

# Patient Management for Primary Care Audiologists

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Why is this talk needed, relevant  
and worthy of your time?

*Evolution of the profession*

## Expectations of the Profession

“audiologists are not expected to review a patient’s medical history outside of auditory or balance issues”

Zapaula, 2010

## **Why is Patient Management beyond the auditory and balance mechanism vital?**

- Patient Care - exceed expectations
- Recognition by medical community
- Integral part of health care delivery system
- Reinforce and enhance referral path from PCP's

## The Referral Protocol

- Select specialist that accepts patient's insurance
- While the patient is in your office, call the specialist's office and make the appointment
- Send a 4-5 sentence letter to specialist outlining your observation and reason for referral
- Expect to receive a letter concerning the patient's diagnosis and treatment
- Discuss the patient's satisfaction with the consultation on their next visit.

## Background Thoughts

- Relationship between audiology and other health care providers
- Pressure on internal medicine
- Multidisciplinary care
- Audiology = frequent patient exposure and long relationship duration
- Look for opportunities to capitalize on the above

## Opportunities for Observation

- First thought best thought
- Getting to the exam room
- Taking a history
- Exam
- Repeat encounters

## First thought, best thought

- Demeanor
- Overall appearance
  - Clothing
  - Skin/face/hands
  - Respiratory status
  - Posture and body shape
- Who is with them?

## Getting to the exam room

- Gait, movement and balance
- Assistive devices

## Medical History Points

- People don't know what they have, look for access points to good data:
  - Think about changes or new events
  - Hospital visits
  - Medications – why are they taking the pills they are prescribed – any changes
  - Frequent or change in frequency of healthcare encounters
  - Assistive devices (new? old? change?)

## Common Medical Conditions

Depression  
Cardiovascular Disease  
Diabetes  
“Polypharmacy”  
Common Skin Cancers

## Depression

- Prevalence 2-10% of population
- Risk factors in older populations:
  - female, single (for any reason), co-morbid conditions, functional impairment, social isolation
- May be the first observable illness in stroke, diabetes, cancers, thyroid disease, cardiovascular disease (Arch Intern Med. 2005;165(11):1260-6.)
- Treatment of depression can improve other illnesses - pain management and diabetes. (JAMA. 2003;290(18):2428-9 and Ann Intern Med. 2004;140(12):1015-24.)

## Depression – What you observe

- flat affect, poor social interaction, lack of motivation with care, lack of engagement.
- Screen for it:  
"During the past month, have you been bothered by feeling down, depressed or hopeless?"  
"During the past month, have you been bothered by little interest or pleasure in doing things?"

These two questions were 95 % sensitive and 57% specific diagnosing major depression (J Gen Intern Med. 1997;12(7):439-45.)

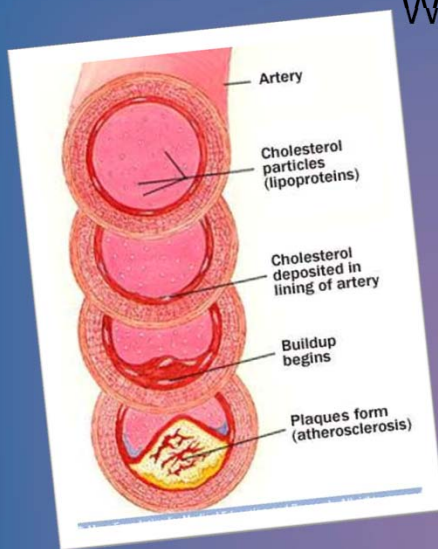
## Depression – Next Steps

- Notify primary physician
- Notify family members
- Engage patient?
  
