

Modelagem

With patient 34

Camila Variables

Full model

Table 1: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-3.494	2.474	-1.412	0.158
factor(causa_ira)1	1.295	4.523	0.286	0.775
factor(causa_ira)2	-0.541	3.634	-0.149	0.882
factor(ventilacao_mecanica)1	1.137	1.110	1.025	0.306
sofa	0.367	0.278	1.320	0.187
su	-0.003	0.063	-0.046	0.963
fek	0.240	0.147	1.635	0.102
una	-0.002	0.008	-0.213	0.831
delta_scr	0.516	3.782	0.137	0.891
factor(causa_ira)1:su	0.068	0.092	0.739	0.460
factor(causa_ira)2:su	-0.043	0.080	-0.540	0.589
factor(causa_ira)1:fek	-0.342	0.259	-1.321	0.187
factor(causa_ira)2:fek	0.828	0.664	1.247	0.212
factor(causa_ira)1:una	-0.011	0.021	-0.504	0.614
factor(causa_ira)2:una	-0.070	0.049	-1.441	0.149
factor(causa_ira)1:delta_scr	0.988	7.975	0.124	0.901
factor(causa_ira)2:delta_scr	12.542	17.115	0.733	0.464

Table 2: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
71.393	51	-22.686	79.371	112.542	45.371	35	52

Table 3: Confidence intervals

variável	2.5 %	97.5 %	estimativa
(Intercept)	0.000	3.876000e+00	0.030
factor(causa_ira)1	0.001	2.584352e+04	3.650
factor(causa_ira)2	0.000	7.223650e+02	0.582
factor(ventilacao_mecanica)1	0.354	2.747600e+01	3.119
sofa	0.837	2.487000e+00	1.443
su	0.881	1.128000e+00	0.997

Table 3: Confidence intervals (*continued*)

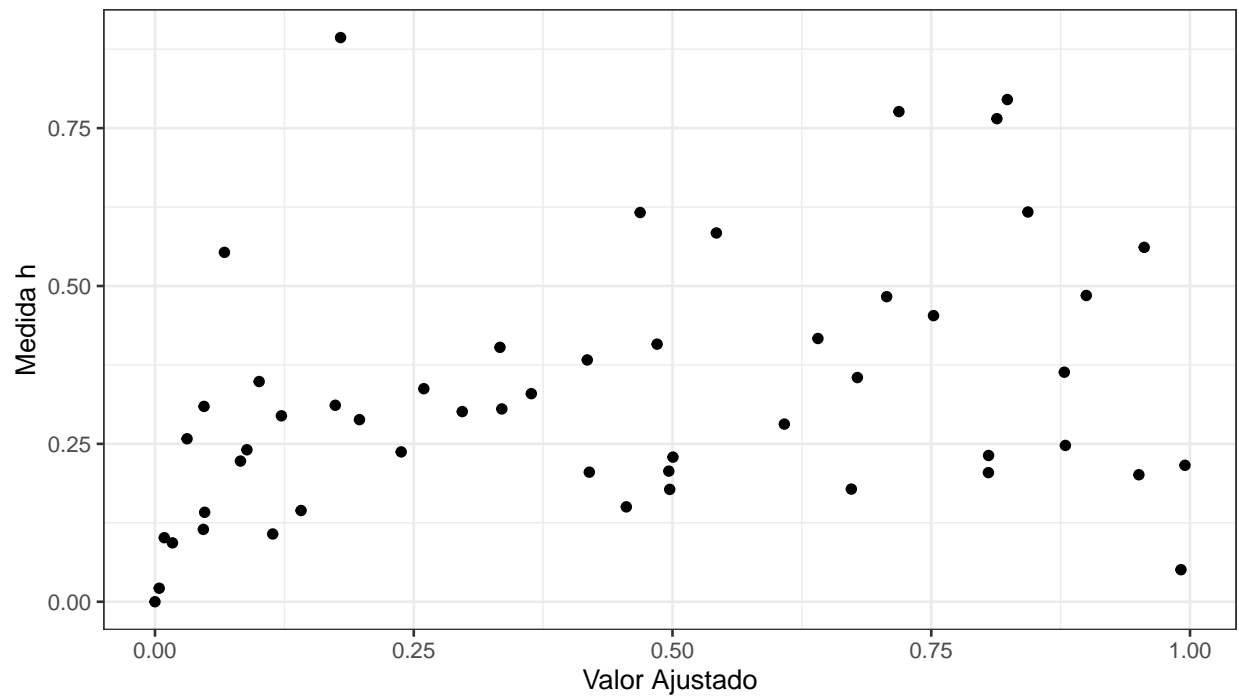
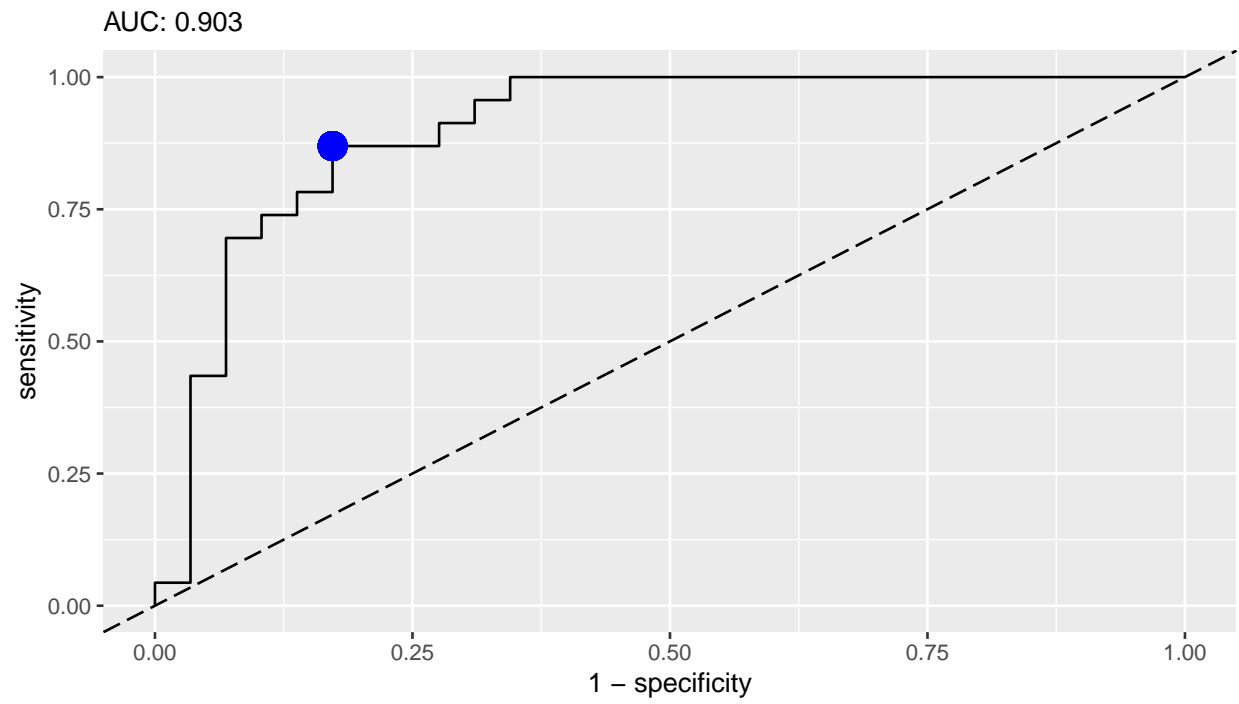
variável	2.5 %	97.5 %	estimativa
fek	0.953	1.695000e+00	1.271
una	0.982	1.015000e+00	0.998
delta_scr	0.001	2.777860e+03	1.676
factor(causa_ira)1:su	0.894	1.282000e+00	1.070
factor(causa_ira)2:su	0.819	1.120000e+00	0.958
factor(causa_ira)1:fek	0.428	1.180000e+00	0.710
factor(causa_ira)2:fek	0.623	8.414000e+00	2.289
factor(causa_ira)1:una	0.949	1.032000e+00	0.989
factor(causa_ira)2:una	0.848	1.025000e+00	0.932
factor(causa_ira)1:delta_scr	0.000	1.650508e+07	2.685
factor(causa_ira)2:delta_scr	0.000	1.035784e+20	279824.759

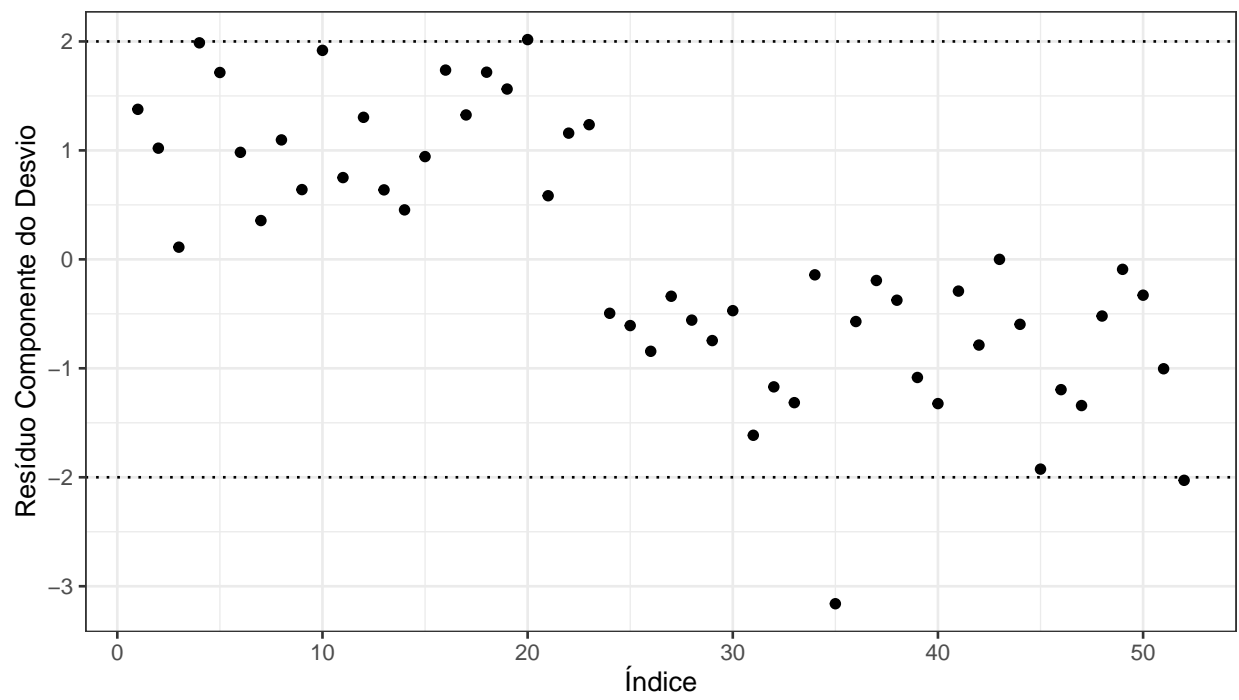
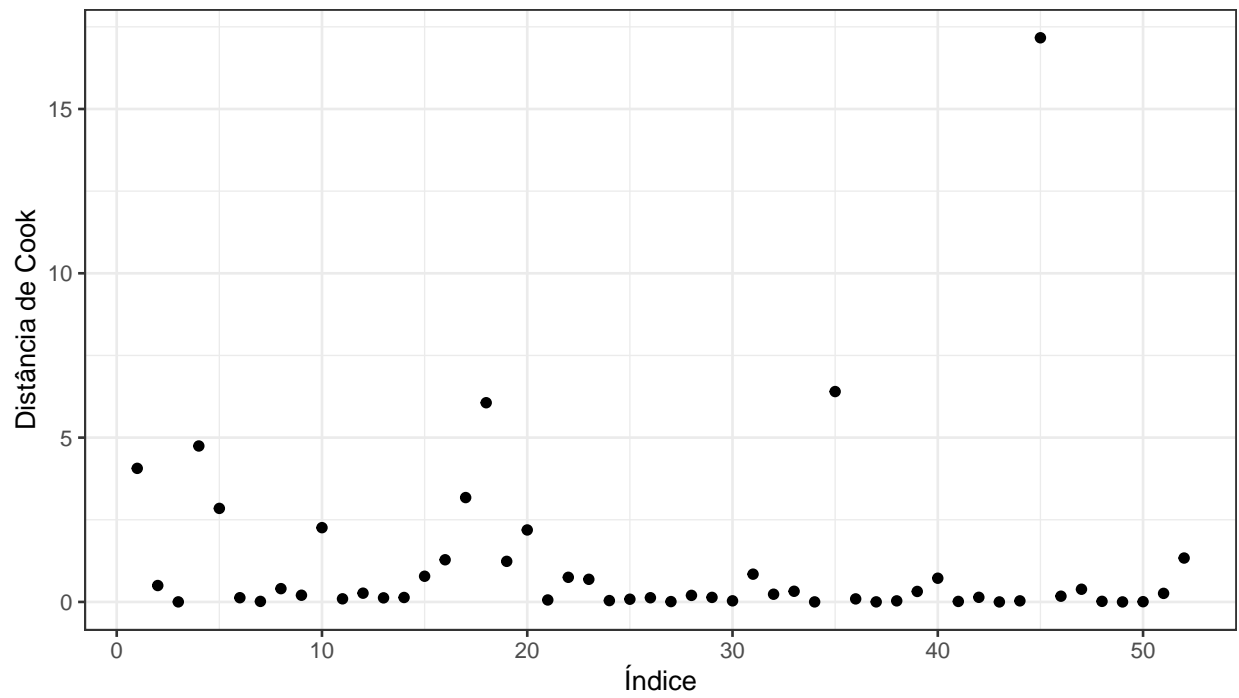
Table 4: Variance Inflation Factor

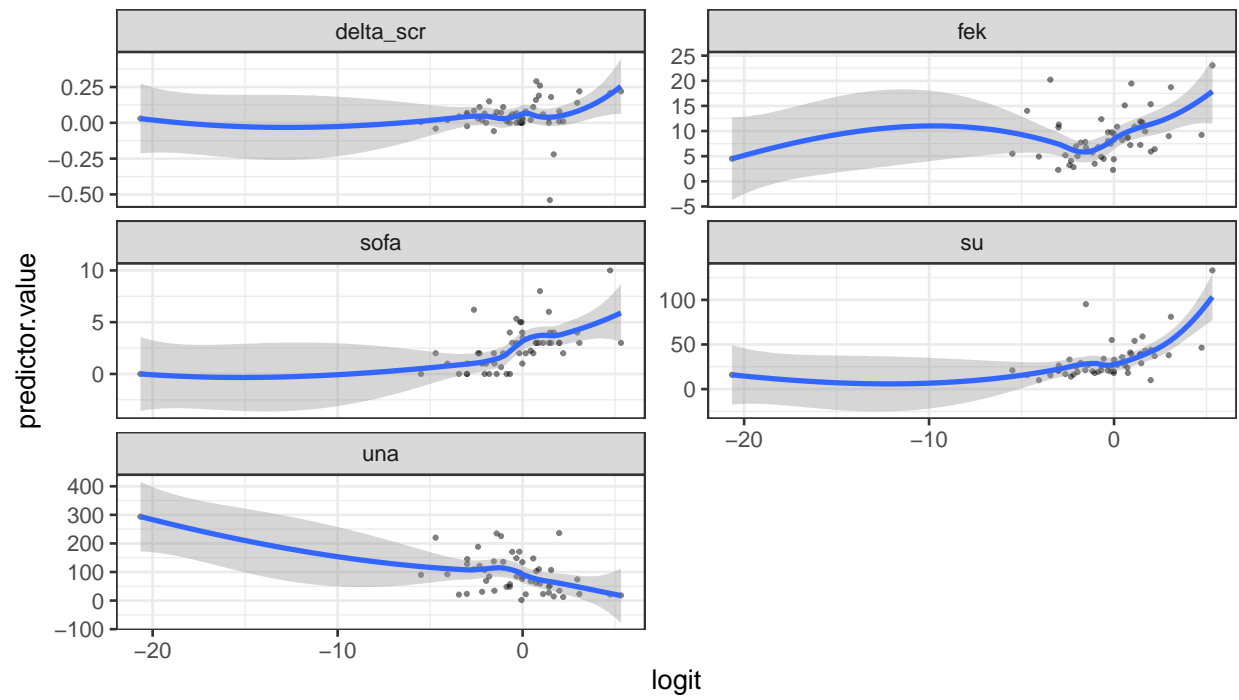
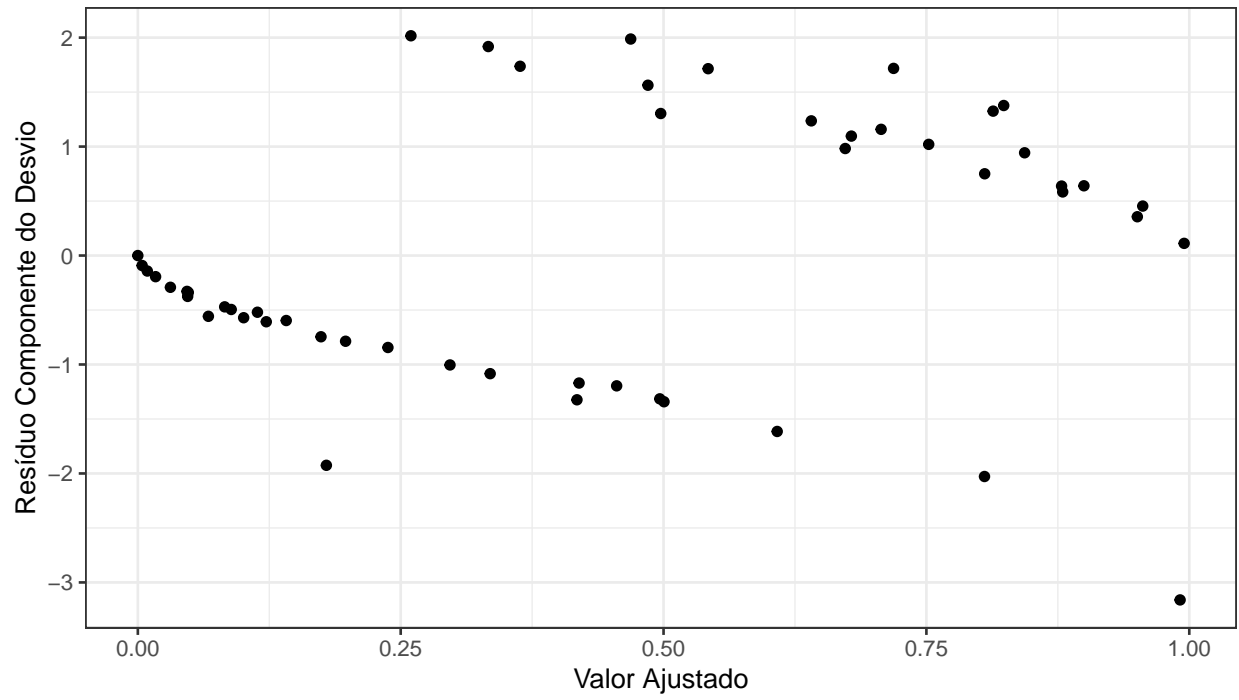
	GVIF	Df	$\widehat{GVIF}(1/(2*Df))$
factor(causa_ira)	417.891	2	4.521
factor(ventilacao_mecanica)	1.586	1	1.259
sofa	1.911	1	1.382
su	6.708	1	2.590
fek	2.232	1	1.494
una	1.837	1	1.355
delta_scr	1.516	1	1.231
factor(causa_ira):su	194.074	2	3.732
factor(causa_ira):fek	394.424	2	4.456
factor(causa_ira):una	120.978	2	3.316
factor(causa_ira):delta_scr	3.814	2	1.397

Table 5: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.462	0.828	0.87	0.172







Backwards

Table 6: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-3.123	1.699	-1.838	0.066
factor(causa_ira)1	3.509	2.608	1.345	0.179
factor(causa_ira)2	-0.912	3.140	-0.291	0.771
sofa	0.537	0.231	2.330	0.020
fek	0.221	0.137	1.611	0.107
una	0.000	0.008	0.025	0.980
factor(causa_ira)1:fek	-0.268	0.186	-1.444	0.149
factor(causa_ira)2:fek	0.573	0.499	1.149	0.251
factor(causa_ira)1:una	-0.021	0.016	-1.269	0.204
factor(causa_ira)2:una	-0.055	0.036	-1.548	0.122

Table 7: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
71.393	51	-25.01	70.019	89.532	50.019	42	52

Table 8: Confidence intervals

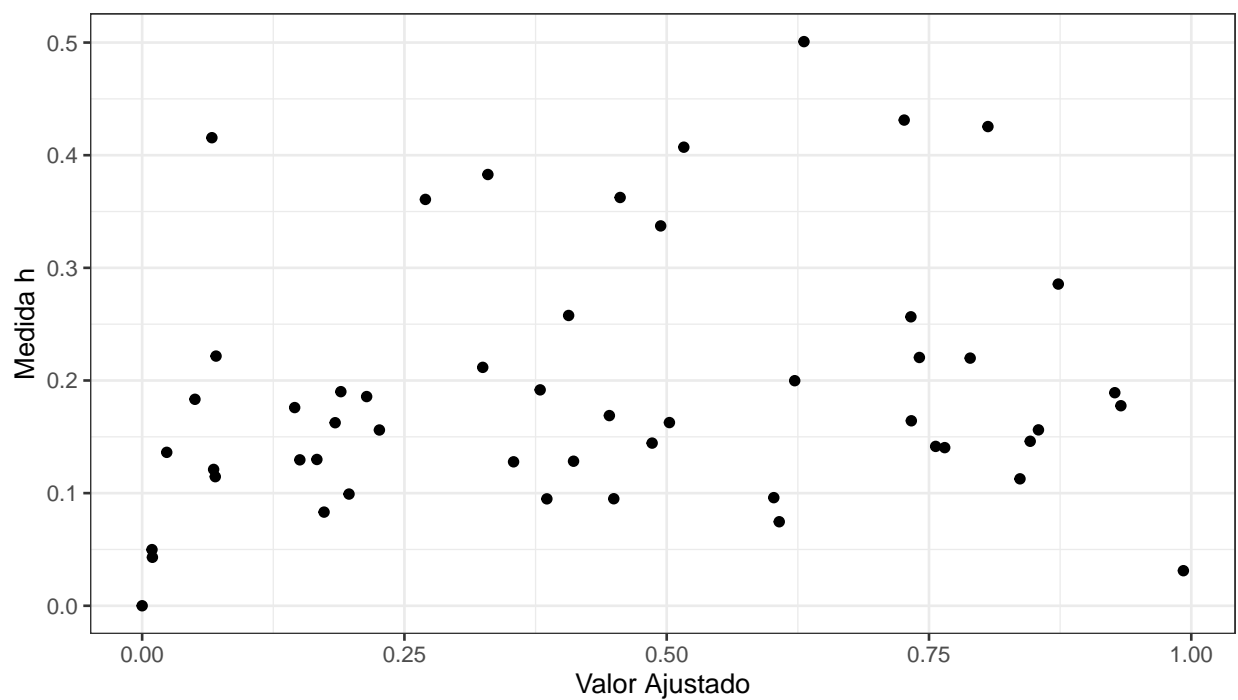
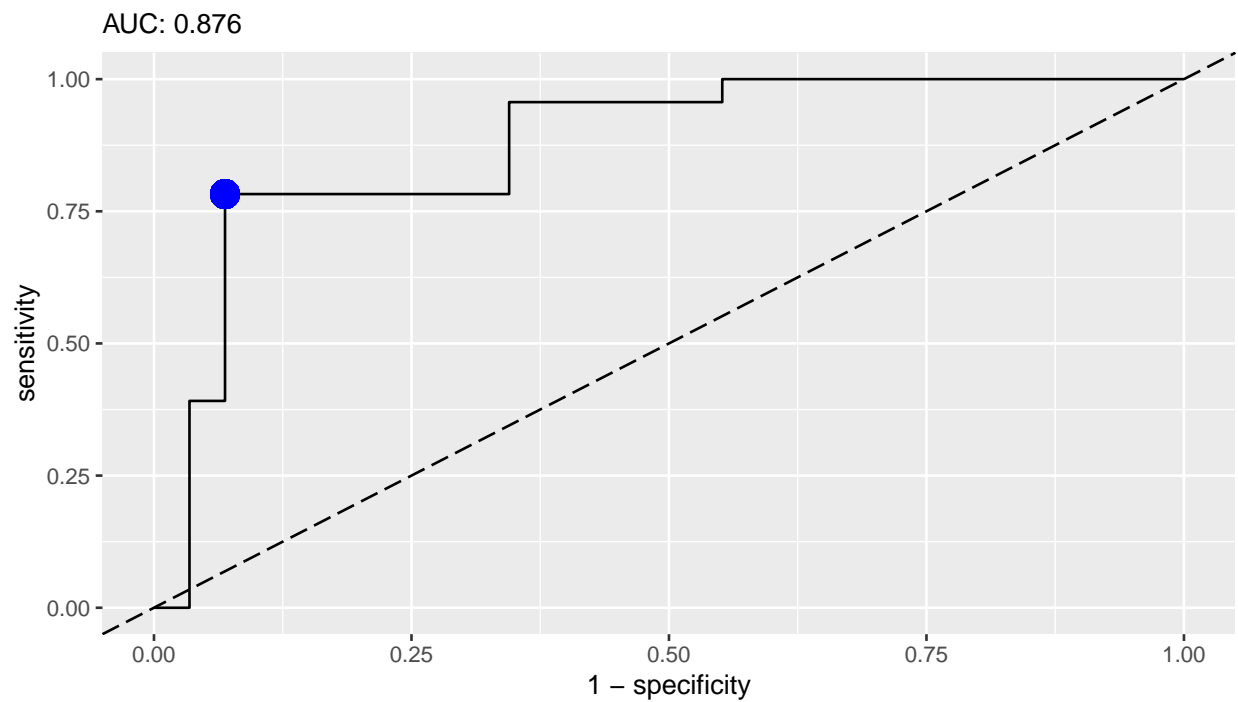
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.002	1.231	0.044
factor(causa_ira)1	0.201	5547.499	33.407
factor(causa_ira)2	0.001	188.868	0.402
sofa	1.089	2.689	1.711
fek	0.953	1.633	1.247
una	0.985	1.016	1.000
factor(causa_ira)1:fek	0.531	1.101	0.765
factor(causa_ira)2:fek	0.667	4.720	1.774
factor(causa_ira)1:una	0.949	1.011	0.979
factor(causa_ira)2:una	0.882	1.015	0.946

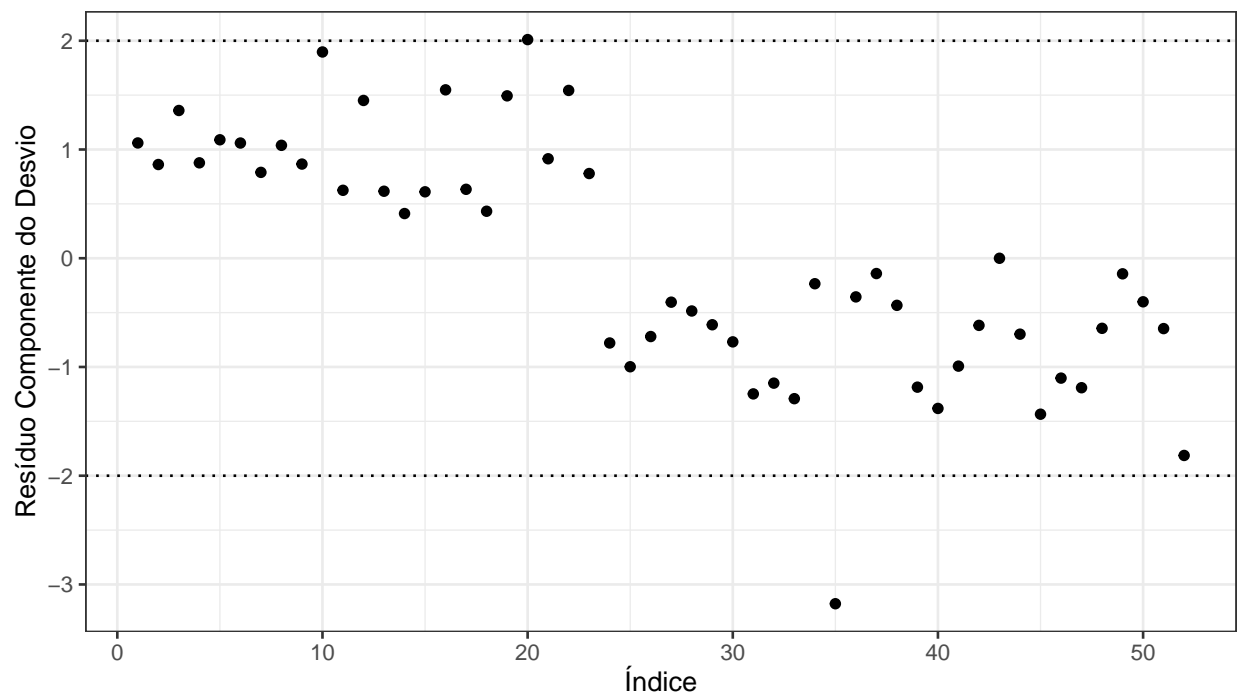
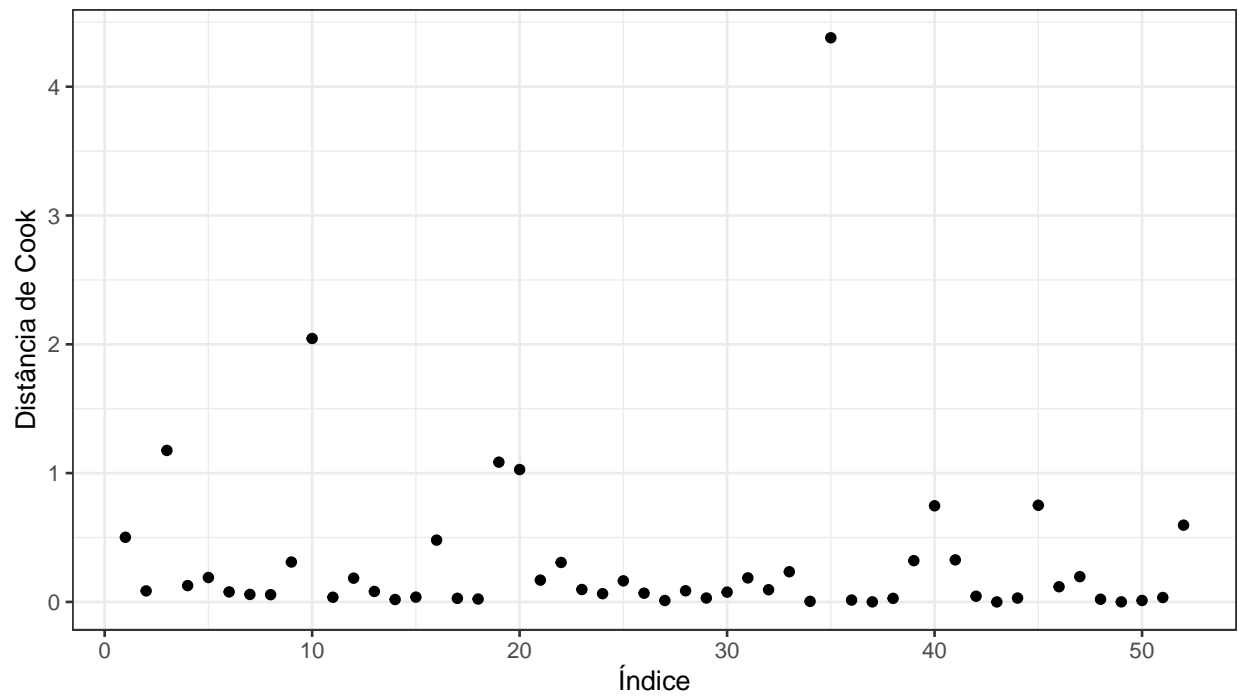
Table 9: Variance Inflation Factor

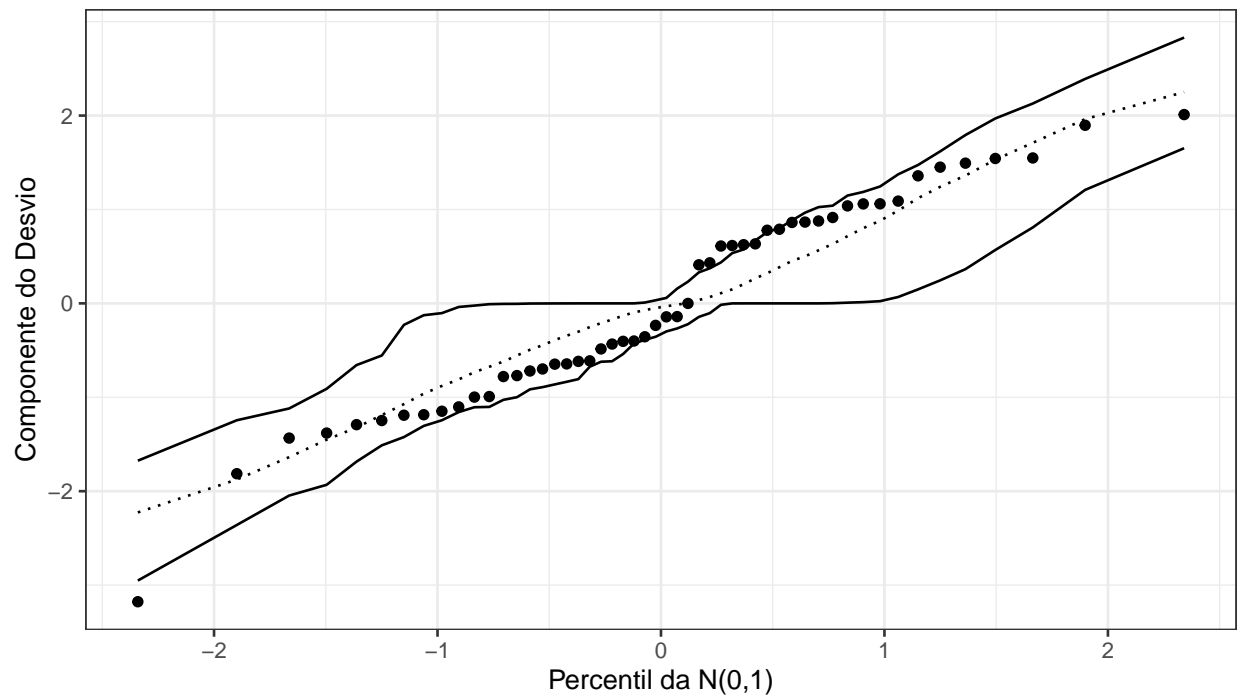
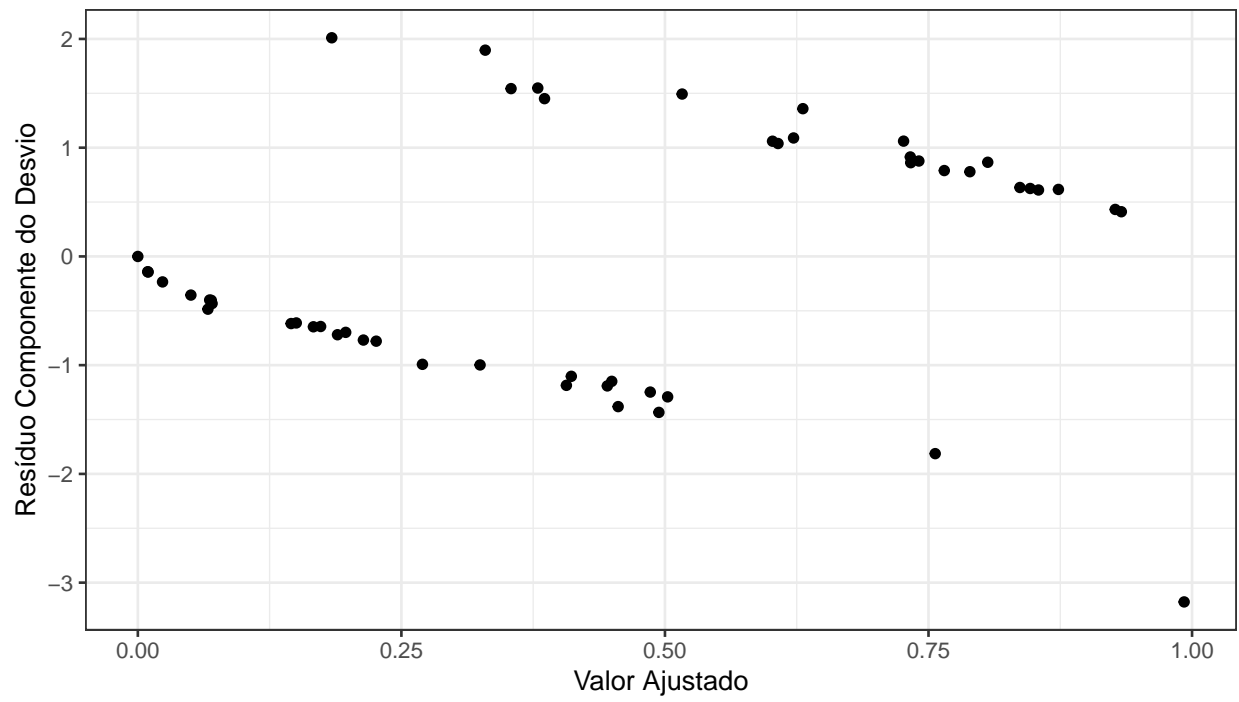
	GVIF	Df	$\text{GVIF}^{1/(2 \cdot \text{Df})}$
factor(causa_ira)	142.235	2	3.453
sofa	1.191	1	1.091
fek	3.094	1	1.759
una	1.797	1	1.341
factor(causa_ira):fek	216.268	2	3.835
factor(causa_ira):una	46.894	2	2.617

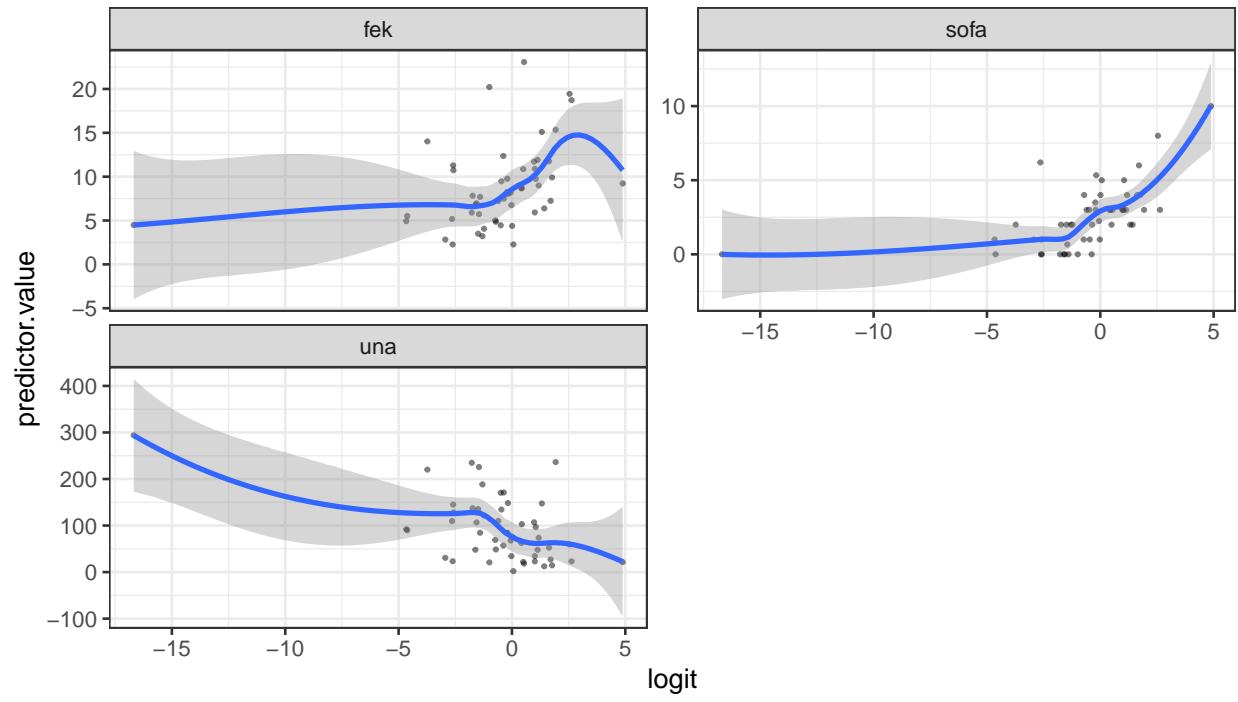
Table 10: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.509	0.931	0.783	0.069









Forwards

Table 11: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-2.163	0.738	-2.931	0.003
sofa	0.384	0.182	2.111	0.035
su	0.030	0.019	1.620	0.105

Table 12: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
71.393	51	-29.815	65.629	71.483	59.629	49	52

Table 13: Confidence intervals

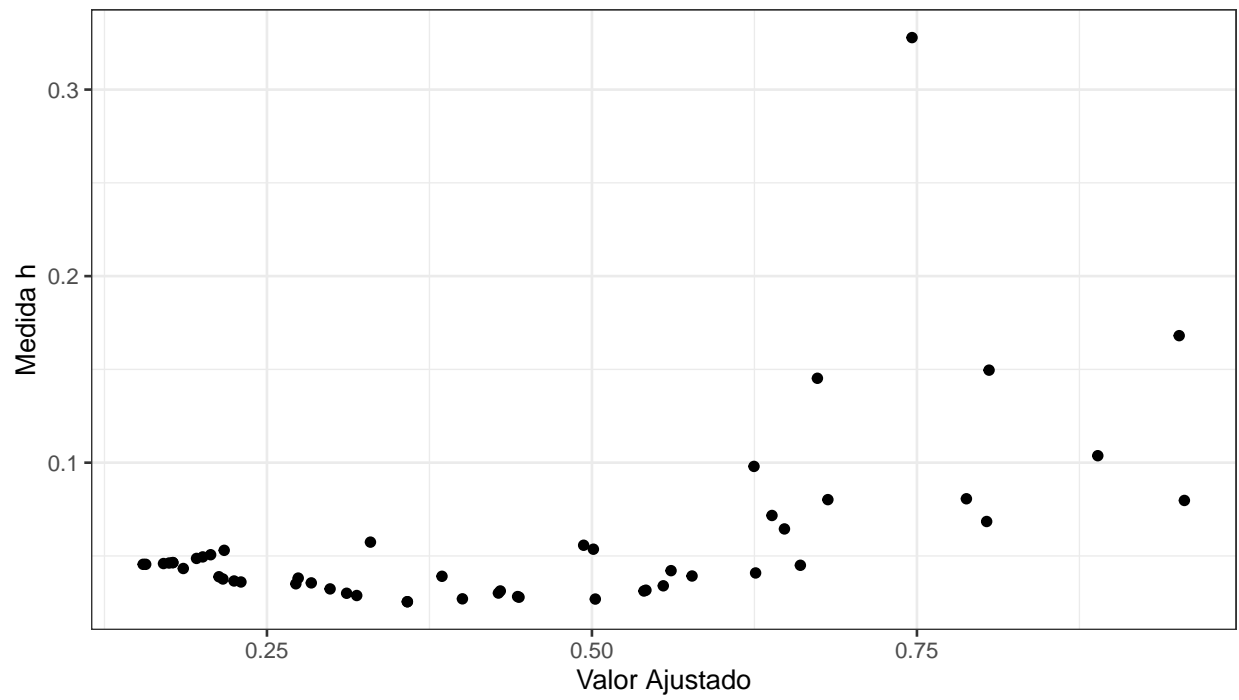
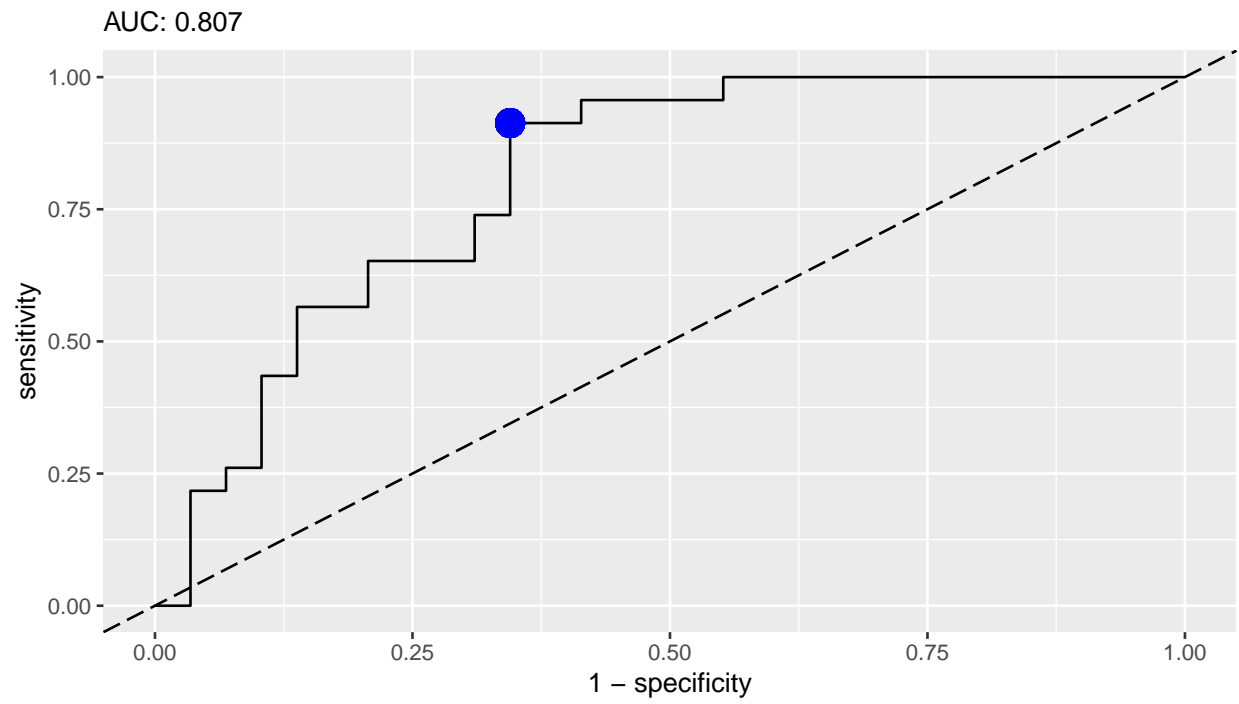
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.027	0.488	0.115
sofa	1.028	2.098	1.469
su	0.994	1.069	1.030

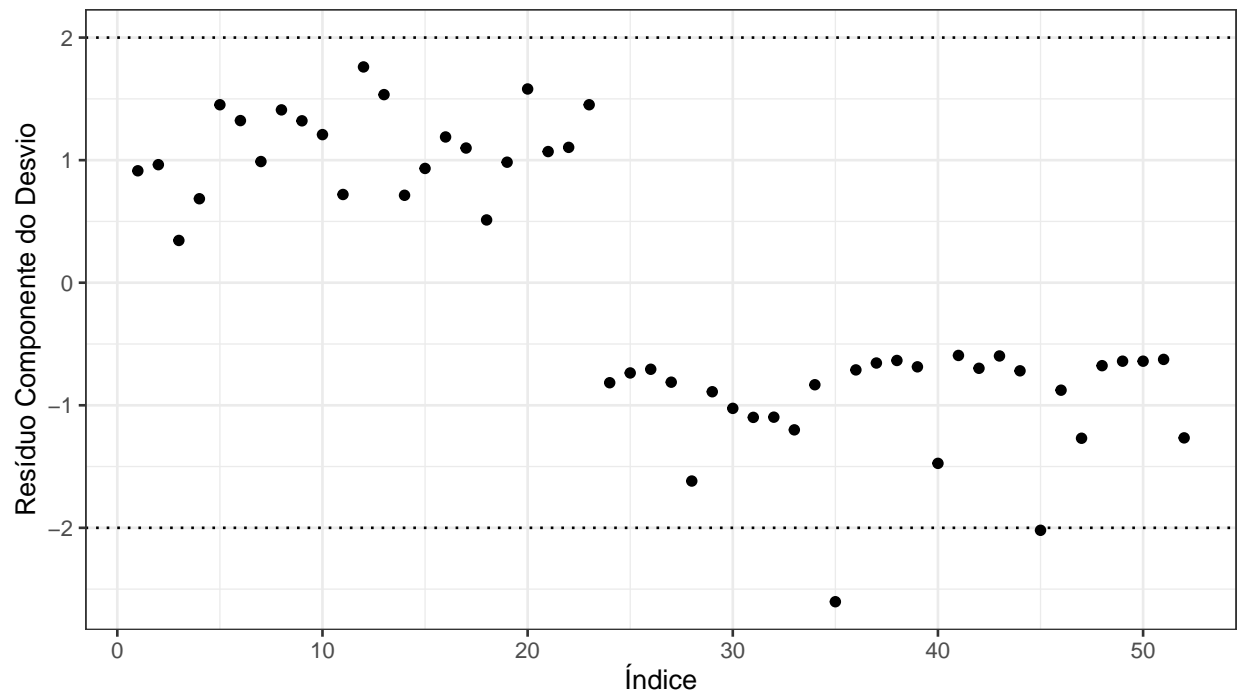
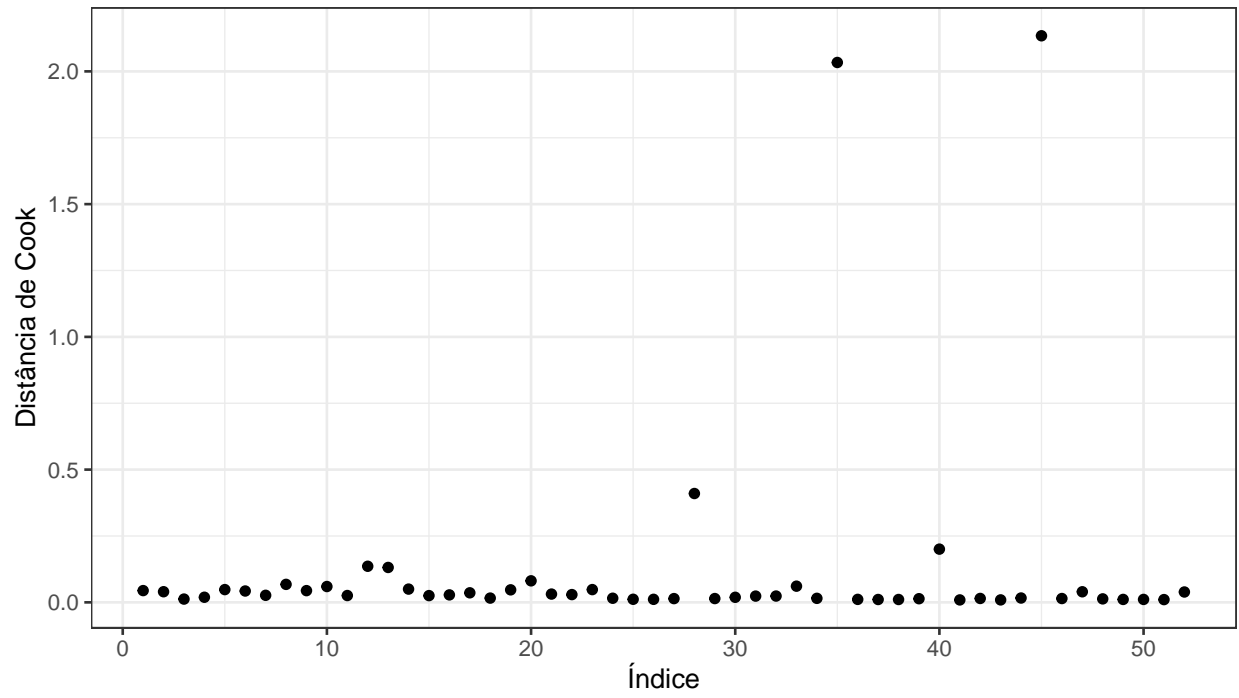
Table 14: Variance Inflation Factor

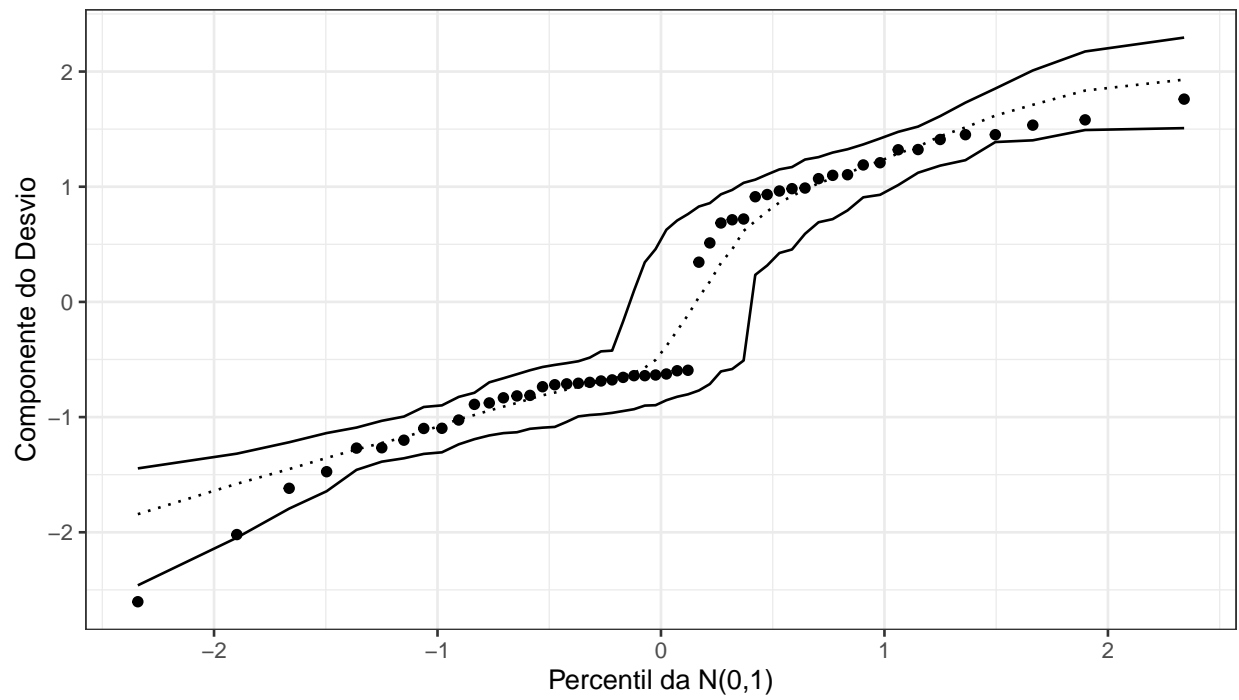
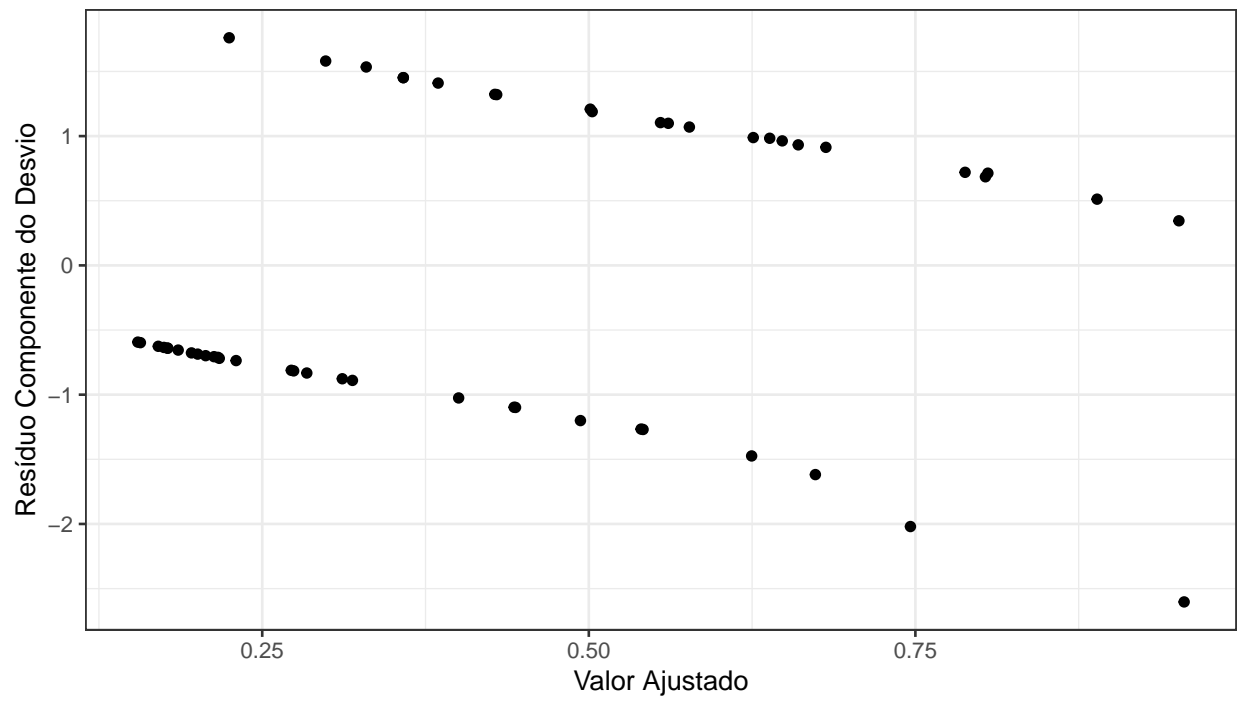
x	
sofa	1.03
su	1.03

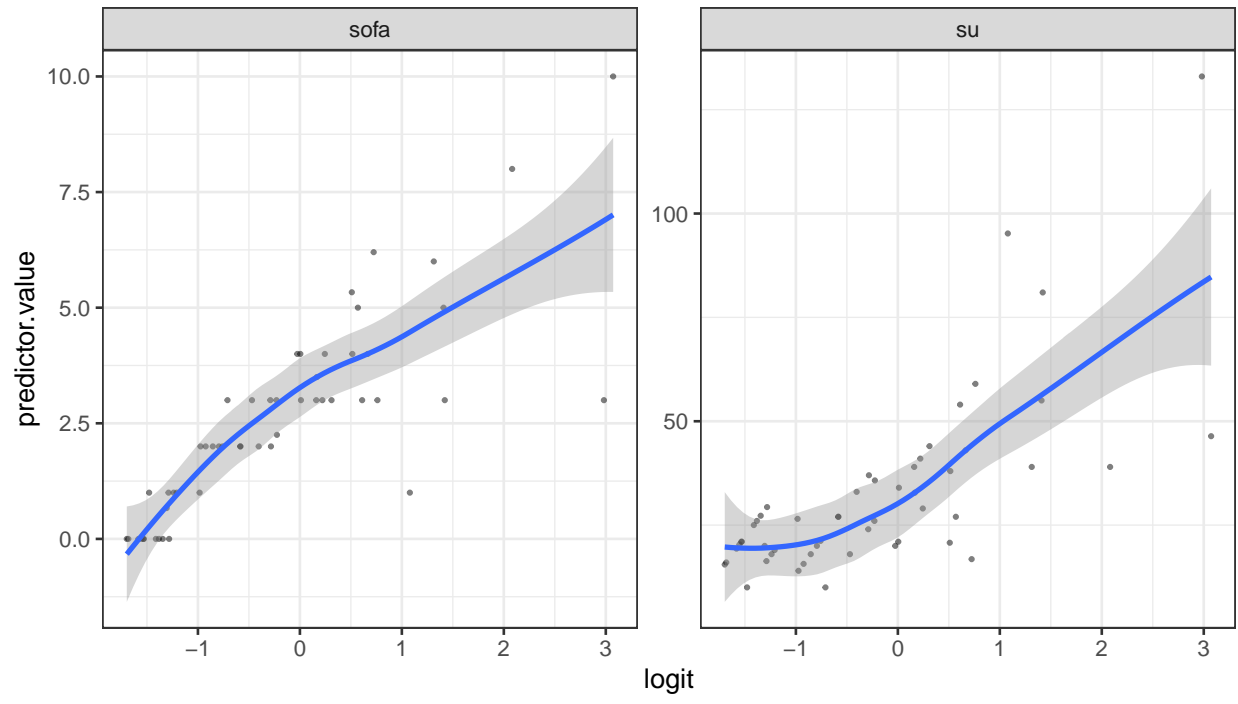
Table 15: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.324	0.655	0.913	0.345









