Tardive Dyskinesia (TD) Screening Toolkit

A Team-Based Approach to
DISEASE AWARENESS, IDENTIFICATION, AND ASSESSMENT

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Toolkit Introduction

Over 5% of US adults, about 14.1 million people, live with a serious mental illness (SMI).[1] SMIs are a group of debilitating conditions that include schizophrenia, acute mania, bipolar disorder, major depressive disorder, delusional disorder, severe agitation, borderline personality disorder, Tourette syndrome, dementia, and substance-induced psychotic disorder.[2]

Many patients with SMI end up needing multiple medications to manage their condition and help them function.[3] Antipsychotic medication (AP) is the main treatment option for managing SMIs, both in the acute phase of illness and for longer-term management. APs are effective in controlling SMI symptoms, and maintenance doses are associated with lower relapse rates, but their prolonged use can lead to a condition called tardive dyskinesia (TD).[4]

TD is a persistent, involuntary movement disorder characterized by uncontrollable, abnormal, and repetitive movements of the face, torso, limbs, and fingers or toes. There are ~600,000 people in the United States living with TD, and, of those, ~65% have not yet been diagnosed.[5] Additionally, research suggests up to 30% of people who have taken first-generation antipsychotics and up to 21% of patients who have taken second-generation antipsychotics over a prolonged period may develop TD.[6]

In addition to the burden on the individual, studies show a significant economic burden associated with TD. For people with TD, the mean total all-cause healthcare costs increased by 26.2% post diagnosis. The major cost driver was inpatient admissions, with an increase of 56.1%, but outpatient clinic, outpatient pharmacy, and emergency room service costs were all also substantially higher.[7] The US total yearly healthcare and medication costs for people with TD were nearly double the costs for those without TD—$54,656 vs $28,777 per person, respectively.[7]

As we address the challenges of caring for people with SMIs, it's important to include TD in the conversation. TD has a significant physical, social, and psychological impact on individuals and a substantial economic impact on the broader healthcare system.[7] Proactive identification, diagnosis, and treatment of TD can positively impact the lives of people with this debilitating movement disorder and the organizations caring for them.

Neurocrine Biosciences has created a toolkit to support a team-based approach to TD awareness, identification, and diagnosis within your organization. With resources designed around key touchpoints across the care continuum, the toolkit provides materials tailored to staff roles beyond traditional clinicians. Leveraging all care team members who interact directly with this vulnerable population, including nonclinical staff, to support the screening of TD may create operational efficiencies that drive earlier diagnosis and treatment, without increasing the burden on clinical providers.

To learn more about Neurocrine's toolkit and how it can be integrated seamlessly within your staff workflows, please see pages 4-5.

Neurocrine is committed to relieving patient suffering, supporting care teams, and reducing disease burden. Thank you for playing a pivotal role in ensuring the vulnerable population suffering from TD get the diagnosis, treatment, and relief they need.

REFERENCES:

1. National Institute of Mental Health. Mental illness. Updated March 2023. Accessed July 11, 2024. https://www.nimh.nih.gov/health/statistics/mental-illness **2.** Chokhawala K, Stevens L. Antipsychotic medications. StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing. Updated February 26, 2023. Accessed July 11, 2024. https://www.ncbi.nlm.nih.gov/books/NBK519503/?report=classic **3.** Stassen HH, Bachmann S, Bridler R, et al. Detailing the effects of polypharmacy in psychiatry: longitudinal study of 320 patients hospitalized for depression or schizophrenia. *Eur Arch Psychiatry Clin Neurosci.* 2022;272(4):603-619. doi: 10.1007/s00406-021-01358-5 **4.** Howe J, Lindsey L. The role of pharmacists in supporting service users to optimise antipsychotic medication. *Int J Clin Pharm.* 2023;45(5):1293-1298. doi: 10.1007/s11096-023-01630-9 **5.** Tardive dyskinesia (TD). National Alliance on Mental Illness. Updated May 2024. Accessed July 11, 2024. https://namimainlinepa.org/tardive-dyskinesia-td/ **6.** Carbon M, Hsieh CH, Kane JM, et al. Tardive dyskinesia prevalence in the period of second-generation antipsychotic use: a meta-analysis. Psychiatrist.com. March 29, 2027. Accessed July 11, 2024. https://www.psychiatrist.com/jcp/tardive-dyskinesia-prevalence/ **7.** Utah Department of Health & Human Resources. Resources and Options Regarding Tardive Dyskinesia. November 2023. Accessed June 2, 2024. https://le.utah.gov/interim/2023/pdf/00004492.pdf

How It Works

TD may have an impact on quality of life and on healthcare utilization and costs.[1] Accurate diagnosis of TD is crucial for its effective treatment and management but is challenging due to the subtle and gradual onset and fluctuating nature of symptoms. The risk of TD associated with second-generation antipsychotic treatment is often underestimated, and mild cases may not be easily distinguished from everyday habits, tics, and mannerisms.[2] Even upon evaluation, TD may be difficult to identify as movements can present at rest but diminish when a person performs any form of volitional movement (eg, tongue dyskinesia reduces when they are asked to protrude their tongue).[3]

To increase the chances of identifying the subtle and shifting presentation of TD symptoms earlier in the course of the disease, it is best to leverage an interprofessional team. Diverse staff members can flag, screen, and assess for TD, depending on each member's role, training, and interaction type with persons undergoing care.

