Improving Neuropathy Outcomes among Adult Cancer Patients

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Epidemiology and Population Health/Health Policy/Pediatrics (by courtesy)
Stanford Cancer Institute
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*In recognition of the ancestral lands of the **Muwekma Ohlone Tribe** where our academic institution sits, we offer our grateful appreciation for the opportunity to live and work here and we celebrate the culture and perseverance of the Muwekma Ohlone people, and their strong identity.*

Outline

- Who we Are
- Motivation for this Study
- Preliminary Studies
- Our Approach
- Discussion

Who We Are

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Alyce Adams (PI)

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Funder: NCI 7R01CA249127

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Motivation

- 2/3 Patients treated with chemotherapy will experience peripheral neuropathy side effects
  - Dose limiting neuropathy
  - Long term disability related to neuropathy

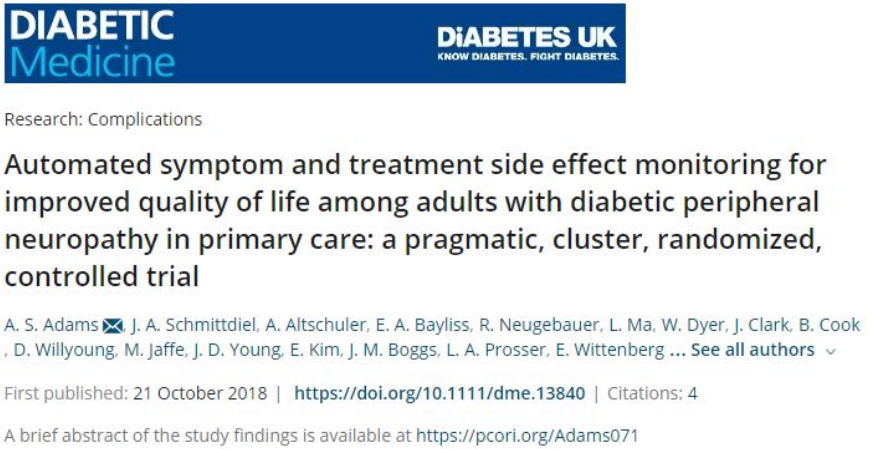
- We do not know who is at greatest risk for chemo-induced neuropathy

- Patients and providers must weight the potential risks of neuropathy against the potentially life saving benefits of cancer therapy

Source: Seretny M,, et al. Pain. 2014;155(12):2461-70. Rivera DR, et al. Journal of the National Cancer Institute. 2018;110(2). Battaglini E, et al. J Natl Compr Can Netw 2021;19(7):821-828.

Preliminary Studies: Diabetic Peripheral Neuropathy

- In diabetes, neuropathy
  - affects an estimated 50% of adults with diabetes
  - is incurable
  - symptoms are frequently undertreated
- Our prior studies identified
  - Unmet patient needs
  - Lack of real time data on patient needs



DIABETIC Medicine

DiABETES UK
KNOW DIABETES. FIGHT DIABETES.

Research: Complications

Automated symptom and treatment side effect monitoring for improved quality of life among adults with diabetic peripheral neuropathy in primary care: a pragmatic, cluster, randomized, controlled trial

A. S. Adams, J. A. Schmittdiel, A. Altschuler, E. A. Bayliss, R. Neugebauer, L. Ma, W. Dyer, J. Clark, B. Cook, D. Willyoung, M. Jaffe, J. D. Young, E. Kim, J. M. Boggs, L. A. Prosser, E. Wittenberg ... See all authors

First published: 21 October 2018 | https://doi.org/10.1111/dme.13840 | Citations: 4

A brief abstract of the study findings is available at https://pcori.org/Adams071

- Yet, intervention to provide data to inform practice did not change provider behavior

