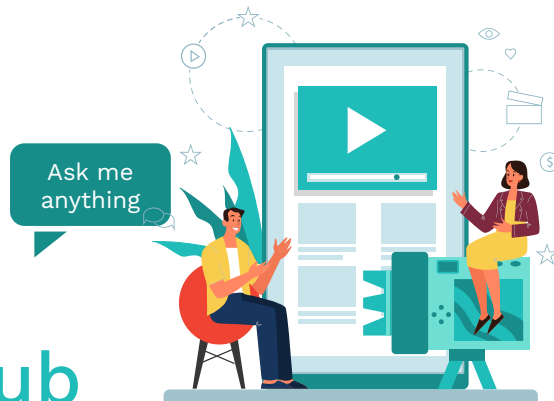


Virtual Journal club



Elena Izmailova
CSO
Koneksa Health



















When Work Hits Home: The
Cancer-Treatment Journey of a Clinical
Scientist Driving Digital Medicine

January 10th, 2023 12pm ET

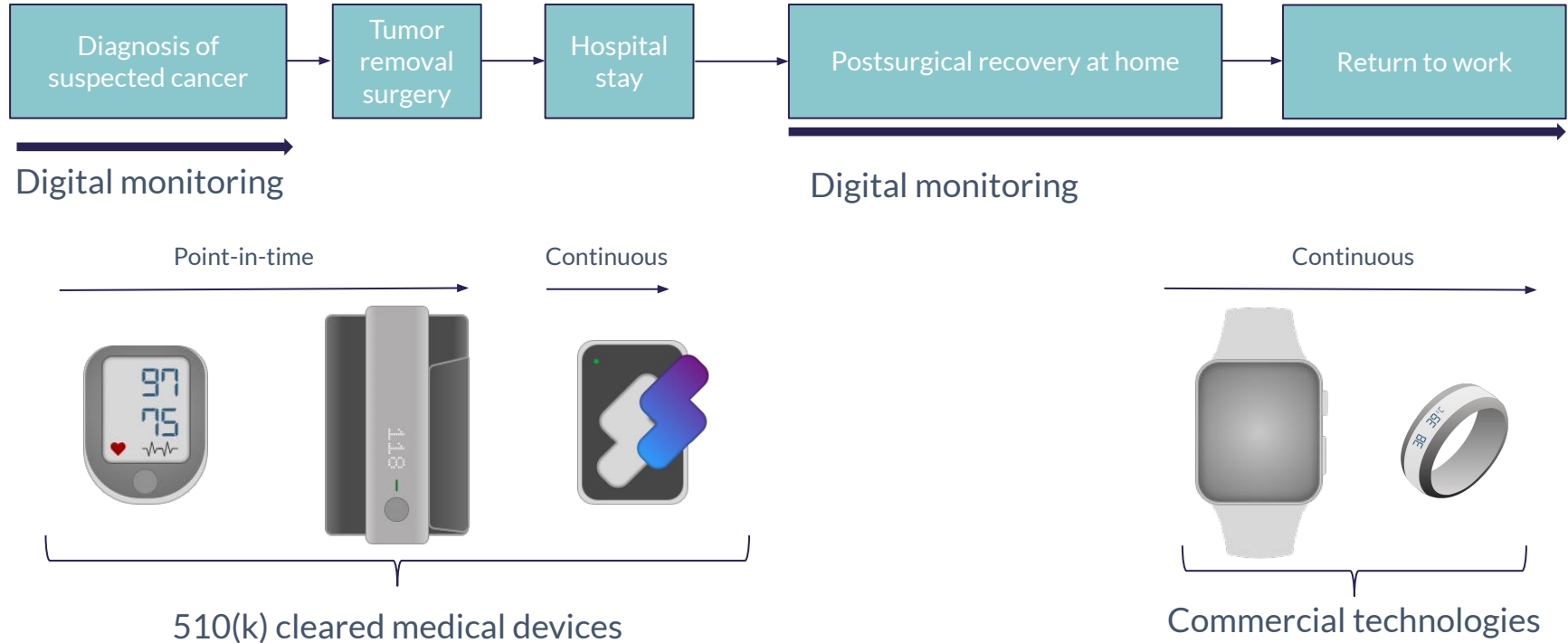
But first, housekeeping

- Please note today's session is being recorded
- To ask a question for discussion during Q&A, please:
 - Either 'raise your hand' in the participant window and moderator will unmute you to ask your question live, or
 - Type your question into the chat box
- Slides and recording will be available after today's session

