

Trajectory of CHF Patients

Kheirbek R, Citron B, Afaq MA, Wu H, Alemi F

Do CHF patients
get worse
gradually?



**Bay Pines
VA Pts**

90,000

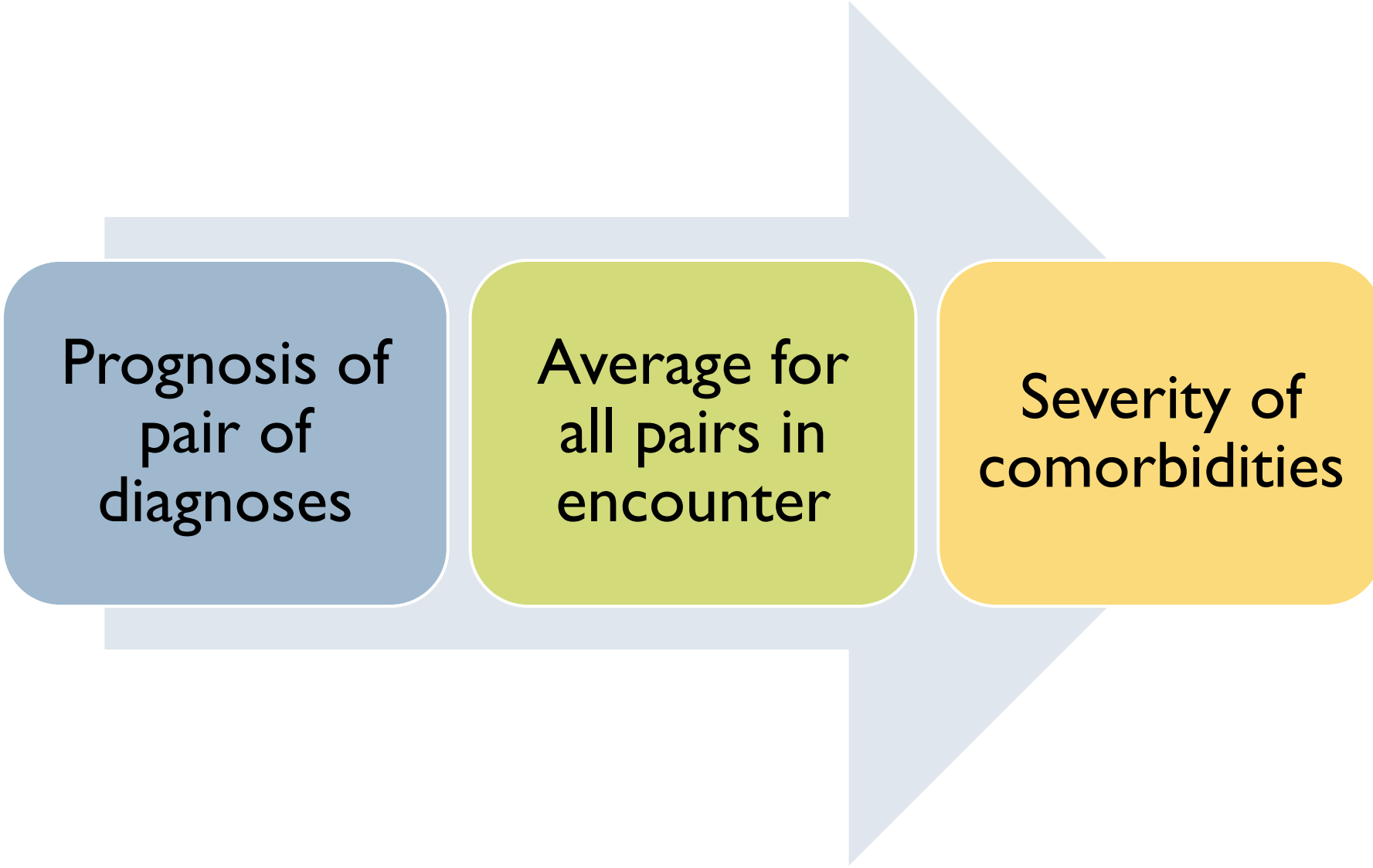
**CHF Dead
in 06-11**

744

**5+ visits in
12 months**

386





Prognosis of
