

Population Health

Evidence Based Guidelines: Linkage to Quality and Self-Management

Based on the CMSA Standards of Practice for Case Management

Today's Presenter

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OBJECTIVES

At the conclusion of this presentation, the participant will be able to:

- Review evidence-based guidelines and quality measures to facilitate patient self-management skills

AGENDA

1	Review the Definition of Evidence-based Guidelines
2	Identify Available Sources for Evidence-based Guidelines
3	Review the Nurse's Role
4	Case Study with Q & A

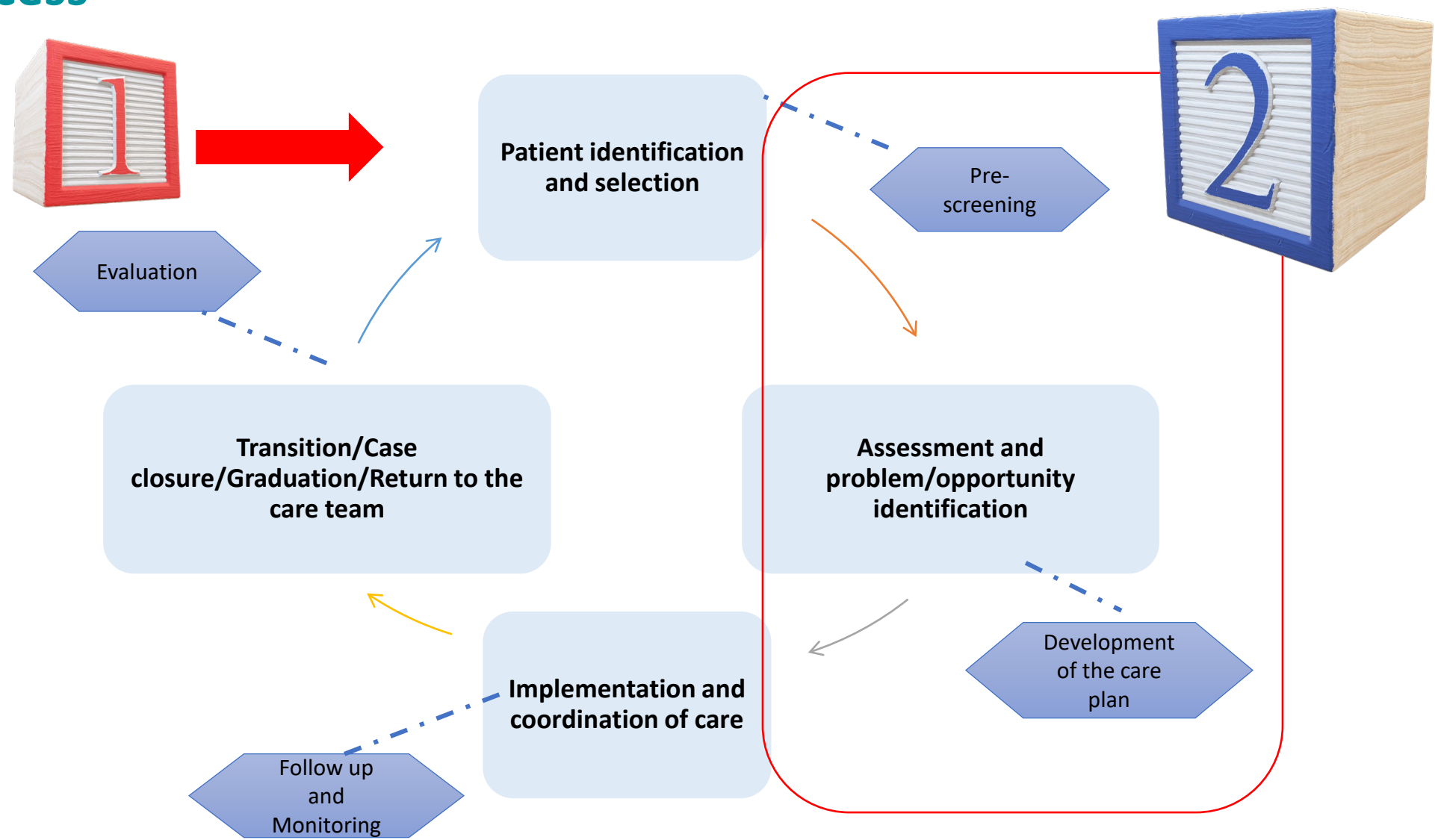


Disclosure

MI-CCSI, or the presenter, does not have any financial interest, relationships, or other potential conflicts, with respect to the material which will be covered in this presentation.

Case Management

It's A Process



Review the Definition of Evidence-based Guidelines

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Evidence-based Guidelines



- Recommendations in the form of clinical practice guidelines are increasingly common.
- Clinical guidelines are systematically developed statements designed to help administrators, practitioners and patients make decisions about appropriate health care for specific circumstances.
- In North America, guidelines developed by professional societies, government panels and cooperative groups are frequently used to measure quality, to allocate resources and to determine how health care dollars are spent.
- For clinicians, guidelines provide a summary of the relevant medical literature and offer assistance in deciding which diagnostic tests to order, which treatments to use for specific conditions, when to discharge patients from the hospital, and many other aspects of clinical practice.

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Evidence-based Definition: Nursing

- Evidence-based practice in nursing involves providing holistic, quality care based on the most up-to-date research and knowledge rather than traditional methods, advice from colleagues, or personal beliefs.
- Nurses can expand their knowledge and improve their clinical practice experience by collecting, processing, and implementing research findings.



Evidence-based practice focuses on what's at the heart of nursing — your patient.

Learn what evidence-based practice in nursing is, why it's essential, and how to incorporate it into your daily patient care.

<https://www.nursingworld.org/practice-policy/nursing-excellence/evidence-based-practice-in-nursing/>

Assessment Guidelines

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Assessment: CMSA Standards of Practice



Assessment and Opportunity Identification:

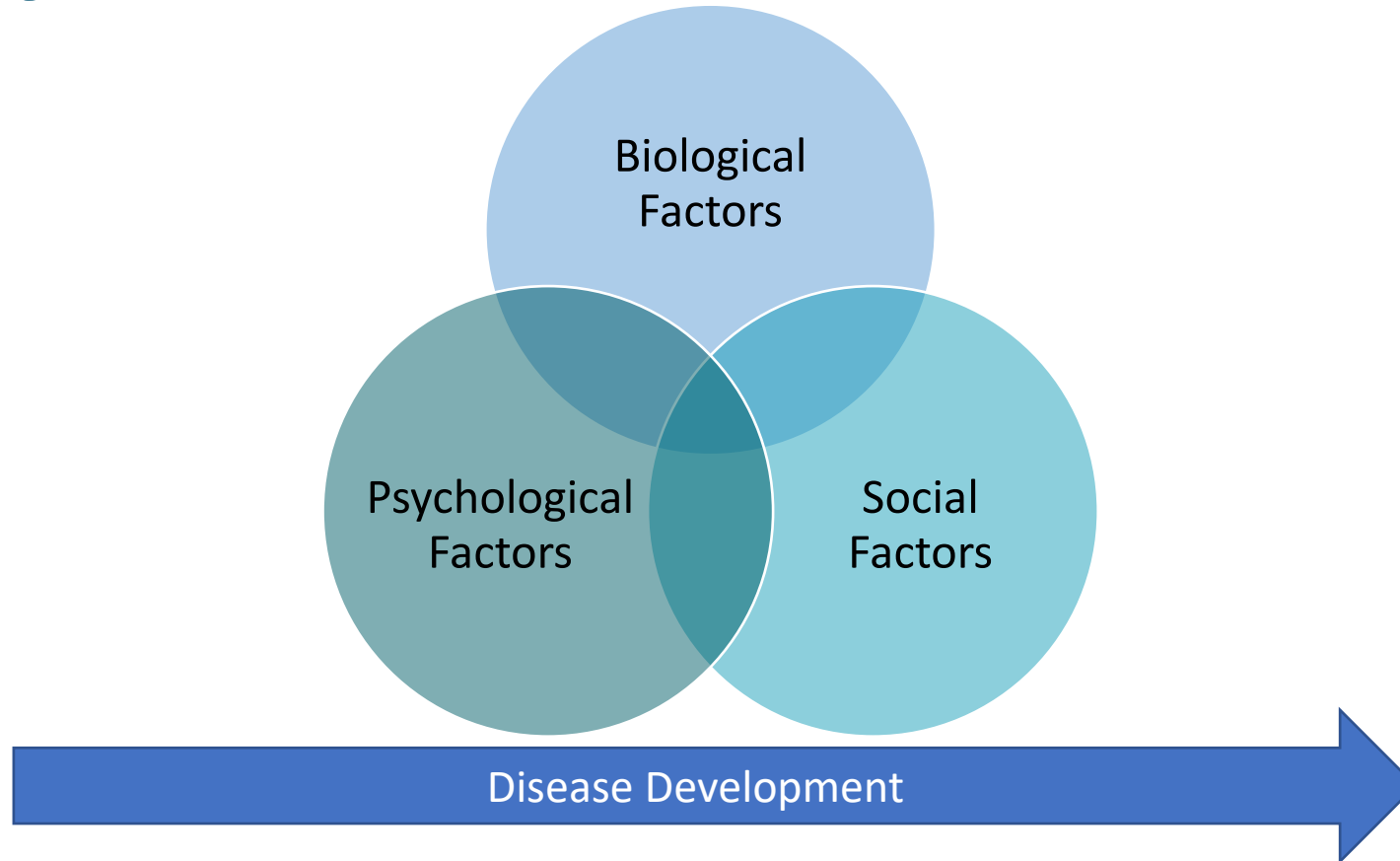
- Assessment begins after screening, identification, and engagement in case management.
- It involves data gathering, analysis, and synthesis of the information to develop a client-centric case management plan of care.»
- Assessment helps establish the client-case manager relationship and the client's readiness to engage in own health and well-being. It requires practical communication skills such as active listening, meaningful conversation, motivational interviewing, and the use of open-ended questions.»
- Care needs and opportunities are identified by analyzing the assessment findings and determining identified needs, barriers, or gaps in care.»
- Assessment is an ongoing process occurring intermittently, as needed, to determine the efficacy of the case management plan of care and the client's progress toward achieving target goals.»
- Assessment should cover medical, behavioral health, substance use and abuse, and social determinants of health.

Group Input

How does this fit in your day-to-day work?

How are you completing the nursing assessment?

Biopsychosocial Model-Patient Assessment



Engel, George L. The need for a new medical model: a challenge for biomedicine. (PDF). *Science*. 1977;196(4286):129–36. Available from: <https://globalization.anthro-seminars.net/wp-content/uploads/2016/11/Need-for-a-New-Medical-Model-A-Challenge-for-Biomedicine.pdf>. Accessed April 7, 2020.