Integrating simple tools into different staff workflows can help drive earlier TD diagnosis and guideline-directed treatment.

Toolkit Components and Use

This toolkit provides the resources needed to **FLAG**, **SCREEN**, and **ASSESS** TD, including leveled background and education for both nonclinical and clinical care team members. Depending on their level of clinical knowledge and engagement with the people undergoing care, team members can be categorized as **FLAG(gers)**, **SCREEN(ers)**, and **ASSESS(ers)**.

FLAG:
This section can be used by team members who have short interactions with people undergoing care and limited clinical knowledge. Their role is simply to flag any abnormal involuntary movement they notice.

- **Care Team Members:** eg, front desk staff, nursing and medical assistant
- **Settings:** eg, waiting room, examination room, bedside, resident room, activity area
- **Resources:**
  - **Introduction:** 101-level introduction to TD (eg, what TD is, why it is a burden, and why nonclinical staff play an integral role in helping identify the condition)
  - **Education:** information on what TD may look and sound like
  - **Tool: Flagging Tool** to note if any abnormal involuntary movements are witnessed and where on the body they are witnessed
- **Use Case:** A care team member will complete the **Flagging Tool** and pass it to the next care team member, either via paper hand-off or by uploading it to the electronic health record (EHR)

  Note: The **Flagging Tool** has additional fields that can be used by the next level of provider aka SCREEN(ers). Guidance is provided with the Flagging Tool, noting pieces that are appropriate for use by this level of staff member.

How It Works (continued)

SCREEN:

This section can be used by care team members who have longer interactions with people undergoing care and who may have some clinical knowledge but are not able to formally diagnose TD.

- **Care Team Members:** eg, registered nurse, social worker, nursing or medical assistant, case manager, dietitian
- **Settings:** eg, examination room, bedside
- **Resources:**
  - **Introduction:** 201-level introduction to TD (eg, what TD is, why it is a burden, what it may look like, and why this level of staff plays an integral role in helping identify the condition)
  - **Education:** information on TD identification and appropriate use of the **Screening Tool**
  - **Tool: Screening Tool** (MIND-TD Questionnaire) to help facilitate a dialogue with at-risk people about the presence and impact of abnormal involuntary movements
- **Use Case:** If the **Flagging Tool** was used to note any abnormal involuntary movements, this care team member will review it. They will then complete the **Screening Tool** and pass both the **Flagging and Screening Tools** to the next care team member, either via paper hand-off or by uploading it to the EHR.

ASSESS:

This section can be used by care team members who have longer interactions with people undergoing care, are clinically trained, and are able to formally diagnose TD.

- **Care Team Members:** eg, physician, advanced practice provider, minimum data set (MDS) coordinator
- **Settings:** eg, examination room, bedside
- **Resources:**
  - **Introduction:** 301-level information on TD (eg, how TD can present and guideline-based recommendations for TD assessment and diagnosis)
  - **Education:** information on TD best practices and on appropriate use of the **Assessment Tool**
  - **Tool: Assessment Tool** (aka Abnormal Involuntary Movement Scale [AIMS] Assessment) to assess TD presence and severity
- **Use Case:** If the **Flagging and Screening Tools** were completed, this care team member will review and can complete the additional **Flagging Tool** fields during their interaction(s) with the person receiving care. They will then use the **Assessment Tool** to determine whether TD should be formally diagnosed and treated.

REFERENCES:

1. Carroll B, Irwin DE. Health care resource utilization and costs for patients with tardive dyskinesia. *J Manag Care Spec Pharm*. 2019;25(7):810-816. doi: 10.18553/jmcp.2019.25.7.810 **2.** Kremens DE. Earlier diagnosis of tardive dyskinesia. Psychiatrist.com. December 10, 2019. Accessed July 7, 2024. https://www.psychiatrist.com/jcp/diagnosing-tardive-dyskinesia/ **3.** Vasan S. Padhy RK. Tardive dyskinesia. Updated April 24, 2023. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024. https://www.ncbi.nlm.nih.gov/books/NBK448207/

Q&A

Q What if I don't have a FLAG level care team member within my organization? How about if I don't have a SCREEN level care team member?

A: This kit and its contents can be tailored to your organization's staff makeup. Pick and choose the appropriate content level based on the clinical knowledge and patient engagement of staff members at *your* organization.

Q Can Education be used across staff cohorts?

A: Staff members can review the education below their cohort (eg, SCREEN[ers] can review the FLAG[ers] education), but should not leverage education above their cohort because they may not have sufficient clinical knowledge to understand that information (eg, FLAG[ers] should not try to leverage the SCREEN[ers] education).

Q Can Tools be used across cohorts?

A: Similarly, staff members can use the tools below their cohort, but should not leverage tools above their cohort because they may not have sufficient clinical knowledge to correctly complete those associated tasks.

Q If an abnormal involuntary movement was not noted in the Flagging Tool, should the Screening Tool still be used? Similarly, if an abnormal involuntary movement was not noted in the Screening Tool, should clinical care members still use the Assessment Tool?

A: Yes, guideline-based recommendations state that patients on antipsychotics should be assessed regularly.[1]

Q How can I roll out this toolkit within my organization?

A: Consider presenting pages 4-5 (How It Works) to your clinical leads, service line directors, and/or educators. The **Introduction**, **Education**, and **Tools** for each group can be downloaded and shared digitally as well as printed. Contact your Neurocrine Corporate Account Manager (CAM) if you have questions about the resources, or if you'd like a paper version of the toolkit.

