

# Practice Management Tips For SHIFT WORK DISORDER



## INCREASE RECOGNITION OF SHIFT WORK DISORDER

### **For you:**

- Keep the screening questions below in mind; use checklist if initially needed
- Incorporate a few sleep/wake questions into systems review at yearly visits
- Keep copies of the Epworth Sleepiness Scale or a sleep/wake log in patient exam rooms, and use them when appropriate

### **For your patients:**

- Hang a poster in reception area and/or exam rooms to remind patients about the importance of sleep, especially associated with shift work

## SCREENING QUESTIONS FOR SHIFT WORK DISORDER

- Do you often feel tired or sleepy at work?
- Do you have difficulty sleeping?
- What are your sleep times?
- What are your work hours?
- What are your sleep times on days off?
- Do you often struggle to stay awake, or have you ever fallen asleep while driving to or from work?
- Do you often have difficulty with your concentration, memory, or ability to pay attention?

## ROLES AND RESPONSIBILITIES OF YOUR MEDICAL TEAM FOR SHIFT WORK DISORDER

### **For healthcare providers:**

- Yearly review – ask patients about occupation and get sleep/wake history
- Explain diagnosis and importance of management of shift work disorder

### **For medical assistants and nurses:**

- Insist that they check patient occupation when updating social history
- Help in patient education, counseling, handouts

### **For billing, diagnostic codes:**

- Organic Circadian Sleep Disorder, shift work type: 327.36
- Sleep/wake schedule disorder, frequently changing: 307.45
- Mismatch of sleep/wake schedule with lifestyle needs: 780.55

## WHEN TO REFER FOR SLEEP CONSULTATION

- If you are uncomfortable with or do not have time for managing shift work sleep/wake issues
- If you need to rule out other possibly comorbid sleep/wake disorders
  - Obstructive sleep apnea
  - Narcolepsy
  - Restless legs syndrome/periodic leg movement disorder
- If your treatments do not resolve sleep-related issues

## MOTIVATE YOUR PATIENTS

Explain to patients that effectively managing their shift work disorder should help improve their **quality of life**, including their health, functioning, and safety – at work, at home, and on the road.

# ICD-9 Diagnostic Codes/Reimbursement Issues Related to Shift Work Disorder

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- 327.36: Circadian rhythm shift work disorder
- 307.45: Sleep/wake schedule disorder, frequently changing
- 780.55: Mismatch of sleep/wake schedule with lifestyle needs
- 780.79: Fatigue
- 780.52: Insomnia
- 307.42: Persistent insomnia
- 292.85 / 291.82: Other circadian rhythm sleep disorder due to drug or substance abuse



# Patient Questionnaire

## Do you often feel tired or sleepy during your awake hours?



### Epworth Sleepiness Scale<sup>1</sup>

Rate Your Chance of Dozing Off: 0 = None, 1 = Slight, 2 = Moderate, 3 = High

Situation	Chance of Dozing Off
Sitting and reading	
Watching TV	
Sitting inactive in a public place (eg, in a theater or at a meeting)	
As a passenger in a car for an hour without a break	
Lying down to rest in the afternoon when circumstances permit	
Sitting and talking to someone	
Sitting quietly after a lunch without alcohol	
In a car while stopped for a few minutes in traffic	
Total ESS* score	

\*ESS score  $\geq 10$  indicates significant sleepiness.<sup>2</sup>

ESS = Epworth Sleepiness Scale.

