Electronic frailty index: a risk stratification tool for veterans with colorectal cancer

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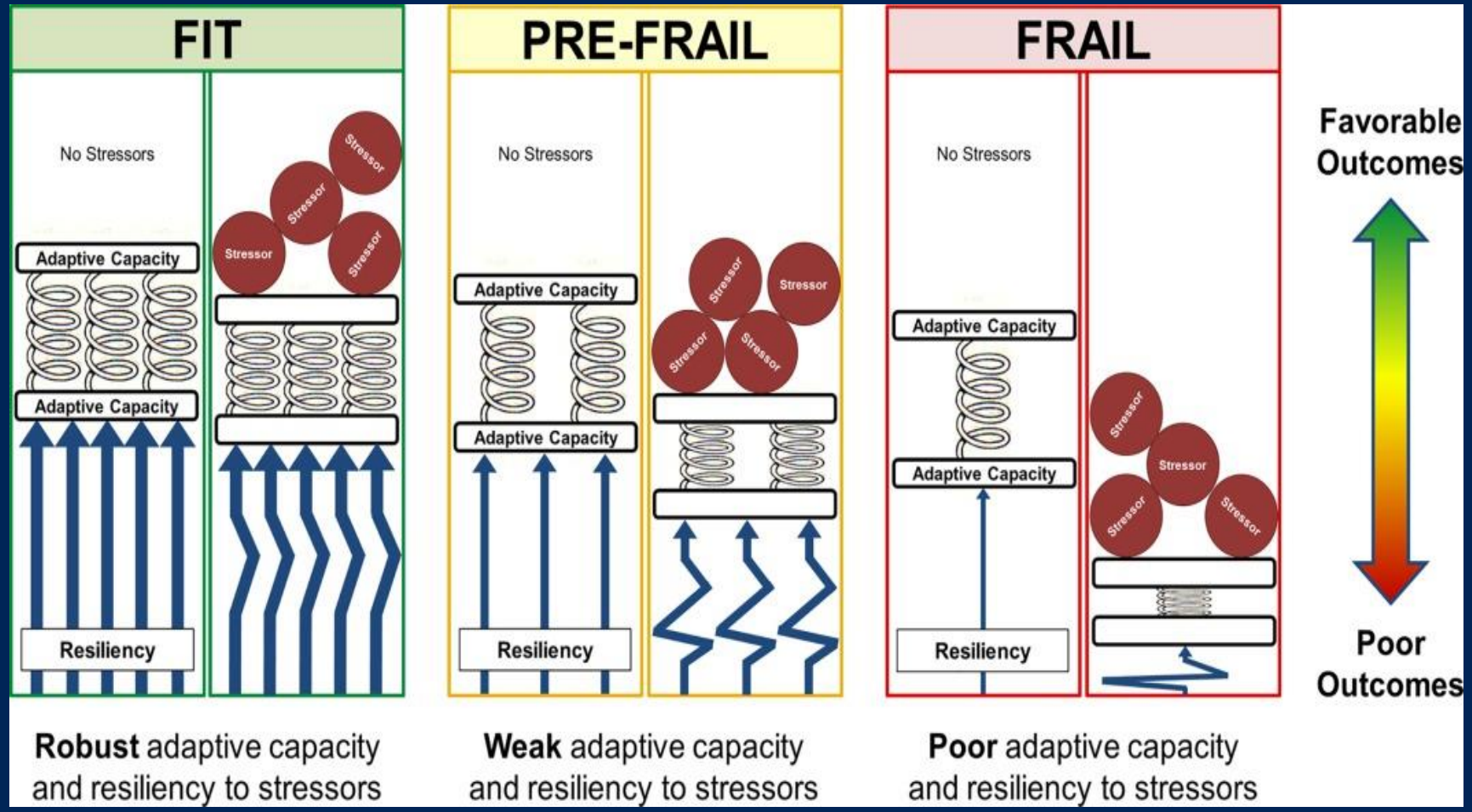
TXSCO 2022 ANNUAL CONFERENCE

Disclosure of Conflicts of Interest

Huili Zhu, MD, has no relevant financial relationships to disclose.

