### National Falls Prevention Awareness Week Kick Off Call

APTA Geriatrics Balance and Falls SIG June 29th, 2022 7pm CST



### Introduction of the Geriatric BF SIG Executive Committee









# NATIONAL FALL PREVENTION AWARENESS WEEK

Welcome and Thank You From Board of Directors

# Our Experience Working Together with the Older Adults



### Miguel Musngi



- SPT Student from Governor's State.
   Graduate 2023
- Illinois Physical Therapy Association SSIG President
- Licensed Physical Therapist Assistant
  - Skilled Nursing Facility
- 2 community based activities
  - Senior Athlete Fitness Exam
    - Springfield, IL
  - Fall Prevention Screening in Chicago

"Tell Me and I Forget, teach me and I may remember, involve me and I learn"

Benjamin Franklin

### **Barriers**

- Blackwood and Sweet identified 4 themes
  - Negative Perception
  - Personal/Clinical Experiences
  - Interpersonal Relationships
  - Additional Contextual Barriers

Blackwood J, Sweet C. The influence of ageism, experience, and relationships with older adults on physical therapy students' perception of geriatrics. Gerontol Geriatr Educ. 2017;38(2):219-231. doi:10.1080/02701960.2015.1079709





## As a Student Physical Therapist

- Outreach Program
- Why older adults
- Meet the needs of the audience
- Preparation
- STEADI



#### STEADI Algorithm for Fall Risk Screening, Assessment, and Intervention among Community-Dwelling Adults 65 years and older





FOLLOW UP with patient in 30-90 days.

Discuss ways to improve patient receptiveness to the care plan and address barrier(s)



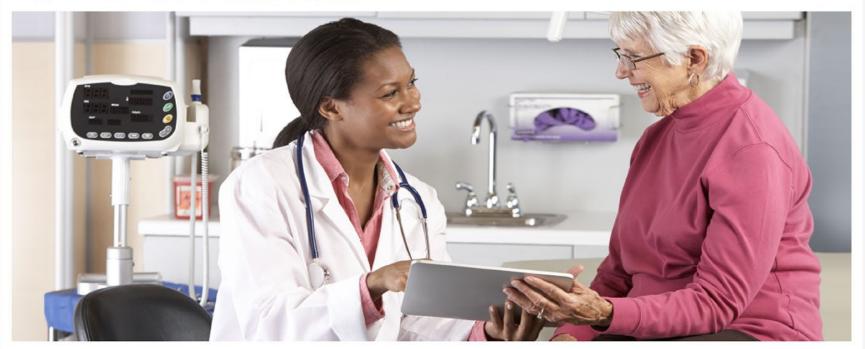
### **Check Your Risk for Falling**

Circle "Yes" or "No" for each statement below			Why it matters	
Yes (2)	No (0)	I have fallen in the past year.	People who have fallen once are likely to fall again.	
Yes (2)	No (0)	I use or have been advised to use a cane or walker to get around safely.	People who have been advised to use a cane or walker may already be more likely to fall.	
Yes (1)	No (0)	Sometimes I feel unsteady when I am walking.	Unsteadiness or needing support while walking are signs of poor balance.	
Yes (1)	No (0)	I steady myself by holding onto furniture when walking at home.	This is also a sign of poor balance.	
Yes (1)	No (0)	I am worried about falling.	People who are worried about falling are more likely to fall.	
Yes (1)	No (0)	I need to push with my hands to stand up from a chair.	This is a sign of weak leg muscles, a major reason for falling.	
Yes (1)	No (0)	I have some trouble stepping up onto a curb.	This is also a sign of weak leg muscles.	
Yes (1)	No (0)	I often have to rush to the toilet.	Rushing to the bathroom, especially at night, increases your chance of falling.	
Yes (1)	No (0)	I have lost some feeling in my feet.	Numbness in your feet can cause stumbles and lead to falls.	
Yes (1)	No (0)	I take medicine that sometimes makes me feel light-headed or more tired than usual.	Side effects from medicines can sometimes increase your chance of falling.	
Yes (1)	No (0)	I take medicine to help me sleep or improve my mood.	These medicines can sometimes increase your chance of falling.	
Yes (1)	No (0)	I often feel sad or depressed.	Symptoms of depression, such as not feeling well or feeling slowed down, are linked to falls.	
Total		Add up the number of points for each "yes" answer. If you scored 4 points or more, you may be at risk for falling.		