Stepwise

Table 16: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-2.163	0.738	-2.931	0.003
sofa	0.384	0.182	2.111	0.035
su	0.030	0.019	1.620	0.105

Table 17: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
71.393	51	-29.815	65.629	71.483	59.629	49	52

Table 18: Confidence intervals

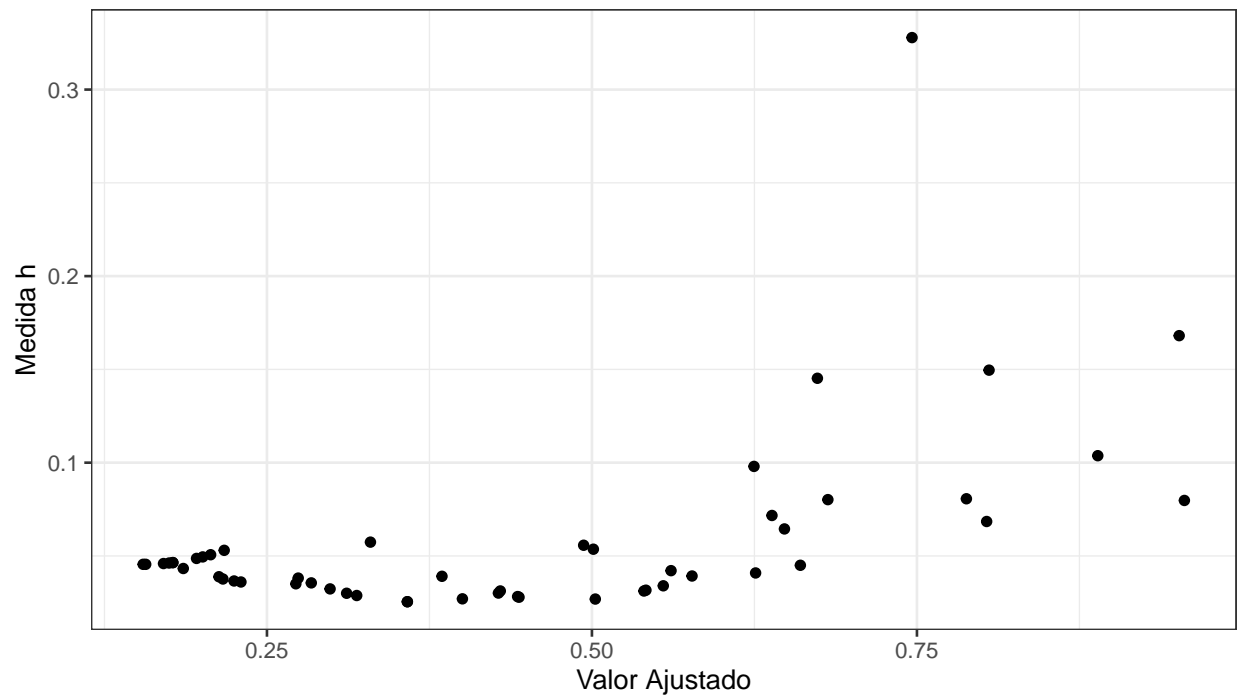
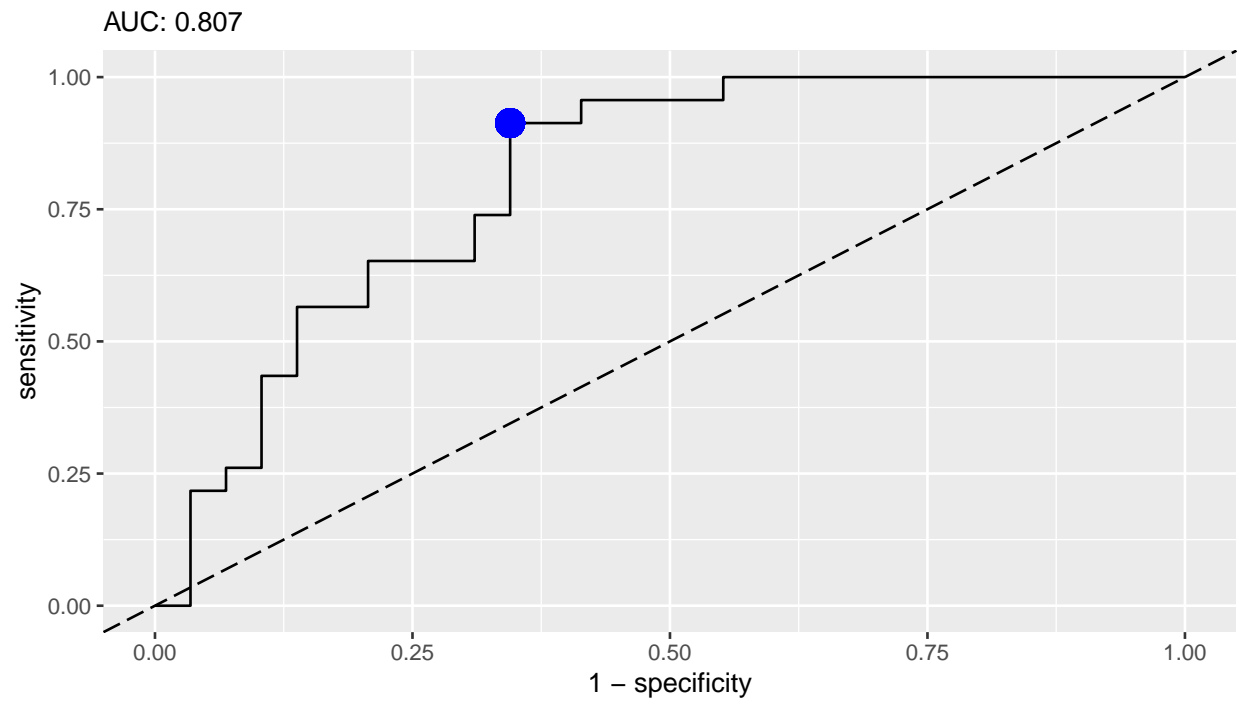
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.027	0.488	0.115
sofa	1.028	2.098	1.469
su	0.994	1.069	1.030

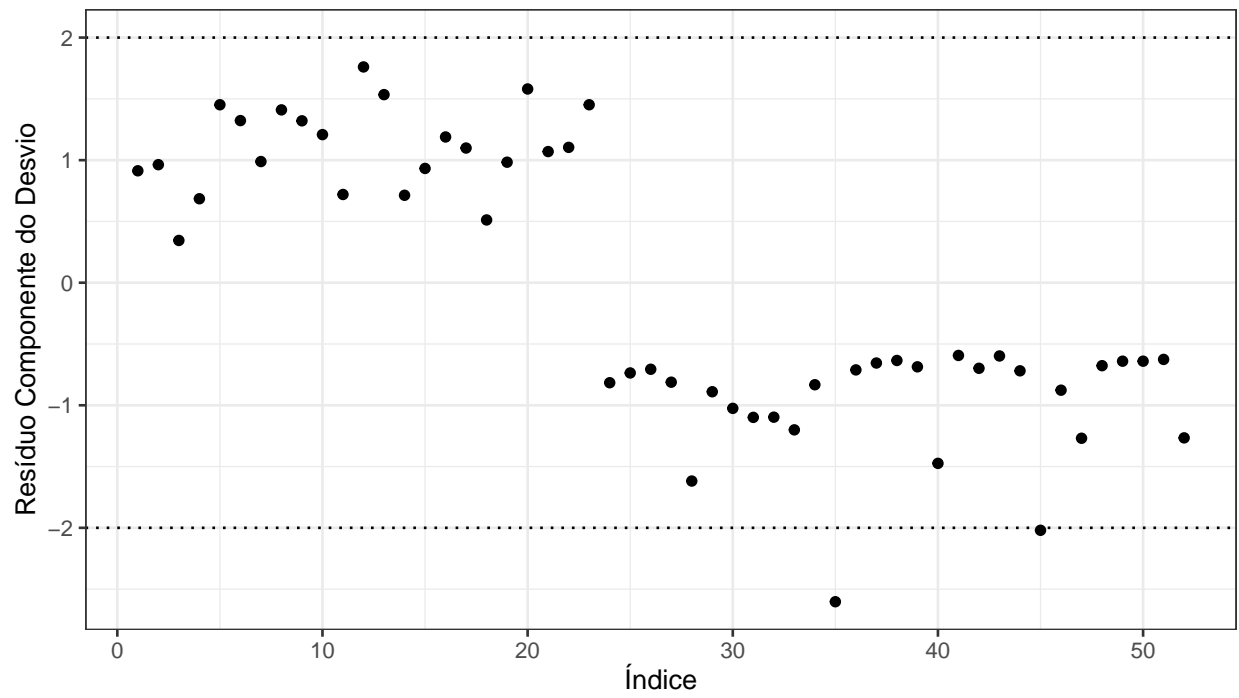
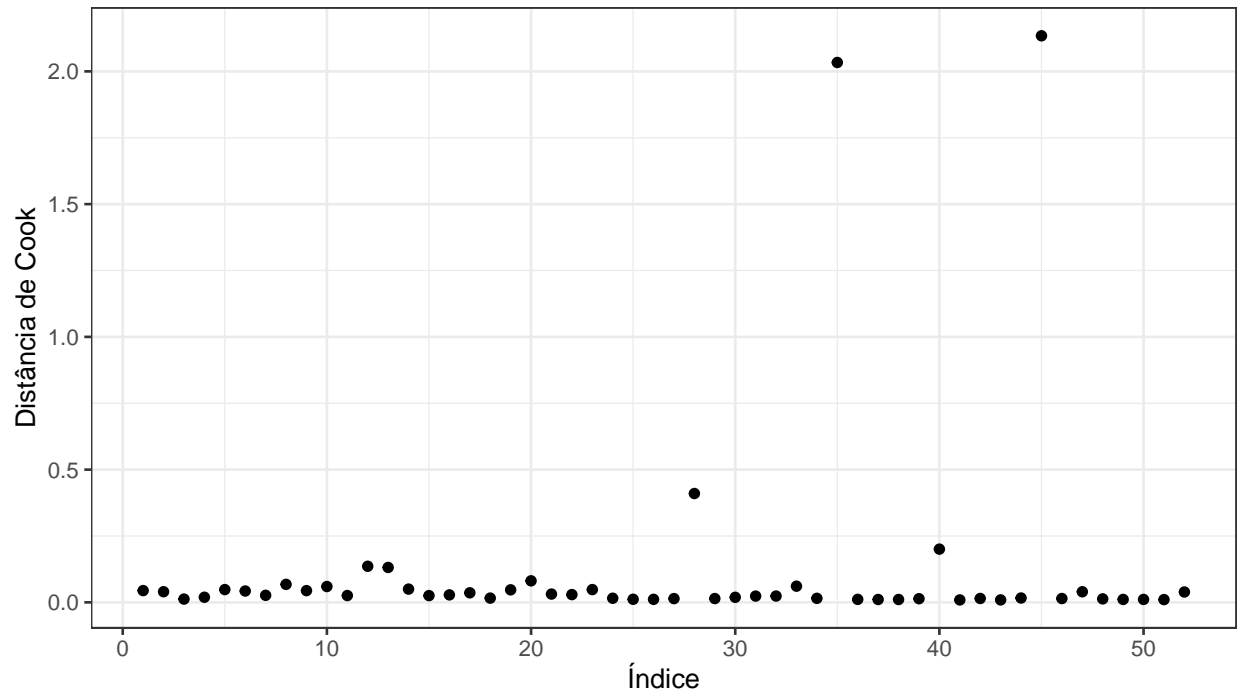
Table 19: Variance Inflation Factor

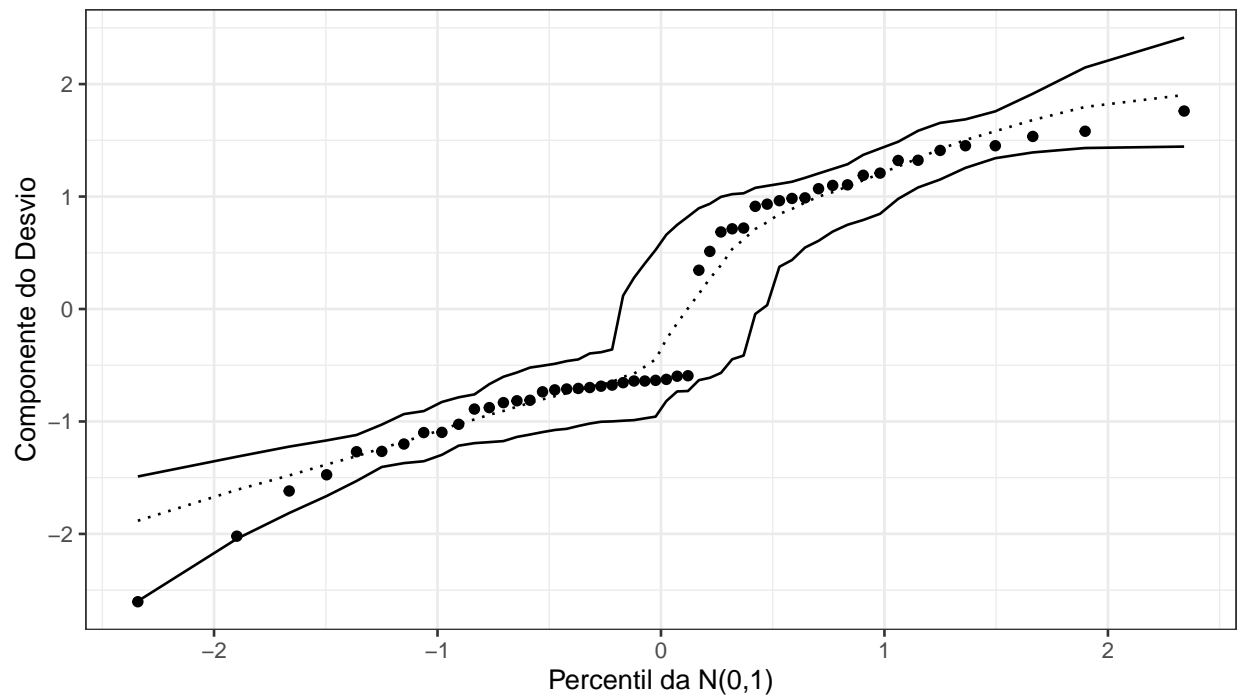
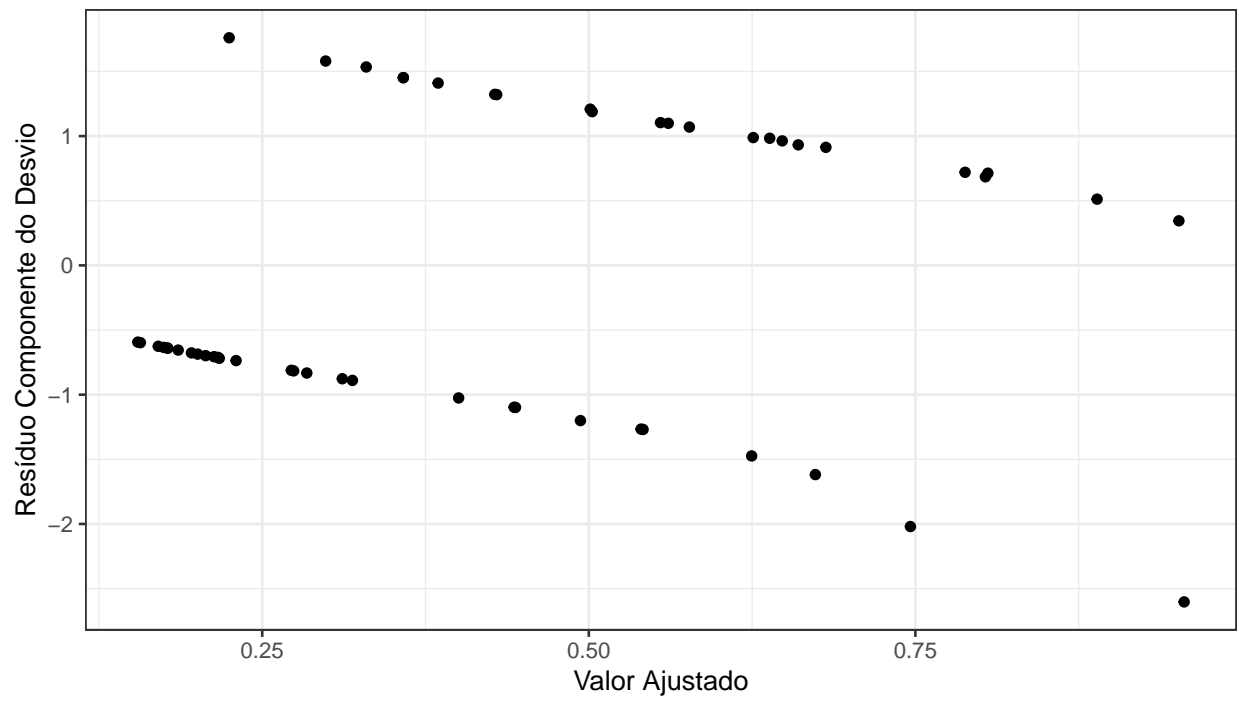
x	
sofa	1.03
su	1.03

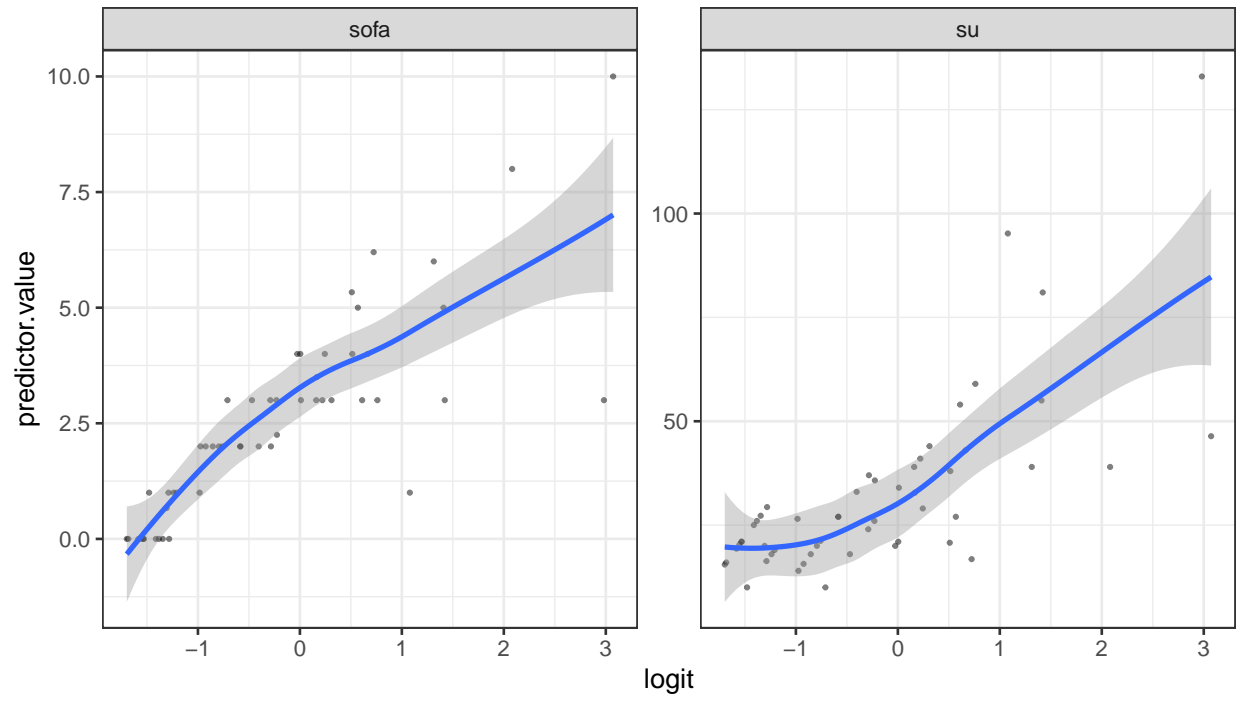
Table 20: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.324	0.655	0.913	0.345









Union model

Table 21: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-2.778	2.096	-1.326	0.185
causa_ira1	1.688	3.919	0.431	0.667
causa_ira2	-0.575	3.477	-0.165	0.869
sofa	0.498	0.241	2.065	0.039
fek	0.223	0.140	1.597	0.110
una	0.000	0.008	-0.060	0.952
su	-0.008	0.053	-0.144	0.885
fek:factor(causa_ira)1	-0.394	0.246	-1.603	0.109
fek:factor(causa_ira)2	0.929	0.762	1.219	0.223
una:factor(causa_ira)1	-0.012	0.019	-0.631	0.528
una:factor(causa_ira)2	-0.079	0.057	-1.392	0.164
su:factor(causa_ira)1	0.072	0.083	0.873	0.383
su:factor(causa_ira)2	-0.031	0.072	-0.434	0.664

Table 22: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
71.393	51	-23.465	72.931	98.297	46.931	39	52

Table 23: Confidence intervals

variável	2.5 %	97.5 %	estimativa
(Intercept)	0.001	3.778	0.062
causa_ira1	0.002	11733.297	5.411
causa_ira2	0.001	512.468	0.563
sofa	1.026	2.642	1.646
fek	0.950	1.644	1.250
una	0.984	1.016	1.000
su	0.894	1.101	0.992
fek:factor(causa_ira)1	0.417	1.092	0.674
fek:factor(causa_ira)2	0.569	11.280	2.533
una:factor(causa_ira)1	0.951	1.026	0.988
una:factor(causa_ira)2	0.827	1.033	0.924
su:factor(causa_ira)1	0.914	1.264	1.075
su:factor(causa_ira)2	0.842	1.116	0.969

Table 24: Variance Inflation Factor

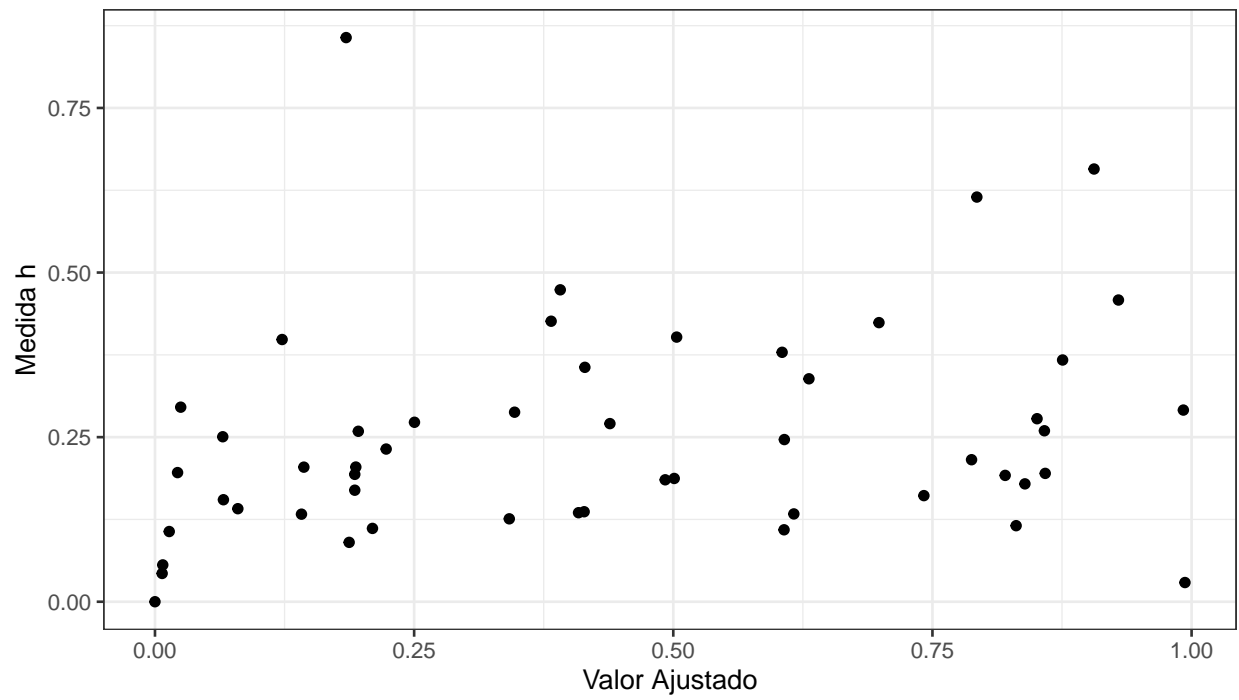
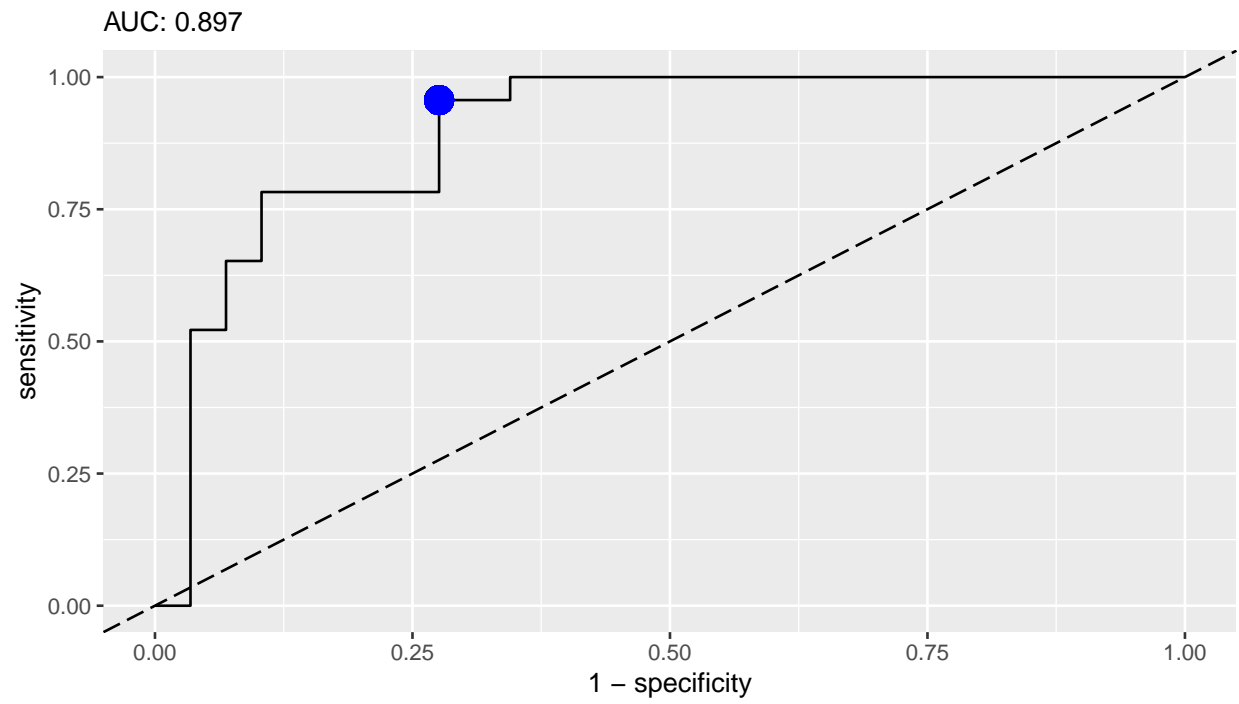
	GVIF	Df	$\text{GVIF}^{1/(2 \cdot \text{Df})}$
causa_ira	319.640	2	4.228
sofa	1.397	1	1.182
fek	2.058	1	1.435

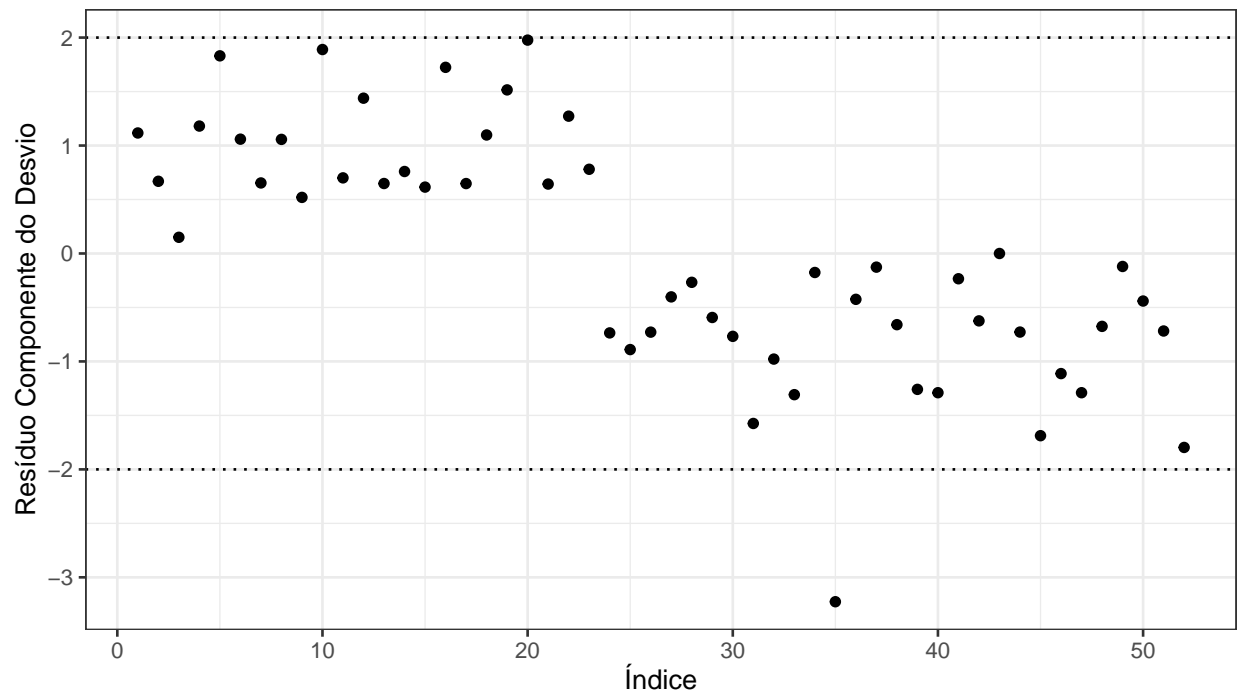
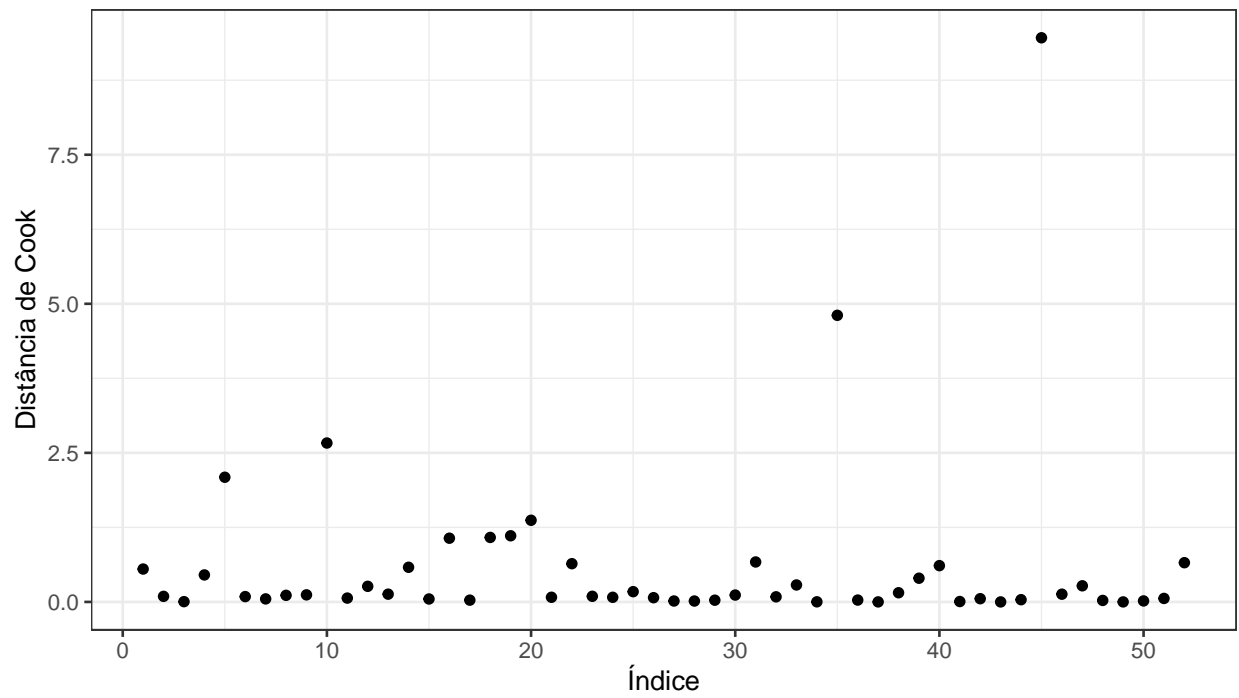
Table 24: Variance Inflation Factor (*continued*)

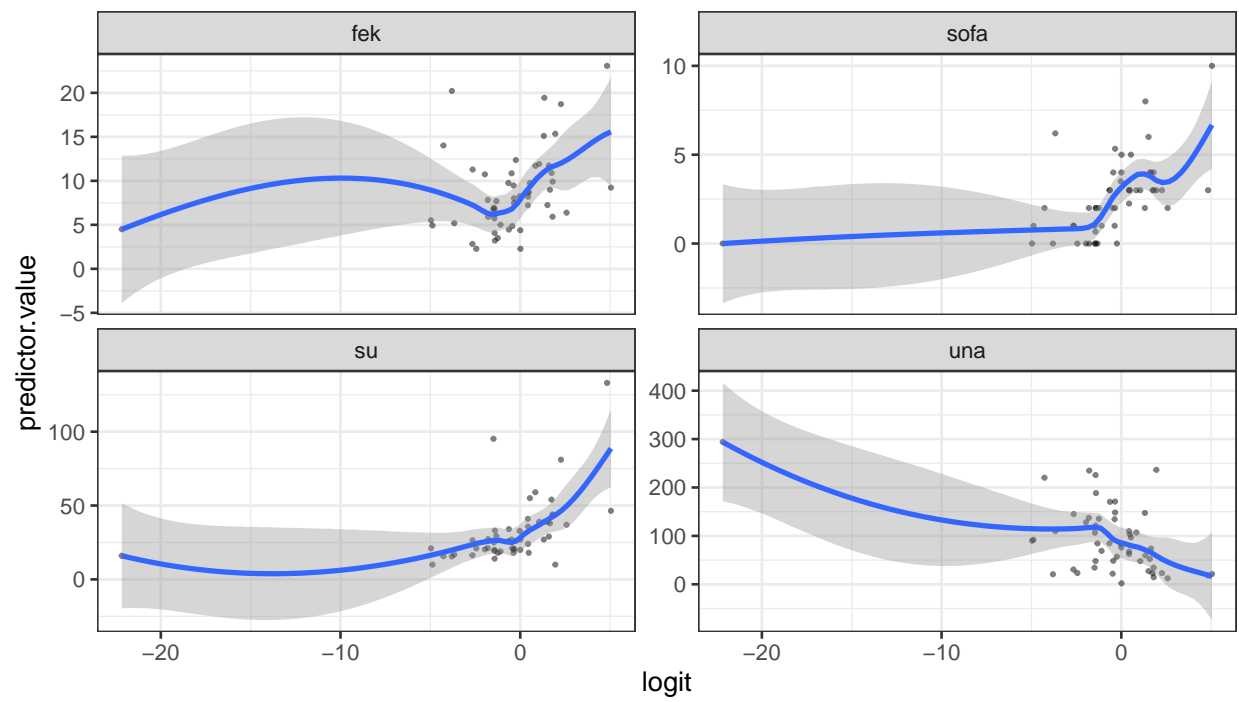
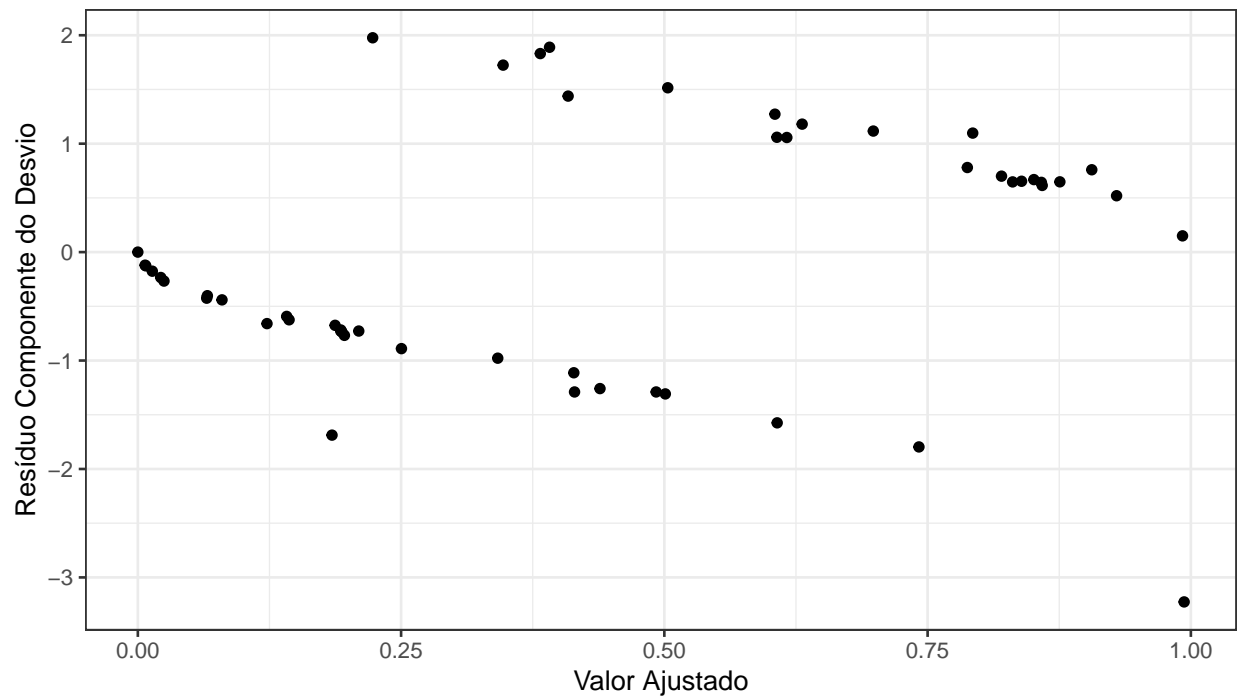
	GVIF	Df	GVIF ^{1/(2*Df)}
una	1.702	1	1.305
su	5.300	1	2.302
fek:factor(causa_ira)	507.297	2	4.746
una:factor(causa_ira)	168.220	2	3.601
su:factor(causa_ira)	142.464	2	3.455

Table 25: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.344	0.724	0.957	0.276







Intersection model

Table 26: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-1.357	0.536	-2.531	0.011
sofa	0.445	0.179	2.487	0.013

Table 27: Model details

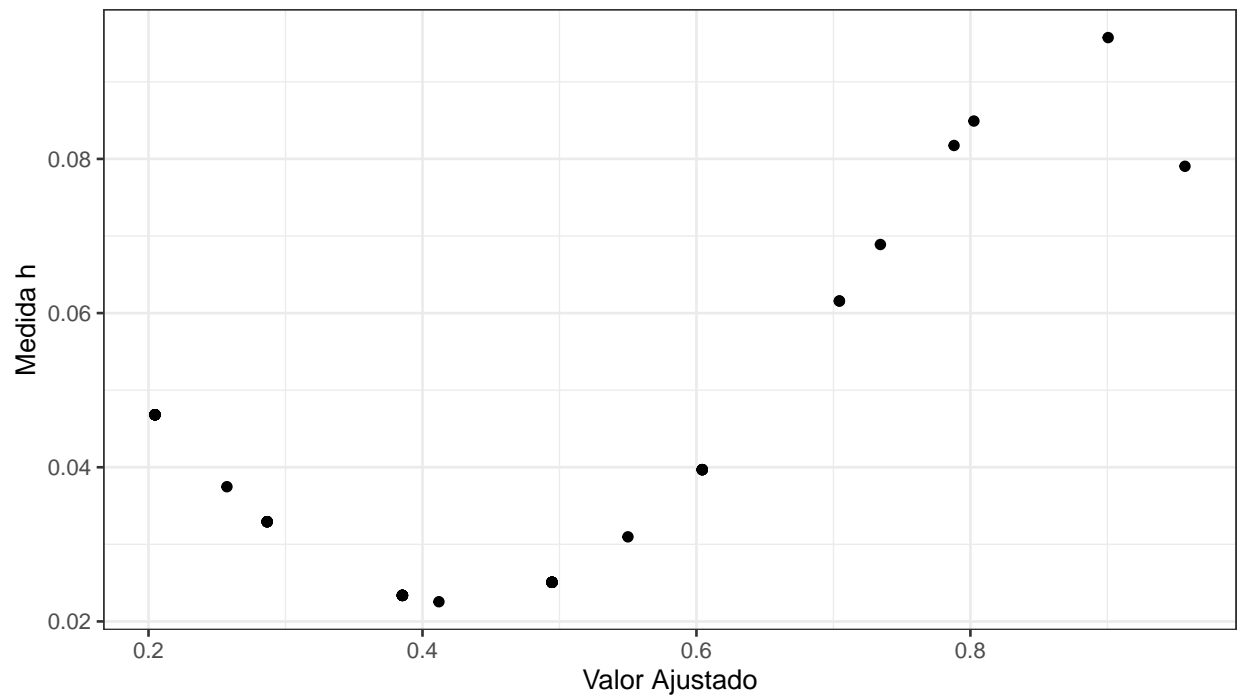
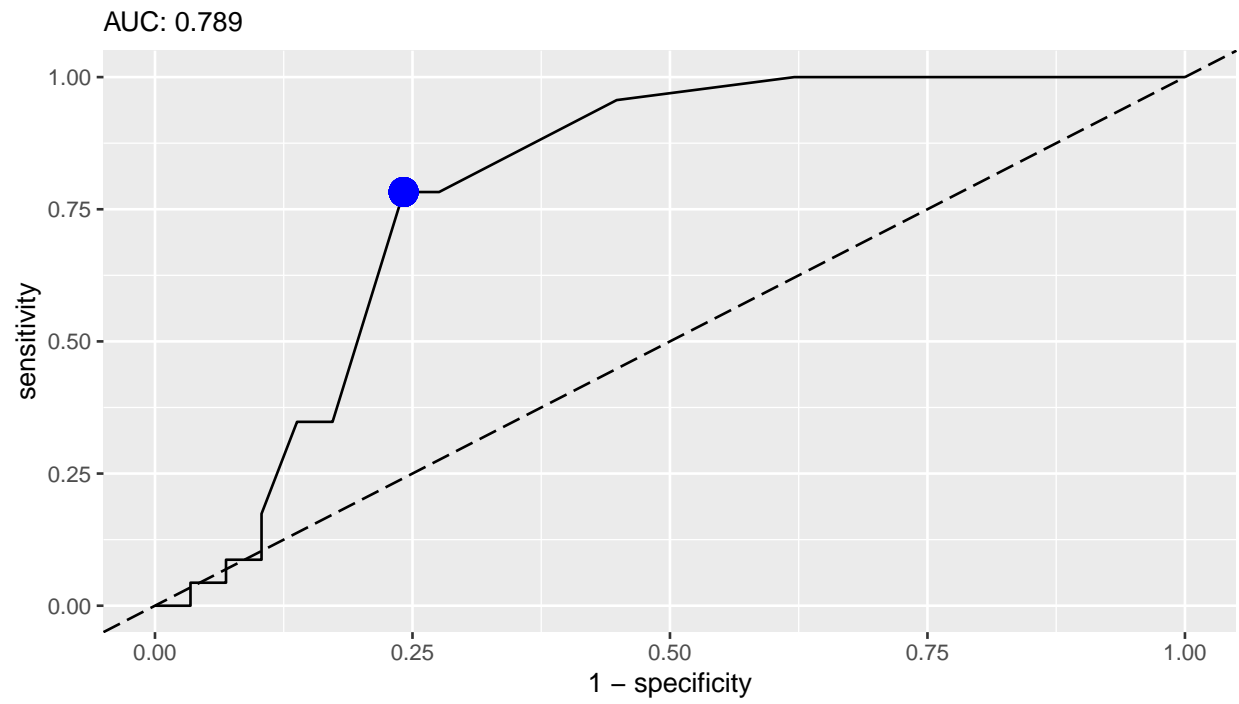
null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
71.393	51	-31.581	67.162	71.065	63.162	50	52

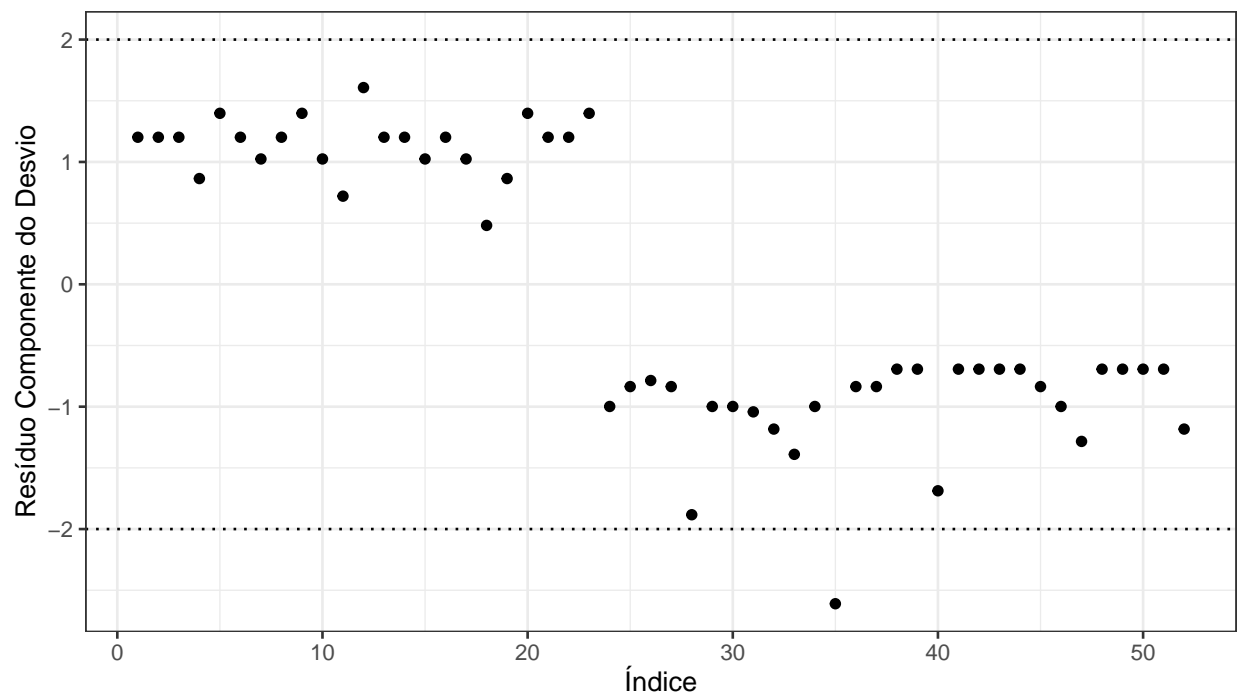
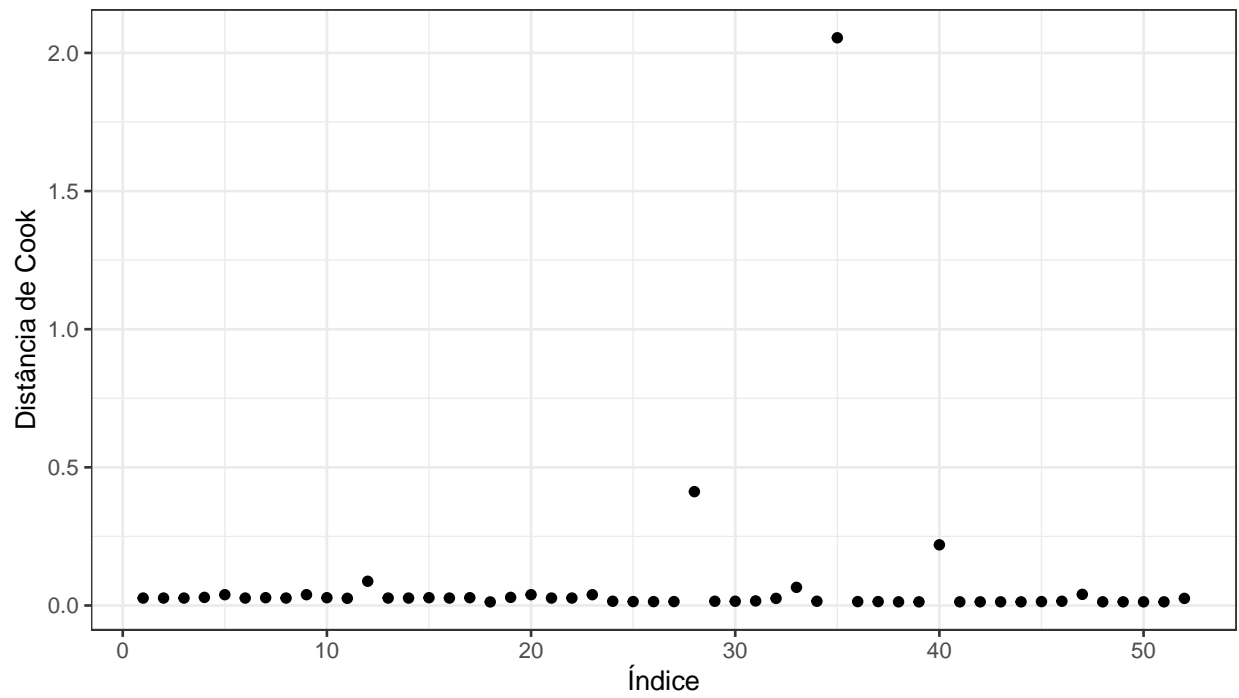
Table 28: Confidence intervals

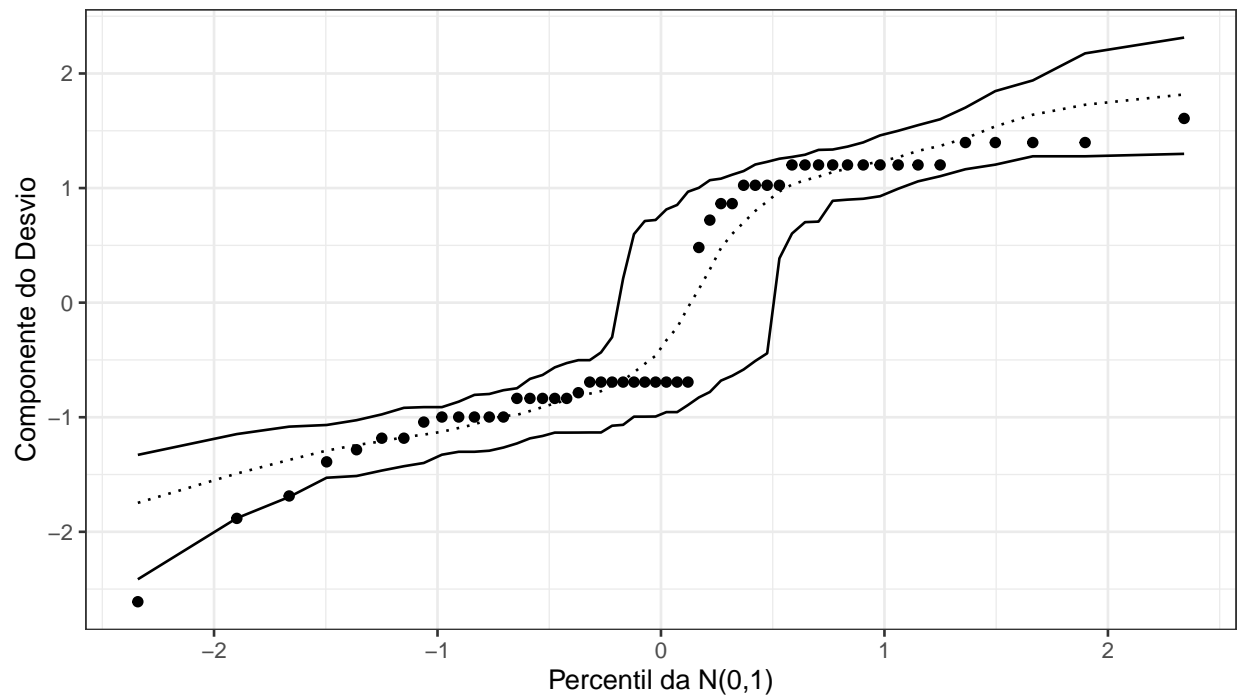
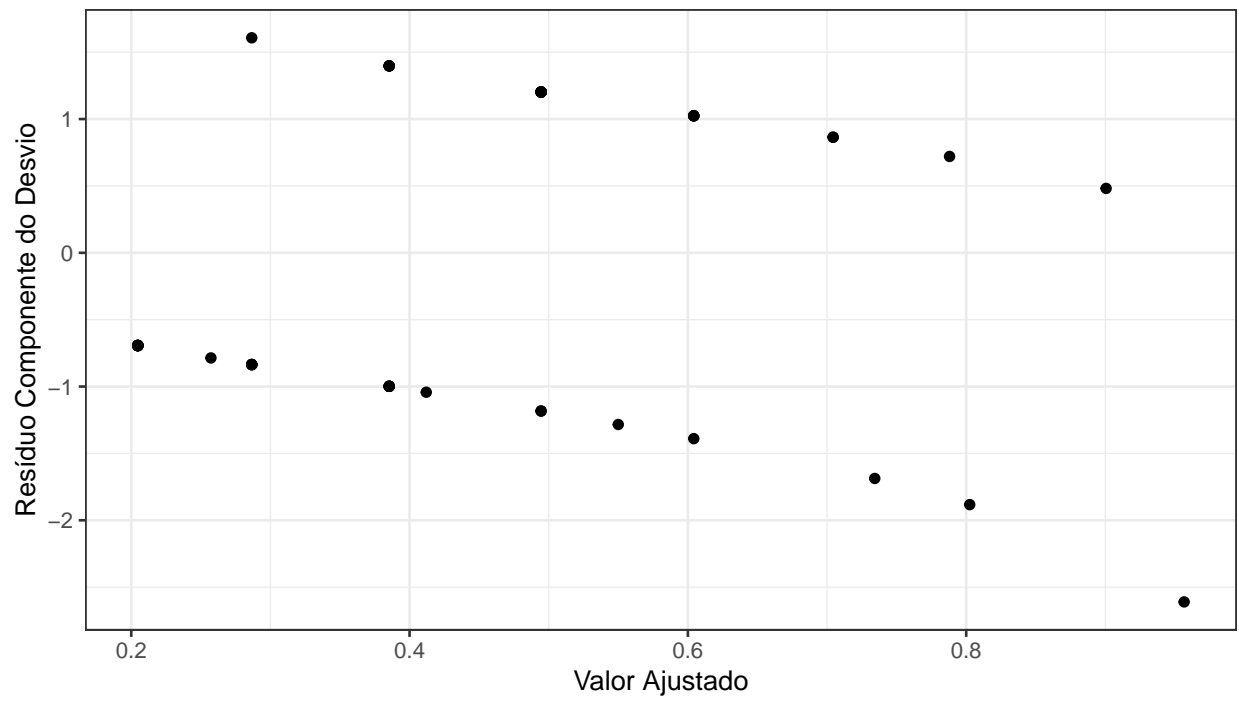
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.090	0.736	0.257
sofa	1.099	2.216	1.561

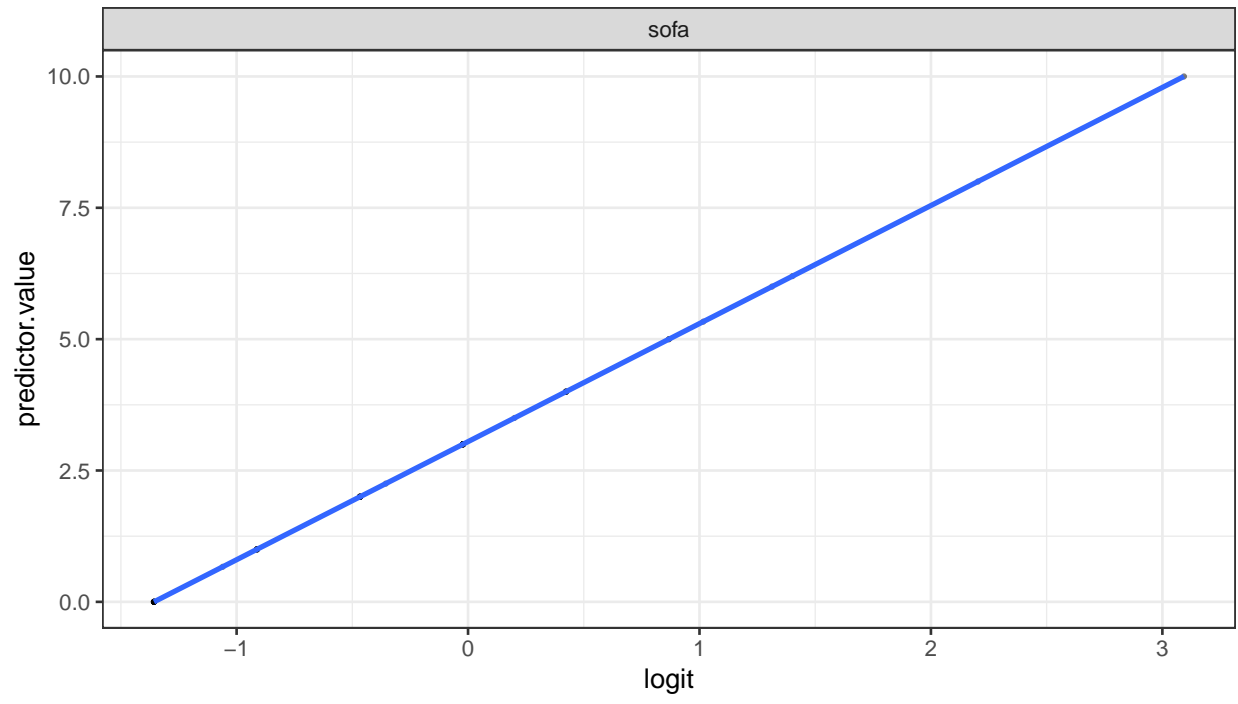
Table 29: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.453	0.759	0.783	0.241









