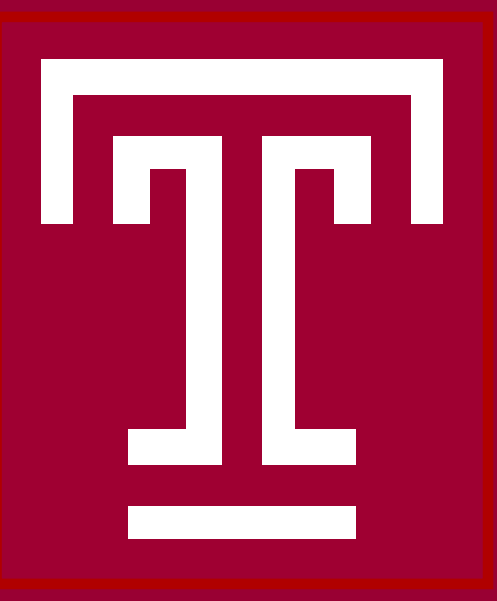


# Single and Double Lung Transplantation in Idiopathic Pulmonary Fibrosis: A Review of Pulmonary Artery Mean Pressure



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## INTRODUCTION

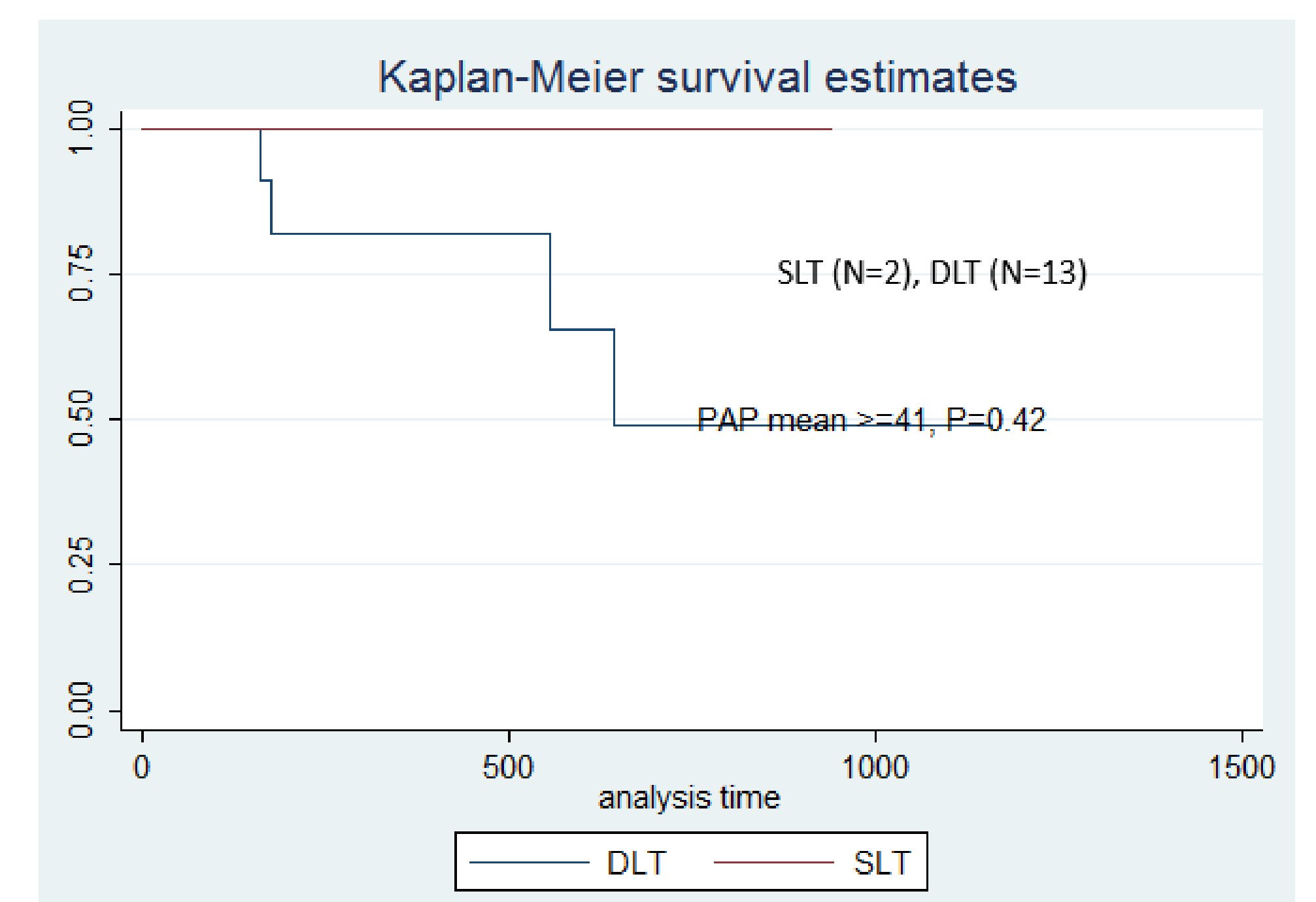
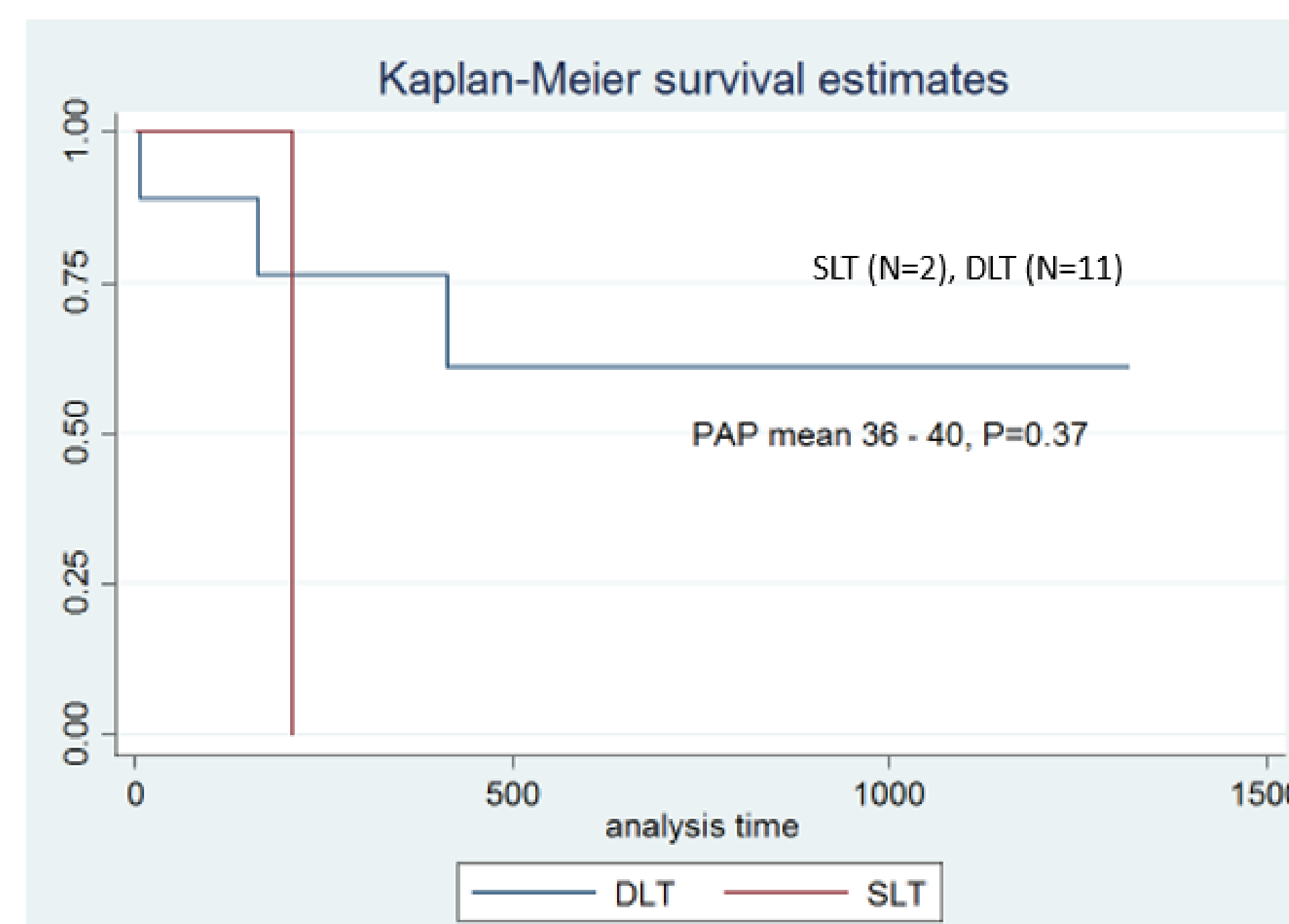
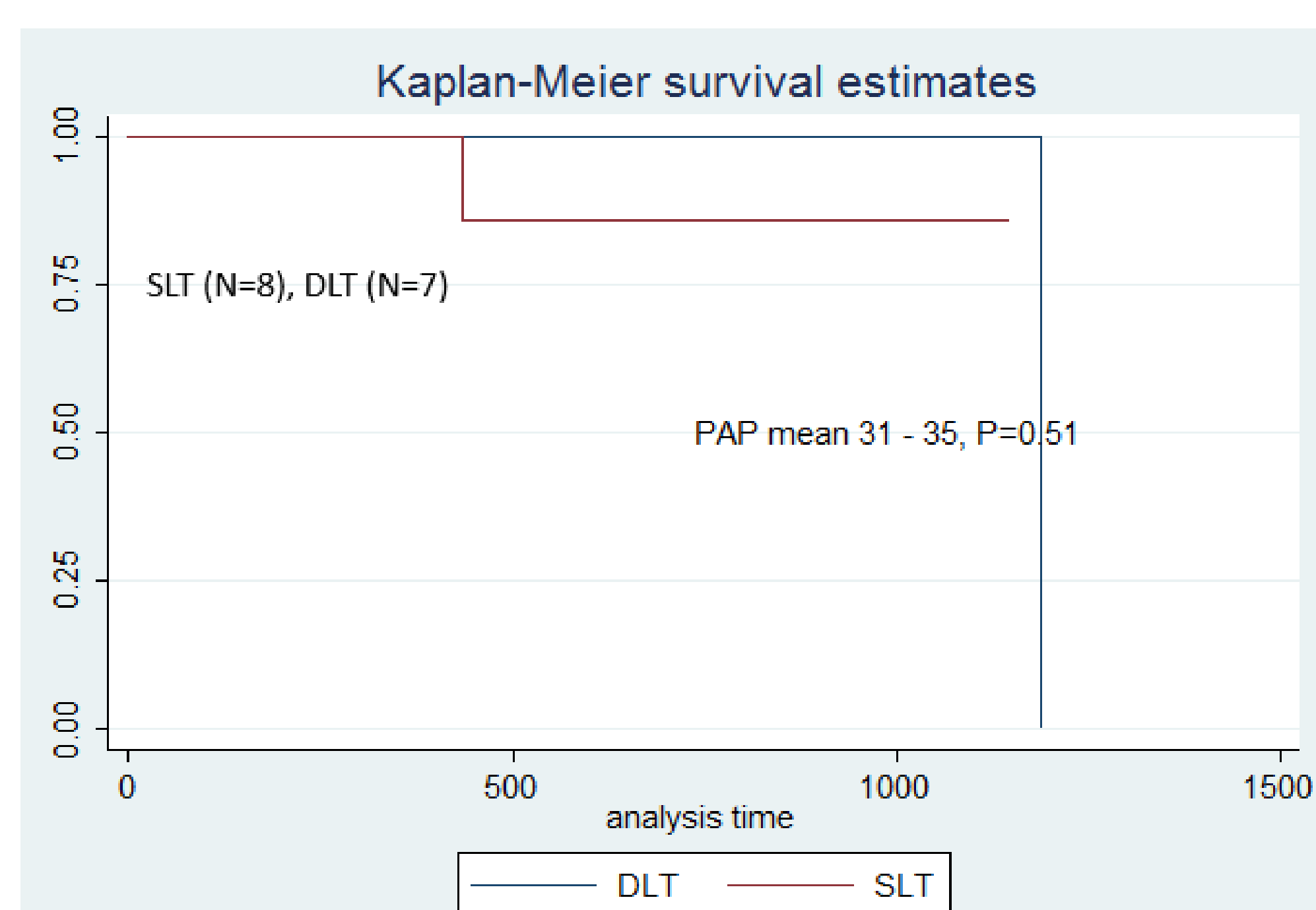
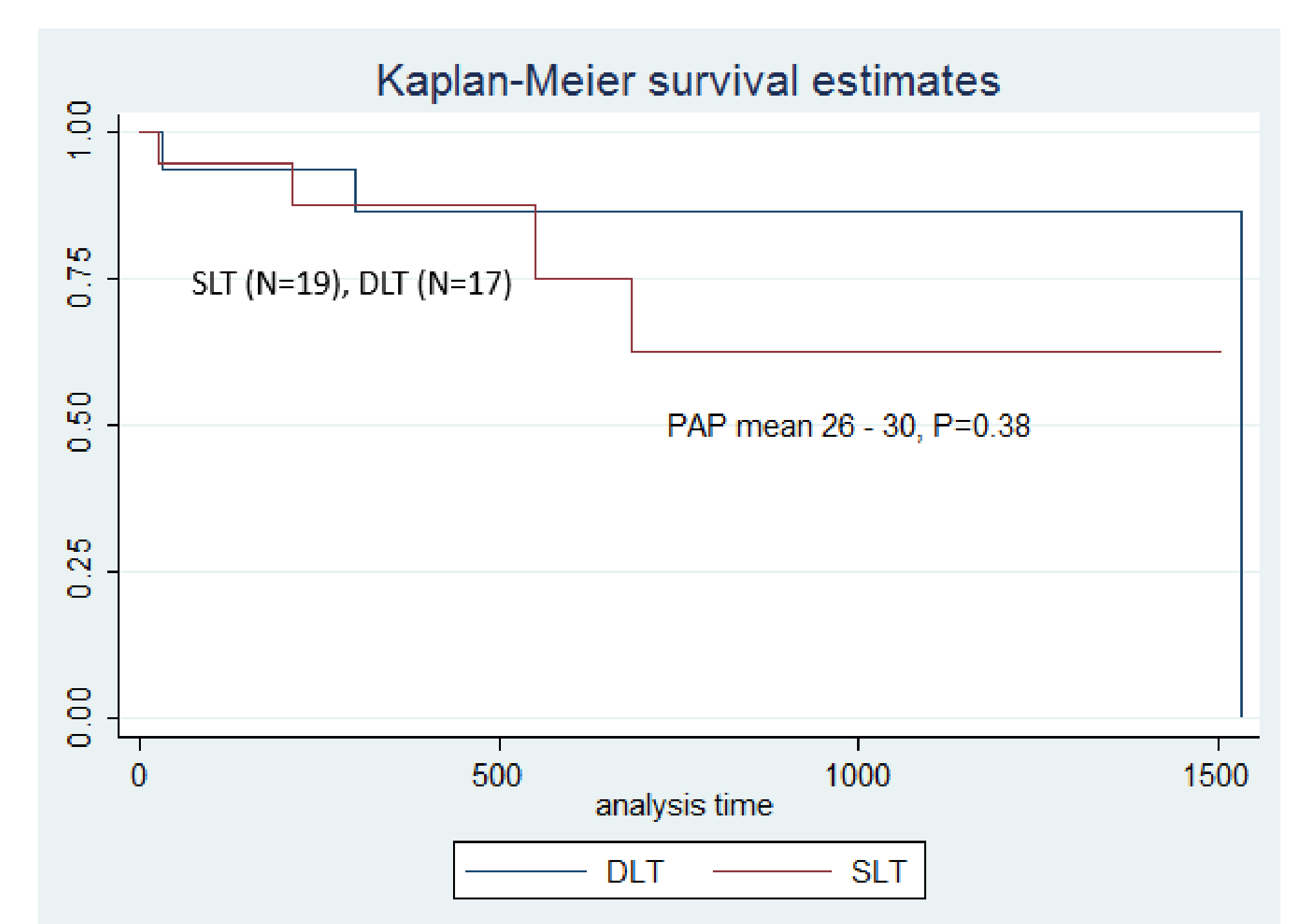
