

1. Prevalence of citrulline depletion (<11μM) at GLN enrollment: 58/146 = 39.7 % [32.2 - 47.8]

2. Baseline citrulline vs. In-Hospital Mortality

Baseline Citrulline Level	Survivors	Non-Survivors	Odds Ratio	Trend Test p-value
Citrulline< 8μm	26/123(21.1%)	5/23(21.7%)	1.64[0.40-6.70]	0.92
Citrulline= 8~ 12μm	33/123(26.8%)	3/23(13.0%)	0.77[0.16-3.72]	
Citrulline= 12~ 17μm	30/123(24.4%)	11/23(47.8%)	3.12[0.90-10.83]	
Citrulline>= 17μm	34/123(27.6%)	4/23(17.4%)	1.00	

3. Baseline citrulline vs. 6-Month Mortality

Baseline Citrulline Level	Survivors	Non-Survivors	Odds Ratio	Trend Test p-value
Citrulline< 8μm	25/102(24.5%)	6/44(13.6%)	0.46[0.15-1.41]	0.067
Citrulline= 8~ 12μm	28/102(27.4%)	8/44(18.2%)	0.55[0.20-1.54]	
Citrulline= 12~ 17μm	24/102(23.5%)	17/44(38.6%)	1.36[0.55-3.40]	
Citrulline>= 17μm	25/102(24.5%)	13/44(29.6%)	1.00	

4. Baseline citrulline vs. Apache II score at Randomization

Baseline Citrulline Level	APACHE <=15	APACHE >15	Odds Ratio	Trend Test p-value
Citrulline< 8μm	19/70(27.1%)	12/76(15.8%)	0.41[0.16-1.09]	0.16
Citrulline= 8~ 12μm	15/70(21.4%)	21/76(27.6%)	0.91[0.36-2.31]	
Citrulline= 12~ 17μm	21/70(30.0%)	20/76(26.3%)	0.62[0.25-1.52]	
Citrulline>= 17μm	15/70(21.4%)	23/76(30.3%)	1.00	

5. Baseline citrulline vs. SOFA score at Randomization

Baseline Citrulline Level	SOFA <=6	SOFA >6	Odds Ratio	Trend Test p-value
Citrulline< 8μm	19/76(25.0%)	12/70(17.1%)	0.51[0.20-1.34]	0.10
Citrulline= 8~ 12μm	21/76(27.6%)	15/70(21.4%)	0.58[0.23-1.45]	
Citrulline= 12~ 17μm	19/76(25.0%)	22/70(31.4%)	0.94[0.39-2.27]	
Citrulline>= 17μm	17/76(22.4%)	21/70(30.0%)	1.00	

6. Baseline citrulline vs. Incidence of BSI

Baseline Citrulline Level	BSI=No	BSI=Yes	Odds Ratio	Trend Test p-value
Citrulline< 8μm	25/119(21.0%)	6/27(22.2%)	1.28[0.37-4.45]	0.71
Citrulline= 8~ 12μm	29/119(24.4%)	7/27(25.9%)	1.29[0.39-4.28]	
Citrulline= 12~ 17μm	33/119(27.7%)	8/27(29.6%)	1.29[0.40-4.14]	
Citrulline>= 17μm	32/119(26.9%)	6/27(22.2%)	1.00	

7. Baseline citrulline vs. Incidence of Pneumonia

Baseline Citrulline Level	Pneumonia =No	Pneumonia =Yes	Odds Ratio	Trend Test p-value
Citrulline< 8μm	27/125(21.0%)	4/21(22.2%)	0.66[0.17-2.49]	0.57
Citrulline= 8~ 12μm	31/125(24.4%)	5/21(25.9%)	0.71[0.20-2.50]	
Citrulline= 12~ 17μm	36/125(27.7%)	5/21(29.6%)	0.62[0.18-2.13]	
Citrulline>= 17μm	31/125(26.9%)	7/21(22.2%)	1.00	