Use Case: FLAG, SCREEN, ASSESS

The scenario below shows how the TD Screening Toolkit may be integrated within a site of care.

The program was introduced to all care team members at a behavioral health center, and then the leveled sections FLAG, SCREEN, ASSESS, each including an **Introduction**, **Education**, and **Tool**, were shared with the appropriate group of team members.

A front desk staff member FLAG[ger] noticed an unusual movement in a patient in the waiting area. This observation prompted them to complete the **Flagging Tool**, which was used to note where on the patient's body the abnormal movement occurred. The **Flagging Tool** was then placed in the patient's chart.

When the nurse SCREEN[er] picked up the patient's chart on their way to bring the patient to the examination room, the **Flagging Tool** prompted them to use the **Screening Tool** to facilitate a dialogue with the patient about the presence and impact of abnormal/involuntary movements. Both the **Flagging and Screening Tools** were then placed in the patient's chart.

When the physician ASSESS[er] met with the patient, the **Flagging and Screening Tools** prompted a formal TD assessment.

All materials were uploaded into the EHR post appointment.

Use Case: SCREEN, ASSESS (No FLAG)

The scenario below shows how the TD Screening Toolkit may be integrated within a site of care. In this case, only 2 of the 3 levels are leveraged, still prompting a formal TD assessment.

The program was introduced to all care team members at a long-term care facility, and then the leveled sections FLAG, SCREEN, ASSESS, each including an **Introduction**, **Education**, and **Tool**, were shared with the appropriate group of team members.

A nurse SCREEN[er] noticed an unusual movement when checking on a resident. This observation prompted them to use the screening tool to facilitate a dialogue with the resident about the presence and impact of abnormal/involuntary movements. The completed **Screening Tool** was then placed in the resident's chart. When the physician ASSESS[er] met with the resident, the **Screening Tool** prompted a formal TD assessment.

All materials were uploaded into the EHR post patient interaction.

REFERENCE:

1. Kremens DE. Earlier diagnosis of tardive dyskinesia. Psychiatrist.com. December 10, 2019. Accessed July 7, 2024. https://www.psychiatrist.com/jcp/diagnosing-tardive-dyskinesia/

FLAG

Abnormal Involuntary Movements

FLAG Introduction

Download this material to learn more about the abnormal involuntary movements caused by TD and how you can play a part in helping those suffering from the condition get the support they need.

Introduction

Flagging Abnormal Involuntary Movements

You spend a lot of time with people undergoing care at your organization and are in a unique position to observe behaviors when they're not focused on their condition and movements. These are times when people make uncontrollable movements. For people with tardive dyskinesia (TD), your observations can be life-changing.

What Is TD?

TD is a movement disorder caused by certain drugs that treat mental illness. The condition causes different kinds of uncontrolled movements in the face and body, including[1]:

- Blinking rapidly
- Chewing motions
- Frowning or grimacing
- Grunting
- Puffing out the cheeks
- Smacking or puckering the lips
- Sticking out the tongue or poking it into the inside of the cheek
- Rocking the pelvis back and forth
- Swaying from side to side
- Tapping the feet
- Waddling movement when walking
- Wiggling or tapping the fingers (as if playing the piano)

TD symptoms are often subtle and can come and go. People may not realize they have TD, and signs may be missed even during clinical checkups. The impact of living with TD, however, can be physically and emotionally significant.[2]

Voices of Those With TD[3,4]:

"My symptoms of TD are very visible, and as a result, people look at me differently."

[Patient with TD]

"I find myself socializing less due to my TD, and I tend to isolate and that has impacted my relationships."

[Patient with TD]

Symptom Relief Is More Likely When TD Is Detected Early.[5] You Can Help Those With TD Get the Support They Need by:

1. Watching short **Educational** videos to help you recognize what TD looks and sounds like in real people
2. Using a simple **Flagging Tool** to note where on a person you witness an abnormal involuntary movement
3. Sharing the **Flagging Tool** with the care team member next meeting with the person undergoing care so they can look for similar movements and perform additional assessments

Thank you for doing what you can to help identify the people within your organization who may be suffering from this debilitating movement disorder and get them the treatment they need.

References: 1. Tardive dyskinesia. Penn Medicine. Accessed June 2, 2024. https://www.pennmedicine.org/for-patients-and-visitors/patient-information/conditions-treated-a-to-z/tardive-dyskinesia **2.** Jain R, Correll CU. Tardive dyskinesia: recognition, patient assessment, and differential diagnosis. *J Clin Psychiatry*. 2018;79(2):16-23. https://doi.org/10.4088/JCP.nu17034ah1c **3.** TalkAboutTD. https://www.talkaboutd.com/tardive-dyskinesia-td-stories **4.** Shelly's Perspective: Tardive Dyskinesia Can Make Me Feel Judged. Mind-TD.com. Accessed August 2, 2024. https://mind-td.com/impact/podcasts/shelly-s-perspective-tardive-dyskinesia-can-make-me-feel-judged **5.** Kremens DE. Earlier diagnosis of tardive dyskinesia. *J Clin Psychiatry*. 2020;81(1):NU18041BR1C.

