

VA

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Veterans Health Administration
Parkinson's Disease Research,
Education & Clinical Centers**NATIONAL VA PARKINSON'S DISEASE****C O N S O R T I U M***Education · Collaboration · Advocacy*

THE TRANSMITTER

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Article Reviews

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Risk of Parkinson Disease Among Service Members at Marine Corps Base Camp Lejeune.

Trichoroethylene (TCE) is an industrial solvent commonly found in soil and groundwater (including being detectable in up to one-third of the US drinking water supply) that has been linked to increased risk for development of Parkinson's disease (PD). However, a clear causal link between TCE and PD had not previously been demonstrated. A report published in *JAMA Neurology* in May 2023 by Samuel Goldman, MD, MPH, Caroline Tanner, MD, PhD and their colleagues from UCSF provides the strongest yet epidemiological evidence of the association between TCE and PD. The water supply at Marine Corps Base Camp Lejeune in North Carolina had long been known to have been highly contaminated with TCE (with median values >70-fold higher levels than allowed by the US Environmental Protection Agency) in the years 1953-1987. In this cohort study, Goldman et al examined the VA and Medicare medical records of 84,824 Marines and Navy veterans who trained at Camp Lejeune from 1975-1985 and found that those exposed to the water there had a 70% higher risk of development PD decades later compared to 73,298 veterans trained at Marine Corps Base Camp Pendleton in California, where the water was not contaminated with TCE (OR, 1.70; 95% CI, 1.39-2.07). Specifically, 279 veterans (0.33% prevalence) from Camp Lejeune and 151 veterans (0.21% prevalence) from Camp Pendleton were diagnosed with PD in the decades following their time at these training camps. In addition, Camp Lejeune veterans also had a statistically significant higher risk of certain prodromal PD diagnoses (tremor, anxiety, erectile dysfunction), as well as higher cumulative prodromal risk scores, suggesting that more Camp Lejeune veterans could develop PD in the future. Notably, there was no significant association between TCE and other neurodegenerative parkinsonism (e.g. multiple system atrophy, progressive supranuclear palsy, corticobasal syndrome). This large cohort study not only provides increased certainty that TCE exposure contributes to development of PD, but also adds to our growing understanding of the link between environmental toxins and Parkinson's disease risk.

Goldman et al. *JAMA Neurol.* 2023 May 15;80(7):673-681. doi: 10.1001/jamaneurol.2023.1168.

<https://jamanetwork-com.ucsf.idm.oclc.org/journals/jamaneurology/fullarticle/2805037>

Sodium Oxybate in Alcohol-Responsive Essential Tremor of Voice: An Open-Label Phase II Study

Alcohol responsiveness of tremor symptoms is a known feature of Essential Tremor. Sodium oxybate, structurally similar to GABA, can mimic alcohol and serve as a potential treatment choice acting on tremor pathophysiology. This open label study focused on patients with alcohol-responsive essential tremor of voice (ETv) and examined the therapeutic efficacy and central effects of sodium oxybate for voice tremors. A total of 14 ETv patients with self-reported improvement in voice symptoms after alcohol intake and 15 healthy controls were included in the study. After a single dose of 1.0 to 1.5g of oral sodium oxybate, 92.9% of patients (13 out of 14) showed an average of $40.8 \pm 18.4\%$ reduction in ETv symptoms based on the combined clinician-objective and patient subjective score when measured at 40-45 minutes after intake. Symptoms improvement lasted on average 3.5 hours with gradual wearing off by the fifth hour. Additionally, brain activities measured using fMRI showed a reduction of abnormally increased activity in cerebellum, inferior parietal lobe, superior parietal lobe, inferior frontal gyrus and insula when measured an hour after sodium oxybate intake compared to baseline. There was also restoration of functional connectivity between/within cerebellar and cortical regions. Overall, this study showed significant improvements in symptom reduction in alcohol-responsive ETv patients after a single dose of sodium oxybate, further supported by functional studies showing normalization of pathophysiological cerebellar and parietal-prefrontal cortical activities. Sodium oxybate can be a promising oral treatment for ETv patients pending future randomized controlled trials in a larger cohort.