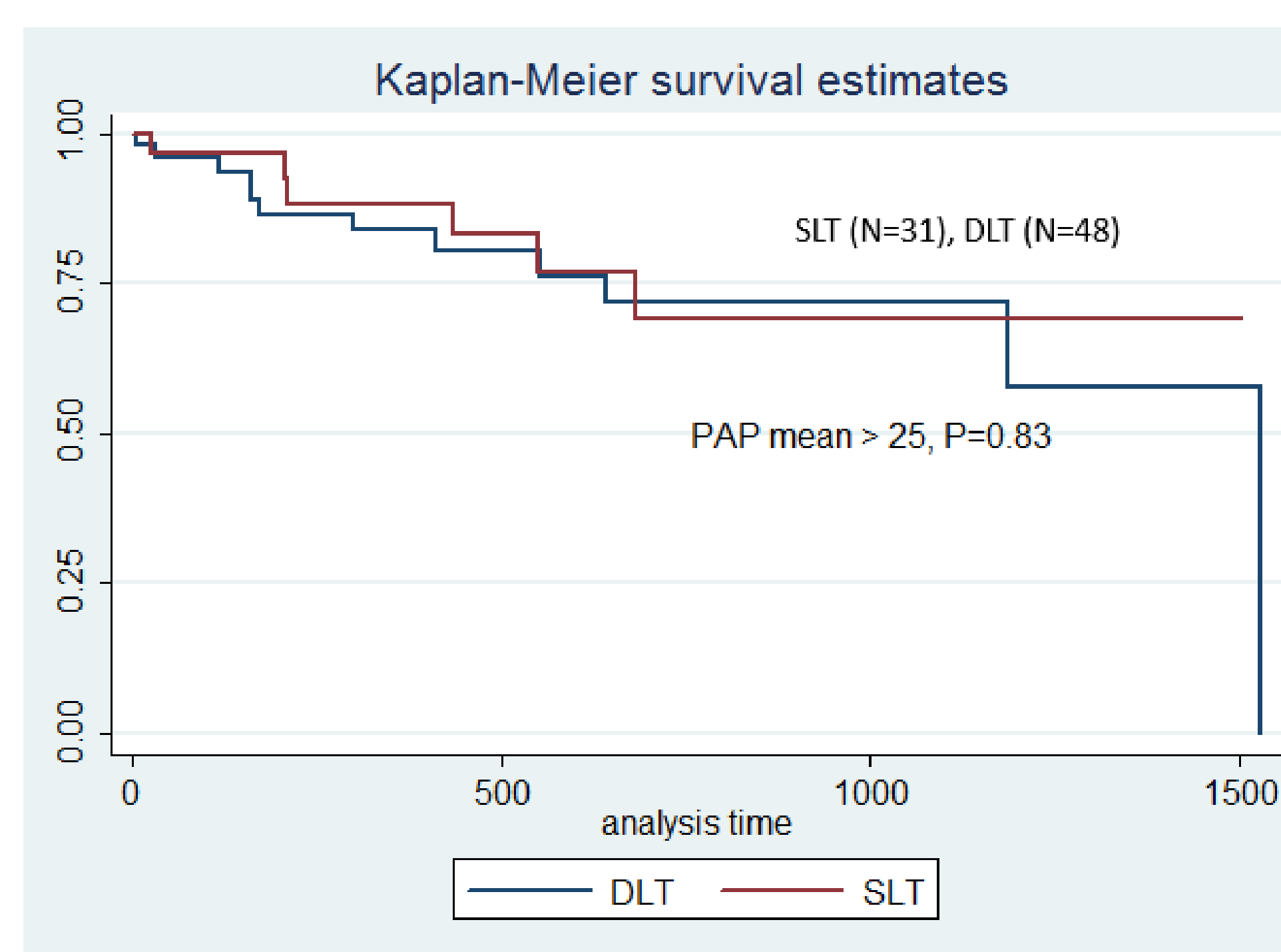
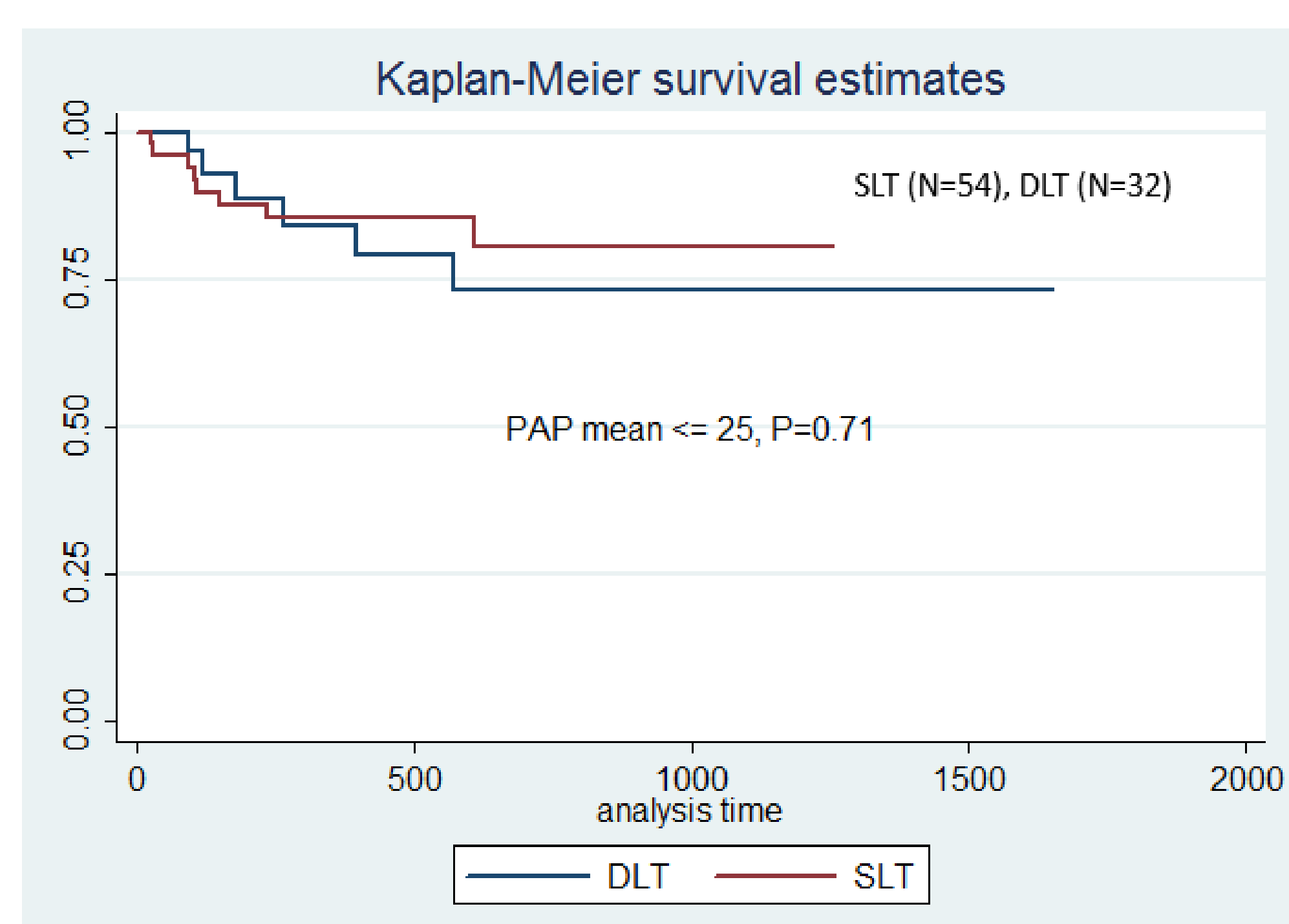
Majority of the patients that undergo either single (SLT) or double (DLT) lung transplantation have an etiology of Idiopathic pulmonary fibrosis (IPF) with variable degrees of pulmonary hypertension (PH). Many of these patients has a large range of mean pulmonary artery pressure (PAP mean). We investigated the survival outcome of SLT vs. DLT in IPF