This checklist was developed by the Greater Los Angeles VA Geriatric Research Education Clinical Center and affiliates and is a validated fall risk self-assessment tool (Rubenstein et al. J Safety Res; 2011: 42(6)493-499). Adapted with permission of the authors.



### STEAD Stopping Elderly Accidents, Deaths & Injuries



### On Forward

Interaction
Building Relationships
Opportunities

### Thank You

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### **ANPT Balance & Falls SIG**



Debbie Espy, Chair



Nate Casey, Secretary

The elected officers of the Balance and Falls SIG



Laura Jacobs,
Nominating Committee



Anjali Sivaramakrishnan, Nominating Committee

We thank our outgoing members for their service



Hina Garg, Vice-Chair

We welcome our newly elected members beginning in July 2022:

Jennifer Nash, Chair Elect

Michele Collins Vice Chair

Marissa Lyon Nominating Committee



Gillian McLean, Nominating Committee, Chair

### ANPT Balance & Falls SIG: We can spread the word about your work!

How do you spread awareness on fall prevention & reduce falls?

**Publicize Your Balance and Falls Activities!** 

Ask questions

Make suggestions

Would you like to advertise your research projects or connect to other balance related research projects?

List of balance focused research

Contact any of us at the email listed, or at:

BalanceFallsSIG@gmail.com



### ANNUAL PREVENT FALLS CHALLENGE

National Fall Prevention & Awareness Day Video contest yearly – open to student groups. Prizes used to support student group activities.

The winning Fall Prevention video in 2021 was submitted by Old Dominion University

2022 contest to be opened this summer



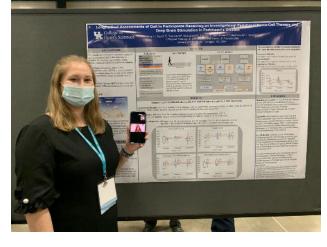
### **ANPT Balance & Falls SIG**

Poster and Platform Contest at CSM Annually

Best Poster Award – Basic or Applied Research Best Poster Award – Clinical Research Best Platform Award







#### CSM 2022 Winners:

Platform: Predicting Fall Risk in Persons with Multiple Sclerosis Utilizing the Msws-12. Caterina Marie Abate, Elizabeth S. Gromisch, Marc A. Campo, Jennifer A. Ruiz, Heather M. DelMastro

Poster; Clinical: Establishing a Timed 25-Foot Walk Cut-Off Score to Identify Non-Fallers Among Persons with Multiple Sclerosis. Gianna Bracco, Nadia Filipic, Nicole Pia, Annalisa Termini, Laura B. Simaitis, Jennifer A. Ruiz, Heather M. DelMastro

Poster; Research: Longitudinal Effects of Peripheral Nerve Cell Therapy during Deep Brain Stimulation in Parkinson's DiseaseAuthors: Warner Tarrants, Trevor Nicholas Taylor, Whitney McCowan, Tucker Trenary, Taylor N. Tuftee, Geetanjali Gera

### **ANPT Balance & Falls SIG**

### Podcasts - New things about balance and falls...

#### Balance & Falls SIG: Dr. Darcy Reisman Interview - Episode 9

Discussion of the January 2022 JNPT article interview: "Fluid Cognition Relates to Locomotor Switching in Neurotypical Adults, Not Individuals After Stroke." In this episode from the Academy of Neurologic Physical Therapy Balance and Falls Special Interest Group, Dr. Julie Schwertfeger interviews Dr. Darcy Reisman, Department Chair, Professor, and Academic Director, Neurologic & Older Adult Clinic at the University of Delaware. We discuss the research study, key concepts and measures used, and implications of the results for clinical practice.

#### Balance & Falls SIG: Dr. Debbie Espy Interview – Episode 8

In this episode from the Academy of Neurologic Physical Therapy Balance and Falls Special Interest Group, Dr. Julie Schwertfeger interviews Dr. Debbie Espy, Associate Professor in the School of Health Sciences & Center for Human Machine Systems at Cleveland State University, and Chair of the Balance and Fall SIG. We discuss her PT background, early influences and mentors, and clinical application of her novel research and validation of her clinical measure, the Rate of Perceived Stability.

#### Balance & Falls SIG: Dr. Cindy Gibson-Horn Interview- Episode 7

In this episode from the Academy of Neurologic Physical Therapy Balance and Falls Special Interest Group, Dr. Julie Schwertfeger interviews Dr. Cindy Gibson-Horn, the developer of BalanceWear and owner of Motion Therapeutics Physical Therapy. We discuss her PT background, her clinical 'aha' moment about strategic torso weighting to improve balance, and a series of research studies that use the BalanceWear system and assessment methods she developed.