8. Baseline citrulline vs. Incidence of Any Infection

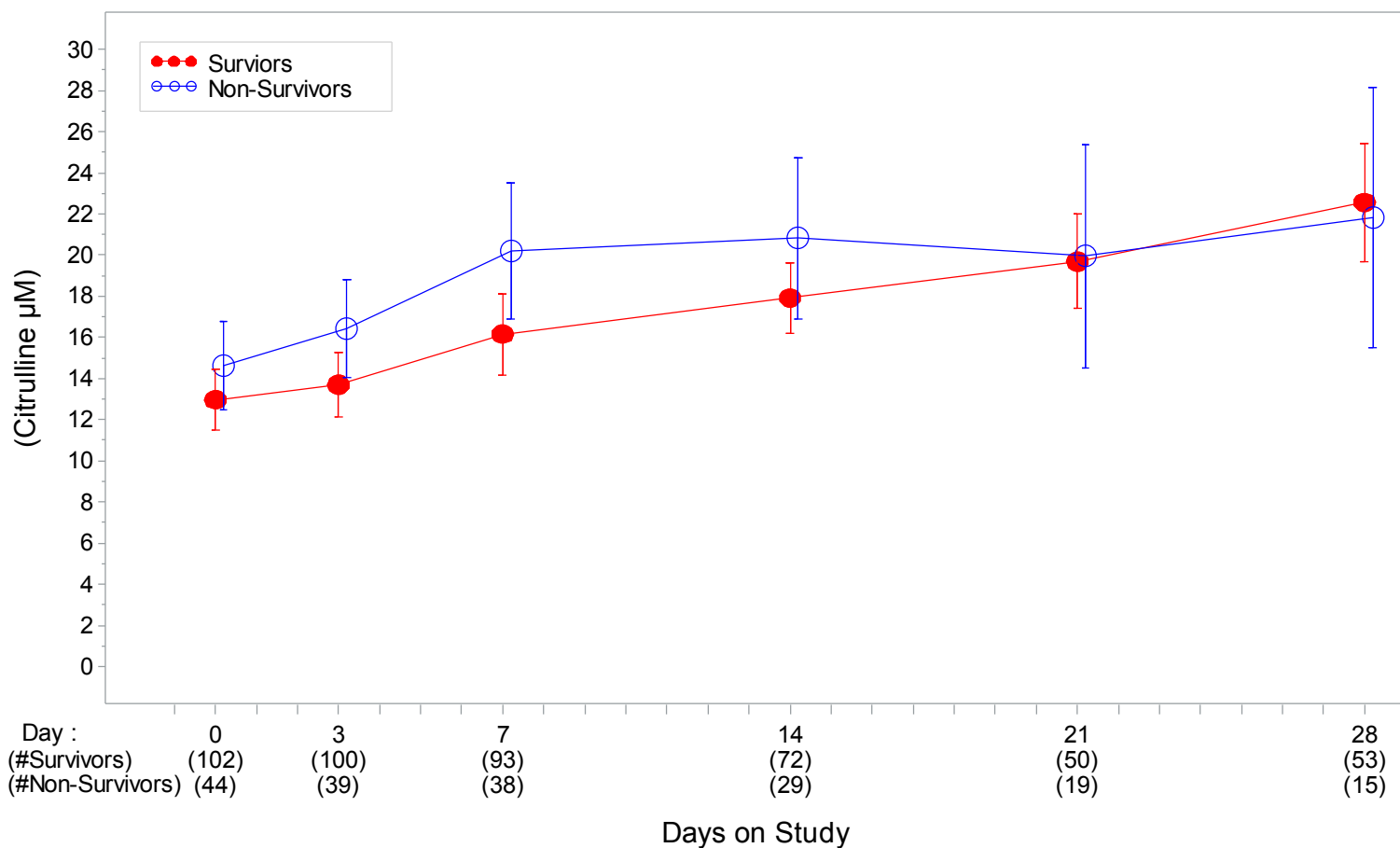
Baseline Citrulline Level	Infection=No	Infection=Yes	Odds Ratio	Trend Test p-value
Citrulline< 8μm	17/90(19.9%)	14/56(25.0%)	1.78[0.67-4.77]	0.28
Citrulline= 8~ 12μm	22/90(24.4%)	14/56(25.0%)	1.38[0.53-3.59]	
Citrulline= 12~ 17μm	25/90(27.8%)	16/56(28.6%)	1.39[0.55-3.51]	
Citrulline>= 17μm	26/90(28.9%)	12/56(21.4%)	1.00	

