

# 2014- 2015 Clinical Guidelines and Recommendations

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# 2014 - 2015 Clinical Guidelines and Recommendations

PAFP Summer CME Conference  
Beth Careyva, MD  
July 29, 2015



# Objectives

- Review recommendations from recently published clinical guidelines
- Discuss implications for clinical practice using a case-based approach



# Guidelines for Review

- American Diabetes 2015 Standards of Care
- USPSTF Screening for Thyroid Dysfunction
- USPSTF Screening for Carotid Artery Stenosis
- American College of Physicians Diagnosis of OSA
- American Academy of Pediatrics Fluoride Use in Children
- Advisory Committee on Immunization Practices  
Pneumococcal Immunization Updates

*Standards of Medical Care in Diabetes—2015:*  
Summary of Revisions

*Diabetes Care* 2015;38(Suppl. 1):S4 | DOI: 10.2337/dc15-S003

# American Diabetes 2015 Standards of Care

# *Standards of Medical Care in Diabetes—2015: Summary of Revisions*

*Diabetes Care* 2015;38(Suppl. 1):S4 | DOI: 10.2337/dc15-S003

## 1. Strategies for Improving Care

*Diabetes Care* 2015;38(Suppl. 1):S5–S7 | DOI: 10.2337/dc15-S004

### *Recommendations*

- A patient-centered communication style that incorporates patient preferences, assesses literacy and numeracy, and addresses cultural barriers to care should be used. **B**
- Treatment decisions should be timely and founded on evidence-based guidelines that are tailored to individual patient preferences, prognoses, and comorbidities. **B**
- Care should be aligned with components of the Chronic Care Model (CCM) to ensure productive interactions between a prepared proactive practice team and an informed activated patient. **A**
- When feasible, care systems should support team-based care, community involvement, patient registries, and decision support tools to meet patient needs. **B**

# *Standards of Medical Care in Diabetes—2015:* Summary of Revisions

*Diabetes Care* 2015;38(Suppl. 1):S4 | DOI: 10.2337/dc15-S003

## Section 2: Classification and Diagnosis of Diabetes

- BMI cut point for screening overweight and obese Asian Americans for prediabetes and type 2 diabetes changed from 25 kg/m<sup>2</sup> to 23 kg/m<sup>2</sup>

# *Standards of Medical Care in Diabetes—2015:* Summary of Revisions

*Diabetes Care* 2015;38(Suppl. 1):S4 | DOI: 10.2337/dc15-S003

## Section 4: Foundations of Care: Education, Nutrition, Physical Activity, Smoking Cessation, Psychosocial Care, and Immunization

- Limit time spent being sedentary to < 90 minutes at a time
- E-cigarettes not supported as an alternative to smoking
- Immunization recommendations updated to include recommendations for PCV13 and PPSV23



# *Standards of Medical Care in Diabetes—2015:* Summary of Revisions

*Diabetes Care* 2015;38(Suppl. 1):S4 | DOI: 10.2337/dc15-S003

## Section 6: Glycemic Targets

- Fasting blood glucose target: 80-130 mg/dL  
(previously 70-130 mg/dL)
- New recommendations to assess readiness for continuous glucose monitoring (CGM)

# *Standards of Medical Care in Diabetes—2015:* Summary of Revisions

*Diabetes Care* 2015;38(Suppl. 1):S4 | DOI: 10.2337/dc15-S003

## Section 7: Approaches to Glycemic Treatment

- Algorithm updated to reflect all currently available therapies

## Mono-therapy

Efficacy\*  
Hypo risk  
Weight  
Side effects  
Costs\*



## Dual therapy

Efficacy\*  
Hypo risk  
Weight  
Side effects  
Costs\*



## Triple therapy



## Combination injectable therapy

Healthy eating, weight control, increased physical activity, and diabetes education

### Metformin

high  
low risk  
neutral / loss  
GI / lactic acidosis  
low

If A1C target not achieved after ~3 months of monotherapy, proceed to 2-drug combination (order not meant to denote any specific preference—choice dependent on a variety of patient- and disease-specific factors):