1. Johns MW. *Sleep*. 1991;14:540-545.

2. Panossian LA, Avidan AY. *Med Clin North Am*. 2009;93:407-425.

# Cuestionario Para Paciente

## ¿Usted se siente a menudo cansado o soñoliento durante sus horas despiertas?

### Escala de somnolencia de Epworth<sup>1</sup>

Califique su probabilidad de quedarse dormido: 0 = Ninguna, 1 = Leve, 2 = Moderada, 3 = Alta

Situación	Probabilidad de Quedarse Dormido
Sentado leyendo	
Viendo televisión	
Sentado inactivo en un lugar público (p. ej. en un cine o en una reunión)	
Viajando como pasajero en un automóvil durante una hora sin interrupción	
Recostado para descansar por la tarde, cuando las circunstancias se lo permiten	
Sentado y conversando con alguien	
Sentado tranquilo después de un almuerzo sin alcohol	
Sentado en un automóvil detenido unos minutos por el tráfico	
Puntaje total de la ESS*	

\*Puntaje de la ESS  $\geq 10$  indica somnolencia excesiva.<sup>2</sup>

ESS = Escala de somnolencia de Epworth.

1. Johns MW. *Sleep*. 1991;14:540-545.

2. Panossian LA, Avidan AY. *Med Clin North Am*. 2009;93:407-425.

# Sleep/Wake Log

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 In bed   
  Out of bed   
  Lights out; trying to sleep   
  Asleep

Sun																						
Mon																						
Tues																						
Wed																						
Thurs																						
Fri																						
Sat																						

6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4  
 PM                      Midnight                      AM                      Noon

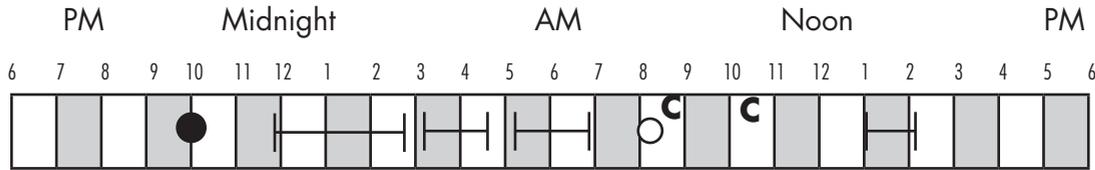
Total: \_\_\_\_\_

# SLEEP/WAKE LOG

Name: \_\_\_\_\_

Use these symbols ● Lights out or in bed trying to sleep |—| Asleep ○ Lights on or out of bed for the night ☉ Caffeinated coffee or soda

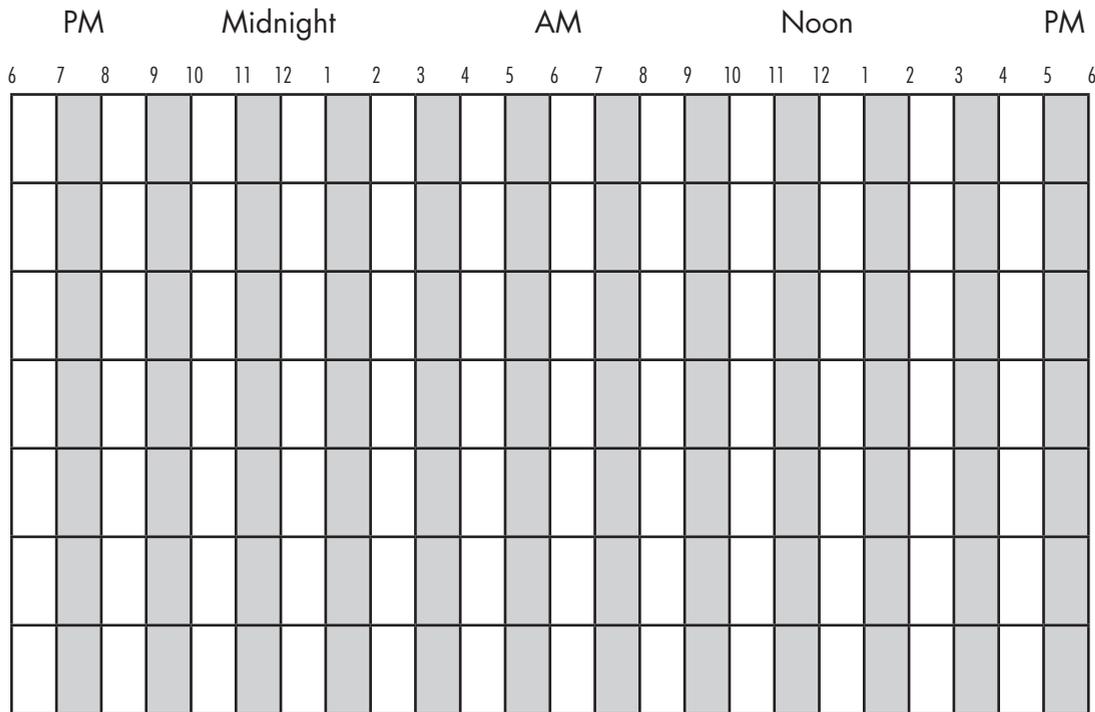
Example:



Day Date	How much sleep?	Sleeping aid, alcohol, medications? Time, type, amount	Sleep quality?	Awake-time fatigue?
Fri 06/11	6 hours + 1 hour nap	6:30 PM 1 beer 10 PM Ambien 10 mg	Hi (Mod) Lo	(Hi) Mod Lo

Fill out in the morning

Fill out in the evening



Day Date	How much sleep?	Sleeping aid, alcohol, medications? Time, type, amount	Sleep quality?	Awake-time fatigue?
_____	_____	_____	Hi Mod Lo	Hi Mod Lo
_____	_____	_____	Hi Mod Lo	Hi Mod Lo
_____	_____	_____	Hi Mod Lo	Hi Mod Lo
_____	_____	_____	Hi Mod Lo	Hi Mod Lo
_____	_____	_____	Hi Mod Lo	Hi Mod Lo
_____	_____	_____	Hi Mod Lo	Hi Mod Lo
_____	_____	_____	Hi Mod Lo	Hi Mod Lo

Adapted from Spielman & Glovinsky, NY, 1991.

Fold back this page before administering this questionnaire

## INSTRUCTIONS FOR USE

*for doctor or healthcare professional use only*

# PHQ-9 QUICK DEPRESSION ASSESSMENT

## For initial diagnosis:

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1. Patient completes PHQ-9 Quick Depression Assessment on accompanying tear-off pad.
2. If there are at least 4 ✓s in the blue highlighted section (including Questions #1 and #2), consider a depressive disorder.  
Add score to determine severity.
3. **Consider Major Depressive Disorder**
  - if there are at least 5 ✓s in the blue highlighted section (one of which corresponds to Question #1 or #2)**Consider Other Depressive Disorder**
  - if there are 2 to 4 ✓s in the blue highlighted section (one of which corresponds to Question #1 or #2)

**Note:** Since the questionnaire relies on patient self-report, all responses should be verified by the clinician and a definitive diagnosis made on clinical grounds, taking into account how well the patient understood the questionnaire, as well as other relevant information from the patient. Diagnoses of Major Depressive Disorder or Other Depressive Disorder also require impairment of social, occupational, or other important areas of functioning (Question #10) and ruling out normal bereavement, a history of a Manic Episode (Bipolar Disorder), and a physical disorder, medication, or other drug as the biological cause of the depressive symptoms.

## To monitor severity over time for newly diagnosed patients or patients in current treatment for depression:

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1. Patients may complete questionnaires at baseline and at regular intervals (eg, every 2 weeks) at home and bring them in at their next appointment for scoring or they may complete the questionnaire during each scheduled appointment.
2. Add up ✓s by column. For every ✓: Several days = 1 More than half the days = 2 Nearly every day = 3
3. Add together column scores to get a TOTAL score.
4. Refer to the accompanying PHQ-9 Scoring Card to interpret the TOTAL score.
5. Results may be included in patients' files to assist you in setting up a treatment goal, determining degree of response, as well as guiding treatment intervention.

