responsiveness**: Does the staff have the training, expertise, knowledge of the patient, and are they able to give emotional support to patient care?

- **Finances**: Does the patient have the appropriate finances for the treatment being planned? How can you make it affordable for the patient? Always have alternative treatment plans...

©Dr Eric Shapira, 2013

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
WORKING WITH COMPROMISED PATIENTS WE NEED TO:

➢ TAKE A GOOD HISTORY
➢ TAKE INTO CONSIDERATION THEIR DISABILITY
➢ ADAPT FOR THEIR EASE AND COMFORT
➢ ASSESS WHAT WE CAN DO TO HELP AND WHAT WE SHOULD NOT DO
➢ TELL THEM THESE THINGS
➢ ADAPT THE CHAIR, ROOM AND ENVIRONMENT FOR OPTIMUM CARE AND COMFORT FOR THEM AND FOR US
➢ MAKE SURE ALL STAFF ARE INFORMED AND TRAINED TO WORK WITH THESE ISSUES
➢ HAVE AN EMERGENCY KIT AND OXYGEN AVAILABLE

©Dr Eric Shapira, 2013

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©

How do we talk about disease to our patient’s after we diagnose it?
First, find out what the patient knows and doesn’t know about dental disease
Second, discuss the signs and symptoms...redness, swelling, discomfort, odor, mobility, etc...
Thirdly, ask them if these are familiar to them...do they recognize these in themselves?
Show them!!!
Working With Compromised Patients We Need To:

- Take a good History
- Take into consideration their disability
- Adapt for their ease and comfort
- Assess what we can do to help and what we should not do
- Tell them these things...
- Adapt
- Make sure everyone is informed and trained
- Have an emergency Kit and oxygen available
- Practice scenarios... **Practice makes Permanence!**
PERCENT OF MIDDLE-AGED ADULTS AND SENIORS HAVING COMMON CONDITIONS:

<table>
<thead>
<tr>
<th>Chronic conditions</th>
<th>ages 45-64</th>
<th>ages 65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arthritis</td>
<td>30%</td>
<td>58%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>30%</td>
<td>50%</td>
</tr>
<tr>
<td>Hearing loss</td>
<td>15%</td>
<td>45%</td>
</tr>
<tr>
<td>Visual impairment</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>23%</td>
<td>35%</td>
</tr>
<tr>
<td>Dementia</td>
<td>10%</td>
<td>46.9%</td>
</tr>
<tr>
<td>Parkinson’s disease</td>
<td>15%</td>
<td>30%</td>
</tr>
</tbody>
</table>