Selected Variables

Full model

Table 30: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-6.682	10.386	-0.643	0.520
factor(causa_ira)1	-1.497	1.322	-1.132	0.258
factor(causa_ira)2	-1.402	1.097	-1.277	0.201
factor(ventilacao_mecanica)1	1.466	1.300	1.127	0.260
sofa	0.316	0.250	1.264	0.206
su	0.014	0.026	0.547	0.584
fek	0.111	0.156	0.711	0.477
uu_su	0.570	1.908	0.299	0.765
una	-0.009	0.007	-1.215	0.224
scr_basal	3.800	1.968	1.931	0.053
sosm	-0.003	0.033	-0.084	0.933
delta_scr	3.260	4.184	0.779	0.436
tempo_internacao_hospitalar	0.024	0.018	1.340	0.180
score_clinico	0.198	0.291	0.681	0.496
dva_mcg_kg_min	1.421	2.508	0.567	0.571
uk	0.010	0.022	0.466	0.641

Table 31: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
71.393	51	-22.608	77.216	108.436	45.216	36	52

Table 32: Confidence intervals

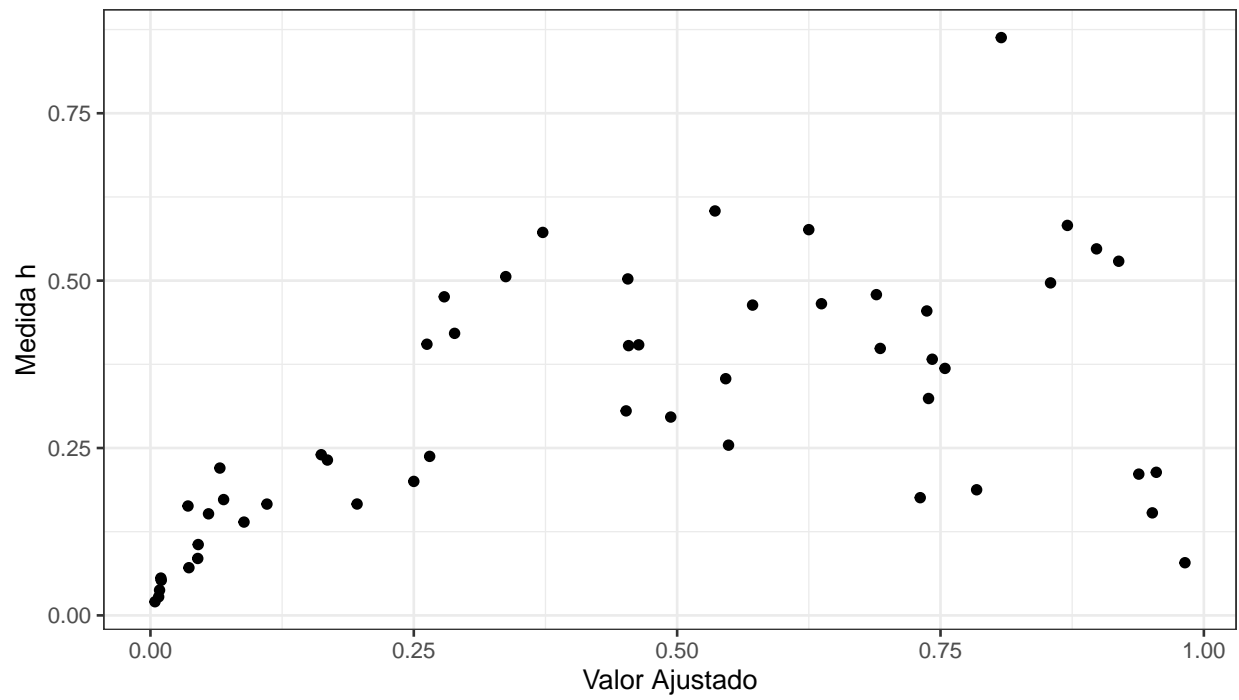
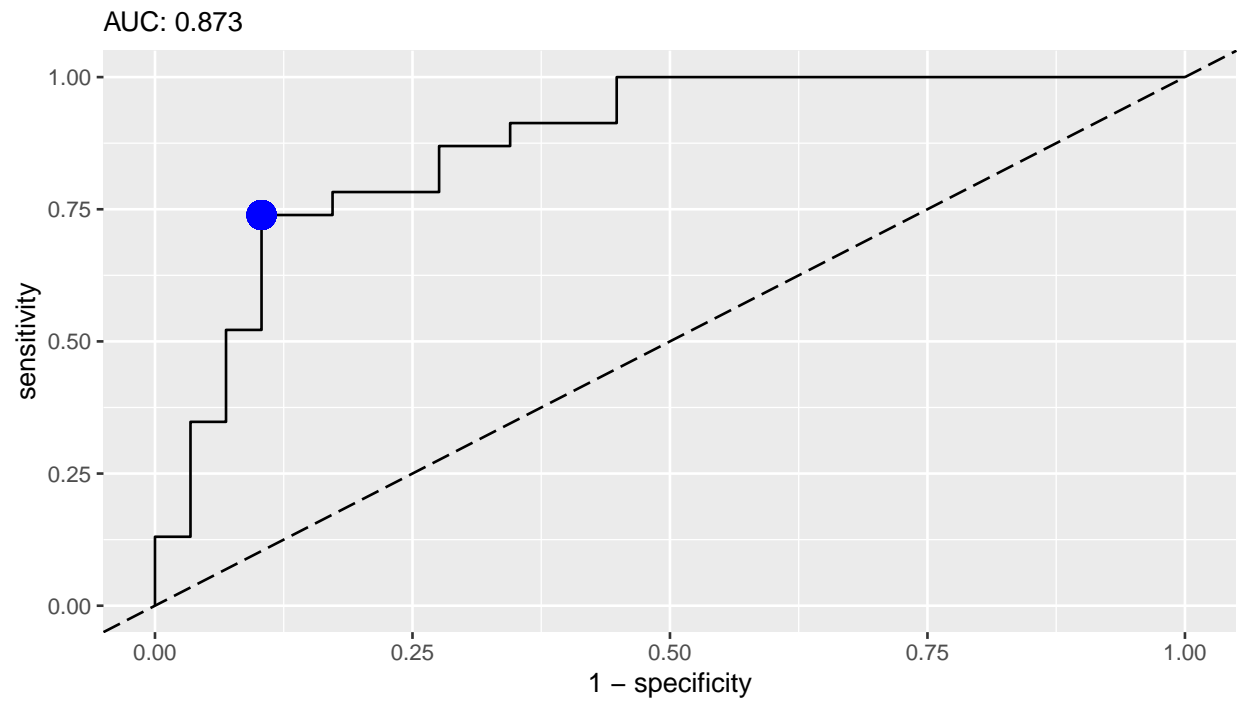
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.000	868334.162	0.001
factor(causa_ira)1	0.017	2.988	0.224
factor(causa_ira)2	0.029	2.115	0.246
factor(ventilacao_mecanica)1	0.338	55.389	4.330
sofa	0.840	2.239	1.372
su	0.964	1.066	1.014
fek	0.823	1.517	1.117
uu_su	0.042	74.453	1.768
una	0.977	1.005	0.991
scr_basal	0.945	2114.664	44.710
sosm	0.934	1.065	0.997
delta_scr	0.007	94923.804	26.059
tempo_internacao_hospitalar	0.989	1.062	1.025
score_clinico	0.689	2.158	1.219
dva_mcg_kg_min	0.030	564.294	4.141
uk	0.968	1.054	1.010

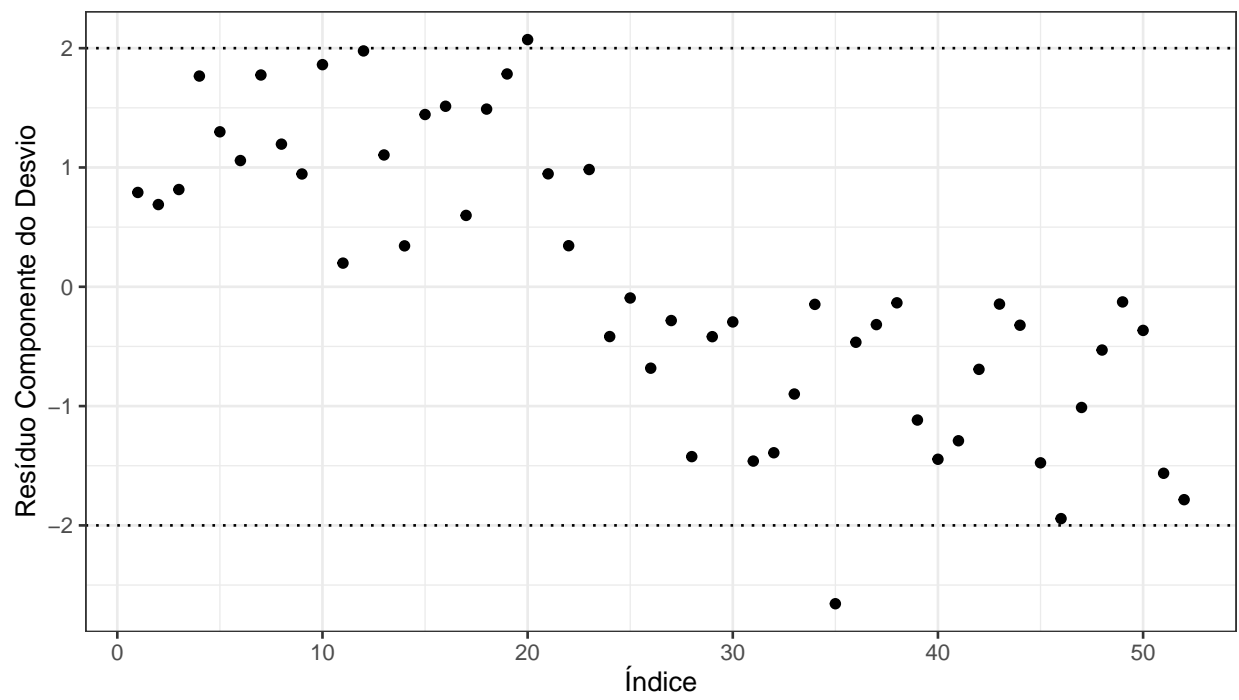
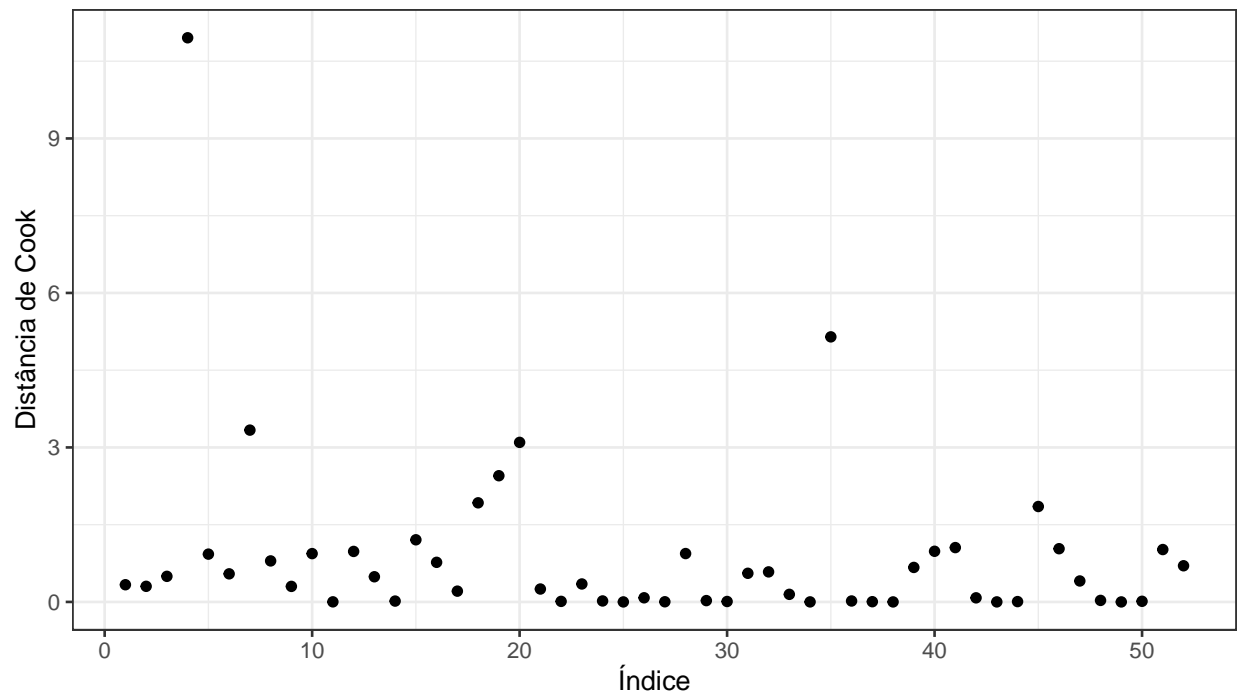
Table 33: Variance Inflation Factor

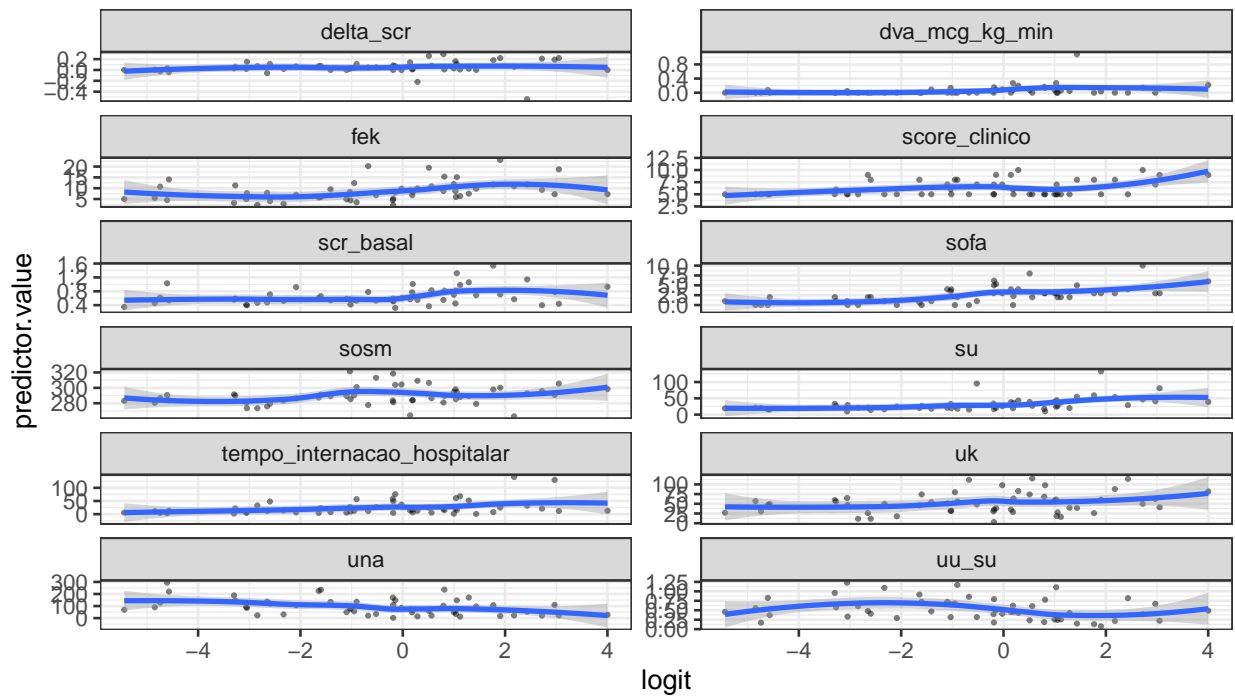
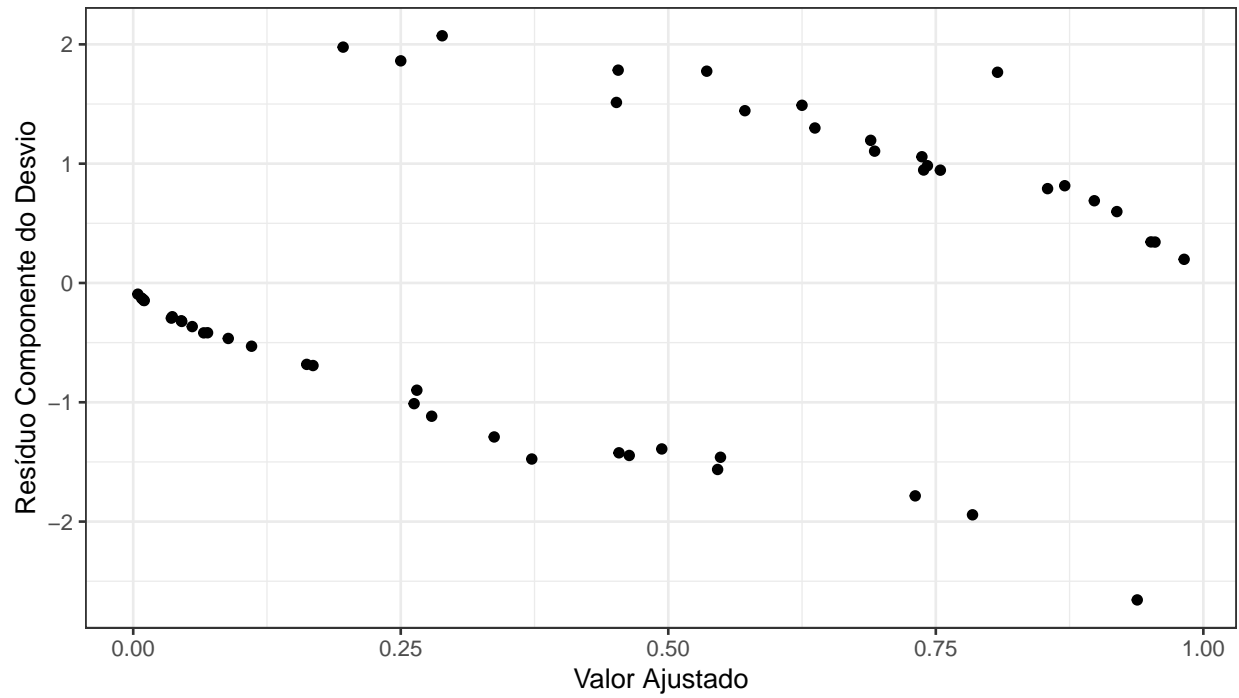
	GVIF	Df	$\text{GVIF}^{1/(2 \cdot \text{Df})}$
factor(causa_ira)	3.501	2	1.368
factor(ventilacao_mecanica)	2.070	1	1.439
sofa	1.799	1	1.341
su	2.066	1	1.437
fek	3.801	1	1.950
uu_su	2.024	1	1.423
una	1.474	1	1.214
scr_basal	1.662	1	1.289
sosm	1.383	1	1.176
delta_scr	1.535	1	1.239
tempo_internacao_hospitalar	1.586	1	1.259
score_clinico	1.580	1	1.257
dva_mcg_kg_min	1.289	1	1.135
uk	2.821	1	1.680

Table 34: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.56	0.897	0.739	0.103







Backwards

Table 35: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-6.703	2.081	-3.221	0.001
factor(ventilacao_mecanica)1	1.893	1.067	1.775	0.076
sofa	0.314	0.189	1.663	0.096
fek	0.186	0.094	1.987	0.047
scr_basal	3.129	1.577	1.984	0.047
tempo_internacao_hospitalar	0.019	0.013	1.520	0.128

Table 36: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
71.393	51	-25.039	62.078	73.786	50.078	46	52

Table 37: Confidence intervals

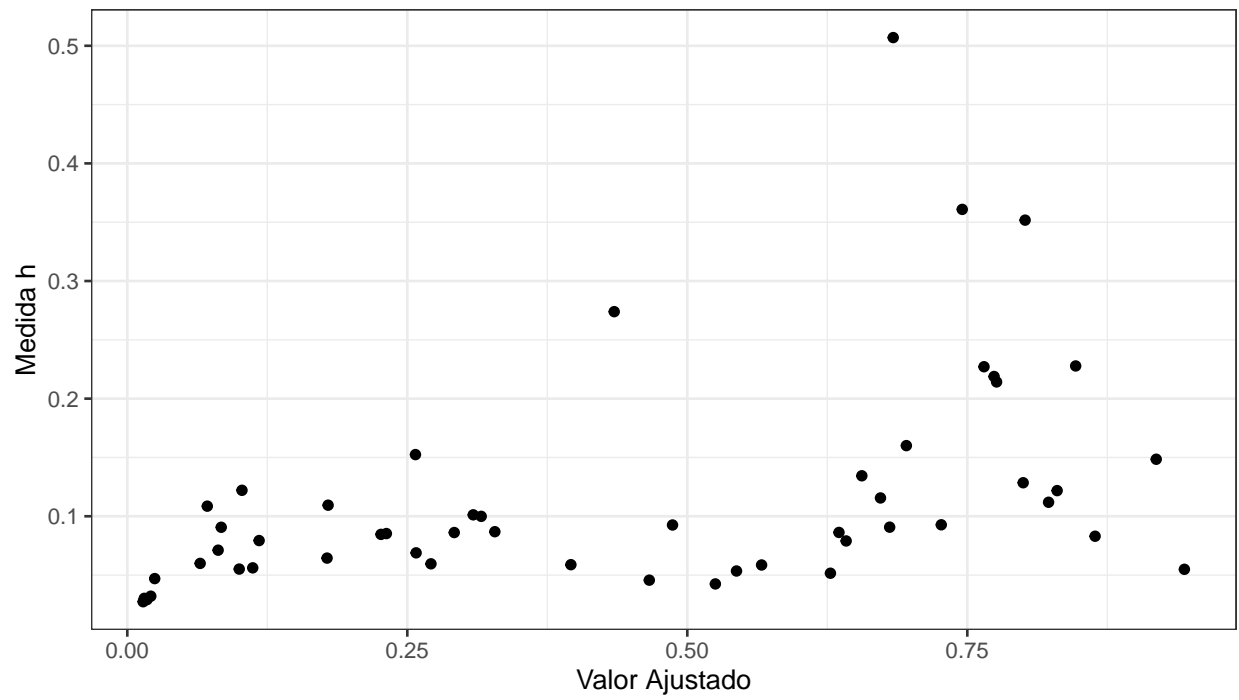
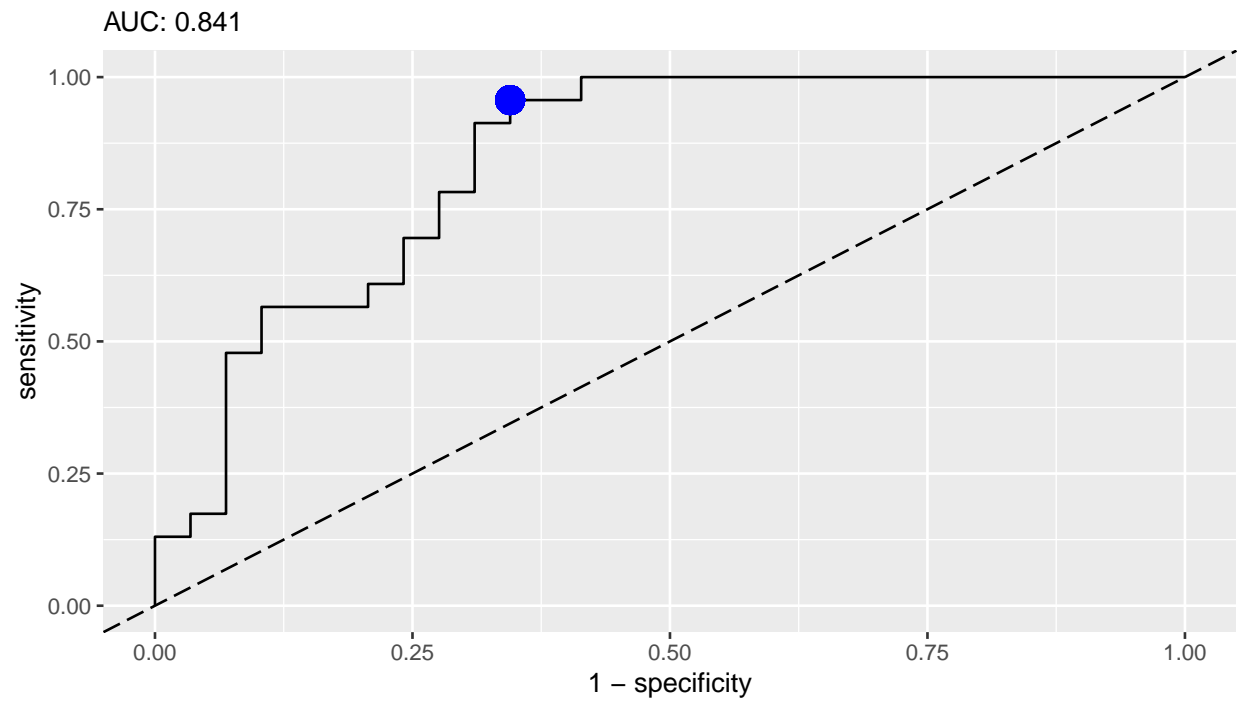
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.000	0.072	0.001
factor(ventilacao_mecanica)1	0.821	53.714	6.642
sofa	0.945	1.983	1.369
fek	1.003	1.448	1.205
scr_basal	1.039	502.742	22.857
tempo_internacao_hospitalar	0.994	1.045	1.019

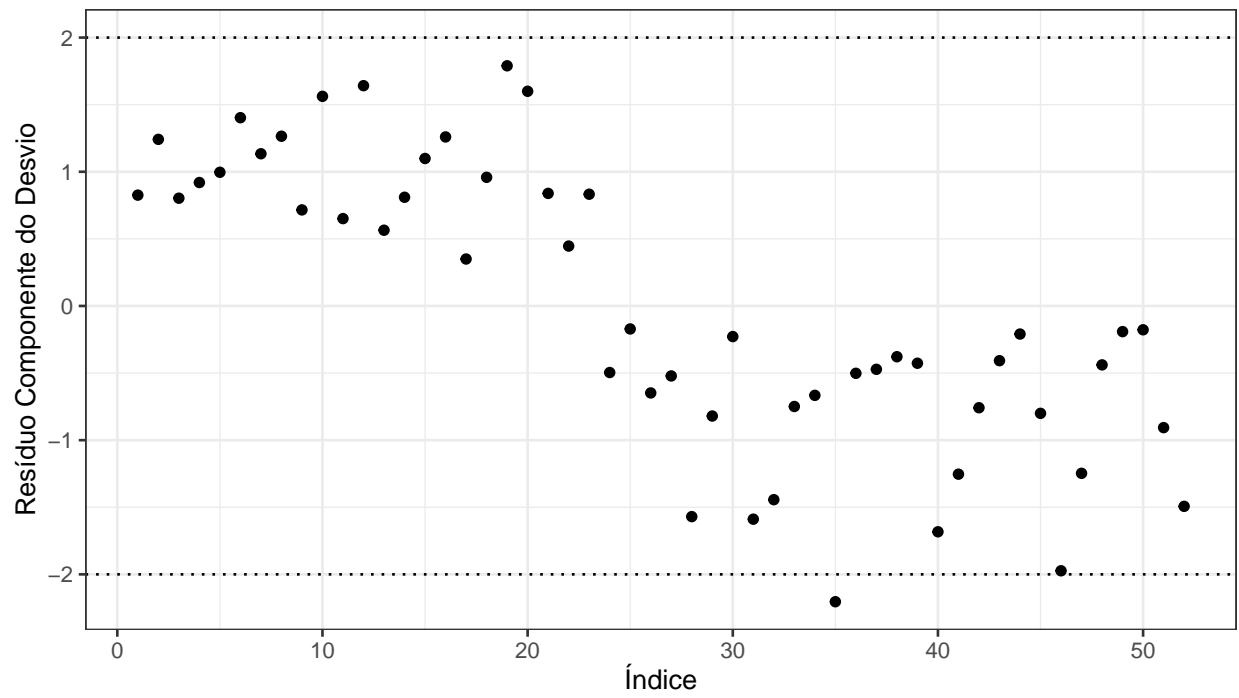
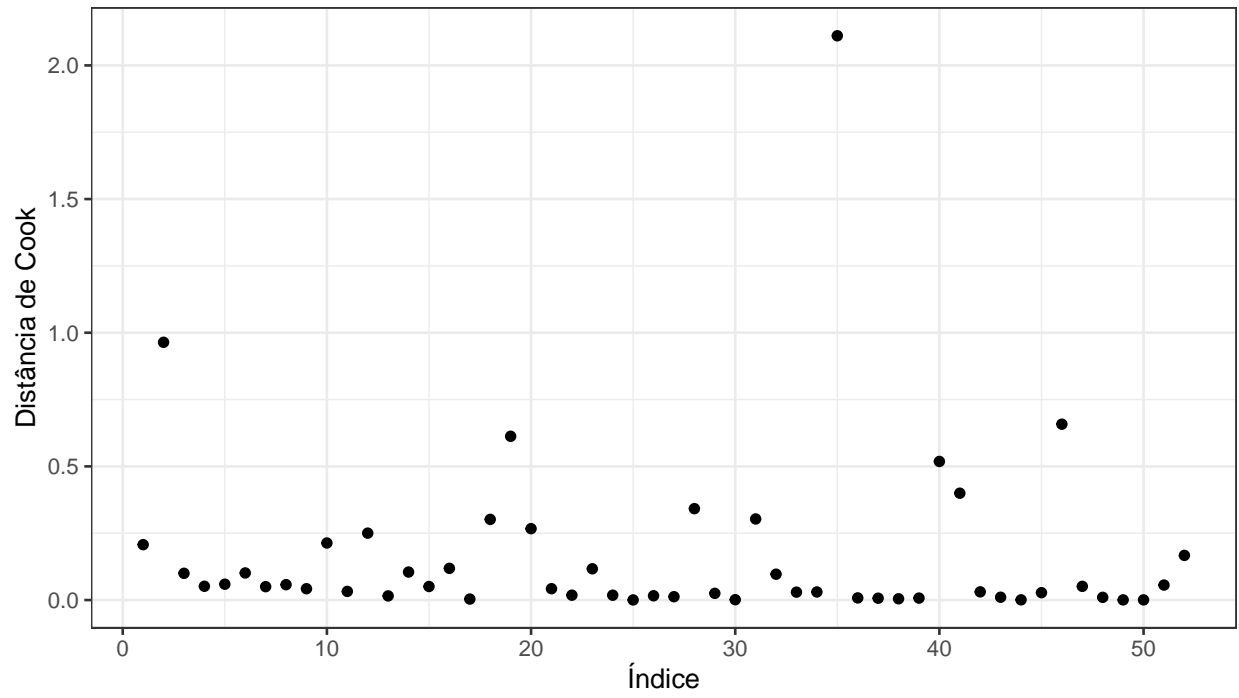
Table 38: Variance Inflation Factor

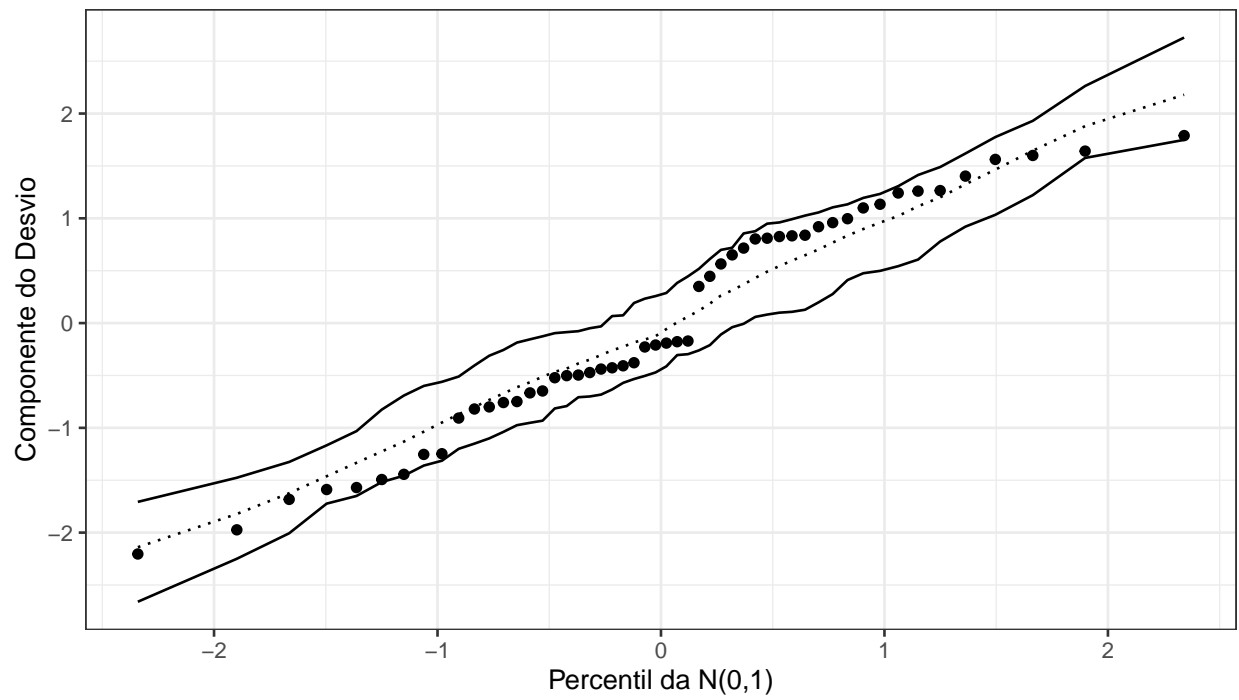
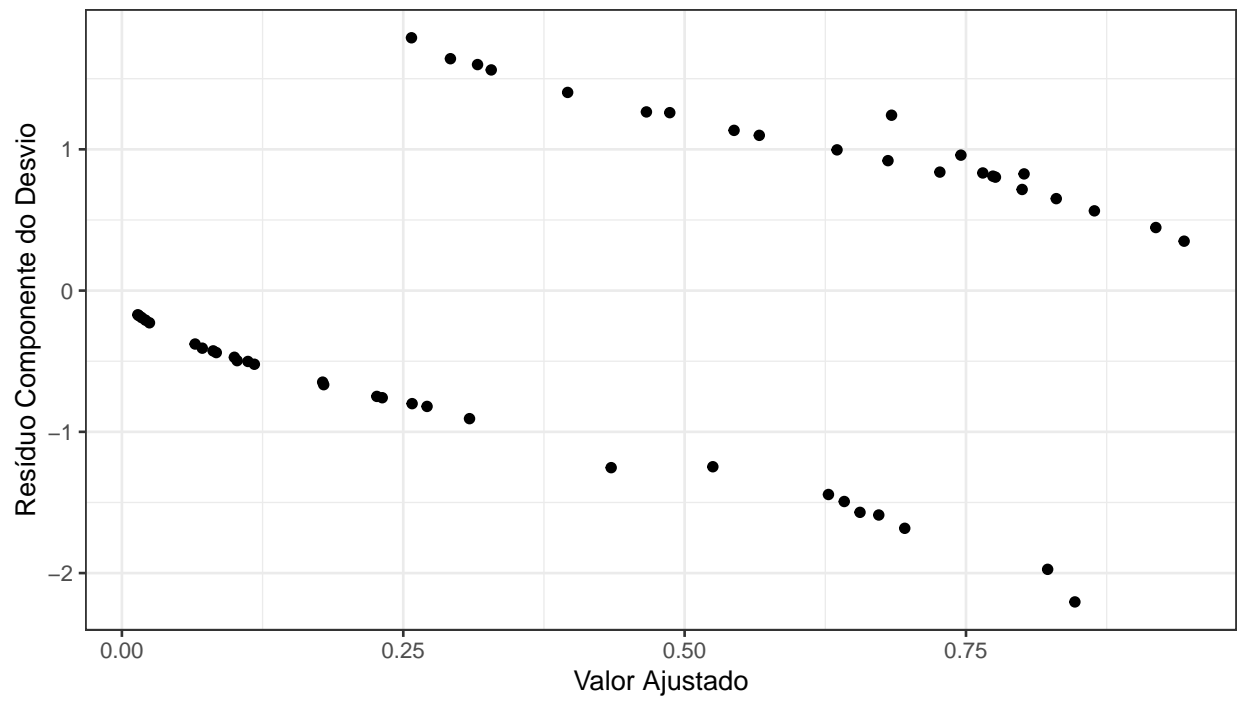
	x
factor(ventilacao_mecanica)	1.649
sofa	1.152
fek	1.555
scr_basal	1.150
tempo_internacao_hospitalar	1.096

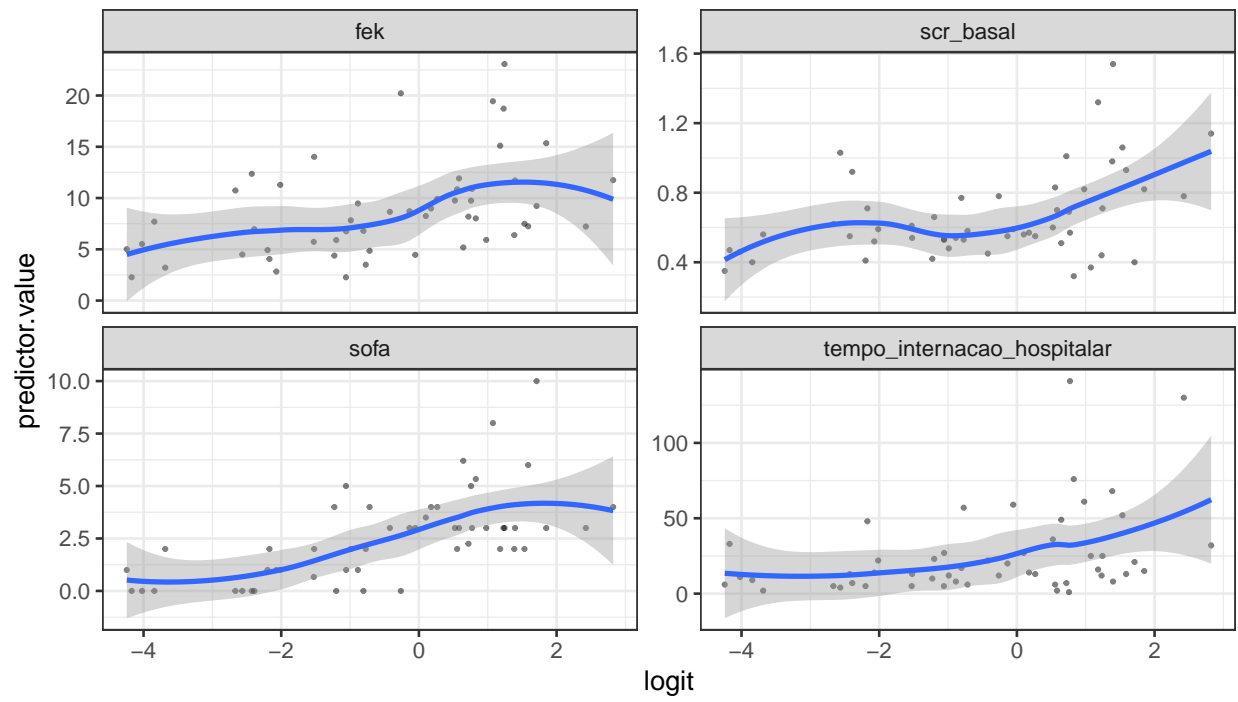
Table 39: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.282	0.655	0.957	0.345









Forwards

Table 40: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-4.425	1.435	-3.085	0.002
sofa	0.463	0.191	2.421	0.015
scr_basal	3.188	1.595	1.999	0.046
su	0.028	0.018	1.558	0.119

Table 41: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
71.393	51	-27.341	62.681	70.486	54.681	48	52

Table 42: Confidence intervals

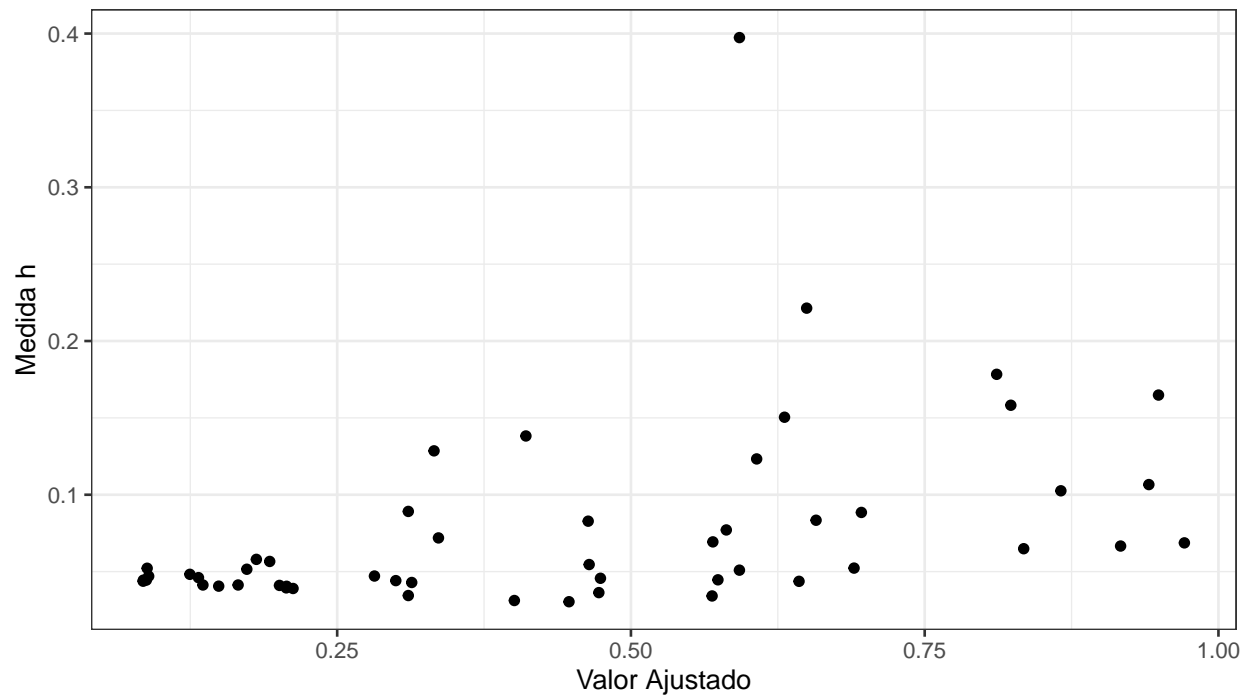
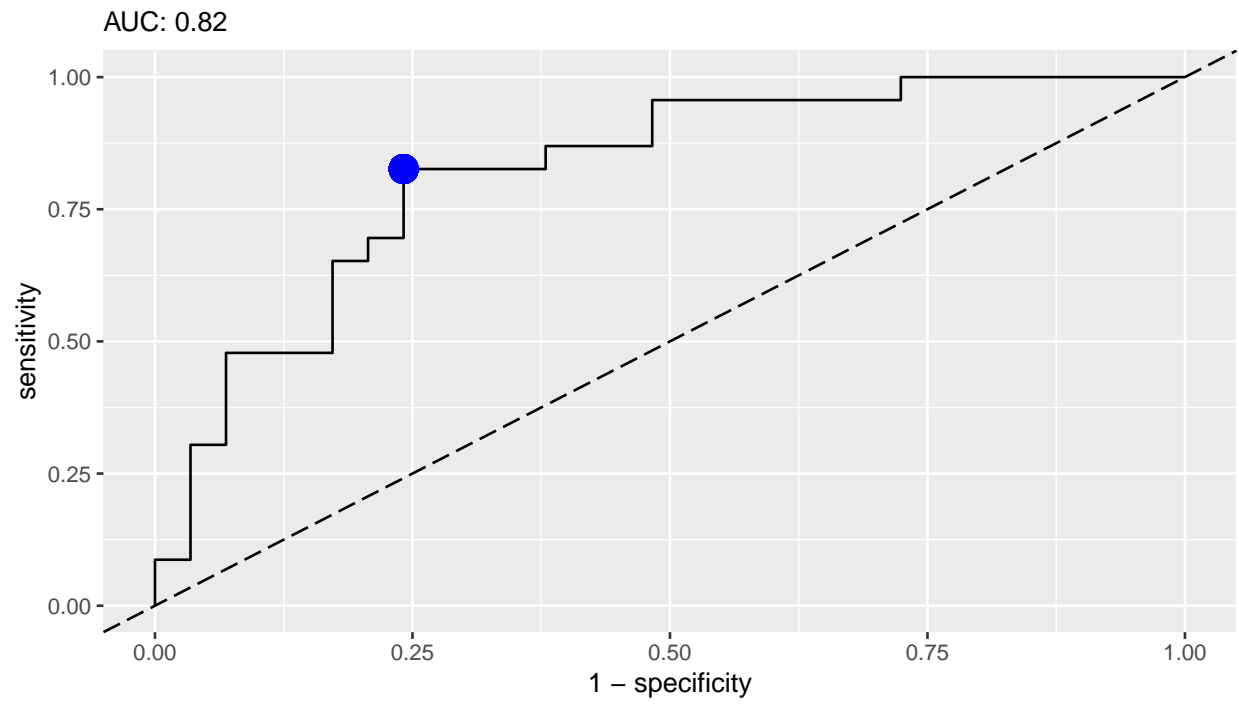
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.001	0.199	0.012
sofa	1.092	2.310	1.588
scr_basal	1.064	551.718	24.231
su	0.993	1.065	1.028

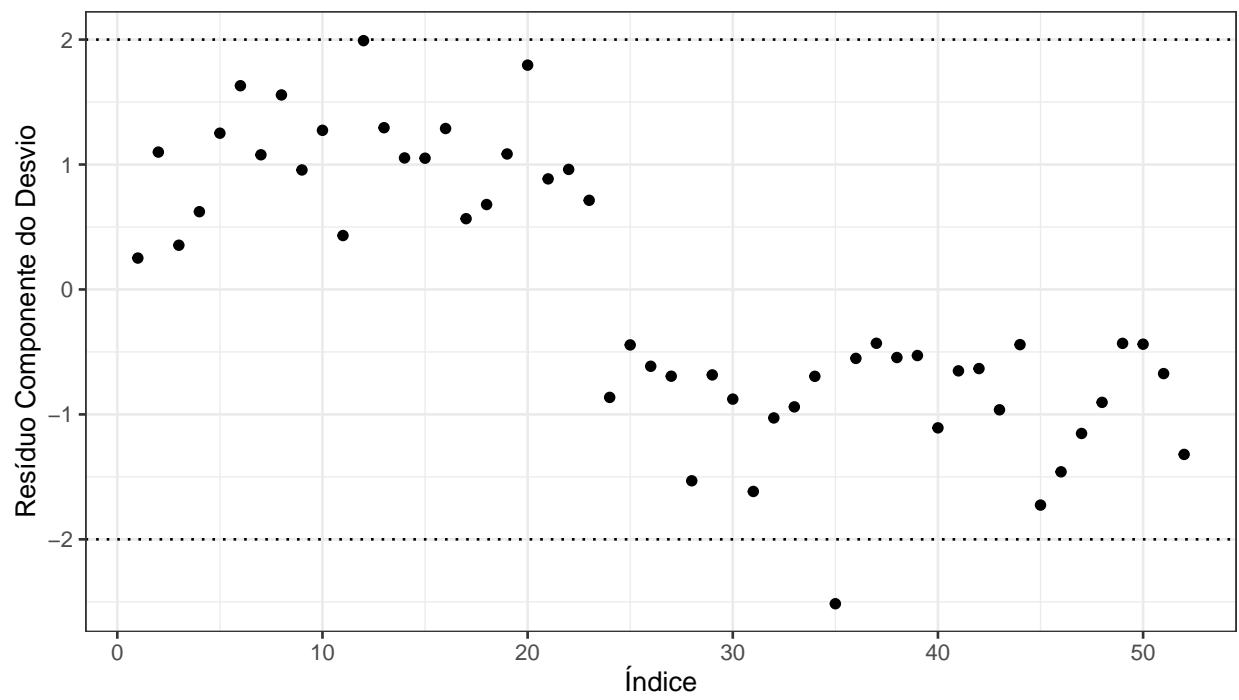
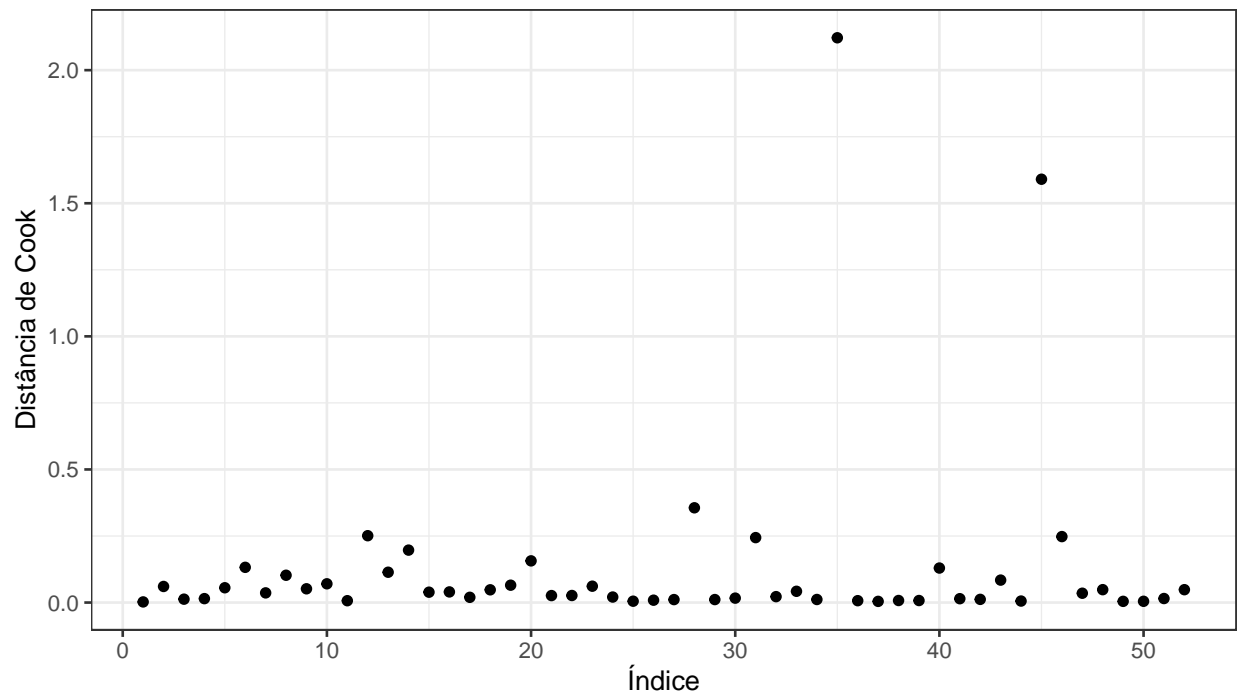
Table 43: Variance Inflation Factor

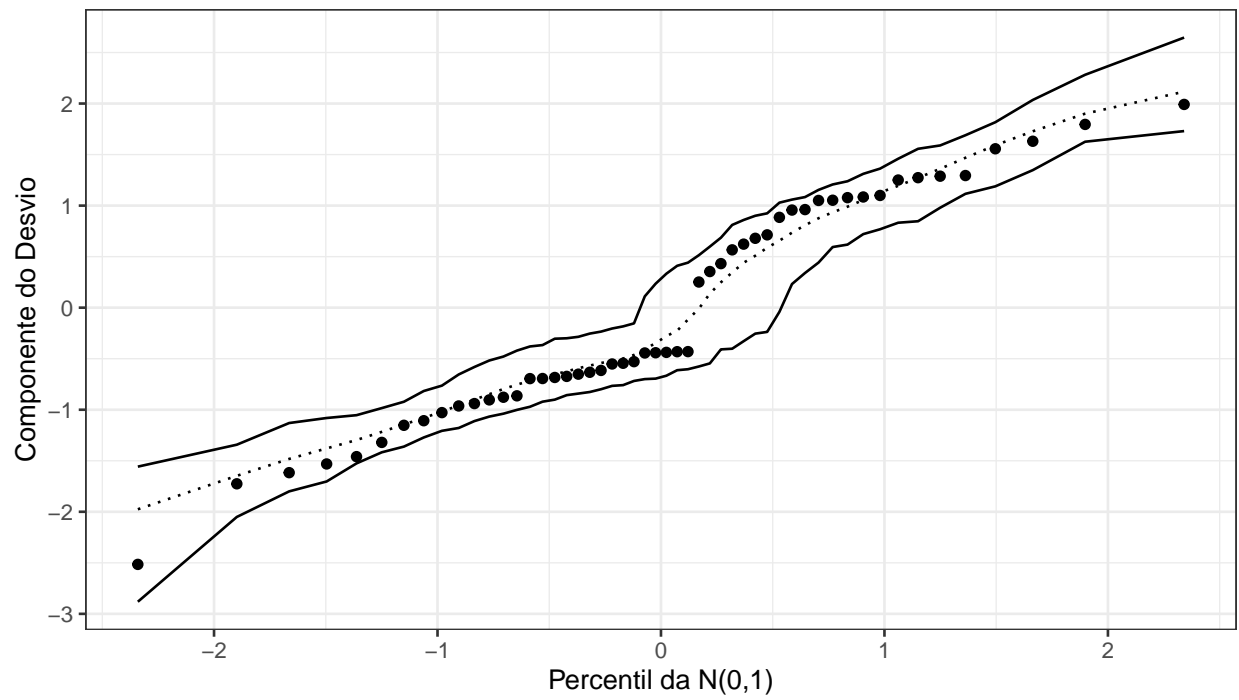
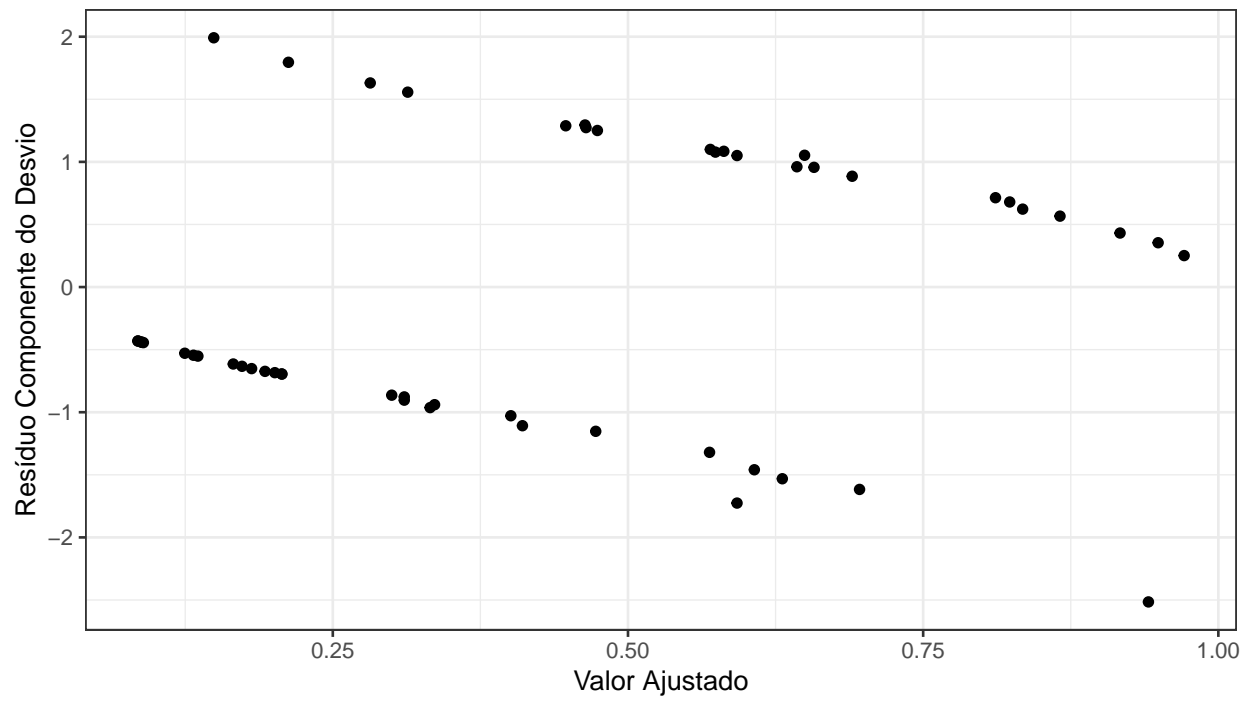
x	
sofa	1.103
scr_basal	1.092
su	1.017

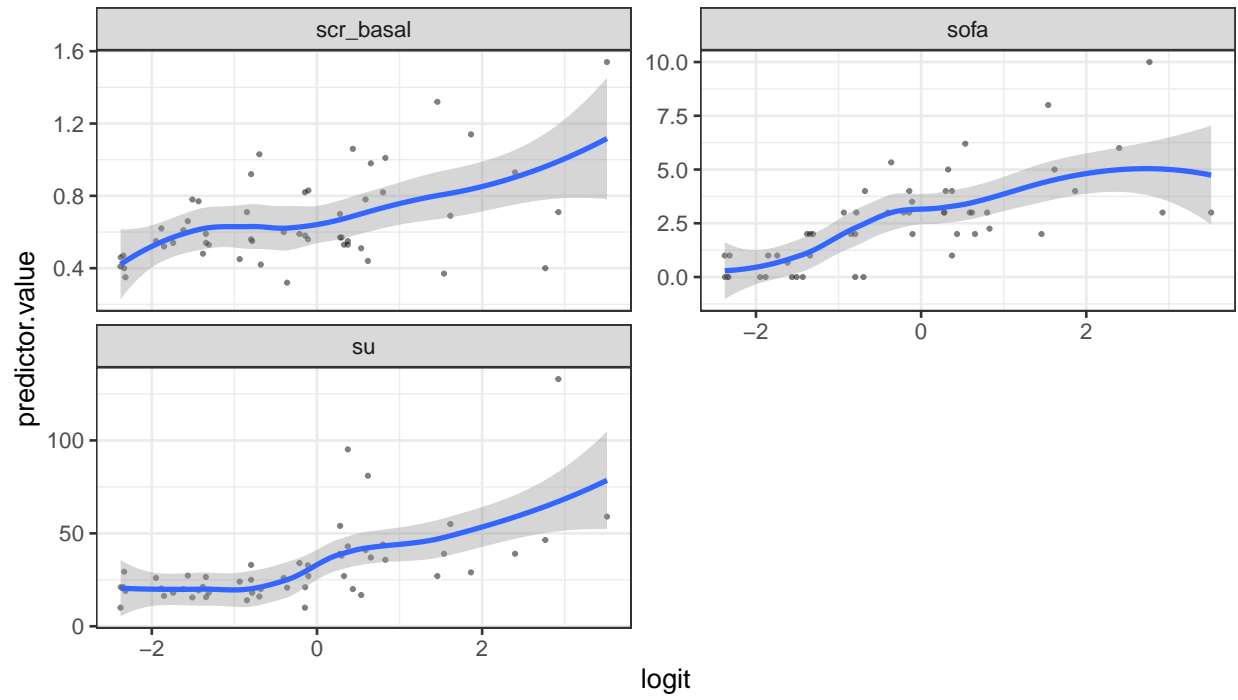
Table 44: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.429	0.759	0.826	0.241