Metformin +	Metformin +	Metformin +	Metformin +	Metformin +	Metformin +
Sulfonylurea	Thiazolidinedione	DPP-4 inhibitor	SGLT2 inhibitor	GLP-1 receptor agonist	Insulin (basal)
high efficacy moderate risk gain hypoglycemia low costs	high efficacy low risk gain edema, HF, fxs low costs	intermediate efficacy low risk neutral weight rare side effects high costs	intermediate efficacy low risk loss weight GI, dehydration high costs	high efficacy low risk loss weight GI side effects high costs	highest efficacy high risk gain hypoglycemia variable costs

If A1C target not achieved after ~3 months of dual therapy, proceed to 3-drug combination (order not meant to denote any specific preference—choice dependent on a variety of patient- and disease-specific factors):

Metformin +	Metformin +	Metformin +	Metformin +	Metformin +	Metformin +
Sulfonylurea +	Thiazolidinedione +	DPP-4 inhibitor +	SGLT2 inhibitor +	GLP-1 receptor agonist +	Insulin (basal) +
TZD or DPP-4-i or SGLT2-i or GLP-1-RA or Insulin <sup>§</sup>	SU or DPP-4-i or SGLT2-i or GLP-1-RA or Insulin <sup>§</sup>	SU or TZD or SGLT2-i or Insulin <sup>§</sup>	SU or TZD or DPP-4-i or Insulin <sup>§</sup>	SU or TZD or Insulin <sup>§</sup>	TZD or DPP-4-i or SGLT2-i or GLP-1-RA

If A1C target not achieved after ~3 months of triple therapy and patient (1) on oral combination, move to injectables; (2) on GLP-1-RA, add basal insulin; or (3) on optimally titrated basal insulin, add GLP-1-RA or mealtime insulin. In refractory patients consider adding TZD or SGLT2-i:

Metformin +
Basal insulin + Mealtime insulin or GLP-1-RA



# FDA Approved DM2 Medications

- **SGL2 Inhibitors**
  - Dapagliflozen (January 2014)
  - Empagliflozen (August 2014)
- **GLP1 Receptor Agonists**
  - Abliglutide (April 2014)
  - Dulaglutide (April 2014)

# *Standards of Medical Care in Diabetes—2015:* Summary of Revisions

*Diabetes Care* 2015;38(Suppl. 1):S4 | DOI: 10.2337/dc15-S003

## Section 8: Cardiovascular Disease and Risk Management

- Diastolic blood pressure goal: **90 mmHg** for most people with diabetes and hypertension
- Statin treatment recommendations based on 2013 American College of Cardiology/American Heart Association guidelines
- Screening lipid profile recommended at diagnosis, age 40, and “periodically thereafter”

# *Standards of Medical Care in Diabetes—2015:* Summary of Revisions

*Diabetes Care* 2015;38(Suppl. 1):S4 | DOI: 10.2337/dc15-S003

## Section 9: Microvascular Complications and Foot Care

- Foot exam at **every visit** for patients with insensate feet, foot deformities, or a history of foot ulcers

# *Standards of Medical Care in Diabetes—2015:* Summary of Revisions

*Diabetes Care* 2015;38(Suppl. 1):S4 | DOI: 10.2337/dc15-S003

## Section 11: Children and Adolescents

- A target A1c of <7.5% is recommended, though individualization is encouraged

# *Standards of Medical Care in Diabetes—2015:* Summary of Revisions

*Diabetes Care* 2015;38(Suppl. 1):S4 | DOI: 10.2337/dc15-S003

## Section 12: Management of Diabetes in Pregnancy

- New section with recommendations related to pregnancy and diabetes, including preconception counseling, medications, blood glucose targets, and monitoring