Digital Health Technologies in Cancer

Application	Concept	Measurement examples	ePRO	BioMeT	Maturity
Diagnosis 	Multidomain tool to diagnose complex medical conditions that require longitudinal surveillance, eg, frailty syndromes	Activities of daily living	+		
		% time in a bed or chair		+	
		Timed up and go		+	
		Grip strength		+	
Prognosis or risk 	Determination of near-term risk for adverse health outcomes including treatment toxicity	Physical function	+		
		Physiologic measure composites (eg, VO2max [est])		+	
		Free living gait speed		+	
Treatment efficacy 	Assessment of physiologic response or patient-reported improvement from treatment	Quality of life	+		
		Physiologic measure composites (eg, VO2max [est])		+	
		Physical activity		+	
		Other fitness measures (eg, heart rate variability)		+	
Adverse effect monitoring 	Evaluation of treatment-related toxicities	Adverse event self-report	+		
		Vital sign monitoring		+	
		Physical activity		+	

Patient Journey




Digital Monitoring Is Useful

CTS Clinical and
Translational Science

Open Access

Mini-Review | [Open Access](#) | 

Remote Digital Monitoring for Medical Product Development

Elena S. Izmailova, John A. Wagner, Nadir Ammour, Ninad Amondikar, Andrea Bell-Vlasov, Steven Berman, Dan Bloomfield, Linda S. Brady, Xuemei Cai, Roberto A. Calle, Michelle Campbell, Francesca Cerreta, Jeuan Clay, Luca Foschini, Pat Furlong, Rob Goldel, Jennifer S. Goldsack, Peter M.A. Groenen, Amos Folarin, Jill Heemskerck, Peter Honig, Matthew Hotopf, Tania Kamphaus, Daniel R. Karlin, Christopher Leptak, Qi Liu, Hussein Manji, Robert J. Mather, Joseph P. Menetski, Vaibhav A. Narayan, Elektra Papadopoulos, Bakul Patel, Bray Patrick-Lake, Jagdeep T. Podichetty, Abhishek Pratap, Laurent Servais, Diane Stephenson, Pam Tenaerts, Bruce J. Tromberg, Steve Usdin, Srikanth Vasudevan, Vadim Zipunnikov, Steven C. Hoffmann  ... [See fewer authors](#) ^

First published: 23 July 2020 | <https://doi.org/10.1111/cts.12851> | Citations: 10

- Virtual care made significant inroads during the pandemic, and it works!
- DHT derived data can help virtual care delivery, provide useful information and minimize hospital stay

Insights

- Virtual vital sign monitoring
- Physical activity monitoring

Digital
Biomarkers

Viewpoint - Review Article

Digit Biomark 2021;5:103–113
DOI: 10.1159/000515110

Received: October 21, 2020
Accepted: December 28, 2020
Published online: April 22, 2021

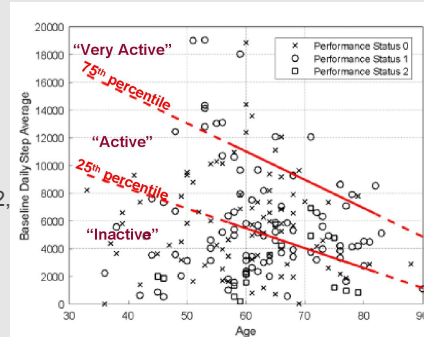
Remote Cardiac Safety Monitoring through the Lens of the FDA Biomarker Qualification Evidentiary Criteria Framework: A Case Study Analysis