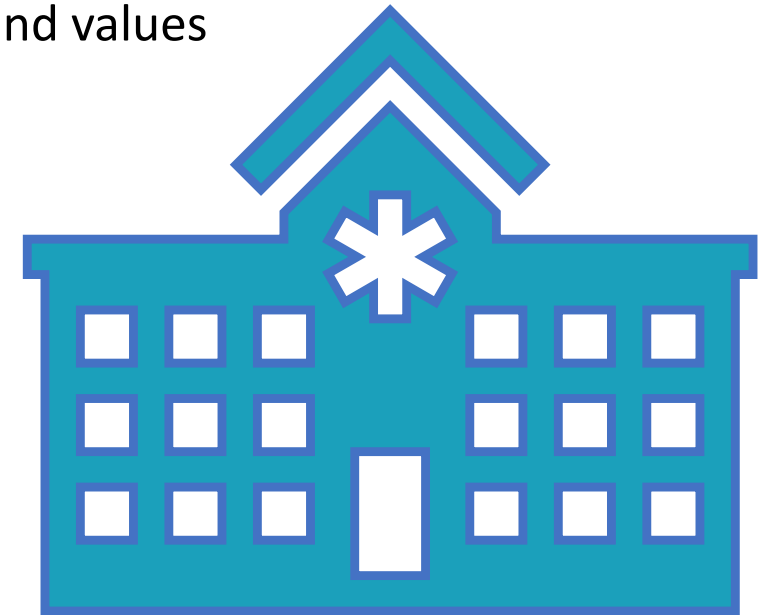


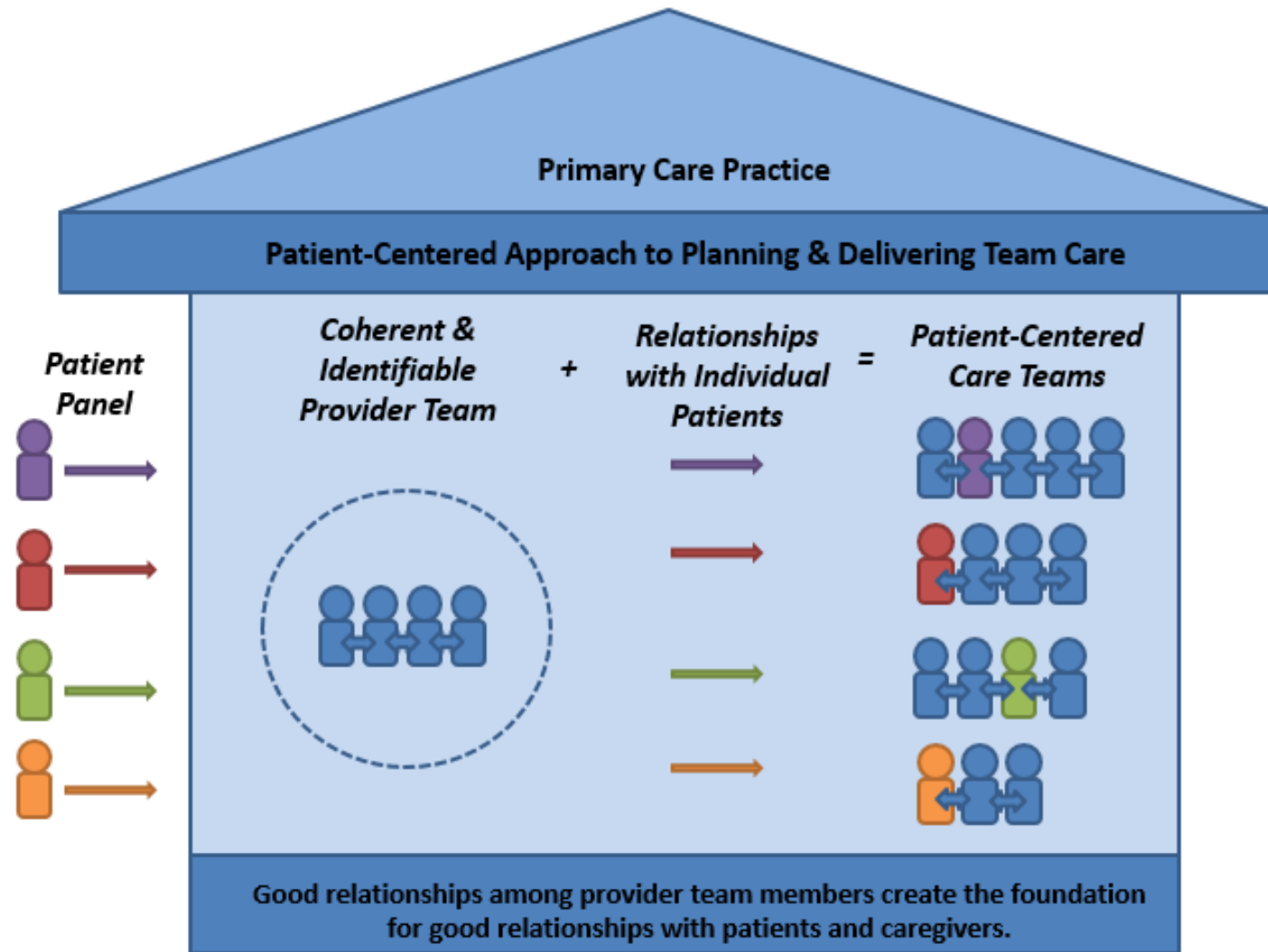
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Importance of Patient-Centered Team-Based Care

An approach to planning and delivering care that:

- The practice views as developing good relationships with patients as a key component of high-quality care
- Actively seeks and appropriately responds to patients' preferences and values
- Works to support patients in achieving their health goals

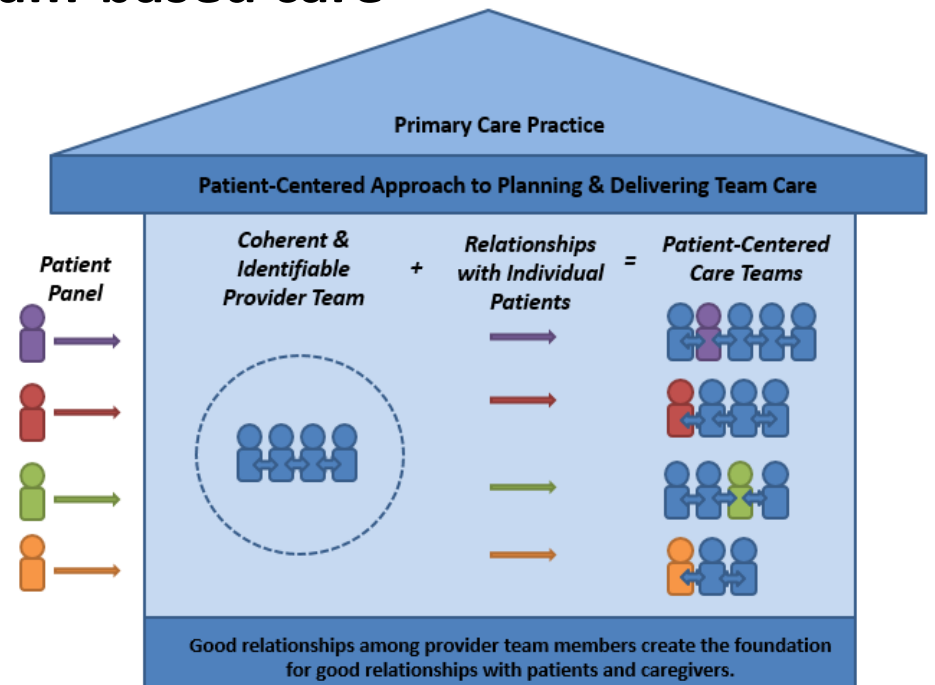
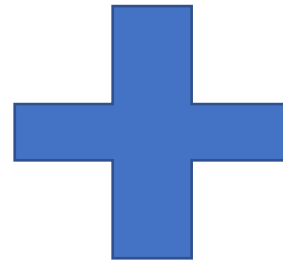
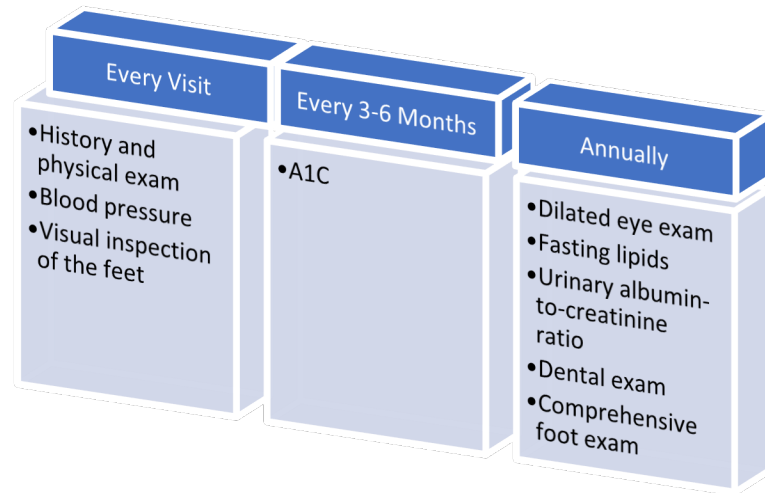




All-Encompassing Road Map

Evidence-based combined with patient-centered team-based care

- Matching the team member with the patient needs
- Incorporating patient self-management



Wexler DJ. Overview of general medical care in nonpregnant adults with diabetes mellitus. In: UpToDate, Mulder JE (Ed), UpToDate, Waltham, MA, 2020.

Creating Patient-centered Team-based Primary Care. White Paper. Agency for Healthcare Research and Quality. Available from: <https://pcmh.ahrq.gov/sites/default/files/attachments/creating-patient-centered-team-based-primary-care-white-paper.pdf> . Last Updated March 2016. Accessed November 2020.

