

Survival Trends in Advanced Gastrointestinal Stromal Tumor Patients: A Population-Based Study

Abstract 136

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Introduction

- **Gastrointestinal stromal tumor (GIST) is an uncommon disease with 3300-6000 patients diagnosed every year in the US**
- **There was no effective systemic therapy for GISTs before the availability of tyrosine kinase inhibitors**
- **Imatinib mesylate is an oral, selective, small-molecule competitive inhibitor of KIT, PDGFRA, and other tyrosine kinases**
- **Imatinib mesylate was approved by the FDA for the treatment of malignant metastatic and/or unresectable GISTs on Feb 1, 2002**
- **This study was conducted to evaluate survival trends of patients with advanced GIST in pre- (1992-2001) and post- (2002-2008) imatinib era in a population setting**

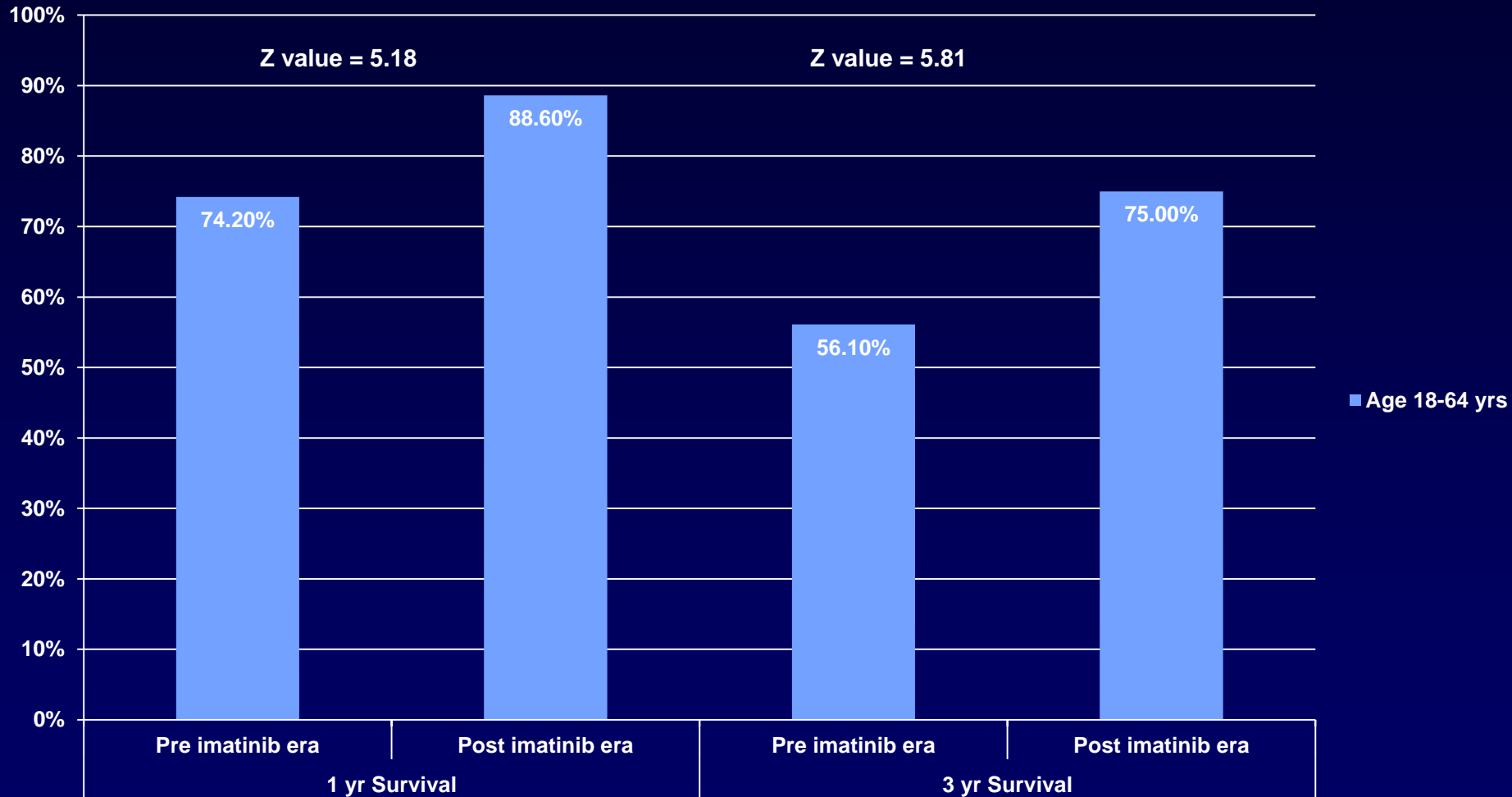
Methods

- **We selected adult patients (≥ 18 years) with advanced GIST (regional and distant metastasis based on SEER's LRD staging) from the National Cancer Institute's SEER 18 database**
- **We excluded patients diagnosed at autopsy or from death certificate only, or those without survival date**
- **We calculated 1- and 3- year relative survival (RS) rates using SEER* Stat software**