### **Balance & Falls SIG: Awards**

New SIG awards have been created – these are open to SIG members and nominations are entered through the SIG leadership to the ANPT. Nominations for 2023 awards open until August 1, 2022

#### **SIG Service Award**

To acknowledge a member of a particular SIG who goes above and beyond through volunteer contributions to the SIG and its efforts. This award was first given out in 2021 and was won by Dr. Julie Schwertfeger.

#### **SIG Research Award**

This NEW award is to recognize a member of each SIG who has demonstrated exemplary contributions to the body of research representative of the population the SIG serves.

BalanceFallsSIG@gmail.com



### Balance & Falls SIG: We welcome your involvement!

Ways to get involved
Social media contact, management
Article reviews
Liaison with other organizations
Podcasts
Run for office

How to reach out or to get involved:

Email BalanceFallsSIG@gmail.com include your name and contact info

### **ANPT Resources for Balance and Falls Prevention**

### Clinical Practice Guidelines (CPG's):

#### neuropt.org/practice-resources/anpt-clinical-practice-guidelines

Published for: core outcome measures for adults with neurologic conditions, vestibular hypofunction, concussion, locomotion, AFO's and FES, Parkinson's Disease. In development for: Balance Rehabilitation and Falls Prevention in Neurological Populations.

### CPG: Core Set of Outcome Measures for Adults with Neurologic Conditions

<u>Full Clinical Practice Guideline Publication</u> <u>Quick Reference for Rehabilitation Professionals</u>

### Recommended Standardized Administration of the Core Measures:

- Berg Balance Scale
- Functional Gait Assessment
- Activities-Specific Balance Confidence Scale
- 10 Meter Walk Test
- 6 Minute Walk Test
- 5 Times Sit to Stand
- Quick Guide for Administration of all Measures
- Environmental Set Up for Core Measures Administration: Tips for Success

### Pocket Cards for Interpretation of Core Measure Scores:

Berg Balance Scale

- Function Gait Assessment Pocket Guide
- Activities-Specific Balance Confidence Scale
  - 10 Meter Walk Test

Knowledge Translation Report Card

and

 $\underline{Simplified\ Version\ of\ Knowledge\ Translation\ Report}$ 

**Card** 

for Patient Education and Shared Decision Making



### **ANPT Resources for Balance and Falls Prevention**

### **Evidence Database to Guide Effectiveness (EDGE)**

Use and evidence for outcome measures

neuropt.org/practice-resources/neurology-section-outcome-measuresrecommendations

- StrokEDGE recommendations
- Multiple Sclerosis EDGE recommendations
- Traumatic Brain Injury EDGE recommendations
- Spinal Cord Injury EDGE Recommendations
- Parkinson Disease
- Vestibular Disorders



### **ANPT Resources for Balance and Falls Prevention**

### Health Promotion and Wellness Resources

### neuropt.org/practice-resources/health-promotion-and-wellness

The Academy of Neurological Physical Therapy is committed to helping the profession of physical therapy promote health and wellness for individuals living with a neurological condition or injury. In efforts to reduce or eliminate secondary complications in individuals with neurological conditions, the Health Promotion & Wellness Practice Committee is devoted to development and dissemination of health and wellness resources to support the needs of the people we serve.

- Clinician Resources & Tools
- Client/Patient Resources & Tools
- Translation to Practice Settings
- Foundational Learning & Key Articles
- See more from your favorite ANPT SIG (<u>Brain Injury</u>, <u>Degenerative Diseases</u>, <u>SCI</u>, <u>Stroke</u>, <u>Vestibular Rehabilitation</u>, <u>Balance & Falls</u>, <u>Assistive Technology/Seating & Wheelchair Mobility</u>)
- PT delivery models-HPW Clinical Decision Tree
- Motivational Interviewing (MI) and Health Coaching Resources



### **ANPT Balance & Falls SIG**

Beyond outcome measures and fall risk identification:

ID of fall risk crucial – but what then?

### Intensity (cardiovascular) matters

neuropt.org/practice-resources/best-practice-initiatives-and-resources/intensity matters

Health Promotion and Wellness Resources - exercise/fitness guidelines

neuropt.org/practice-resources/health-promotion-and-wellness

# Fall Risk in the Oncology Population

Wednesday, June 29th at 7pm CST







\*Fall risk is often overlooked in cancer patients due to more pressing medical concerns.





