A graph of a product-limit survival

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This Kaplan-Meier survival curve provides key insights into the survival probabilities across three groups: Placebo, Treatment A, and Treatment B over time (measured in ASTDY).

**Survival Probability Trends Over Time**

* All curves show a decline in survival probability as time progresses, indicating that events (e.g., adverse events, mortality, or progression) occur over time.
* The **blue curve (Placebo)** generally has a steeper decline compared to the treatment groups, suggesting lower survival probabilities without intervention.

**Treatment Comparisons**

* **Treatment A (red curve)**: Displays a gradual decline in survival, outperforming the placebo in maintaining higher survival probabilities over the observed time.
* **Treatment B (green curve)**: Shows an even slower decline compared to both Placebo and Treatment A, suggesting it might be the most effective in extending survival.

**Differences at Key Time Points**

* At earlier time points (e.g., ASTDY ~50), the difference between the groups might be minimal, but as time progresses, the curves separate more distinctly.
* At later stages (e.g., ASTDY ~300), **Treatment B** maintains the highest survival probability, followed by **Treatment A**, and then the placebo.

**Median Survival Time**

* The median survival time (when survival probability = 0.5) would indicate the time by which half of the group has experienced the event. Treatment groups are likely to have a longer median survival compared to Placebo.

**Potential Statistical Implications**

* The spacing between curves suggests meaningful differences in survival outcomes across groups.
* Further statistical validation (e.g., Log-Rank test or Hazard Ratios) is needed to confirm the significance of these differences.

A graph of a product

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 **Survival Trends Across Groups:**

* **Sex Differences:** Survival probabilities differ significantly between male and female participants, this could indicate sex-based variations in treatment effects or disease progression. For example, one curve declining faster might suggest poorer outcomes for that group.
* **Age Group Variations:** The curves stratified by AGE\_GROUP, disparities indicate that younger patients respond better to treatment or experience fewer adverse events compared to older patients.

 **Median Survival Time:**

* The median survival time (where the survival probability drops to 50%) could be a critical metric. It provides insight into the effectiveness of treatments across arms or demographics.

A graph of a survival

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The Kaplan-Meier survival graph displays survival probabilities stratified by age groups—"Under 30," "30-49," and "50+."

### ****1. Survival Probability Over Time****

* **Under 30 (Green Curve):** This group maintains the highest survival probability over time, indicating better outcomes compared to the other age groups.
* **30-49 (Blue Curve):** This group shows a moderate decline in survival probability, falling between the "Under 30" and "50+" groups.
* **50+ (Red Curve):** This group experiences the steepest decline in survival probability, suggesting that participants aged 50 and older face higher event rates or risks.

### ****2. Separation Between Groups****

* The curves are distinctly separated, especially after the initial timepoints. This separation indicates a clear difference in survival trends across age groups.
* It suggests that younger participants ("Under 30") are likely to have significantly better survival outcomes compared to older participants.

### ****3. Time Points of Interest****

* At early time points, survival probabilities might be similar across groups, but as time progresses, differences become more pronounced.
* If median survival times are visible (when survival probability equals 0.5), the comparison would provide additional insight into group disparities.