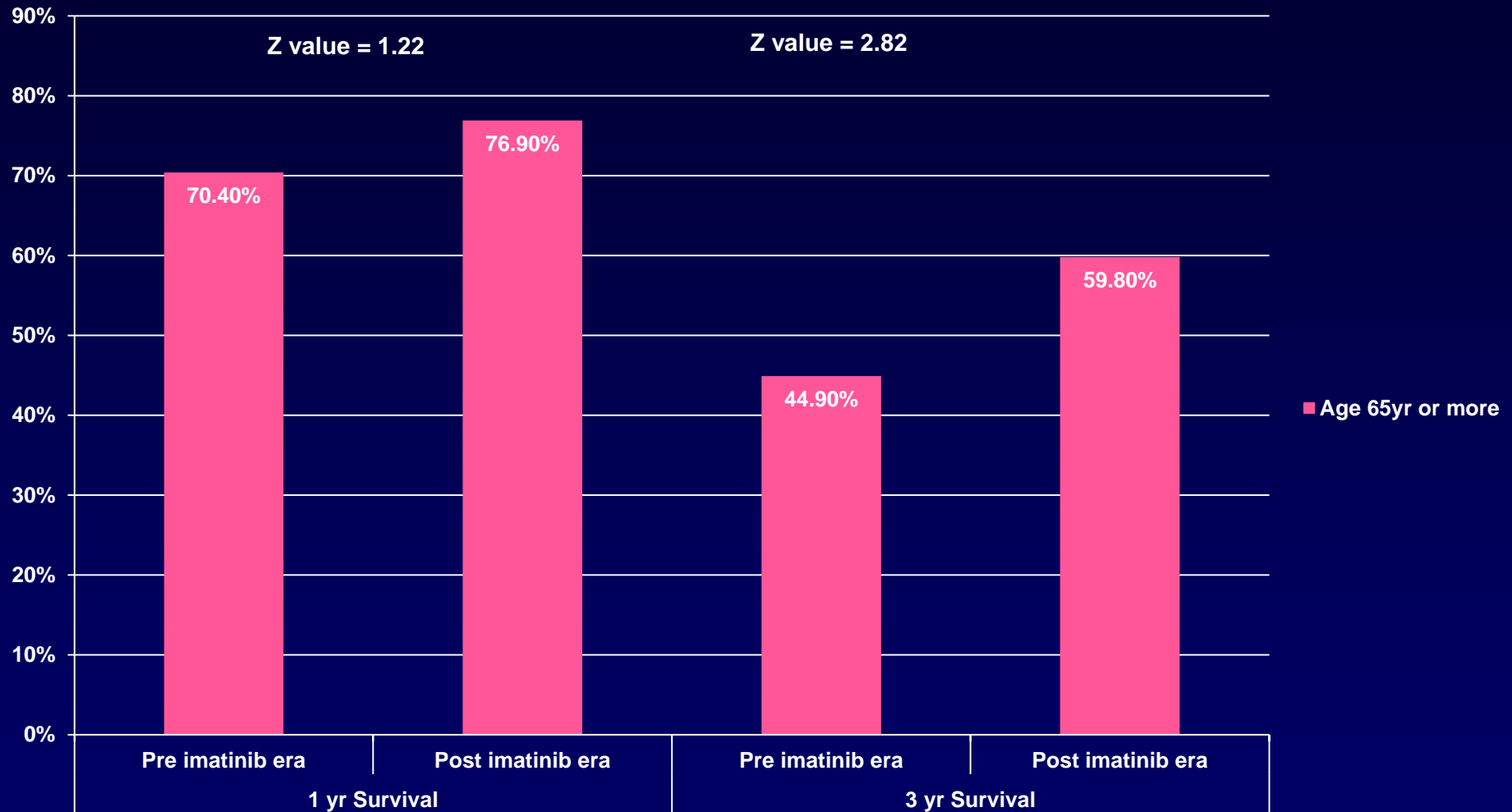
Results

- **Total number of GIST patients: 1734**
 - **Number of patients in pre-imatinib era: 430**
 - **Number of patients in post-imatinib era: 1304**
- **One and three year RS rates improved significantly from pre- to post- imatinib era**
 - **1 year: 72.5 % \pm 2.3% to 83.8 % \pm 1.1%, Z = 4.46**
 - **3 years: 51.0% \pm 2.6% to 68.8% \pm 1.4% , Z = 6.26**