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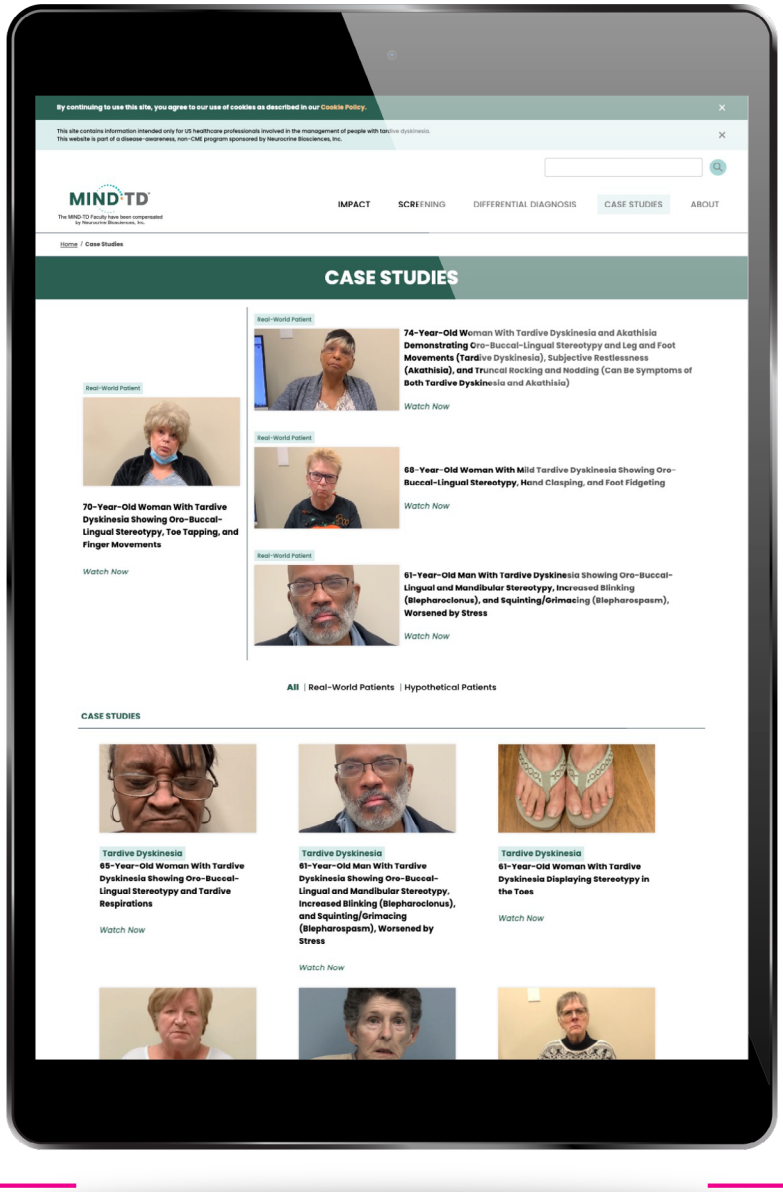
FLAG Education

Click **here** or scan the QR code below to view videos showing what abnormal involuntary movements look like in different parts of the body and how a person's speech may be affected.



Scan to Access This Material

FLAGGING Tool

Download this material, and use the outline of the human body, to flag where an abnormal involuntary movement is seen in a person. Simply note an X or check mark [✓] on the outline of the body.

Note: The additional fields in the piece should only be completed by care team members who have longer interactions with people undergoing care and who have some clinical knowledge.

Abnormal Movement Questionnaire

For healthcare professional use with patients taking antipsychotics for at least 3 months to help with their overall assessment of a patient's abnormal movements.[1]

This questionnaire was developed by Neurocrine Biosciences. This questionnaire has not been validated and is intended to provide general information about tardive dyskinesia assessment and not medical advice for any particular patient.

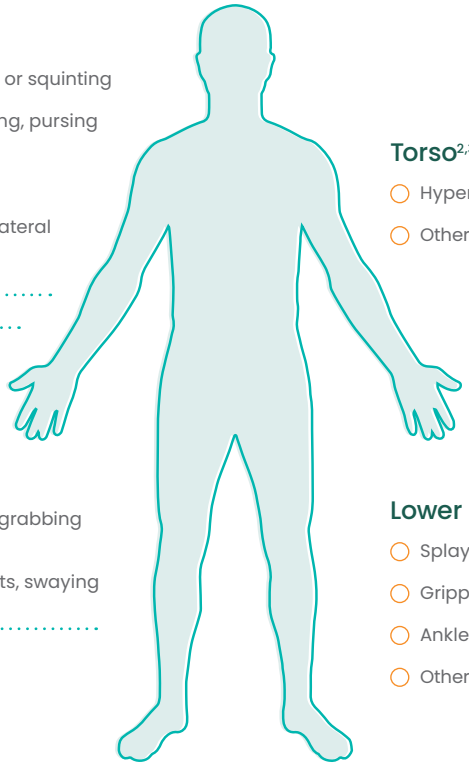
Patient name: ..... **Date of assessment:** .....

Step 1: Assess Movement

Ask your patients about any abnormal movements: Are you having any body movements you can't control? Have others noticed or commented on particular movements? Please select a description of the movements from the options below.

Head/face[2,3]

- ◯ Eyes – excessive blinking or squinting
- ◯ Lips – smacking, puckering, pursing
- ◯ Tongue – "bonbon" sign, protrusion, darting
- ◯ Jaw – biting, clenching, lateral movements, chewing
- ◯ Other: .....



Torso[2,3]

- ◯ Hyperextension, shifting, rocking
- ◯ Other: .....