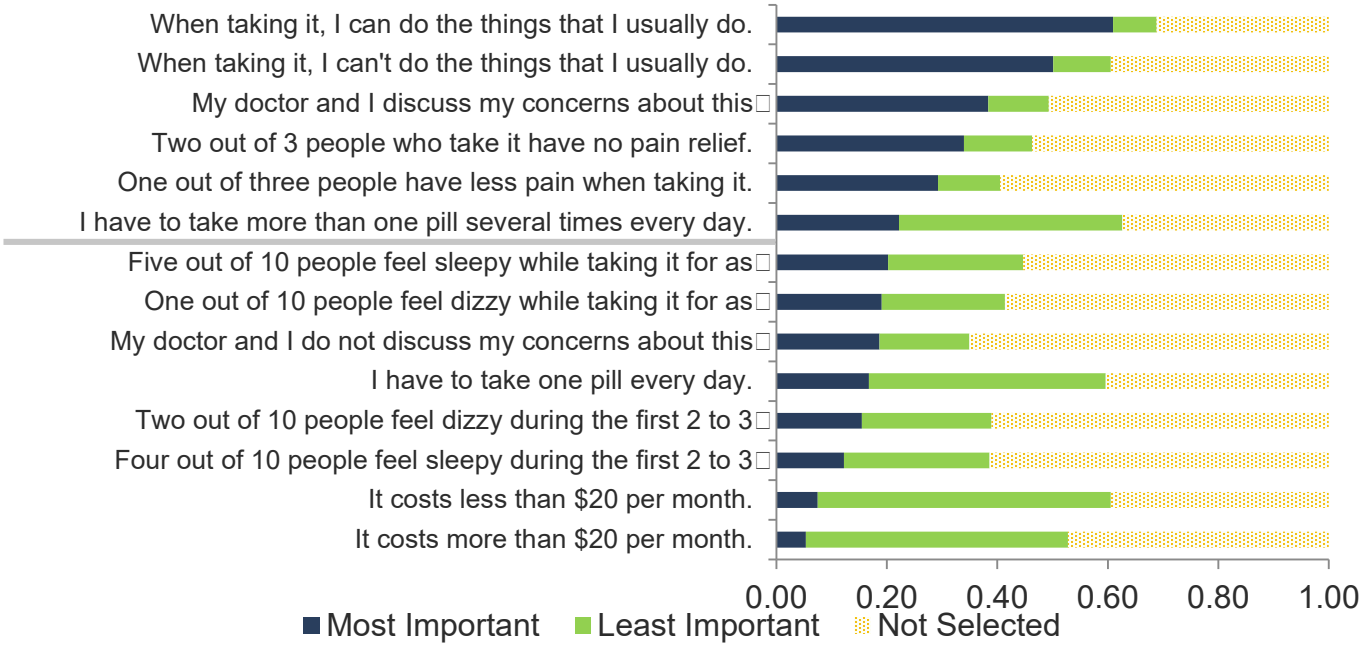
Funding: Patient-Centered Outcomes Research Institute [CE-1304-7250;SC14-1403-11992]; the Division of Diabetes Translation, Centers for Disease Control and Prevention [U58 DP002641]; the National Institute for Diabetes, Digestive and Kidney Disorders [R01DK099108], and the National Health, Lung, Blood Institute [R01 HL117939]; The trial is registered at ClinicalTrials.gov: CE-1304-7250.

Why didn't physicians respond to data?

- Information overload
- Concerns about whether the information was actionable due to limitations of available treatments
- Concerns about the relative importance of treatment of symptoms vs. life threatening illness
  - There is less clinical uncertainty: *"when answers are black and white"*
  - There are "serious" side effects (e.g., coumadin)

Adams AS, et al. Diab Med (2019)

What is Important to Me: Perspective of Adults with Diabetic Peripheral Neuropathy



Adams AS, et al. Value in Health. 2018; 21(Suppl 3)

Our Approach to CIPN

- Understanding and informing decision-making about CIPN risk requires evaluating objective information about risks and benefits, as well as how patients and providers process and act upon that information in real-world contexts

- Focusing on more than 8,500 insured adults (18+) diagnosed with invasive, stage I-III breast and II-IIIA colorectal cancers (2013-2021) who received adjuvant chemotherapy treatment with known risk for CIPN, we are:
  - developing and validating predictive algorithms to quantify the risk of severe CIPN and incident chronic CIPN
  - evaluating how CIPN risk information might be used to inform clinical decision-making about cancer treatment and survivorship care planning

Source: NCI 7R01CA249127

Discussion

- When & how might such information be used?
- Who would find this risk information useful?
- What are the benefits and risks?
- What are the barriers to improving care?
- What are the ethical considerations?

Thank You!

ANY QUESTIONS?

You can find me at @alyceadamsPhD

http://med.stanford.edu/cancer.html

https://healthpolicy.fsi.stanford.edu/people/faculty

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