### Cancer survivors have a higher prevalence of falls

- In older patients with cancer, where preexisting comorbidities complicate clinical presentation, significantly higher post diagnosis prevalence of balance and walking problems were found in individuals with non-Hodgkin's lymphoma, breast, prostate and lung cancer.<sup>1</sup>
- Characteristics of the cancer treatment and disease process influence the overall fall risk profile.<sup>1</sup>
  - Central nervous system tumors, brain tumors, and vestibular schwannomas, which often lead to conspicuous balance deficits, are likely to require adequate balance intervention



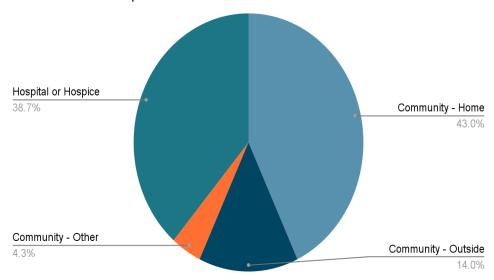
### Why are falls more concerning in those with cancer or a history of cancer?

- Low platelet counts: a patient could experience profuse bleeding if an injurious fall is experienced.
- Long bone and vertebral fractures: secondary but not limited to the following processes: metastatic tumors, primary bony tumors, osteopenia/osteoporosis, and sarcopenia
- Fall-related injuries in those with cancer can delay delivery of cancer treatments. Delay in cancer treatment may unfavorably alter care, ultimately worsening the course of the disease or prognosis.



### **Falls in Adults with Advanced Cancer**

Stone et al in 2012 reported a 52% fall rate for those with advanced cancer





### Chemotherapy Induced Peripheral Neuropathy (CIPN)

- Chemotherapy-induced peripheral neuropathy (CIPN) is the second most common acute side effect of cancer intervention, and it has been associated with gait and mobility deficits.<sup>3,4</sup>
- Severe CIPN has been associated with a 41% higher rate of falls when compared to those without neuropathy.<sup>5</sup>
- CIPN can also present as a delayed side effect, with symptoms occurring remote to the administration of chemotherapy and can persist without resolution.
- \*chemotherapy-induced cognitive impairment, which can affect balance, has been reported in up to 75% of cancer survivors.<sup>6</sup>



### Chemotherapy Induced Peripheral Neuropathy (CIPN) continued

Pattern of presentation, timing of symptom onset and progression of symptoms are helpful when differentiating CIPN from other impairments.

It is important to perform a thorough history and/or chart review to identify if the patient has had any of the above listed drugs as part of their treatment regimen. If so, then further screening for CIPN is warranted.

The most common subjective complaint is numbness or tingling of the fingers or toes<sup>1,17</sup>.

If weakness is a component, it will be symmetrical distal weakness.

More proximal weakness may be indicative of steroid related myopathy and unilateral weakness indicative of central or other peripheral nerve impairment (i.e. brain/spinal cord metastases or nerve plexus compression by tumor).

### EXAMPLE OF CHEMOTHERAPEUTIC DRUGS THAT CAN CAUSE CIPN

- PLATINUM DRUGS: CISPLATIN,
   CARBOPLATIN, AND OXALIPLATIN
- TAXANES: PACLITAXEL, DOCETAXEL,
   AND CABAZITAXEL
- PLANT ALKALOIDS, SUCH AS VINBLASTINE, VINCRISTINE, VINORELBINE, AND ETOPOSIDE