Stepwise

Table 45: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-4.425	1.435	-3.085	0.002
sofa	0.463	0.191	2.421	0.015
scr_basal	3.188	1.595	1.999	0.046
su	0.028	0.018	1.558	0.119

Table 46: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
71.393	51	-27.341	62.681	70.486	54.681	48	52

Table 47: Confidence intervals

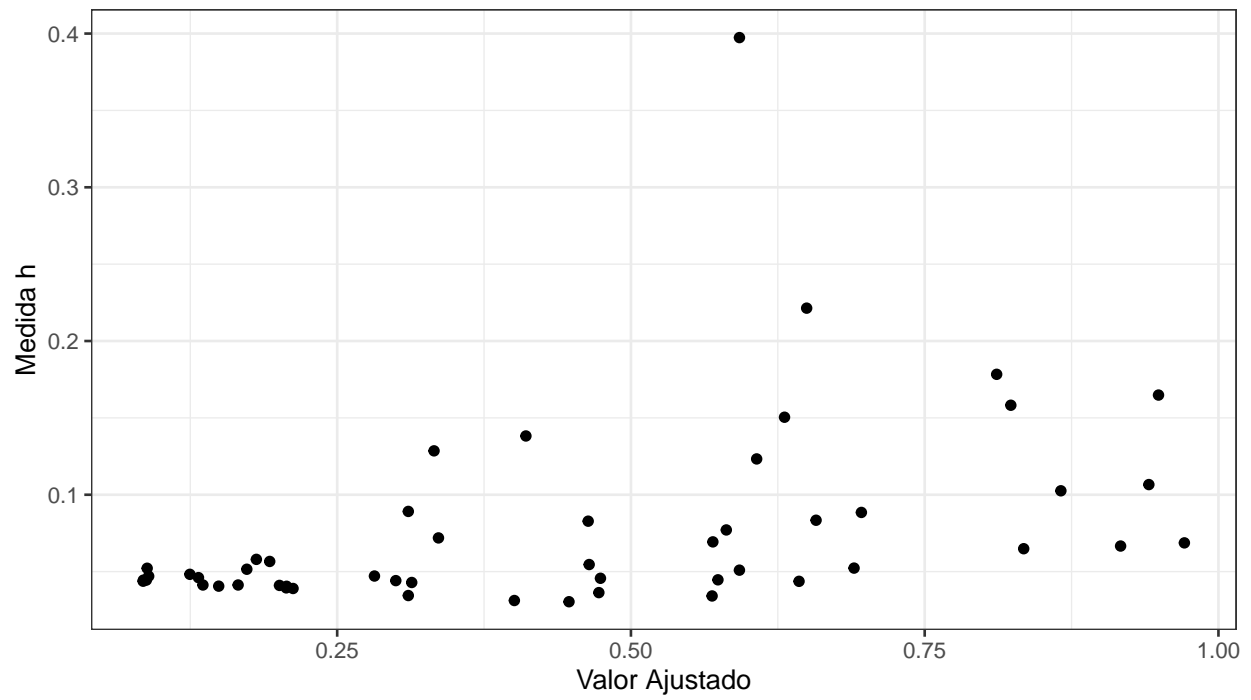
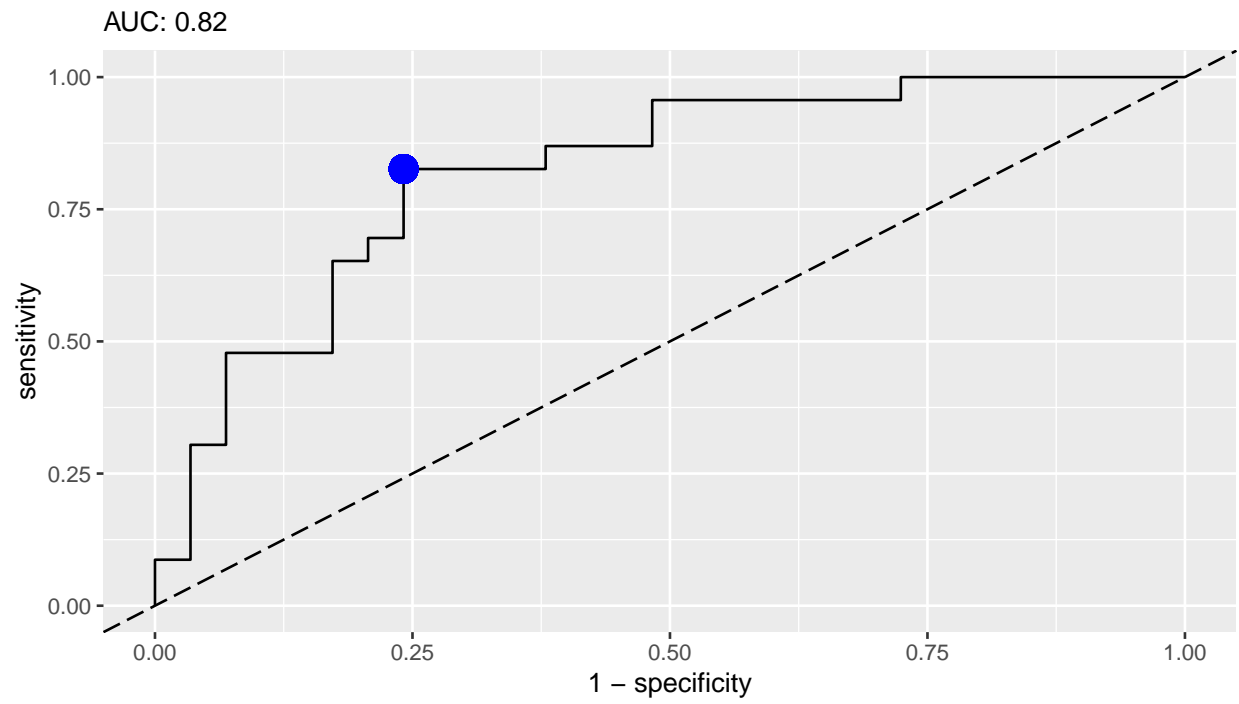
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.001	0.199	0.012
sofa	1.092	2.310	1.588
scr_basal	1.064	551.718	24.231
su	0.993	1.065	1.028

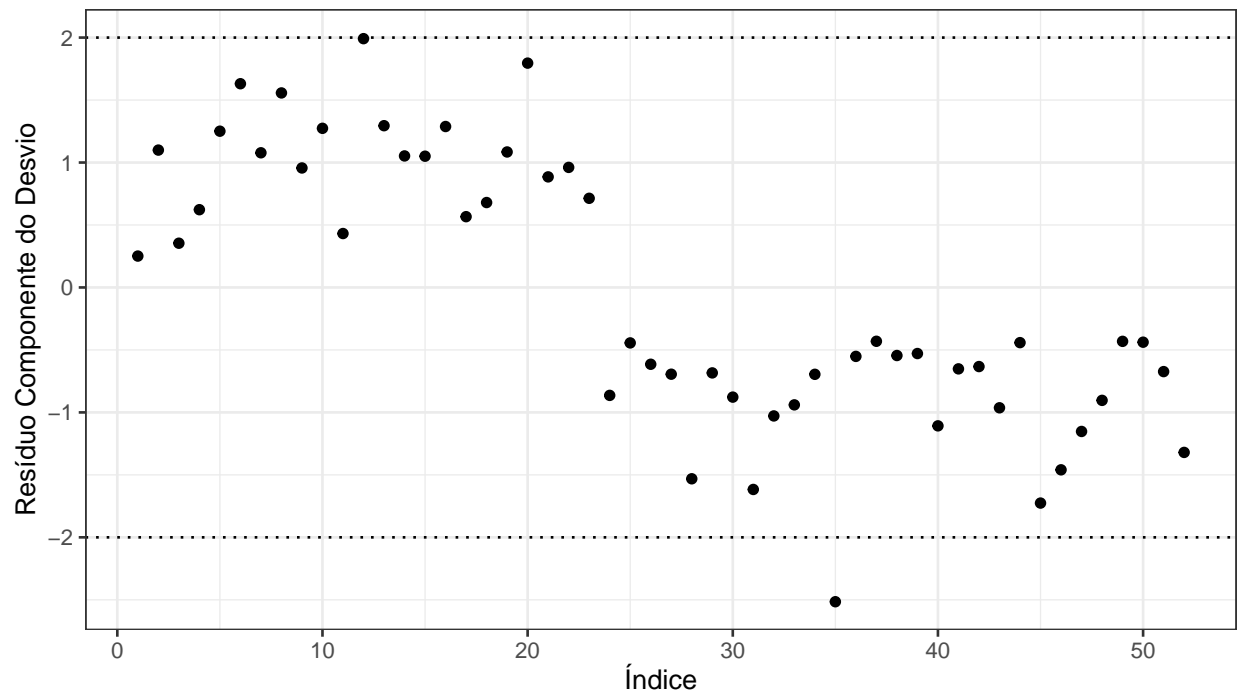
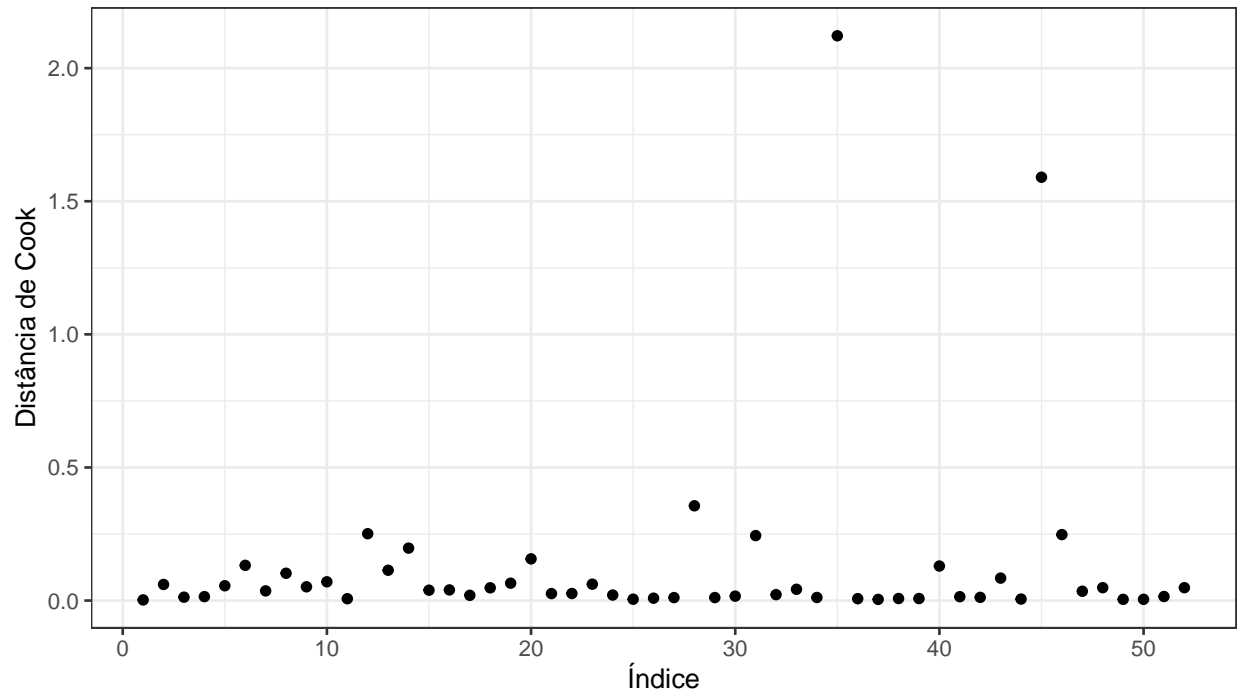
Table 48: Variance Inflation Factor

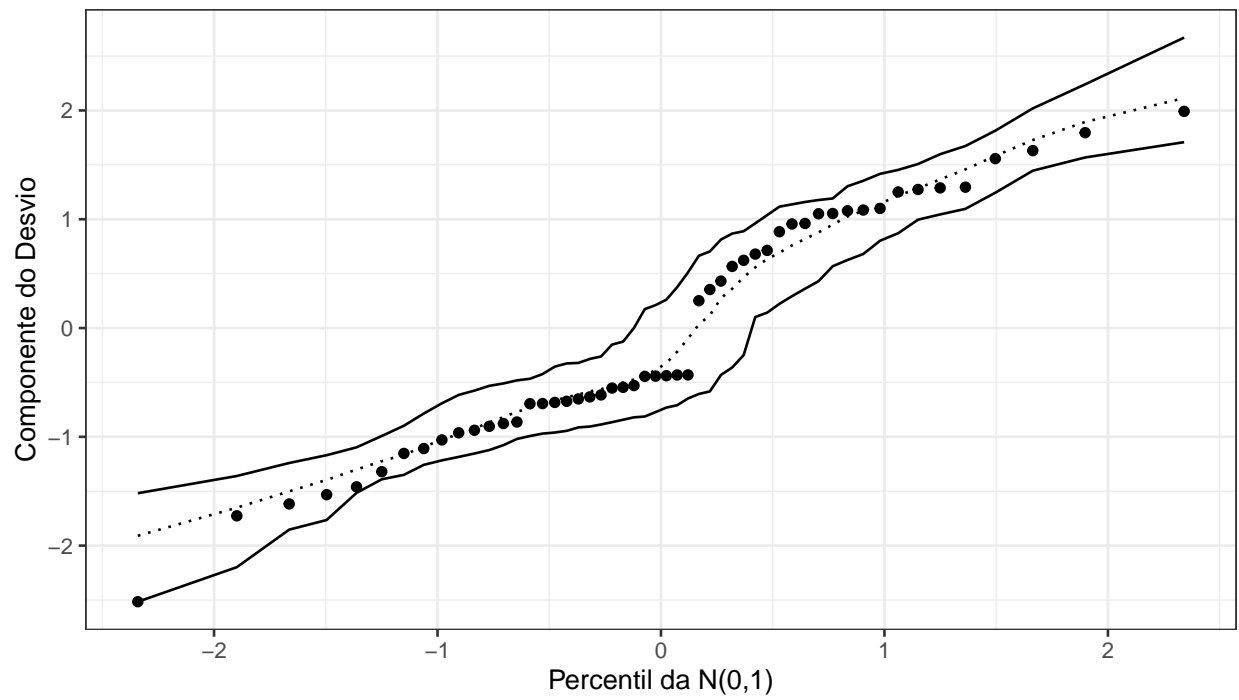
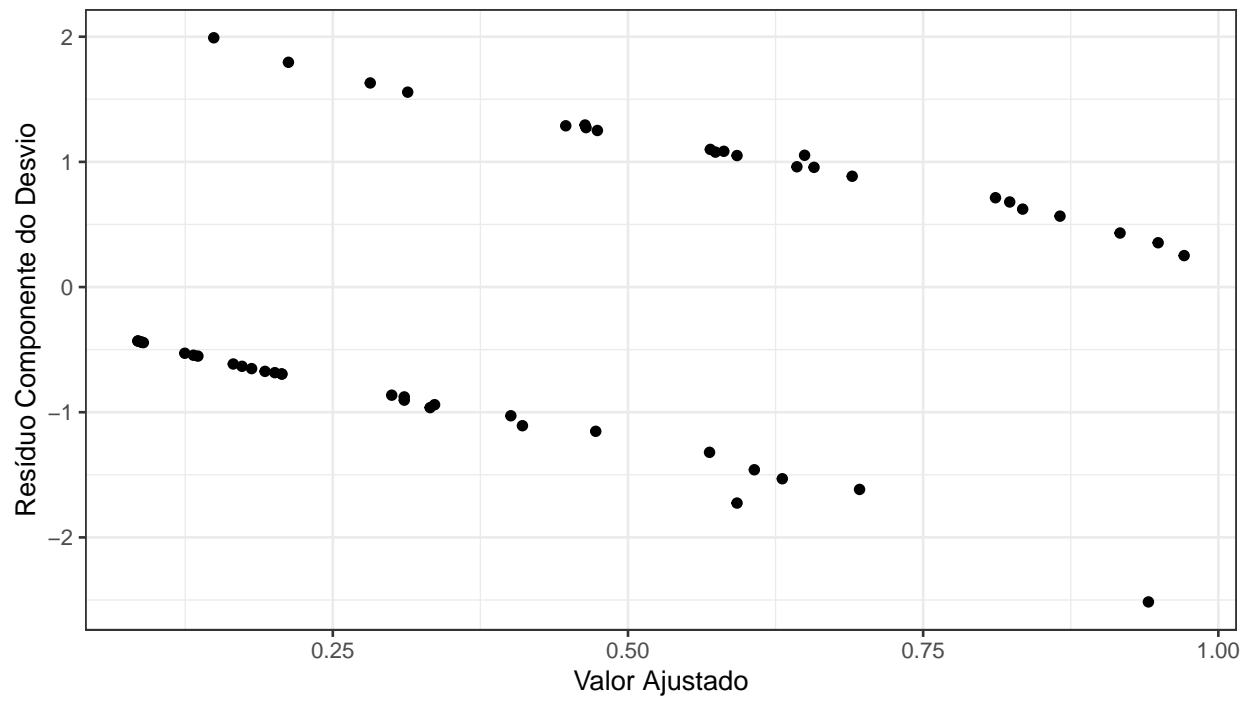
	x
sofa	1.103
scr_basal	1.092
su	1.017

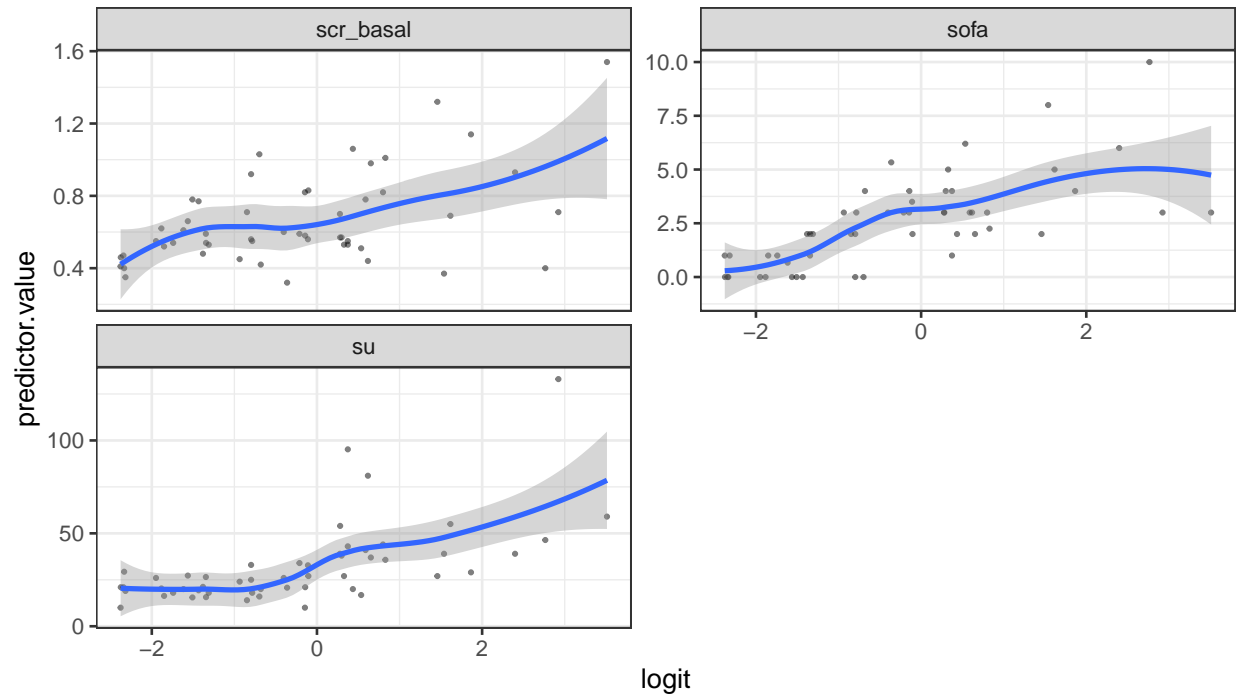
Table 49: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.429	0.759	0.826	0.241









Union model

Table 50: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-6.720	2.061	-3.260	0.001
ventilacao_mecanica1	1.791	1.071	1.673	0.094
sofa	0.299	0.192	1.560	0.119
fek	0.155	0.102	1.517	0.129
scr_basal	3.043	1.603	1.899	0.058
tempo_internacao_hospitalar	0.017	0.013	1.350	0.177
su	0.016	0.019	0.853	0.394

Table 51: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
71.393	51	-24.653	63.306	76.965	49.306	45	52

Table 52: Confidence intervals

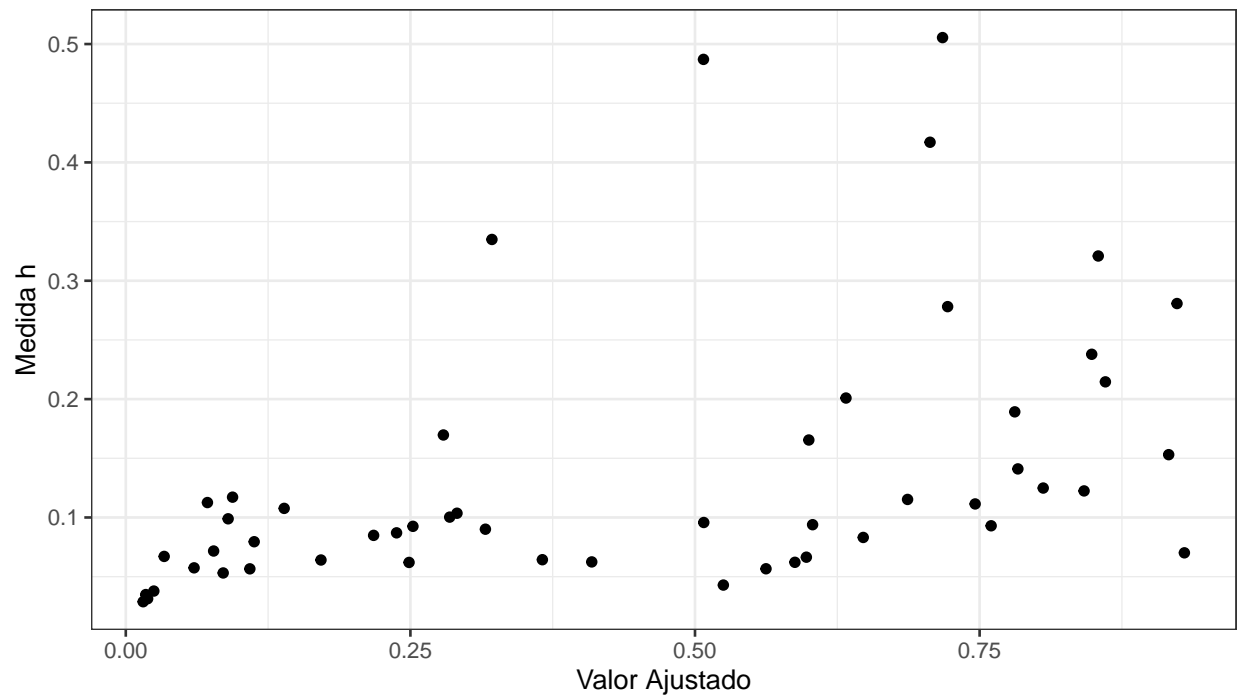
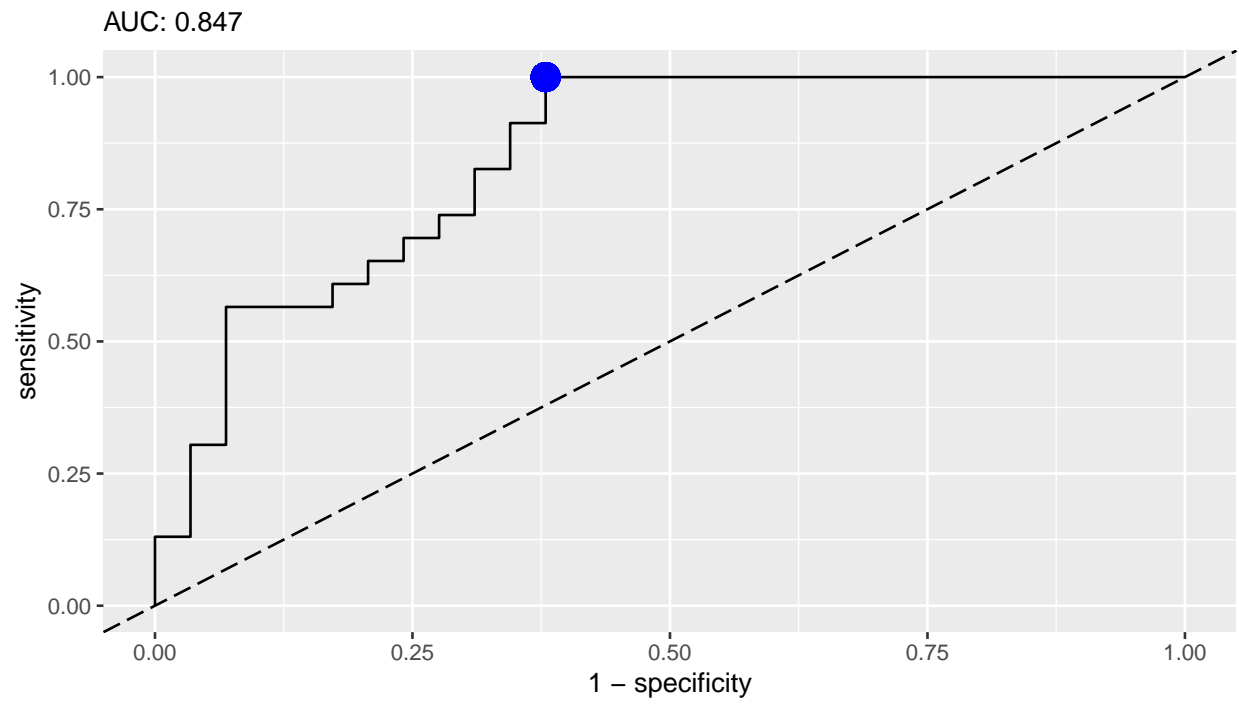
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.000	0.069	0.001
ventilacao_mecanica1	0.735	48.897	5.997
sofa	0.926	1.962	1.348
fek	0.956	1.428	1.168
scr_basal	0.907	485.027	20.974
tempo_internacao_hospitalar	0.992	1.044	1.018
su	0.979	1.054	1.016

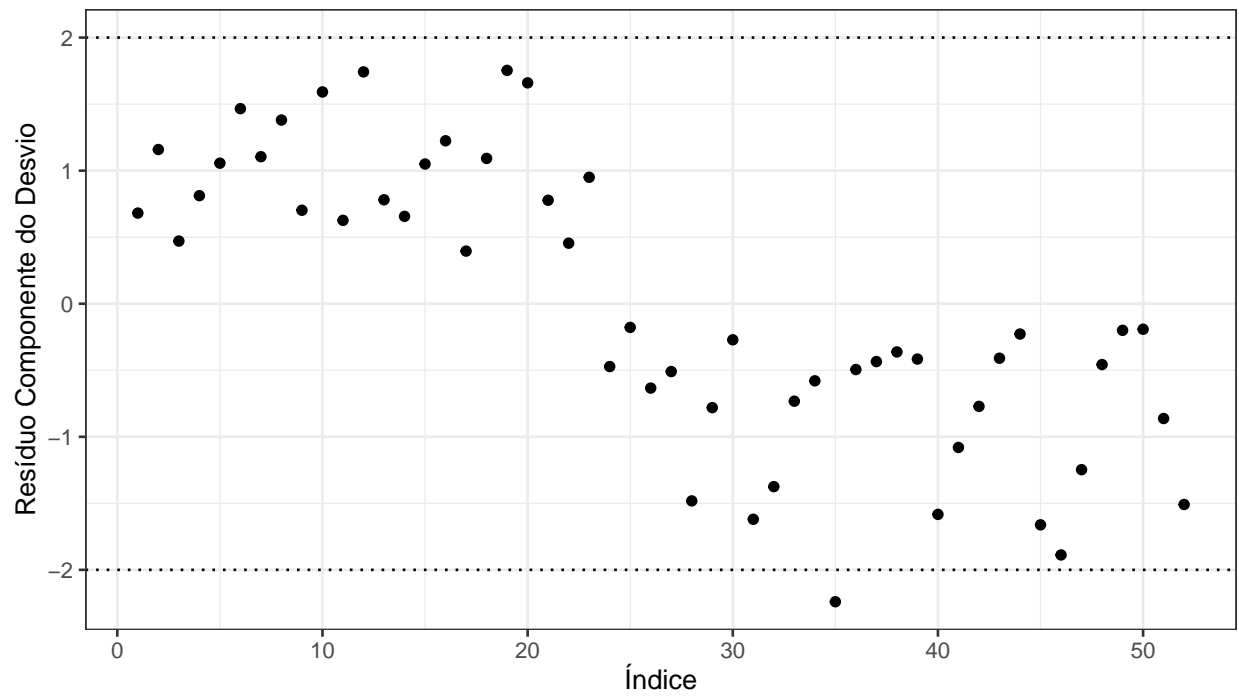
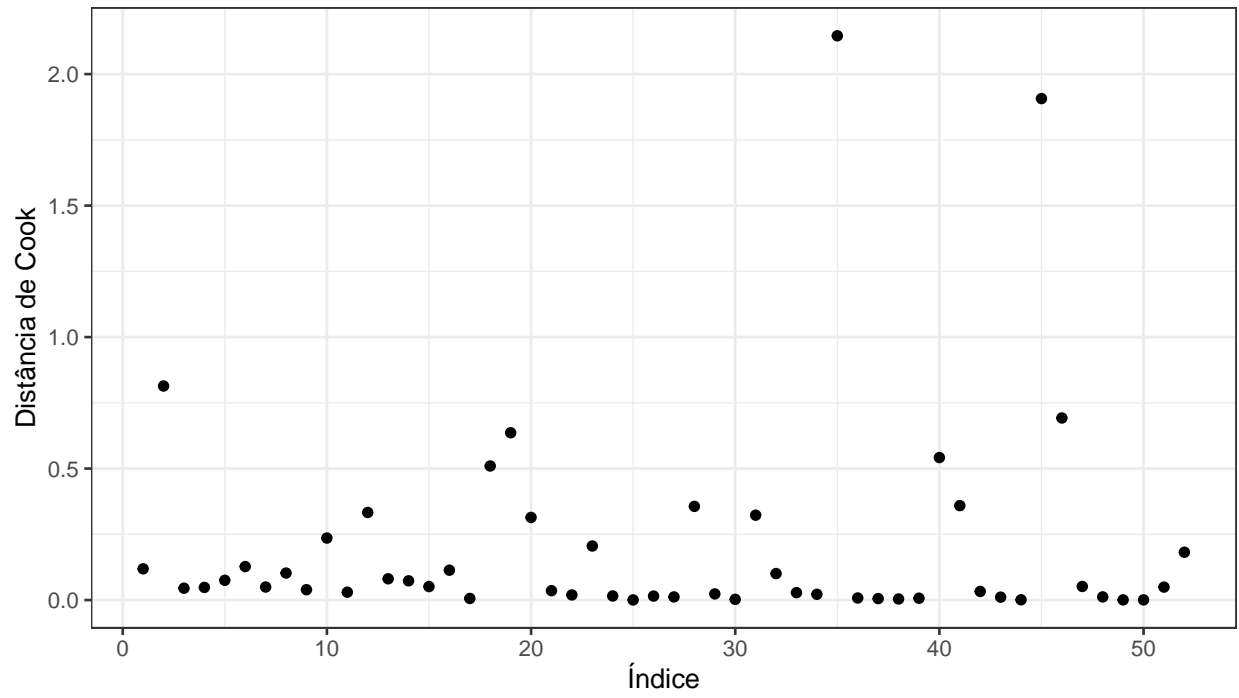
Table 53: Variance Inflation Factor

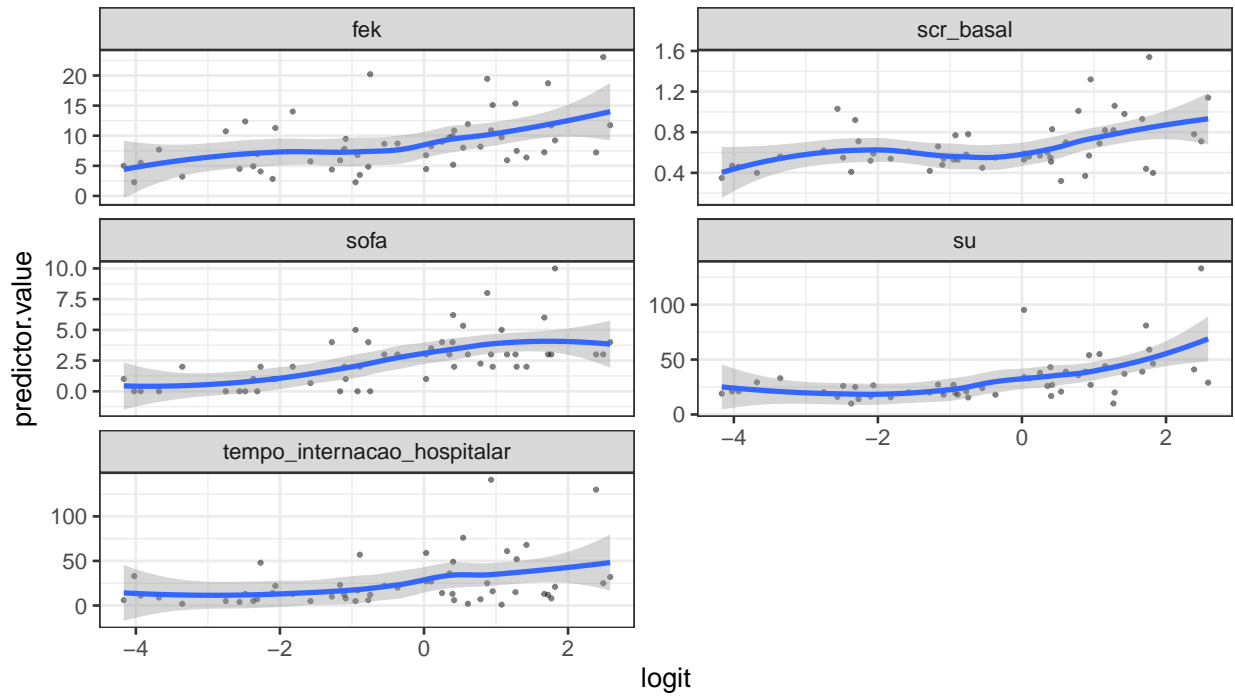
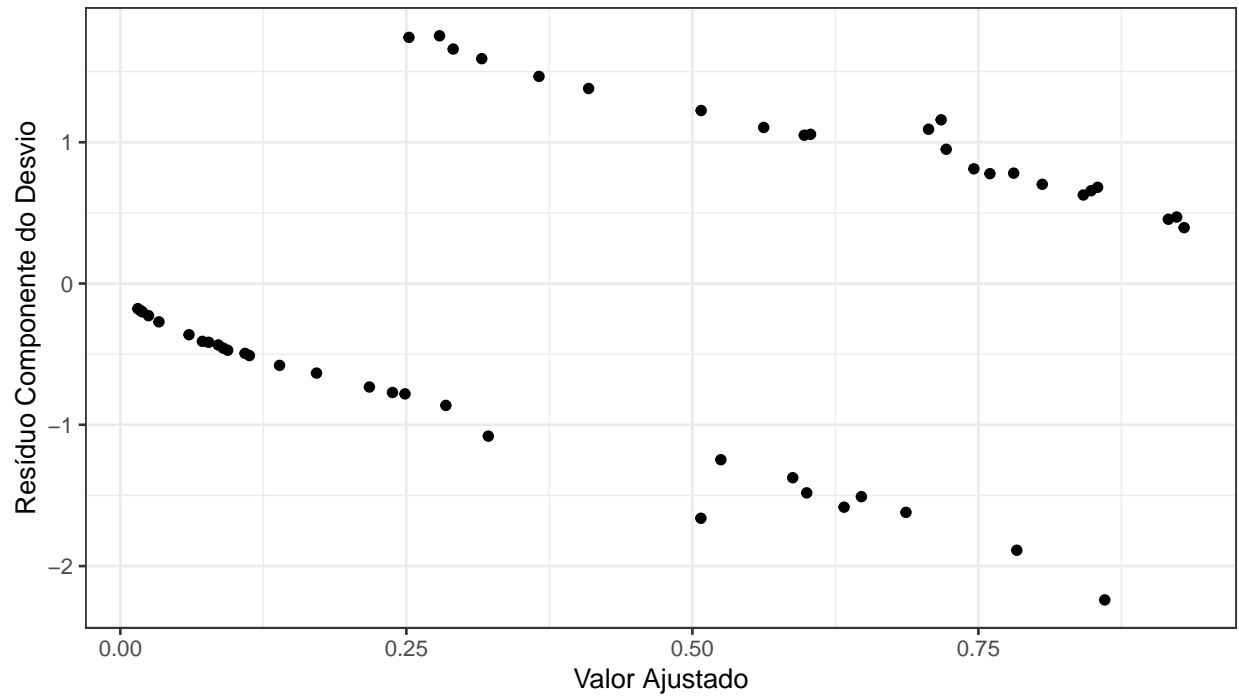
	x
ventilacao_mecanica	1.548
sofa	1.179
fek	1.607
scr_basal	1.158
tempo_internacao_hospitalar	1.112
su	1.114

Table 54: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.251	0.621	1	0.379







Intersection model

Table 55: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-3.669	1.275	-2.878	0.004
sofa	0.510	0.186	2.737	0.006
scr_basal	3.206	1.540	2.081	0.037

Table 56: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
71.393	51	-28.825	63.65	69.504	57.65	49	52

Table 57: Confidence intervals

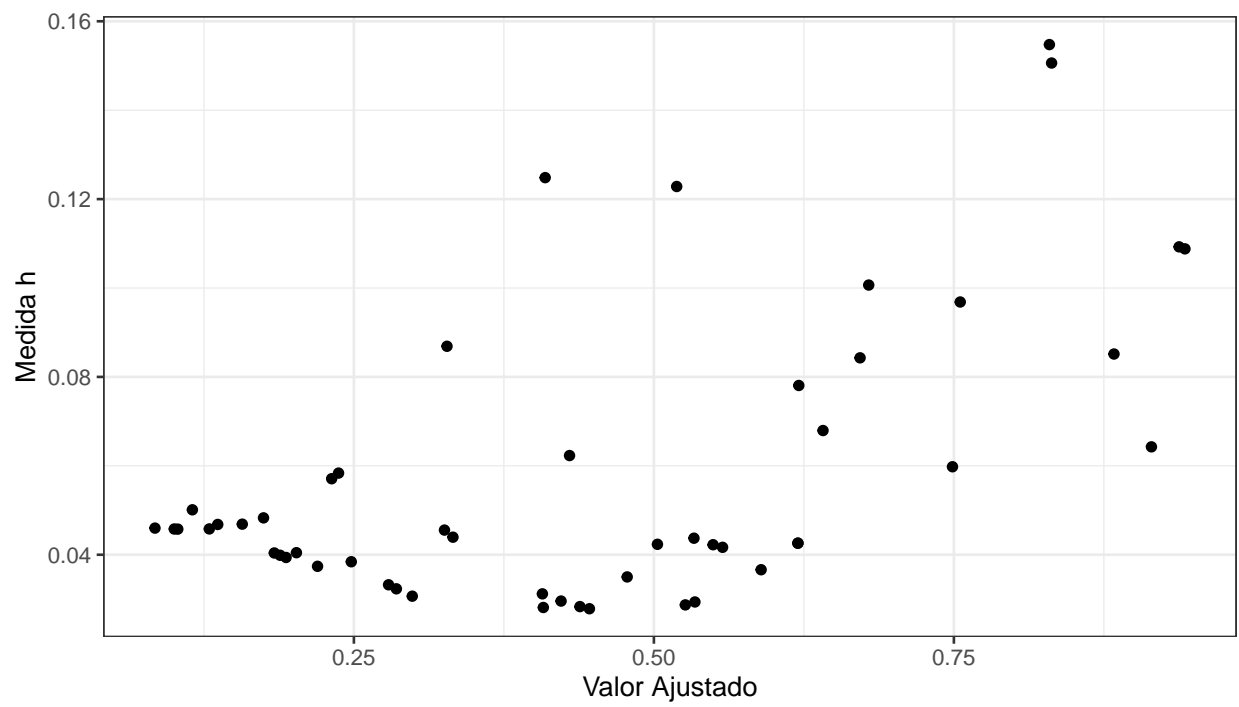
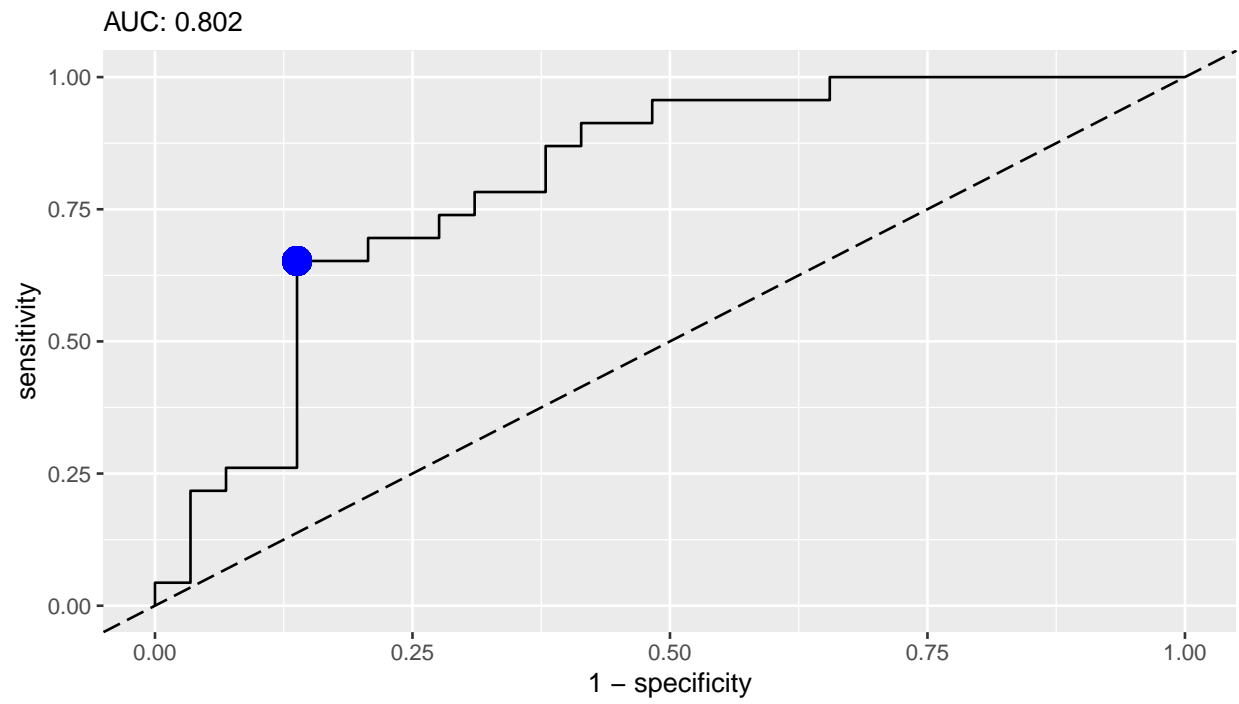
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.002	0.310	0.026
sofa	1.156	2.398	1.665
scr_basal	1.205	505.413	24.682

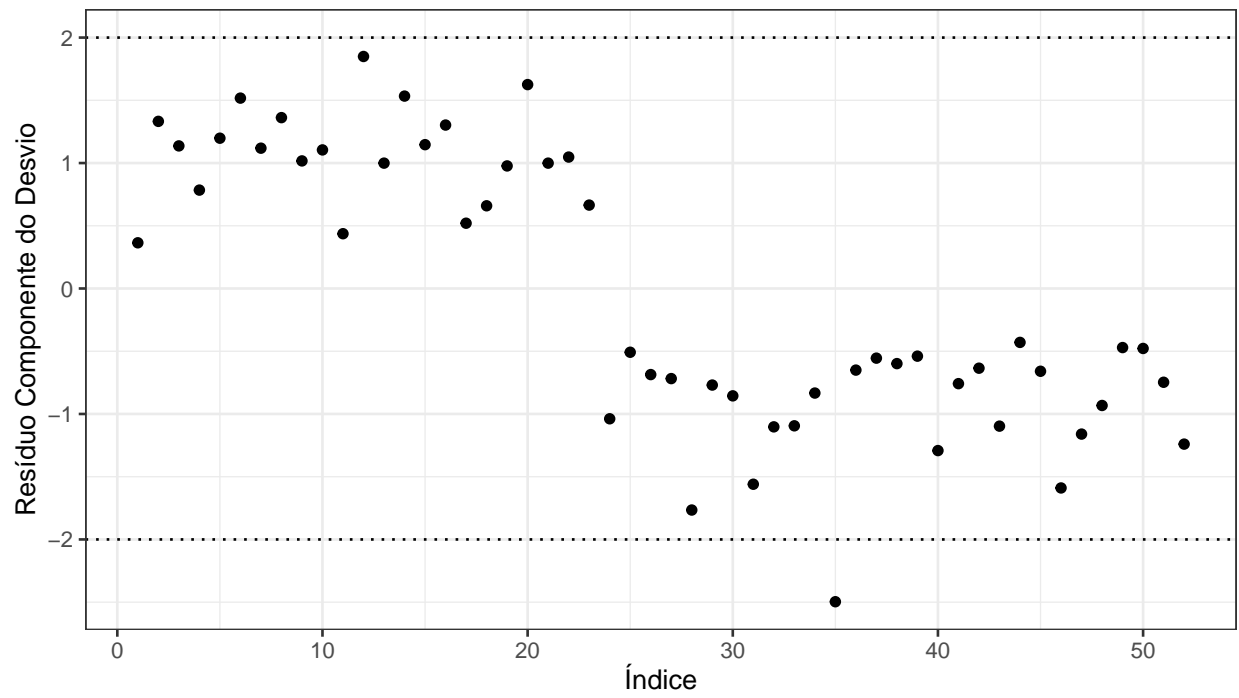
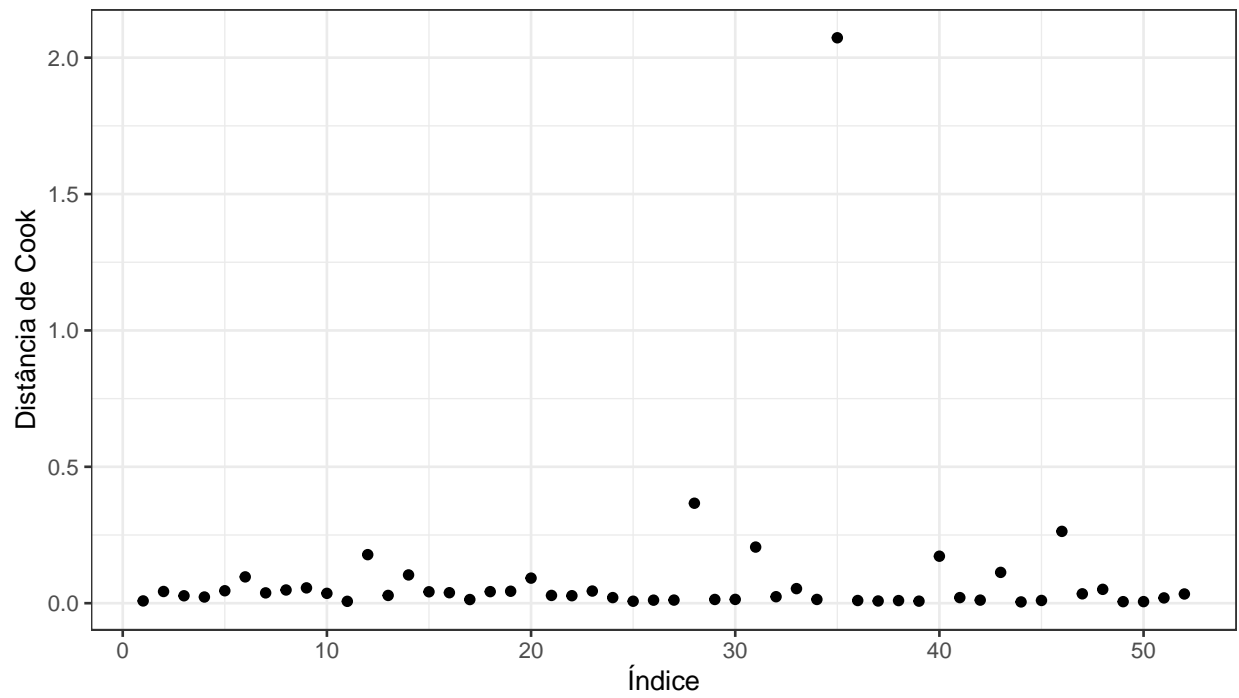
Table 58: Variance Inflation Factor

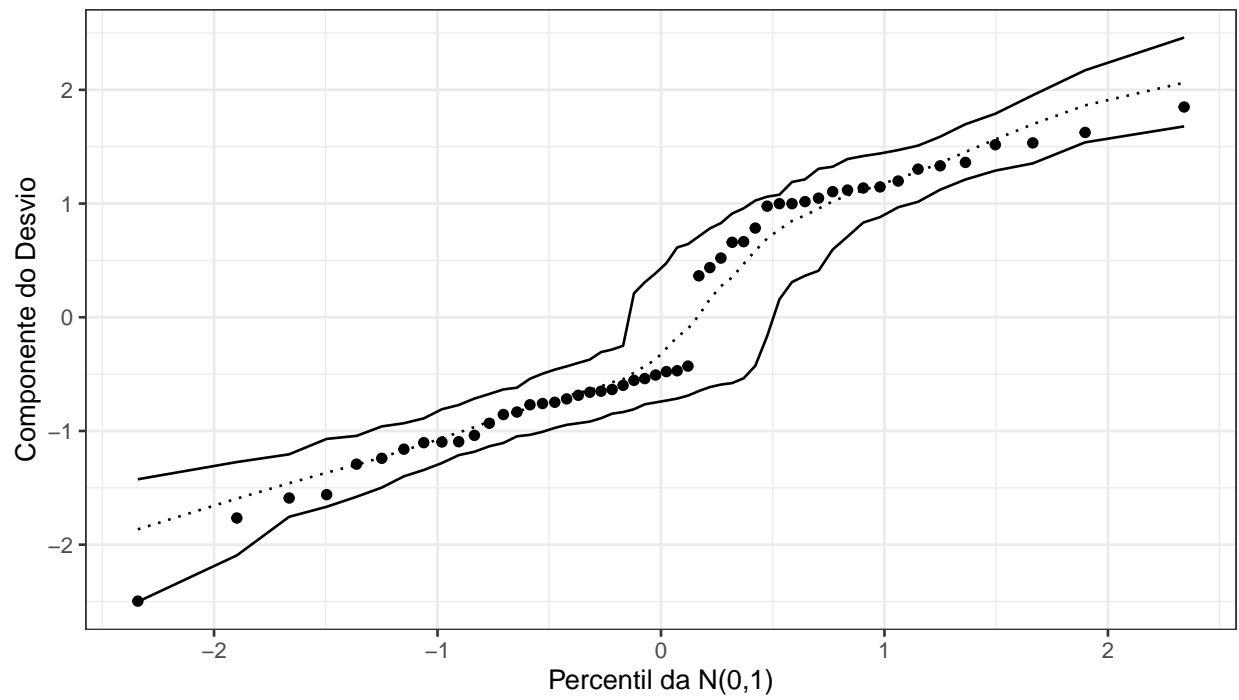
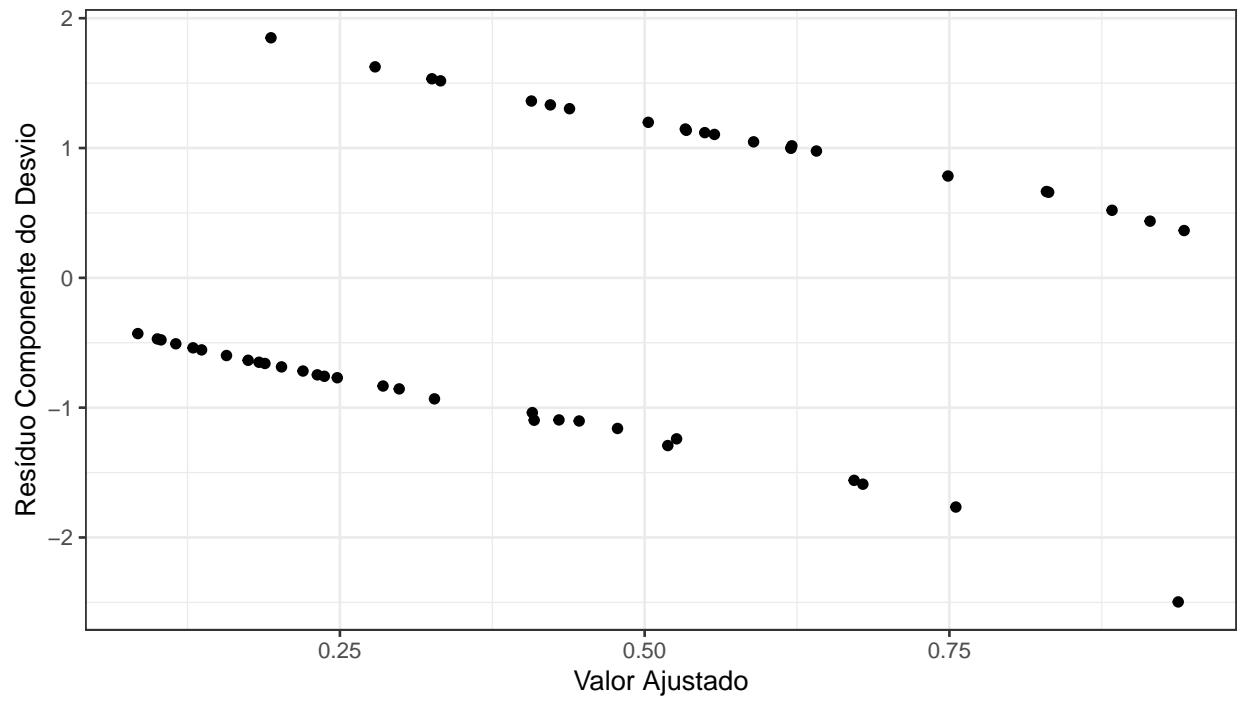
x	
sofa	1.077
scr_basal	1.077

Table 59: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.53	0.862	0.652	0.138







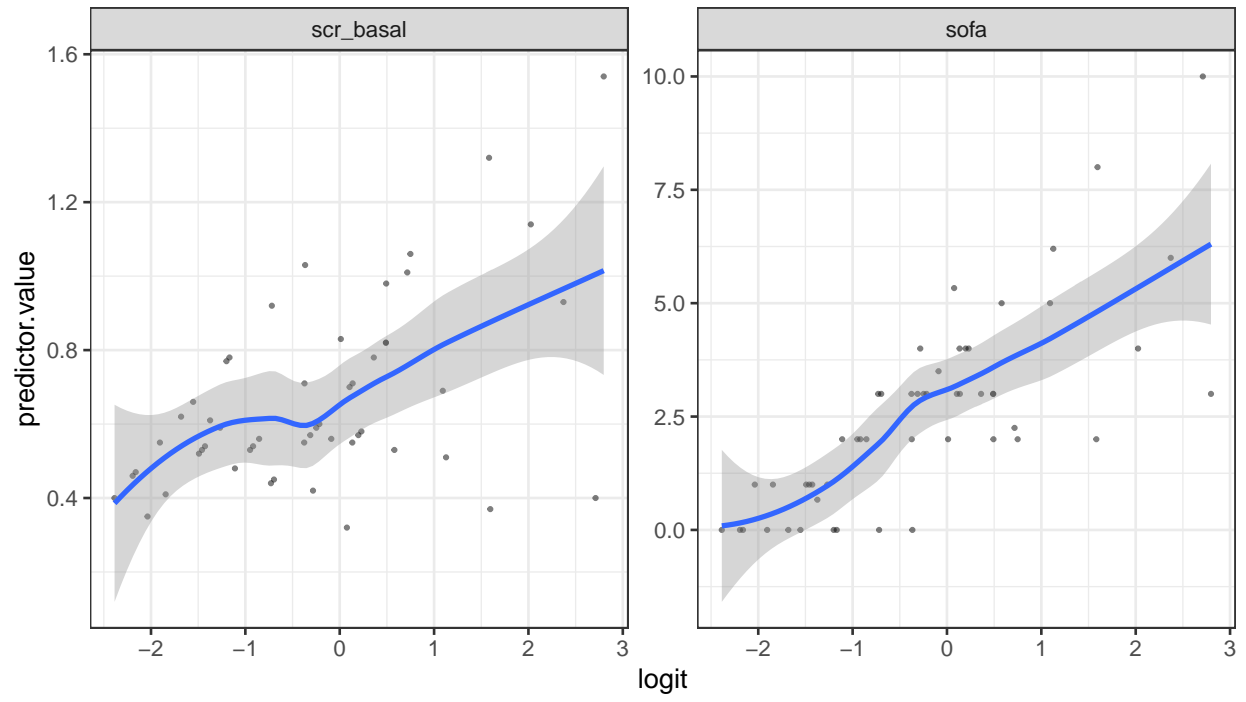


Table 60: Paciente 35

rowname	1
numero	34
d_ira	0
idade	52
cor	1
peso	70
altura	1.7
imc	24.2214532871972
has	1
dm	0
icc	0
asma_dpoc	0
hiv	0
ca_ativo	0
avc	1
dvp	0
drogacao	0
score_clinico	10
ventilacao_mecanica	1
dva_mcg_kg_min	0.142857142857143
diureticos	0
vasopressina	1
israa	NA
saps3	80
egfr_basal	178.15
scr_basal	0.4
causa_ira	1
kdigo	0
criterio_ira	NA
pos_operatorio	1
mortalidade_intra_hospitalar	1
tempo_internacao_hospitalar	21
ira	0
kdigo_agrupado	SEM IRA
diurese	0.845238095238095
bh	337.2
sofa	10
su	46.4
scr	0.608
sna	144
sk	3.7
sosm	295.733333333333
uu	18.022
ucr	1.1336
una	21.38
uk	49.74
volume_urinario	1420
uvu24h	25.4912

Table 60: Paciente 35 (*continued*)

rowname	1
feu	24.9068832695377
uu_ucr	20.4373837856916
una_ucr	32.2801799038471
uvna24h	26.354
uosm	638.6
uosm_estimada	442.494526787381
una+uk	71.12
uu_su	0.392602419156961
fena	0.124524674249759
fek	9.22606554041417
su_scr	76.933964059484
delta_scr	0.208
row_number	35

Without patient 34

Camila Variables

Full model

Table 61: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-10.621	6.430	-1.652	0.099
factor(causa_ira)1	-92.322	61468.754	-0.002	0.999
factor(causa_ira)2	3.897	5.735	0.679	0.497
factor(ventilacao_mecanica)1	-0.382	2.894	-0.132	0.895
sofa	2.360	1.089	2.166	0.030
su	-0.061	0.075	-0.805	0.421
fek	0.526	0.295	1.781	0.075
una	0.021	0.019	1.145	0.252
delta_scr	2.919	5.556	0.525	0.599
factor(causa_ira)1:su	8.394	1641.004	0.005	0.996
factor(causa_ira)2:su	0.017	0.105	0.161	0.872
factor(causa_ira)1:fek	-12.819	5646.564	-0.002	0.998
factor(causa_ira)2:fek	1.206	1.001	1.204	0.229
factor(causa_ira)1:una	-0.269	308.729	-0.001	0.999
factor(causa_ira)2:una	-0.206	0.114	-1.813	0.070
factor(causa_ira)1:delta_scr	392.063	153308.513	0.003	0.998
factor(causa_ira)2:delta_scr	18.417	28.332	0.650	0.516

