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Depression Treatment in Primary Care: Role of the PHQ-9

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Disclosures

- Nothing to disclose

- Many people to thank as I borrowed slides from presentations over the years used with ICSI, AIMS, and here at Mayo.

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MINNESOTA:
COME FOR THE CULTURE
STAY BECAUSE YOUR CAR
WON'T START

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Why Depression Care is Important

- Prevalence rates are approximately 2.3–3.2% in men and 4.5–9.3% in women
  - Prevalence in primary care 10-13%
- Lifetime risk for developing an episode of 7–12% for men and 20–25% for women
- World-wide is the 4th most disabling medical condition, climbing to 2nd by 2020
- Primary care provides at least 50 – 90 % of care for depressed outpatients

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The Burden of Depression

- Depressed adults have twice the annual health care costs as non-depressed
- Under-treated condition.
  - only 46-57% of the 12 million cases in the United States are receiving treatment for major depression
  - only 18-25% is adequately treated.

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Challenges in primary care

- **Limited time and competing priorities**
- **Limited follow-up -> early treatment dropout**
- **Staying on ineffective treatments for too long**
- **Limited access to mental health services**

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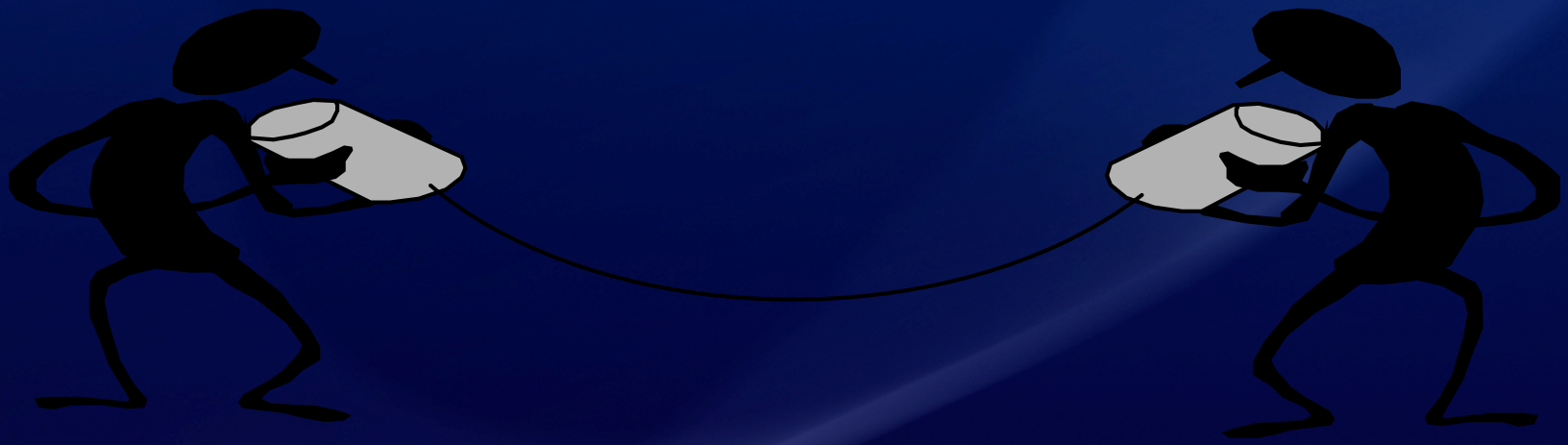
Importance of Common Metrics Such as PHQ-9 for Improved Communication

- Patient - Clinician
- Primary care - mental health specialty
- Aggregate data for quality improvement



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Vital sign for depression?

- Hypertension – systolic blood pressure, diastolic blood pressure
- Diabetes – Hgb A1C
- Asthma – peak flow?
- Hyperlipidemia – LDL, HDL
- Depression – PHQ-9
  - Establishes that the patient is endorsing having the symptoms that fit with the diagnosis

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Advantages of the PHQ-9

- Self-report, in person, by phone, on-line, interactive voice-response
- Multiple languages
  - http://www.phqscreeners.com/overview.aspx?Screener=02_PHQ-9
- Multiple patient populations (elderly, those with medical problems, etc)
- Over 700 articles published on use of the tool in various settings.

