

## Supplemental Information

SUPPLEMENTAL TABLE 5 Characteristics and Laboratory Markers for Patients With KD

	Overall ( <i>N</i> = 430)	Responders ( <i>n</i> = 349)	Nonresponders ( <i>n</i> = 81)	<i>P</i> <sup>a</sup>
Characteristics <sup>a</sup>				
Days with fever, median (IQR)	5.0 (4.0–7.0)	5.0 (4.0–7.0)	5.0 (4.0–7.0)	.21
Rash, <i>n</i> (%)	379 (88.1)	305 (87.4)	74 (91.4)	.32
Conjunctivitis, <i>n</i> (%)	379 (88.1)	312 (89.4)	67 (82.7)	.09
Mucosal changes, <i>n</i> (%)	338 (78.6)	279 (79.9)	59 (72.8)	.16
Met criteria for classic KD, <i>n</i> (%) <sup>b</sup>	253 (58.8)	216 (61.9)	37 (45.7)	.01
Hand or foot edema, <i>n</i> (%)	248 (57.7)	202 (57.9)	46 (56.8)	.86
Vomiting and/or diarrhea, <i>n</i> (%)	213 (49.5)	167 (47.9)	46 (56.8)	.15
Lymphadenopathy, <i>n</i> (%)	174 (40.5)	143 (41.0)	31 (38.3)	.66
Cough, <i>n</i> (%)	165 (38.4)	128 (36.7)	37 (45.7)	.13
Upper respiratory symptoms, <i>n</i> (%)	147 (34.2)	114 (32.7)	33 (40.7)	.17
Pyuria, <i>n</i> (%) <sup>c</sup>	88 (20.5)	71 (20.3)	17 (21.0)	.90
Abnormal echocardiogram, <i>n</i> (%)	84 (19.5)	67 (19.2)	17 (21.0)	.71
Gallbladder hydrops, <i>n</i> (%)	13 (3.0)	7 (2.0)	6 (7.4)	.01
Cardiovascular changes, <i>n</i> (%) <sup>d</sup>	1 (0.2)	0	1 (1.2)	.04
Laboratory markers (No. with missing values), median (IQR) <sup>e</sup>				
Platelet count (12), 10 <sup>3</sup> platelets per $\mu$ L	430 (334–559)	419 (334–538)	490 (340–620)	.10
WBC (22), 10 <sup>3</sup> cells per $\mu$ L	13.8 (10.3–16.9)	13.8 (10.3–17.0)	13.8 (10.6–16.8)	.91
C-reactive protein (23), mg/dL	8.49 (5.23–12.90)	8.40 (4.89–12.43)	9.52 (5.73–14.86)	.03
Hemoglobin (24), g/dL	10.9 (10.3–11.7)	10.9 (10.2211.7)	11.0 (10.4–11.7)	.37
Neutrophils (31), %	64 (53–73)	63 (52–72)	67 (57277)	.03
Sodium (36), mEq/L	136 (134–138)	136 (134–138)	136 (134–137.5)	.12
AST (47), U/L	29 (21–51)	28 (21–45)	33 (23–82)	.01
Erythrocyte sedimentation rate (55), mm/h	66 (45–88)	66 (46–88)	64 (43–85)	.63
Alanine aminotransferase (58), U/L	41.5 (24–87.5)	38 (23–80)	62 (31–92)	.01
Albumin (71), g/dL	2.8 (2.5–3.1)	2.8 (2.6–3.2)	2.6 (2.4–3.0)	.01
Total bilirubin (76), mg/dL	0.30 (0.20–0.50)	0.30 (0.20–0.50)	0.35 (0.20–0.50)	.23

IQR, interquartile range.

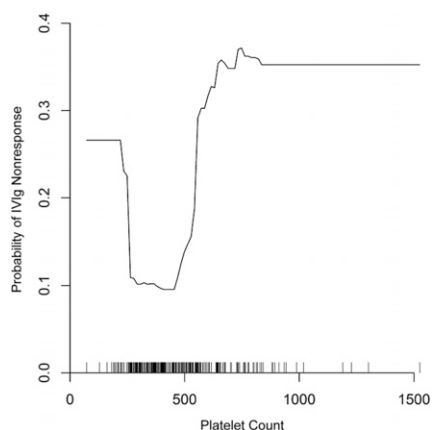
<sup>a</sup> Patient symptoms were obtained from the clinician admission note (emergency department note, infectious disease initial consultation note, or admission history and physical) and are either reported by family as being present or identified on clinical examination.

<sup>b</sup> A classic presentation of KD was defined as provider documentation of “classic KD” and/or as meeting clinical criteria of  $\geq 5$ d with fever and  $\geq 4$  of 5 clinical features (mucosal changes, conjunctival injection, rash, hand and/or foot edema, and cervical lymphadenopathy).