9. Citrulline by Surgery Type: p=0.24(Kruskal-Wallis Test)

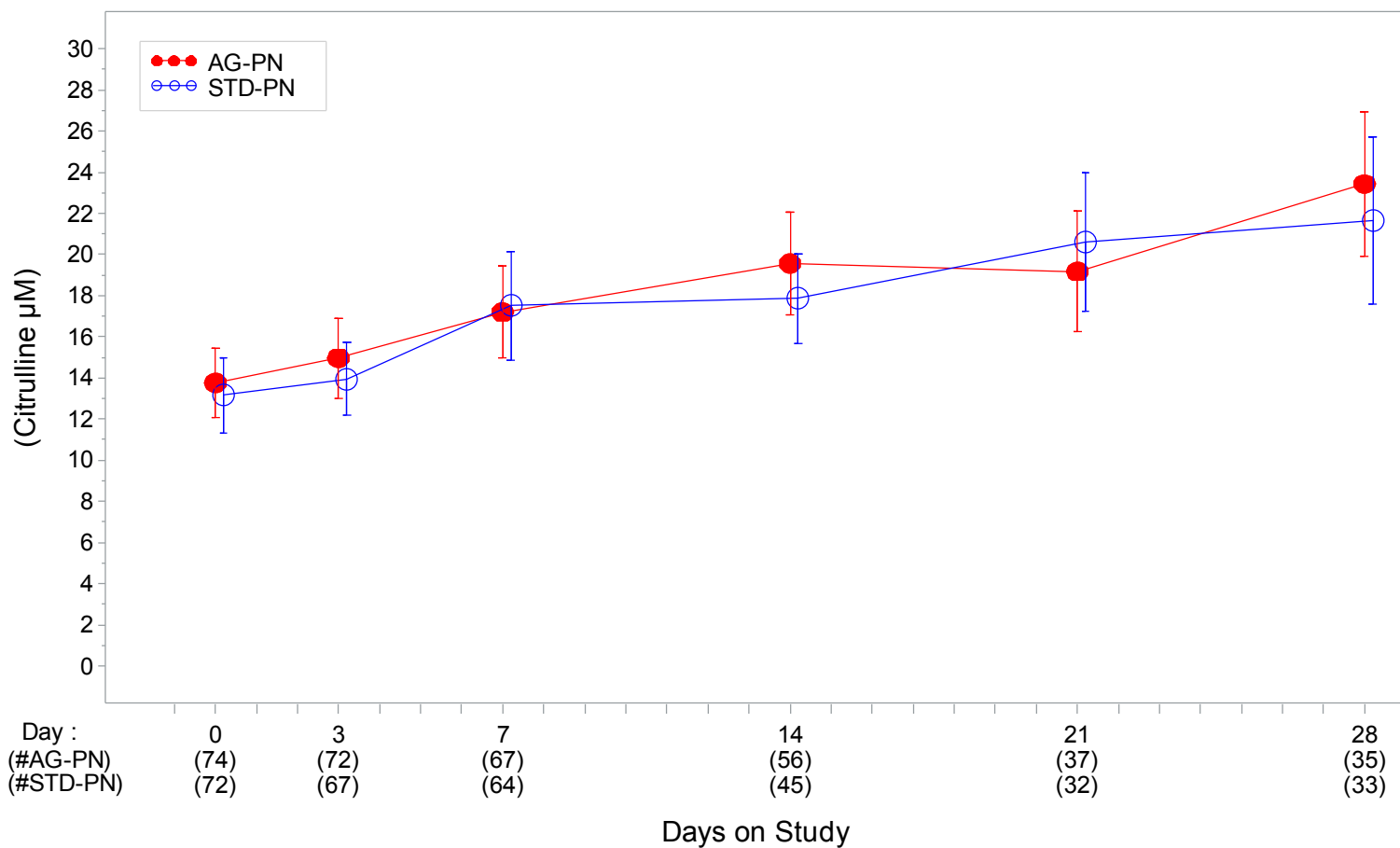
Analysis Variable : Citrulline (μmol/L)				
Index Surgery	N	Mean	Std Dev	Median
CABG	5	22.0	11.6	16.0
Cardiac valve	5	13.2	5.3	12.0
Intestinal resection	102	13.0	7.9	11.5
Peritonitis	2	13.0	5.7	13.0
Upper GI resection	5	14.6	4.0	15.0
Vascular	31	12.7	6.2	12.0

By GI or not: p=0.31

Citrulline by 6-Month Mortality
 $p(\text{Group}) = 0.3134$, $p(\text{Days}) < 0.0001$, $p(\text{Group} \times \text{Days}) = 0.4260$