- Caveats: taboo subject in older populations, depressed people will not seek care, may be clue to other illness

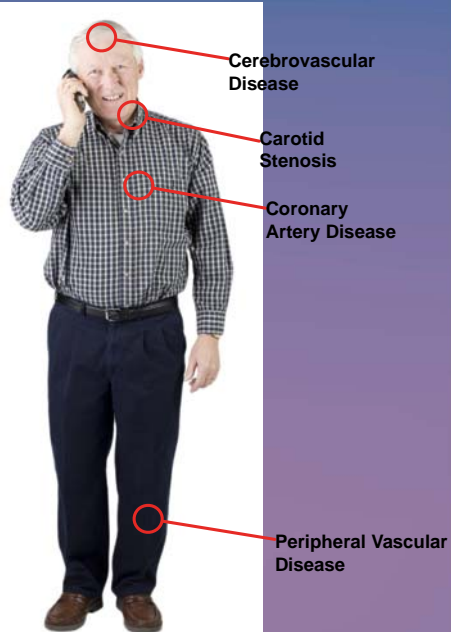
# Cardiovascular Disease

- Progressive stiffening and narrowing of various arteries
- Affects the majority of adults over age 60
- Risk factors include: hypertension, smoking, elevated cholesterol, diabetes, obesity, male gender

# Cardiovascular Disease



adapted from: <http://www.mayoclinic.com/health/medical/IM00642>





# Cardiovascular Disease

how it manifests...



- Vascular dementia
- Transient ischemic attacks and Stroke
- Angina
- Congestive heart failure
- Claudication
- Peripheral artery disease

## Cardiovascular Disease – What you observe

- is there a change in exertional capacity?
- swelling or weight gain?
- use of nitroglycerin?
- shortness of breath with exertion?
- leg pain with walking?

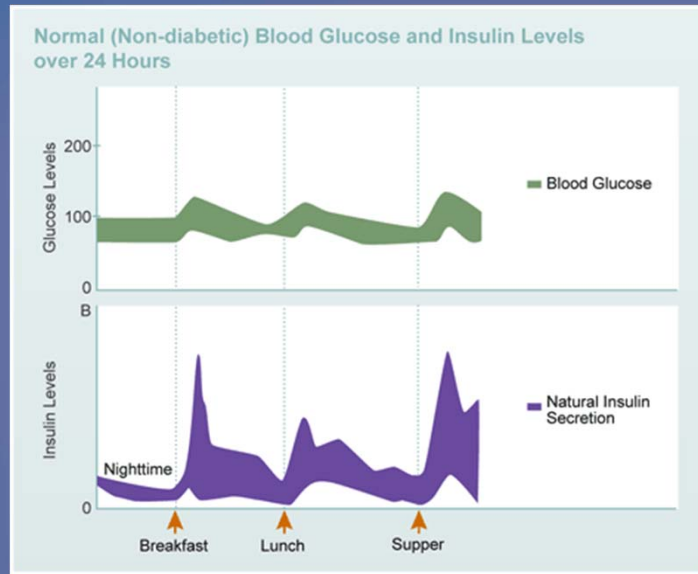
## Cardiovascular Disease – Next Steps

- Notify the primary physician
- Notify the cardiologist?
- Notify the family
- Ask about medication compliance
- Is the patient safe?
- Caveats: always think about acute vs. chronic changes

## Adult Onset Diabetes

- Definition and nomenclature: Type 2, Non-insulin dependent, glucose intolerance
- Risk factors: family history, ethnicity, obesity, exercise status, smoking, dietary patterns
- Prevalence 8% of Cauc., 8% Hisp., 11% AA, and 28% Native Americans (Diabetes Care. 2006;29(7):1585.)

# Diabetes - Pathophysiology



From <http://www.deo.ucsf.edu/type1/diabetes-treatment/medications-and-therapies/type-1-insulin-ix/insulin-basics.html> and adapted from Jacobs DM Care 20:1279, 1997

# Diabetes - Pathophysiology

The image shows a man in a checkered shirt and dark pants talking on a mobile phone. Red circles are placed on his head, neck, chest, and legs, with lines pointing to text labels for various complications: Cerebrovascular disease, Retinopathy, Autonomic Neuropathy, Coronary Artery Disease, Kidney Disease, Gastroparesis, Peripheral Vascular Disease (PVD), and Peripheral Neuropathy.