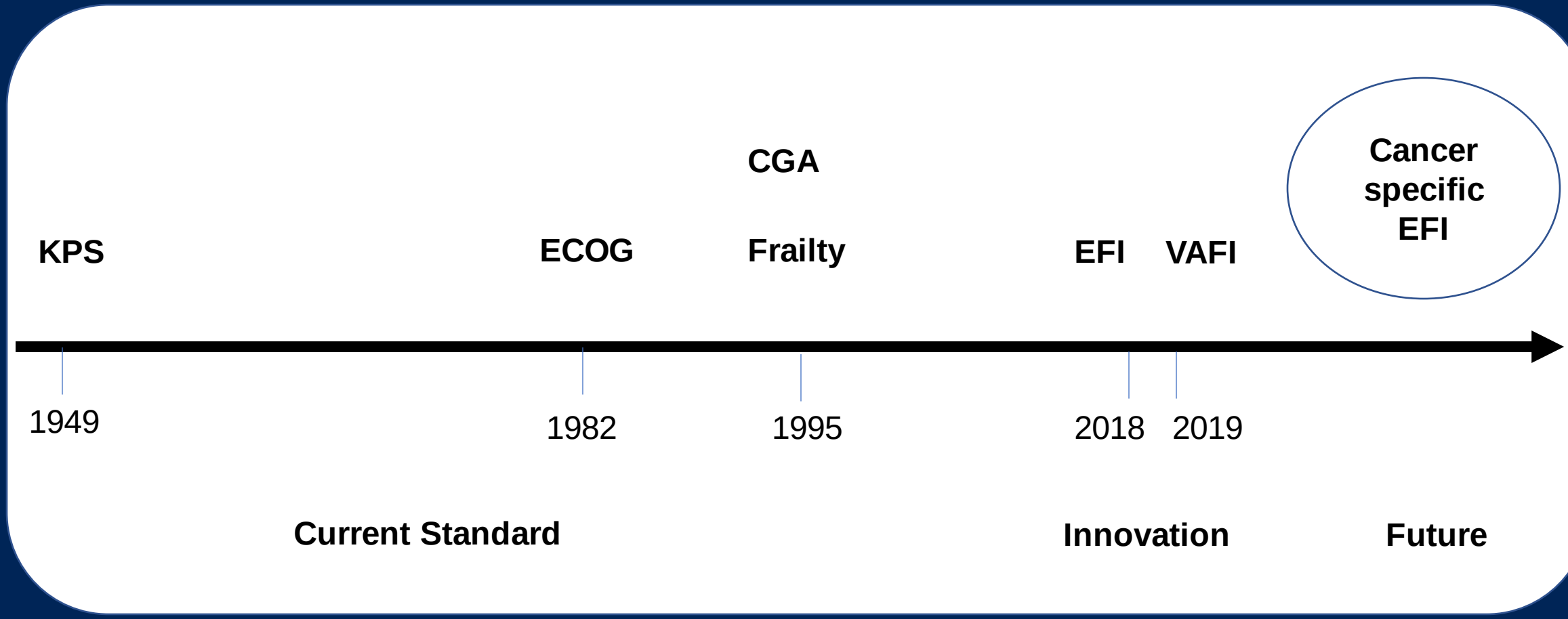
Disclosure

What is frailty?



CA A Cancer J Clinicians, Volume: 67, Issue: 5, Pages: 362-377, First published: 21 July 2017, DOI: (10.3322/caac.21406)