## *Recommendations*

- Provide preconception counseling that addresses the importance of tight control in reducing the risk of congenital anomalies with an emphasis on achieving A1C <7%, if this can be achieved without hypoglycemia. **B**
- Potentially teratogenic medications (ACE inhibitors, statins, etc.) should be avoided in sexually active women of childbearing age who are not using reliable contraception. **B**
- GDM should be managed first with diet and exercise, and medications should be added if needed. **A**
- Women with pregestational diabetes should have a baseline ophthalmology exam in the first trimester and then be monitored every trimester as indicated by degree of retinopathy. **B**
- Due to alterations in red blood cell turnover that lower the normal A1C level in pregnancy, the A1C target in pregnancy is <6% if this can be achieved without significant hypoglycemia. **B**
- Medications widely used in pregnancy include insulin, metformin, and glyburide; most oral agents cross the placenta or lack long-term safety data. **B**

# JM

- 74 year old female
- PMH: DM2, HTN, HL, osteoporosis
- Medications: metformin, glipizide, lisinopril, atorvastatin, ibandronate, calcium/vitamin D
- 3 month follow up visit






# JM


- Fasting blood glucose log

Date	Fasting Blood Glucose
June 1	72
June 2	104
June 3	79
June 4	97
June 5	81



# What would you do next? (choose all that apply)

- A) Tell her that her diabetes is very well controlled
- B) Review signs/symptoms of hypoglycemia
- C) Discontinue glipizide
- D) Discontinue metformin and glipizide



# What would you do next? (choose all that apply)

- A) Tell her that her diabetes is very well controlled
- B) Review signs/symptoms of hypoglycemia
- C) Discontinue glipizide
- D) Discontinue metformin and glipizide

# *Standards of Medical Care in Diabetes—2015:* Summary of Revisions

*Diabetes Care* 2015;38(Suppl. 1):S4 | DOI: 10.2337/dc15-S003

## Summary

- Diastolic blood pressure and cholesterol guidelines updated
- Lower end of fasting blood glucose target adjusted to 80 mg/dL
- Focus on individualization and patient-centered care



# USPSTF Screening for Thyroid Dysfunction

# U.S. Preventive Services Task Force 2015 Recommendation

## Thyroid Dysfunction: Screening

Release Date: March 2015

### Recommendation Summary

Population	Recommendation	Grade (What's This?)
Nonpregnant, asymptomatic adults	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for thyroid dysfunction in nonpregnant, asymptomatic adults.	<b>I</b>



# U.S. Preventive Services Task Force 2004 Recommendation

## **Archived:** Thyroid Disease: Screening

Original Release Date: January 2004

*This version of this topic is currently archived and inactive. It should be used for historical purposes*

### Archived: Recommendation Summary

#### Summary of Recommendation

Population	Recommendation	Grade (What's This?)
Adults	The USPSTF concludes the evidence is insufficient to recommend for or against routine screening for thyroid disease in adults.	<b>I</b>



# USPSTF Screening for Carotid Artery Stenosis

# U.S. Preventive Services Task Force 2014 Recommendation

## Carotid Artery Stenosis: Screening

Release Date: July 2014

### Recommendation Summary

Population	Recommendation	Grade (What's This?)
General Adult Population	The USPSTF recommends against screening for asymptomatic carotid artery stenosis in the general adult population.	<b>D</b>

# U.S. Preventive Services Task Force 2007 Recommendation

## Archived: Carotid Artery Stenosis: Screening, December 2007

Original Release Date: December 2007

*This version of this topic is currently archived and inactive. It should be used for historical purposes.*

### Archived: Recommendation Summary

#### Summary of Recommendations

Population	Recommendation	Grade (What's This?)
Adults	The USPSTF recommends against screening for asymptomatic carotid artery stenosis (CAS) in the general adult population.	<b>D</b>



# American College of Physicians Diagnosis of OSA

# Diagnosis of Obstructive Sleep Apnea in Adults: A Clinical Practice Guideline From the American College of Physicians

Amir Qaseem, MD, PhD, MHA; Paul Dallas, MD; Douglas K. Owens, MD, MS; Melissa Starkey, PhD; Jon-Erik C. Holty, MD, MS; and Paul Shekelle, MD, PhD, for the Clinical Guidelines Committee of the American College of Physicians\*