pair of
diagnoses

Average for
all pairs in
encounter

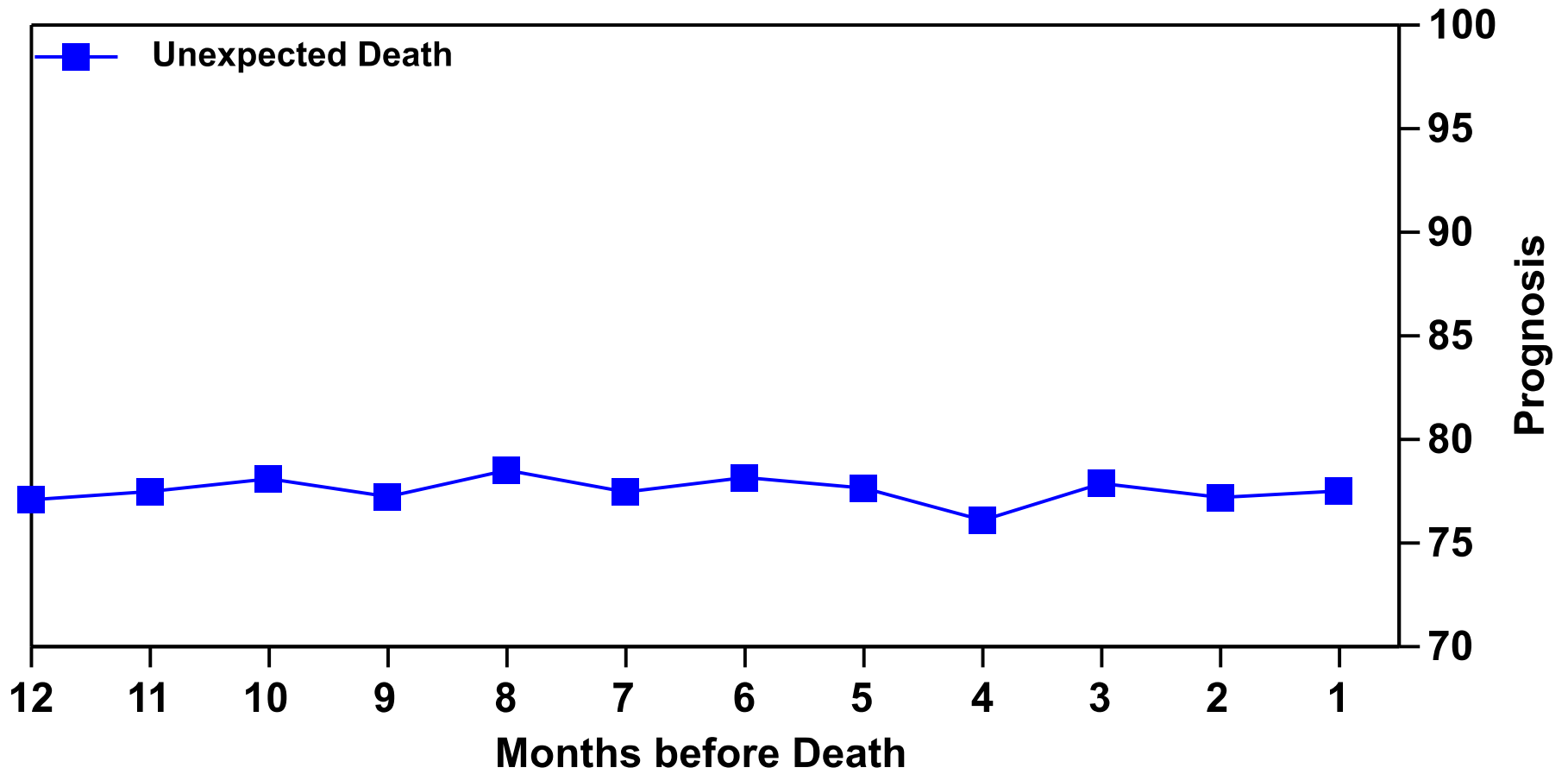
Severity of
comorbidities

