

**CME**



**CAST**

**EPISODE 1**

# **Using Measurement-Based Care to Improve the Accurate, Early Detection of TD**

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Pharmaceuticals*



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# Learning Objective 1

Assess the impact of antipsychotic-induced TD on functioning, QoL, and the underlying psychiatric disorder

# Terminology

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**Stereotypes  
(aka classic  
tardive  
dyskinesia [TD])**

Coordinated, patterned, repetitive, rhythmic, purposeless but seemingly purposeful, or ritualistic movements, postures, or utterances that occur without an associated urge

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**Chorea**

Continuous, non-patterned movement that moves unpredictably from one body part to another and cannot be suppressed or interrupted

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**Dystonia**

Sustained contraction of a muscle or group of muscles producing an abnormal posture that recurs predictably with the same actions, though the movement pattern(s) do not repeat in the same form for a period of time

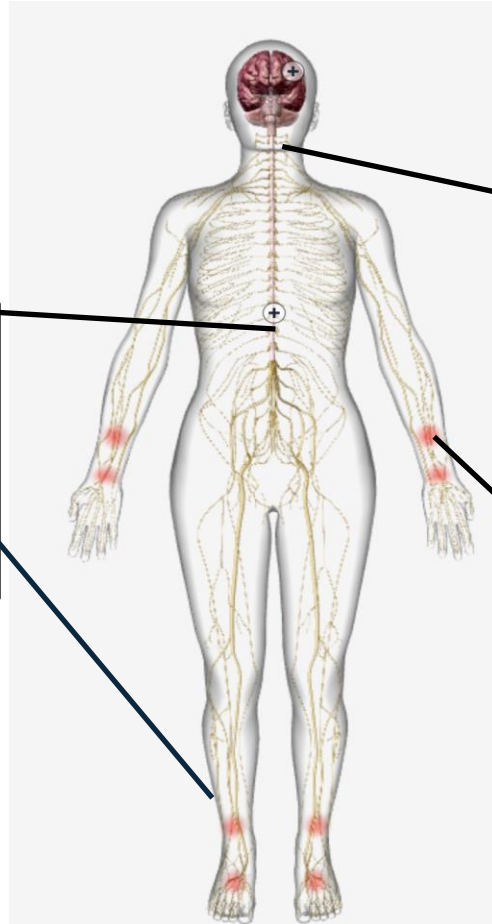
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**Akathisia**

Subjective feeling of motor restlessness manifested by a compelling need to be in constant movement

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# Impact of TD on Everyday Life: Motor System Impairments



## Truncal, Lower Extremity TD

- Gait
- Posture and postural stability
- Strength, power flexibility, physical capacity, exercise

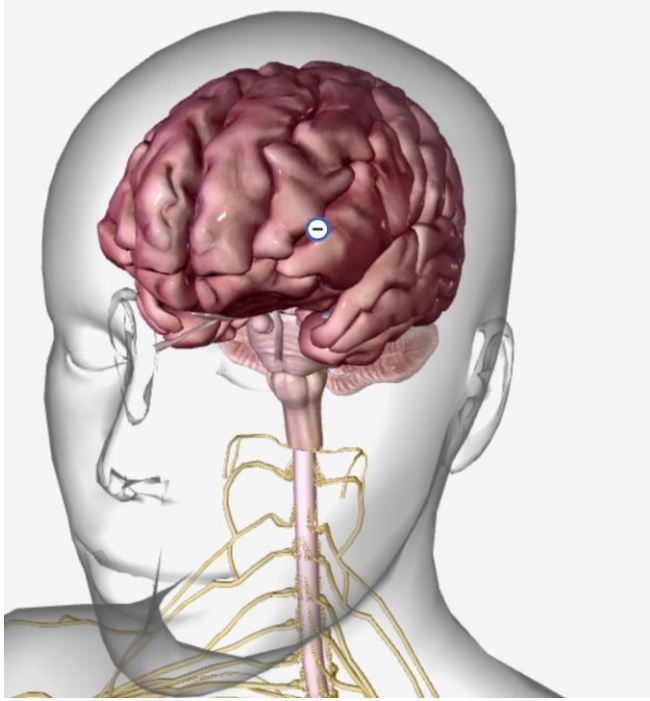
## Orolingual TD

- Speech
- Dentition
- Temporomandibular joint pain / myalgia
- Swallowing difficulties

## Upper Extremity TD

- Fine motor skills
- Instrumental activity of daily living
- Written communication




