

Association of Serial Health Status Measurements with Clinical Events: Insights From the ISCHEMIA Trial

INTRODUCTION

- The Seattle Angina Questionnaire (SAQ), a disease-specific health status measure, has been shown to predict future clinical outcomes in patients with chronic coronary disease (CCD) at a single point in time.
- The prognostic value of serial SAQ scores in patients with CCD is unknown.

METHODS

- Serial assessments of the 7-item SAQ were obtained in the ISCHEMIA trial of patients with CCD and moderate/severe ischemia.
- Using Cox regression, we examined the association of baseline and 3-month SAQ-7 Summary Scores (SAQ7-SS) with CV death, MI, or unstable angina hospitalization over a 12 month period (between 3 and 15 months after randomization) in patients randomized to conservative treatment.
- We fit several models: (a) Baseline score only; (b) 3-month score only; (c) 3-month change only; (d) baseline and 3-month score; (e) 3-month change and score.

RESULTS

- The mean age was 64.3 years in 2095 patients randomized to conservative care with SAQ scores at 1 and 3 months; 78% were men.
- Twelve-month event rates were 3.3% overall; 2.9% with a 3-month SAQ7-SS ≥ 75 , and 6.9% in those with 3-month scores < 50 .

RESULTS

- In unadjusted analyses, higher scores at baseline, 3-months, and greater 3-month improvement were associated with fewer clinical events (Figure 1a and Figure 2).
- In landmark analyses combining serial scores, neither baseline nor change were significant after adjustment for 3-month score (Figures 1b and 1c).

Figure 1a. Unadjusted hazard ratios

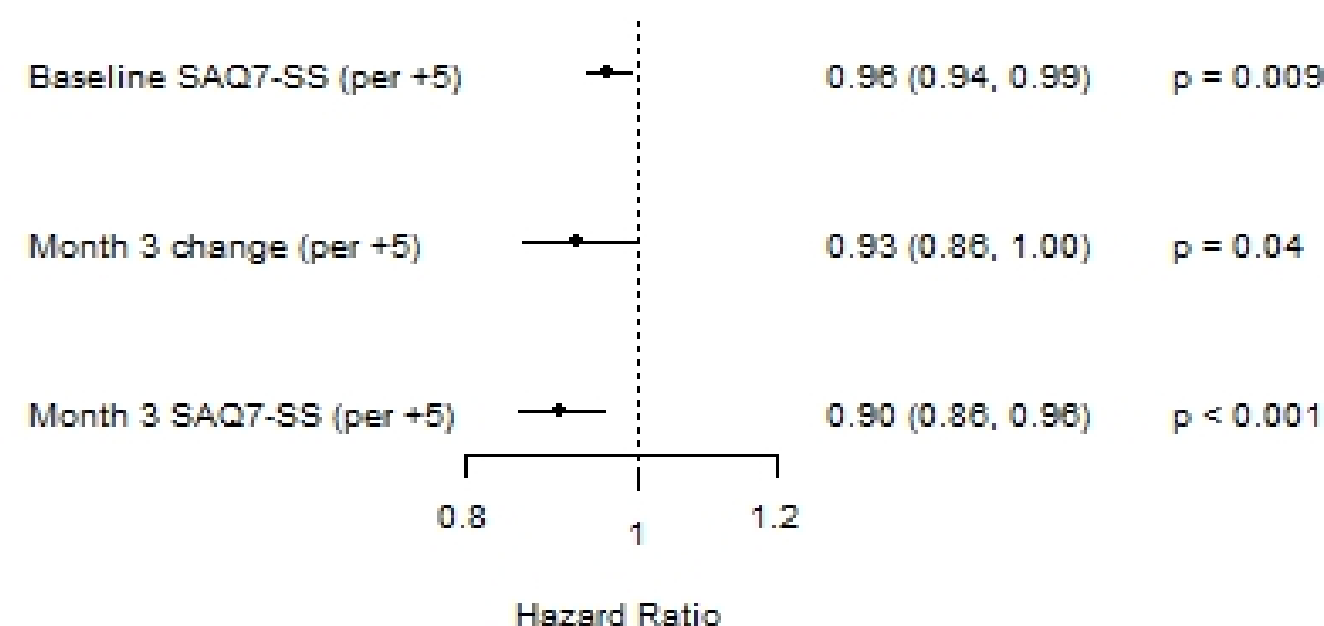


Figure 1b. Adjusted hazard ratios (model = baseline & 3-month score)