- Cerebrovascular disease
- Retinopathy
- Autonomic Neuropathy
- Coronary Artery Disease
- Kidney Disease
- Gastroparesis
- Peripheral Vascular Disease (PVD)
- Peripheral Neuropathy

- Micro-vascular destruction
- Tissue fibrosis
- Multiple end-organ dysfunction
- Even the best controlled diabetics have end-organ disease

## Diabetes – Observations and Thoughts

- Think of it – especially in balance patients
  - does the patient have “diabetes in the eyes?”
  - does the patient see an endocrinologist?
  - Remember proprioceptive loss and autonomic dysfunction with gait and balance problems
- Often “co-exists” with cardiovascular disease
- Remember – progressive, slow disease

## Diabetes – Next Steps

- Suggest more aggressive control/review of behaviors with primary or endocrine physicians
- Discuss concerns with family
- Caveats: complex subject, requires multiple changes in lifestyle, may want to keep recommendations broad – “encouraged patient to reevaluate diabetic regimen and diet.”

## Polypharmacy

- Many patients with 2-3 diagnosis on 10-15 medications
- Adverse event risk high
- Why? Many subspecialist, many symptomatic problems, patients sometimes do not challenge physicians
- Frequent changes– multiple names, new doses, new medications
- OTC meds increase complexity

## Polypharmacy

Medication	Strength & Form	Sig	Active	Chronic	Effective	St
Allopurinol	300 mg Tablet	1 tablet po daily.	Yes	Unknown	Unknown	
Benicar	20 mg Tablet	1 tablet PO QD.	Yes	Unknown	Unknown	
clonidine	0.2 mg Tablet	two tabs po qd.	Yes	Unknown	Unknown	
Co-enzyme Q10	200 mg	1 tab PO QD.	Yes	Unknown	Unknown	
Enteric Coated Aspirin	81 mg Tablet, Delayed Release (E.C.)	1 tablet po daily.	Unknown	Unknown	Unknown	
ferrous sulfate	27mg	1 po qd.	Yes	Unknown	Unknown	
Hydralazine	25 mg Tablet	1 tab PO TID.	Yes	Unknown	Unknown	
labetalol	400 mg	PO BID.	Yes	Unknown	Unknown	
Lipitor	10 mg Tablet	1 tablet PO QD.	Yes	Unknown	Unknown	
MagDx	400 mg Tablet	1 po qd.	Yes	Unknown	Unknown	
Niacin	500 mg Tablet	two tabs 1d.	Yes	Unknown	Unknown	
Prevacid	30 mg Susp.Delayed Release for Recon	1 tablet po daily.	Yes	Unknown	Unknown	
Tylenol Arthritis	650 mg Tablet Sustained Release	1 po bid.	Yes	Unknown	Unknown	

Typical Patient Medication List

## Polypharmacy - Examples

- Diuretics and antihypertensive agents
- Combinations or dosing of NSAIDs
- Antibiotics and immunosuppressant agents
- Recent hospitalizations
- Dosing of many medications with liver disease, kidney disease, or heart failure needs to be altered

## Polypharmacy – Next Steps

- Ask patients to bring a list of medication to each visit
- Learn what medications/classes can lead to hearing or balance problems
- Ask about OTC and herbal/natural medications
- Ask about hospitalizations and illnesses requiring IV antibiotics

## Polypharmacy – Next Steps

### Caveats:

- Medication list/dose should be verified via phone before changes made
- Medication concerns should be discussed with prescribing physician
- Simplification would be ideal, but not always practical

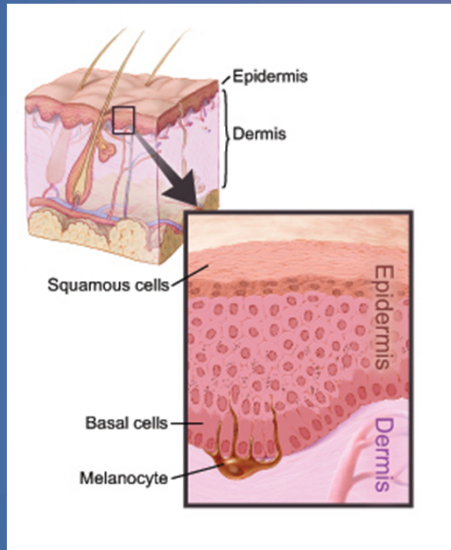
## Dermatology Basics

- Basal Cell Carcinoma
- Squamous Cell Carcinoma
- Melanoma

Resource for comprehensive dermatology conditions

[www.dermatlas.med.jhmi.edu/derm](http://www.dermatlas.med.jhmi.edu/derm)

## Skin Cancers - Overview



- Type of skin cancer is dependent on proliferating cell type.