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Patient-Centered Approach to Information Offering



Explore: Ask what the patient knows, has heard or would like to know about....

How are you managing your asthma/diabetes/blood pressure day to day?

Offer: With permission offer information in a nonjudgmental way.

Would it be o.k. if I shared more about that?

Explore: Ask the patient their thoughts, feelings and reactions to the information

Now that I've shared this, what are your thoughts?

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Psychological Assessment

Co-Occurring Diagnosis:

- Bipolar
- Anxiety/Depression
- Schizophrenia
- Substance-Use Disorder

History:

- History for behavioral health diagnosis
- Current treatment
- Medications

Assessment of Social Determinates of Health:

Explore with patient,

- Access-Many only fill prescriptions if the medication “works”. May not be receiving benefit of maintenance therapy.
- Cost-Medications may not be affordable or not covered by insurance
- Quality of care-May not feel heard or understood by care team.
- Living/working environment- Consider availability to take breaks, housing challenges, support systems

Social Determinates of Health (SDOH)

Video: Removing Barriers to Equitable Asthma Care Webinar. Available from: <https://primeinc.org/online/removing-barriers-equitable-asthma-care-evidence-based-actions-inclusive>

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Literacy and Health Literacy

Any patient can have low health literacy

- Explore with patient:
- What is your understanding of your?
- How do you best learn-verbally, picture, videos, pamphlets, internet etc?

Minimize Literacy Challenges:

- Use plain language
- Simplify explanations
- Use pictures
- Avoid medical jargon but define important terms and meaning
- Culturally appropriate language

Enhance Information/Education:

- Prioritize
- Chunk and check
- Teach back
- Return demonstration for correct technique

Removing Barriers to Equitable Asthma Care Webinar. Available from: <https://primeinc.org/online/removing-barriers-equitable-asthma-care-evidence-based-actions-inclusive>. Accessed June 20, 2022. Global Strategy for Asthma Management and Prevention (2022 update). Global Initiative for Asthma. Available from: <https://ginasthma.org/gina-reports/>. Accessed July 21, 2022.

Cultural Awareness

Normalize that “many of us have cultural, religious, family values, traditions and considerations that are important to us.

What would you like me to know that is important to you as we work together?”



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The Assessment and Care Coordination

Identify the team to include medical, behavioral and social needs members

- Integration with other systems, therapies, and services
- Coordination of care across specialty care, facility-based care and community organizations
- Outreach and communicate findings, concerns, changes in the care plan



Global Strategy for Asthma Management and Prevention (2022 update). Global Initiative for Asthma. Available from: <https://ginasthma.org/gina-reports/>. Accessed July 21, 2022.

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Conducting the Assessment to Engagement

We increase patient engagement by listening to the patient's story

- Identify knowledge, skills, strengths, gaps and potential educational needs
- Use open ended questions such as:
- What is your greatest concern? What do you hope for your health?
- How do you manage your asthma/COPD from day to day?
- Who else sees you for your health?



The assessment conversation leads to creation of the Plan of Care

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Plan of Care

Development of the Case Management Plan of Care:

- The case management plan of care is a structured, dynamic tool used to document:
 - the opportunities,
 - interventions, and
 - expected goals
- It includes:
 - Identified care needs,
 - barriers, and
 - Collaboration opportunities with:
 - the client,
 - family or caregiver,
 - and members of the interprofessional care team

The purpose is to provide more effective integrated care; Prioritized goals and outcomes to be achieved; and Interventions or actions needed to reach the goals.

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Self Management Education and Support



At diagnosis,

- **Explore** current knowledge, health beliefs, cultural influences, physical limitations, family support, financial status, medical history, literacy, etc.
 - Use this information to determine what content to provide and how
- **Review Options**
 - Personal strategies to address psychosocial issues and concerns and promote health and behavior change
 - Risk reduction through smoking cessation, foot care, etc
 - Nutrition
 - Preventing, recognizing/detecting, and treating acute and chronic complications
 - Goals for physical activity
 - Medication therapy

Powers MA, et al. Diabetes Self-management Education and Support in Type 2 Diabetes: A Joint Position Statement of the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Dietetics. *Diabetes Care*. 2015;38:1372-82.

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Self Management Education and Support

ANNUALLY

- Review and reinforce
- Emphasize prevention of complications and improved quality of life
- Discuss adaptability
- Support sustainment of initial behavior changes
- Recognize and support the ongoing burden of living with diabetes

TRANSITIONS

- Identify the need to modify the previous plan to support new and evolving needs
- Evaluate current caregiver/significant other involvement and facilitate education and support when appropriate
- Provide support for challenges associated with usual activity level and function, health beliefs and feelings of well being
- Maximize quality of life and emotional support

Powers MA, et al. Diabetes Self-management Education and Support in Type 2 Diabetes: A Joint Position Statement of the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Dietetics. Diabetes Care. 2015;38:1372-82.

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Self Management Education and Support

Complicating factors

- Emphasize self-care skills in an effort to delay the progression of disease and the onset of new complications
- Provide, refer, inform team of emotional support needs for disease-related distress and SMI
- Develop and support personal strategies for behavior change and healthy coping
- Assist with accommodation of sensory or physical limitations or new self-management demands
- Promote health and behavior change



Powers MA, et al. Diabetes Self-management Education and Support in Type 2 Diabetes: A Joint Position Statement of the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Dietetics. Diabetes Care. 2015;38:1372-82.

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During the Assessment: Use of Evidence-Based Guidelines



Asthma

- <https://ginasthma.org/>

COPD

- <https://www.atsjournals.org/doi/full/10.1164/rccm.202301-0106PP>

Hypertension

- <https://www.aafp.org/family-physician/patient-care/clinical-recommendations/clinical-guidance-hypertension.html>

Diabetes

- https://diabetesjournals.org/care/issue/46/Supplement_1

EBG: Asthma and COPD

Patient Identification



ASTHMA

- Jade age 17-Active high school student
- Office visit due to worsening respiratory symptoms-meds “don’t work”
- Plays soccer-having shortness of breath
- Triggers-seasonal allergies, family dog, exercise



COPD

- Joe age 82-retired body shop owner, long history of smoking
- Office visit for post discharge care Hospitalized for exacerbation of COPD also has Heart Failure.
- Retired but helped son in the body shop until 1 year ago. No energy for it now



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Definition: Asthma and COPD

- Asthma is a chronic (long-term) condition that affects the airways in the lungs. The airways are tubes that carry air in and out of your lungs. With asthma, the airways can become inflamed and narrowed at times. This makes it harder for air to flow out of your airways when you breathe out.
- About 1 in 13 people in the United States has asthma, according to the [Centers for Disease Control and Prevention](#).
- It affects people of all ages and often starts during childhood. Certain things can set off or worsen asthma symptoms, such as pollen, exercise, viral infections, or cold air. These are called asthma triggers. When symptoms get worse, it is called an [asthma attack](#).
- There is no cure for asthma, but [treatment and an asthma action](#) plan can help manage it. The plan may include monitoring, avoiding triggers, and using medicines.