- Fann JR et al. Depression screening using the Patient Health Questionnaire-9 administered on a touch screen computer. Psychooncology; 2009 Jan;18(1):14-22.
- Pinto-Meza A et al, Assessing depression in primary care with the PHQ-9: can it be carried out over the telephone? JGIM 2005 Aug;20(8):738-42.

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STEP 1: SCREENING

US Preventive Services Task Force, 2009

(We) recommend screening adults for depression when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up.

Questions arise –

- screen everyone?
- If not, screen which people?

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Recognition

- Look for red flags and illnesses where depression is frequently co-morbid
- **Red flags:**
  - History of depression
  - Multiple unexplained somatic symptoms
  - Recent major stressor or loss
  - High healthcare utilizer
  - Chronic pain
  - Chronic illness(es)
  - Chief complaint of sleep disturbance, fatigue, appetite or weight change
  - Post partum
  - Domestic Violence

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PHQ 2

- First two questions on the PHQ-9
  - *Feeling down, depressed, or hopeless*
  - *Little interest or pleasure in doing things*
    - Score each 0-3 based on frequency
  - Score ≥ 3 shown to provide
    - Sensitivity of 83%
    - Specificity of 92% for Major Depression
- Kroenke K et al, The Patient Health Questionnaire-2: Validity of a Two-Item Depression Screener, Medical Care: November 2003 – Vol 41(11); 1284-1292.

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Alternative examples of PHQ-9 implementation

- Screen everyone
  - PHQ-2 verbally as they are being roomed or on the phone
  - PHQ-9 when positive
    - Need a plan to handle positives
  - Danger of over treating patients with temporary mood symptoms
  - Challenge of burnout on the forms for frequent patients
  - Still need another system to follow patients

- Support provider identification
  - Incentive to get a PHQ-9
    - care coordinator will take this patient off your hands
  - Make it easy to give a PHQ-9 in current practice
    - Paper, electronic version
- Create system to follow any score ≥ 10
- Add extra screening for vulnerable patients
  - Post-partum women

