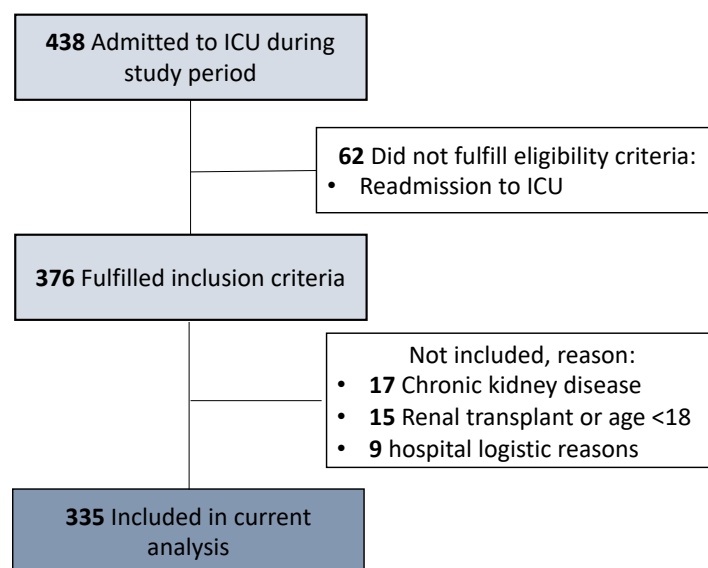


Supplementary Data

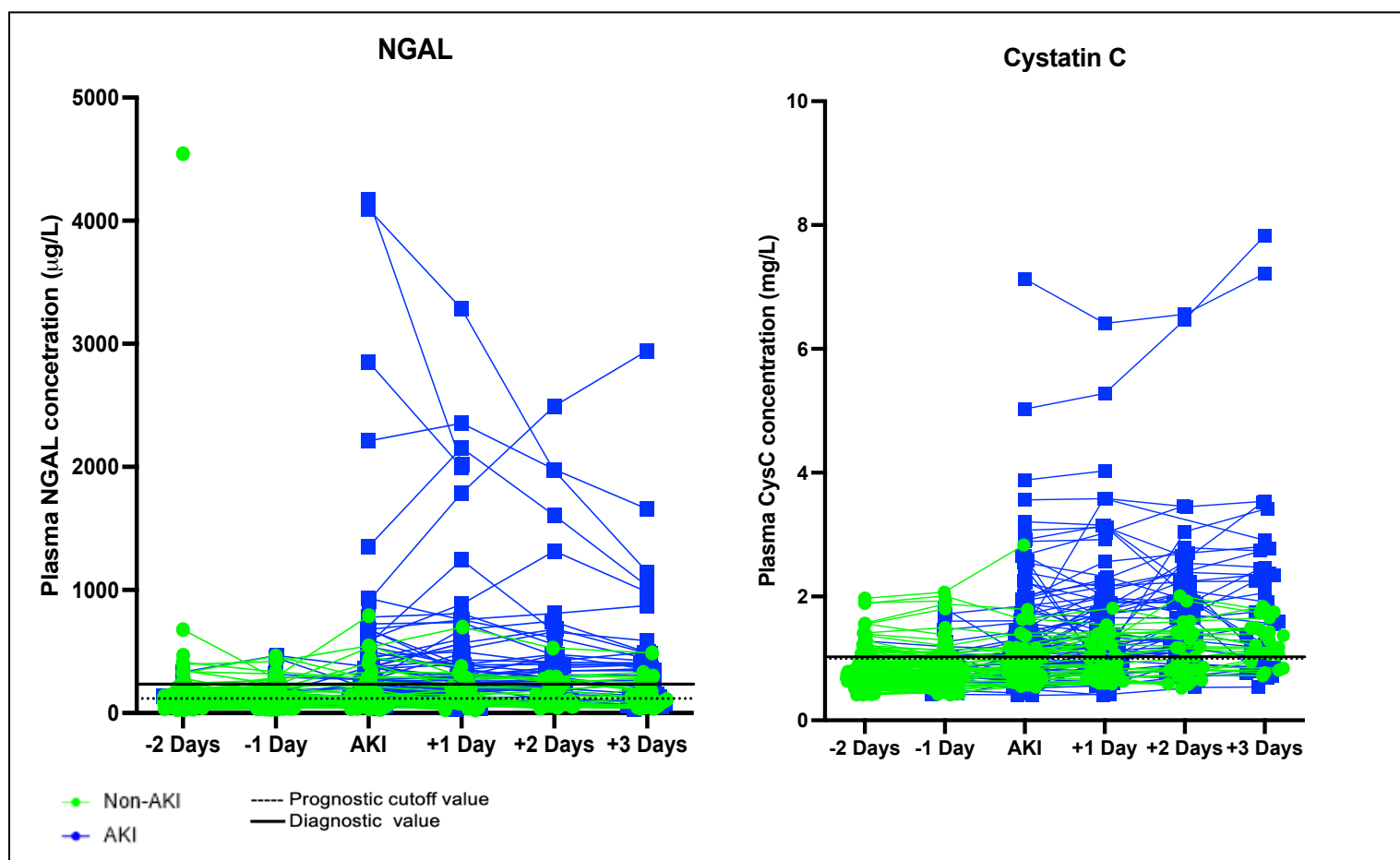
1.0 Individual evolution of renal biomarker expression over time