<sup>c</sup> More than five white blood cells per high-power field or urine sample positive for leukocyte esterase.

<sup>d</sup> Diagnosis of congestive heart failure, myocarditis, cardiogenic shock, or myocardial infarction.

<sup>e</sup> Laboratory value preceding IVIg administration.



**SUPPLEMENTAL FIGURE 2** Generalized boosted regression model revealing the nonlinear and nonmonotonic association between platelet counts and IVIg nonresponse. The dashes along the bottom indicate observed values of platelet counts.

**Q:25 SUPPLEMENTAL TABLE 6** Sensitivity Analyses for Multivariate Model Used to Predict IVIg Nonresponse in KD

	Sensitivity Analysis No. 1 <sup>a</sup>		Sensitivity Analysis No. 2 <sup>b</sup>	
	Estimate	aOR (95% CI)	Estimate	aOR (95% CI)
Intercept	-13.867	—	-9.466	—
WBC, 10 <sup>3</sup> cells per μL	—	—	-0.052	0.949 (0.896–1.005)
Platelet count, 10 <sup>3</sup> platelets per μL	0.002	1.002 (1.00–1.003)	0.002	1.002 (1.000–1.003)
Hemoglobin, g/dL	0.288	1.333 (0.984–1.807)	0.320	1.377 (1.034–1.834)
C-reactive protein, mg/dL	—	—	0.035	1.036 (0.987–1.088)
AST, U/L	0.006	1.006 (1.000–1.012)	0.005	1.005 (1.001–1.009)
Sodium, mEq/L	-0.089	0.915 (0.818–1.024)	-0.084	0.920 (0.834–1.014)
Albumin, g/dL	-0.891	0.410 (0.193–0.872)	-1.001	0.367 (0.168–0.805)
Maximum temperature 0–6 h after IVIg treatment	0.625	1.868 (1.187–2.942)	0.497	1.644 (1.111–2.434)
Classic KD	-0.496	0.609 (0.326–1.138)	-0.680	0.507 (0.296–0.868)

aOR, adjusted odds ratio; —, not applicable.

<sup>a</sup> Complete case prediction model by using 296 patients with no missing values.

<sup>b</sup> The second nonresponse criterion was modified to require a documented fever ( $\geq 38.0^{\circ}\text{C}$ ) from the entire cohort of 430 patients and require multiply imputed data before administration of a second dose of IVIg.

Q:26 **SUPPLEMENTAL TABLE 7** Sensitivity Analysis for Model Performance at Different Cutoffs

	Cutoff at Estimated Probability of Nonresponse	Percentage at Low Risk, %	Sensitivity, %, (95% CI)	Specificity, %, (95% CI)	Positive Predictive Value, %, (95% CI)	Negative Predictive Value, %, (95% CI)
Complete cases <sup>a</sup>	0.05	1.4	100 (93.9–100)	1.7 (0.5–4.3)	20.2 (15.8–25.3)	100 (39.8–100)
	0.10	16.9	93.2 (83.5–98.1)	19.4 (14.6–25)	22.4 (17.3–28.1)	92.0 (80.8–97.8)
	0.15	43.6	78 (65.3–87.7)	48.9 (42.4–55.5)	27.5 (20.9–35)	89.9 (83.4–94.5)
	0.20	64.9	59.3 (45.7–71.9)	70.9 (64.7–76.6)	33.7 (24.7–43.6)	87.5 (82–91.8)
Modified nonresponse criteria <sup>b</sup>	0.05	4.4	100 (95.5–100)	5.4 (3.3–8.3)	19.5 (15.7–23.6)	100 (82.4–100)
	0.10	29.3	91.2 (82.8–96.4)	34.0 (29.0–39.2)	24.0 (19.3–29.2)	94.4 (88.9–97.7)
	0.15	50.2	75.0 (64.1–84.0)	56.0 (50.6–61.3)	28.0 (22.1–34.6)	90.7 (86.1–94.3)
	0.20	68.1	55.0 (43.5–66.2)	73.4 (68.5–78.0)	32.1 (24.4–40.6)	87.7 (83.4–91.2)

CI, confidence interval.

<sup>a</sup> Performance of complete case prediction model for IVIg nonresponse at incident presentation for KD by using 296 patients with no missing values. The C-index was 0.703 and 0.616 (95% CI: 0.538–0.693) after adjusting for overoptimism in the backward-selection procedure.

<sup>b</sup> Performance of risk score for predicting IVIg nonresponse after modifying the second nonresponse criterion to require a documented fever ( $\geq 38.0^{\circ}\text{C}$ ) from the entire cohort of 430 patients before administration of a second dose of IVIg by using multiply imputed data. The C-index was 0.724 and 0.702 (95% CI: 0.639–0.764) after adjusting for overoptimism in the backward-selection procedure.