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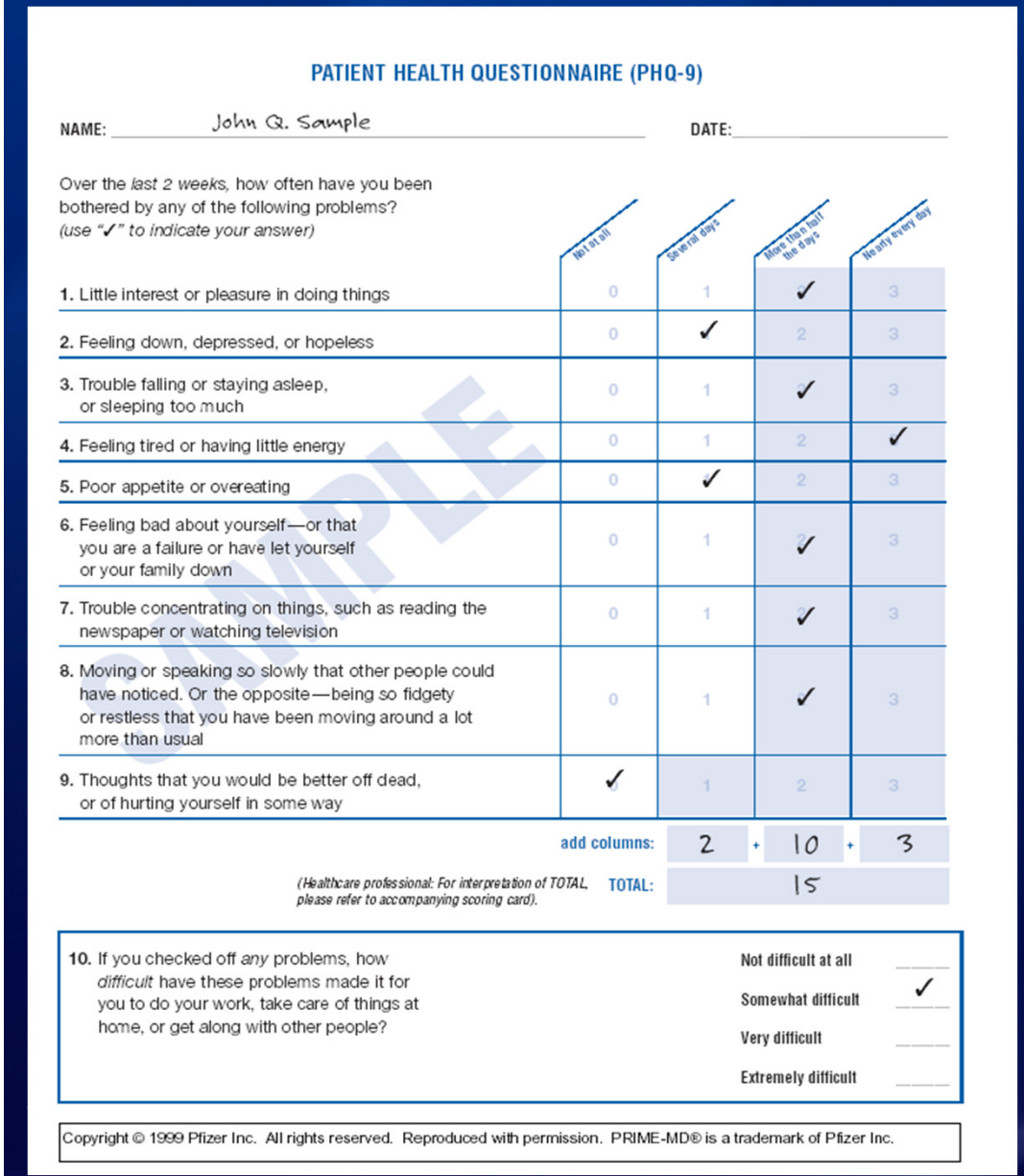
Assessment and Monitoring: PHQ-9



PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

NAME: John Q. Sample DATE: _____

Over the *last 2 weeks*, how often have you been bothered by any of the following problems?
(use "✓" to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	✓	3
2. Feeling down, depressed, or hopeless	0	✓	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	✓	3
4. Feeling tired or having little energy	0	1	2	✓
5. Poor appetite or overeating	0	✓	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	✓	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	✓	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual	0	1	✓	3
9. Thoughts that you would be better off dead, or of hurting yourself in some way	✓	1	2	3
add columns:	2	+ 10	+ 3	
TOTAL:	15			

(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card).

10. If you checked off *any* problems, how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all _____
- Somewhat difficult ✓
- Very difficult _____
- Extremely difficult _____

- Systematic tracking of symptoms
- Quick and easy to administer
- Assists in treatment modification
- Simply DSM criteria

PHQ-9 broken down…

- Diagnosis of Major depression
  - 5 or more of 9 symptoms
  - Present for ‘more than half the days’ in the past 2 weeks
  - One of these symptoms is depressed mood or anhedonia
- Item 9 – pay attention to suicidality
  - May not indicate immediate suicidal risk but could represent a vulnerability
    - Simon GE et al, Does response on the PHQ-9 Depression Questionnaire predict subsequent suicide attempt or suicide death? Psychiatr Serv. 2013 Dec 1;64(12):1195-202.