Consequently, we looked at the individual plasma NGAL and CysC progression during the first 6 days of ICU admission. Individually plotted renal biomarker levels show no pattern of evolution over a 6-day timeline **Supplemental Figure 2**. As expected, the AKI group appears to have higher NGAL and CysC levels when compared to the non-AKI group. However, in the low biomarker group, there is a high level of overlap amongst the AKI and non-AKI group. In some patients the biomarker value is at its highest on the day of AKI diagnosis, while in others the biomarker value increases after AKI diagnosis. In the non-AKI group, fluctuations in the biomarker values are also present throughout the 6-day timeline. These results show a high level of individual variation over time in plasma NGAL and CysC expression in AKI patients in a mixed ICU.

2.0 Supplementary Tables and Figures



Supplementary Figure 1: Overview patient



Supplemental Figure 2: Individual plasma NGAL and Cystatin C levels based on KDIGO score. KDIGO AKI score based on serum creatinine and urine output at time of biomarker measurement (5). Prognostic and diagnostic cut off values calculated based on ROC and Youden's principle. Prognostic cut off value based on biomarker levels 1 day prior to AKI diagnosis. Diagnostic cut off value based on biomarker levels on day of AKI diagnosis.

Supplementary Table 1: Evolution of AKI severity during first 7 days ICU admission.				
	Final KDIGO score during ICU admission			
Admission KDIGO-score	KDIGO 0	KDIGO 1	KDIGO 2	KDIGO 3
KDIGO 0	225	25	10	0
KDIGO 1	16	20	5	5
KDIGO 2	1	6	7	4
KDIGO 3	2	0	0	9
<i>KDIGO AKI Scores based on serum creatinine and urine output (5).</i>				

Supplemental Table 2: Plasma NGAL and Cystatin C Diagnostic and Prognostic Cut-off Values						
Biomarker		AUC	Cut-off value	Youdens Index	Specificity	Sensitivity
NGAL	Diagnostic	0.71	234 µg/L	35.8	92.5	43.3
	Prognostic	0.59	118 µg/L	22.5	60.0	62.5
Cystatin C	Diagnostic	0.75	1.03 mg/L	47.6	82.5	65.1
	Prognostic	0.59	1.00 mg/L	19.4	81.9	37.5

Supplemental Table 3: Overview missing data								
Follow-up days	1	2	3	4	5	6	7	total
First day inclusion								
1	20	151	34	12	10	9	27	263
2	26	7	3	1	1	5	0	43
3	7	4	2	4	3	0	0	20
4	1	0	0	0	0	0	0	1
5	1	2	1	0	0	0	0	4
6	1	3	0	0	0	0	0	4
7	0	0	0	0	0	0	0	0
total	56	167	40	17	14	14	27	
Missing Data								
<i>EXPECTED</i>	263	287	131	82	66	56	39	
NGAL	21	9	12	5	4	3	0	54
CysC	20	8	6	2	5	1	0	43