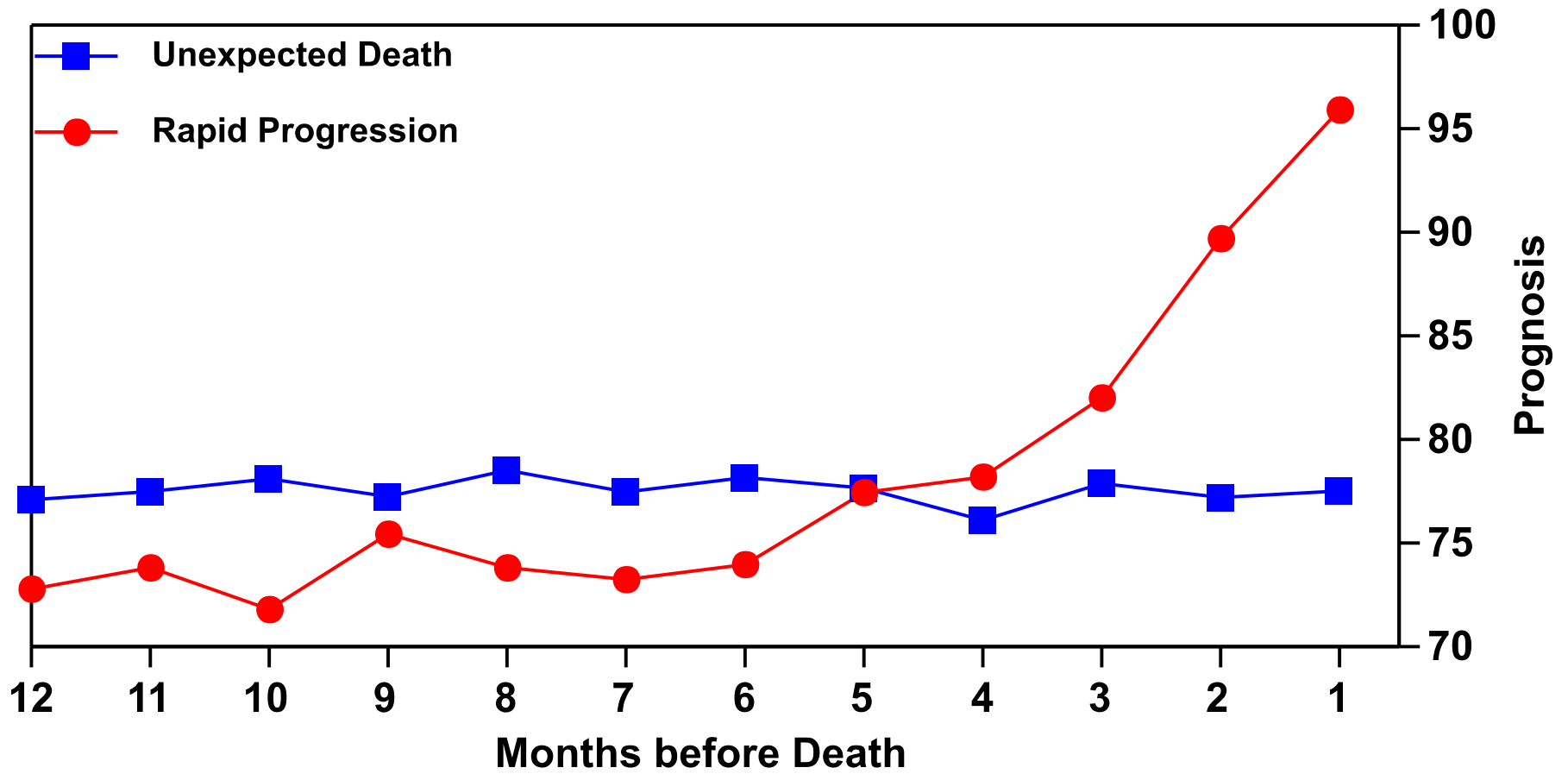


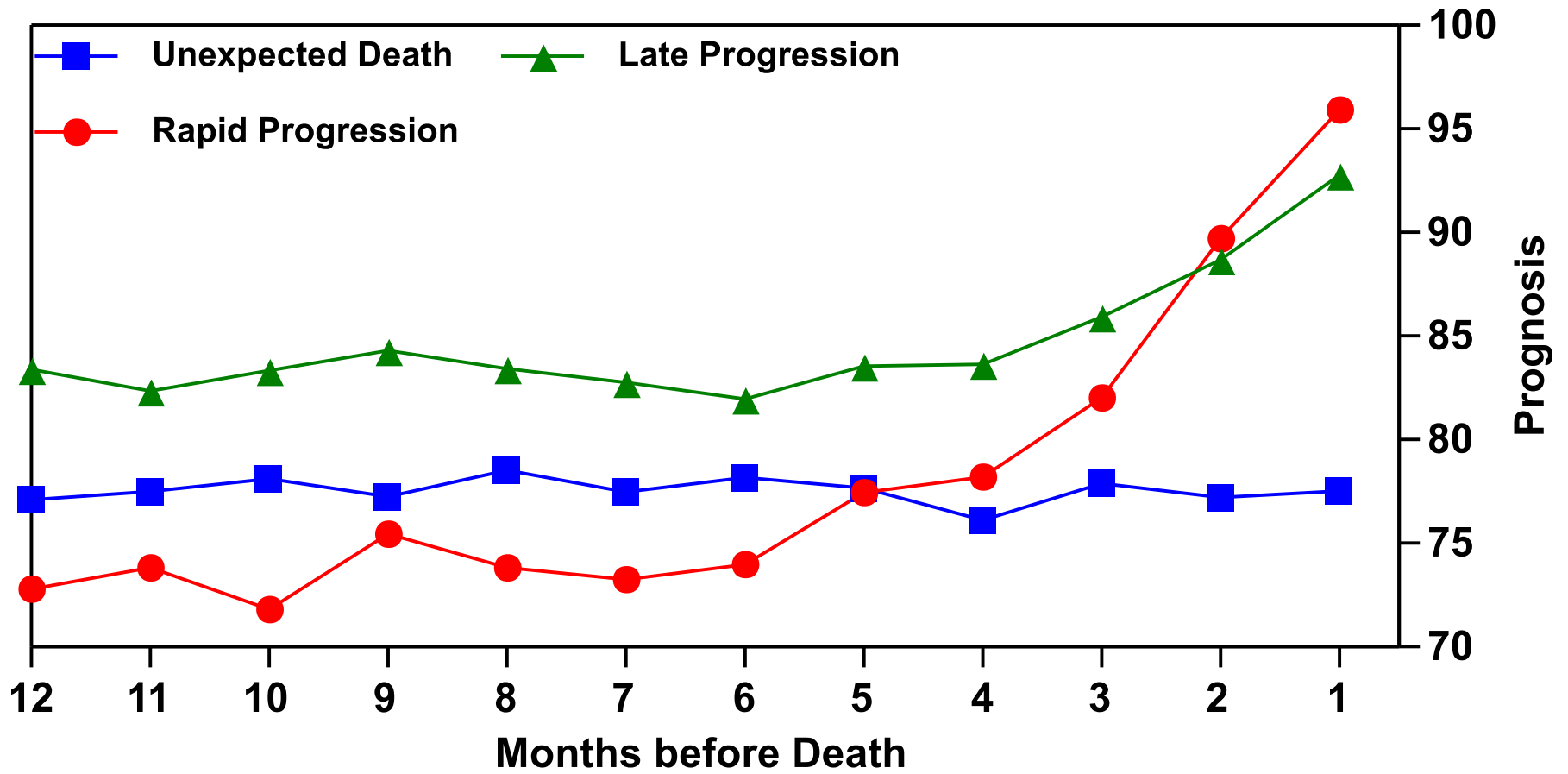
Procedures

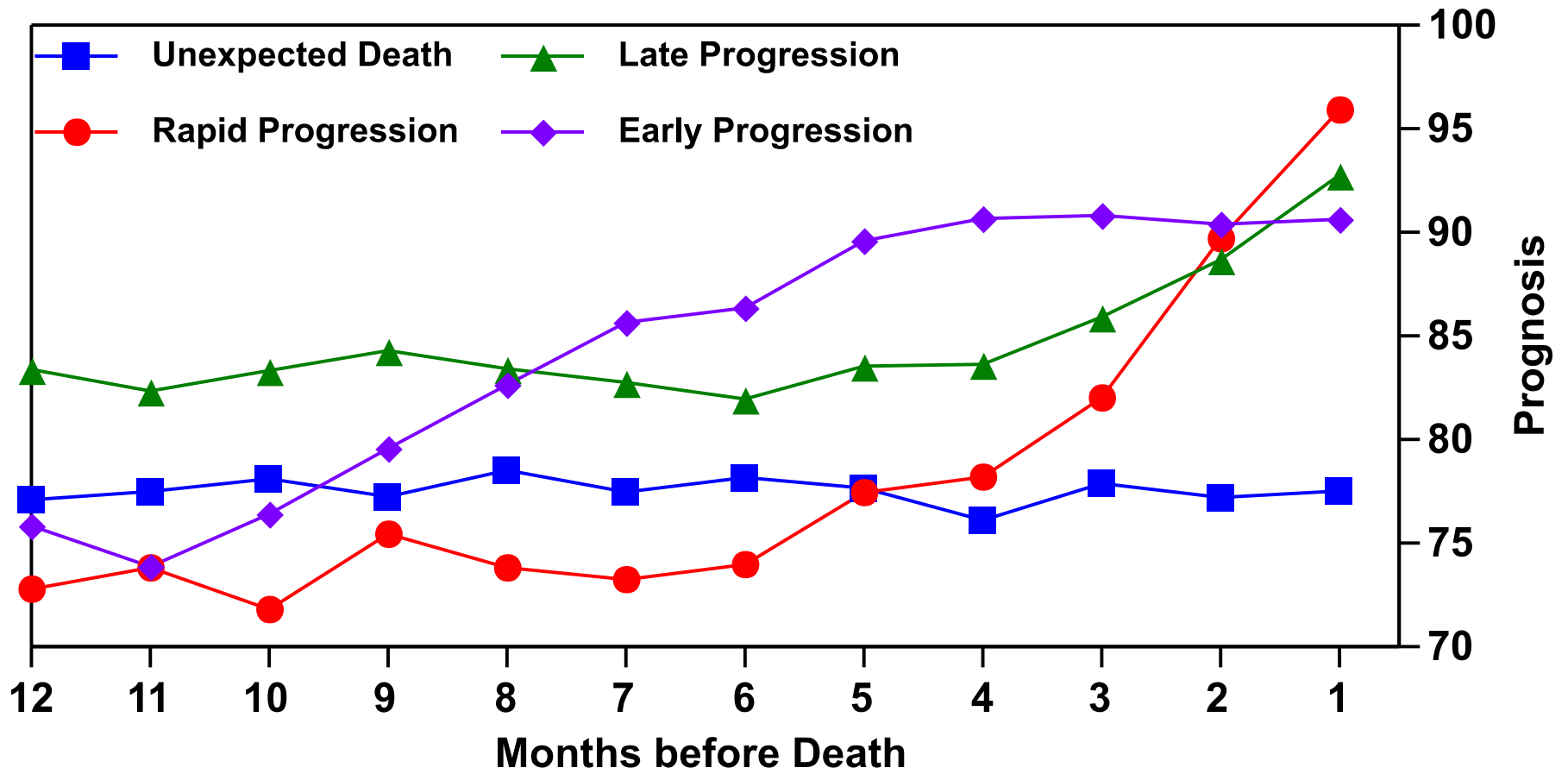
- ▶ SAS version 9.2
- ▶ Trajectory censored normal modeling
- ▶ Bayesian information criterion
- ▶ Two sided P value of <0.05
- ▶ Five groups