Table 62: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
70.21	50	-9.092	52.183	85.024	18.183	34	51

Table 63: Confidence intervals

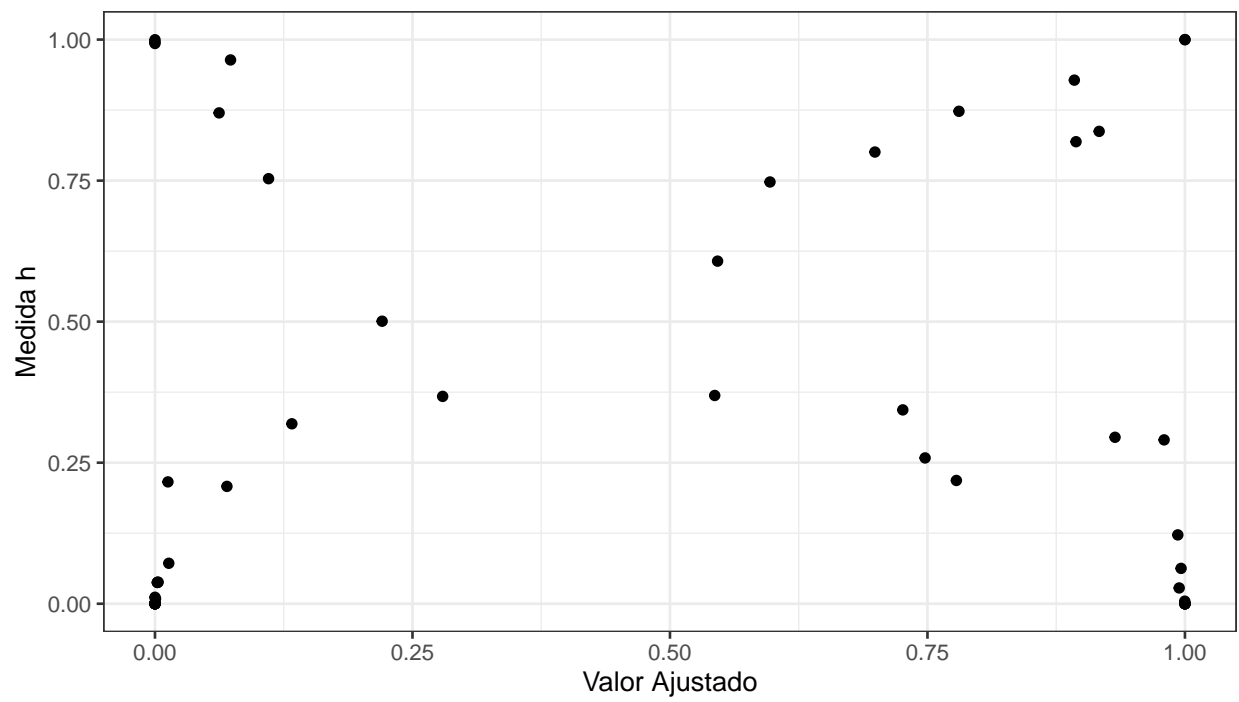
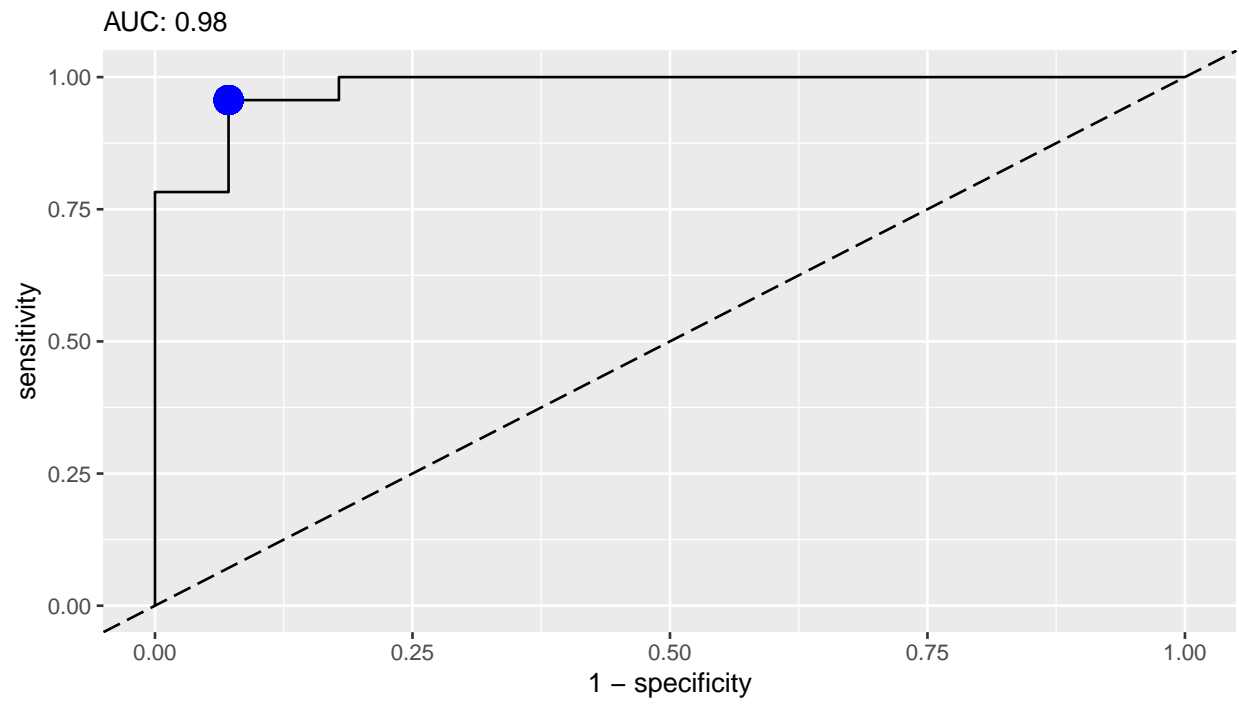
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.000	7.251000e+00	0.000000e+00
factor(causa_ira)1	0.000	Inf	0.000000e+00
factor(causa_ira)2	0.001	3.751701e+06	4.925500e+01
factor(ventilacao_mecanica)1	0.002	1.985240e+02	6.830000e-01
sofa	1.252	8.956800e+01	1.058800e+01
su	0.812	1.091000e+00	9.410000e-01
fek	0.949	3.016000e+00	1.691000e+00
una	0.985	1.060000e+00	1.022000e+00
delta_scr	0.000	9.923566e+05	1.852600e+01
factor(causa_ira)1:su	0.000	Inf	4.418964e+03
factor(causa_ira)2:su	0.829	1.248000e+00	1.017000e+00
factor(causa_ira)1:fek	0.000	Inf	0.000000e+00
factor(causa_ira)2:fek	0.469	2.377400e+01	3.340000e+00
factor(causa_ira)1:una	0.000	4.716896e+262	7.640000e-01
factor(causa_ira)2:una	0.651	1.017000e+00	8.140000e-01
factor(causa_ira)1:delta_scr	0.000	Inf	1.866356e+170
factor(causa_ira)2:delta_scr	0.000	1.303009e+32	9.961903e+07

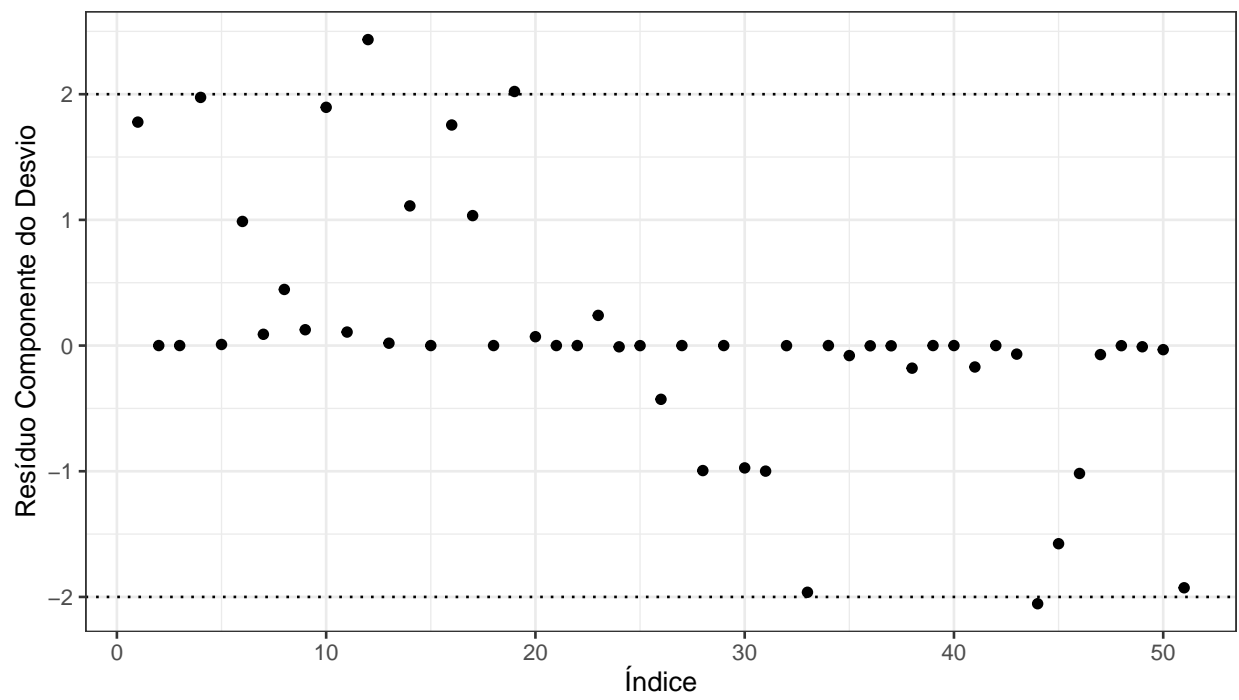
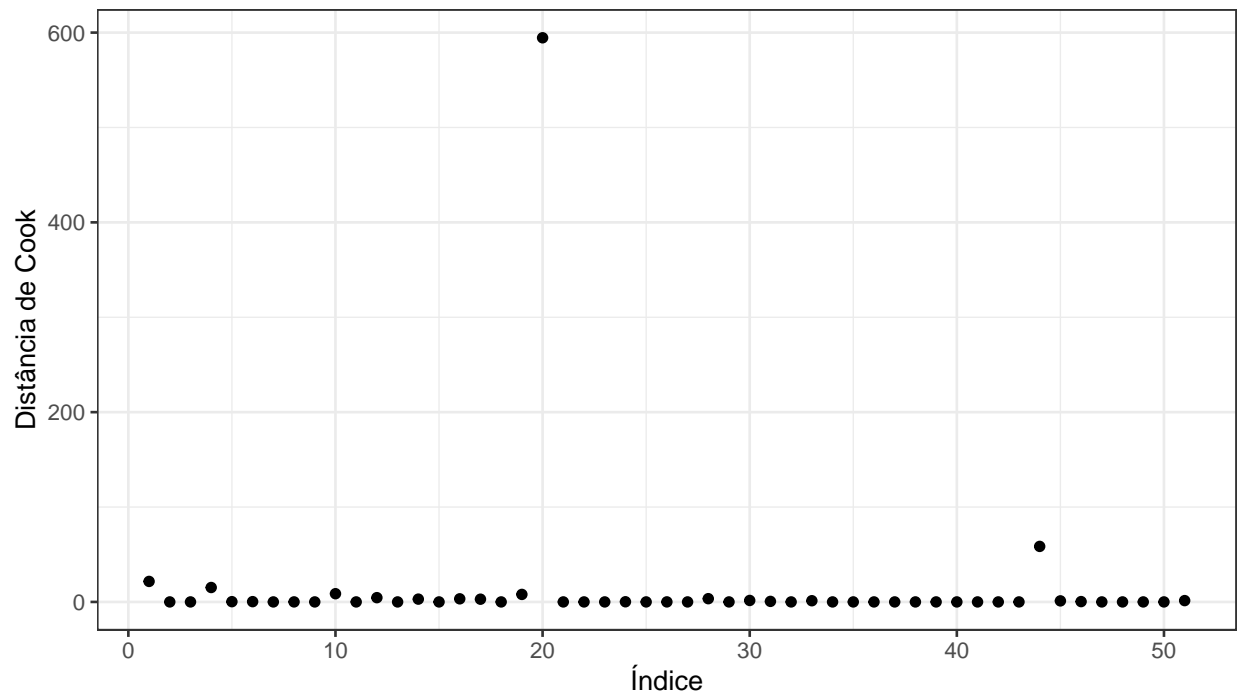
Table 64: Variance Inflation Factor

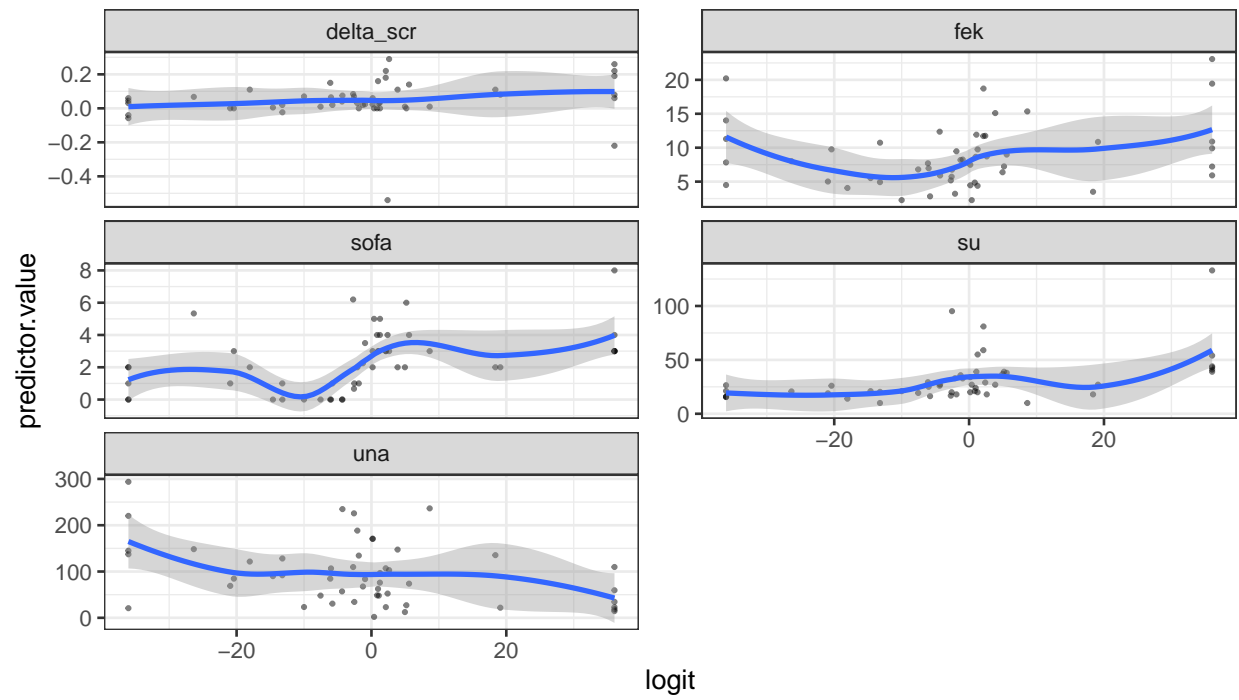
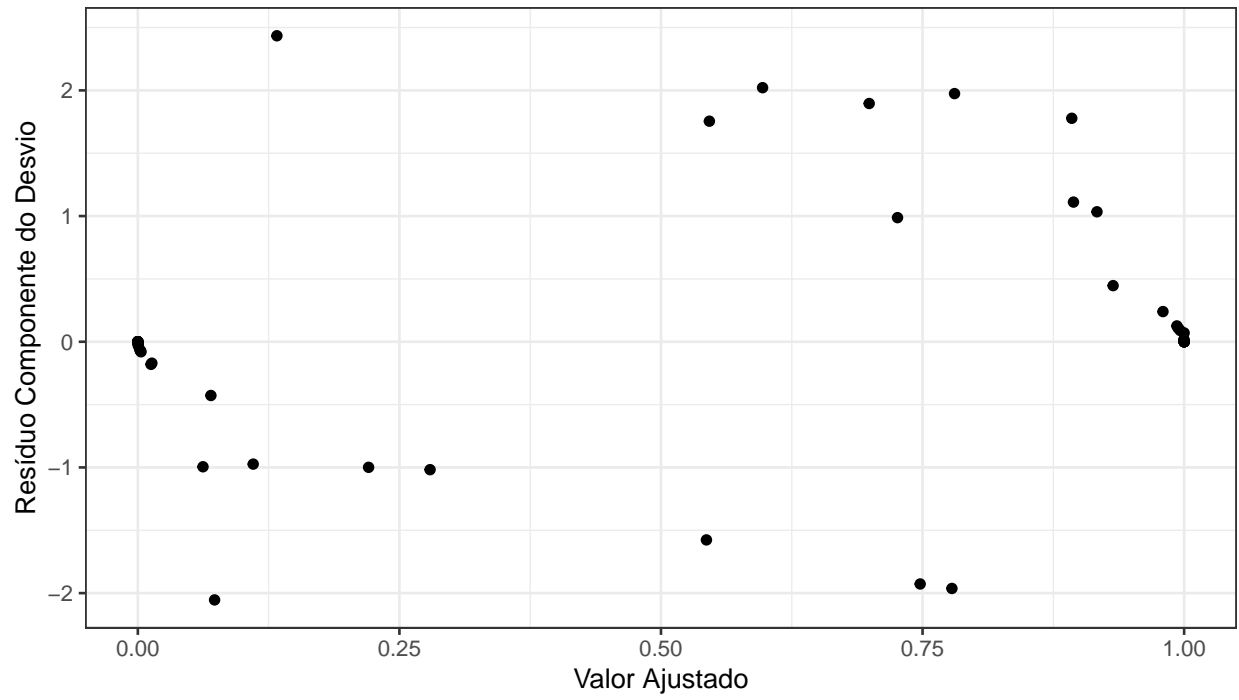
	GVIF	Df	GVIF ^{1/(2*Df)}
factor(causa_ira)	7032.628	2	9.158
factor(ventilacao_mecanica)	1.778	1	1.333
sofa	5.433	1	2.331
su	4.743	1	2.178
fek	3.176	1	1.782
una	3.393	1	1.842
delta_scr	1.213	1	1.101
factor(causa_ira):su	1298.806	2	6.003
factor(causa_ira):fek	4232.587	2	8.066
factor(causa_ira):una	6011.549	2	8.805
factor(causa_ira):delta_scr	60.384	2	2.788

Table 65: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.545	0.929	0.957	0.071







Backwards

Table 66: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-9.783	5.608	-1.745	0.081
factor(causa_ira)1	-6099.387	243019.930	-0.025	0.980
factor(causa_ira)2	0.850	4.348	0.196	0.845
sofa	2.095	1.014	2.066	0.039
su	-0.050	0.068	-0.732	0.464
fek	0.486	0.281	1.725	0.084
una	0.019	0.018	1.042	0.297
factor(causa_ira)1:su	509.186	20242.830	0.025	0.980
factor(causa_ira)2:su	0.022	0.101	0.219	0.827
factor(causa_ira)1:fek	-693.679	27534.184	-0.025	0.980
factor(causa_ira)2:fek	1.302	1.044	1.247	0.212
factor(causa_ira)1:una	-4.596	182.631	-0.025	0.980
factor(causa_ira)2:una	-0.168	0.102	-1.650	0.099

Table 67: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
70.21	50	-9.696	45.392	70.506	19.392	38	51

Table 68: Confidence intervals

variável	2.5 %	97.5 %	estimativa
(Intercept)	0.000	3.346000e+00	0.000000e+00
factor(causa_ira)1	0.000	Inf	0.000000e+00
factor(causa_ira)2	0.000	1.174467e+04	2.340000e+00
sofa	1.113	5.930000e+01	8.124000e+00
su	0.833	1.087000e+00	9.520000e-01
fek	0.936	2.821000e+00	1.625000e+00
una	0.984	1.055000e+00	1.019000e+00
factor(causa_ira)1:su	0.000	Inf	1.370294e+221
factor(causa_ira)2:su	0.839	1.245000e+00	1.022000e+00
factor(causa_ira)1:fek	0.000	Inf	0.000000e+00
factor(causa_ira)2:fek	0.475	2.844200e+01	3.675000e+00
factor(causa_ira)1:una	0.000	2.884853e+153	1.000000e-02
factor(causa_ira)2:una	0.692	1.032000e+00	8.450000e-01

Table 69: Variance Inflation Factor

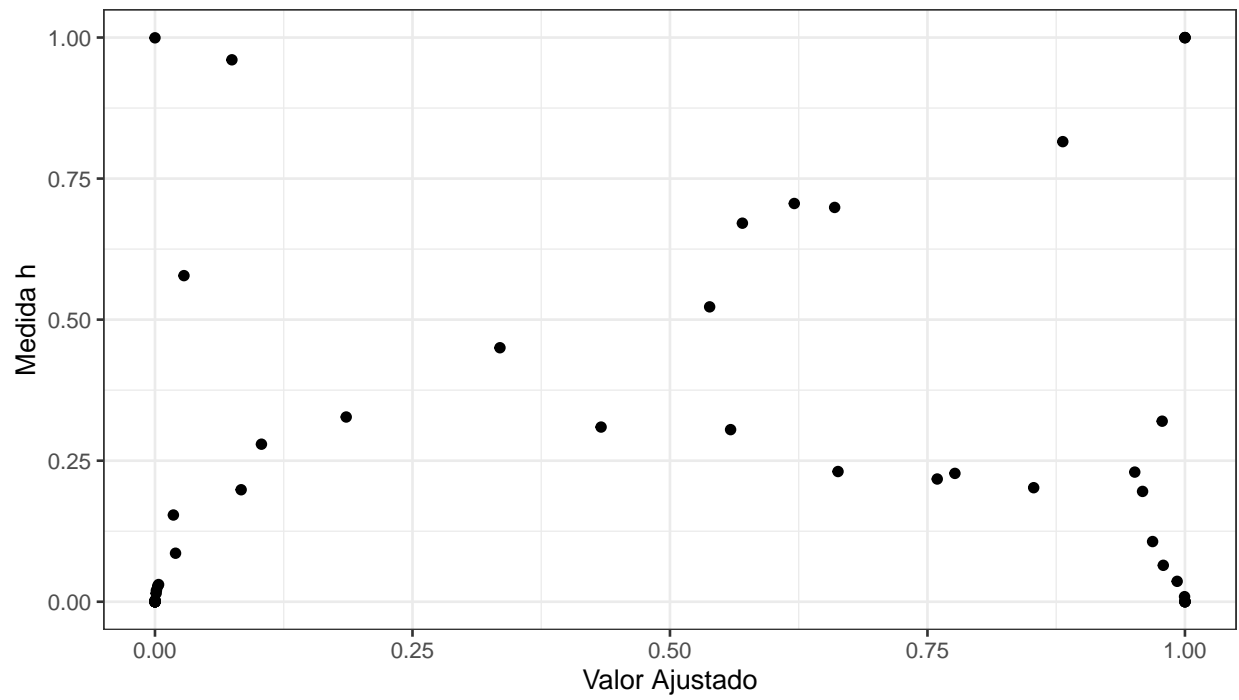
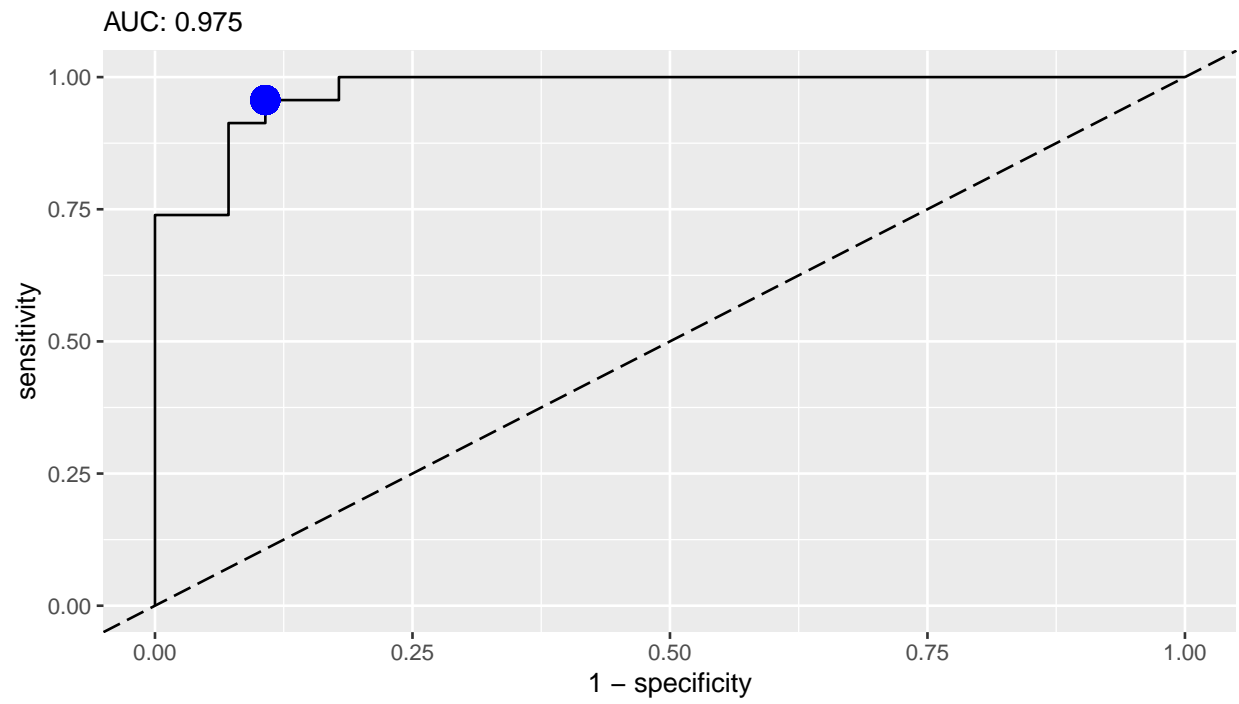
	GVIF	Df	GVIF^(1/(2*Df))
factor(causa_ira)	2536870.996	2	39.909
sofa	4.368	1	2.090
su	4.189	1	2.047

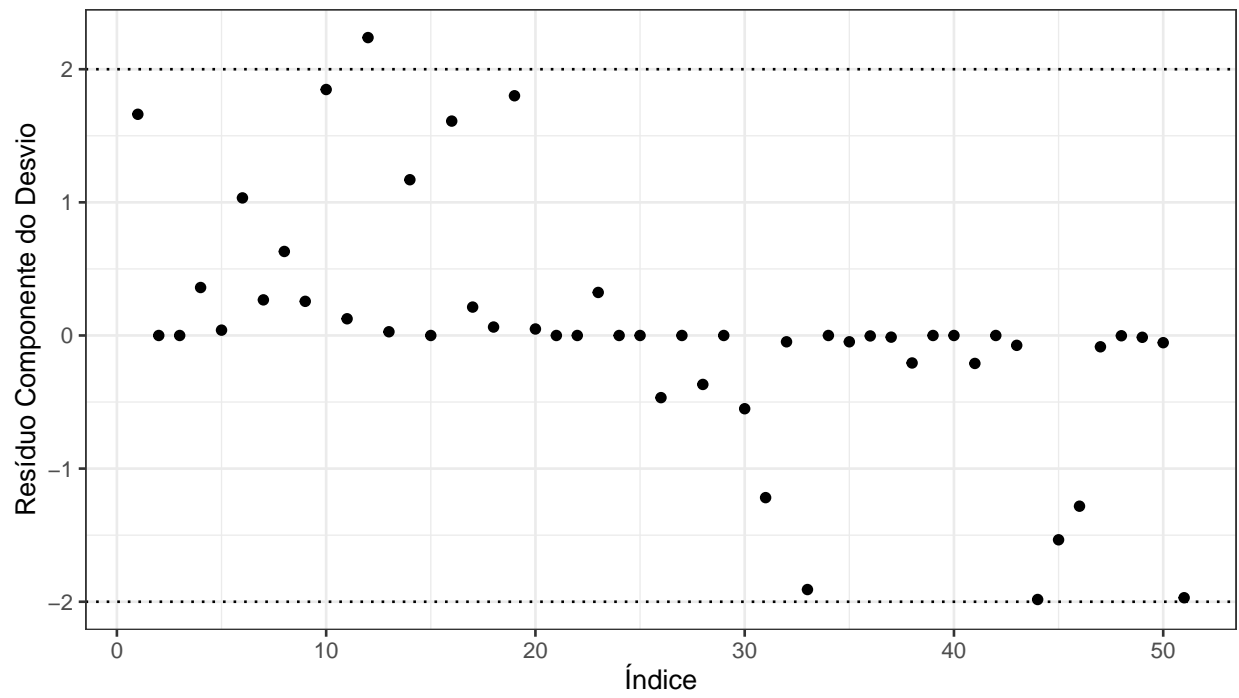
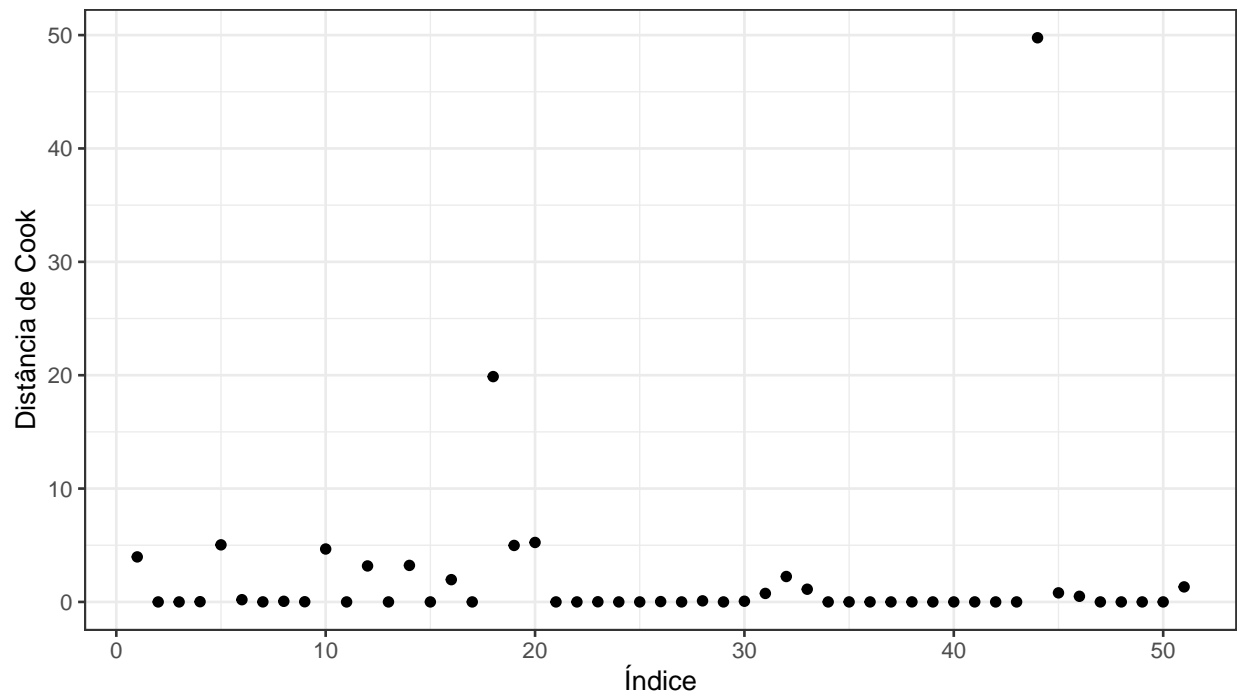
Table 69: Variance Inflation Factor (*continued*)

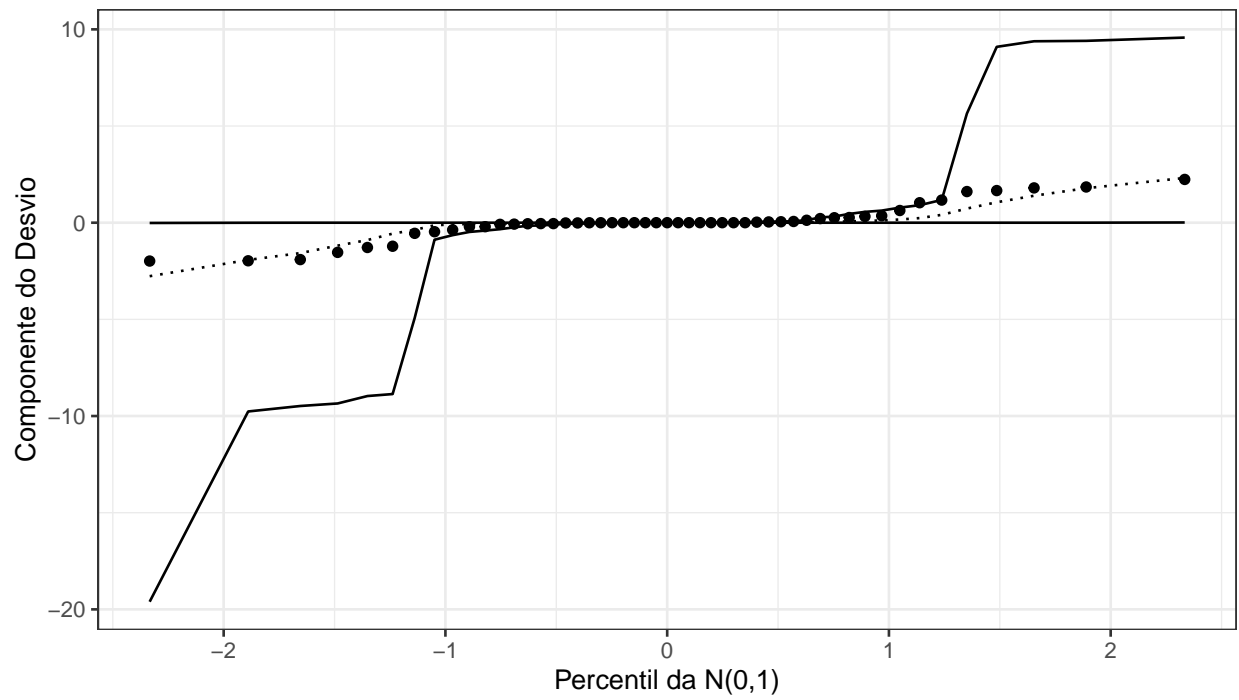
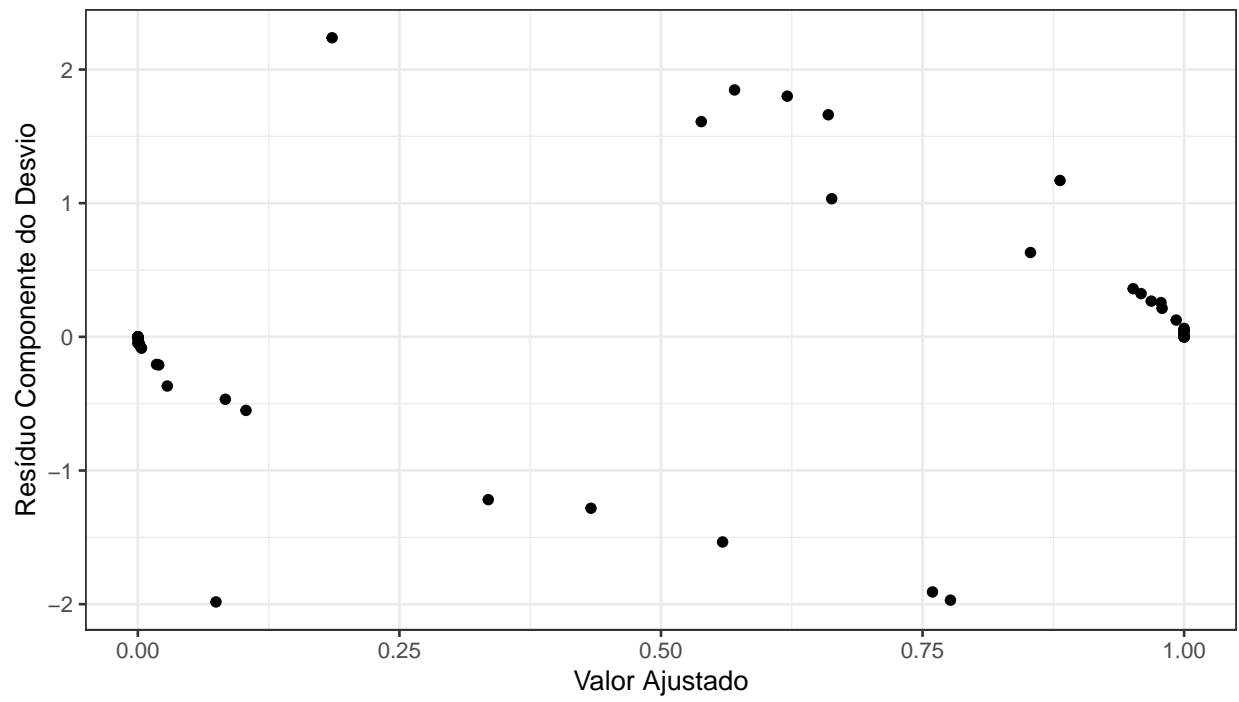
	GVIF	Df	GVIF ^{1/(2*Df)}
fek	3.133	1	1.770
una	3.271	1	1.809
factor(causa_ira):su	15692717.213	2	62.940
factor(causa_ira):fek	17650412.462	2	64.817
factor(causa_ira):una	42389.934	2	14.349

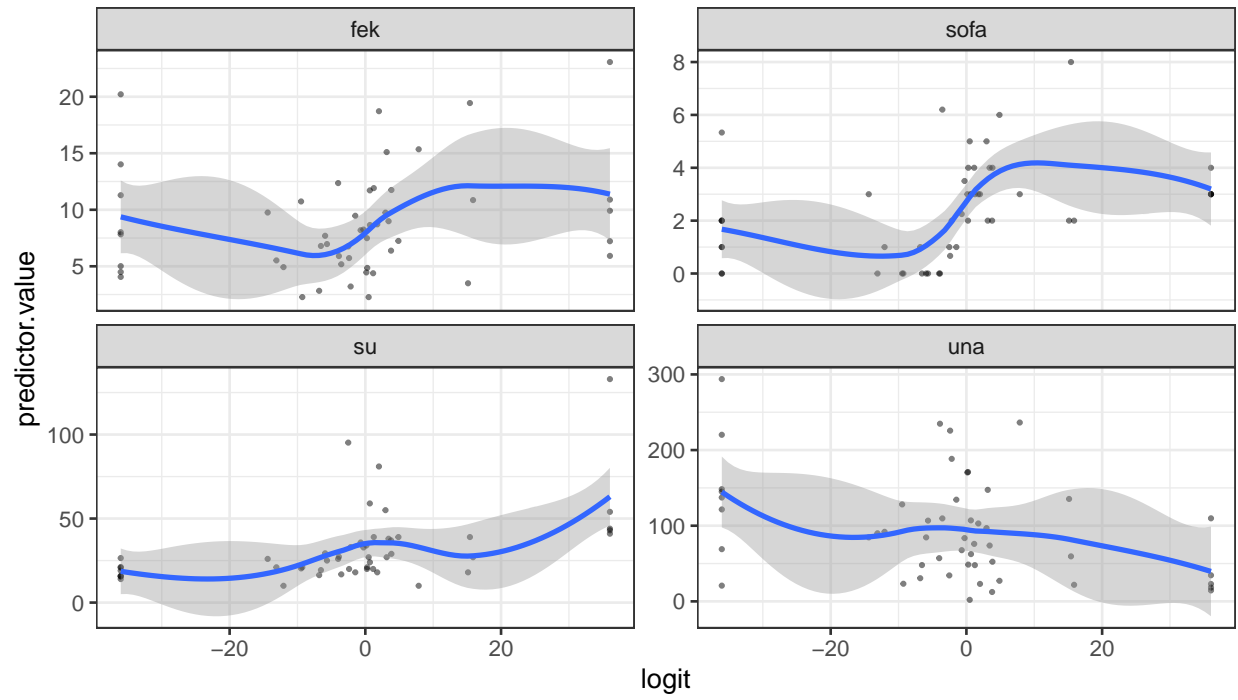
Table 70: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.486	0.893	0.957	0.107









Forwards

Table 71: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-2.897	0.878	-3.300	0.001
sofa	0.697	0.241	2.890	0.004
su	0.032	0.020	1.613	0.107

Table 72: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
70.21	50	-25.613	57.226	63.021	51.226	48	51

Table 73: Confidence intervals

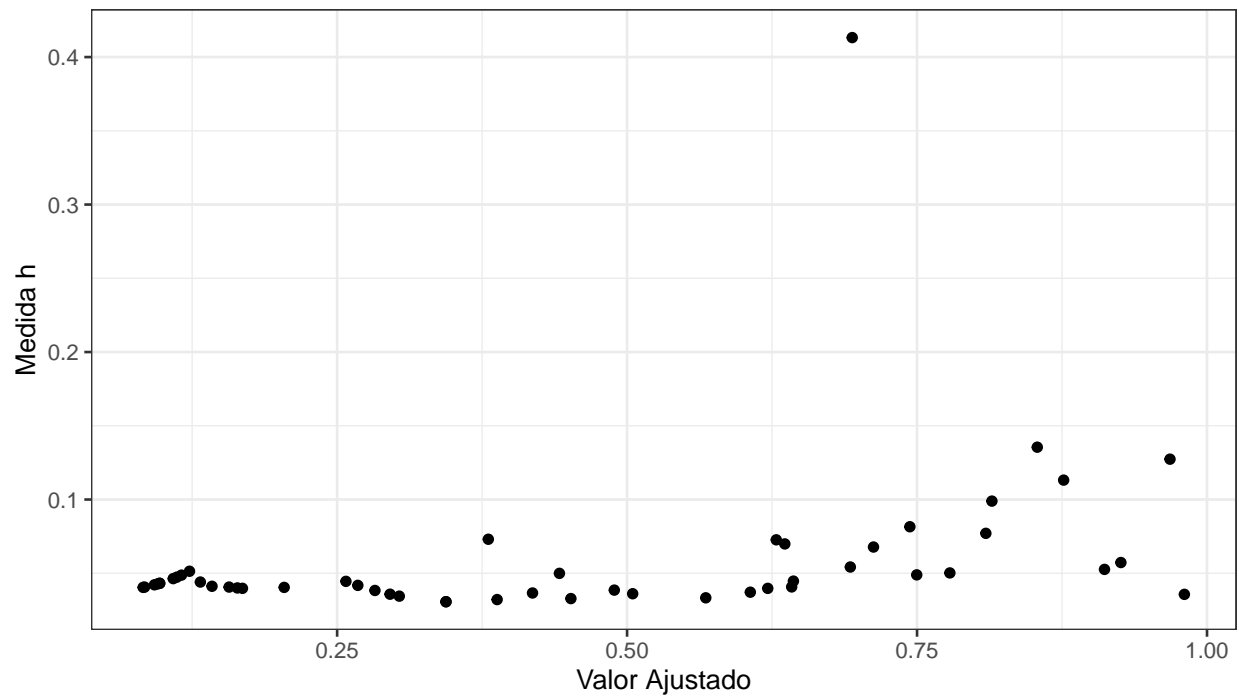
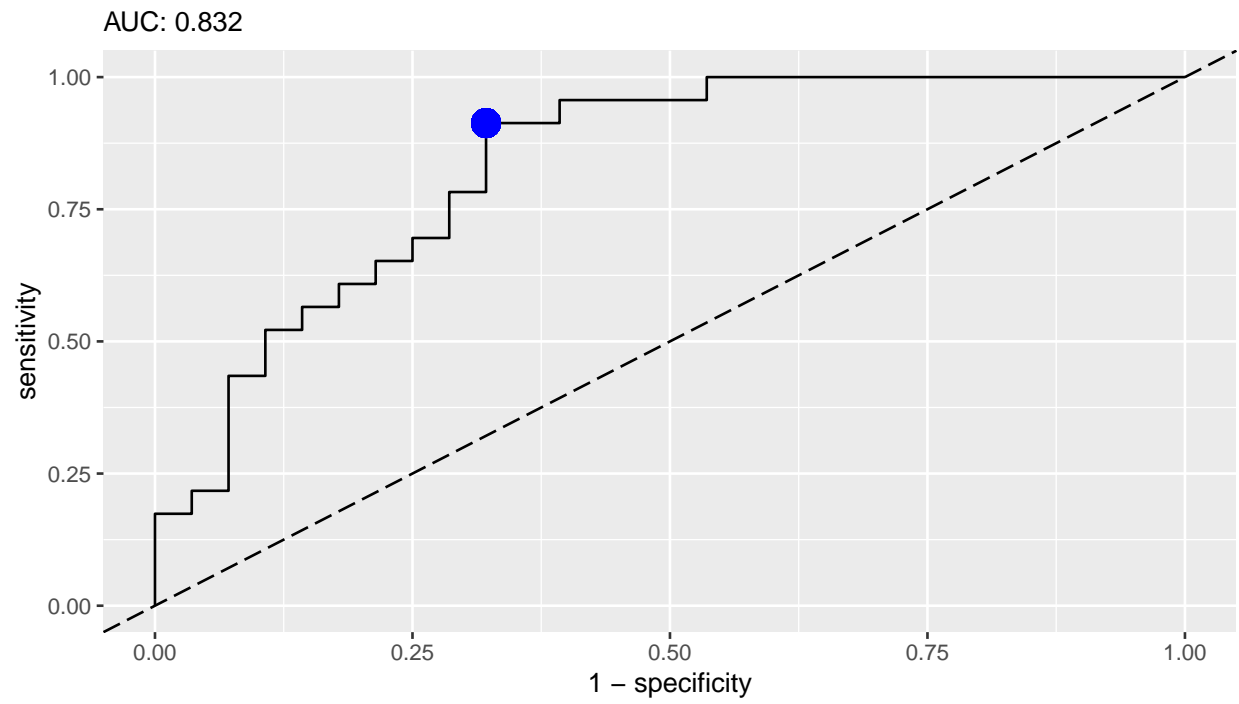
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.010	0.308	0.055
sofa	1.251	3.223	2.008
su	0.993	1.073	1.032

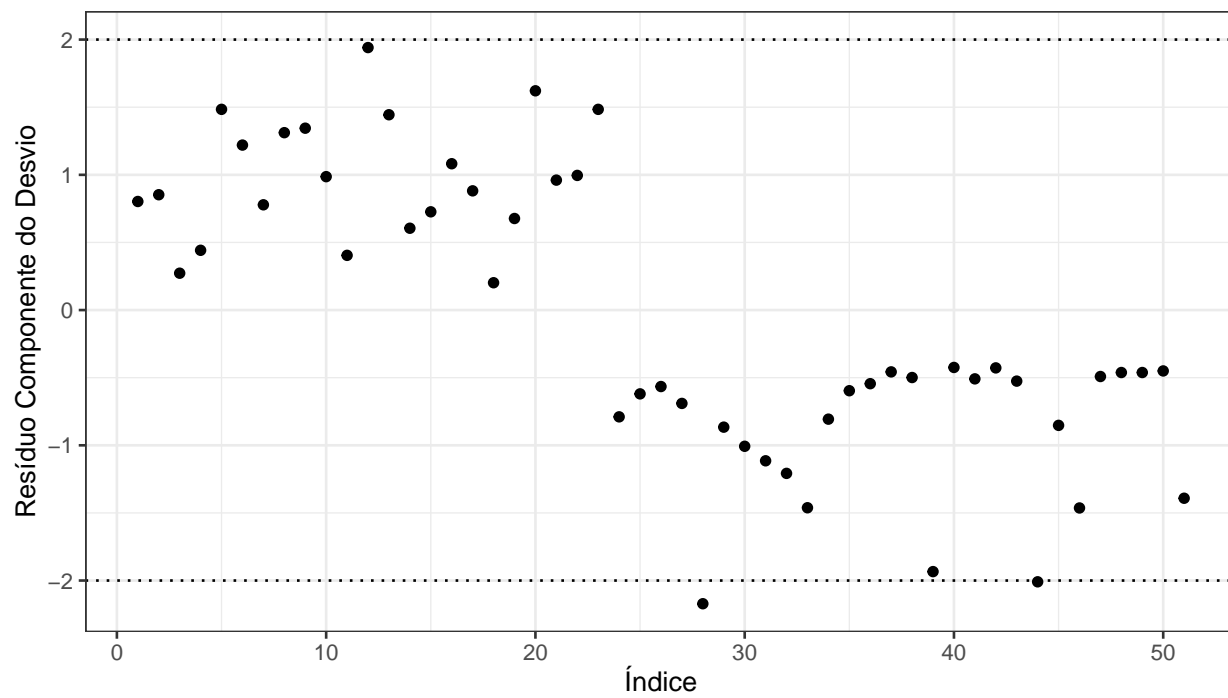
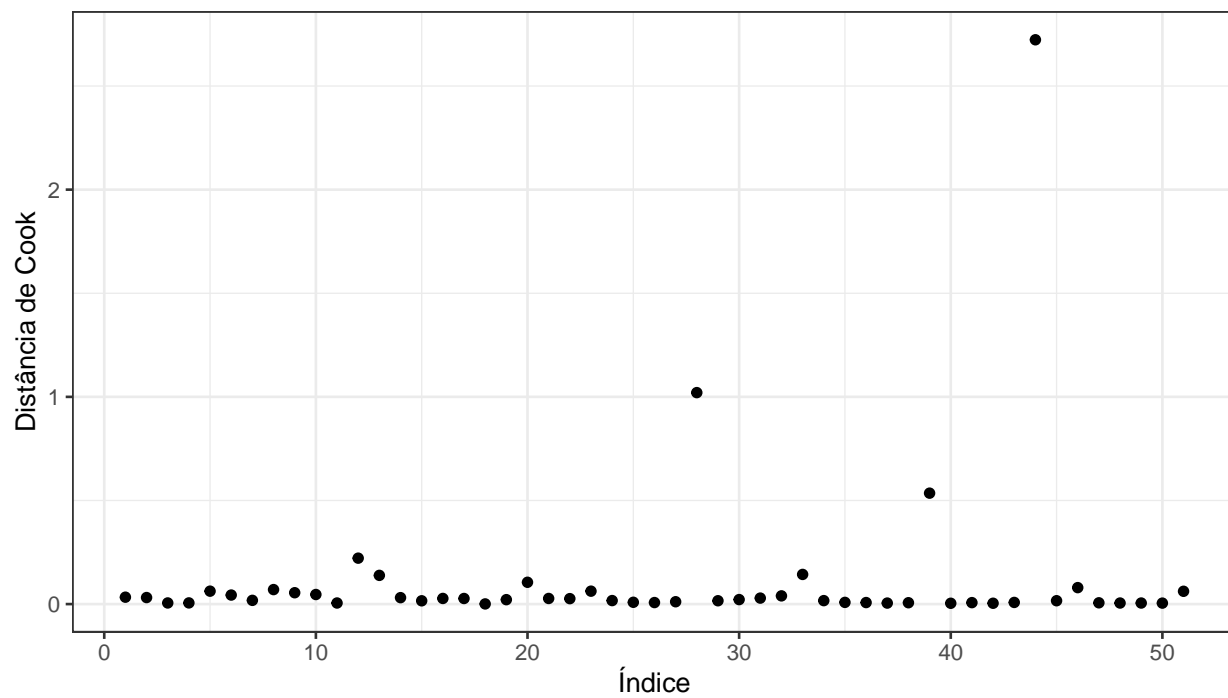
Table 74: Variance Inflation Factor

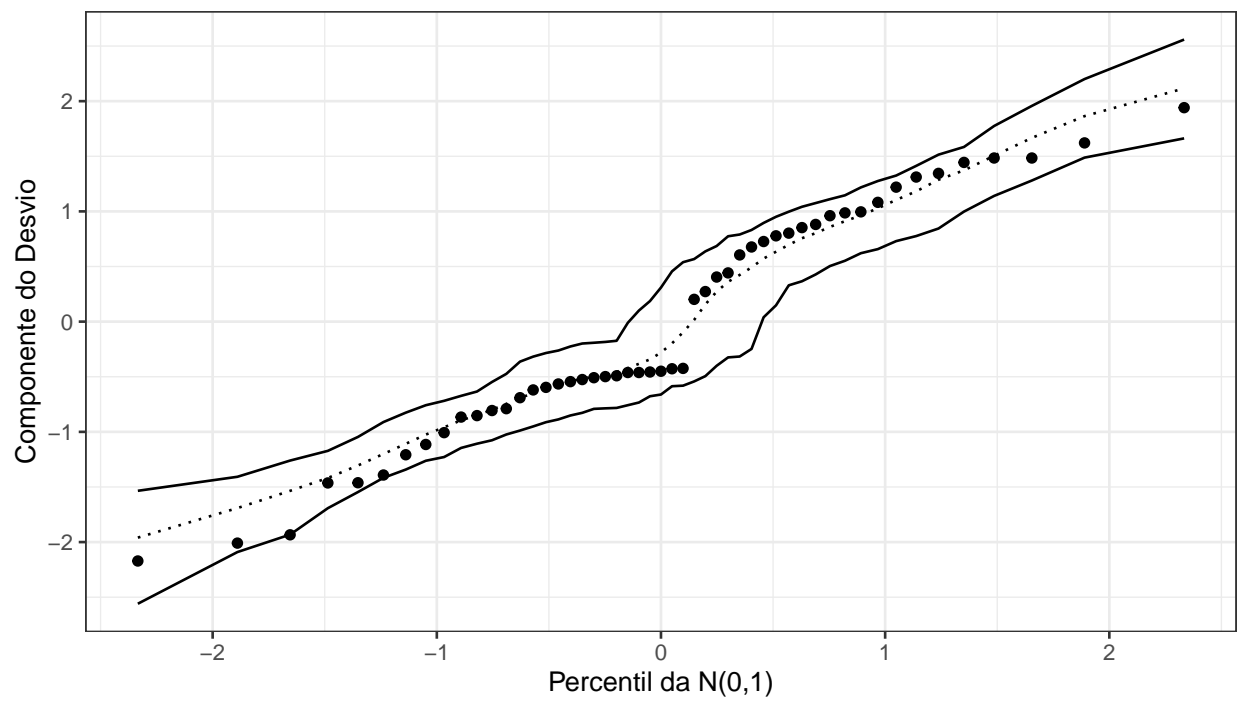
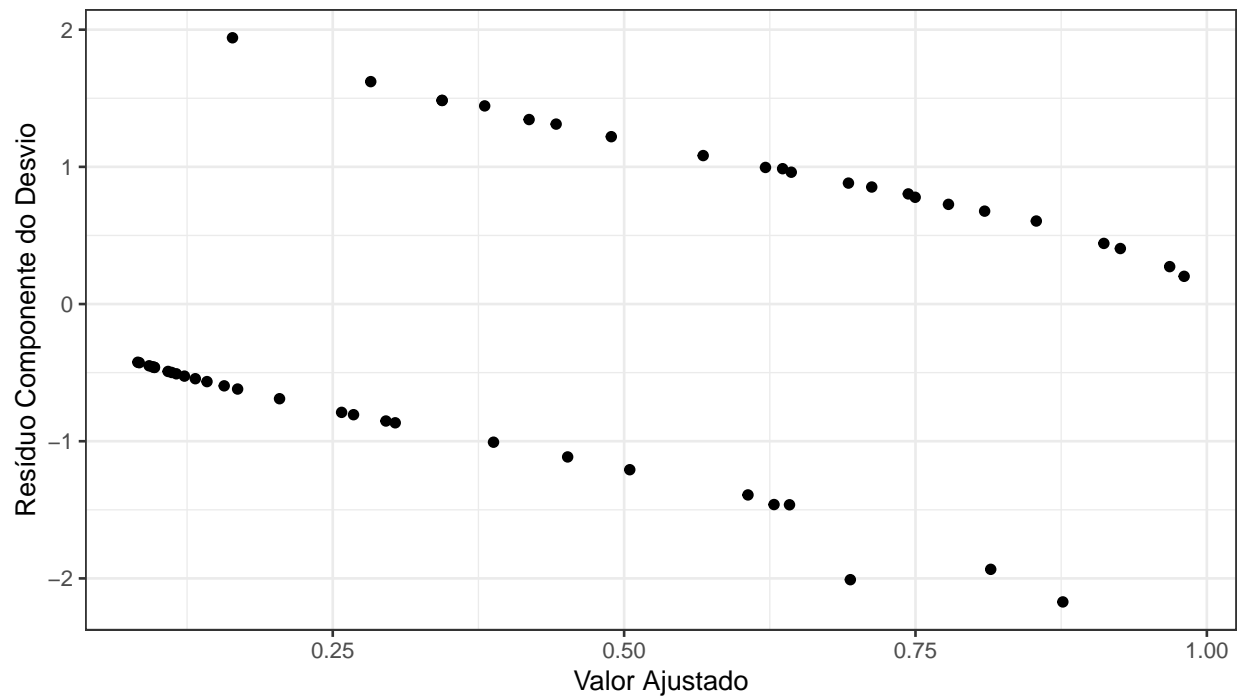
	x
sofa	1.011
su	1.011

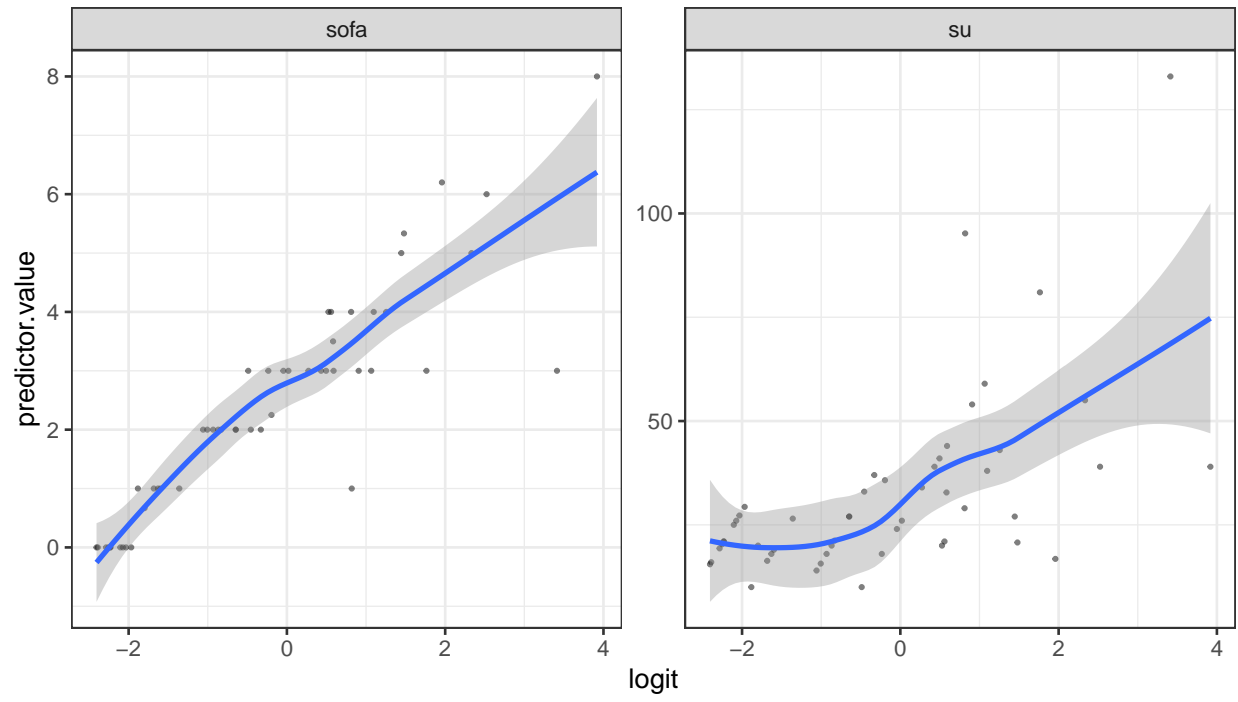
Table 75: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.324	0.679	0.913	0.321