- 50% in 85YR olds and up

©Dr Eric Shapira, 2013

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
## SUMMARY OF ORAL SEQUELAE OF COMMONLY USED GERIATRIC MEDICATIONS

Compiled by Eric Z. Shapira, DDS, MAGD, MA, MHA

<table>
<thead>
<tr>
<th>Drug category</th>
<th>Drug</th>
<th>Oral Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analgesics</td>
<td>Aspirin</td>
<td>Hemorrhage, Erythema multiforme</td>
</tr>
<tr>
<td></td>
<td>NSAIDS</td>
<td>Hemorrhage</td>
</tr>
<tr>
<td></td>
<td>Barbiturates, Codeine</td>
<td>Erythema multiforme, Xerostomia or Ropey saliva</td>
</tr>
<tr>
<td>Anesthetics (local)</td>
<td>Benzocaine, Procaine hydrochloride, Lidocaine</td>
<td>Taste disorders</td>
</tr>
<tr>
<td>Antiarrhythmics</td>
<td>Procainamide</td>
<td>Lupus-like reaction</td>
</tr>
<tr>
<td></td>
<td>Quinidine</td>
<td>Lichenoid mucosal reaction</td>
</tr>
<tr>
<td>Antiarrhythmic, Antipyrrelic</td>
<td>Allopurinal, Auronofin, Colchicines</td>
<td>Taste disorders</td>
</tr>
<tr>
<td>Anti-Asmthmatic (Inhalers)</td>
<td>Advair</td>
<td>Xerostomia, Altered sense of taste</td>
</tr>
<tr>
<td>Anti-inflammatory</td>
<td>Levamisole, D-penicillamine, Phenylbutzone, Salicylates, 5-thiopyridoxine</td>
<td>Taste disorders, lichenoid reaction, oral pigmentation, Vesiculo-ulcerative stomatitis</td>
</tr>
<tr>
<td></td>
<td>Gold salts</td>
<td>Oral candidiasis</td>
</tr>
<tr>
<td>Antibiotics</td>
<td>All</td>
<td>Hemorrhage, Ecchymosis</td>
</tr>
<tr>
<td></td>
<td>Erythromycin</td>
<td>Erythema multiforme, taste disorders</td>
</tr>
<tr>
<td></td>
<td>Penicillin</td>
<td>Erythema multiforme</td>
</tr>
<tr>
<td></td>
<td>Chloramphenicol, Ciprofloxicin, Clindamycin, Dapsone, Isoniazid, Sulfal antibiotics, Tetracyclines</td>
<td>Melanosis</td>
</tr>
<tr>
<td></td>
<td>Minocycline</td>
<td>Brown pigmentation of teeth and tongue</td>
</tr>
<tr>
<td></td>
<td>Chlorhexidine</td>
<td>Taste disorders</td>
</tr>
<tr>
<td></td>
<td>Chlorhexidine</td>
<td>Erythema multiforme, taste disorders</td>
</tr>
<tr>
<td></td>
<td>Metronidazole, Nitrizole, Sulfasalazine, Tetracyclines</td>
<td>Melanosis</td>
</tr>
<tr>
<td></td>
<td>Cefamandole</td>
<td>Taste disorders</td>
</tr>
<tr>
<td></td>
<td>Ethambutol</td>
<td>Erythema multiforme, taste disorders</td>
</tr>
<tr>
<td></td>
<td>Minocycline</td>
<td>Erythema multiforme, taste disorders</td>
</tr>
<tr>
<td></td>
<td>Griseofulvin, Lincomycin</td>
<td>Erythema multiforme, taste disorders</td>
</tr>
<tr>
<td></td>
<td>Methyldopa</td>
<td>Erythema multiforme</td>
</tr>
<tr>
<td></td>
<td>Hydrochloride, Griseofulvin, Lincomycin, Metronidazole, Nitrizole, Sulfasalazine, Tetracyclines</td>
<td>Lichenoid mucosal reaction</td>
</tr>
<tr>
<td></td>
<td>Calcium channel blockers</td>
<td>Gingival enlargement</td>
</tr>
<tr>
<td></td>
<td>ACE Inhibitors</td>
<td>Vesiculo-ulcerative stomatitis, Pemphigus vulgaris</td>
</tr>
<tr>
<td></td>
<td>Chloramphenicol</td>
<td>Vesiculo-ulcerative stomatitis</td>
</tr>
<tr>
<td></td>
<td>Hydralazine</td>
<td>Lupus-like reaction and Erythema multiforme</td>
</tr>
<tr>
<td></td>
<td>Methylcboxadine</td>
<td>Lupus-like reaction and Lichenoid mucosal reaction</td>
</tr>
<tr>
<td></td>
<td>Thiazide diuretics</td>
<td>Lichenoid mucosal reaction</td>
</tr>
<tr>
<td></td>
<td>Minoxidil, Verapamil</td>
<td>Erythema multiforme</td>
</tr>
<tr>
<td></td>
<td>Acetazolamide, Amiloride, Captoril</td>
<td>Taste disorders</td>
</tr>
<tr>
<td></td>
<td>Diazoxide, Diltiazem, Enalapril maleate, Ethacrynic acid, Nifedipine</td>
<td>Taste disorders</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drug Category</th>
<th>Drug</th>
<th>Oral Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antidiarrheal</td>
<td>Bismuth</td>
<td>Dark pigmentation of the tongue, sometimes the gingiva</td>
</tr>
<tr>
<td>Antihistamines</td>
<td>All</td>
<td>Salivary dysfunction. Xerostomia</td>
</tr>
<tr>
<td>Antihypertensives</td>
<td>Calcium channel blockers</td>
<td>Taste disorders</td>
</tr>
<tr>
<td></td>
<td>ACE Inhibitors</td>
<td>Gingival enlargement</td>
</tr>
<tr>
<td></td>
<td>Chloramphenicol</td>
<td>Vesiculo-ulcerative stomatitis, Pemphigus vulgaris</td>
</tr>
<tr>
<td></td>
<td>Hydralazine</td>
<td>Vesiculo-ulcerative stomatitis</td>
</tr>
<tr>
<td></td>
<td>Methylcboxadine</td>
<td>Lupus-like reaction and Erythema multiforme</td>
</tr>
<tr>
<td></td>
<td>Thiazide diuretics</td>
<td>Lupus-like reaction and Lichenoid mucosal reaction</td>
</tr>
<tr>
<td></td>
<td>Minoxidil, Verapamil</td>
<td>Lichenoid mucosal reaction</td>
</tr>
<tr>
<td></td>
<td>Acetazolamide, Amiloride, Captoril</td>
<td>Erythema multiforme</td>
</tr>
<tr>
<td></td>
<td>Diazoxide, Diltiazem, Enalapril maleate, Ethacrynic acid, Nifedipine</td>
<td>Taste disorders</td>
</tr>
<tr>
<td>Antilipidemics</td>
<td>Cholestyramine, Clofibrate</td>
<td>Taste disorders</td>
</tr>
<tr>
<td>Antimicotics</td>
<td>Griseofulvin</td>
<td>Erythema multiforme, black pigmentation of the tongue</td>
</tr>
</tbody>
</table>
Oral and Systemic Disease as it Relates to the Aging Process