GOLD 2023 defines COPD as a heterogeneous lung condition characterized by chronic respiratory symptoms (dyspnea, cough, excretion, and/or exacerbations) due to abnormalities of the airways (bronchitis, bronchiolitis) and/or alveoli (emphysema) that cause persistent, often progressive, airflow

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Medical goals of treatment



ASTHMA

Symptoms:

- Achieve good control of symptoms
- Maintain normal activity levels

Risk:

- Minimize risk of asthma related death, exacerbations, persistent airflow limitations and side effects



COPD

Symptoms:

- Achieve good control of symptoms
- Maintain normal activity levels

Risk:

- Minimize risk of asthma related death, exacerbations, persistent airflow limitations and side effects

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What Patients Need to Know



ASTHMA

- What is Asthma?
- Role of meds
- How to take meds correctly
- Avoid/deal with triggers
- How to Self monitor
- Self Care
- When to seek medical care
- How to use an asthma action plan



COPD

- What is COPD?
- Role of meds
- How to take meds correctly
- Role of Smoking/Smoking cessation
- How to recognize exacerbation
- Self care: Vaccines, energy conservation
- Controlling stress, support groups, pulmonary rehab
- When to seek medical care
- How to use a COPD action plan

Global Strategy for Asthma Management and Prevention (2022 update). Global Initiative for Asthma. Available from: <https://ginasthma.org/gina-reports/>. Accessed July 21, 2022. Global Initiative for Chronic Obstructive Lung Disease (GOLD): 2022 GOLD Report. Available from: <https://goldcopd.org/2022-gold-reports-2/>. Accessed July 21, 2022.

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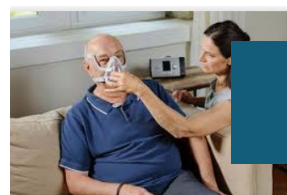
Key items included in the Medical Assessment



ASTHMA

- Current symptoms and management
- Medications including demonstration of technique
- Triggers and current management:

Pet allergy	Cockroaches	Pollen
Rodents	Mold	Allergic Rhinitis
Dust mites	Irritants	Exercise
GERD	Obesity	Weather/Seasons
Upper respiratory infections		
- Use of Asthma Action Plan



COPD

- Current Symptoms and management
- Medications including demonstration technique
- Vaccines
- Smoking
- Symptoms of exacerbation
- Use of COPD Action Plan

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Assessment: Biological - Psychological - Social



ASTHMA

Jade

- Psychological-PHQ=0 GAD=0
- SDOH=Home is old, a lot of carpeting. Supportive family
- Biological-SOB playing soccer
- Wakes up wheezing at night



COPD

Joe

- Psychological-PHQ=5 GAD= 3
- SDOH=widower living alone
- Too tired to deal with meals, doctor visits. Son and family are nearby.
- Biological-recently stopped smoking most of the time with occasional slips

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Role of Meds - What do they do?



ASTHMA

- Preventive medicines (“controllers”) protect the lungs & keep asthma attacks from starting. They reduce the swelling and mucus in the airways.
- Quick-relief medicines (“relievers”) are used to relieve asthma symptoms when they occur.
- Some inhalers contain both controller and reliever
- BE PREPARED. Always carry quick-relief asthma medicine when leaving home



COPD

- Maintenance medications are taken regularly, often daily, whether or not there are symptoms. They work to control symptoms over time. These are used regularly to keep airways open.
- Quick-relief rescue medications are used when there are increased COPD symptoms or flare-ups. These offer quick relief when having shortness of breath (maintenance medications can be continued during flare-ups)

Global Initiative for Asthma (GINA) GINA patient asthma guide: You can control your asthma. Available from : <https://ginasthma.org/wp-content/uploads/2021/05/GINA-Patient-Guide-2021-copy.pdf>. Accessed July 23, 2022

MANY THINGS CAN START ASTHMA ATTACKS.
THESE THINGS ARE CALLED "TRIGGERS":



**ANIMALS
WITH FUR,**
*if you are
allergic to them*



**CIGARETTE
SMOKE**



SMOKE



**DUST IN BEDS
AND PILLOWS**
*if you are allergic
to house dust mites*



**DUST FROM
SWEEPING**



**STRONG SMELLS
AND SPRAYS**



**POLLEN FROM TREES
AND FLOWERS**
if you are allergic to them



THE WEATHER



**RUNNING, SPORTS
AND WORKING HARD**



COLDS



WORKPLACE

*Some people find their asthma is made
worse from work related exposures.
If this is the case for you, talk to your doctor as
seeing a specialist may be helpful in this case*

Different people with asthma respond to different triggers.

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Dealing with Asthma Triggers

INDOOR TRIGGERS

- **Pet Allergies** - keep out of bedroom, outside
- **Rodents/Cockroaches** - common in urban areas. Caution-look for environmentally friendly exterminators.
- **Dust Mites** - Encase mattress, pillow, boxspring, use HEPA filter, reduce dust-rich environment ie carpet, upholstered furniture. Humidity less than 50%
- **Irritants** - triggers inflammation. Avoid smoking, vaping and 2nd hand smoke, solvents, cleaners, perfumes, work-related
-

OUTDOOR TRIGGERS

- **Pollen** - different plant at different times-stay inside, windows closed, air-conditioning, shower before bed
- **Mold** - dehumidifier, exhaust fans, avoid handling compost
- **Weather/Seasons** - cold air, hot and humid, wind, pollution

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Dealing with Exercise, Comorbidities



- **Exercise** - breath more rapidly-airways respond to cold, dry air. May need to pre-medicate.
- **Allergic Rhinitis** - nose is part of the continuous respiratory system. Treatment may include nasal steroids.
- **Upper Respiratory Infections** - increased airway responsiveness. Treat, good nutrition, rest, flu shot, wash hands
- **GERD** - backs up into the esophagus-stimulates cough. If more symptoms at night this may be cause. Treat/Prevent
- **Obesity** - comorbidity, reduced fitness, synergistic effect-weight loss improves asthma

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The Role of Smoking in COPD/Smoking Cessation

- Quitting smoking - even after a COPD diagnosis, is the best thing a person can do for one's health.
- E-cigarettes are not approved by the FDA to help people quit smoking. E-cigarettes may contain chemicals including known carcinogens.
- Smoking Cessation options:
 - Take a quit smoking medication — this can double or triple the rate of success!
 - Join a quit smoking group or one-on-one counseling.
 - Get support from loved ones to stay smoke-free.
 - Visit [Smokefree.gov](https://www.smokefree.gov) or call the Quit Line at 800-QUIT-NOW (800-784-8669)



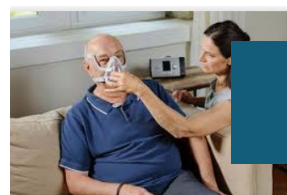
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Self Care



ASTHMA

- Take medications as prescribed using correct technique. Keep on hand.
- Get exercise
- Avoid triggers
- Maintain healthy sleep environment
- See provider at least yearly and following any flare-ups
- Follow Asthma action plan



COPD

- Take medications as prescribed every day
- Get exercise
- Eat well
- Reduce stress
- Conserve energy and Control breathing
- Consider Pulmonary Rehab
- Get support from family, friends, and COPD Support groups
- See provider at least yearly and following any flare ups
- Follow COPD Action Plan

Global Initiative for Asthma (GINA) GINA patient asthma guide: You can control your asthma. Available from : <https://ginasthma.org/wp-content/uploads/2021/05/GINA-Patient-Guide-2021-copy.pdf>. Accessed July 23, 2022. Asthma-GINA patient Guide 2021pg21 ...