Elena S. Izmailova^a William A. Wood^b Qi Liu^c Vadim Zipunnikov^d
Daniel Bloomfield^e Jason Homsy^f Steven C. Hoffmann^g John A. Wagner^h
Joseph P. Menetski^g

^aKoneksa Health, New York, NY, USA; ^bLineberger Comprehensive Cancer Center, University of North Carolina, Chapel Hill, NC, USA; ^cOffice of Clinical Pharmacology, Office of Translational Sciences, Center for Drug Evaluation and Research Food and Drug Administration, Silver Spring, MD, USA; ^dJohns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA; ^eAnthos Therapeutics, Cambridge, MA, USA; ^fTakeda Pharmaceuticals International, Cambridge, MA, USA; ^gFoundation for the National Institutes of Health (NIH), North Bethesda, MD, USA; ^hCygnal Therapeutics, Cambridge, MA, USA

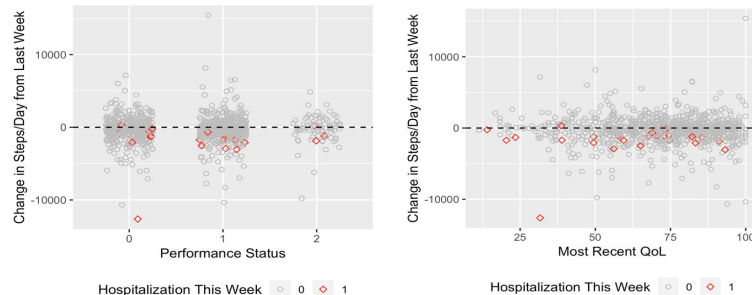
“Inactive” patients:

- ↑ hospitalizations during RT 50% v. 9%, $p=0.004$
- ↓ rate of completing RT without delay >1 week 67% v. 97%, $p=0.006$
- ↓ PFS
median 5.3 months v. 18.3 months, $HR=4.52$, $p<0.001$
- ↓ OS
median 15.0 months v. not reached, $HR=3.88$, $p=0.007$