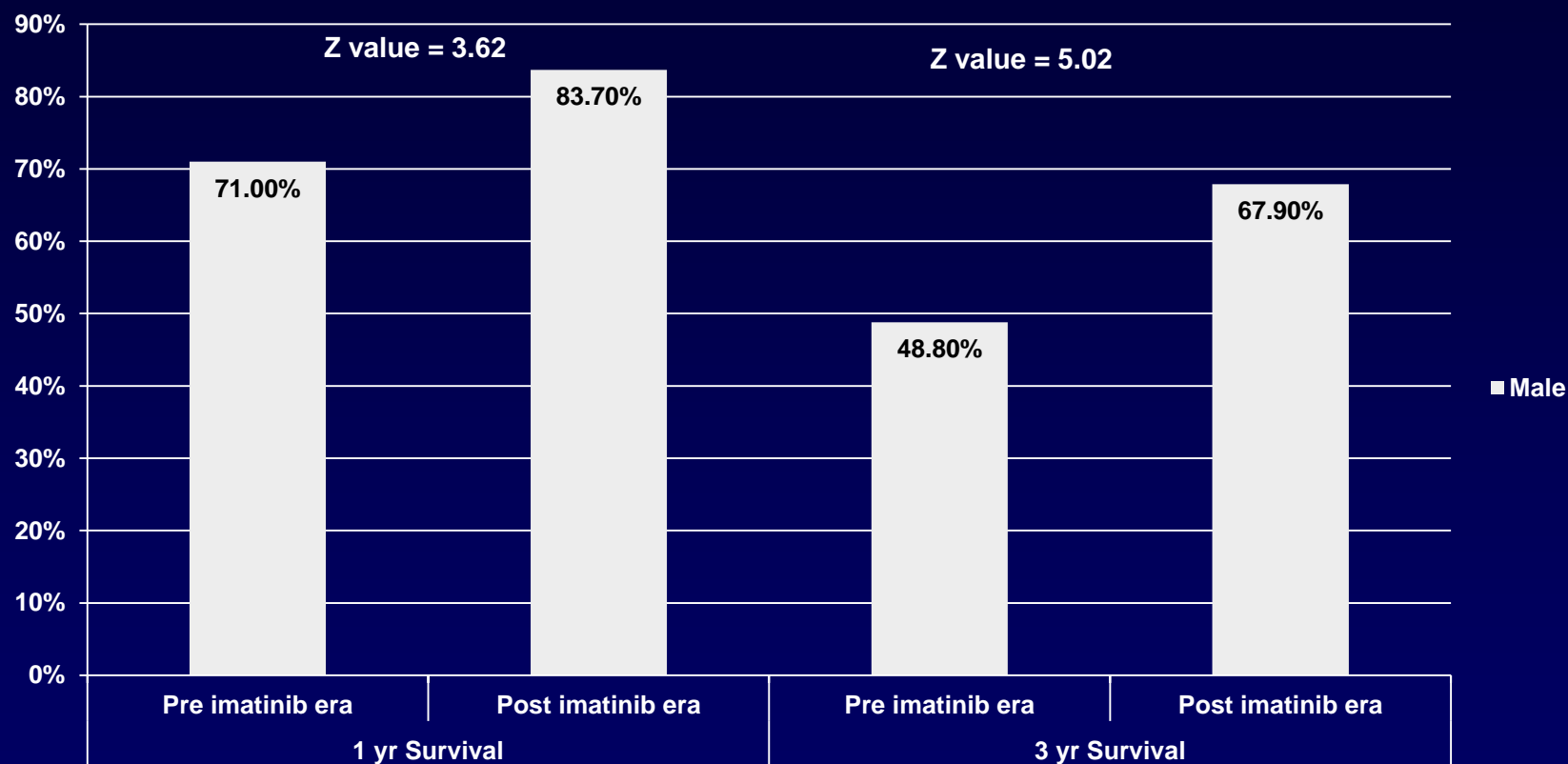
Age 18-64 Years



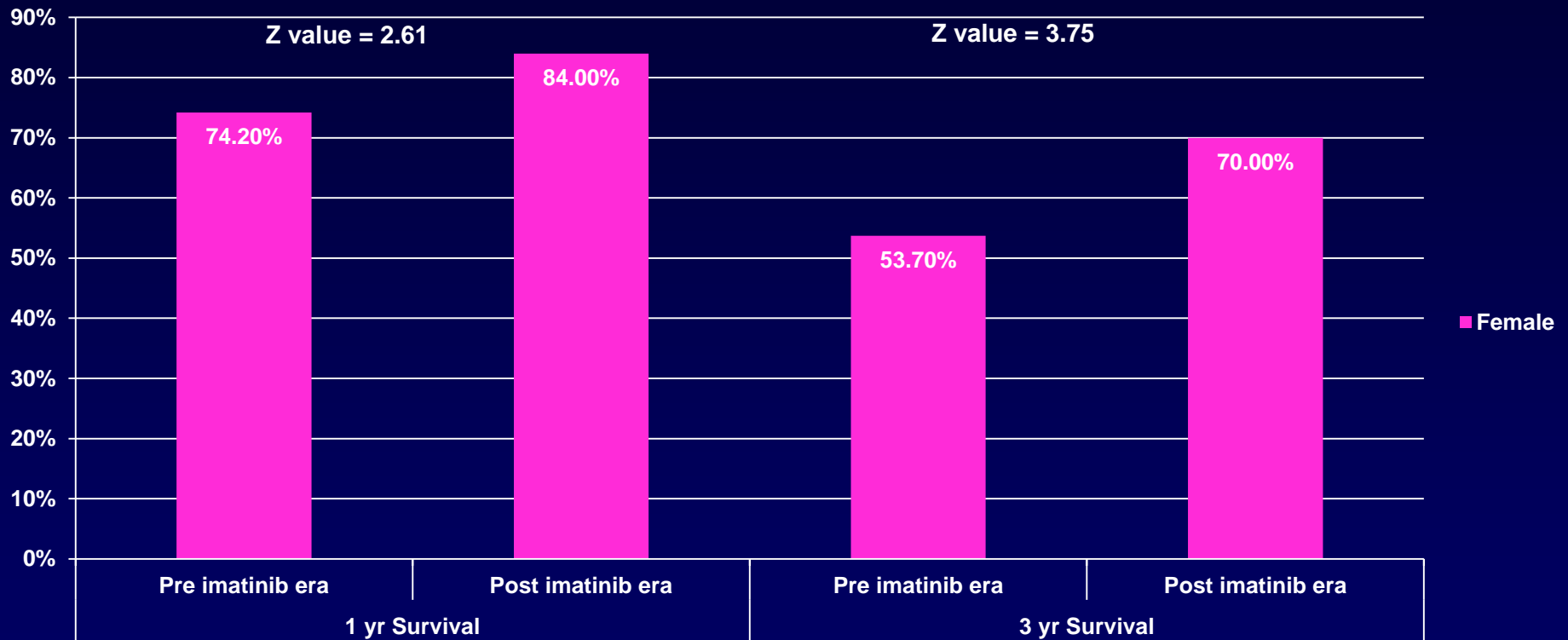
Age 65 Years or More



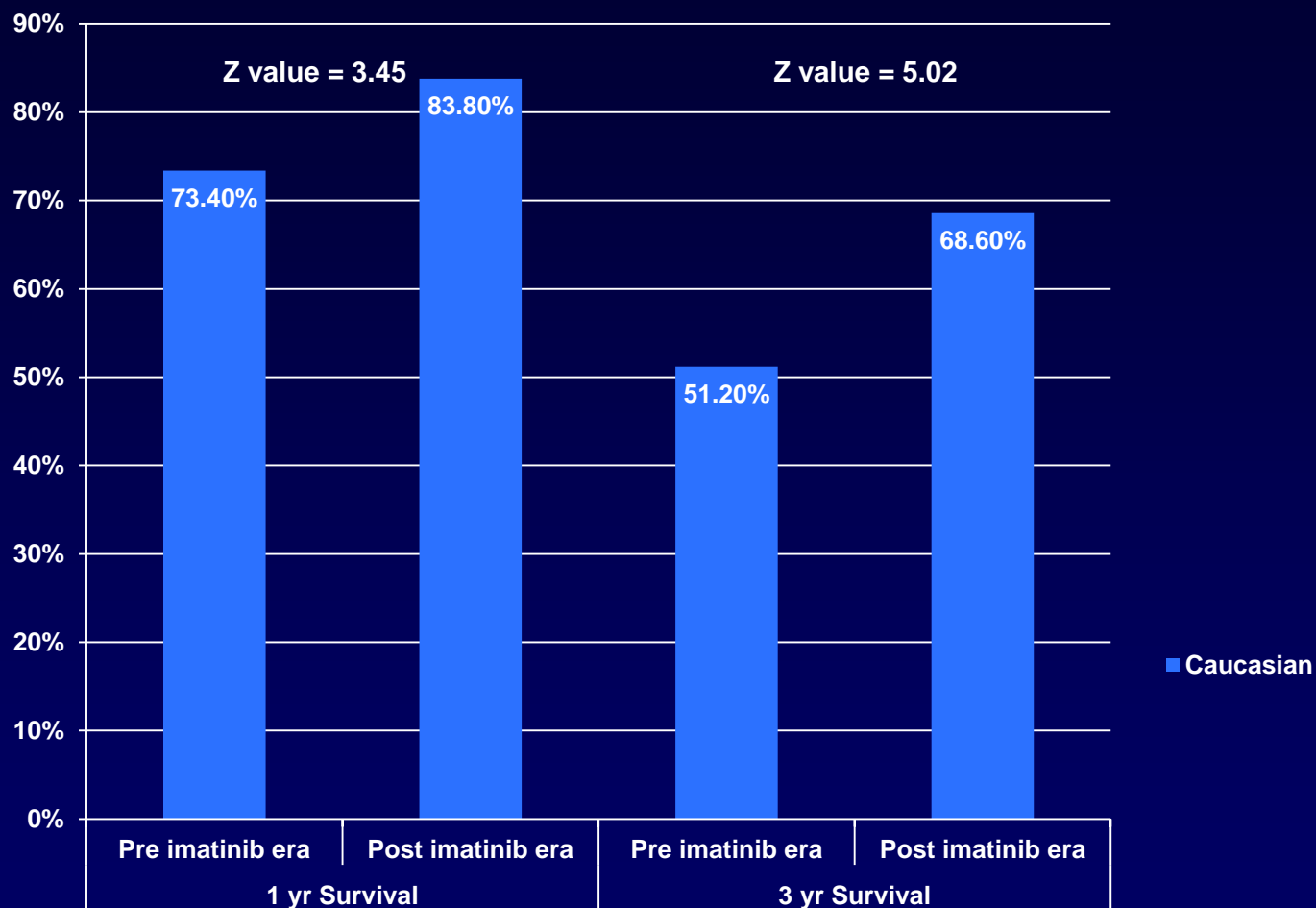