- 1:5 people are diagnosed with some form of skin cancer

- Ear – 3<sup>rd</sup> most common location for basal cell:  
39% preauricle crest  
36% posterior auricle  
24% helix rim

(Redbord & Hanke 2009)

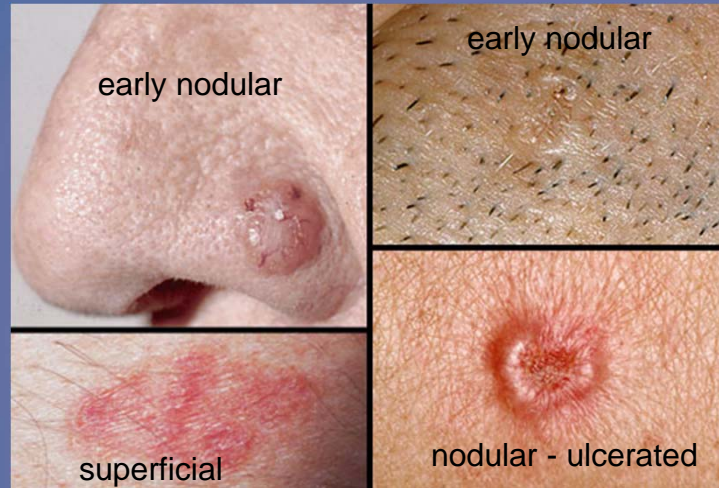
Adapted from: <http://www.caring4cancer.com/go/skin/basics/what-is-nonmelanoma-skin-cancer.htm>

## Basal Cell

- Common in Caucasians (30% lifetime risk)  
(American Cancer Society. Cancer facts and figures 2000.)
- Risk factors: exposure to UV radiation (sunlight), therapeutic radiation, immunosuppression, living closer to the equator
- 70% occur on face
- Locally invasive and destructive of surrounding tissue and bone



## Basal Cell Carcinoma

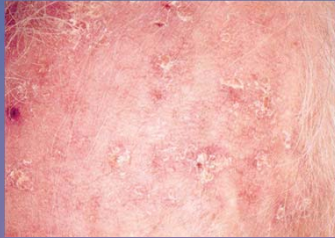


Adapted from <http://www.webmd.com/skin-problems-and-treatments/picture-of-basal-cell-carcinoma>

## Squamous Cell Carcinoma

- Risk factors: sun exposure, age, Caucasians, immunosuppression, chronic inflammation of skin, family history
- 55% of them appear on head and neck
- 80% of SCC develop near actinic keratosis  
(J Am Acad Dermatol. 2000;42(1 Pt 2):23.)
- 5 yr risk of AK->SCC progression is ~ 14%  
(Cancer Epidemiol Biomarkers Prev. 1997;6(11):949.)

## Squamous Cell Carcinoma



Actinic Keratosis



Squamous Cell Carcinoma

all images adapted from: [www.uptodate.com](http://www.uptodate.com)

## Melanoma

- Invasive, metastatic, and lethal
- Incidence: US pop 1:37 men and 1:56 women (CA Cancer J Clin. 2010;60(5):277.)
- 8700 US deaths in 2010 (CA Cancer J Clin. 2010;60(5):277.)
- Risk factors: intermittent intense sun exposure, proximity to equator, family history

## Melanoma – What to look for

- Think “ABCDE”
- Asymmetry
- Border (uneven)
- Color (inconsistent)
- Diameter (>eraser)
- Elevation

## Melanoma



superficial spreading melanoma



Lentigo Maligna



Nodular  
Melanoma

all images adapted from: [www.uptodate.com](http://www.uptodate.com)

## Skin Cancers – Observations

- Think of them
  - pay attention to lesions on head and neck
  - can occur under hair and on scalp
  - common on ear
  - pay attention to changes over time

## Skin Cancers - Next Steps

- Discuss with the patient – carefully
- Call primary physician discuss “concerning findings”
- Refer to dermatologist?
- Take a picture?
- Document?