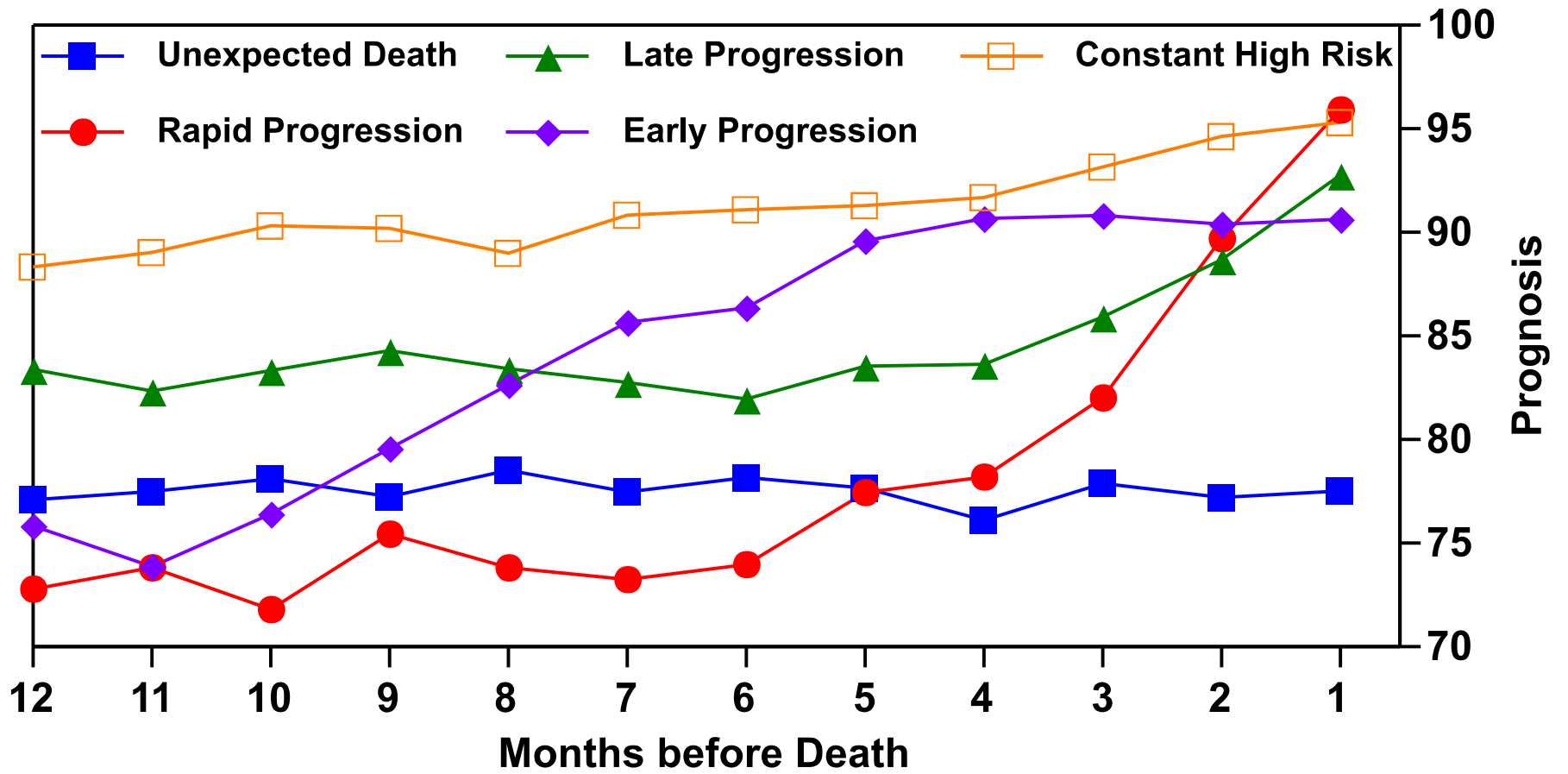


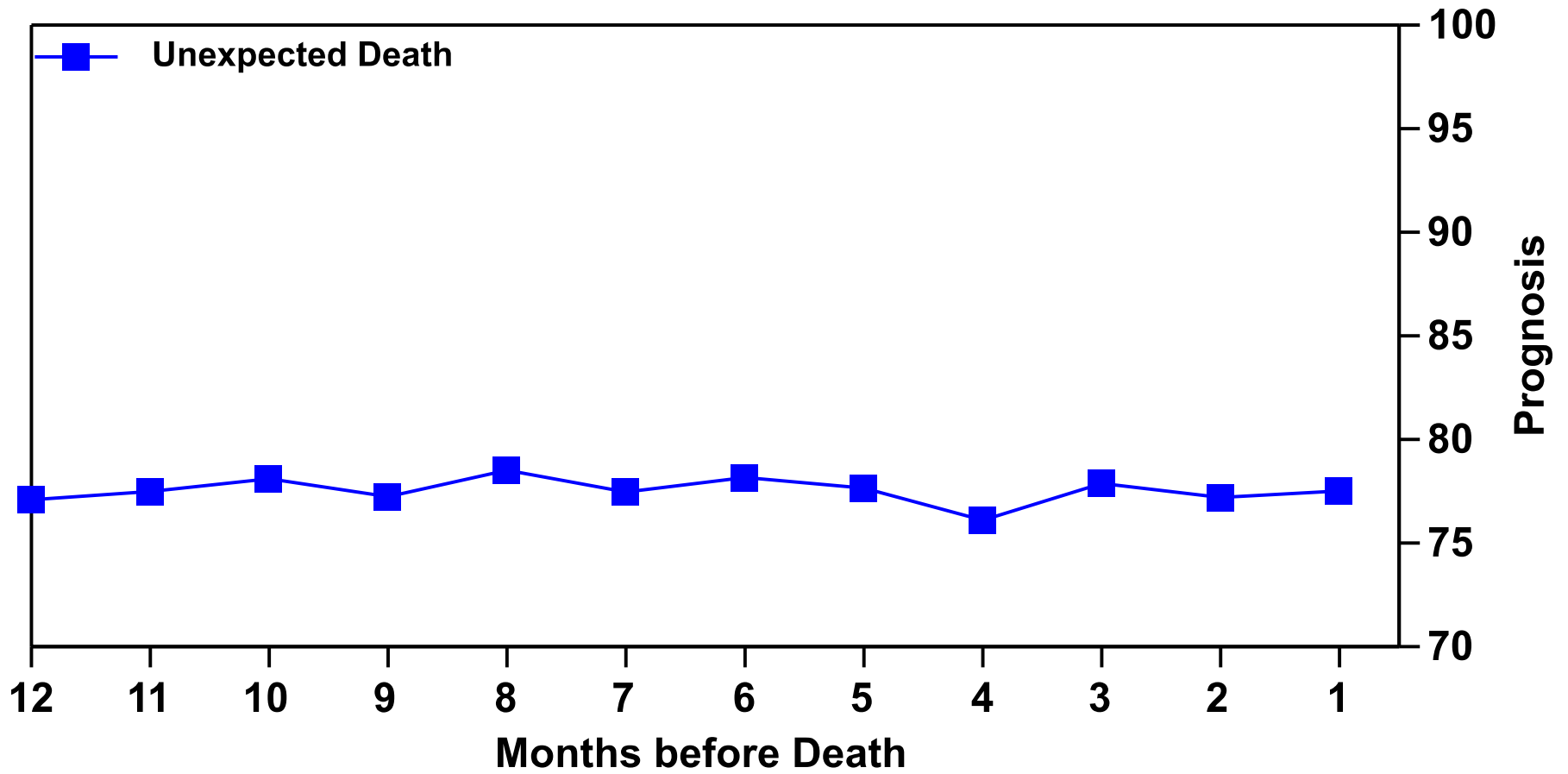


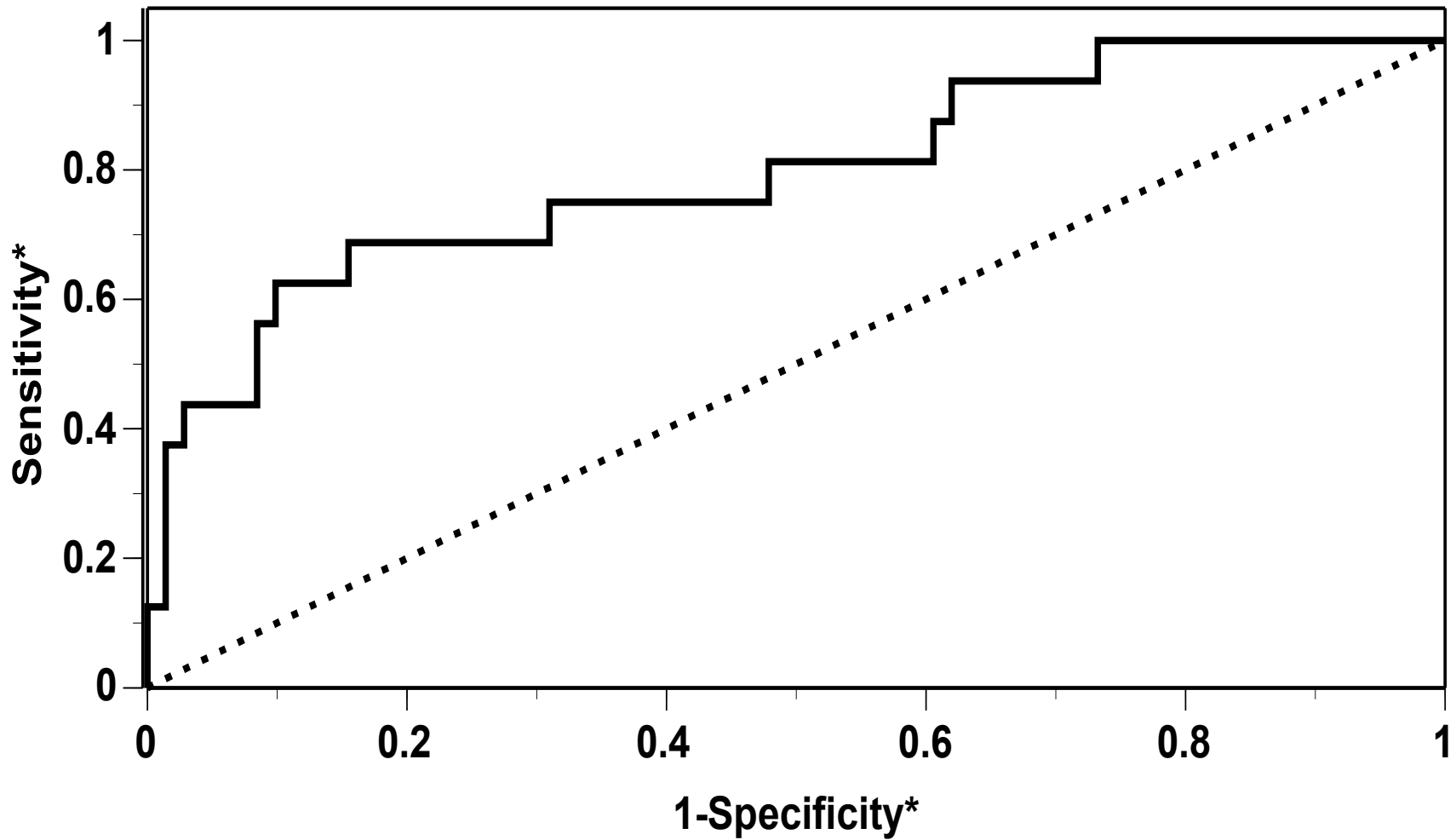












Rule In "Unexpected Death" Trajectory		Rule-Out "Unexpected Death" Trajectory	
Description	LR	Description	LR
Long-term (current) use of anticoagulants & acute, but ill-defined, cerebrovascular disease	33.2	Bone and bone marrow & malignant neoplasm of prostate	1/16.7
Encounter for therapeutic drug monitoring & diabetes mellitus	29.2	Long-term (current) use of anticoagulants & other pulmonary embolism and infarction	1/16.7
Encounter for therapeutic drug monitoring & mixed hyperlipidemia	29.2	Diabetes mellitus & unspecified hypothyroidism	1/14.3
Acute, but ill-defined, cerebrovascular disease & atrial fibrillation	20.7	Dehydration	1/12.5

79.5%
Gradual
Decline



Limitations

- ▶ Descriptive
- ▶ Retrospective analysis
- ▶ Limited to decedents