Stepwise

Table 76: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-2.897	0.878	-3.300	0.001
sofa	0.697	0.241	2.890	0.004
su	0.032	0.020	1.613	0.107

Table 77: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
70.21	50	-25.613	57.226	63.021	51.226	48	51

Table 78: Confidence intervals

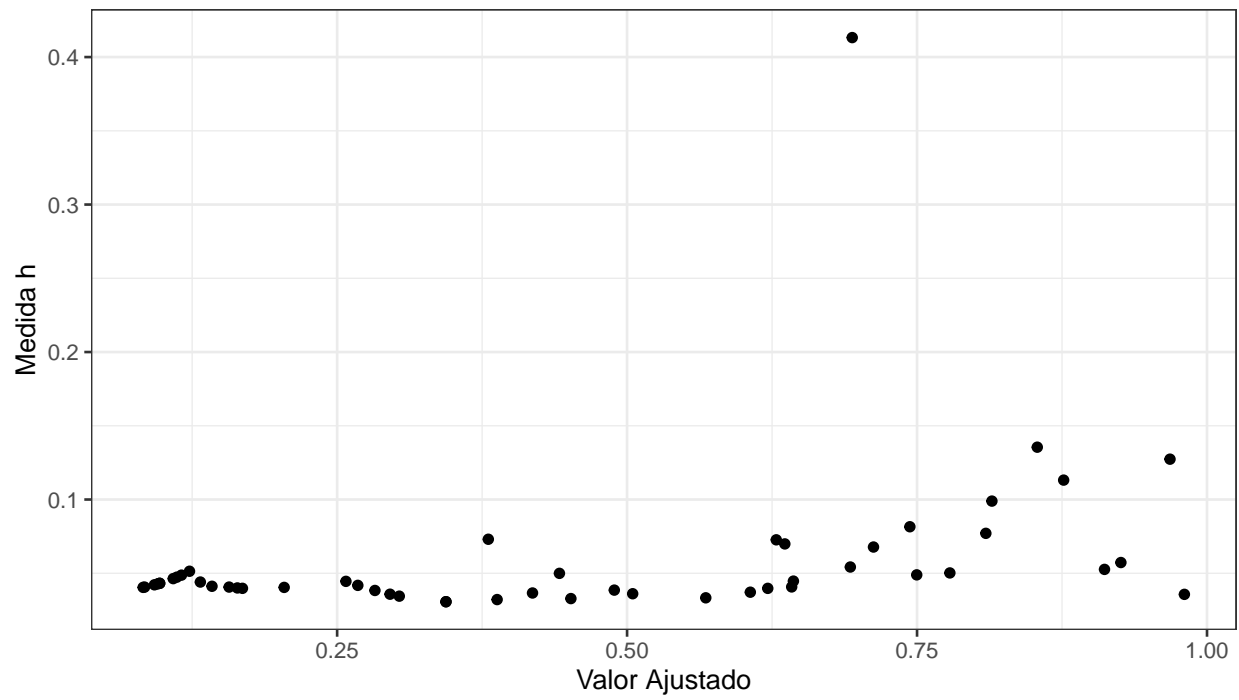
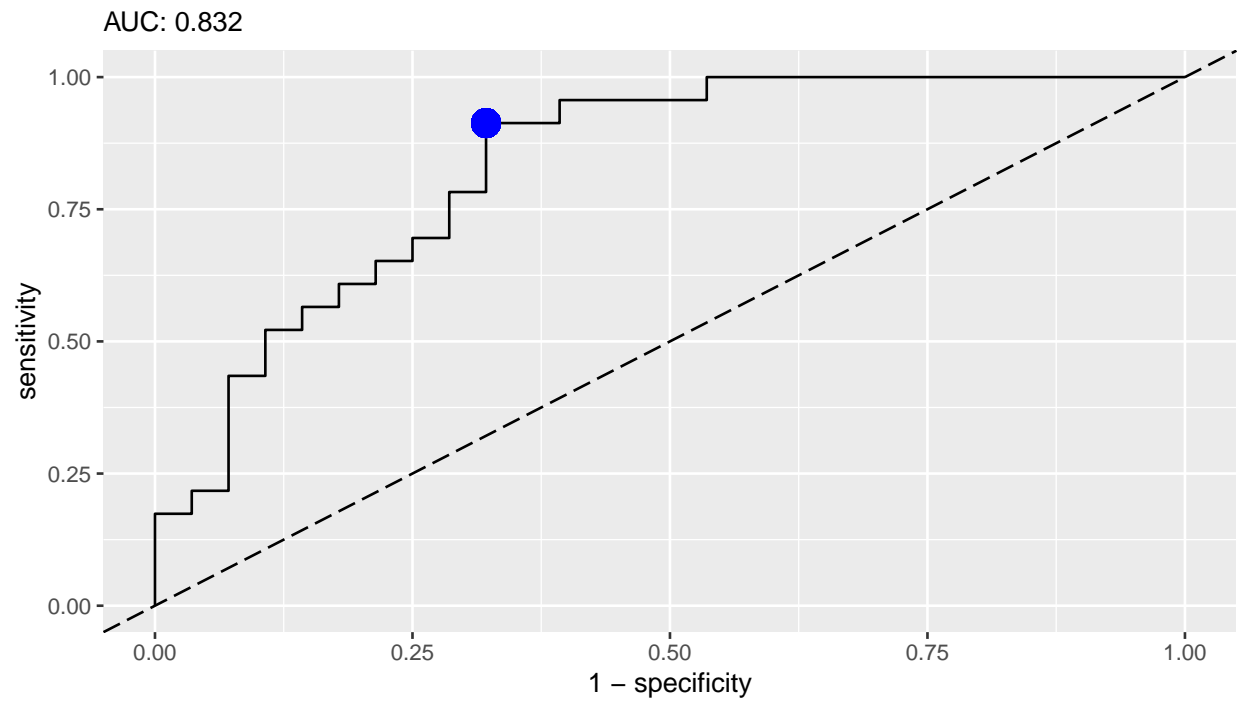
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.010	0.308	0.055
sofa	1.251	3.223	2.008
su	0.993	1.073	1.032

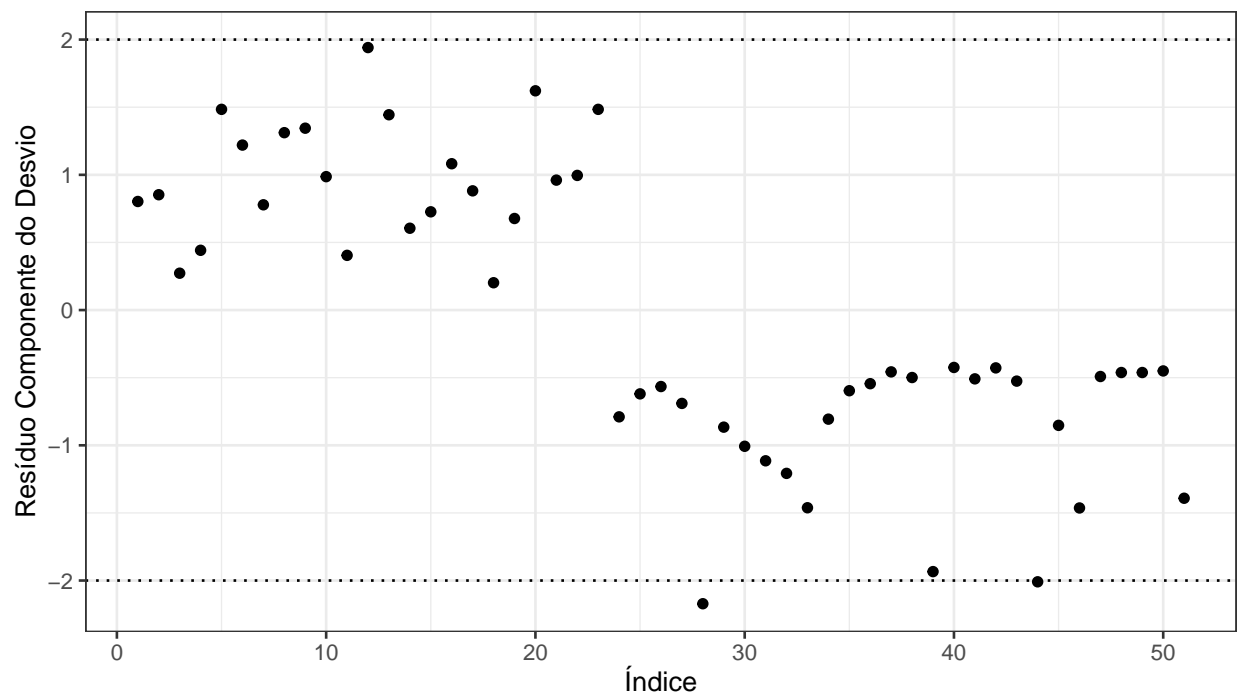
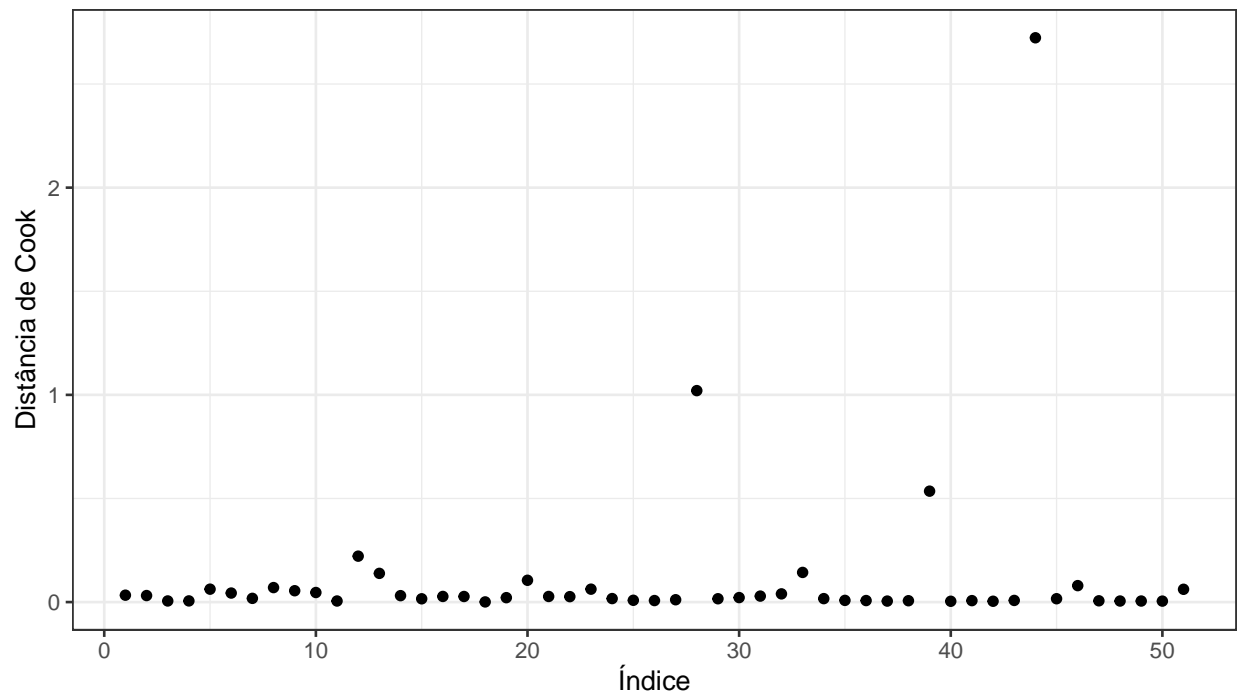
Table 79: Variance Inflation Factor

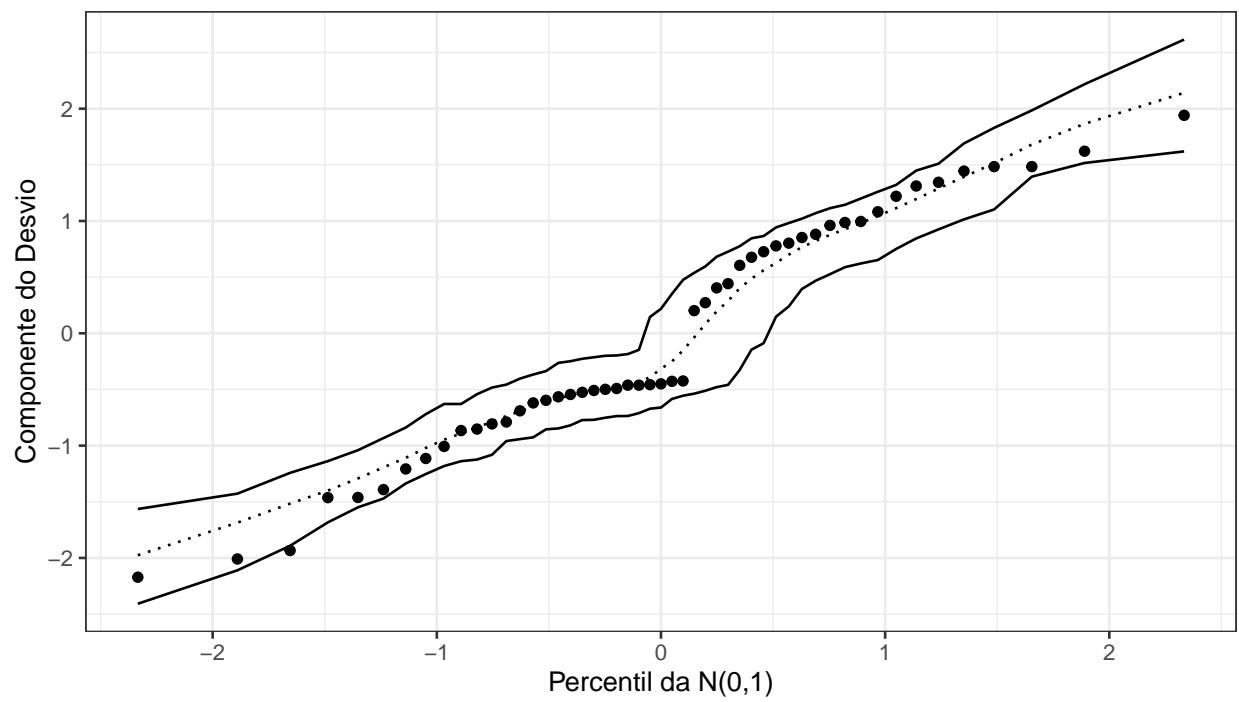
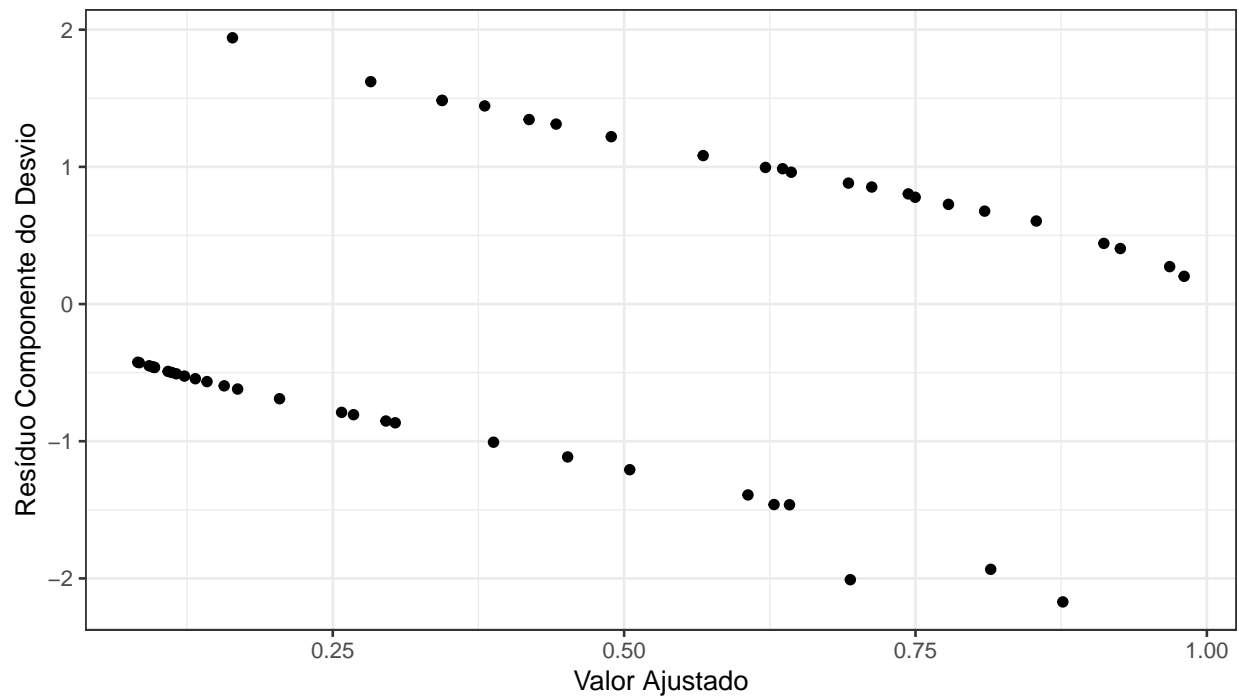
x	
sofa	1.011
su	1.011

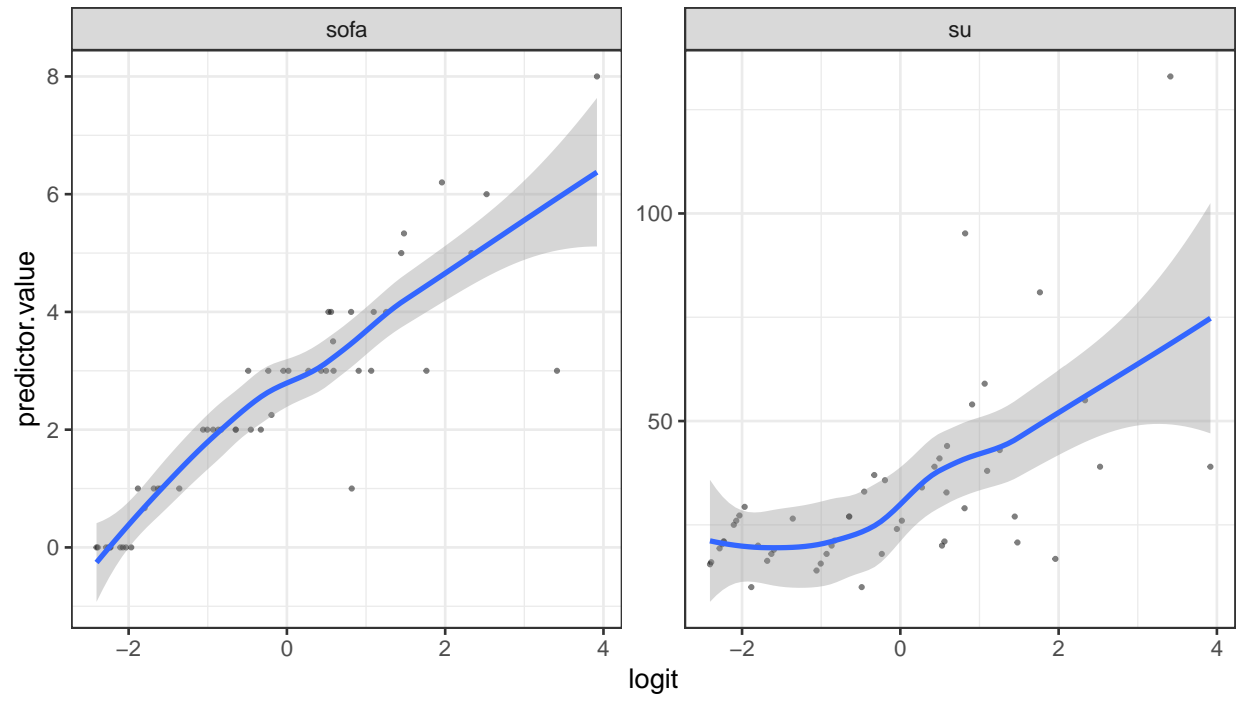
Table 80: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.324	0.679	0.913	0.321









Union model

Table 81: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-9.783	5.608	-1.745	0.081
causa_ira1	-6099.387	243019.930	-0.025	0.980
causa_ira2	0.850	4.348	0.196	0.845
sofa	2.095	1.014	2.066	0.039
su	-0.050	0.068	-0.732	0.464
fek	0.486	0.281	1.725	0.084
una	0.019	0.018	1.042	0.297
su:factor(causa_ira)1	509.186	20242.830	0.025	0.980
su:factor(causa_ira)2	0.022	0.101	0.219	0.827
fek:factor(causa_ira)1	-693.679	27534.184	-0.025	0.980
fek:factor(causa_ira)2	1.302	1.044	1.247	0.212
una:factor(causa_ira)1	-4.596	182.631	-0.025	0.980
una:factor(causa_ira)2	-0.168	0.102	-1.650	0.099

Table 82: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
70.21	50	-9.696	45.392	70.506	19.392	38	51

Table 83: Confidence intervals

variável	2.5 %	97.5 %	estimativa
(Intercept)	0.000	3.346000e+00	0.000000e+00
causa_ira1	0.000	Inf	0.000000e+00
causa_ira2	0.000	1.174467e+04	2.340000e+00
sofa	1.113	5.930000e+01	8.124000e+00
su	0.833	1.087000e+00	9.520000e-01
fek	0.936	2.821000e+00	1.625000e+00
una	0.984	1.055000e+00	1.019000e+00
su:factor(causa_ira)1	0.000	Inf	1.370294e+221
su:factor(causa_ira)2	0.839	1.245000e+00	1.022000e+00
fek:factor(causa_ira)1	0.000	Inf	0.000000e+00
fek:factor(causa_ira)2	0.475	2.844200e+01	3.675000e+00
una:factor(causa_ira)1	0.000	2.884853e+153	1.000000e-02
una:factor(causa_ira)2	0.692	1.032000e+00	8.450000e-01

Table 84: Variance Inflation Factor

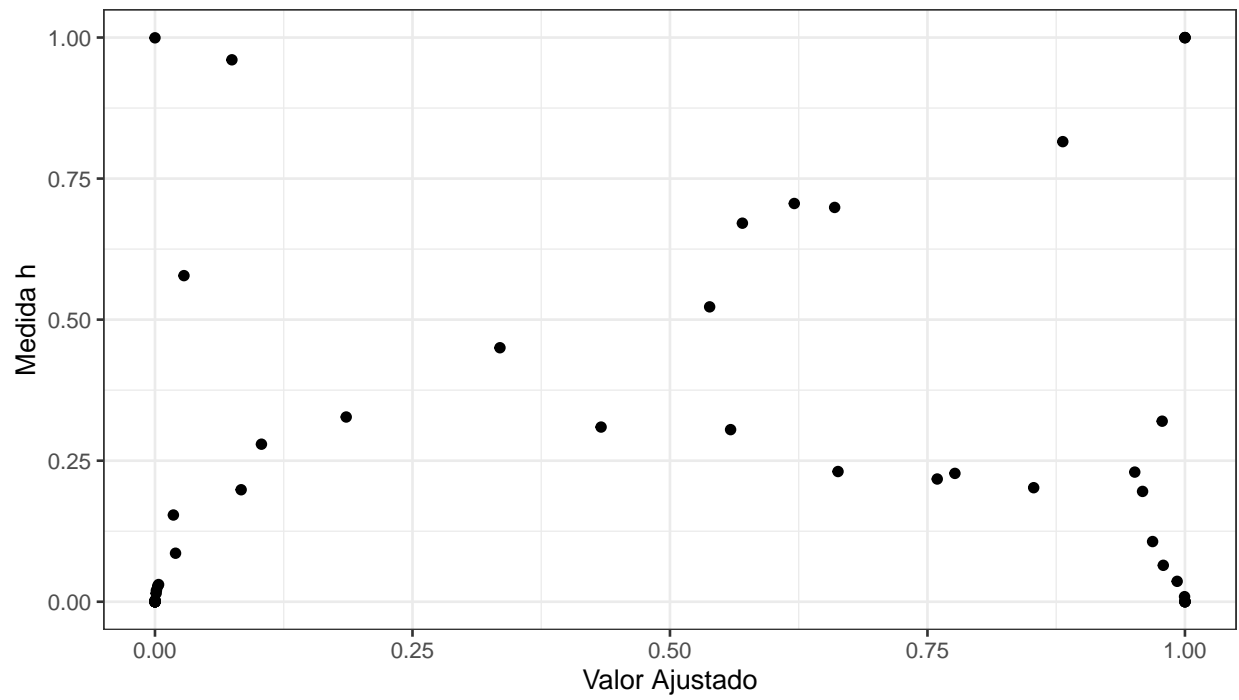
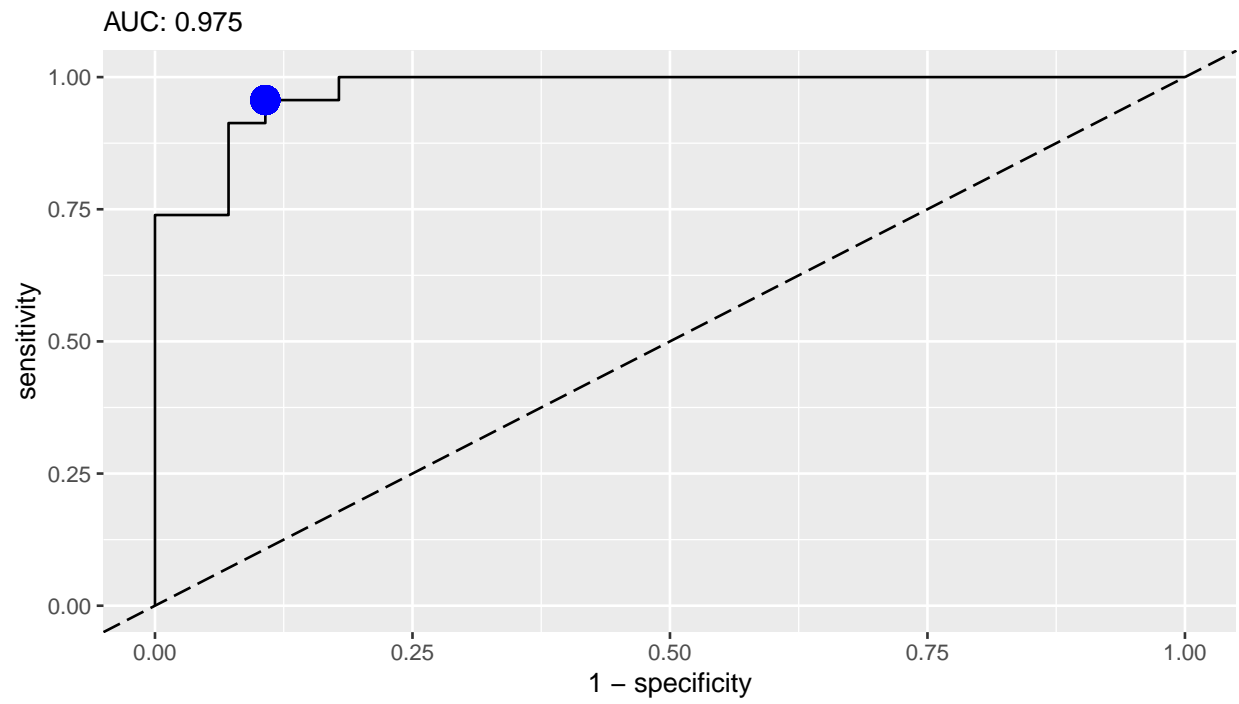
	GVIF	Df	GVIF ^{1/(2*Df)}
causa_ira	2536870.996	2	39.909
sofa	4.368	1	2.090
su	4.189	1	2.047

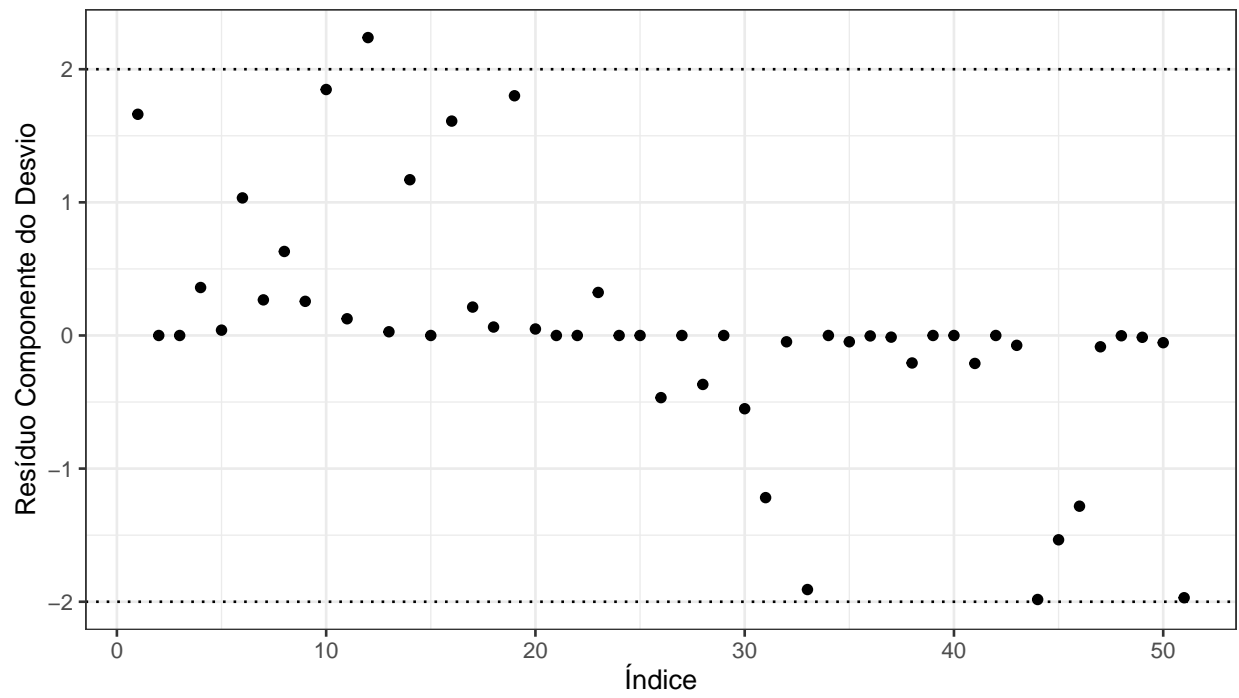
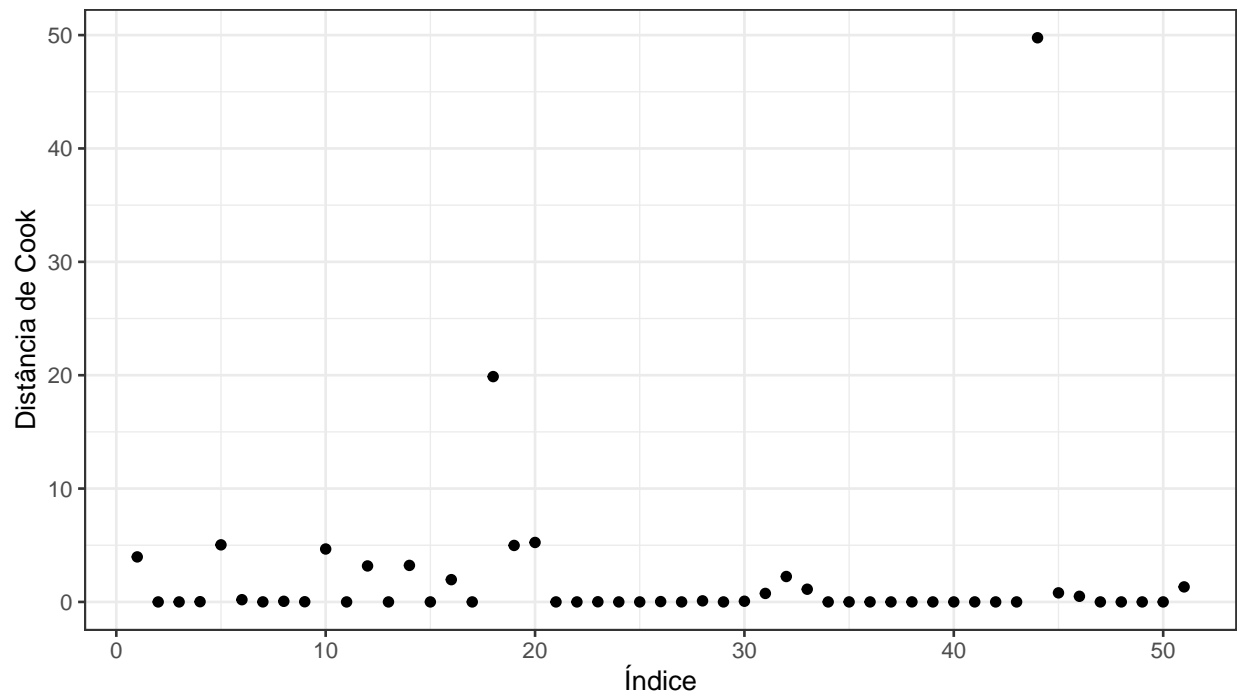
Table 84: Variance Inflation Factor (*continued*)

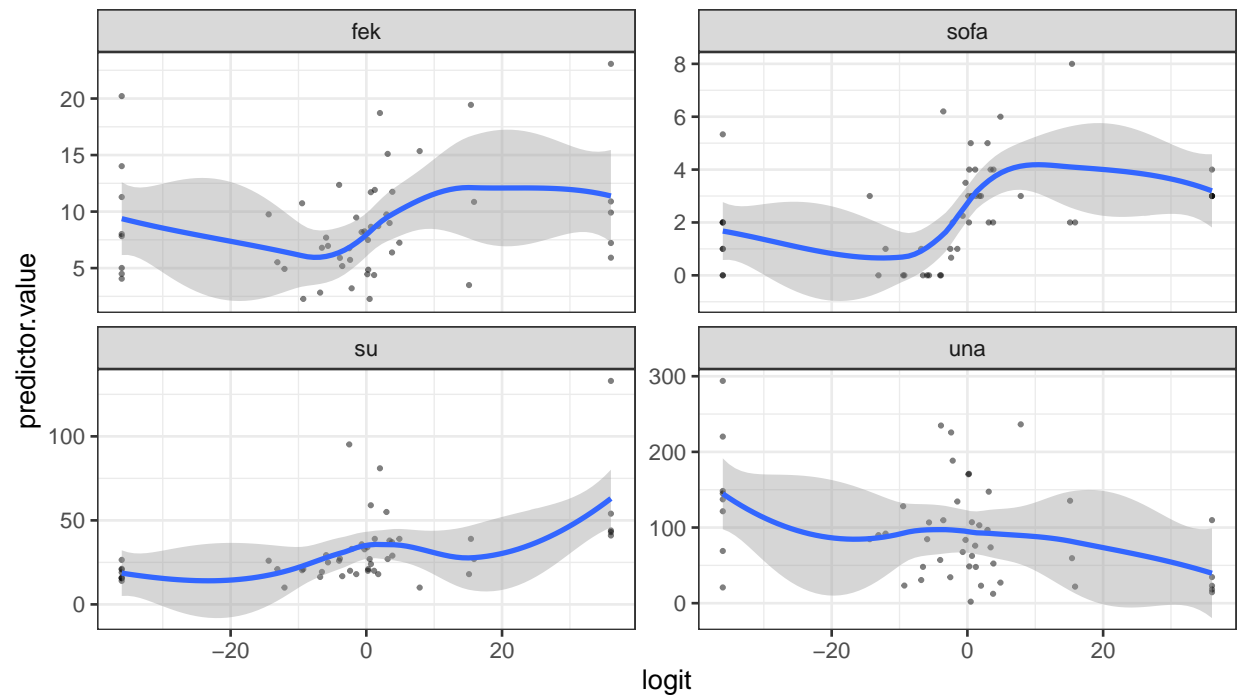
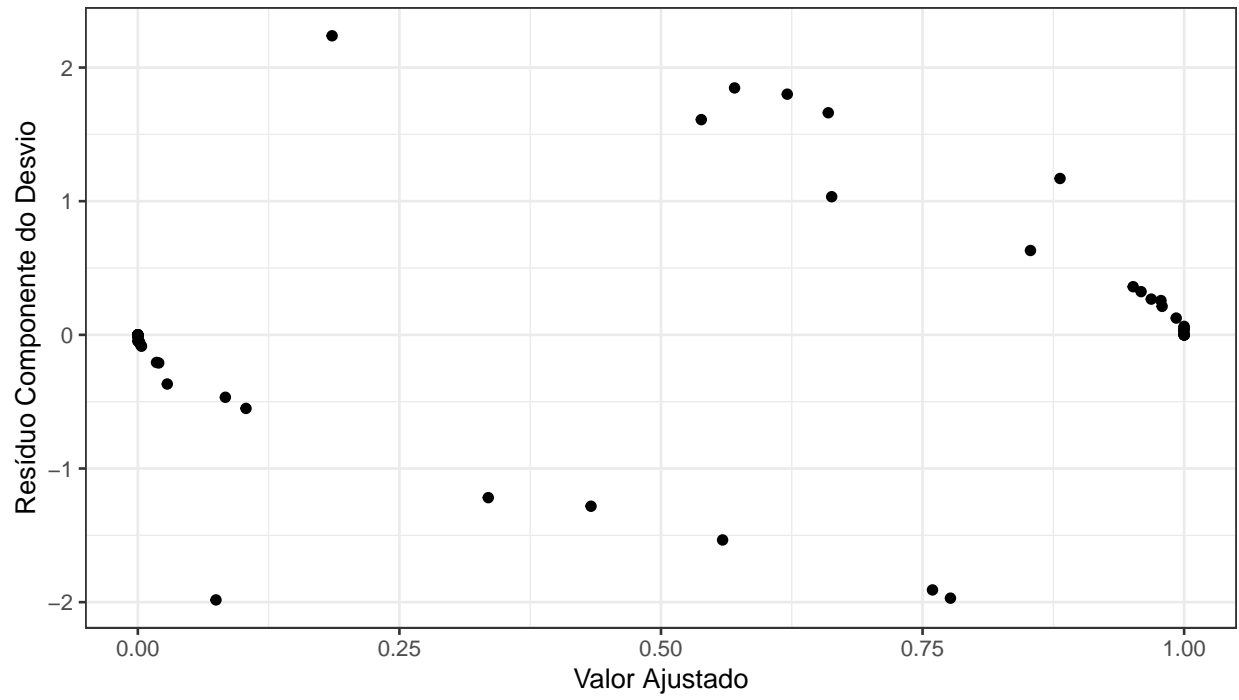
	GVIF	Df	$\text{GVIF}^{1/(2 \cdot \text{Df})}$
fek	3.133	1	1.770
una	3.271	1	1.809
su:factor(causa__ira)	15692717.213	2	62.940
fek:factor(causa__ira)	17650412.462	2	64.817
una:factor(causa__ira)	42389.934	2	14.349

Table 85: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.486	0.893	0.957	0.107







Intersection model

Table 86: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-2.897	0.878	-3.300	0.001
sofa	0.697	0.241	2.890	0.004
su	0.032	0.020	1.613	0.107

Table 87: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
70.21	50	-25.613	57.226	63.021	51.226	48	51

Table 88: Confidence intervals

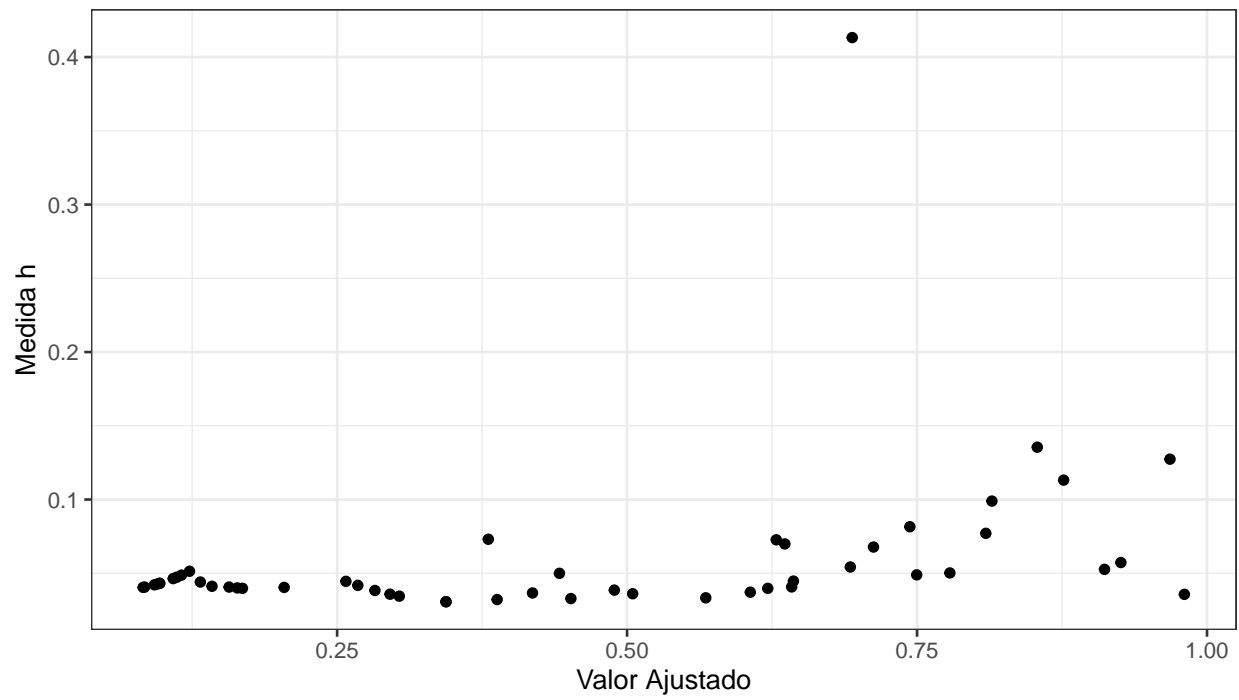
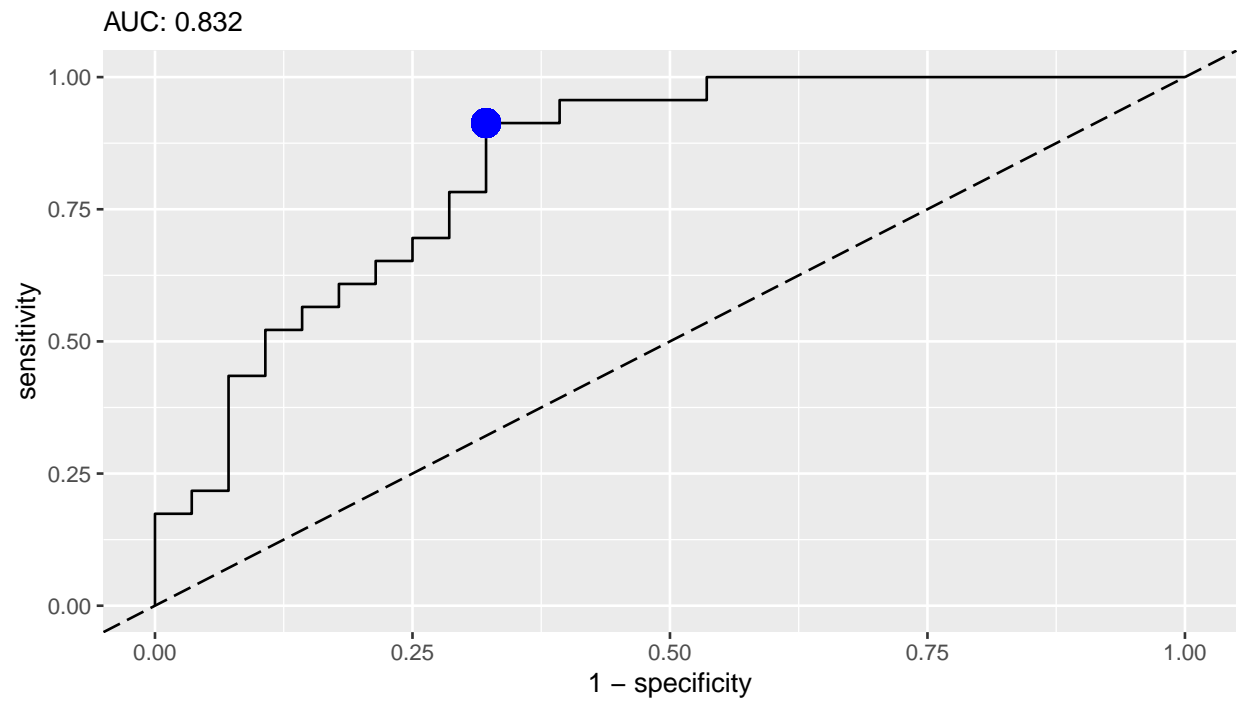
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.010	0.308	0.055
sofa	1.251	3.223	2.008
su	0.993	1.073	1.032

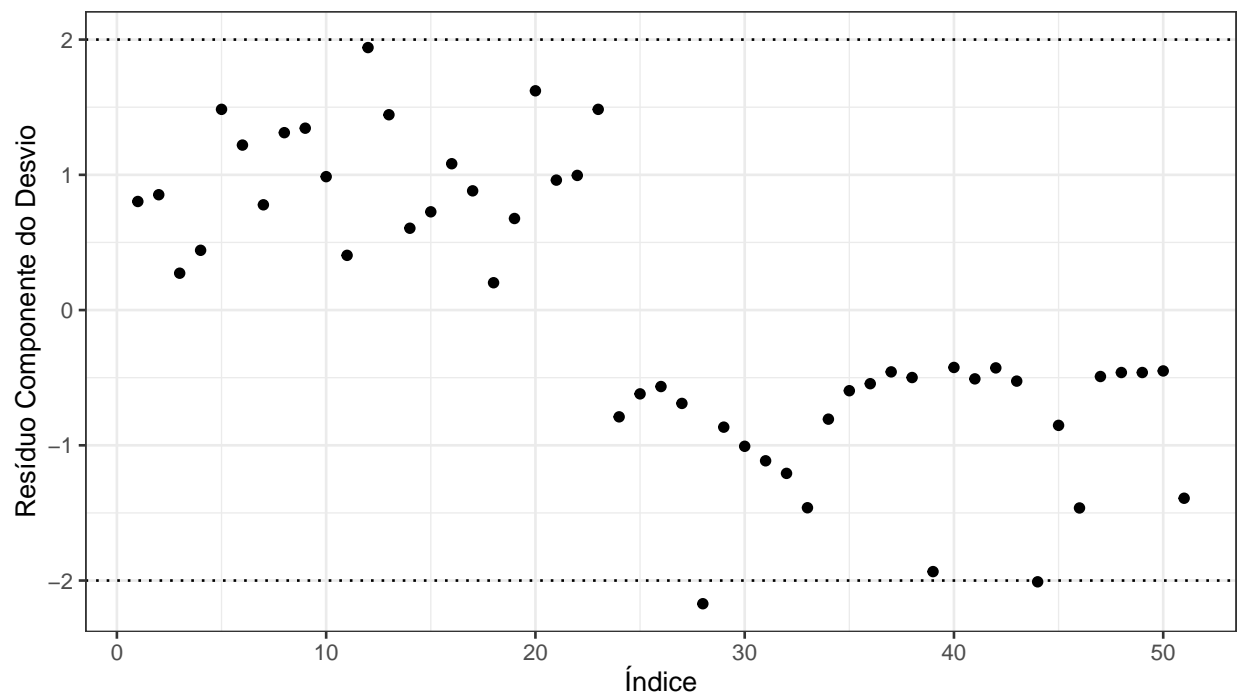
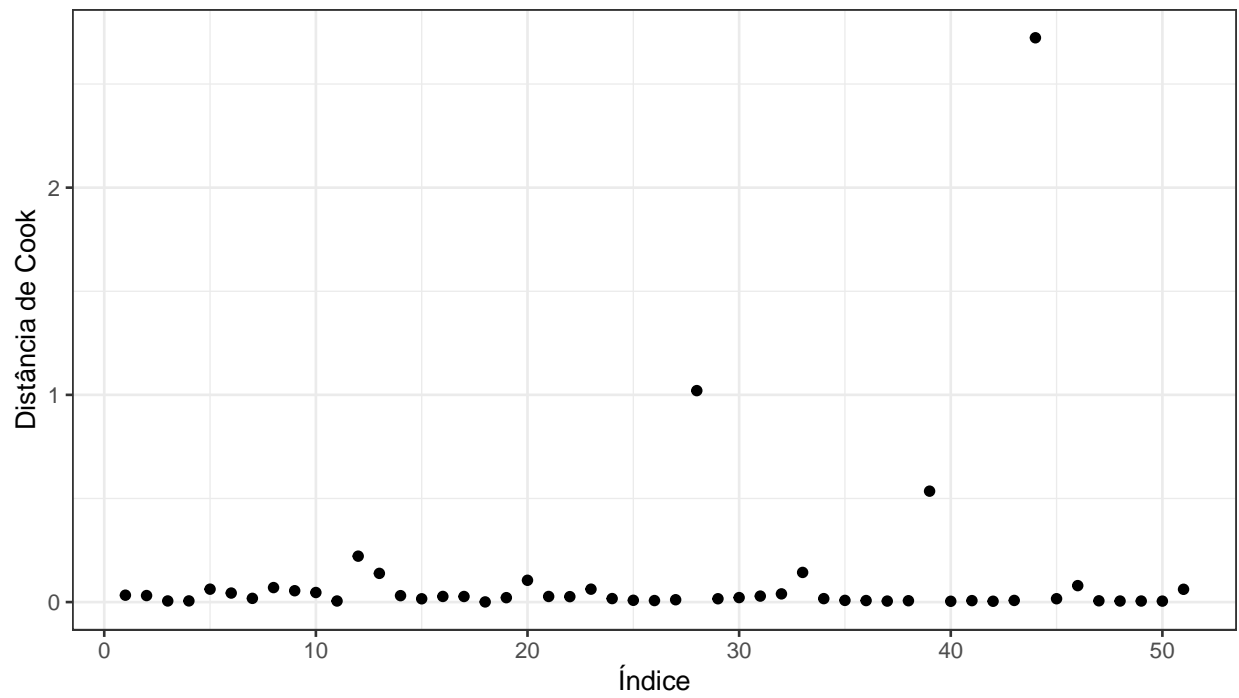
Table 89: Variance Inflation Factor

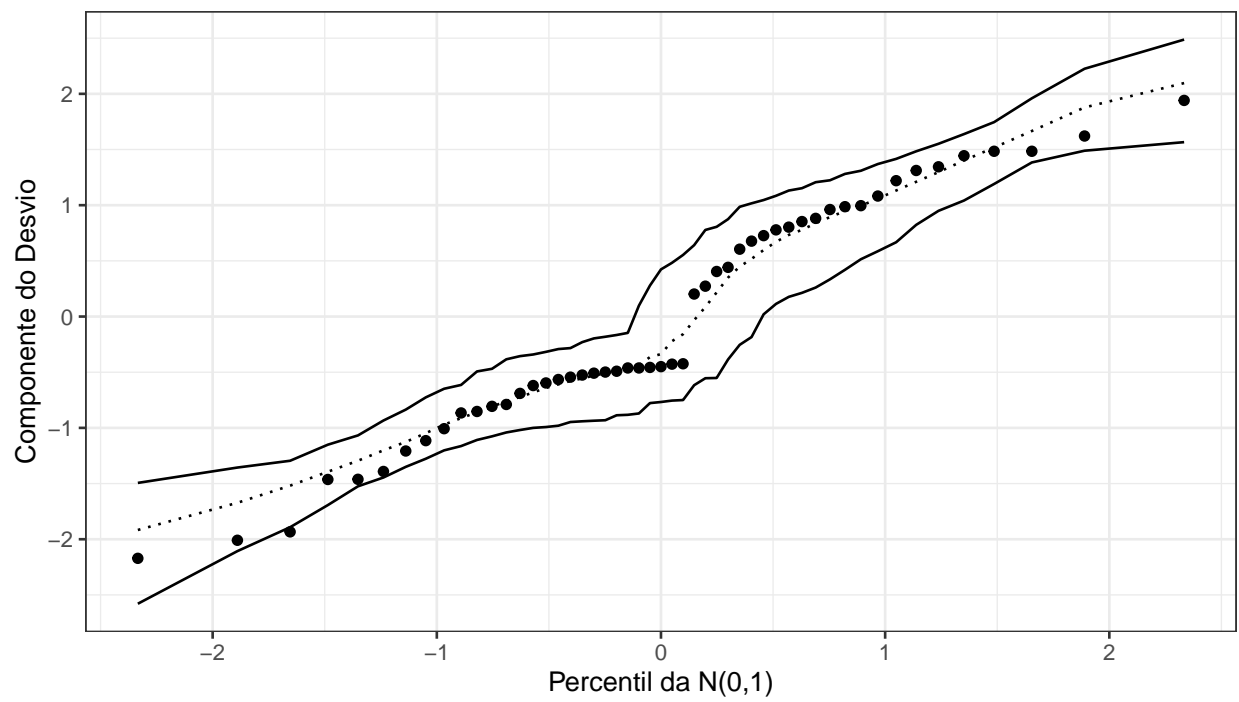
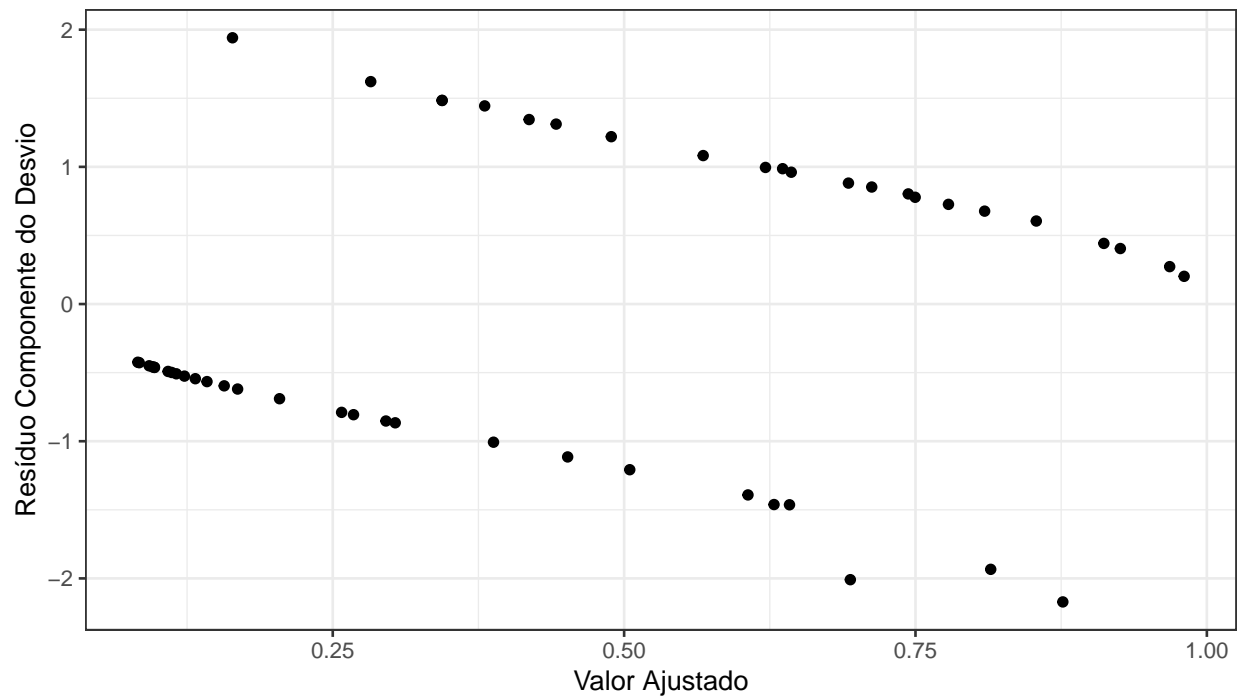
x	
sofa	1.011
su	1.011

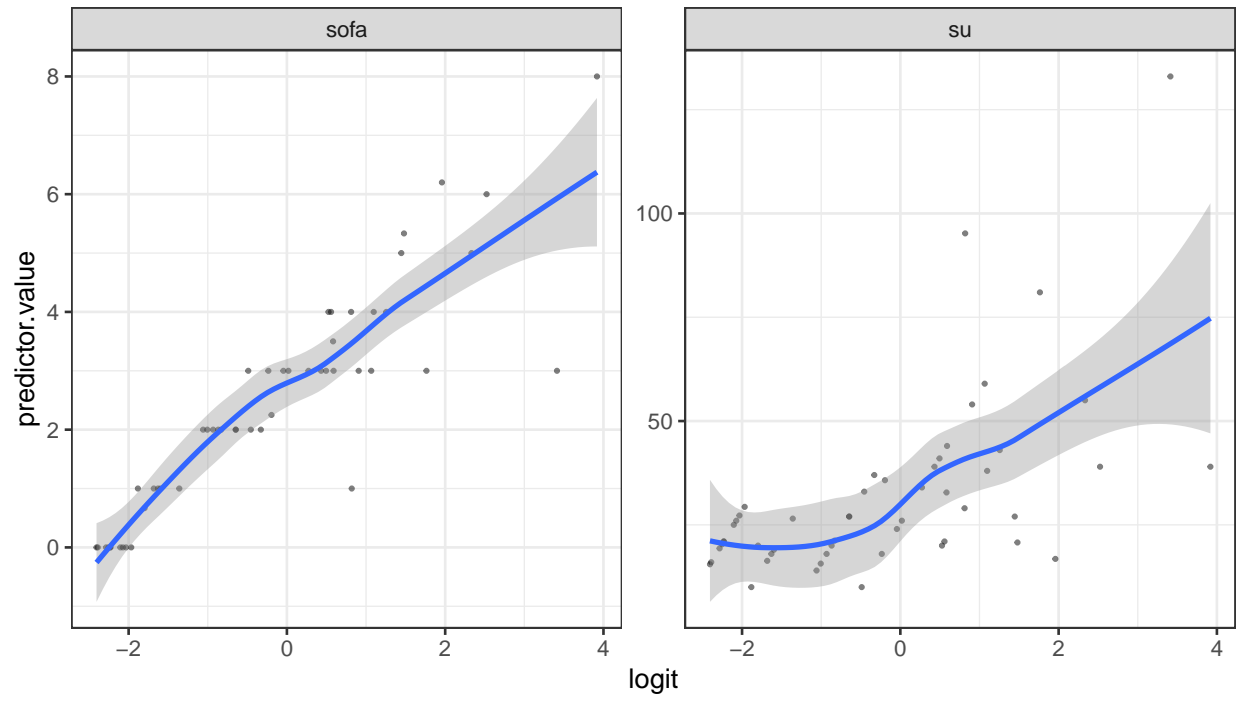
Table 90: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.324	0.679	0.913	0.321