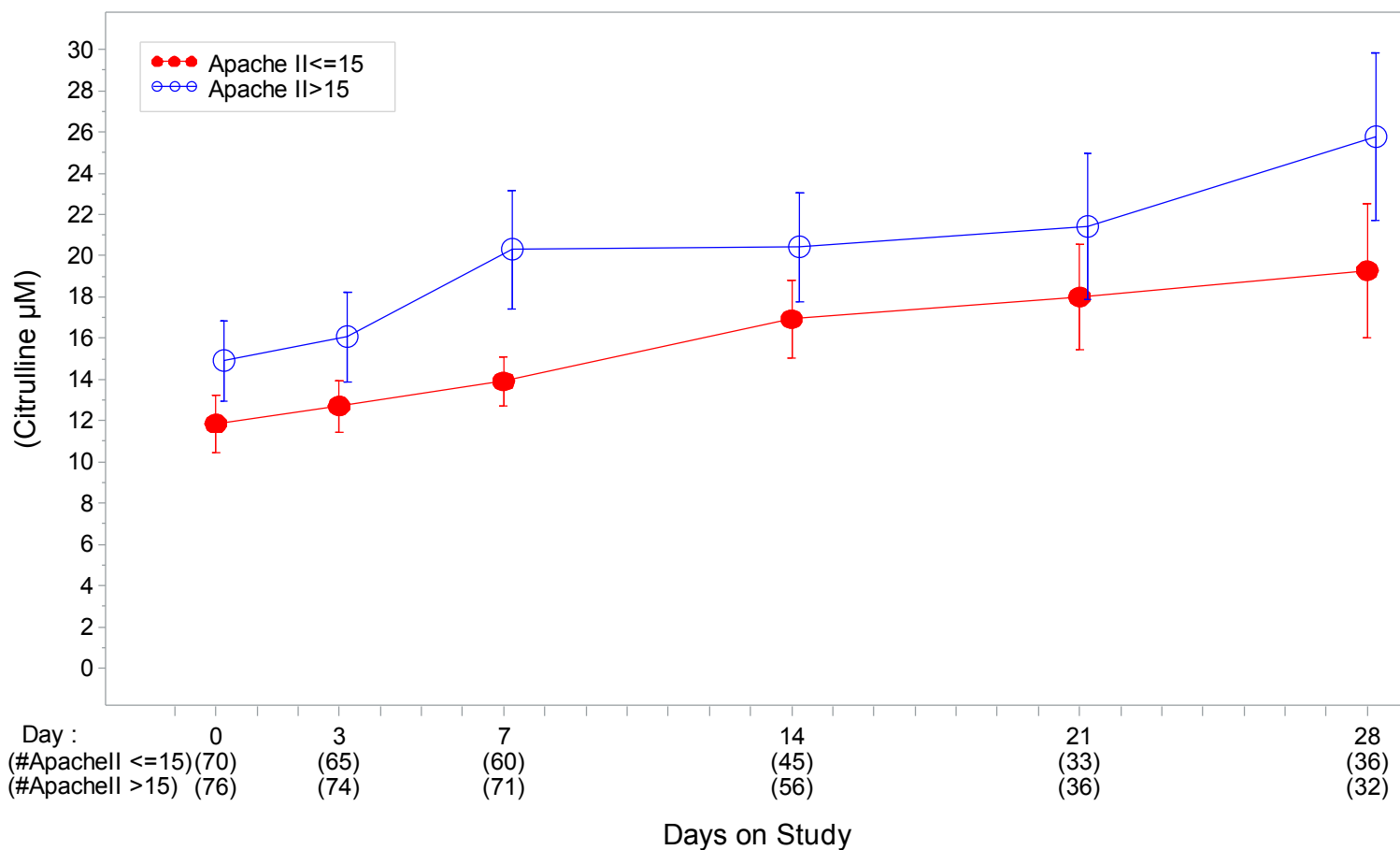


Citrulline by Treatment
 $p(\text{Group}) = 0.6980$, $p(\text{Days}) < 0.0001$, $p(\text{Group} \times \text{Days}) = 0.3067$