- **Recommendation 1:** ACP Recommends a sleep study for patients with unexplained daytime sleepiness
- Grade: weak recommendation, low-quality evidence

# Diagnosis of Obstructive Sleep Apnea in Adults: A Clinical Practice Guideline From the American College of Physicians

Amir Qaseem, MD, PhD, MHA; Paul Dallas, MD; Douglas K. Owens, MD, MS; Melissa Starkey, PhD; Jon-Erik C. Holty, MD, MS; and Paul Shekelle, MD, PhD, for the Clinical Guidelines Committee of the American College of Physicians\*

- **Recommendation 2:** ACP recommends polysomnography for diagnostic testing in patients suspected of obstructive sleep apnea. ACP recommends portable sleep monitors in patients without serious comorbidities as an alternative to polysomnography when polysomnography is not available for diagnostic testing.
- **Grade:** weak recommendation, moderate quality evidence



# ACP Recommendations for OSA

- Increased emphasis on diagnostic testing for unexplained daytime sleepiness
- Portable monitors may be used in low risk patients
- Utility of portable monitors for diagnosing OSA in patients with comorbid conditions, such as CHF or COPD, unknown



# Case: SJ



“I feel so tired during the day, even when I get a lot of sleep.”

- 34 year old female
- PMH: obesity, gestational diabetes
- SH: Lives with husband and 1 year old child

## Case: SJ

- TSH, CBC, and Lyme's tests all normal
- Sleep hygiene has not decreased fatigue





# What would you do next?

- A) Order a sleep study
- B) Tell her to drink more coffee
- C) Encourage close follow up and consider further testing if symptoms progress or do not improve

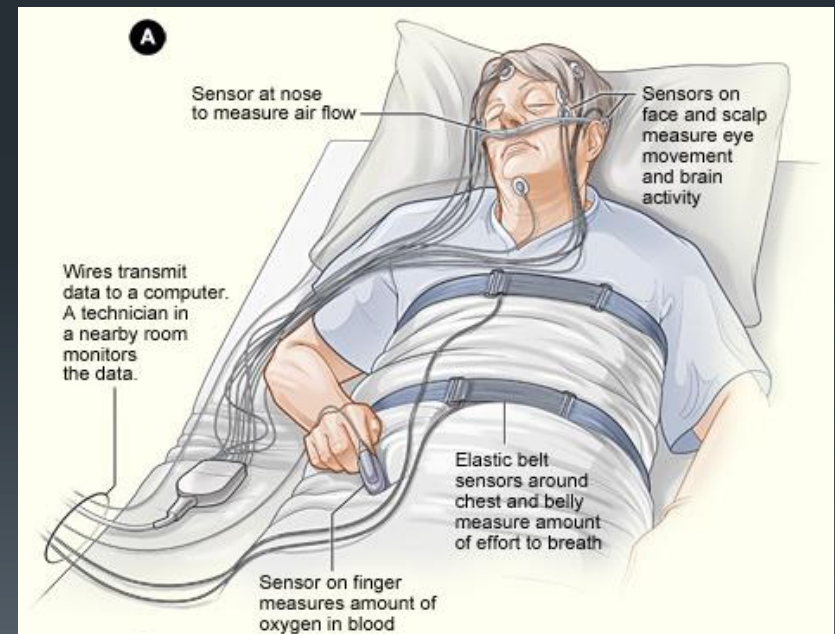


# What would you do next?

- A) Order a sleep study
- B) Tell her to drink more coffee
- C) Encourage close follow up and consider further testing if symptoms progress or do not improve