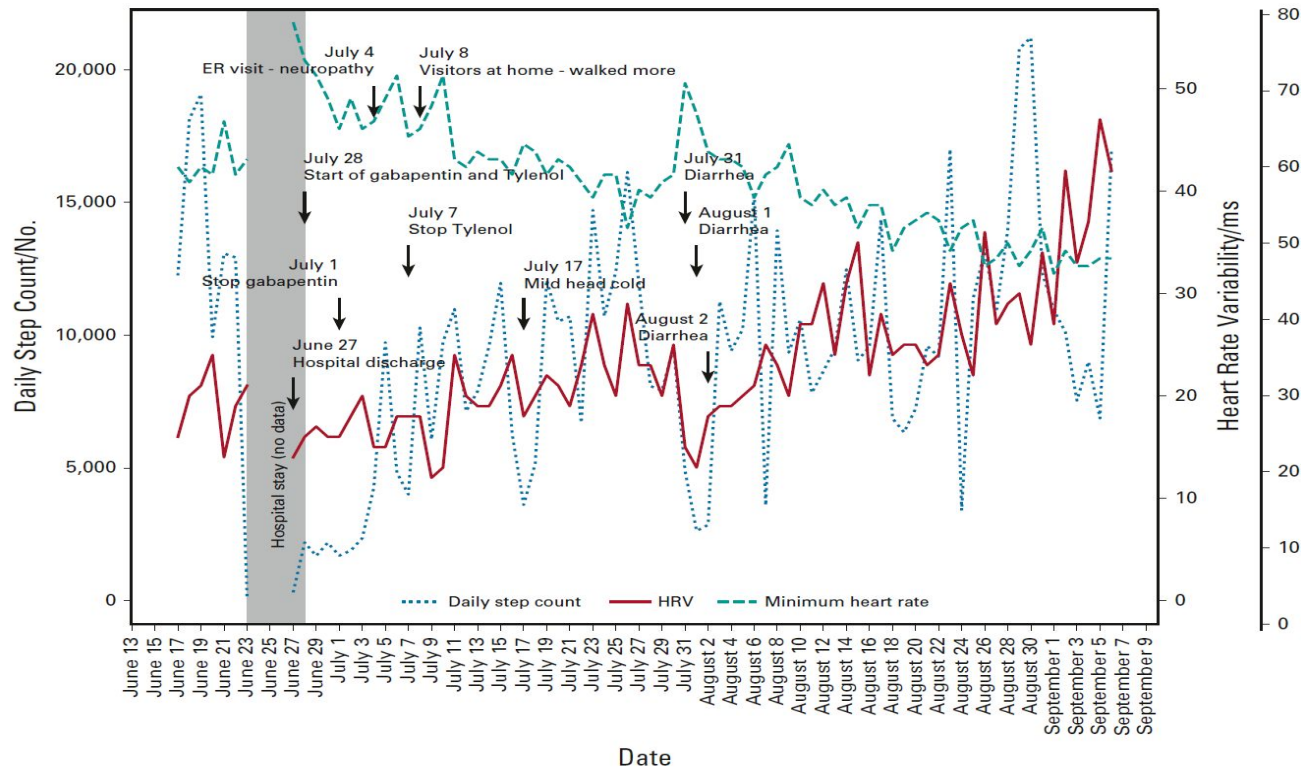


Int J Radiation Oncol Biol Phys, Vol. 105, No. 4, pp. 745e751, 2019

36% reduction in the risk of hospitalization for every 1,000 steps taken each day ($HR=0.64$, $p<0.001$)



Data Sharing Is Important!



Final words

Data sharing is important!

JCO[®] Clinical Cancer Informatics
An American Society of Clinical Oncology Journal

Some days were better than others; I had my ups and downs, but my digital technologies were my North Star. I'm very grateful to my family, friends, and colleagues who supported me through this journey (and looked at my results too!), and the team of outstanding physicians and nurses (receptive to my data gathering and sharing too!) who got me to where I am now, so I can continue to live and work. I am also grateful to the fact that I live in a time when early cancer detection is widespread and readily available, making cancer a curable condition for many patients.

Acknowledgments

Thanks to
colleagues
across
.com
.edu
and
.org

- In particular
 - Chris Benko, Koneksa Health
 - Adam Dicker, Jefferson Center for Digital Health
 - Robert Ellis, Koneksa Health
 - Nitin Ohri, Montefiore Medical Center
 - Andrew Pearlmutter, Koneksa Health
 - Diane Stephenson, C-Path Institute
 - John Wagner, Koneksa Health
 - William Wood, Lindenberg Cancer Center, UNC

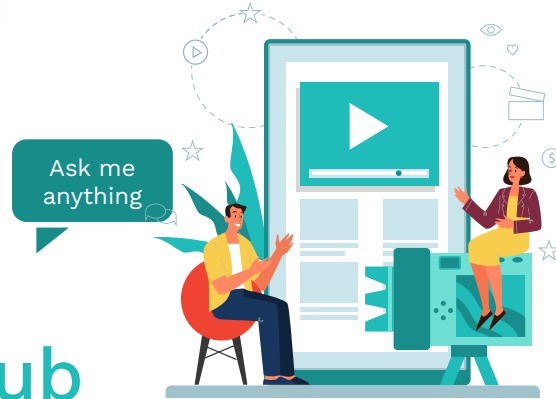
Join us at our upcoming DiMe webinar!



Join us on Wednesday, February 1st at 11:00-12:00 ET for our next webinar:
Increasing software innovation in digital health products through unified cross architecture programming

Hear from thought leaders at **Intel**, **Canon Medical**, and **Oracle** as they discuss how digital health product teams can deliver groundbreaking solutions that are both innovative and equitable.

Virtual Journal club



Applicability of Artificial Intelligence
in Healthcare in Resource-Poor
Settings

Thursday, February 9th, 2023 12pm ET



Ashveena Gajeelee
Founder and CEO
Veritas Consortium, LLC



Mansa Shroff
Director of Business Development,
Chief of Staff
WKD.SMRT



THANK YOU

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Linette Demers Linette@dimesociety.org



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linkedin.com/company/dime-society