Selected Variables

Full model

Table 91: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-6.549	13.647	-0.480	0.631
factor(causa_ira)1	-2.067	1.738	-1.189	0.234
factor(causa_ira)2	-2.821	1.468	-1.922	0.055
factor(ventilacao_mecanica)1	1.803	1.730	1.042	0.297
sofa	0.873	0.355	2.460	0.014
su	0.034	0.034	1.014	0.311
fek	0.038	0.203	0.187	0.851
uu_su	2.017	2.364	0.853	0.394
una	-0.014	0.009	-1.574	0.116
scr_basal	6.449	3.030	2.128	0.033
sosm	-0.024	0.045	-0.536	0.592
delta_scr	8.146	5.555	1.466	0.143
tempo_internacao_hospitalar	0.015	0.021	0.720	0.471
score_clinico	0.595	0.427	1.395	0.163
dva_mcg_kg_min	0.745	3.072	0.243	0.808
uk	0.019	0.027	0.696	0.487

Table 92: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
70.21	50	-17.36	66.719	97.629	34.719	35	51

Table 93: Confidence intervals

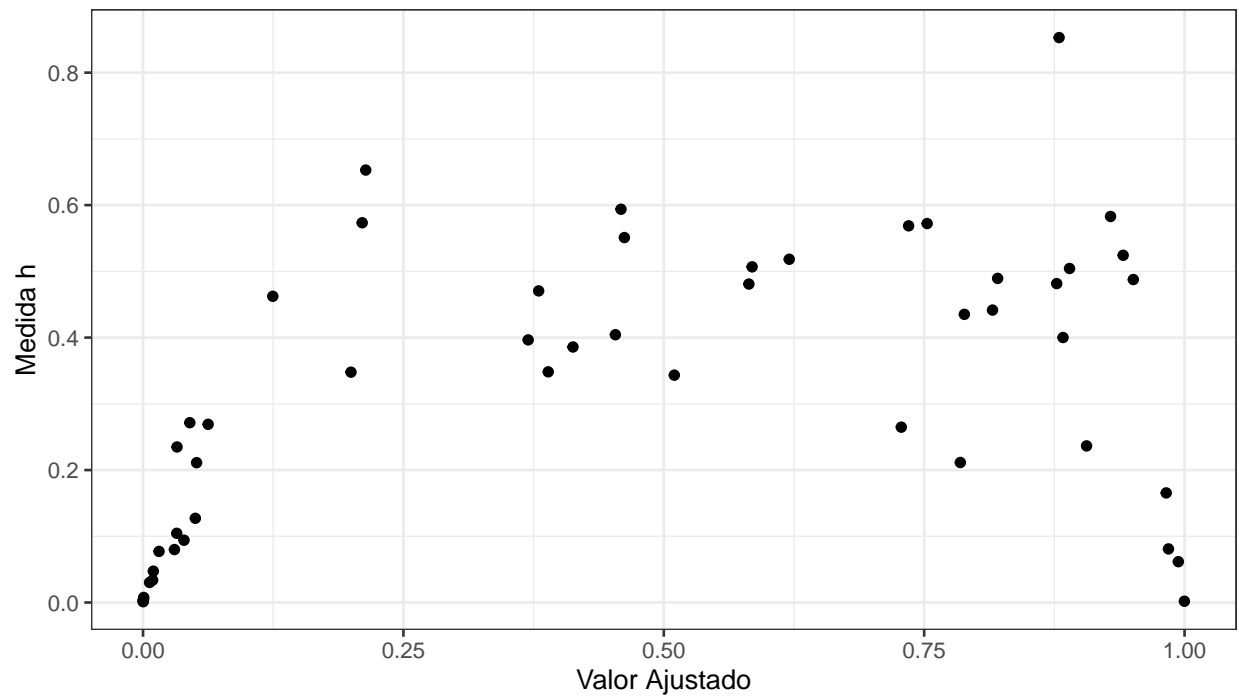
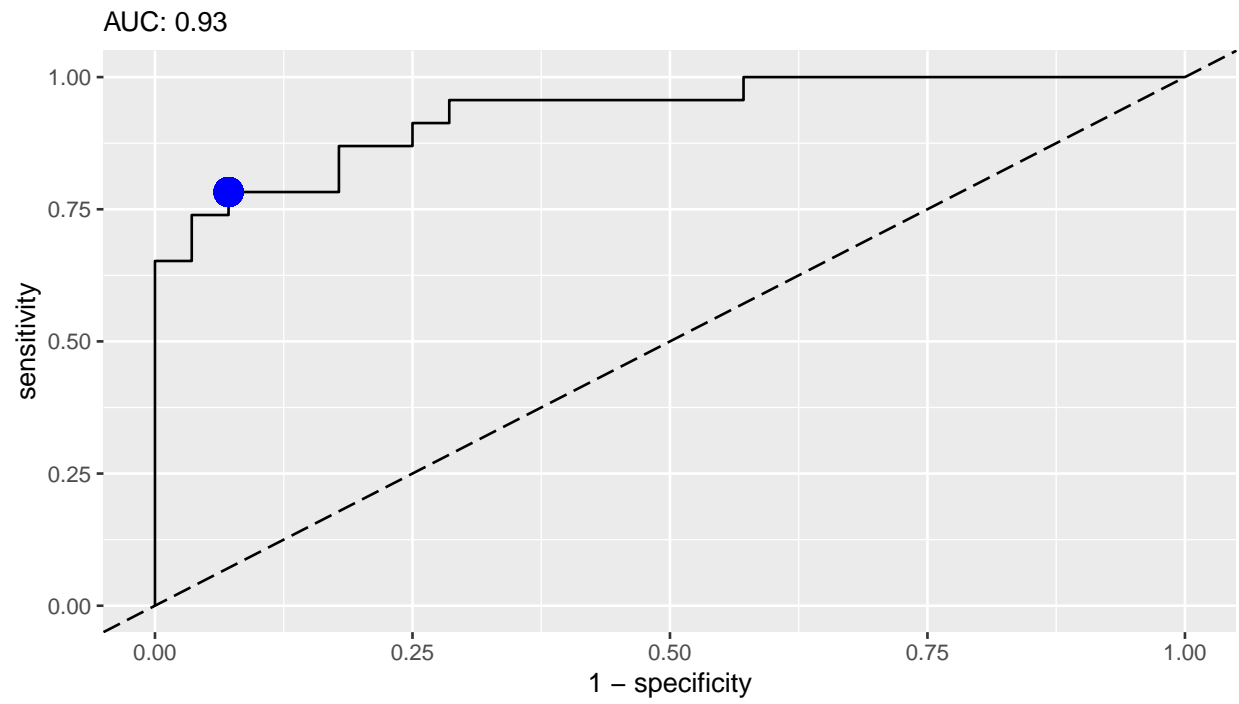
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.000	5.919573e+08	0.001
factor(causa_ira)1	0.004	3.815000e+00	0.127
factor(causa_ira)2	0.003	1.058000e+00	0.060
factor(ventilacao_mecanica)1	0.204	1.801950e+02	6.067
sofa	1.194	4.802000e+00	2.395
su	0.969	1.106000e+00	1.035
fek	0.697	1.547000e+00	1.039
uu_su	0.073	7.734330e+02	7.514
una	0.968	1.004000e+00	0.986
scr_basal	1.665	2.399400e+05	632.096
sosm	0.894	1.066000e+00	0.976
delta_scr	0.064	1.848140e+08	3450.985
tempo_internacao_hospitalar	0.974	1.059000e+00	1.016
score_clinico	0.786	4.184000e+00	1.813
dva_mcg_kg_min	0.005	8.677200e+02	2.107
uk	0.967	1.074000e+00	1.019

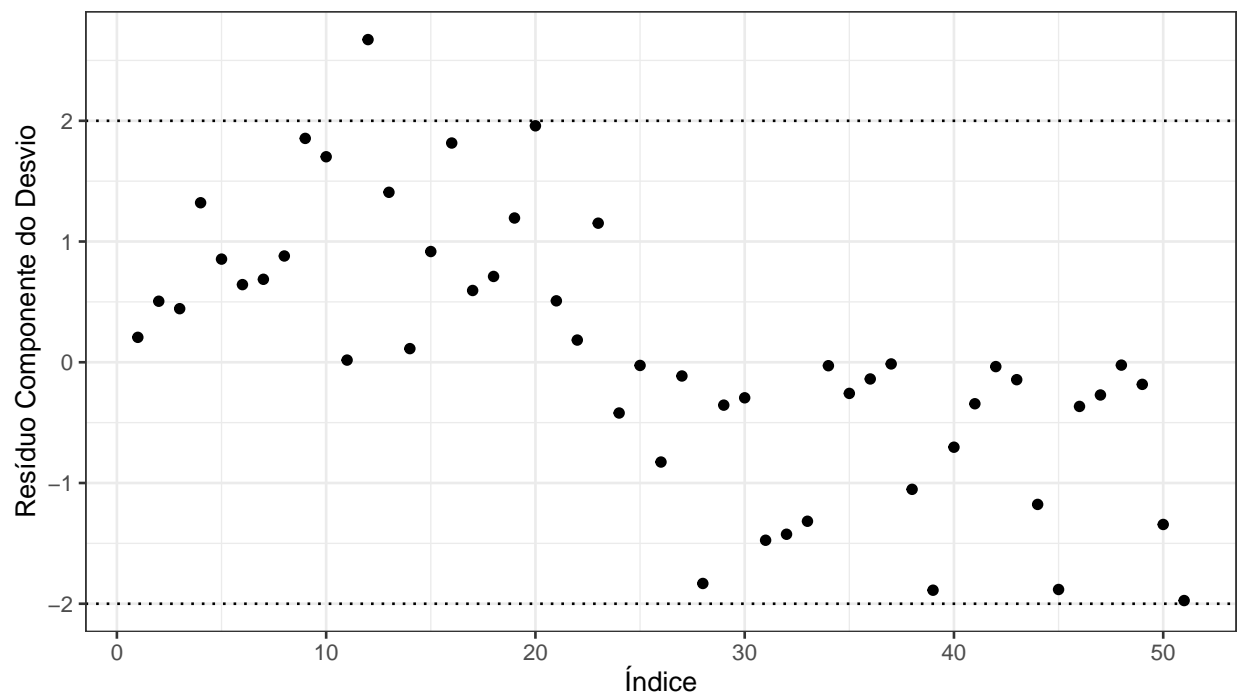
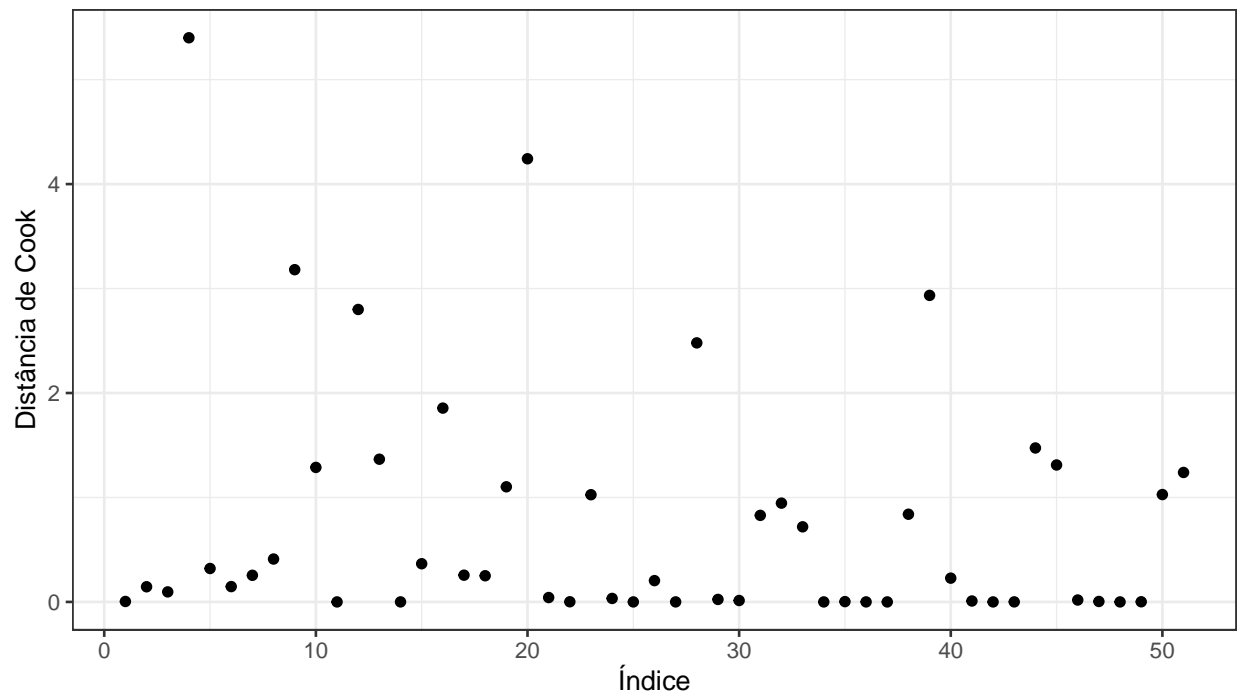
Table 94: Variance Inflation Factor

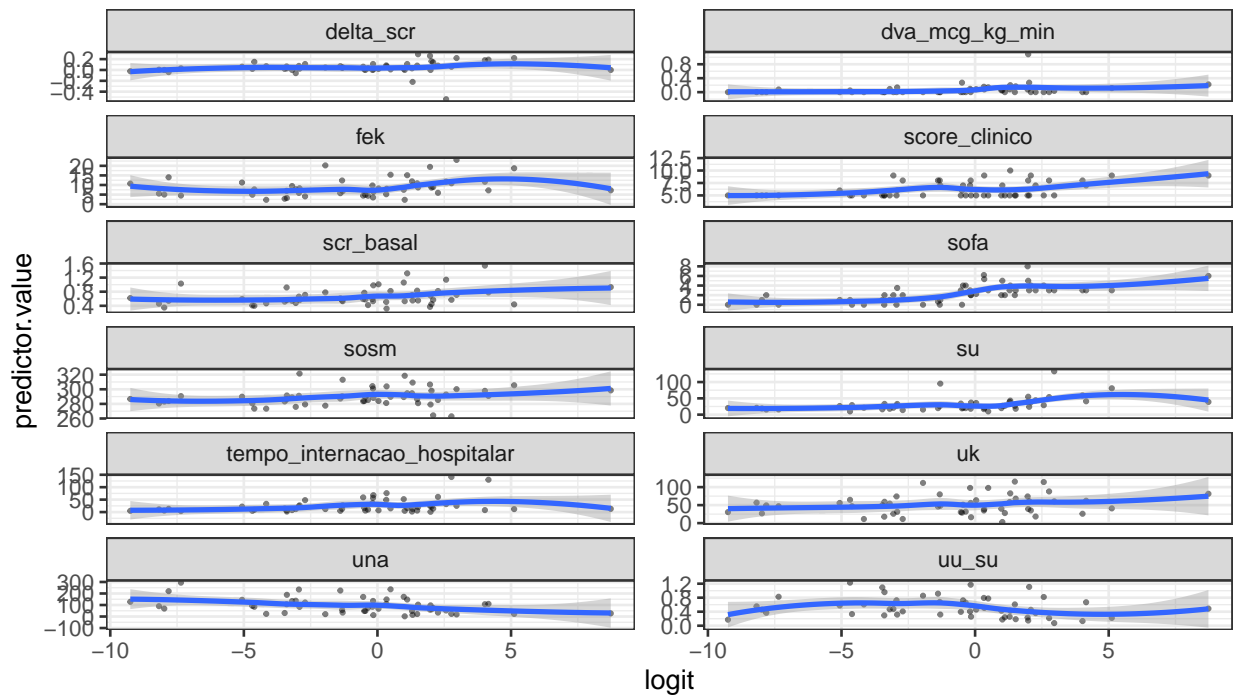
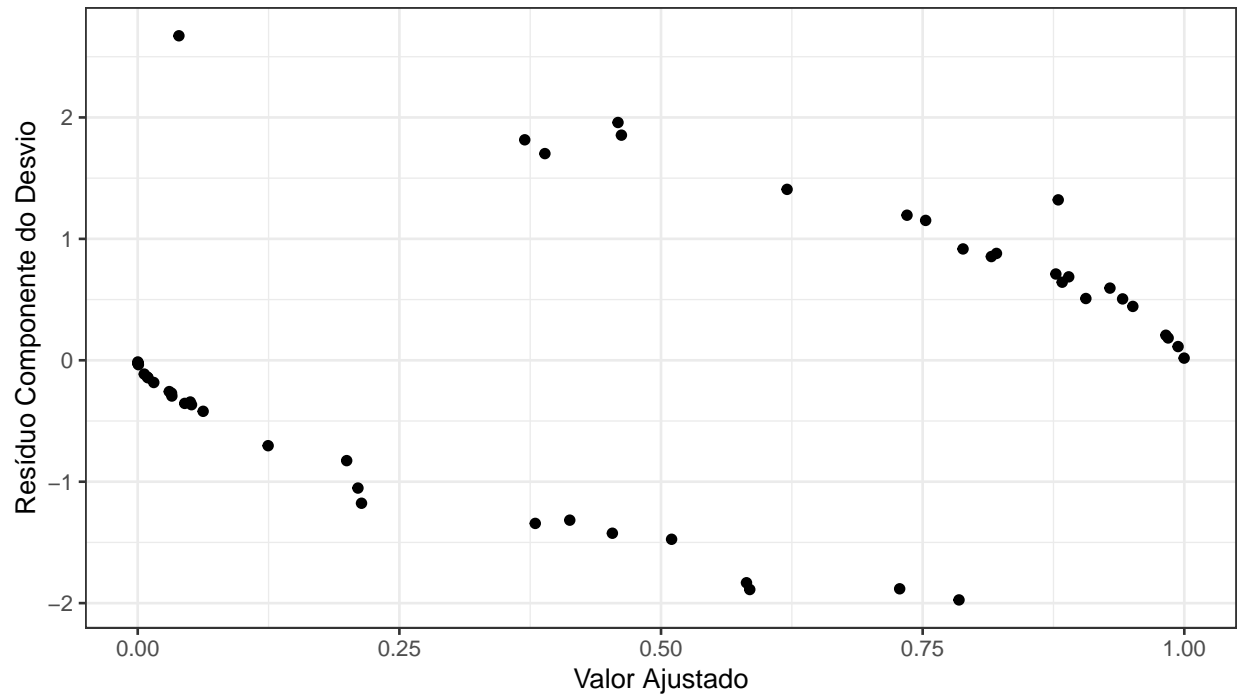
	GVIF	Df	$\text{GVIF}^{1/(2 \cdot \text{Df})}$
factor(causa_ira)	5.534	2	1.534
factor(ventilacao_mecanica)	2.140	1	1.463
sofa	2.161	1	1.470
su	2.087	1	1.445
fek	4.176	1	2.043
uu_su	2.292	1	1.514
una	1.894	1	1.376
scr_basal	2.791	1	1.671
sosm	1.524	1	1.234
delta_scr	1.827	1	1.352
tempo_internacao_hospitalar	1.700	1	1.304
score_clinico	2.354	1	1.534
dva_mcg_kg_min	1.343	1	1.159
uk	3.260	1	1.806

Table 95: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.603	0.929	0.783	0.071







Backwards

Table 96: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-3.638	1.510	-2.409	0.016
sofa	0.778	0.252	3.090	0.002
una	-0.009	0.006	-1.486	0.137
scr_basal	3.508	1.714	2.047	0.041

Table 97: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
70.21	50	-23.75	55.499	63.227	47.499	47	51

Table 98: Confidence intervals

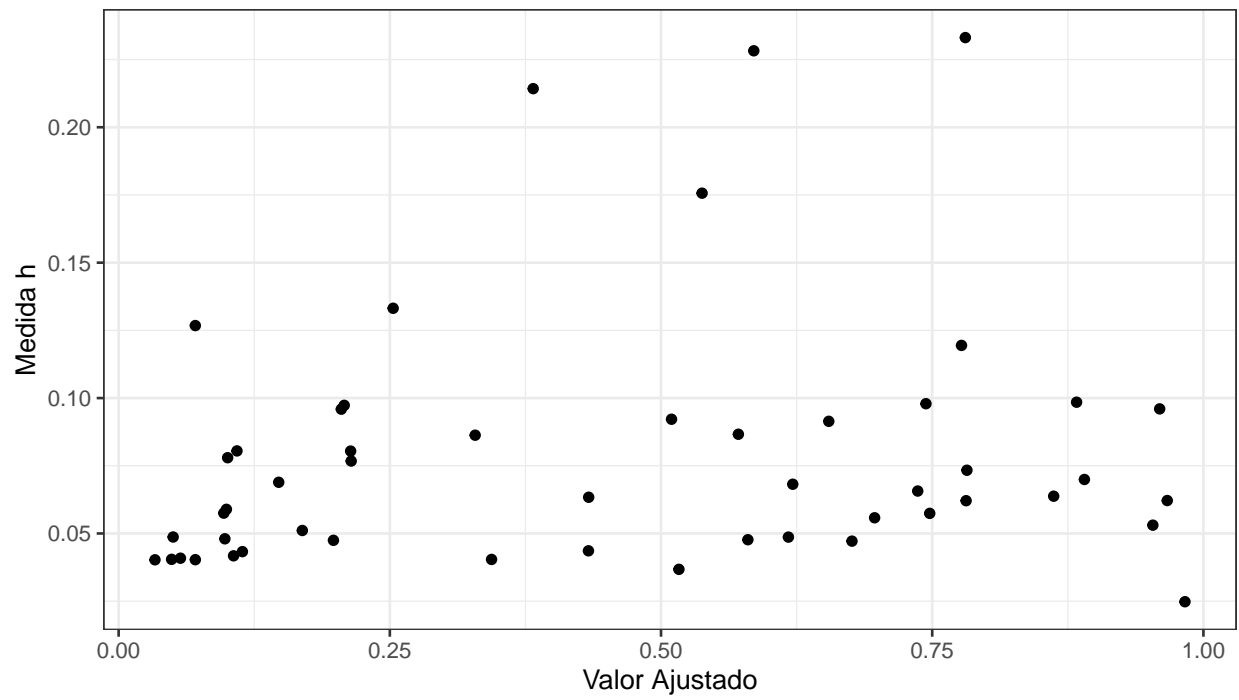
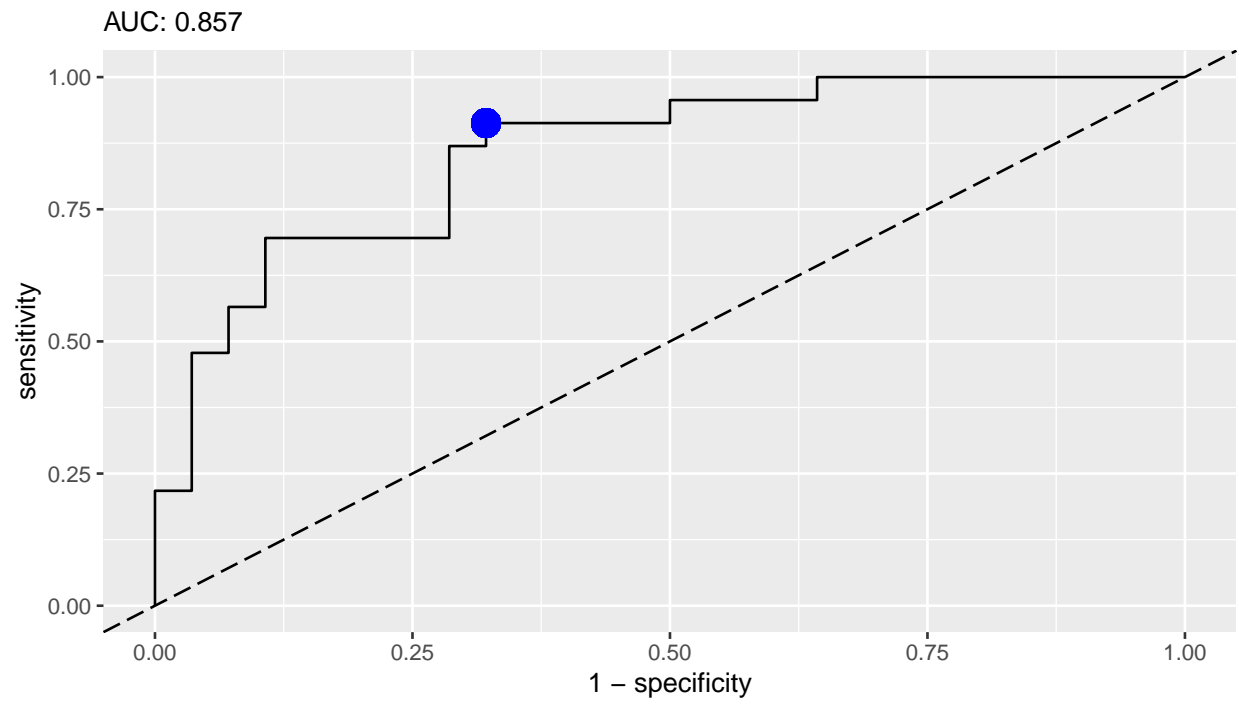
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.001	0.507	0.026
sofa	1.329	3.566	2.177
una	0.980	1.003	0.991
scr_basal	1.161	960.930	33.397

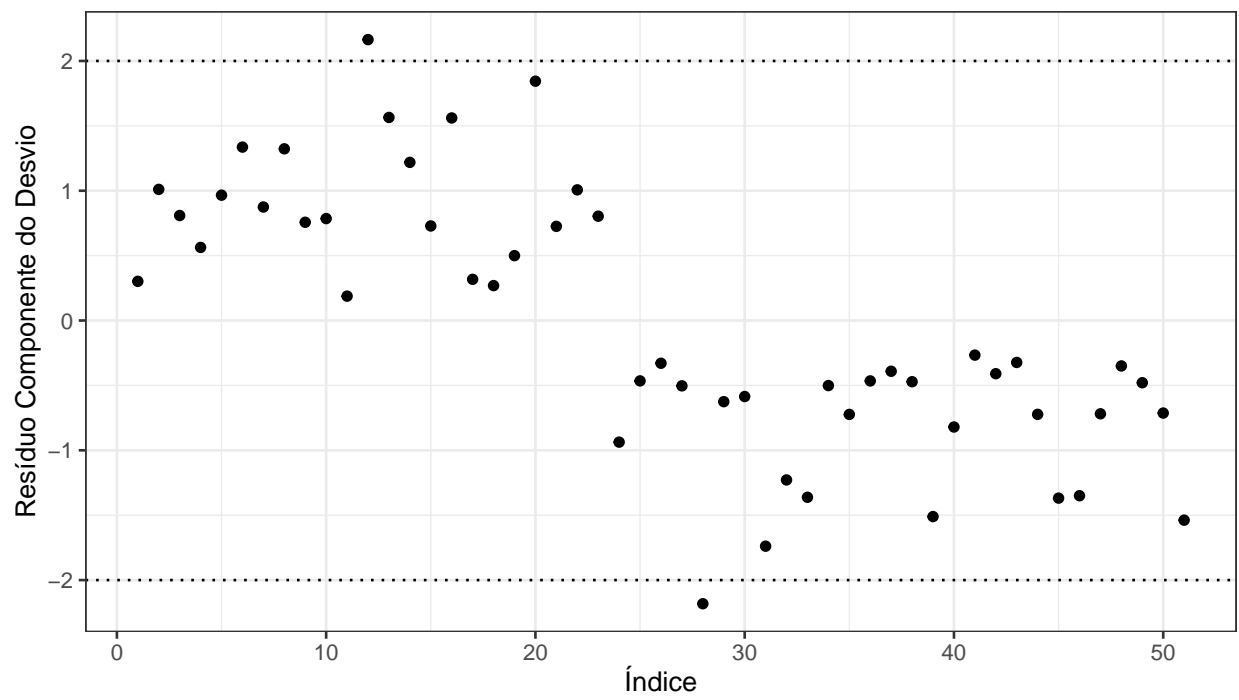
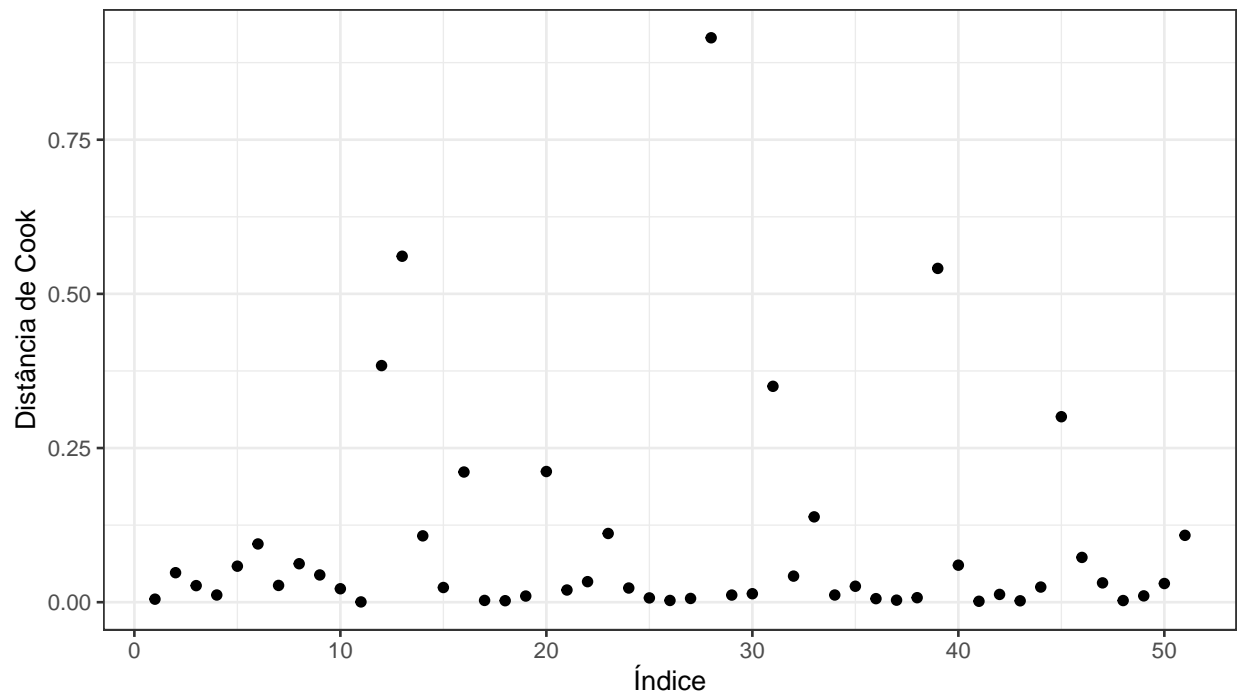
Table 99: Variance Inflation Factor

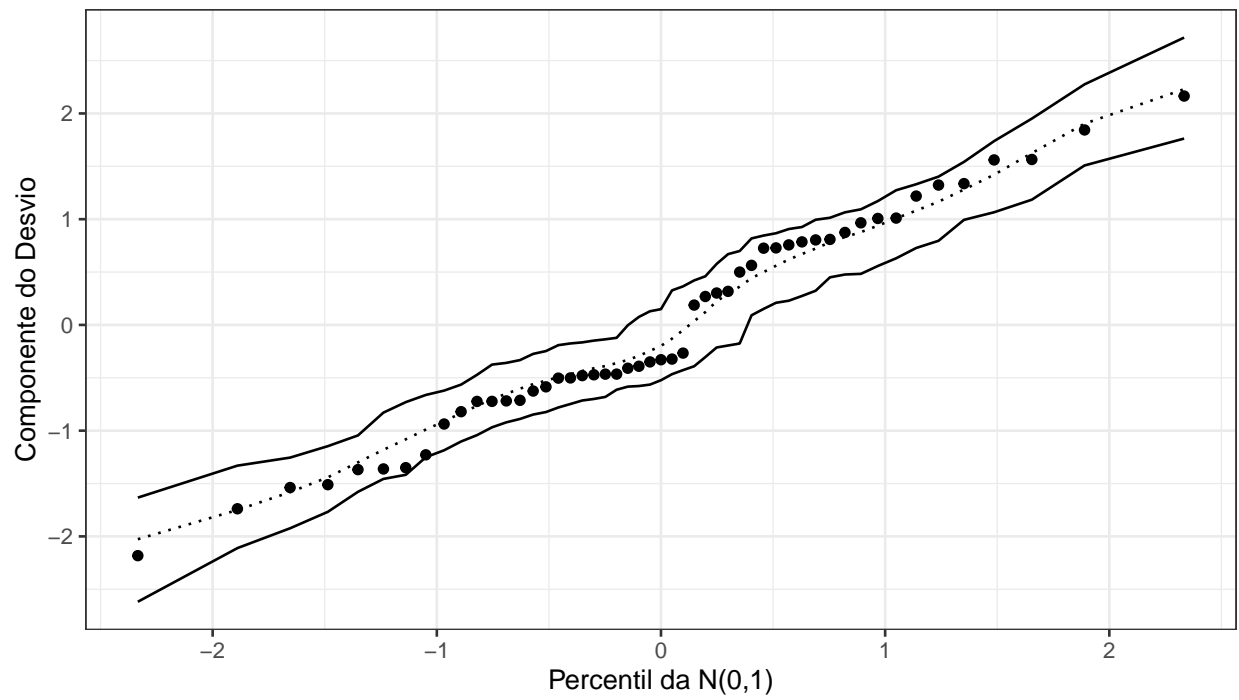
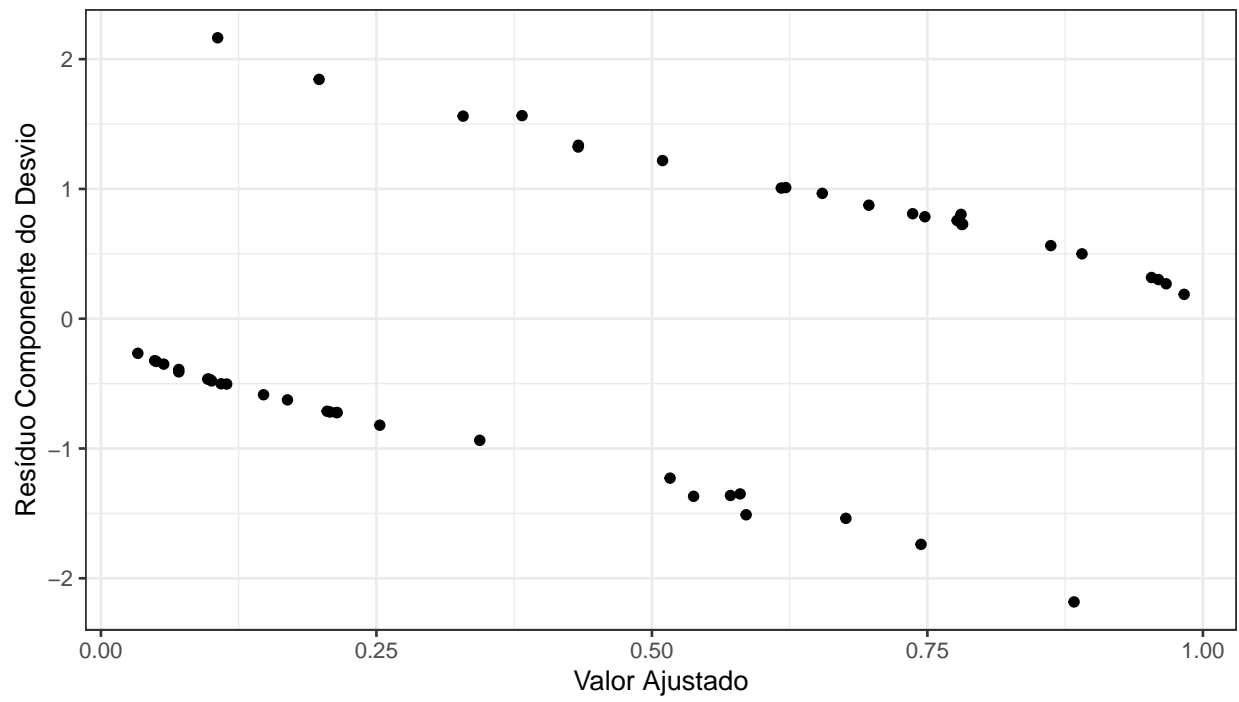
	x
sofa	1.069
una	1.024
scr_basal	1.091

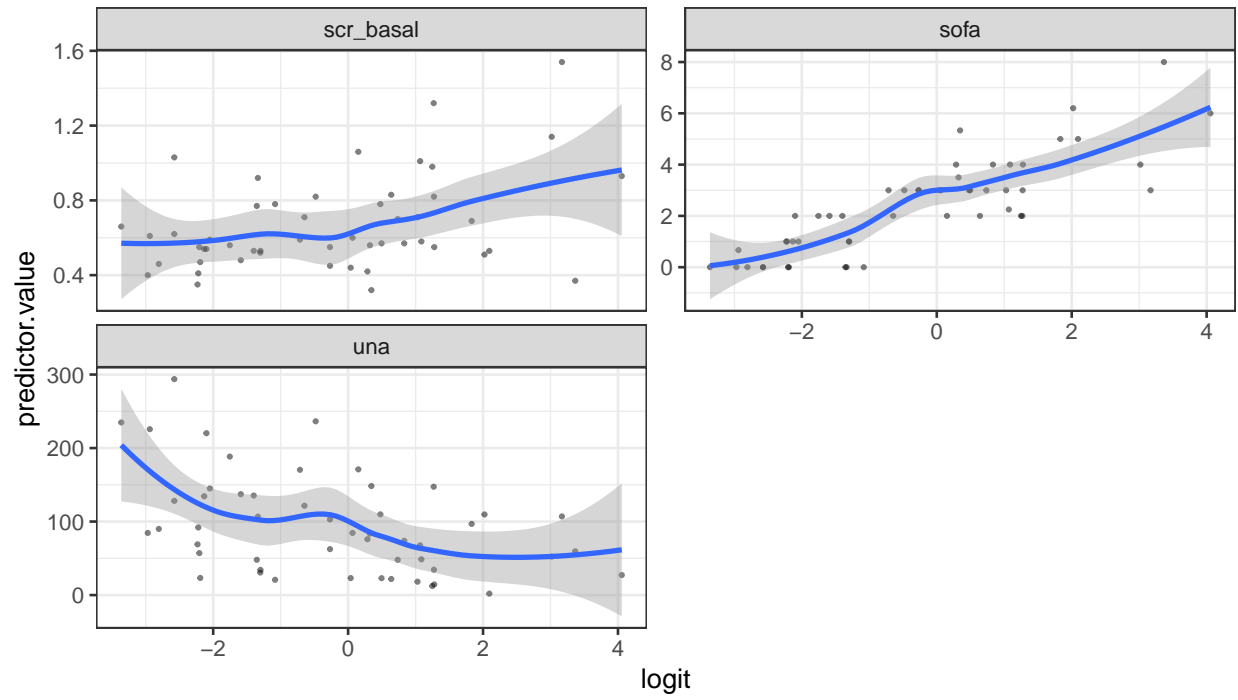
Table 100: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.291	0.679	0.913	0.321









Forwards

Table 101: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-5.313	1.691	-3.141	0.002
sofa	0.788	0.259	3.046	0.002
scr_basal	3.280	1.748	1.877	0.061
su	0.031	0.019	1.604	0.109

Table 102: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
70.21	50	-23.418	54.837	62.564	46.837	47	51

Table 103: Confidence intervals

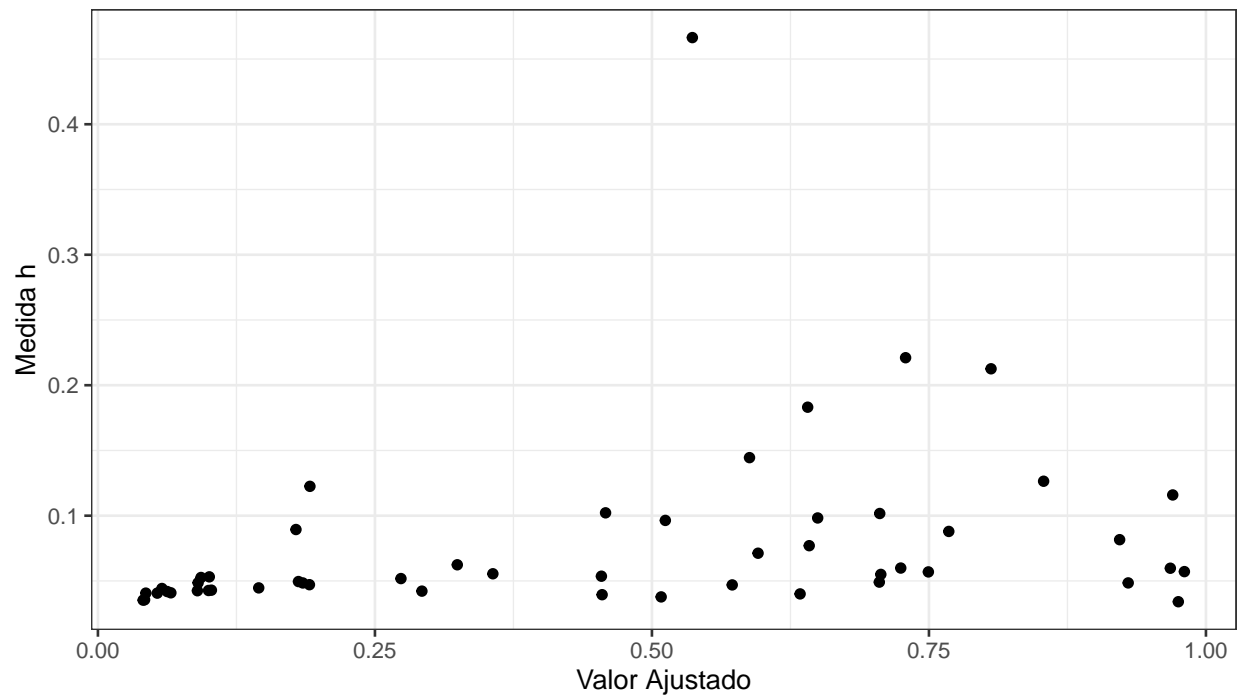
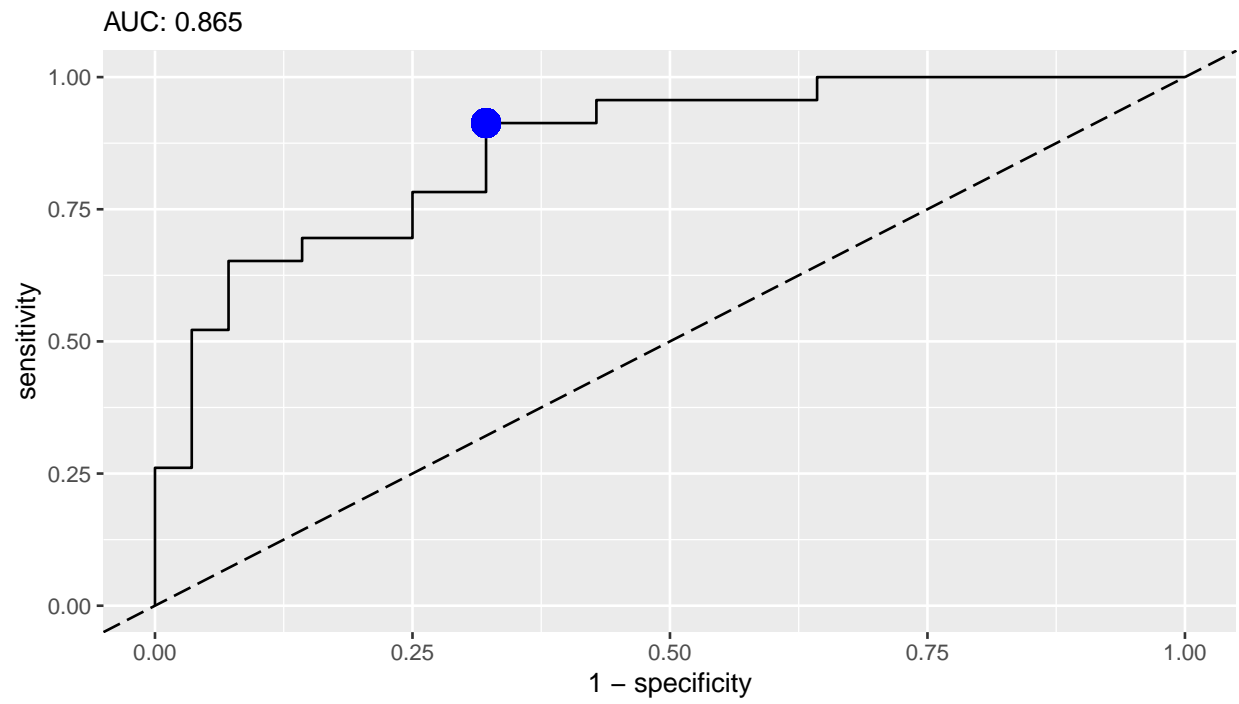
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.000	0.136	0.005
sofa	1.324	3.650	2.199
scr_basal	0.865	817.237	26.585
su	0.993	1.071	1.031

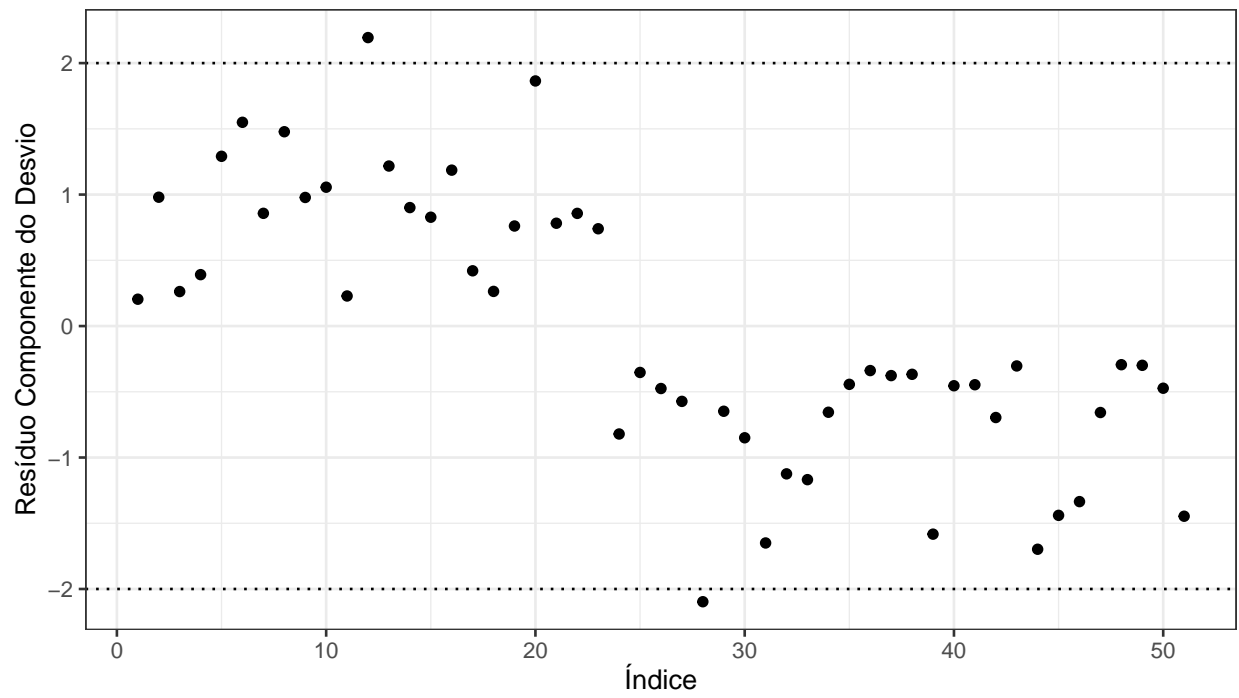
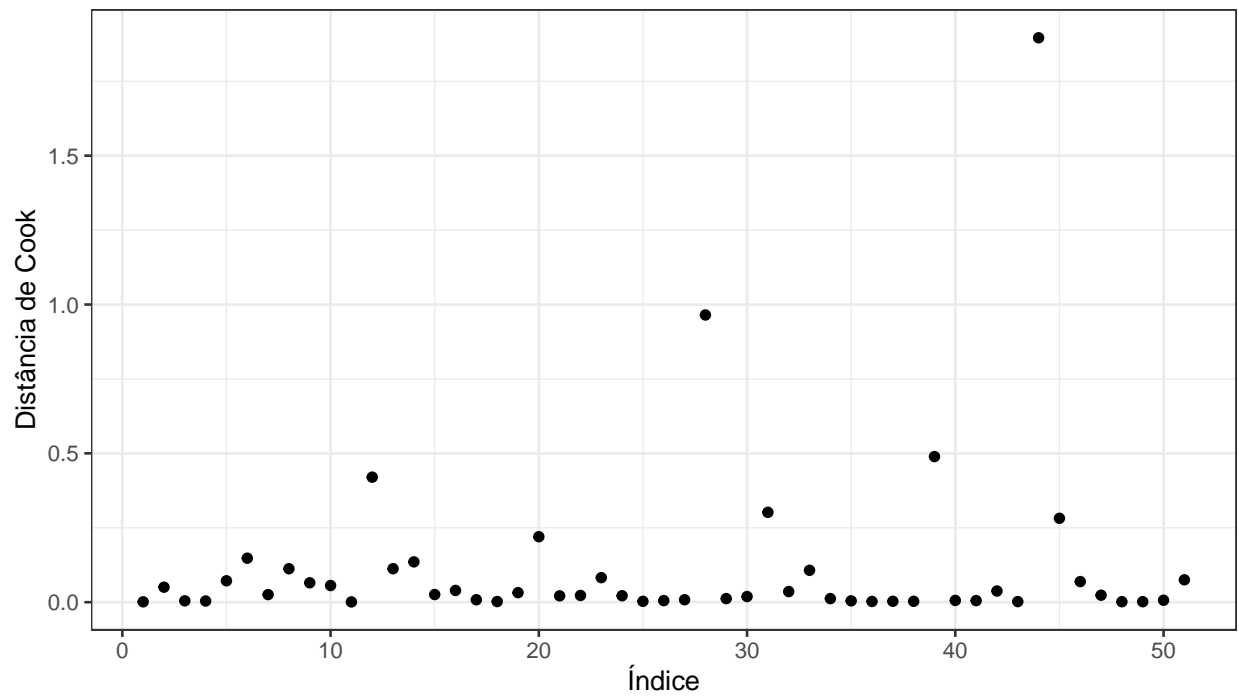
Table 104: Variance Inflation Factor

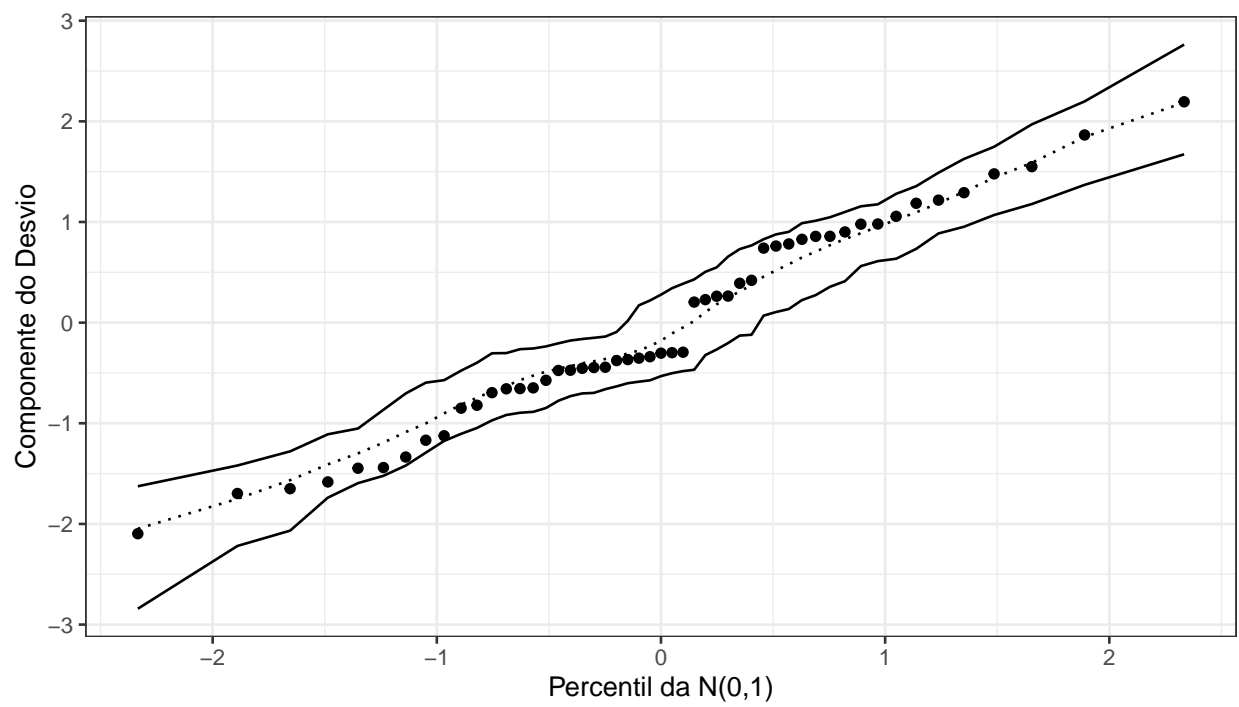
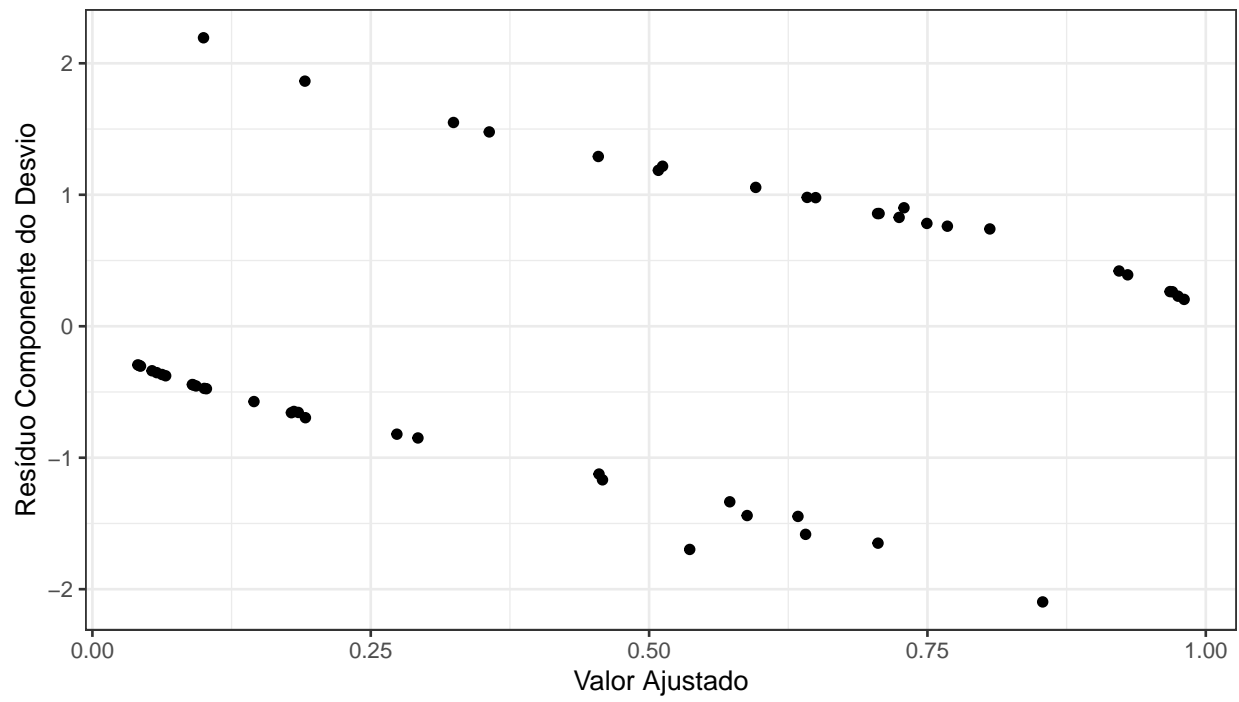
	x
sofa	1.101
scr_basal	1.107
su	1.007

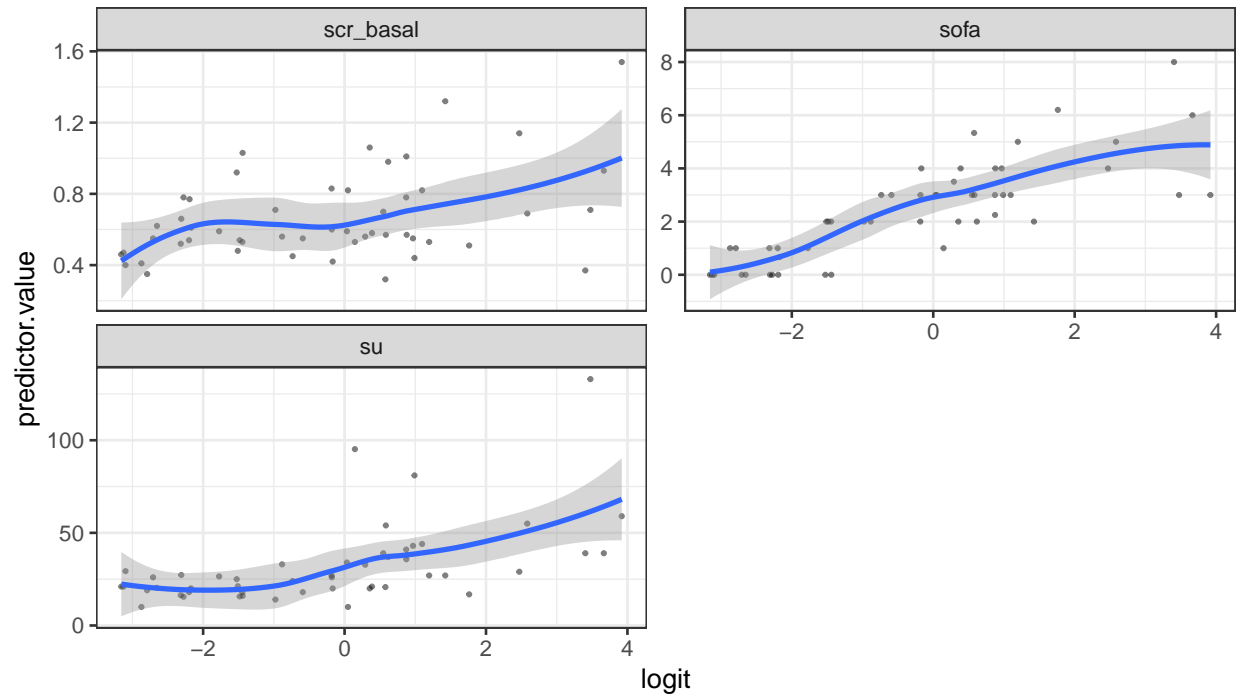
Table 105: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.308	0.679	0.913	0.321