# Daytime Sleepiness

- Sleep study warranted for unexplained daytime sleepiness





# American Academy of Pediatrics Fluoride Use in Children



CLINICAL REPORT

# Fluoride Use in Caries Prevention in the Primary Care Setting

- Dental caries are the most common chronic disease of childhood
- Caries (acid produced by bacteria erodes tooth enamel) are preventable
- Fluoride has proven effectiveness to decrease dental caries



CLINICAL REPORT

# Fluoride Use in Caries Prevention in the Primary Care Setting

## Fluoride Modalities

**TABLE 1** Summary of Fluoride Modalities for Low- and High-Risk Patients

Fluoride Modality	Low Caries Risk	High Caries Risk
Toothpaste	Starting at tooth emergence (smear of paste until age 3 y, then pea-sized)	Starting at tooth emergence (smear of paste until age 3 y, then pea-sized)
Fluoride varnish	Every 3–6 mo starting at tooth emergence	Every 3–6 mo starting at tooth emergence
Over-the-counter mouth rinse	Not applicable	Starting at age 6 y if the child can reliably swish and spit
Community water fluoridation	Yes	Yes
Dietary fluoride supplements	Yes, if drinking water supply is not fluoridated	Yes, if drinking water supply is not fluoridated





# Fluoride Use in Caries Prevention

- Perform oral health risk assessments on all children beginning at 6 months of age
- Assess a child's exposure to fluoride and determine the need for supplements
- Understand indications for fluoride varnish
- Advocate for water fluoridation in the local community

What Public Health Can Learn About Branding From "Parks and Recreation": Fluoride, TDAZZLE, and H2Flow



**"All I have on my side is facts and science...and people hate facts and science".**

-Leslie Knope


# Oral Health Risk Tools Available

BRIGHT FUTURES GUIDELINES FOR HEALTH SUPERVISION OF INFANTS, CHILDREN, AND ADOLESCENTS

**TABLE 1**

## American Academy of Pediatric Dentistry Caries-Risk Assessment Tool (CAT)

Risk Factors to Consider	Risk Indicators		
	High	Moderate	Low
(For each item below, circle the most accurate response found to the right under "Risk Indicators")			
<b>Part 1 – History</b> (determined by interviewing the parent/primary caregiver)			
Child has special health care needs, especially any that impact motor coordination or cooperation <sup>A</sup>	Yes		No
Child has condition that impairs saliva (dry mouth) <sup>B</sup>	Yes		No
Child's use of dental home (frequency of routine dental visits)	None	Irregular	Regular
Child has decay	Yes		No
Time lapsed since child's last cavity	<12 months	12 to 24 months	>24 months
Child wears braces or orthodontic/oral appliances <sup>C</sup>	Yes		No
Child's parent and/or sibling(s) have decay	Yes		No



# Advisory Committee on Immunization Practices Pneumococcal Immunization Updates

**If you are 65+**  
**YOU NEED 2 PNEUMONIA SHOTS**



[www.eziz.org](http://www.eziz.org)