@SteelCityOncoPT





Screenin	g of Falls Risk and Balan	ce Impairment for Cancer	r Survivors
Body-structure or Domain		Reference	Miscellaneous psychometrics
Balance-oriented			
	Timed Up and Go	Isles 2004 <sup>24</sup>	Noncancer population 50-59 y.o. 6.44 sec 60-69 y.o. 7.24 sec 70-77 y.o. 8.54 sec
		Blackwood 2021 <sub>25</sub>	Older cancer survivors Cutoff scores TUG = 9.37 sec, Sens=0.71, Spec=0.80
		Wampler 2007 <sub>26</sub>	
Cognition			
•	Mini-Cog	Borson 2003 <sup>27</sup>	"possibly impaired" or "probably normal" Serves to screen for dementia
	15-item Geriatric Depression Scale	Shiekh and Yesavage 1986 <sup>28</sup>	0-4 normal 5-8 mild 9-11 moderate 12-15 severe
	Timed Up and Go	Blackwood 2021 <sub>25</sub>	Older cancer survivor Cutoff scores TUG-Cognitive=11.32 sec Sens = 0.64, Spec = 0.80
	Timed Up and Go manual		TUG-Manual = 9.84 sec, Sens = 0.71, Spec = 0.65
Fatigue			•
	10 point numeric rating scale	National Comprehensive Cancer Network 2017 <sub>29</sub>	≥4 identifies significant fatigue
Fear of Falling			
	Activities Specific Balance Confidence	Huang 2016 <sup>30</sup> Lajoie and Gallagher 2004 <sup>31</sup>	<66% increased risk of falls



APTA Oncology
Balance and Falls
Special Interest Group

Sensation			
	Monofilament protective sensation	Feng 2009 <sub>32</sub>	Fail to detect >1 site of 3
	128 Hz tuning fork	Richardson 2002 <sub>33</sub>	<12 sec at medial malleolus <8 sec at great toe nailbed
Strength			
	5 x Sit to Stand	Winters-Stone 20179	Construct Validity: Women with CIPN symptoms (12.8 ± 3.7 sec) vs without CIPN symptoms (11.6 ± 2.7 sec) (P < .001)
	Unilateral stance	Springer 2007 <sub>34</sub> Hurvitz 2000 <sub>35</sub>	Normative data available <30 sec predicts falls in those 50 y.o. and older
Vision			
	Low Contrast Visual Acuity	Lord 2001 <sub>36</sub>	Snellen less than 20/50, or MAR less than 2.3
Vital Signs			
	Orthostatic hypotension	Medow 2008 <sub>37</sub>	Drop ≥20 mmHg systolic or ≥10 mmHg diastolic
Walking Speed			
	Gait speed	Huang 2019 <sub>38</sub>	Various studies reported relative to multiple cancer diagnoses
CIPN			
	Functional Assessment Cancer Treatment & Gynecologic Oncology Group Neurotoxicity	Huang 2007 <sub>39</sub>	11 item version
Functional Limitations			
	Vulnerable Elderly Survey (VES-13)	Silba 2001 <sub>40</sub>	
Increased Fall Risk	5 x Sit to Stand	Bohannon 2006 <sub>41</sub> Whitney 2005 <sub>42</sub>	Greater than 14 seconds





# Day-of-Service

**APTA Balance and Falls** 

## TRI-ALLIANCE













Community Fall Screenings October 8, 2022



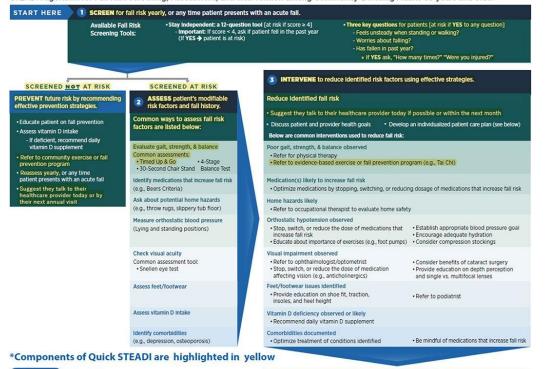


GLOBAL PT DAY OF SERVICE: ptdayofservice.com

#### 2022 PT DAY OF SERVICE: COMMUNITY FALL SCREENINGS

cont

STEADI Algorithm for Fall Risk Screening, Assessment, and Intervention among Community-Dwelling Adults 65 years and older\*



FOLLOW UP with patient in 30-90 days.

Discuss ways to improve patient receptiveness to the care plan and address barrier(s)







Control and Prevention National Contex for Injury

### Helpful Oncology Fall Resources

- APTA ONCOLOGY Consumer Fact Sheets
  - https://oncologypt.org/oncology-for/
- CDC STEADI PROGRAM
  - https://www.cdc.gov/steadi/
- National Institute on Aging, National Institute of Health
  - https://www.nia.nih.gov/health/prevent-falls-and-fractures



### **Questions/comments**



Want to get involved?