Upper limbs[2,3]

- ◯ Hands – "piano fingers," grabbing of clothing
- ◯ Asymmetrical movements, swaying
- ◯ Other: .....

Lower limbs[2,3]

- ◯ Splayed or hyperextended toes
- ◯ Gripping
- ◯ Ankle twisting
- ◯ Other: .....

TURN OVER TO ASSESS IMPACT >

SCREEN
for Abnormal Involuntary Movements

SCREEN Introduction

Download this material to learn more about TD, the impact it can have, and how you may help those suffering from this condition get the diagnosis, treatment, and relief they need.

Introduction

Screening for Abnormal Involuntary Movements

Tardive dyskinesia (TD) is a drug-induced condition characterized by involuntary, repetitive movements in the face and body. It is associated with the use of antipsychotic medication—symptoms can occur within 6 weeks to several years after starting an antipsychotic.[1]

TD Impact on Patients

Complications associated with TD that may suggest a need for screening and further evaluation include[2,3,4]:

- Social withdrawal or isolation
- Difficulty eating/swallowing (dysphagia)
- Falls
- Respiratory problems
- Loss of employment
- Difficulty typing and/or writing[a]
- Difficulty sleeping[a]

The uncontrollable movements of TD can negatively impact people physically, socially, and emotionally. TD can lead to falls, difficulty eating, drinking, or swallowing.[5] TD's uncontrollable movements can make people self-conscious and cause them to withdraw socially; in turn, isolation may bring on or worsen depression or anxiety in a population already suffering from mental illness.[5] TD can also affect a person's ability to work.[5]

Early and accurate diagnosis is key to managing TD, but TD can be difficult to diagnose.[6] Symptoms of TD can be subtle and fluctuating, often have a gradual onset, and may be mistaken for symptoms of the patient's mental disorder. People may not realize they have TD, and signs may be missed even during clinical checkups.[7] Given this difficulty to diagnose, it's important that all care team members be on the lookout for TD. The time you spend with a person before they see a clinician is especially important. During this time, people may feel less self-conscious, allowing symptoms to present with less restriction. This, in turn, may result in more accurate screening.

Voices of Those With TD[8,9]:

"My symptoms of TD are very visible, and as a result, people look at me differently."

[Patient with TD]

"I find myself socializing less due to my TD, and I tend to isolate and that has impacted my relationships."

[Patient with TD]

You Can Help Those Suffering From TD Get the Diagnosis, Treatment, and Relief They Need by:

1. Watching short **Educational** videos to learn how to use a TD Screening Tool
2. Using the **Screening Tool** to help facilitate a dialogue about abnormal involuntary movements with people at risk for TD
3. Sharing the **Screening Tool** with a clinical team member so they can further assess, diagnose, and start treatment as appropriate

Thank you for doing what you can to help identify the people within your organization who may be suffering from this debilitating movement disorder and get them the treatment they may need.

[a]Based on a study of 61 patients diagnosed with TD and 189 patients who were suspected to have TD, as they experienced involuntary movements.
Base: Patient ATU 2023: Target patients (diagnosed TD or suspected TD), n = 250. Responses based on survey questions: "Since first experiencing involuntary movements, how has your ability to physically perform the following daily activities been affected, if at all?" and "How would you describe the severity of your involuntary movements?" Please use a scale of 1 to 5 when 1 means "Not at all affected" and 5 means "Extremely negatively affected." Results shown include the number of responses greater than or equal to 3 on the scale

References: 1. Tardive dyskinesia. Houston Methodist. Accessed June 5, 2024. https://www.houstonmethodist.org/neurology/conditions-treatments/movement-functional-disorders/conditions/tardive-dyskinesia/ **2.** Tanner CM, Caroff SN, Cutler AJ, et al. Impact of possible tardive dyskinesia on physical wellness and social functioning: results from the real-world RE-KINECT study. *J Patient Rep Outcomes.* 2023;7(1):21 **3.** Citrome L, Isaacson SH, Larson D, Kremens D. Tardive dyskinesia in older persons taking antipsychotics. *Neuropsychiatr Dis Treat.* 2021;17:3127-3134. **4.** Data on file. Neurocrine Biosciences, Inc. **5.** Shah C. Functional impairment in tardive dyskinesia. MedCentral. March 1, 2023. https://www.medcentral.com/neurology/tardive-dyskinesia/function **6.** Kremens DE. Earlier diagnosis of tardive dyskinesia. *J Clin Psychiatry.* 2020;81(1):NU18041BR1C. **7.** Jain R, Correll CU. Tardive dyskinesia: recognition, patient assessment, and differential diagnosis. *J Clin Psychiatry.* 2018;79(2):16-23. doi:10.4088/JCP.nu17034ah1c **8.** TalkAboutTD. https://www.talkabouttd.com/tardive-dyskinesia-td-stories **9.** Shelly's Perspective: Tardive Dyskinesia Can Make Me Feel Judged. Mind-TD.com. Accessed August 2, 2024. https://mind-td.com/impact/podcasts/shelly-s-perspective-tardive-dyskinesia-can-make-me-feel-judged