# Impact of TD on Everyday Life: Psychological Impairments



- Awareness
  - Depends on topography, impairment, feedback, and insight
- Cognition (associative studies)
  - Related to awareness
- Anxiety, worsened paranoia and isolation, stigma, social and/or educational/vocational impairment

# Patient Perspectives of TD: Social Media Listening Study

- N = 261 social media posts
- 64% negative; 33% neutral; 3% positive

Theme	Specific Aspect
Anger 	Frustrated or spiteful
	Extreme TD symptoms affecting life
	Recovering but terrible experience
	Suffering because of TD
Insecurity 	Feel ugly, weird, or insecure
	Feel unaccepted by society and uncomfortable in own skin
	Rather be dead
	Fear of people judging or asking questions
Symptoms 	Encourage open discussions of symptoms
	Struggles dealing with symptoms and treatment
	Details of symptoms with descriptions like “raw” or “jerky”



# Learning Objective 2

Incorporate measurement-based care to detect and monitor TD





# Tardive Dyskinesia: Risk Factors

Unmodifiable	Modifiable
<b>PATIENT RELATED</b>	<b>COMORBIDITY RELATED</b>
Older age	Diabetes
Female sex	Smoking
White and African descent	Alcohol/substance misuse
<b>ILLNESS RELATED</b>	<b>TREATMENT RELATED</b>
Longer illness duration	Dopamine receptor blocking agent
Intellectual disability and brain damage	Early parkinsonian side effects
Negative symptoms in schizophrenia	Treatment-emergent akathisia
Mood disorders	Anticholinergic co-treatment
Cognitive symptoms in mood disorders	Higher cumulative and current antipsychotic dose or plasma levels
Gene polymorphisms involving antipsychotic metabolism and dopamine functioning	

# Clinical Diagnosis of TD

- *DSM-5*: TD (ICD-10-CM: G24.01)
  - Involuntary athetoid or choreiform movements (lasting at least a few weeks) developing in association with the use of a neuroleptic medication for at least a few months.
  - Movements of this type may appear after discontinuation or after the dosages of neuroleptic medications are changed or reduced. Withdrawal-emergent dyskinesia is usually time-limited and lasts for less than 4 to 8 weeks; dyskinesia that persists beyond this window is considered to be TD.
  - Symptoms of TD may develop after a shorter period of medication use in older persons.

# Differential Diagnosis of TD

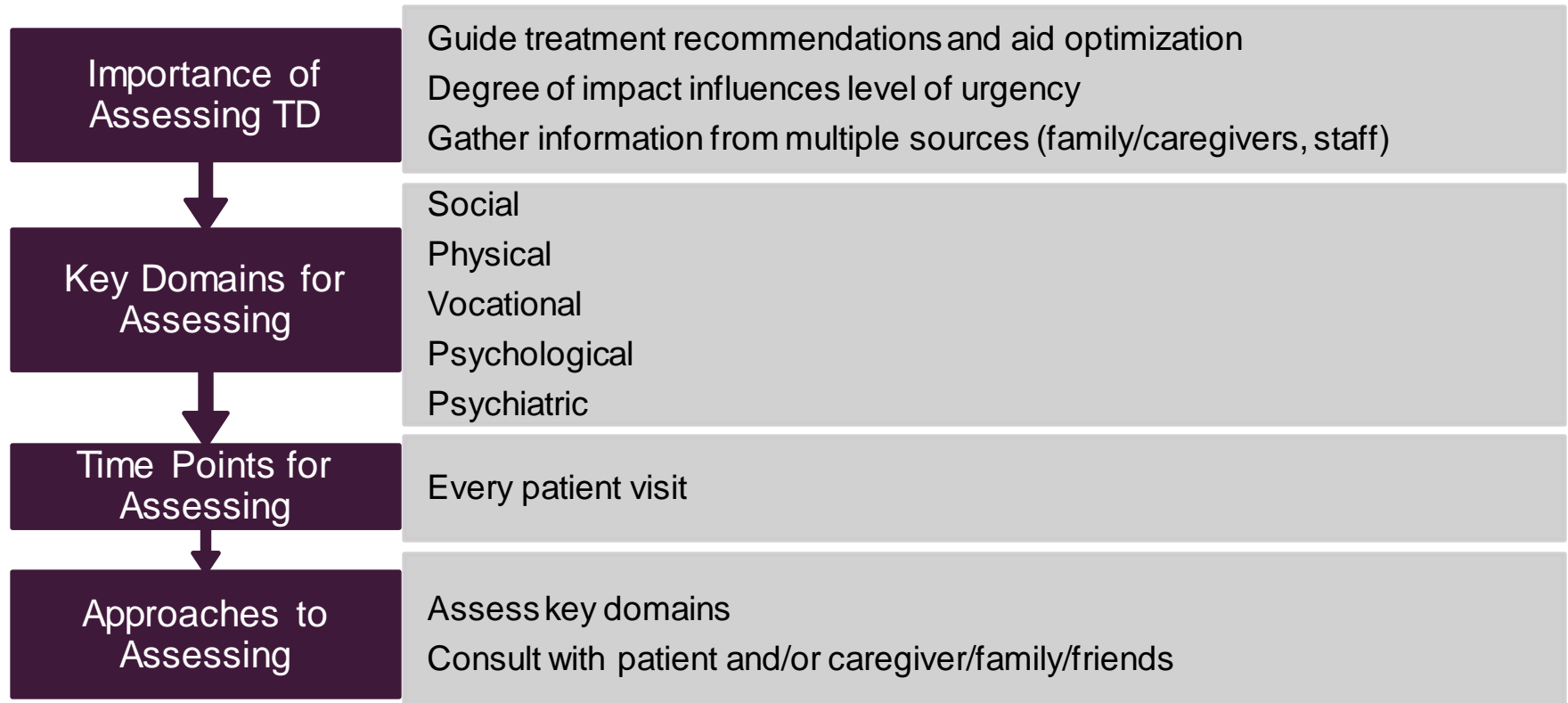
Illnesses that may produce TD-like movements