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AAFP/APA/ACP Initiative to Improve Depression Care

a. Do Psychiatrists Find PHQ-9 Scores Valuable In Their Practice?

b. What % of Treatment Decisions are Altered Based on PHQ-9 Score

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Duffy, Psychiatric Services 2008

# Helpfulness of PHQ-9 in Psychiatric Treatment Decisions
n = 6096 Patient Contacts

- PHQ-9 was helpful in Tx decisions 93%
- How did PHQ-9 influence Tx?
  - **Change Tx** **40%**
  - **Confirm Tx** **60%**

Duffy, Psychiatric Services 2008

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STEP 2: DIAGNOSIS

PHQ 9 and Major Depression

- Major depression is diagnosed if
  - 5 or more of the 9 depressive symptom criteria have been present at least “more than half the days” in the past 2 weeks, and
  - 1 of the symptoms is depressed mood or anhedonia.
  - One of the 9 symptom criteria (“thoughts that you would be better off dead or of hurting yourself in some way”) counts if present at all, regardless of duration.

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Guideline for Using the PHQ-9 for Initial Management

Score/ Symptom Level	Treatment
0-4 No depression	
5-9 Minimal	
10-14 Mild	
15-19 Moderate	
20-27 Severe	

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PHQ-9 scores ≥ 10

- Sensitivity of 88% and a Specificity of 88% for Major Depressive Disorder.
  - Sensitivity – how well does this test pick up or miss people who have depression?
  - Specificity – how well does the test distinguish true depression from something similar?
- Metanalysis of cut-off scores for diagnosing depression with PHQ-9
  - For detecting Major Depression, suggest cut-off scores between 8-11.

- Kroenke K, Spitzer R L, Williams J B (2001). The PHQ-9: validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16(9): 606-613.
- Manea L, Gilbody S, McMillan D (2012). Optimal cut-off score for diagnosing depression with the Patient Health Questionnaire (PHQ-9); a meta-analysis. CMAJ, Feb 21, 2012, 184(3); 191-196.

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Using the cut-off score of 10 in different settings

Table 2: Pooled estimates of the sensitivity, specificity, positive and negative likelihood ratios and diagnostic odds ratios of the brief Patient Health Questionnaire (PHQ-9) for diagnosing major depressive disorder, by setting

Setting	No. of studies	No. of patients	Sensitivity (95% CI)	Specificity (95% CI)	Positive likelihood ratio (95% CI)	Negative likelihood ratio (95% CI)	Diagnostic odds ratio (95% CI)
Primary care	6	1994	0.89 (0.66–0.97)	0.88 (0.80–0.93)	7.56 (3.93–14.55)	0.11 (0.02–0.45)	65.26 (9.17–464.47)
Hospital	5	1730	0.74 (0.55–0.86)	0.89 (0.87–0.91)	7.29 (5.68–9.37)	0.28 (0.15–0.52)	25.43 (11.35–57.00)

Note: CI = confidence interval.

- Diagnostic odds ratio - ratio of the odds of the test being positive if the subject has a disease relative to the odds of the test being positive if the subject does not have the disease.

- Manea L, Gilbody S, McMillan D (2012). Optimal cut-off score for diagnosing depression with the Patient Health Questionnaire (PHQ-9); a meta-analysis. CMAJ, Feb 21, 2012, 184(3); 191-196.

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Setting can be important

- Pooling all settings
  - Cut off score of 11 had best sensitivity (0.89) and specificity (0.89) combination
- Cut off score of 10
  - False negatives possible in the hospital setting
  - False positives may be seen in primary care

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Depression Diagnostic Codes

- 296.2x
  - Major Depressive Disorder, Single Episode
  - **First episode of major depression**
- 296.3x
  - Major Depression Disorder, Recurrent Episode
  - **Second episode of major depression**
- 300.4
  - **Dysthymic Disorder**
  - Depressed mood for most of the day, for more days than not, as indicated either by subjective account or observation by others, for at least 2 years

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STEP3: TREATMENT

Treatment Goals

- Remission of symptoms (PHQ-9 <5)
- Return to previous level of function
- Patient satisfaction

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Guideline for Using the PHQ-9 for Initial Management