Evolution of Functional Assessment

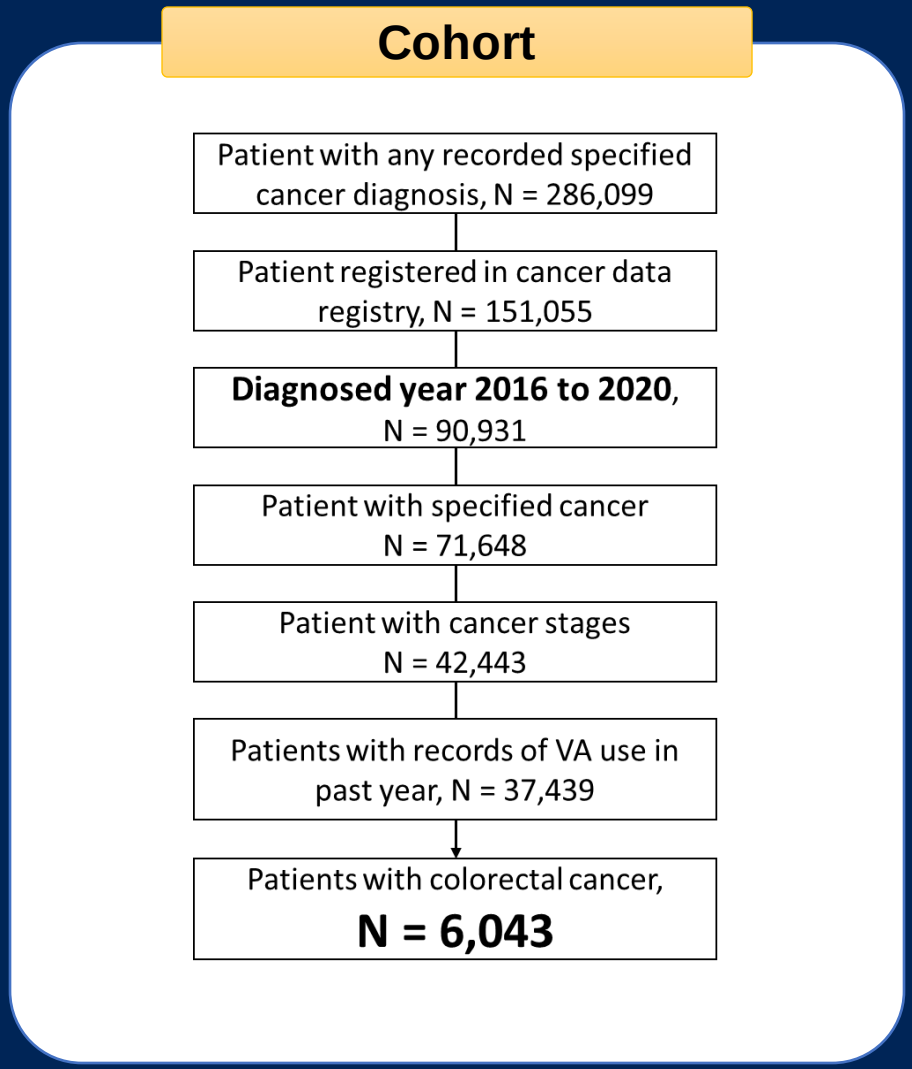


Aim

- To characterize the association between electronic frailty index (EFI) and survival and healthcare utilization outcomes in patients with colorectal cancers in the Veterans Affairs healthcare system

Methods

- VA administrative data linked to VA Central Cancer Registry
- 6,043 patients
  - Colon cancer (77.1%)
  - Rectal cancer (22.9%)
- Median age 70 ± 10.6 years

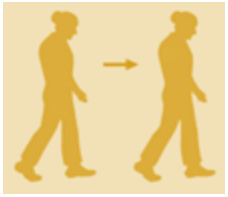


Methods

VA Frailty Index (VA-FI)

- Validated electronic frailty index
- Frailty deficit accumulation model
- Utilized ICD-10 codes from EMR
- Includes 31 co-morbidities

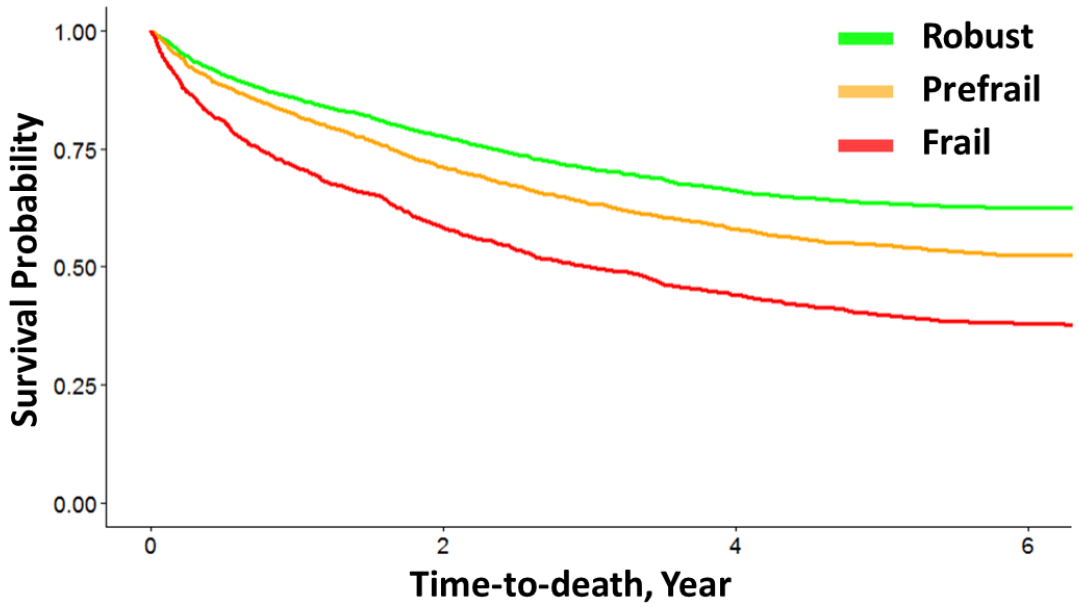
Robust (VA-FI <0.1)	Prefrail (VA-FI 0.1-0.2)	Frail (VA-FI ≥ 0.2)