- Hepatolenticular degeneration (Wilson disease)
- Huntington disease
- Edentulous orodyskinesia
- Drug-induced dyskinesias
  - L-DOPA, lithium, SSRI, SNRI, TCA, etc.
- Immune-related chorea
- Senile chorea
- Rett syndrome
- Restless leg syndrome
- Spontaneous orofacial dyskinesia
- Stroke
- Tourette syndrome

# American Psychiatric Association (APA) Guidelines

Screen	Screen for TD before starting or changing patient's DRBA treatment
Monitor	Monitor for signs of TD at each visit
Conduct	Conduct structured TD assessment every 6 to 12 months, depending on patient's risk, and if new or worsening movements are detected at any visit
Consider	Consider a diagnostic evaluation

# Consensus Panel Recommendations for Assessment of the Impact of TD

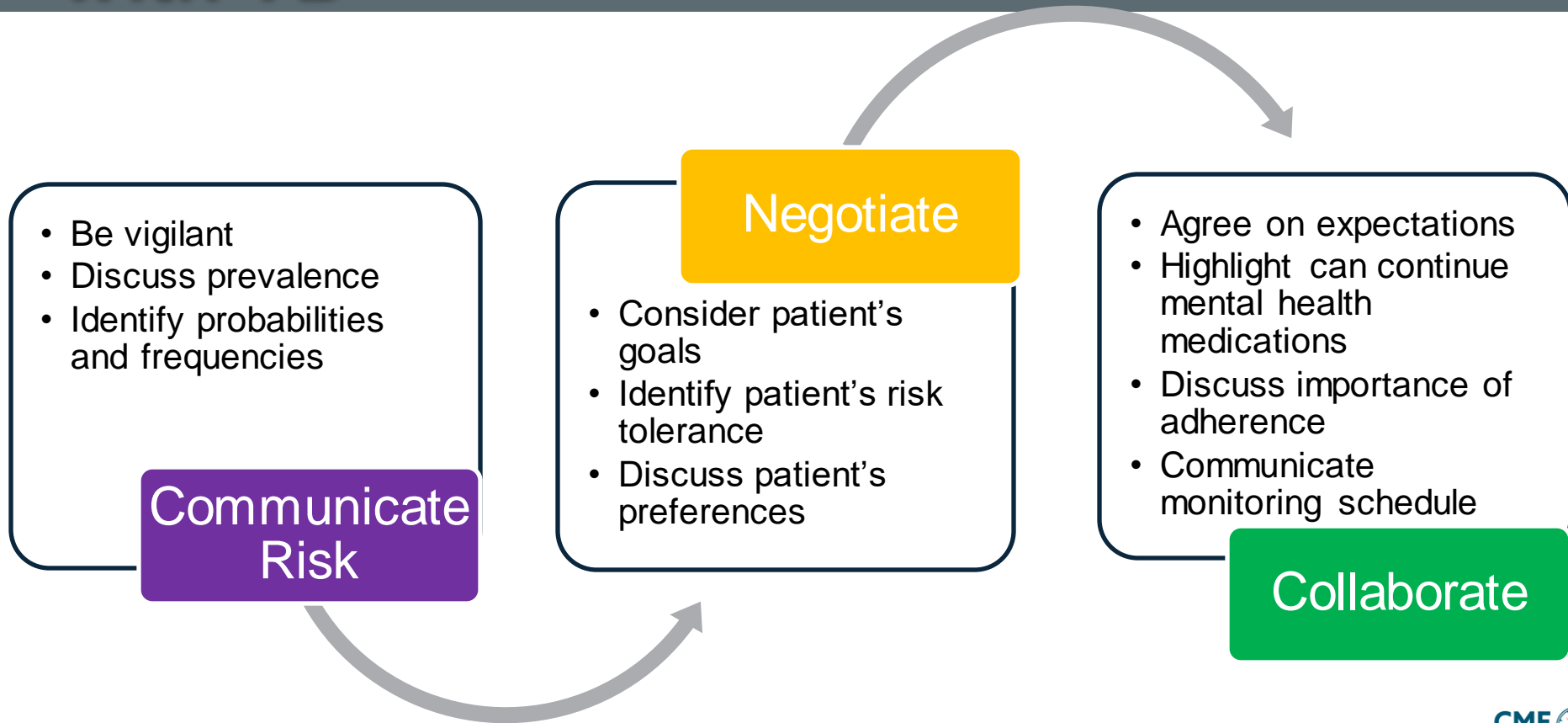


# Abnormal Involuntary Movement Scale (AIMS): The Standard of Care

- Observer-rated 12-item anchored scale that takes 5-10 minutes
- With first-generation antipsychotics (FGAs), examine for TD at least every 6 months
- With second-generation antipsychotics (SGAs) and no concomitant FGAs, examine for TD annually
- With patients at high risk for extrapyramidal symptoms (EPS) (e.g., older age, history of dystonic reactions, akathisia, clinically significant parkinsonism), examine every 3 months with FGAs and 6 months with SGAs

I FACIAL & ORAL MOVEMENTS	1. <b>Muscles of Facial Expression</b> e.g. movements of forehead, eyebrows, periorbital area, cheeks, including frowning, blinking, smiling, grimacing	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
	2. <b>Lips and Perioral Area</b> e.g. puckering, pouting, smacking	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
	3. <b>Jaw</b> Biting, clenching, chewing, mouth opening, lateral movement	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
	4. <b>Tongue</b> Rate only increases in movement both in and out of mouth. NOT inability to sustain movement. Darting in and out of mouth	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