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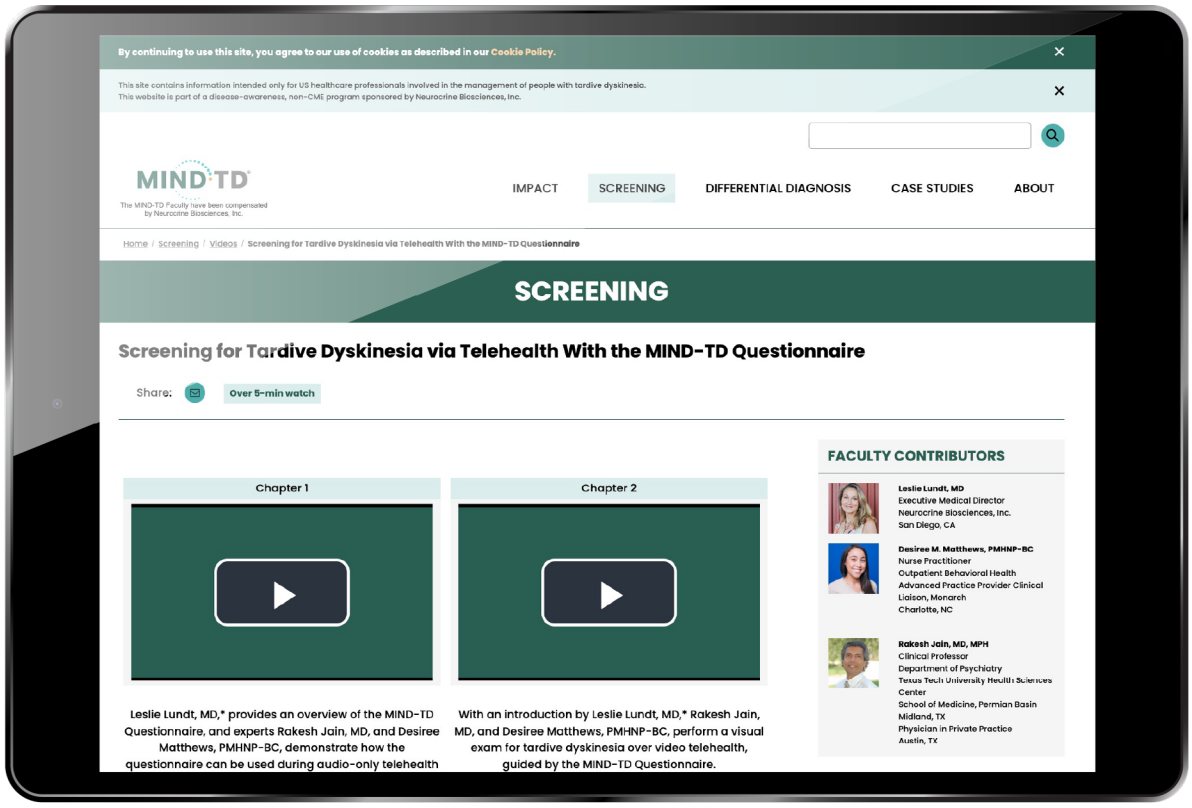
SCREEN Education

Click **here** or scan the QR code below to access overview videos of the MIND-TD Questionnaire and learn best practices around the use of the Questionnaire.



Scan to Access This Material

SCREENING Tool

Download the MIND-TD Questionnaire to help facilitate a dialogue with those at risk for TD about the presence and impact of uncontrollable movements.

The MIND-TD Questionnaire

MIND·TD®

The MIND-TD Questionnaire is intended to facilitate a dialogue about abnormal movements with patients at risk for tardive dyskinesia. Diagnosis of tardive dyskinesia should be based on the patient's medical history, symptoms, and the clinician's best judgment.

PART 1 This section may be administered by the treating clinician or by a medical staff member ahead of the visit. It can be administered in person or via video or audio-only telehealth.

Use this questionnaire as part of a routine visit for a patient with any of the following:

- ☐ Patients who are taking or have ever taken an antipsychotic medication (first or second generation)
- ☐ Patients who are taking anticholinergic medications, such as benztropine or trihexyphenidyl, in conjunction with current or past antipsychotic usage
- ☐ Patients who have a current diagnosis of tardive dyskinesia

M	**Movement** Do you have extra or unwanted movements in your body?	☐ yes	☐ no
I	**Impact** Do you feel embarrassed or self-conscious about movements in your body?	☐ yes	☐ no
N	**Notice** Has someone else seen extra movements in your body?	☐ yes	☐ no
D	**Daily Activities** Do any movements cause problems during your daily routine?	☐ yes	☐ no

If you suspect possible abnormal movements that could be related to TD, see Part 2 of this questionnaire for next steps.

PART 2 This section should be administered by the treating clinician. The "Differentiate" section requires visual observation of the patient, either in person or via video telehealth.

T Thorough Interview

Ask patient about:

- ☐ Problems with eating, drinking, or swallowing
- ☐ Sores in the mouth, teeth grinding or dental issues, mouth noises (for example, lip smacking, tongue clicking)
- ☐ Problems speaking or involuntary grunting
- ☐ Difficulty gripping objects (for example, a zipper, buttons, silverware, cup, toothbrush)
- ☐ Change in handwriting or difficulty typing
- ☐ Foot tapping or fidgeting movement of the legs
- ☐ Difficulty walking or loss of balance
- ☐ Do they notice their big toe goes up in the air when they have their socks off?
- ☐ Do their legs move or twist, or do their knees knock when they sit?

Instruct patient to say:

- ☐ LaLaLaLaLaLaLaLaLaLa
- ☐ KaKaKaKaKaKaKaKaKa
- ☐ MaMaMaMaMaMaMaMaMa

Listen for articulation problems.