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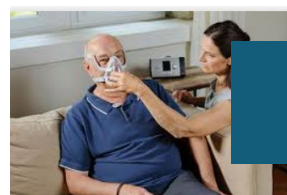
Self Monitoring



ASTHMA

Signs and Symptoms:

- Keep track of symptoms such as tight chest, cough, wheezing, notice and take action, if necessary, when symptoms start to worsen.
- Peak flow monitoring may sometimes be useful (PEF-peak expiratory flow)
- Follow personalized asthma action plan



COPD

Symptoms of Exacerbation:

- Keep track of symptoms noticing a change or decline in baseline such as cough, sputum and shortness of breath.
- Follow personalized COPD action plan
- Follow COPD Action Plan

Global Strategy for Asthma Management and Prevention (2022 update). Global Initiative for Asthma. Available from: <https://ginasthma.org/gina-reports/>. Accessed July 21, 2022. GINA2022 main report slide#92-AAP(Asthma Action Plan)show patients how to make short term changes to their treatment in response to changes in their symptoms or PEF Global Initiative for Asthma (GINA) GINA patient asthma guide: You can control your asthma. Available from : <https://ginasthma.org/wp-content/uploads/2021/05/GINA-Patient-Guide-2021-copy.pdf>. Accessed July 23, 2022. GINAPatientGuide 2021 pg 2 Michigan Asthma Resource kit-available from: <https://getastmahelp.org/mark-main.aspx>. Accessed July 31, 2022

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Action Plans: Asthma / COPD

- Self monitor of symptoms
- Make short term changes if symptoms worsen
- When and how to access additional medical care

ASTHMA ACTION PLAN

For: _____ Doctor: _____ Date: _____
 Doctor's Phone Number: _____ Hospital/Emergency Department Phone Number: _____

DOING WELL

- No cough, wheezes, chest tightness, or shortness of breath during the day or night
- Can do usual activities

And, if a peak flow meter is used,
 Peak flow: more than _____
 (50 percent or more of my best peak flow)
 My best peak flow is: _____

Daily Medications

Medicine	How much to take	When to take it
_____	_____	_____
_____	_____	_____

Before exercise: _____ 2 or 4 puffs 5 minutes before exercise

ASTHMA IS GETTING WORSE

1st: Cough, wheezes, chest tightness, or shortness of breath, or
 Waking at night due to asthma, or
 Can do some, but not all, usual activities

2nd: Peak flow: _____ to _____
 (50 to 79 percent of my best peak flow)

ADD: quick-relief medicine—and keep taking your GREEN ZONE medicine.

(quick-relief medicine) _____ Number of puffs _____ Can repeat every _____ minutes up to maximum of _____ doses

If your symptoms (and peak flow, if used) return to GREEN ZONE after 1 hour of above treatment:

Continue monitoring to be sure you stay in the green zone.

If your symptoms (and peak flow, if used) do not return to GREEN ZONE after 1 hour of above treatment:

Take: _____ (quick-relief medicine) _____ Number of puffs or _____ nebulizer
 Add: _____ mg per day For _____ (3-10) days
 (oral steroid)
 Call the doctor _____ before/within _____ hours after taking the oral steroid.

MEDICAL ALERT!

- Very short of breath, or
- Quick-relief medicines have not helped,
- Cannot do usual activities, or

Take this medicine: _____ (quick-relief medicine) _____ mg
 (oral steroid) _____ mg

ACTOR NOW. Go to the hospital or call an ambulance if:
 red zone after 15 minutes AND
 shed your doctor.

ACTOR NOW!

- Take _____ puffs of _____ (quick relief medicine) AND
- Go to the hospital or call for an ambulance _____ (phone) NOW!

COPD FOUNDATION

IT'S MY COPD ACTION PLAN
 www.copdfoundation.org

My Name: _____ Date: _____
 My Doctor's Name: _____ Phone: _____
 Emergency Contact: _____ Phone: _____

Please complete the section below. Bring all your medicines and inhalers along with a complete list to doctor's office visits. Think about your ability to perform these activities on a typical "green" day. Place one check mark in each column. In the last (blank) column write in an activity you would like to be able to do again. Check the box below to show how difficult it is to do that activity now. Share this goal with your healthcare team and your family.

	CLEANING	MAKING MY BED	BRUSHING MY TEETH	BATHING/SHOWERING	WALKING	CLIMBING STAIRS	WORKING	SLEEPING	EXERCISING	COOKING	
I can do this											
I can do this w/minor limitations											
I struggle to do this											
I cannot do this											

Instructions: Work with your doctor to complete this section on special medications for use on your Yellow and Red days.

My Green Days

A Normal Day for Me

- My breathing is normal
- My cough and mucus are normal
- My sleeping is normal
- My eating and appetite are normal
- My activity level is normal

Take Action

- I will take all medications as prescribed
- I will keep routine doctor appointments
- I will use oxygen as prescribed
- I will exercise and eat regularly
- I will avoid all inhaled irritants & bad air days
- I will update my COPD Action Plan every 6 months

My Yellow Days

A Bad Day for Me

- I have a low grade fever that doesn't go away
- I have increased use of rescue medications without relief
- I have a change in color, thickness, odor or amount of mucus
- I am more tired than normal or have trouble sleeping
- I have new or more ankle swelling
- I am more breathless than normal
- I feel like I am catching a cold

Take Action

- I will limit my activity and use pursed-lips breathing
- I will take regular medications as prescribed
- I will report these changes to my doctor today
- I will start special medications* prearranged with my doctor which includes: _____

My Red Days

A Bad Day When I Need Help Right Away

- I have disorientation, confusion or slurring of speech
- I have severe shortness of breath or chest pain
- I have a blue color around my lips or fingers
- I am coughing up blood

Take Action

- I will call 911 right away
- I will start these special medications*: _____

* If symptoms are not improved in one day after taking special medications, consult your doctor. The contents of My COPD Action Plan is for information purposes only and is not intended to be a substitute for professional medical advice, diagnosis or treatment. For personal use only. Permission required for all other uses.