II EXTREMITY MOVEMENTS	5. <b>Upper (arms, wrists, hands, fingers)</b> Include choreic movements (i.e. rapid objectively purposeless, irregular, spontaneous) athetoid movements. DO NOT INCLUDE TREMOR (i.e. repetitive, regular, rhythmic)	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
	6. <b>Lower (legs, knees, ankles, toes)</b> Lateral knee movement, foot tapping, heel dropping, foot squirming, inversion and eversion of foot	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
III TRUNK MOVEMENTS	7. <b>Neck, shoulders and hips</b> Rocking, twisting, squirming, pelvic gyrations	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
IV GLOBAL JUDGEMENT	8. <b>Severity of abnormal movements overall</b>	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
	9. <b>Incapacitation due to abnormal movements</b>	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
	10. <b>Patient's awareness of abnormal movements. Rate only patients report:</b> No Awareness = 0 Aware, no distress = 1 Aware, mild distress = 2 Aware, moderate distress = 3 Aware, severe distress = 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
V DENTAL STATUS	11. <b>Current problems with teeth and/or dentures</b>	YES NO	YES NO	YES NO	YES NO
	12. <b>Are dentures usually worn</b>	YES NO	YES NO	YES NO	YES NO
	13. <b>Endentia?</b>	YES NO	YES NO	YES NO	YES NO
	14. <b>Do movements disappear with sleep?</b>	YES NO	YES NO	YES NO	YES NO

# Shared Decision-Making in Patients with TD



# SMART Goals

Specific, Measurable, Attainable, Relevant, Timely

- Identify patients at high risk to develop TD
- Incorporate the use of rating scales such as AIMS, in conjunction with diagnostic criteria, for the assessment and differential diagnosis of involuntary abnormal movements
- Incorporate shared decision-making strategies to improve patient communication about the impact of TD and empower engagement in treatment planning



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**EPISODE 2**

Making the Right Moves for the Long-Term  
Management of Antipsychotic-Induced TD:  
Evidence-Based Strategies to Improve Quality of  
Life and Patient-Centered Outcomes

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