Diagnosis of tardive dyskinesia should be based on patient history, symptoms, and the clinician's best judgment.

ASSESS
for TD

ASSESS Introduction

Download this material to learn more about the prevalence of TD, the impact it can have, and guideline recommendations for appropriate diagnosis of the condition.

Introduction

Assessing for Tardive Dyskinesia

It is estimated that 600,000 people in the US may have tardive dyskinesia (TD)[1,2]; prevalence rates are ~30% among people being treated with a first-generation antipsychotic (FGA), ~21% among people taking a second-generation antipsychotic (SGA) with unspecified FGA exposure, and ~7% in people taking SGAs with no prior FGA exposure.[3]

TD has important physical effects, including potential strength deficits and reduced range of motion, dental problems and difficulty eating, and trouble swallowing.[4-8] In addition to these physical impairments, TD also negatively affects activities of daily living. For people who are already trying to manage an underlying mental illness, TD is an added burden and may negatively impact overall mental well-being.[9,10]

Guideline Recommendations for TD Assessment

Screening is the first step toward TD diagnosis and treatment. Both the American Psychiatric Association (APA) treatment guidelines for schizophrenia and the modified Delphi consensus state that everyone with current or recent exposure to dopamine receptor blocking agents should be screened for TD.[11,12] If unusual movements are reported or observed, the APA guideline calls for assessment with a structured instrument, such as the Abnormal Involuntary Movement Scale (AIMS).[11,13]

For people considered "at risk" (ie, for those with exposure to antipsychotics or other dopamine receptor blocking agents), the APA treatment guideline requires differentiation between specific movement disorders: akathisia, dystonia, parkinsonism, and TD.[11] The APA guideline and the modified Delphi consensus both also recommend informal screening at every clinical visit.[11,12] Once a person has screened positive for TD, they should receive a full evaluation based on diagnostic criteria in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR) in order to receive an official diagnosis of TD.[14] The diagnosis code for TD is G24.01.[15]

View the following page for recommendations on translating guidelines to a potential road map for treatment of TD.

Provider Voices[3]:

"Tardive dyskinesia is so much more than 'just' a movement disorder. It exacts a heavy price from the afflicted individual's life in terms of bio-psycho-social functioning. And despite functional impact being the rule and not the exception, we clinicians often miss out on the opportunity to go beyond the mere screening and diagnosis of the disorder—to evaluating its functional impact on the individual. After all, it is only after one takes a full measure of the functional impact of tardive dyskinesia that one can optimally treat a patient suffering from this condition."

[Psychiatrist]

"We finally have effective medications for the treatment of a once-feared side effect of medications. We should no longer ignore the elephant in the room. Instead, we should proactively recommend treatment with VMAT2 inhibitors to appropriate patients to aid in their overall recovery. We need not just treat a patient's underlying psychiatric diagnosis; instead, we need to treat the whole patient."

[Psychiatrist]

You Can Support the Accurate and Efficient Diagnosis of TD by:

1. Reviewing **Education** that can support your ability to differentiate TD from other involuntary movement disorders
2. Reviewing **Education** to learn how to use the AIMS to assess the severity and progression of TD over time
3. Leveraging the **AIMS Tool** with the people you care for who have been flagged for, or are at risk for, TD
4. Treating people diagnosed with TD with guideline-directed vesicular monoamine transporter 2 (VMAT2) therapy

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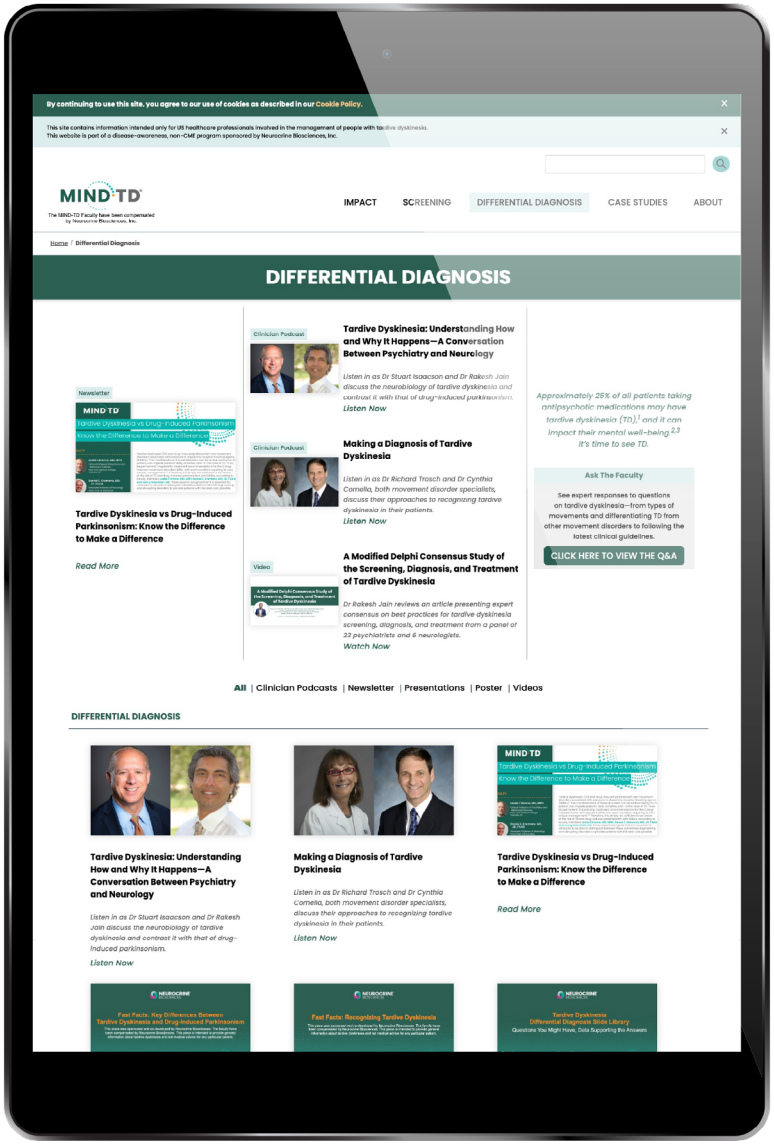
ASSESS Education