### PHQ-9 SCORING CARD FOR SEVERITY DETERMINATION

*for healthcare professional use only*

Scoring—add up all checked boxes on PHQ-9

For every ✓: Not at all = 0; Several days = 1;

More than half the days = 2; Nearly every day = 3

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Interpretation of Total Score

Total Score Depression Severity

0-4	None
5-9	Mild depression
10-14	Moderate depression
15-19	Moderately severe depression
20-27	Severe depression

# Patient Health Questionnaire (PHQ-9) for Depression

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	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself - or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	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	2	3
9. Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3

Add columns  +  +

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

TOTAL:

10. If you checked off <i>any</i> problems, how <i>difficult</i> have these problems made it for you to do your work, take care of things at home, or get along with other people?	<b>Not difficult at all</b>	_____
	<b>Somewhat difficult</b>	_____
	<b>Very difficult</b>	_____
	<b>Extremely difficult</b>	_____

# Insomnia Severity Index

Please answer each of the questions below by circling the number that best describes your sleep patterns *in the past week*. Please answer all questions.

Please rate the current (past week's) SEVERITY of your insomnia problem(s):	None	Mild	Moderate	Severe	Very Severe
Difficulty falling asleep	0	1	2	3	4
Difficulty staying asleep	0	1	2	3	4
Problem waking up too early	0	1	2	3	4
How SATISFIED/DISSATISFIED are you with your current sleep pattern?	Very Satisfied 0	Satisfied 1	Neutral 2	Dissatisfied 3	Very Dissatisfied 4
To what extent do you consider your sleep problem to INTERFERE with your daily functioning (eg, daytime fatigue, ability to function at work/daily chores, concentration, memory, mood, etc)?	Not at All Interfering 0	A Little 1	Somewhat 2	Much 3	Very Much Interfering 4
How NOTICEABLE to others do you think your sleeping problem is in terms of impairing the quality of your life?	Not at All Noticeable 0	A Little 1	Somewhat 2	Much 3	Very Much Noticeable 4
How WORRIED/DISTRESSED are you about your current sleep problem?	Not at All Worried 0	A Little 1	Somewhat 2	Much 3	Very Much Worried 4

Total: \_\_\_\_\_

# Mallampati Scale to Evaluate Obstructive Sleep Apnea



**Class 1**  
Entire tonsil clearly  
visible

**Class 2**  
Upper half  
of tonsil fossa visible

**Class 3**  
Soft and  
hard palates clearly  
visible

**Class 4**  
Only hard  
palate visible

Higher score is associated with greater risk for obstructive sleep apnea.

# SHIFT WORK DISORDER

## Take-Away Points

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- ❑ Circadian rhythm misalignment is key to shift work disorder
- ❑ Excessive sleepiness and insomnia are symptoms of shift work disorder
- ❑ Shift work disorder is associated with circadian rhythm sleep disorders, mood disorders, and cardiovascular and metabolic disease
- ❑ Shift work disorder can be diagnosed based on sleep/wake history and sleep diary/log
- ❑ Management reduces risk for associated morbidities such as accidents, depression, sleepiness, and insomnia
- ❑ Ongoing management should be based on sleepiness severity, adverse events, comorbid conditions, treatment efficacy, and patient adherence
- ❑ Shift work disorder *can be* and *should be* managed effectively in primary care

# Do you have Shift Work Disorder?



- Do you often feel tired or sleepy at work?
- Do you have difficulty sleeping?
- What are your sleep times?
- What are your work hours?
- What are your sleep times on off-days?
- Do you often struggle to stay awake, or have you ever fallen asleep while commuting to or from work?
- Do you often have difficulty with your concentration, memory, or ability to pay attention?

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**If you work a shift that involves a nonconventional sleep-wake schedule and have excessive sleepiness and/or insomnia for  $\geq 1$  month, you may have Shift Work Disorder.**

Ask your clinician about sleep issues you are having and steps you can take to improve them. Getting proper sleep can improve your quality of life, including your health, functioning, and safety—at work, at home, and on the road.

**Getting proper sleep and functioning well is not an impossible task.**