Email: apta.onc.bfsig.membership@gmail.com





#### **Clinical-Academic-Community**

# Partnerships for Fall Prevention

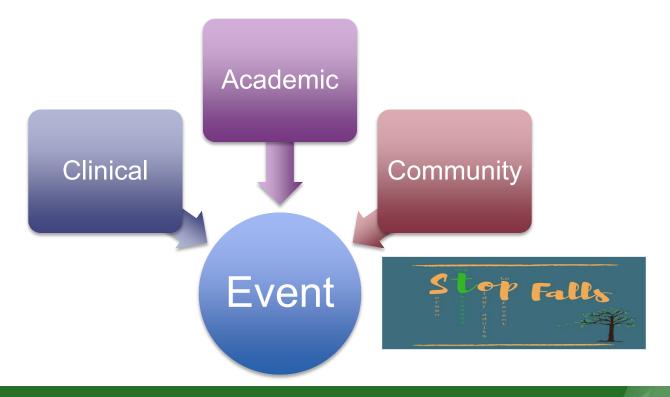


This Photo by Unknown Author is licensed under CC BY

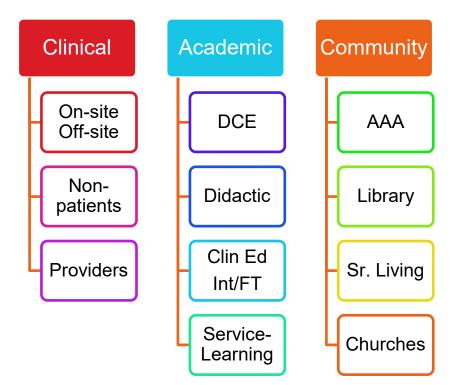
David Taylor, PT, DPT, FNAP
Clinical Associate Professor & Director of Clinical Education
Department of Physical Therapy
Mercer University
Atlanta, Georgia
Taylor\_dw@mercer.edu



#### A Few Considerations...



#### A Few Considerations...

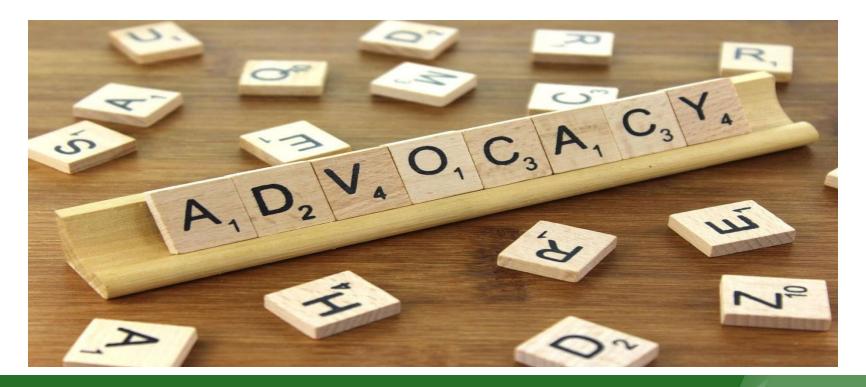


- What is your REACH?
- Identify your partners & resources
- Collaborate
- Plan early
- Screen Assess Intervene
- Provide Referral options & local resources

#### You Can Do It!



## **State Advocate Perspective**



#### How to Hold a Successful Falls Event in the Geriatric Community



- Build rapport
- Know the community you work in
- Meet the needs of the seniors at the center you are presenting at
- Falls Prevention vs. Falls Screens
- Encouragement



#### Other Ideas for Events

- Balance and Falls Promotion Flyers
- Educating staff at community organizations regarding BF
- Presentations
- Poster boards at your clinical settings
- Creating handouts for patients each week/month
- Interprofessional education

### Don't know where to get started?

# Check out the APTA Geriatrics National Falls Prevention Awareness Day Toolkit!

- How-to guide for setting up an event
- Day-of Instructions
- Recruiting letters
- Consent form examples

OPEN ACCESS at <a href="https://aptageriatrics.org/sig/balance-falls-special-interest-group-bakup/falls-prevention-awareness-toolkit/">https://aptageriatrics.org/sig/balance-falls-special-interest-group-bakup/falls-prevention-awareness-toolkit/</a>

## **Looking for More?**

Thank You!

- Become an APTA Geriatrics BF SIG Member
  - Monthly Challenge
  - Ask the Research Liaison
  - Regular GeriNotes Presence
  - Programming at CSM
  - Quarterly News Updates on Website
  - Tri-Alliance work with ANPT and APTA Oncology
  - Volunteer Opportunities
- September 20th Journal Club
- Open Clinical Liaison Positions
  - Apply on APTA Engage