Click **here** or scan the QR code below to view resources that will support your ability to differentiate TD from other involuntary movement disorders.



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ASSESS Education

Download this material to learn how to use the Abnormal Involuntary Movement Scale (AIMS) to assess the severity and progression of TD over time.

Understanding the AIMS for Tardive Dyskinesia (TD)

A Practical User Guide for All Team Members*

This brief guide introduces the Abnormal Involuntary Moment Scale (AIMS) and describes how to use it to assess the severity and progression of tardive dyskinesia (TD).

*This guide is not a substitute for the AIMS and isn't meant to be a diagnostic tool. A clinician should make a diagnosis of TD based on a patient's history and symptoms, and their best judgment.

Who should be screened for TD?

- Individuals who **take or have ever taken an antipsychotic medication (first or second generation)** or any other medication that blocks dopamine receptors, such as some antiemetics for nausea and vomiting[1]
  - Individuals can get TD if they take or ever took an antipsychotic medication, but some people who may have an increased risk for TD are those who:

are over 55 years old, female, or White or African and African American

have a mood disorder, intellectual disability, or central nervous system injury

have or had akathisia, clinically significant parkinsonism, or acute dystonic reactions[1]

- Individuals who already have a TD diagnosis, so the clinician can follow its progression and response to treatment over time

Screening in a Telehealth Setting

It is common to see patients for regular psychiatry appointments via telehealth.[2] Many parts of the AIMS can be covered during routine video visits and these can be combined with in-office visits to allow for full AIMS exams at regular intervals.[3] Be sure to consider your state's guidelines for conducting telehealth visits.

ASSESSMENT Tool

Download the AIMS to assess the severity and progression of TD over time.

Abnormal Involuntary Movement Scale (AIMS)

Score	Descriptors (For items 1-7)
0	No dyskinesia
1	Minimal or slight dyskinesia: Low amplitude, present during some but not most of the exam
2	Mild dyskinesia: Low amplitude and present during most of the exam (or moderate amplitude and present during some of the exam)
3	Moderate dyskinesia: Moderate amplitude and present during most of the exam
4	Severe dyskinesia: Maximal amplitude and present during most of the exam

Facial and Oral Movements	None	Minimal	Mild	Moderate	Severe
1. **Muscles of Facial Expression** eg, movements of forehead, eyebrows, periorbital area, cheeks, include frowning, blinking, smiling, grimacing	0	1	2	3	4
2. **Lips and Perioral Area** eg, puckering, pouting, smacking	0	1	2	3	4
3. **Jaw** eg, biting, clenching, chewing, mouth opening, lateral movement	0	1	2	3	4
4. **Tongue** Rate only increase in movement both in and out of mouth, NOT inability to sustain movement	0	1	2	3	4
Extremity Movements					
5. **Upper (arms, wrists, hands, fingers)** Include choreic movements (ie, rapid, objectively purposeless, irregular, spontaneous), athetoid movements (ie, slow, irregular, complex, serpentine). DO NOT include tremor (ie, repetitive, regular, rhythmic)	0	1	2	3	4
6. **Lower (legs, knees, ankles, toes)** eg, lateral knee movement, foot tapping, heel dropping, foot squirming, inversion and eversion of foot	0	1	2	3	4
Trunk Movements					
7. **Neck, shoulders, hips** eg, rocking, twisting, squirming, pelvic gyrations	0	1	2	3	4

Global Judgments	None	Minimal	Mild	Moderate	Severe
8. **Severity of abnormal movements overall**	0	1	2	3	4
9. **Incapacitation due to abnormal movements**	0	1	2	3	4
10. **Patient's awareness of abnormal movements (rate only Patient's report)** 0=No awareness; 1=Aware, no distress; 2=Aware, mild distress; 3=Aware, moderate distress; 4=Aware, severe distress	0	1	2	3	4
Dental Status					
11. **Current problems with teeth and/or dentures**	☐ Yes ☐ No				
12. **Does the patient usually wear dentures?**	☐ Yes ☐ No				

Adapted from: Guy W. *ECDEU Assessment Manual for Psychopharmacology*. US Department of Health, Education, and Welfare, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, National Institute of Mental Health, Psychopharmacology Research Branch, Division of Extramural Research Programs; 1976.

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Neurocrine is committed to relieving patient suffering, supporting care teams, and reducing disease burden.

Thank you for playing a pivotal role in ensuring the vulnerable population suffering from TD get the diagnosis, treatment, and relief they need.

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