My COPD Action Plan can be used daily and should be updated every 6 months.
 Next update: _____

Global Strategy for Asthma Management and Prevention (2022 update). Global Initiative for Asthma. Available from: <https://ginasthma.org/gina-reports/>. Accessed July 21, 2022. Michigan Asthma Resource kit-available from: <https://getasthmahelp.org/mark-main.aspx>. Accessed July 31, 2022. Removing Barriers to Equitable Asthma Care Webinar. Available from: <https://primeinc.org/online/removing-barriers-equitable-asthma-care-evidence-based-actions-inclusive>. Accessed June 20, 2022

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Self Management Plan



ASTHMA

Jade

Desires education regarding:

- Meds (controller vs reliever)
- Exercise-pretreat
- Triggers-avoid
- Asthma Action Plan-medications
- Self Management Action Plan-patient goal “pretreat with medication before every soccer activity by keeping an inhaler in gym bag”



COPD

Joe

Desires education regarding:

- Meds
- Meals
- More energy
- COPD Action Plan
- Self Management Action Plan-patient goal “Eat small easy meals 3x/day and a snack”

Hypertension

Population Health

Why Focus on Hypertension?

- Hypertension is a leading cause of death worldwide.*
- In the U.S., hypertension affects approximately 32% of adults** and costs between \$131 and \$198 billion annually, including costs of medications, health care services, and loss of productivity from premature death.

Family physicians play a critical role in diagnosing, monitoring, and treating hypertension.



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Hypertension: Screening

USPSTF RECOMMENDATION:

- The USPSTF recommends screening for hypertension in adults 18 years or older with office blood pressure measurement.
- The USPSTF recommends obtaining blood pressure measurements outside of the clinical setting for diagnostic confirmation before starting treatment. (A recommendation)
JAMA. 2021;325(16):1650-1656. doi:10.1001/jama.2021.4987
- For children and adolescents:
 - The USPSTF found that the evidence is insufficient to assess the balance of benefits and harms of screening for high blood pressure in children and adolescents. More research is needed.



Population Health

Hypertension: Importance of Accurate Measurement

- Accurate measurement of blood pressure is essential to the diagnosis and management of hypertension.
- Ambulatory and home blood pressure measurements can be useful in diagnosis and monitoring.
- Although the optimal method for blood pressure measurement remains unclear and under investigation, diagnosis requires two or more blood pressure readings on two or more occasions that meet the criteria for hypertension.



Population Health

Hypertension: Treatment

The goal of treatment is to reduce morbidity and mortality while minimizing risk of harms from medical intervention.

Recommendation 1:

- The AAFP strongly recommends clinicians treat adults who have hypertension to a standard blood pressure target (less than 140/90 mm Hg) to reduce the risk of all-cause and cardiovascular mortality (strong recommendation; high-quality evidence).
- Treating to a lower blood pressure target (less than 135/85 mm Hg) does not provide additional benefit at preventing mortality; however, a lower blood pressure target could be considered based on patient preferences and values.

<https://www.aafp.org/family-physician/patient-care/clinical-recommendations/clinical-guidance-hypertension.html>

Recommendation 2:

- The AAFP recommends clinicians consider treating adults who have hypertension to a lower blood pressure target (less than 135/85 mm Hg) to reduce risk of myocardial infarction (weak recommendation; moderate-quality evidence).
- Although treatment to a standard blood pressure target (less than 140/90 mm Hg) reduced the risk of myocardial infarction, there was a small additional benefit observed with a lower blood pressure target.
- There was no observed additional benefit in preventing stroke with the lower blood pressure target.

Population Health

Hypertension: Co-Occurring Diagnosis

- Accumulating evidence supports the association between cardiovascular disease (CVD) risk factors and bipolar disorder (BD).
- CVD is the leading cause of morbidity and mortality in patients with bipolar disorder.
- The mortality rates for these patients are approximately two times higher than are those of the general population according to several authors.



(Bobes et al., 2008; Druss et al., 2011; Walker et al., 2014; Wiener et al., 2011). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8249201/>

Population Health

Hypertension: Bipolar and CVD Risk Factors



- Individuals with BD are vulnerable to a variety of physical conditions considered as risk factors for CVD, such as hypertension, hyperlipidemia, type 2 diabetes, abdominal obesity, and metabolic syndrome, among other medical conditions.
- These risk factors might appear in BD patients from **4 to 20 years earlier than they do in the general population** (Goodrich et al., 2012).
- **Lifespan can be reduced anywhere from 8 to 25 years** (Carliner et al., 2014).
- The appearance of these risk factors in bipolar patients has been reported to be related to **psychiatric symptoms, unhealthy behaviors, psychiatric medications, and disparities in health services**.

Population Health

Hypertension: Risk Factors Due to Unhealthy Lifestyle



- Unhealthy behaviors such as smoking, having a poor diet, consuming alcohol, having a sedentary lifestyle, and not adhering to treatment are behavioral mechanisms that could induce CVD in BD patients.
- People with a mental illness (including BD) are more than twice as likely to smoke cigarettes and 50% more likely to be overweight/obese than people without a mental illness are (Compton et al., 2006).
- Environmental factors such as diet and lack of exercise are well-established causal factors (Bauer et al., 2016; Firth et al., 2019). Several studies suggested a relationship between an unhealthy diet and BD (Lopresti & Jacka, 2015). Having a poor diet was found to influence symptom severity.
- Healthy eating plays a role in preventing or minimizing the adverse effects of CVD risk factors. A sedentary lifestyle is an independent predictor of CVD (Vancampfort et al., 2016).
- Nonadherence to medication and other unhealthy behaviors as well influence these risk factors.

Population Health

Hypertension: Integration of SMI and Physical Health



- Our review has an emphasis on the management of CVD risk factors in BD patients in the primary healthcare context. The literature examined from January 2016 through December 2019 compared “treatment as usual” and other specific models of care in primary healthcare settings for people with severe mental illness, including bipolar patients.
- The studies found among January 2016 through December 2019 showed the importance of working with physical illness comorbidities and **emphasized that the patient with SMI should receive an integrated service with teamwork that helps the patient identify and treat CVD risk factors.**

What Works?

It's complicated!

In order to bridge the physical health-related gaps for this population, more complex and multifactorial interventions seem to be promising, including further elements, such as **coordination** with community resources, **continuous familiarity with service users** over time, and the **delivery of person-centered care** [[6](#),[41](#)].

Diabetes: Evidence-based Care

Population Health

Diagnosing Diabetes

FPG ≥ 126 mg/dL (7.0 mmol/L). Fasting is defined as no caloric intake for at least 8 h.*

OR

2-h PG ≥ 200 mg/dL (11.1 mmol/L) during OGTT. The test should be performed as described by WHO, using a glucose load containing the equivalent of 75 g anhydrous glucose dissolved in water.*

OR

A1C $\geq 6.5\%$ (48 mmol/mol). The test should be performed in a laboratory using a method that is NGSP certified and standardized to the DCCT assay.*

OR

In a patient with classic symptoms of hyperglycemia or hyperglycemic crisis, a random plasma glucose ≥ 200 mg/dL (11.1 mmol/L).