## Take Home Points

- Be observant
- Be concerned
- Be thoughtful
- Be on the lookout for new ideas...

## Be on the lookout for new ideas...

The screenshot shows the top portion of an MSNBC article. The navigation bar includes links for Home, US, World, Politics, Business, Sports, Entertainment, Health, and Tech & science. The article title is "Yellow eyelid blobs hint at hidden heart disease" with a sub-headline: "Patches often seen as cosmetic issue, but new study shows issue more than skin deep". Below the title is a social media sharing section with buttons for Recommend (177), Tweet (37), +1 (3), and Share (176). A "Jump to discuss comments below" button is also visible. The author is identified as Brian Alexander, an MSNBC contributor. On the right side, there is a vertical advertisement for HUMIRA, with the text "Full Presc" and "Important HUMIRA®" visible.

[www.msnbc.com](http://www.msnbc.com) - 9/12/2011

# Xanthelasmtata Palpebrarum

(zan-thel-as-mata Pal-pee-brer-em)



<http://dermatlas.med.jhmi.edu/derm/indexDisplay.cfm?ImageID=814236477>



[http://www.atlasdermatologico.com.br/listar.asp?acao=mostrar&arquivo=Xanthelasma\\_Palpebrarum4.JPG](http://www.atlasdermatologico.com.br/listar.asp?acao=mostrar&arquivo=Xanthelasma_Palpebrarum4.JPG)

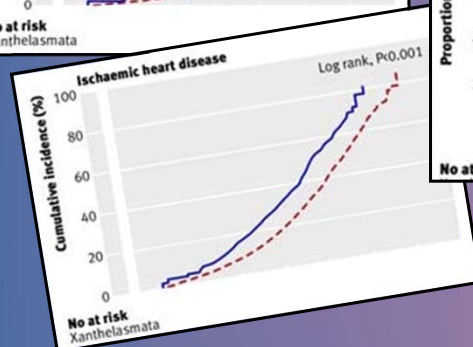
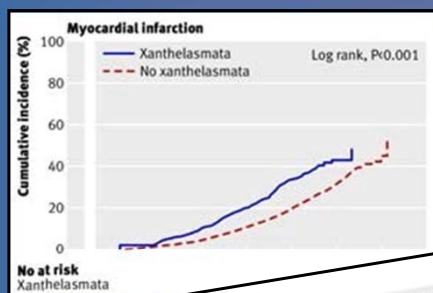
## A Visible Clue to Disease

- Thought to be related to high cholesterol and atherosclerosis
- Was not clear what their relationship was to risk of having MI, ischemic stroke, or death
- Case control studies exist, but none showed clear association

## A Visible Clue to Disease

- 12,745 person Copenhagen City Heart Study (1976-2009, 100% follow up)
- Hazard ratios and 10 year risk for myocardial infarction, ischemic stroke, presence of atherosclerosis, and death in patients with and without Xanthelasmata
- *BMJ* 2011;343:d5497

## More than just unsightly...



*BMJ* 2011;343:d5497

## What do you do?

- Don't scare the patient
- Ask about primary and cardiac care
- Gently emphasize need for seeing primary care and working on risk factor modification
- Remember – dead and disabled patients are not good clients...

**Bringing it together –  
case studies**



## Reaction by the Medical Community

PCP

88 yr female has not had a physical for 30+ years

“High Cholesterol ... thanks for your referral”

## Reaction by the Medical Community

Dermatology:

Patient presents with suspected basal cell on neck

“great pick-up, thanks for your referral”

Thank you!