patients with PAP mean of <25, >26-30, >31-35, >36-40, >41 mmHg.

## METHODS

We reviewed retrospectively IPF patients (n=165) that underwent either single or double LTx at our center during 2012-2016. 53% patients had <25, 22% had >26-30, 9% had >31-35, 7% had >36-40, and 9% had >41 mmHg PAP mean. Demographics, recipients' age and height, donor age and height, LAS, length of stay (LOS), survival days, death, types of induction, and surgical procedures were compared between SLT vs DLT in IPF patients for significance in all groups of PAP mean. Actuarial survival was assessed by Kaplan-Meier curve and compared by log rank test. Data were expressed as mean  $\pm$  standard deviation and p-value less than 0.05 was considered as statistically significant.

## RESULTS

There were a total of 85 SLT and 80 DLT patients. Log-rank test for equality of survivor functions showed no difference in SLT vs DLT (p=0.70) in <25, (p=0.83) in >26-30, (p=0.38) in >31-35, (p=0.51) in >36-40, and (p=0.42) >41 mm Hg PAP mean group. Male were higher that underwent DLT procedures (70%, p=0.30). Median length of stay is 16 days for SLT vs. 19 days for DLT procedure. Surgical approach was significant in antero-axillary incision compared to clamshell, and median sternotomy (p=0.001). No differences in induction type campath and simulect (p=0.241; p=0.824), BMI, ethnicity, donor age, and concomitant procedures. Kaplan-Meier curve showed no survival difference in SLT vs DLT.



## CONCLUSIONS

Our results showed no differences in survival outcome with single or double lung transplantation when variable pulmonary artery mean pressure was present in IPF patients.