<table>
<thead>
<tr>
<th>Class</th>
<th>Drugs</th>
<th>Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphotericin B</td>
<td></td>
<td>Taste disorder</td>
</tr>
<tr>
<td>Antineoplastics All</td>
<td></td>
<td>Oral candidiasis, hemorrhage, recurrent oral viral infection,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aphthous stomatitis, Vesiculo-ulcerative stomatitis</td>
</tr>
<tr>
<td>Antiparkinsonian All</td>
<td>Levodopa</td>
<td>Salivary dysfunction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Taste disorders</td>
</tr>
<tr>
<td>Antireflux agents All</td>
<td>Cimetidine</td>
<td>Salivary dysfunction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Erythema multiforme</td>
</tr>
<tr>
<td>Antithyroids</td>
<td>Carbimazole, methimazole,</td>
<td>Taste disorders</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Methylthiouracil, propylthiouracil,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thiouracil</td>
<td></td>
</tr>
<tr>
<td>Antioxidants</td>
<td>Octyl gallate</td>
<td>Allergic ulcerations</td>
</tr>
<tr>
<td>Anxiolytics</td>
<td>Benzodiazapenes</td>
<td>Salivary dysfunction</td>
</tr>
<tr>
<td>Chelating agents</td>
<td>Penicillamine</td>
<td>Ulcers and Pemphigus vulgaris</td>
</tr>
<tr>
<td>Corticosteroids, All</td>
<td></td>
<td>Oral candidiasis, recurrent oral viral infections,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vesiculo-ulcerative stomatitis; taste disorders</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cyclosporine</td>
<td></td>
</tr>
<tr>
<td>Hypoglycemics</td>
<td>Sulfonylurea agents</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Glipizide, Phenformin and derivatives</td>
<td></td>
</tr>
<tr>
<td>Muscle relaxants</td>
<td>All</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baclofen, chlorzoxazone</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>Etidronate, Germine monoacetate,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Idoxuridine, iron sorbitex vitamin D</td>
<td></td>
</tr>
<tr>
<td>Taste disorders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychotropics</td>
<td>All</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Glutethimide, meprobamate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phenothiazines</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lithium carbonate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trifluoperazine hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Sympathomimetics</td>
<td>Amphetamines, Amrinone</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bamafyline hydrochloride, Dipyridamole,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nitroglycerin patch, Oxyfedrine</td>
<td></td>
</tr>
<tr>
<td>Vasodilators</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
THE MISSION:
TO INCREASE THE PATIENTS HEALTH AND LIFE-SPAN

©Dr Eric Shapira, 2013

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©
Making Choices and Setting Goals for Treatment SMART

- Be specific about what needs to be done and give alternatives that work
- Make sure we can measure improvement based on treatment regimens
- Give hope that things are correctable and reason for treatment to be attainable. Give choices...
- Treatment should be understandable and relevant to the patients needs
- Give a specific time where Tx will be completed
- Meeting patient expectations is important...

©Dr Eric Shapira, 2013

Source: Lecture Series on Geriatric Dentistry...Eric Shapira, DDS, MAGD, MA, MHA 2013©