O'Flynn LC, Frucht SJ, Simonyan K. Sodium Oxybate in Alcohol-Responsive Essential Tremor of Voice: An Open-Label Phase II Study. *Mov Disord.* 2023 Jul 14. doi: 10.1002/mds.29529. Epub ahead of print. PMID: 37448353.

<https://pubmed.ncbi.nlm.nih.gov/37448353/>

Committee Activities

Clinical Care Committee

- **Rotation of Committee Chair:** Leadership for the clinical care committee rotates amongst the PADRECCs. The Philadelphia PADRECC leads the committee for May/June. The committee meets via conference call the first Tuesday of the month at 12pm (EST)
- **Standardize and Optimize Clinical Care:** The committee continues to discuss treatment strategies, new medications and other procedures, and other clinical issues to improve patient care and outcomes across the national PADRECCs service area. It also serves to provide clinical support to the consortium network by focusing on procedures and measures to standardize clinical care across the PADRECC network.
- Recent agenda items have included:
 1. Future planning to enhance clinical service provision at PADRECCs : Suggestions and Strategies
 2. Discussion of DBS management and surgical programs at the PADRECCs

3. Role of MRI guided focused ultrasound thalamotomy in the management of essential tremor and Parkinson's disease
4. Exploring integration of VA Mind Brain Program for treatment of functional movement disorders into PADRECC clinical services
5. Exploring integration of CBT for Depression in PD into PADRECC clinical services- collaboration with the Mental Health Research and Program Development team at VA NJHCS

Education Committee

- **PADRECC/EES Movement Disorder Series-Webinars:** knowledge-based webinars to provide VHA healthcare professionals with current practice standards and emerging trends in the treatment of Parkinson's disease and other movement disorders. CEs are typically provided for the live webinars. Check out the following link for a list of past webinars and if you are interested in receiving a recording of a past webinar please email Gretchen.glenn@va.gov and list the date/topic of interest: https://www.parkinsons.va.gov/Consortium/Presentations/Audio_Conference/MDS.asp
 - **SAVE THE DATE - Movement Disorders Series Part IV-Webinar- PD Rehabilitation** – October 19th, 2023 12pm – 4pm EST - More information and registration link coming soon!
- **National VA PD Newsletter-** Currently in the editing phase, once completed will be emailed out and posted on the National Website, anticipated completion: late September 2023.
- **Parkinson's Disease Rehab-Community of Practice/Microsoft Teams-** collaborating with rehabilitation subject matter experts across the VA with interest in PD to develop this COP to address and enhance rehabilitation care for Veterans with PD and similar conditions. The goal of the platform is to share evidence-based knowledge to inform PD-specific rehabilitation practices, provide access to up-to-date resources, program success and opportunities for improvement.
- **National Website Maintenance:** The committee performs periodic maintenance checks of the National Website to ensure information is current and up-to-date.
- **PADRECC Transmitter:** This committee continues to assemble and distribute this *e*-newsletter every other month.
- **Resources available on the National Website:**
 - **Patient Education Brochures-** <https://www.parkinsons.va.gov/patients.asp>
 - **UPDATED** Exercise and Physical Activity
 - **UPDATED** Motor Symptoms
 - **UPDATED** Non-Motor Symptoms
 - **UPDATED** Agent Orange and Toxic Exposures and PD
 - Fall Prevention
 - **PADRECC Support/Education Groups:** The PADRECCs are now holding virtual groups open to Veterans and care partners interested in attending. Please check out the National

Website for listing of dates/times and contact person to register for the groups and please share with your patients/care partners: <https://www.parkinsons.va.gov/patients.asp>

- **My Parkinson's Story**-<https://www.parkinsons.va.gov/patients.asp>
A series of short videos prepared by the VA PADRECCs addressing various aspects of Parkinson's disease.
- **Suggested Education Essentials for Veterans with PD**
 - **Digital version:** <https://www.parkinsons.va.gov/patients.asp>
 - **Printer friendly version:**



Suggested Education
Essentials