Score/ Symptom Level	Treatment
0-4 No depression	**Consider other diagnoses**
5-9 Minimal	▪Consider other diagnoses **▪If diagnosis is depression, watchful waiting is appropriate initial management**
10-14 Mild	**▪Consider watchful waiting** ▪Consider function score when deciding whether to treat ▪If active treatment is needed, medication or psychotherapy is equally effective;
15-19 Moderate	▪Active treatment with medication or psychotherapy is recommended **▪Medication or psychotherapy is equally effective**
20-27 Severe	**▪Medication treatment is recommended** ▪For many people, psychotherapy is useful as an additional treatment ▪People with severe symptoms often benefit from consultation with a psychiatrist

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Evidence-based treatments

- Antidepressants
  - Response in 4-8 weeks at effective doses
- Psychotherapy
  - Cognitive Behavioral Therapy (CBT)

    8-12 sessions
  - Others
    - IPT (Interpersonal therapy)
    - Mindfulness training
- Behavioral activation
  - More powerful than you think and helps with depression and medical illnesses

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"Of course you feel great. These things are loaded with antidepressants."

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Why use antidepressants?

- Effective in 70% of patients with major depression (eventually)
- Effective in 4-12 weeks
- Evidence shows reduced relapses of those who stay on antidepressants
  - Also those getting CBT have fewer episodes
- Depression is a chronic illness
  - Returns 50% of the time after 1 episode
  - More frequently with each episode.

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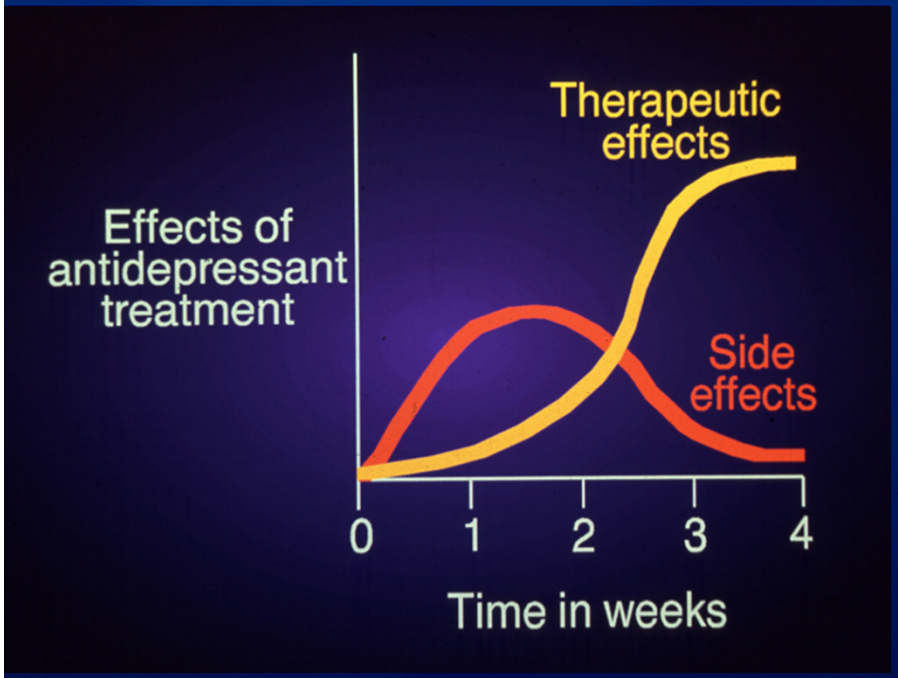
Antidepressant Adherence Message for your patients…



Key messages:

Take medication daily

Wait 2-4 weeks for effect

Side effects can occur, but often resolve in 1-2 weeks

Keep taking medication even if better

Check with MD before stopping

Not addicting

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Lin EH. *Med Care*. 1995; 33:67

Resources

- A video example is available at the AIMS center of a patient getting a PHQ-9 initially and on follow up
  - http://uwaims.org/tools/phq.html

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Questions?

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