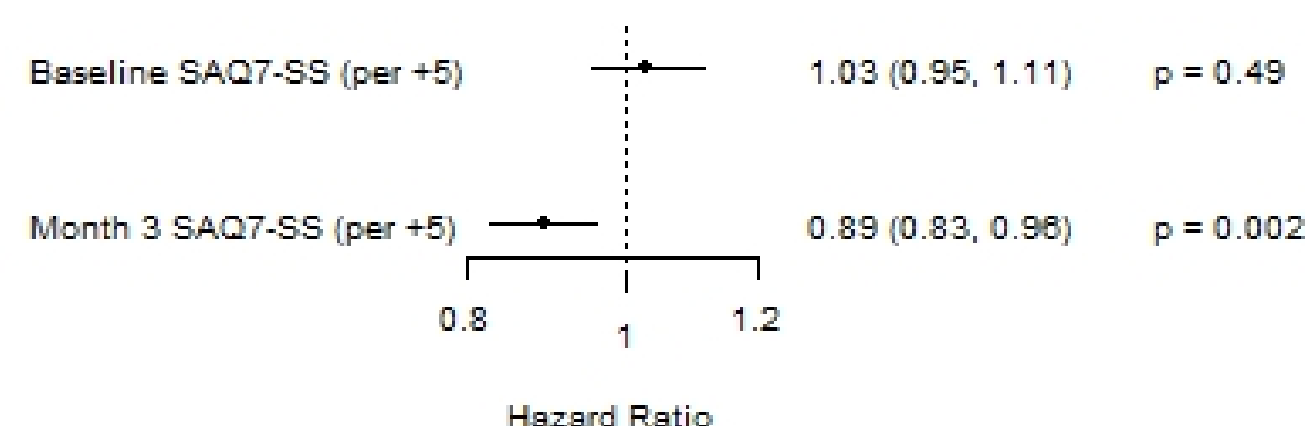
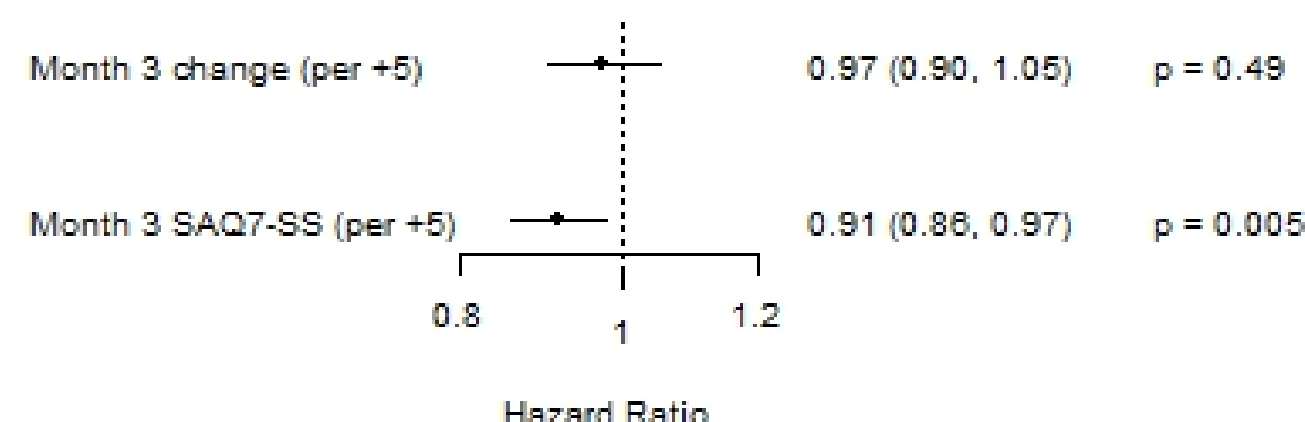
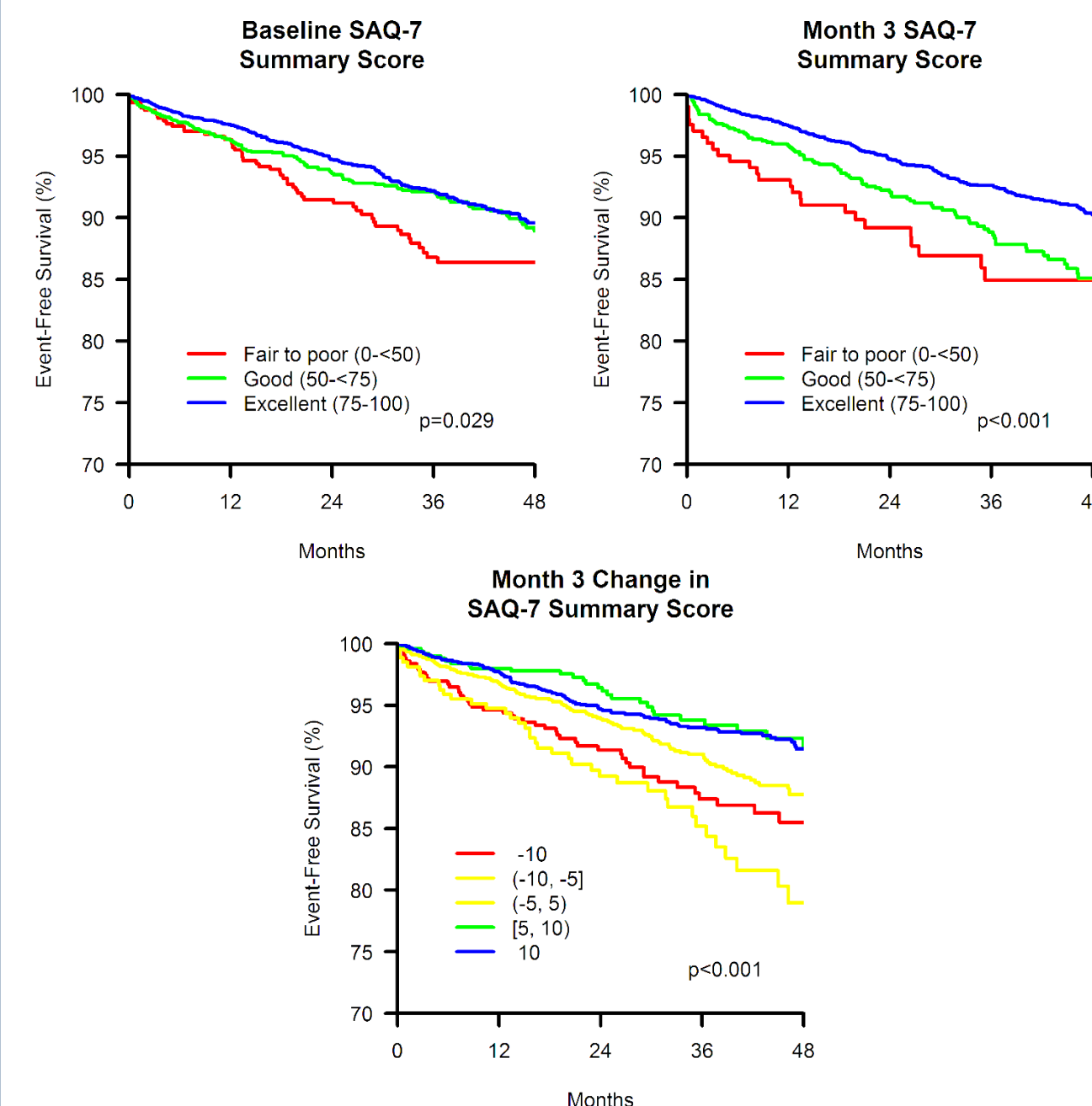