Population Health

Diabetes: Medical Goals



Overall, the goal is to prevent or delay complications and optimize quality of life

- **6.5a** An A1C goal for many nonpregnant adults of <7% (53 mmol/mol) without significant hypoglycemia is appropriate. A
- **6.5b** If using ambulatory glucose profile/glucose management indicator to assess glycemia, a parallel goal for many nonpregnant adults is time in range of >70% with time below range <4% and time <54 mg/dL <1%. For those with frailty or at high risk of hypoglycemia, a target of >50% time in range with <1% time below range is recommended. B (Refers to CGM)
- **6.6** On the basis of health care professional judgment and patient preference, achievement of lower A1C levels than the goal of 7% may be acceptable and even beneficial if it can be achieved safely without significant hypoglycemia or other adverse effects of treatment. B
- **6.7** Less stringent A1C goals (such as <8% [64 mmol/mol]) may be appropriate for patients with limited life expectancy or where the harms of treatment are greater than the benefits. Health care professionals should consider deintensification of therapy if appropriate to reduce the risk of hypoglycemia in patients with inappropriate stringent A1C targets. B
- **6.8** Reassess glycemic targets based on the individualized criteria in E

https://diabetesjournals.org/care/article/46/Supplement_1/S97/148053/6-Glycemic-Targets-Standards-of-Care-in-Diabetes

Population Health

Diabetes and Serious Mental Illness



Recommendations

- **5.50** Provide an increased level of support for people with diabetes and serious mental illness through enhanced monitoring of and assistance with diabetes self-management behaviors. B
- **5.51** In people who are prescribed atypical antipsychotic medications, screen for prediabetes and diabetes 4 months after medication initiation and sooner if clinically indicated, at least annually. B
- **5.52** If a second-generation antipsychotic medication is prescribed for adolescents or adults with diabetes, changes in weight, glycemia, and cholesterol levels should be carefully monitored, and the treatment plan should be reassessed accordingly. C

Population Health

Diabetes and Serious Mental Illness



SMI Considerations

- Studies of individuals with serious mental illness, particularly schizophrenia and other thought disorders, show significantly increased rates of type 2 diabetes (415).
- People with schizophrenia should be monitored for type 2 diabetes because of the known comorbidity.
- Disordered thinking and judgment can be expected to make it difficult to engage in behavior that reduces risk factors for type 2 diabetes, such as restrained eating for weight management.
- Further, people with serious mental health disorders and diabetes frequently experience moderate psychological distress, suggesting pervasive intrusion of mental health issues into daily functioning (416).

Population Health

Diabetes: Self-Management Education and Support



ADA Recommendations

- All patients newly diagnosed with diabetes should receive comprehensive diabetes self-management education that includes individualized instruction specific to:
 - Nutrition
 - Physical activity
 - Optimizing metabolic control
 - Preventing complications (Such as retinopathy, CV disease, Renal Insufficiency...)
- Benefits of education and support programs
 - Studies show a small but statistically significant reduction in A1C (0.5-1%) as compared to patients not enrolled
 - Reductions in hospital admissions, readmissions, and estimated lifetime healthcare costs
 - Reductions in the development or advancement of diabetes-related complications
 - Improved quality of life and lifestyle behaviors
 - Decreased risk of diabetes-related distress and depression

Wexler DJ. Initial management of blood glucose in adults with type 2 diabetes mellitus. In: UpToDate, Mulder JE (Ed), UpToDate, Waltham, MA, 2020.

Population Health

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Patient Case Breakout

Our Patient: Judy Toody



- 65-year-old Caucasian woman with a BMI of 42
- History of Diabetes Type 2 for 5 years. Treated with Metformin for 4 years. When her A1C increased to 8.5 she was started on Lantus. Judy has not been taking Metformin consistently since then.
- Comorbidities of heart failure, hypertension, hyperlipidemia and Bi-polar.
- Current findings-A1c=10.7, B/P=165/90, LDL =254
- Current PHQ=2
- Lives alone
- Transportation issues, sister helps when she can
- Has SSDI and Medicaid

Population Health

Diabetes: Starting the Assessment

Biomedical Considerations:

- What will be the evidence-based targets for Judy?

Patient-Centered Approach:

Part 1: Develop an open-ended question for each of these:

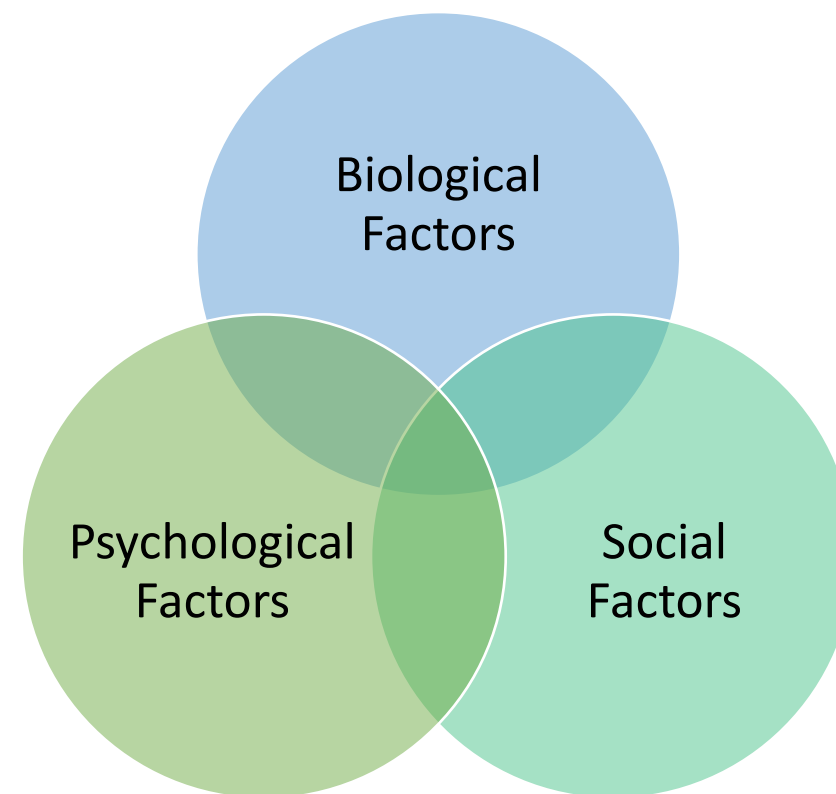
- Knowledge and ability to manage their mental health
- Social needs and supports
- Knowledge and ability to manage their physical health

Part 2: You identify a knowledge deficit regarding Judy's diabetes medications.

- Create a patient-centered approach to information sharing

Part 3: How will you engage with Judy to encourage her to self-manage around her medications?

Biomedical Psychosocial



Small Group Debriefing





Q & A



Thank You

- **Remember: Complete the evaluation and obtain certificates**
- **Next Topic: Team-based Care Roles and Responsibilities/Communication Strategies**