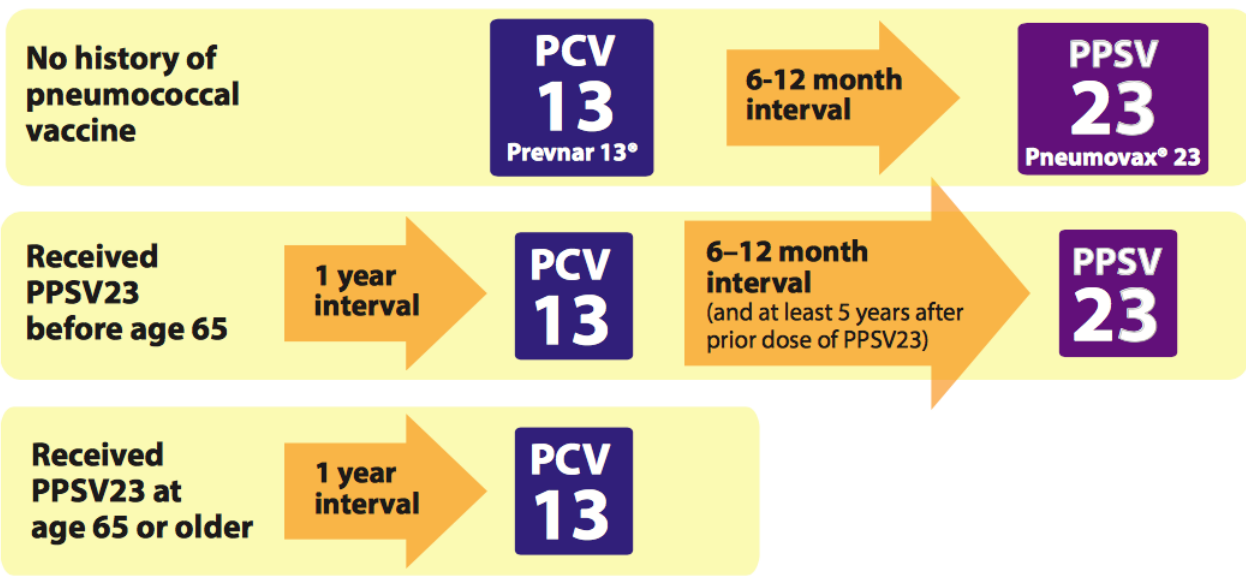
# Advisory Committee on Immunization Practices - Recommendations for PCV13 Vaccine

- All adults 65 years of age or older receive a dose of PCV13 followed by a dose of PPSV23 6-12 months later
- Adults over age 65 who have already received PPSV23 at age 65 and older can have PCV13 in 12 months

# Recommendations for Age 65 or Older

## Age 65 Years or Older – Everyone

- If PCV13 was given before age 65 years, no additional PCV13 is needed.



# Recommendations for Age 19 or Older

**Smoker,  
Long-term facility resident, or  
Chronic conditions:**

- heart disease (excluding hypertension)
- lung disease (including asthma)
- liver disease (including cirrhosis)
- diabetes
- alcoholism

**PPSV  
23**

**Immunocompromised**  
(including HIV infection),  
**Chronic renal failure,  
Nephrotic syndrome, or  
Asplenia**

**PCV  
13**

**8 week  
interval**

**PPSV  
23**

**5 year  
interval**

**PPSV  
23**

**CSF leaks or  
Cochlear implants**

**PCV  
13**

**8 week  
interval**

**PPSV  
23**





# Case: RM



“I just saw a commercial about some other pneumonia shot.”

- 67 year old female
- PMH: DM2, HTN, HL
- Received PPSV23 7 months ago



# What would you tell her?

- A) You have already been immunized for pneumonia and do not need another vaccine
- B) You can receive PCV13 today
- C) You should return in 5 months for PCV13



# What would you tell her?

A) You have already been immunized for pneumonia and do not need another vaccine

B) You can receive PCV13 today

**C) You should return in 5 months for PCV13**

# Case

- 37 year old male
- PMH: Seasonal Allergies,  
Current smoker





# What would you tell him?

- A) He doesn't meet criteria for either pneumonia vaccine
- B) He should have the new pneumonia vaccine, PCV13, followed by PPSV23 in one year
- C) He should be immunized with PPSV23 today
- D) He should have PPSV23 today, followed by PCV13 in one year



# What would you tell him?

- A) He doesn't meet criteria for either pneumonia vaccine
- B) He should have the new pneumonia vaccine, PCV13, followed by PPSV23 in one year
- C) He should be immunized with PPSV23 today**
- D) He should have PPSV23 today, followed by PCV13 in one year



# Summary

- Minimum FBG target changed to 80 mg/dL
- Sleep studies recommended for those with unexplained daytime sleepiness
- Oral health risk tools and fluoride may help prevent dental caries
- Patients over the age of 65 need PPV13 and PPSV23



# References

1. American Diabetes Association. Standards of Medical Care in Diabetes-2015. *Diabetes Care*.2015;38:S1-S93.
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