Figure 1c. Adjusted hazard ratios (model = 3-month score & change)



RESULTS



CONCLUSIONS

- We found that the most recent SAQ score was more predictive of subsequent clinical events than prior scores or changes.
- Following patients' health status not only provides an assessment of their current angina control, but also a continuously updatable insight into the risk for subsequent cardiac events.

DISCLOSURES

- Saxon, Hochman, Maron, and Jones – none
- Reynolds – received donated supplies from Abbott and BioTelemetry
- Bangalore – grant support and advisory board fees, Abbott Vascular; advisory board fees Biotronik, Pfizer, Amgen, Reata
- Mark – grant support from HeartFlow, Merck, Tenax, Eli Lilly, AstraZeneca, Bristol Myers Squibb; consulting fees from Novo Nordisk, Cytokinetics, Celcor
- Spertus – consulting fees from Bayer, AstraZeneca, Amgen, United HealthCare; steering committee fees from Novartis and Janssen
- Stone – lecture fees from Terumo and Amaranth; consulting fees from ShockWave, TherOx, Reva, Vascular Dynamics, Robocath, HeartFlow, Gore, Ablative solutions, Matrizyme, Miracor, Neovasc, V-Wave, Abiomed, Claret, Sirtex, MAIA and Vectorious Medical; consulting fees and equity from VALFIX, SpectraWAVE, Ancora; personal fees, equity and stock options in Qool and Orchestra BioMed, holding equity and stock options in Cagent, Applied Therapeutics, Biostar, MedFocus, Aria CV, and Cardiac Success.