Stepwise

Table 106: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-5.313	1.691	-3.141	0.002
sofa	0.788	0.259	3.046	0.002
scr_basal	3.280	1.748	1.877	0.061
su	0.031	0.019	1.604	0.109

Table 107: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
70.21	50	-23.418	54.837	62.564	46.837	47	51

Table 108: Confidence intervals

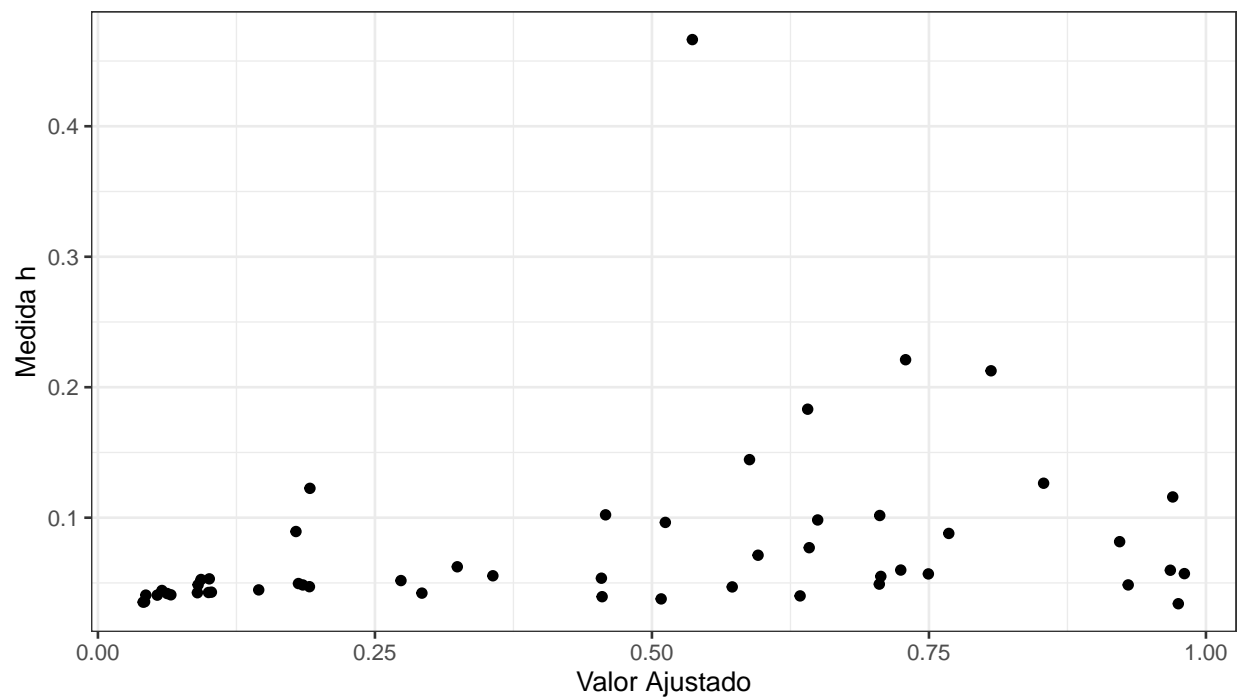
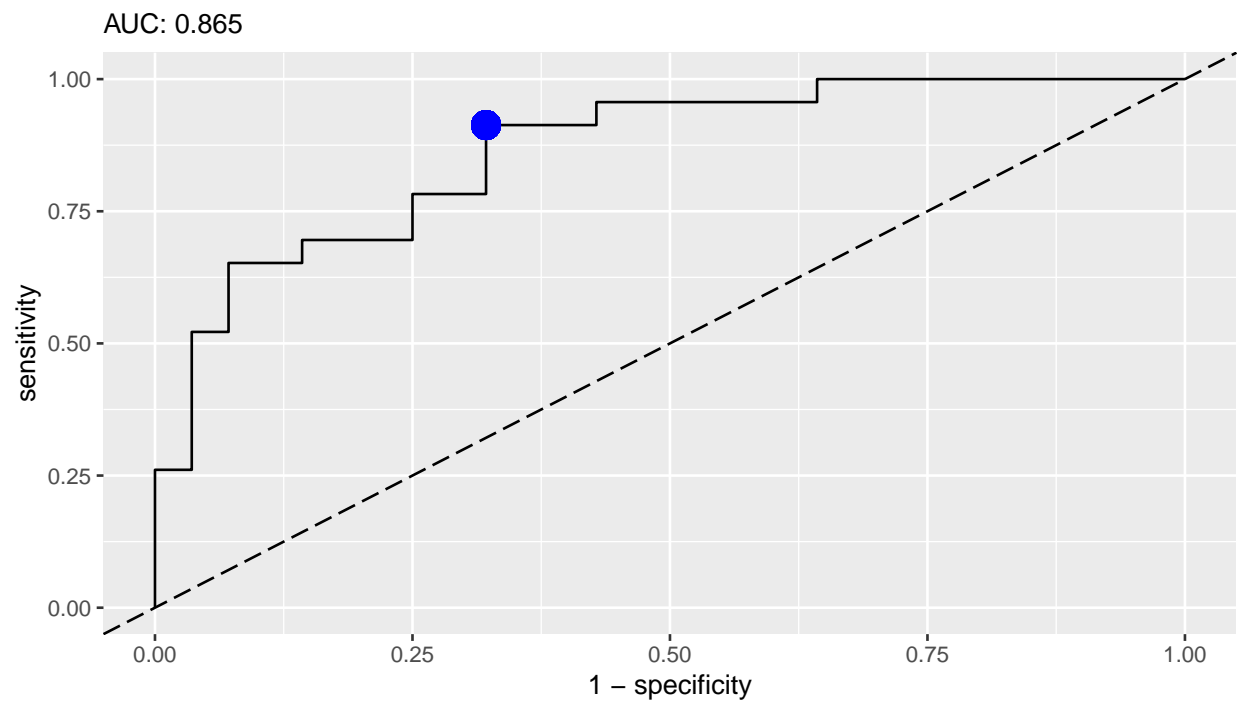
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.000	0.136	0.005
sofa	1.324	3.650	2.199
scr_basal	0.865	817.237	26.585
su	0.993	1.071	1.031

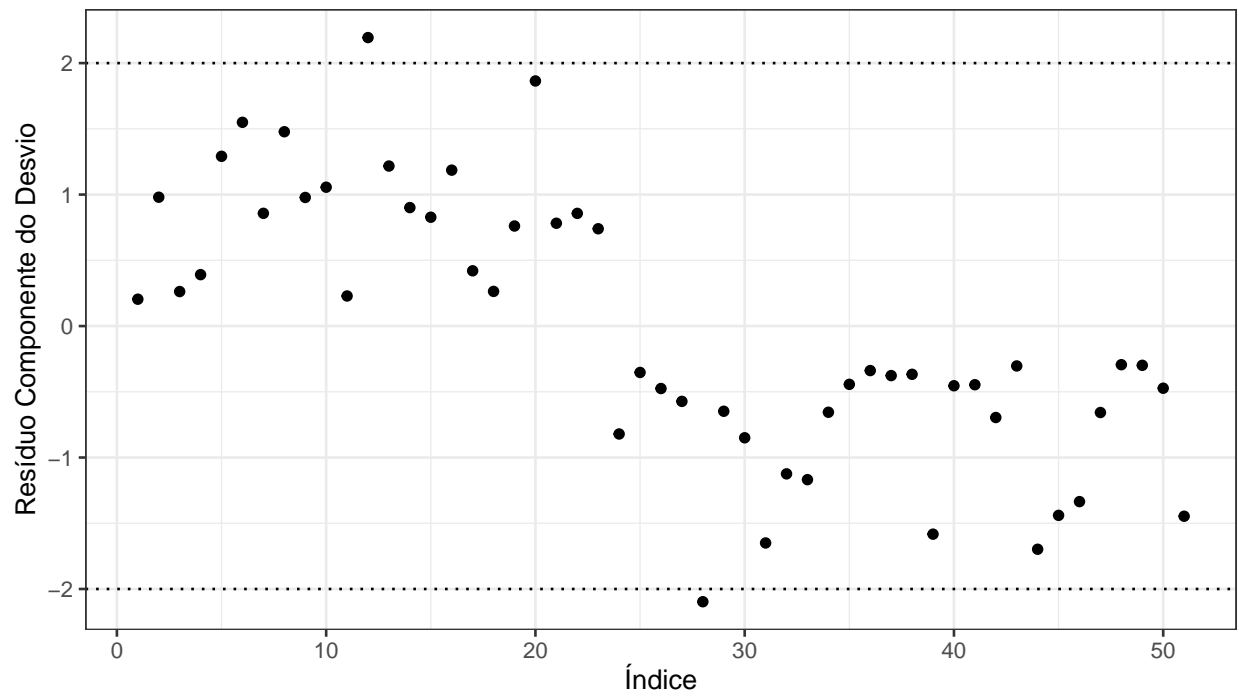
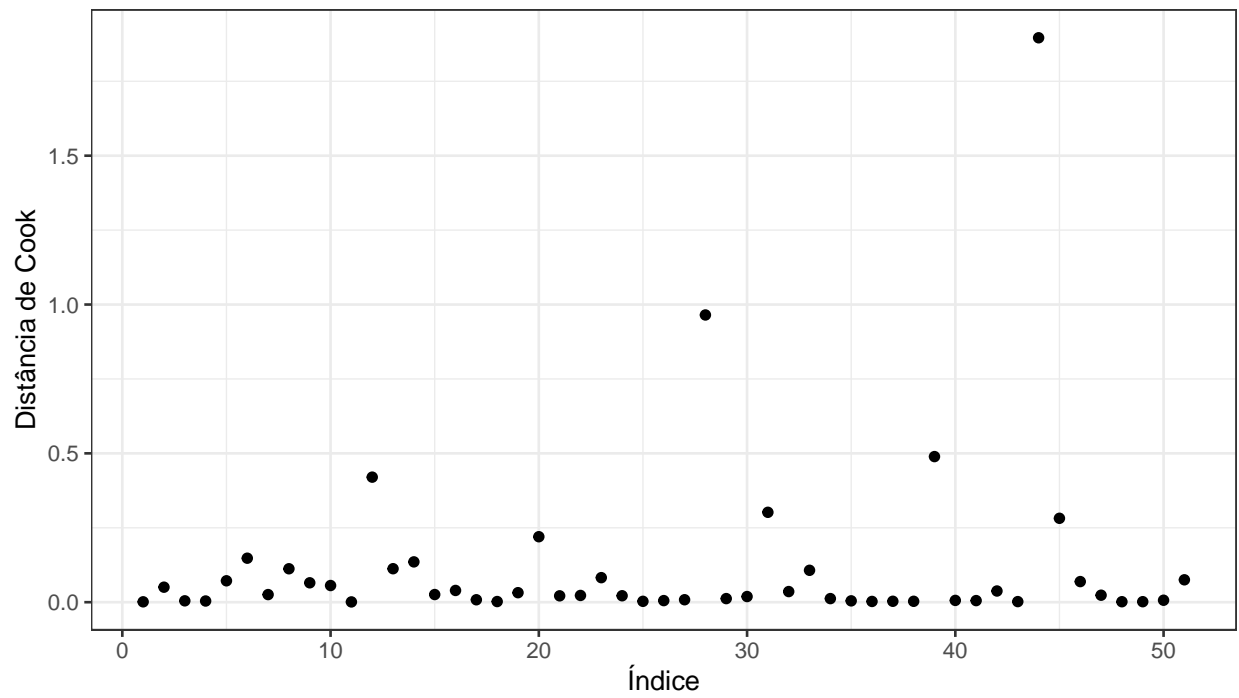
Table 109: Variance Inflation Factor

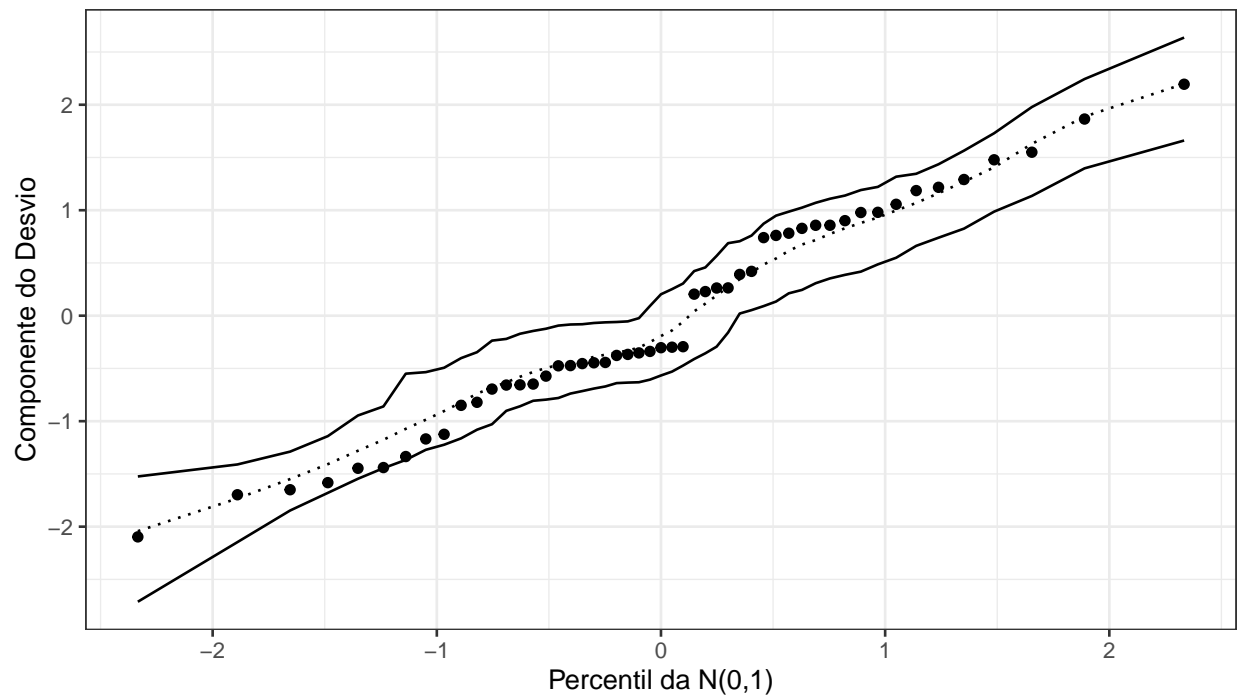
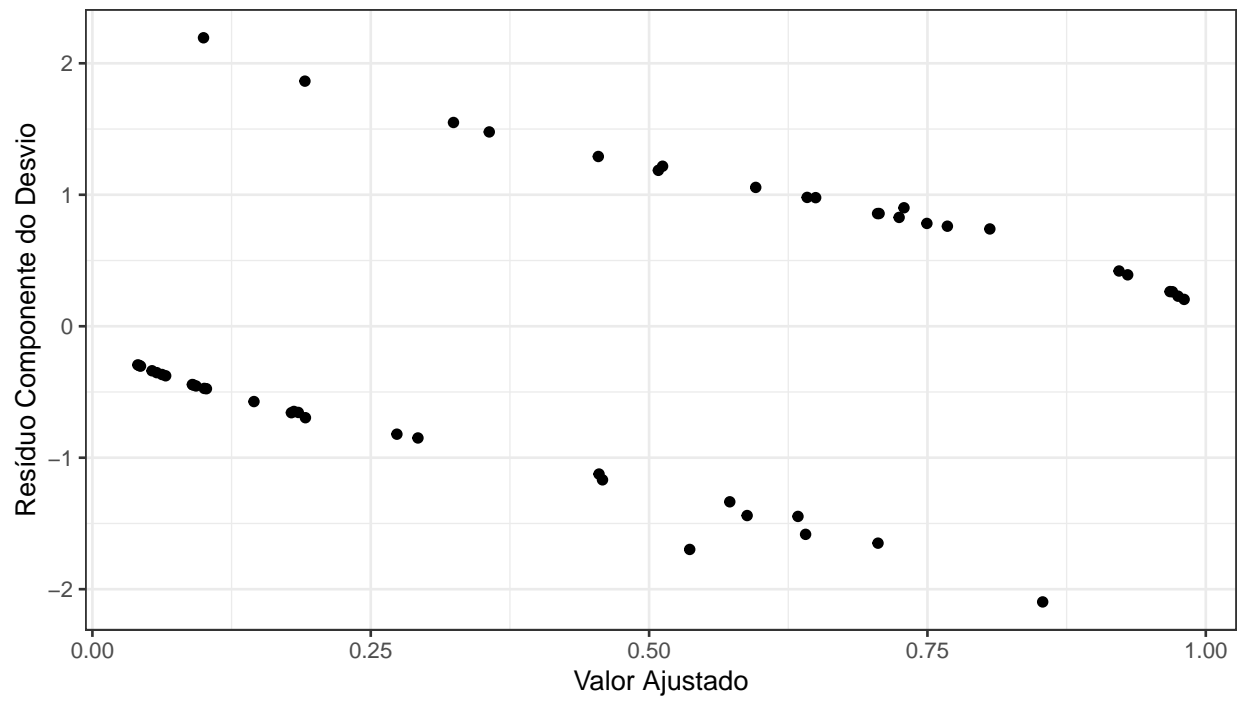
	x
sofa	1.101
scr_basal	1.107
su	1.007

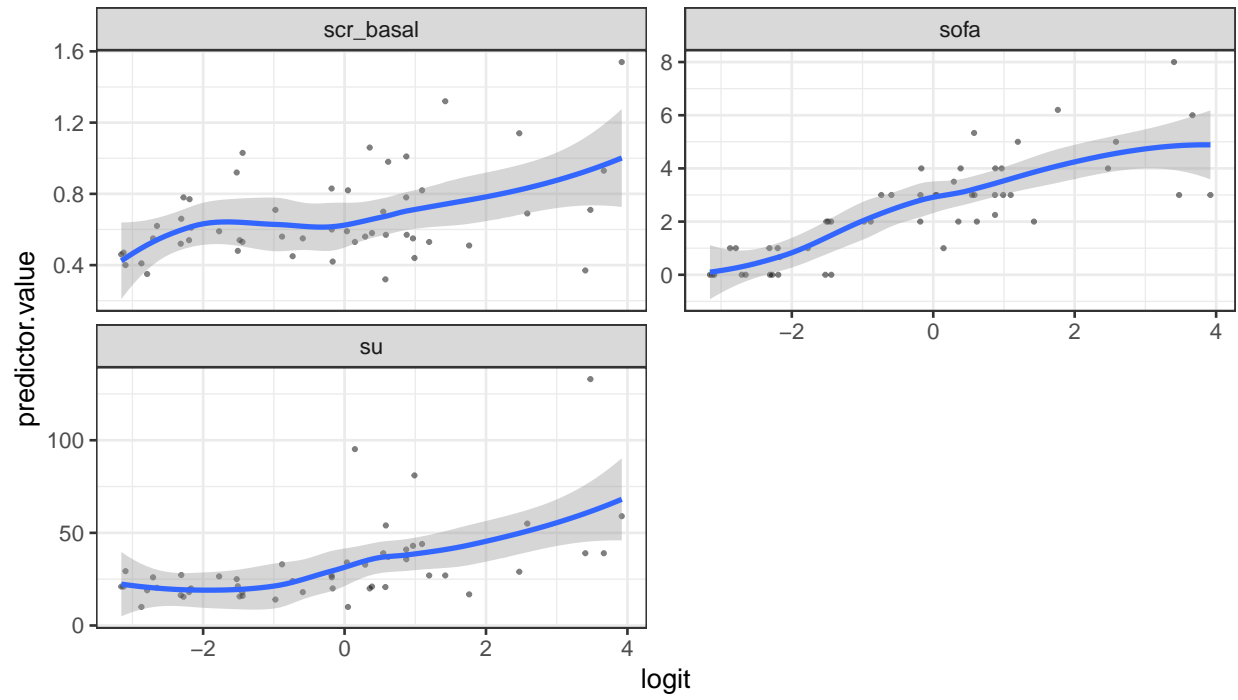
Table 110: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.308	0.679	0.913	0.321









Union model

Table 111: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-4.566	1.825	-2.502	0.012
sofa	0.757	0.256	2.957	0.003
una	-0.005	0.006	-0.839	0.402
scr_basal	3.421	1.758	1.945	0.052
su	0.023	0.021	1.104	0.270

Table 112: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
70.21	50	-23.051	56.102	65.761	46.102	46	51

Table 113: Confidence intervals

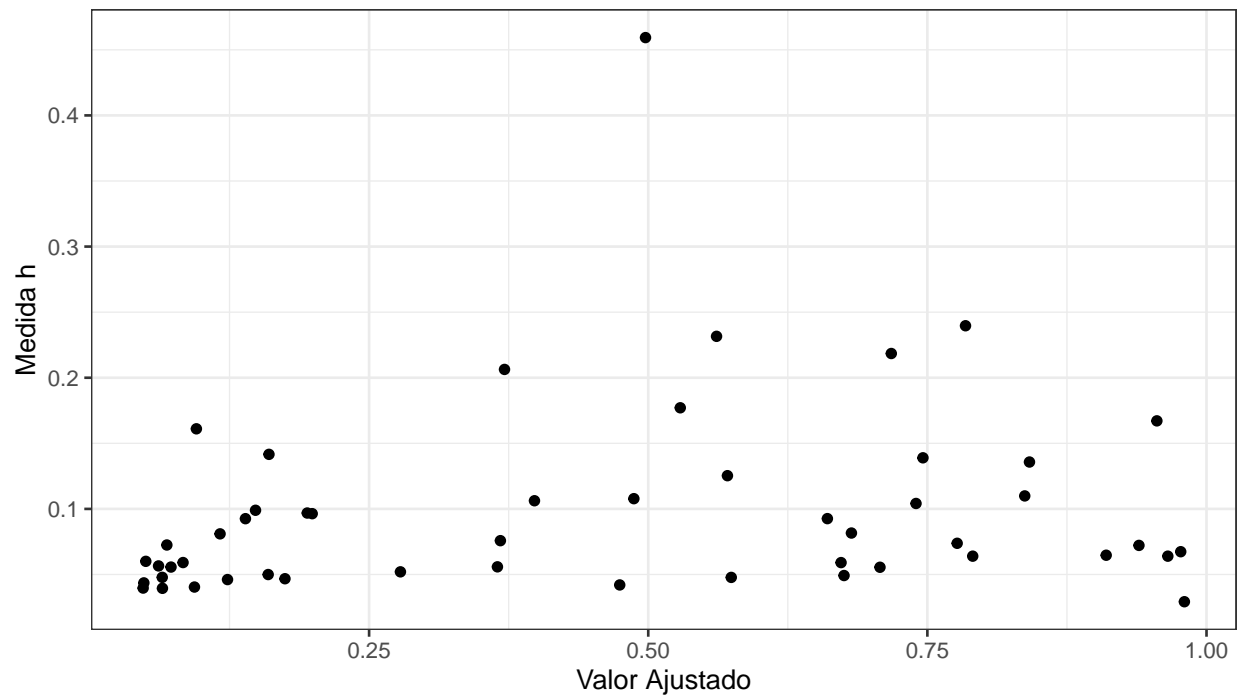
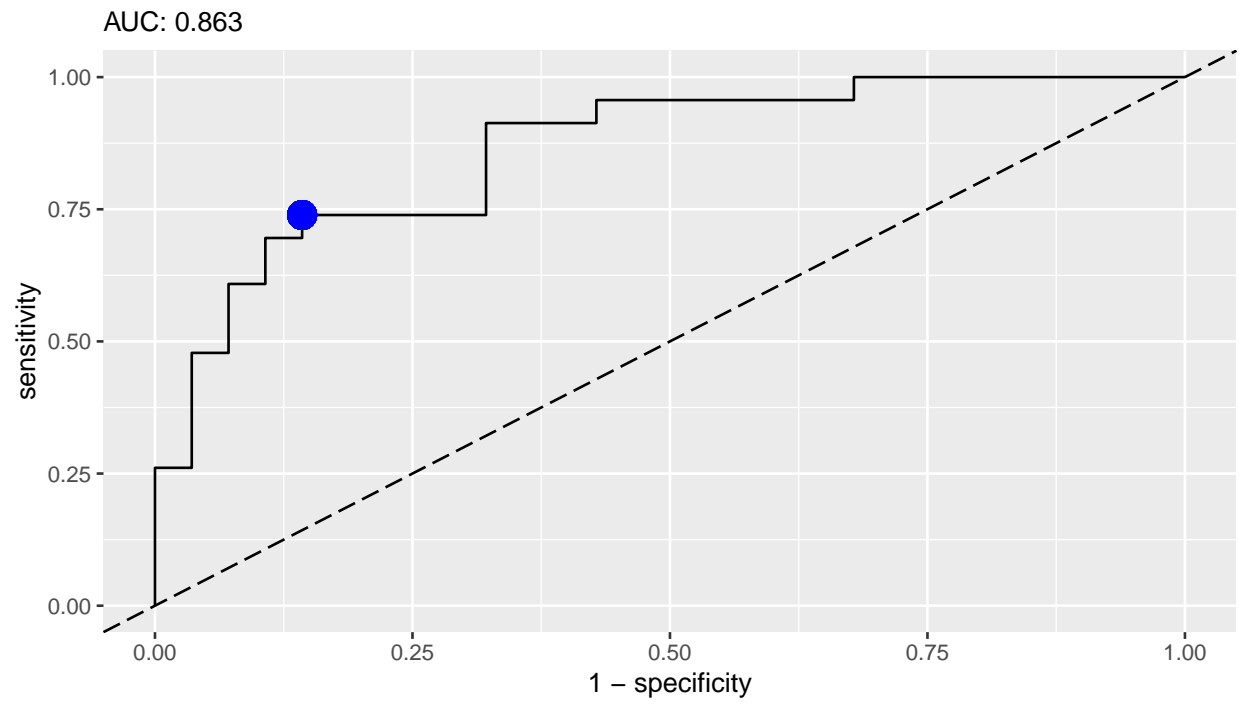
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.000	0.372	0.010
sofa	1.291	3.522	2.132
una	0.982	1.007	0.995
scr_basal	0.974	960.054	30.585
su	0.982	1.065	1.023

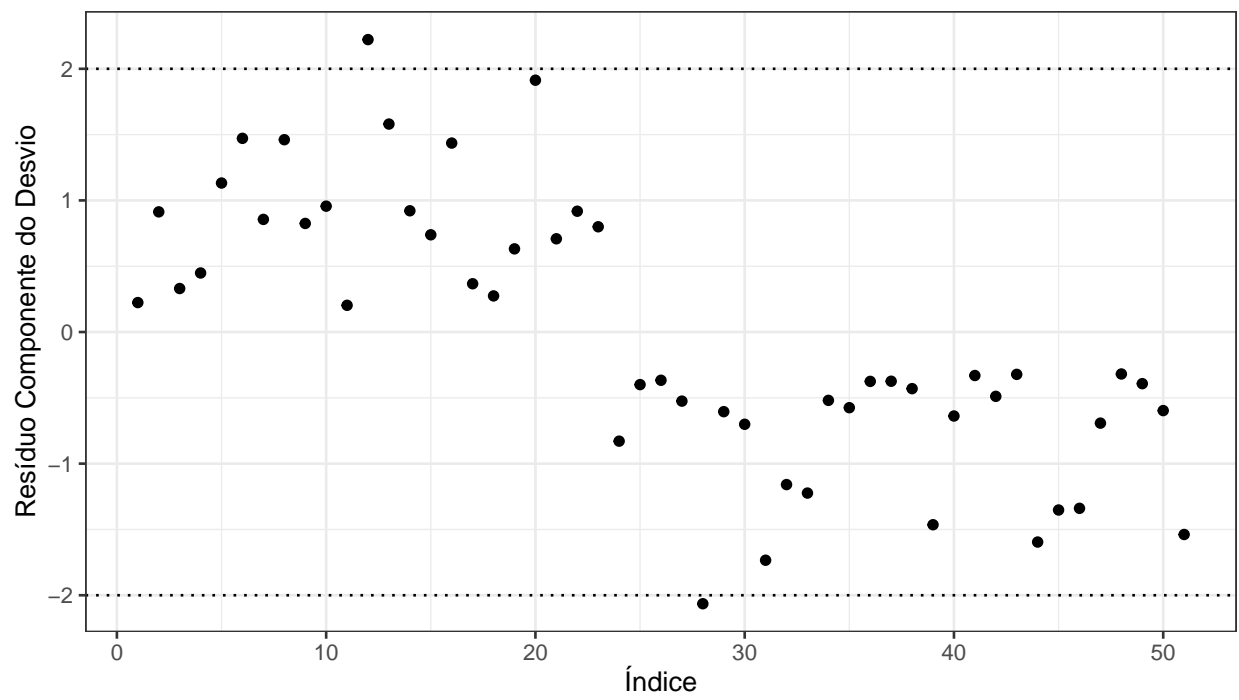
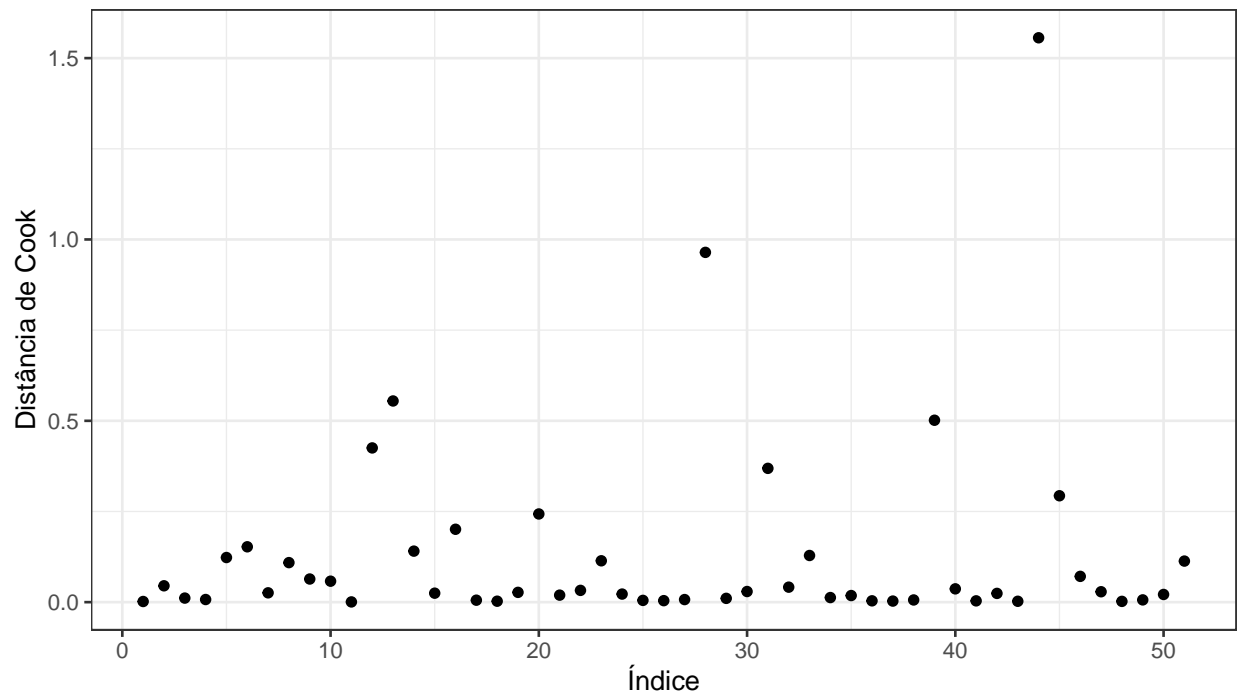
Table 114: Variance Inflation Factor

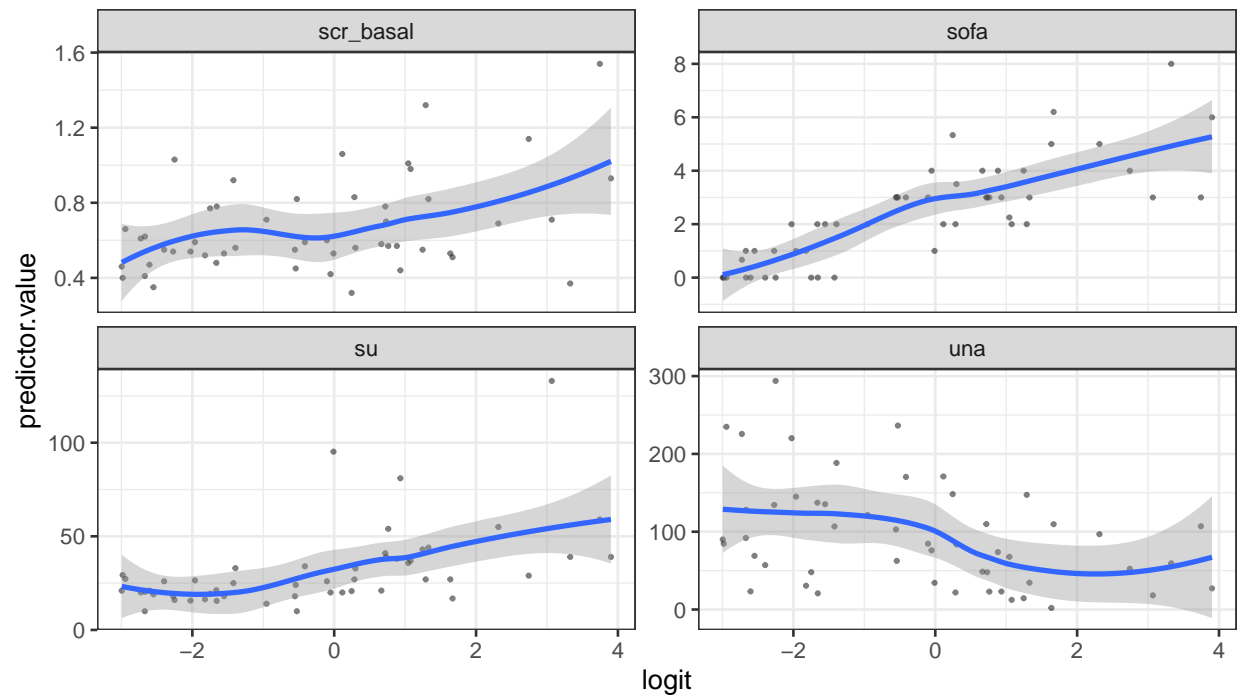
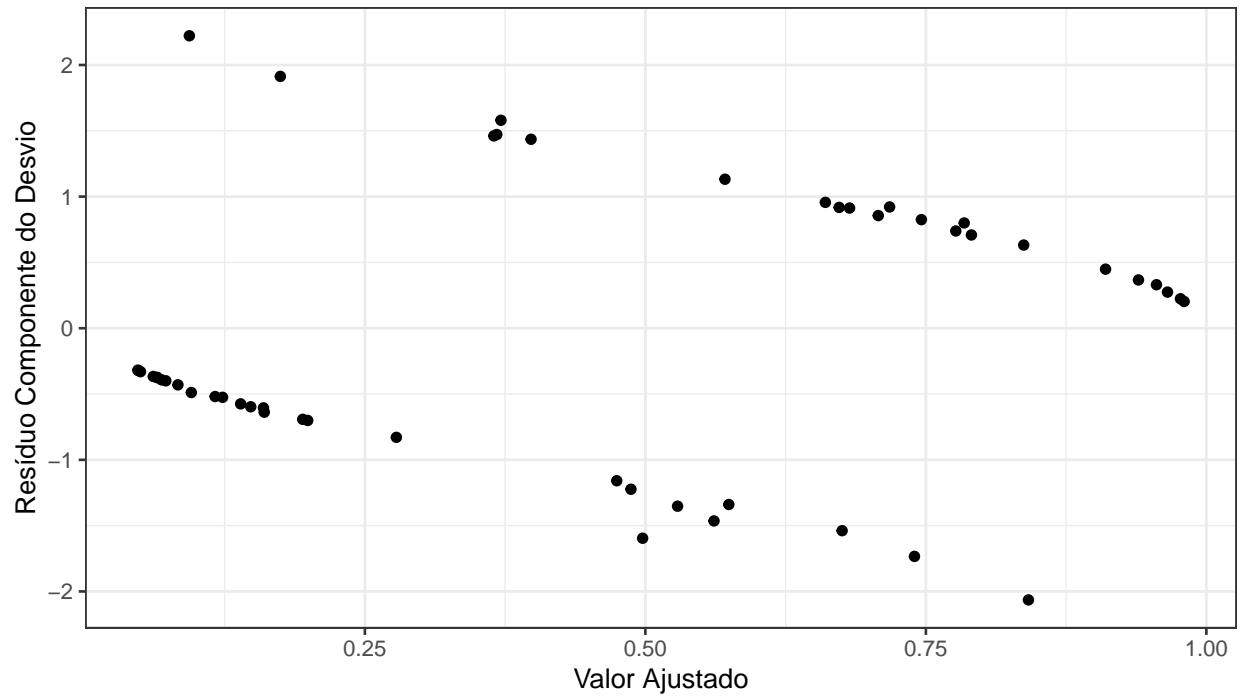
	x
sofa	1.092
una	1.255
scr_basal	1.107
su	1.226

Table 115: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.566	0.857	0.739	0.143







Intersection model

Table 116: Model summary

term	estimate	std.error	statistic	p.value
(Intercept)	-4.385	1.466	-2.991	0.003
sofa	0.830	0.254	3.270	0.001
scr_basal	3.219	1.672	1.925	0.054

Table 117: Model details

null.deviance	df.null	logLik	AIC	BIC	deviance	df.residual	nobs
70.21	50	-24.978	55.956	61.752	49.956	48	51

Table 118: Confidence intervals

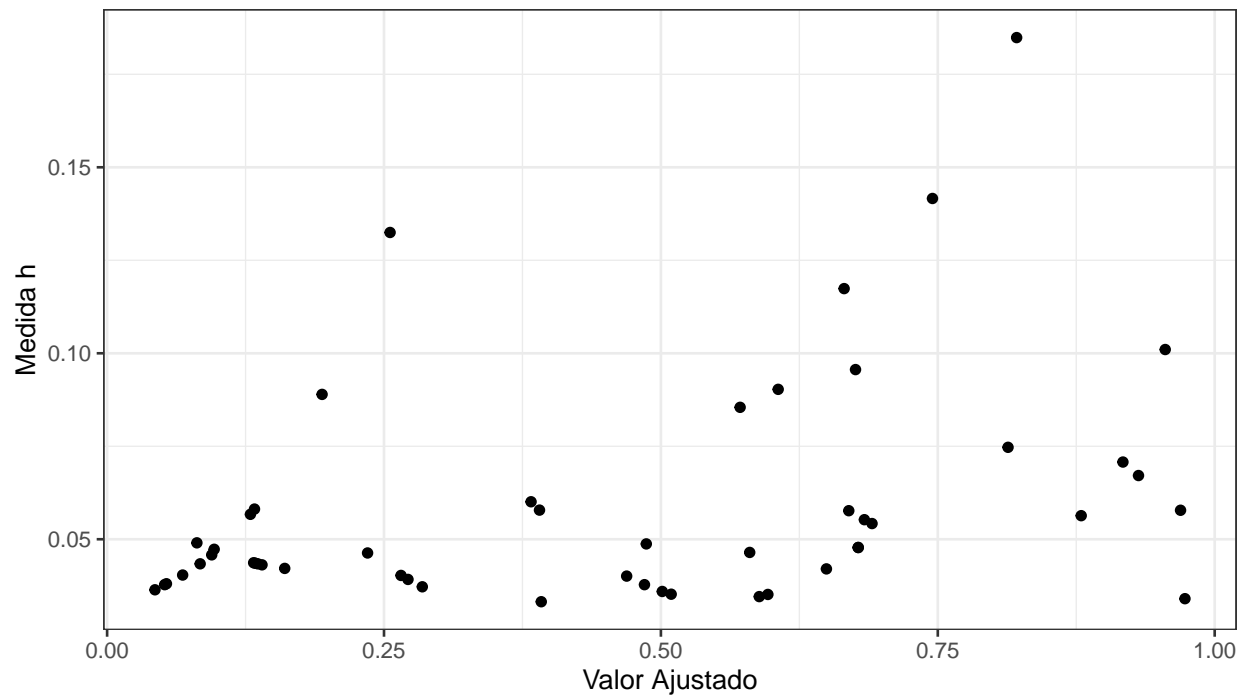
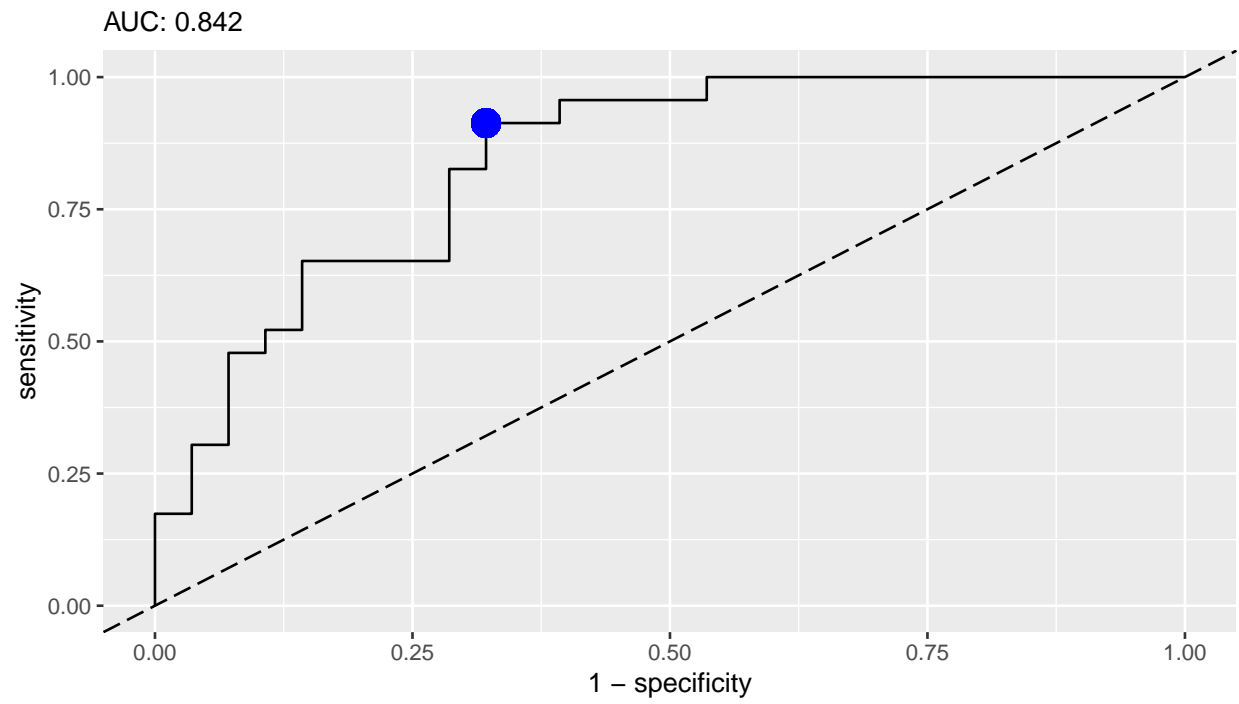
variável	2.5 %	97.5 %	estimativa
(Intercept)	0.001	0.221	0.012
sofa	1.395	3.773	2.294
scr_basal	0.943	662.847	24.997

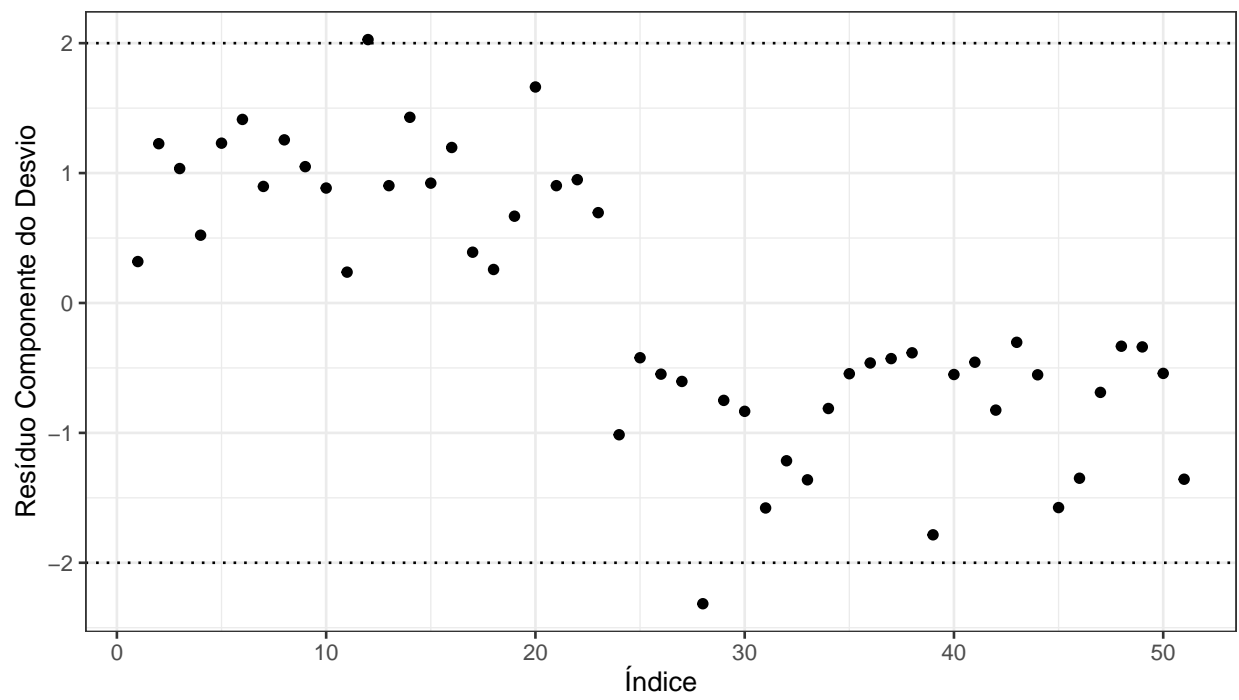
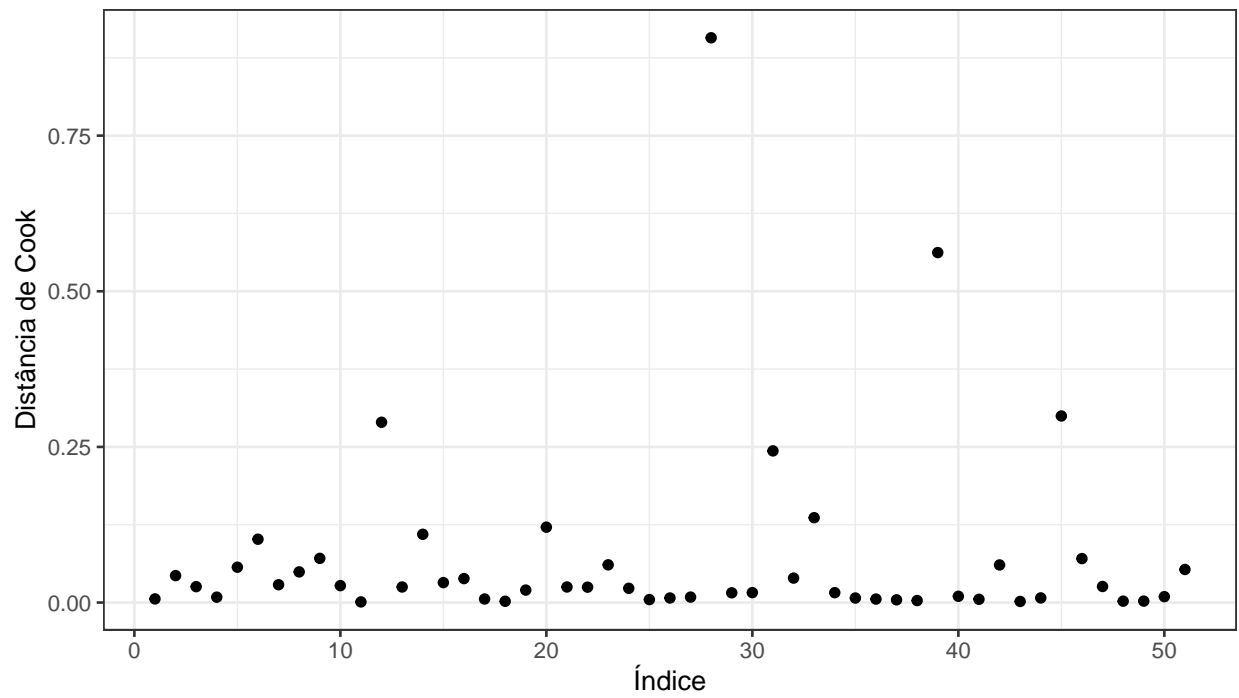
Table 119: Variance Inflation Factor

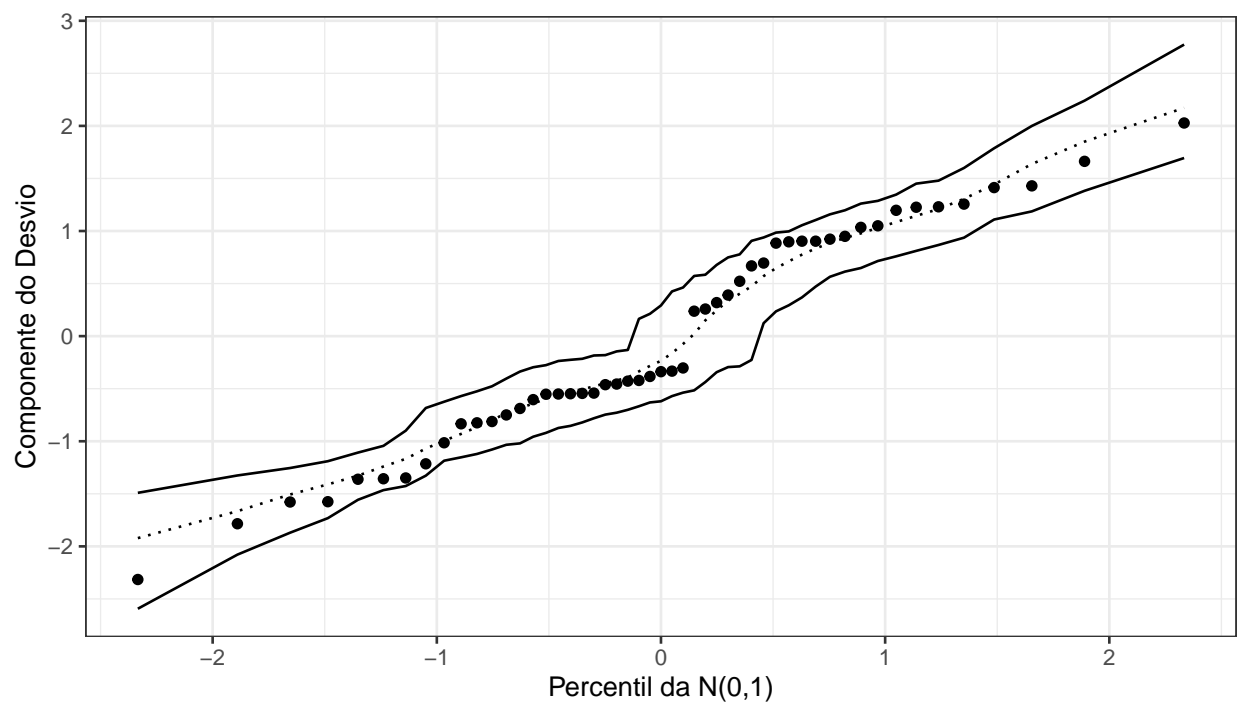
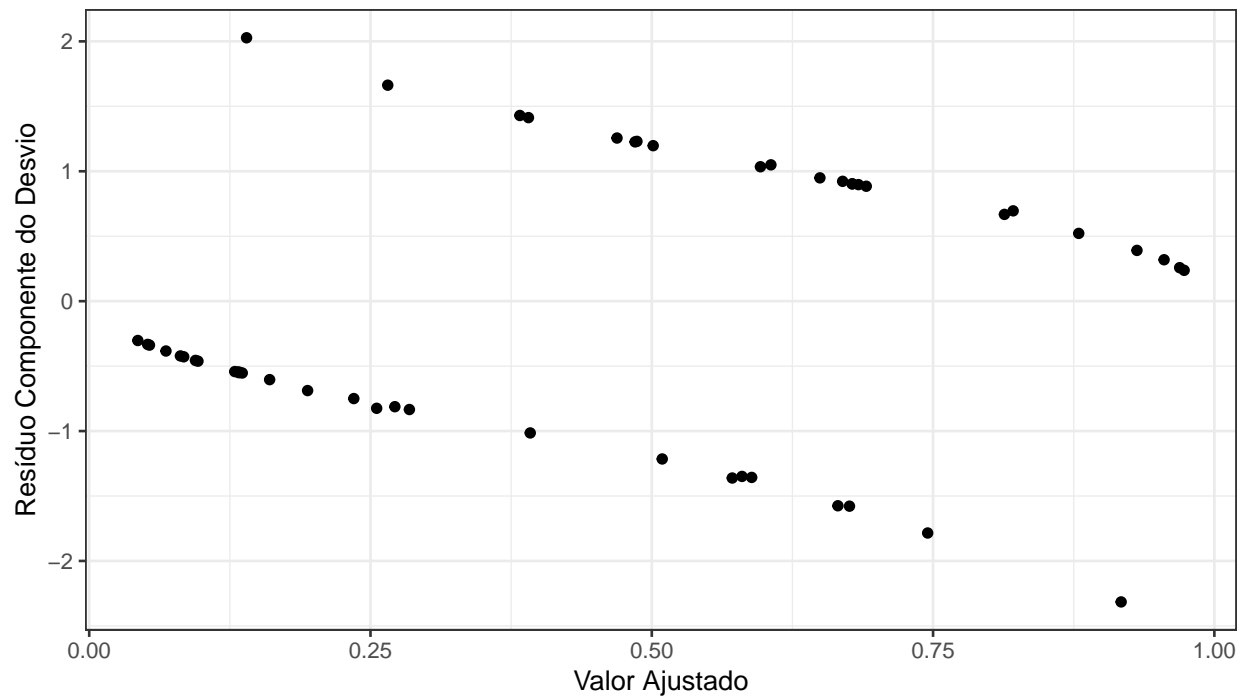
x	
sofa	1.075
scr_basal	1.075

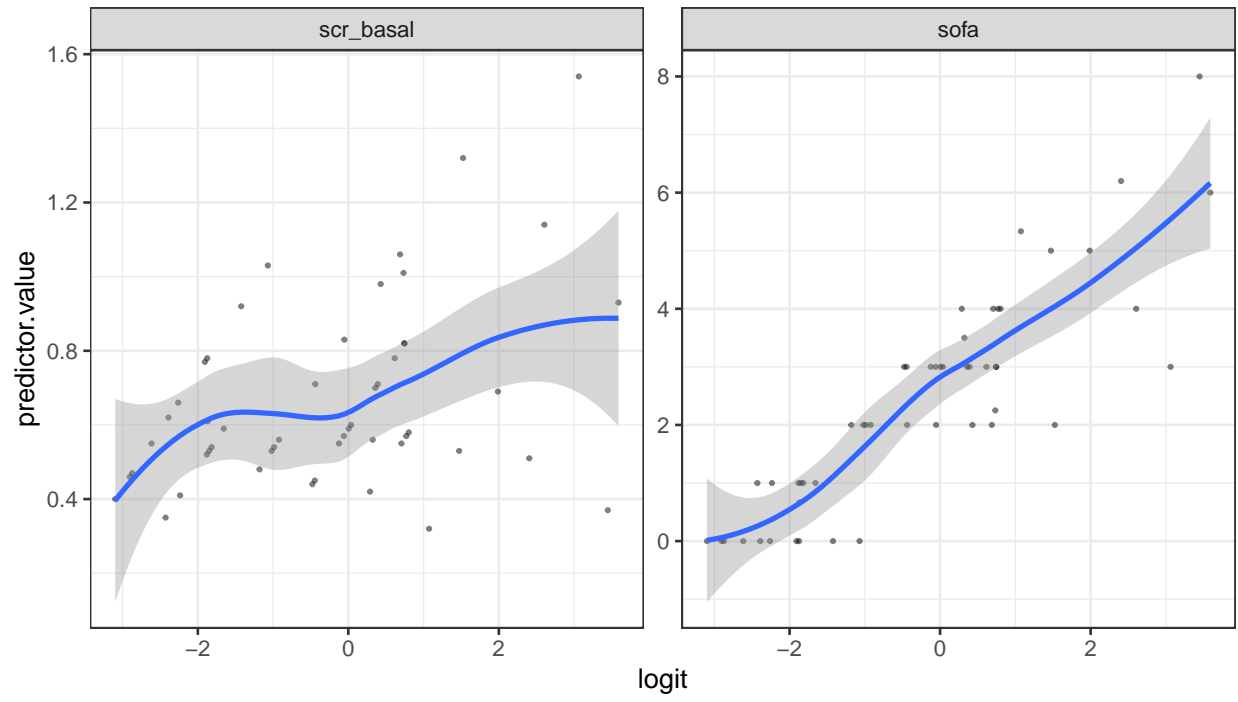
Table 120: Classifier metrics

	threshold	specificity	sensitivity	fpr
threshold	0.334	0.679	0.913	0.321









LOOCV

ira ~ sofa + scr_basal

Table 121: Youden threshold = 0.320

threshold	specificity	sensitivity	fpr
-Inf	0.000	1.000	1.000
0.049	0.036	1.000	0.964
0.055	0.071	1.000	0.929
0.063	0.107	1.000	0.893
0.078	0.143	1.000	0.857
0.087	0.179	1.000	0.821
0.093	0.214	1.000	0.786
0.100	0.250	1.000	0.750
0.101	0.250	0.957	0.750
0.119	0.286	0.957	0.714
0.138	0.321	0.957	0.679
0.139	0.357	0.957	0.643
0.141	0.393	0.957	0.607
0.142	0.429	0.957	0.571
0.155	0.464	0.957	0.536
0.190	0.500	0.957	0.500
0.224	0.536	0.957	0.464
0.240	0.536	0.913	0.464
0.265	0.571	0.913	0.429
0.289	0.607	0.913	0.393
0.296	0.643	0.913	0.357
0.320	0.679	0.913	0.321
0.349	0.679	0.870	0.321
0.379	0.679	0.826	0.321
0.426	0.714	0.826	0.286
0.454	0.714	0.783	0.286
0.463	0.714	0.739	0.286
0.474	0.714	0.696	0.286
0.505	0.714	0.652	0.286
0.548	0.750	0.652	0.250
0.575	0.750	0.609	0.250
0.595	0.750	0.565	0.250
0.609	0.786	0.565	0.214
0.618	0.821	0.565	0.179
0.630	0.857	0.565	0.143
0.642	0.857	0.522	0.143
0.656	0.857	0.478	0.143
0.664	0.857	0.391	0.143
0.669	0.857	0.348	0.143
0.711	0.857	0.304	0.143
0.752	0.893	0.304	0.107
0.767	0.929	0.304	0.071
0.788	0.929	0.261	0.071
0.827	0.929	0.217	0.071

Table 121: Youden threshold = 0.320 (*continued*)

threshold	specificity	sensitivity	fpr
0.864	0.964	0.217	0.036
0.899	0.964	0.174	0.036
0.938	0.964	0.130	0.036
0.959	0.964	0.087	0.036
0.969	0.964	0.043	0.036
0.971	1.000	0.043	0.000
Inf	1.000	0.000	0.000