Male



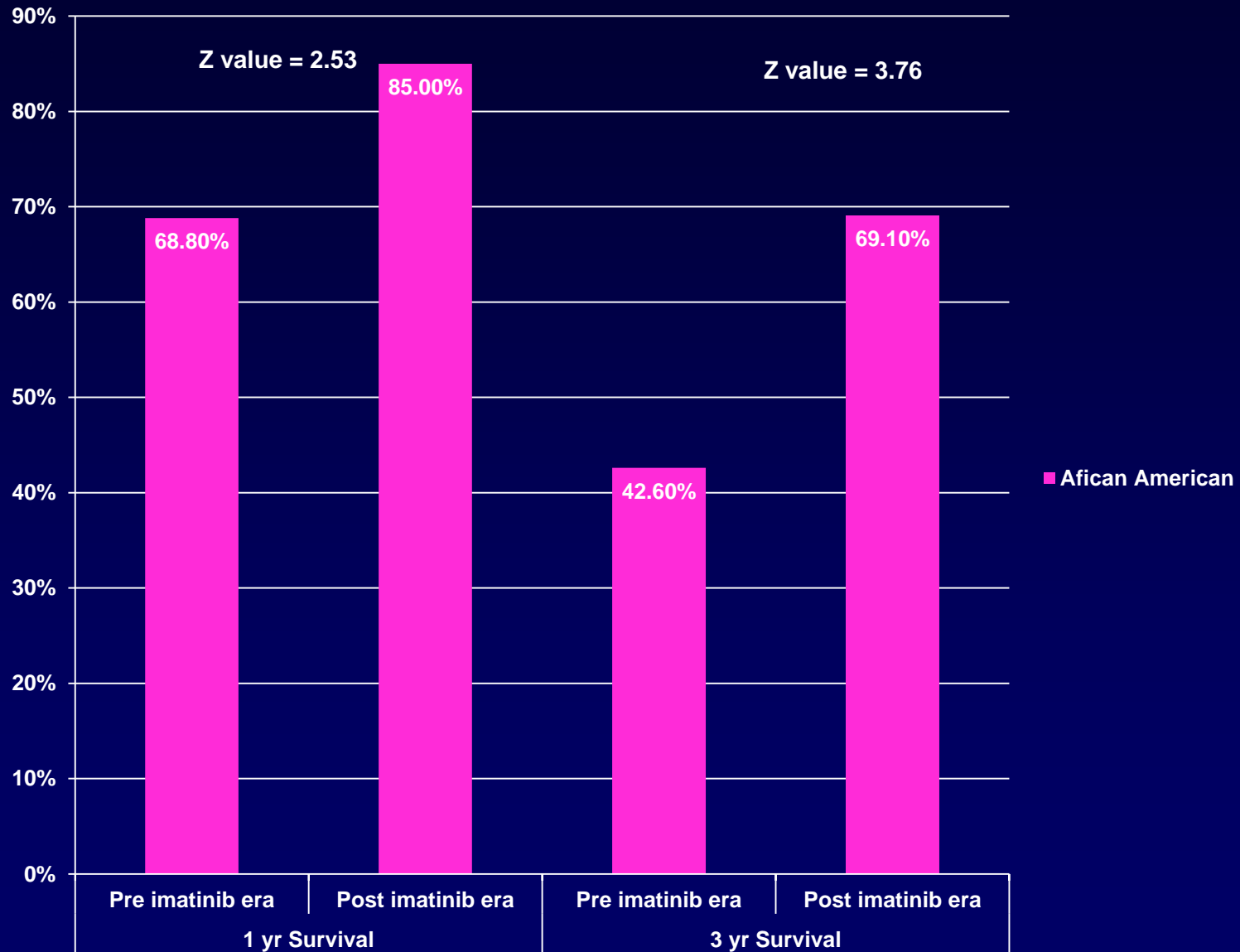
Female



Caucasian



African American



Conclusions

- Relative survival rates of advanced GIST patients have improved significantly in post-imatinib era compared to pre-imatinib era
- Although SEER does not collect information on the chemotherapy used, the timing in the improvement in survival rates suggests that imatinib was responsible for the improvement in survival of patients with advanced GIST