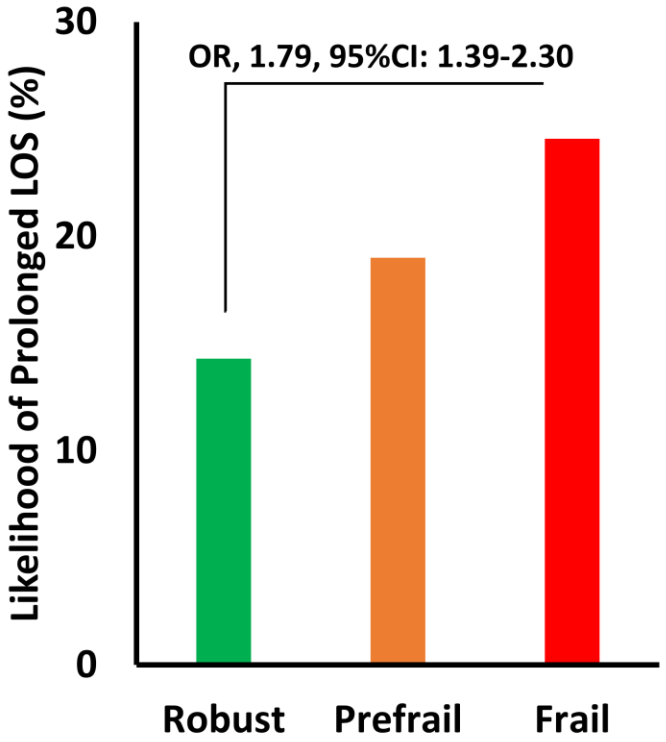
Results

Hazard of All-Cause Mortality

Adjusted hazard ratio: 1.90 (1.71-2.11)



Prolonged Length of Stay



Prolonged length of stay (LOS) (median ≥ 11 days)

- Results adjusted by age, gender, race, Charlson Comorbidity Index, cancer stage, ECOG

Conclusion

- **EFI was significantly associated with survival and healthcare utilization among colorectal cancer patients, independent of stage**
- **EFI has the potential to be an automated, objective decision support tool**

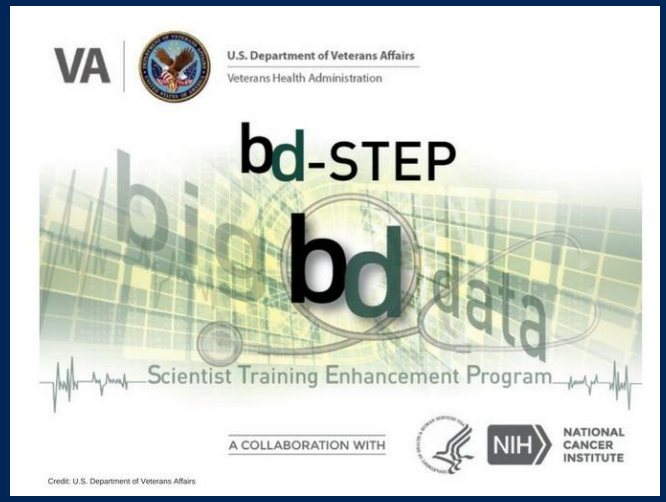
Future Directions:

- Develop a cancer specific EFI with dynamic variables
- Implement within the EMR

Acknowledgements

Collaborators:

- Yvonne H. Sada, MD
- Aanand Naik, MD
- Javad Razjouyan, PhD



Thank you!

Questions?