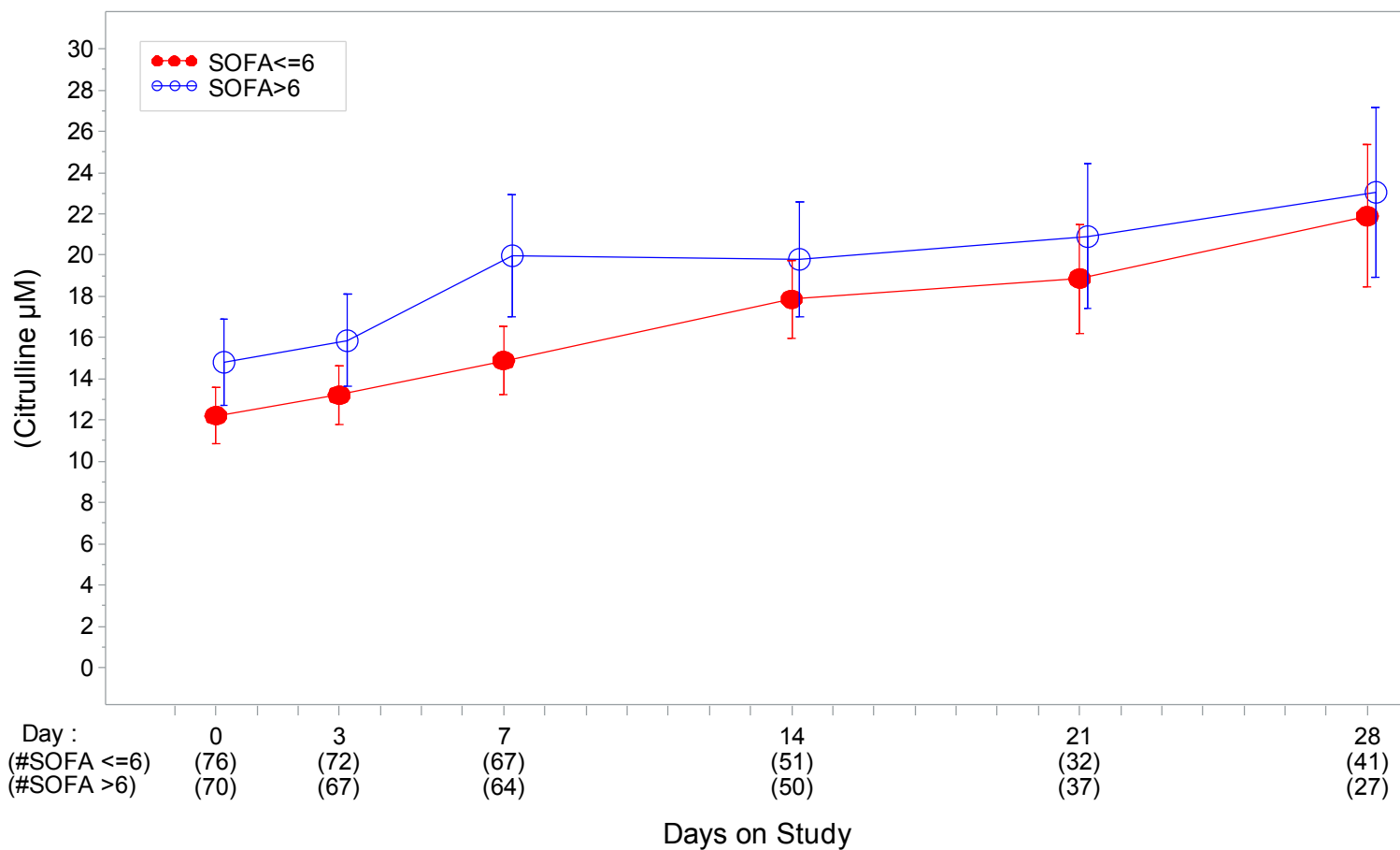
Citrulline by Apache II Score at Randomization

p(Group)= 0.0017 , p(Days)=<0.0001 , p(Group*Days)= 0.0707



Citrulline by SOFA Score at Randomization

p(Group)= 0.0758 , p(Days)=<0.0001 , p(Group*Days)= 0.2423



Solution for Fixed Effects					
Effect	Estimate	Standard Error	DF	t Value	Pr > t
Intercept	8.6857	1.0390	147	8.36	<.0001
glutamine	0.01635	0.002179	142	7.50	<.0001

Pearson Correlation Coefficients Prob > r under H0: Rho=0 Number of Observations		
	citrulline	glutamine
citrulline Citrulline (μmol/L)	1.00000	0.25915 <.0001
glutamine Glutamine (μM)	0.25915 <.0001	1.00000

