

# Tables - split

Eduardo Yuki Yada

## Imports

```
library(tidyverse)
library(yaml)
library(kableExtra)
```

## Loading data

```
load('../dataset/processed_data.RData')
load('../dataset/processed_dictionary.RData')

columns_list <- yaml.load_file("../auxiliar/columns_list.yaml")

outcome_column <- params$outcome_column
```

## Numerical variables

```
medianWithoutNA <- function(x) {
  median(x[which(!is.na(x))])
}

i = 0
for (column in columns_list$numerical_columns){
  df %>%
    group_by_at(vars(one_of(outcome_column))) %>%
    summarise('Mean' = mean(!sym(column), na.rm = T),
              'Min' = min(!sym(column), na.rm = T),
              'Median' = medianWithoutNA(!sym(column)),
              'Max' = max(!sym(column), na.rm = T),
              'Standard Deviation' = sd(!sym(column), na.rm = T),
              'N' = n(),
              'Missing' = sum(is.na(!sym(column)))) %>%
    ungroup %>%
    mutate(Min = ifelse(is.infinite(Min), NA, Min),
           Max = ifelse(is.infinite(Max), NA, Max)) %>%
    kbl(align = "l", booktabs = T, digits = 3, format = 'latex', label = i,
        caption = df_names %>% filter(variable.name == column) %>% .$field.label) %>%
    column_spec(1, bold = T, width = "8em") %>%
    row_spec(c(1) - 1, extra_latex_after = "\\rowcolor{gray!6}") %>%
    collapse_rows(1, latex_hline = "none") %>%
    kable_styling(latex_options = c("HOLD_position", "repeat_header")) %>%
    print

  i <- i + 1
}
```

Table 1: Idade no momento do primeiro procedimento

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	65.434	0	68.70	103.4	17.788	4730	0
<b>train</b>	65.686	0	69.05	110.6	17.768	11036	0

Table 2: Número de comorbidades

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	1.254	0	1	8	1.358	4730	0
<b>train</b>	1.250	0	1	8	1.350	11036	0

Table 3: Ano do procedimento 1

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	2010.530	1999	2010	2021	5.767	4730	0
<b>train</b>	2010.614	1999	2010	2021	5.795	11036	0

Table 4: Idade no Procedimento 1

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	65.434	0	68.70	103.4	17.788	4730	0
<b>train</b>	65.686	0	69.05	110.6	17.768	11036	0

Table 5: Ano do procedimento 2

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	2013.246	1999	2014	2022	4.687	4730	3194
<b>train</b>	2013.014	2000	2013	2022	4.680	11036	7711

Table 6: Idade no Procedimento 2

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	65.756	0.7	69.55	100.9	19.223	4730	3194
<b>train</b>	64.850	0.0	68.80	108.7	19.276	11036	7710

Table 7: Ano do procedimento 3

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	2014.374	1999	2015	2022	4.885	4730	4291
<b>train</b>	2014.299	2002	2015	2022	4.741	11036	9998

Table 8: Idade no Procedimento 3

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	62.059	0.8	66.50	101.1	21.225	4730	4291
<b>train</b>	61.981	0.4	65.75	97.2	20.553	11036	9998

Table 9: Ano do procedimento 4

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	2014.062	2002	2014	2022	5.086	4730	4585
<b>train</b>	2014.629	2002	2015	2022	4.679	11036	10696

Table 10: Idade no Procedimento 4

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	59.166	3.1	65.2	95.3	23.449	4730	4585
<b>train</b>	59.821	1.9	63.3	97.7	21.269	11036	10696

Table 11: Ano do procedimento 5

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	2014.426	2005	2015	2021	4.299	4730	4669
<b>train</b>	2014.145	2003	2014	2022	4.151	11036	10905

Table 12: Idade no Procedimento 5

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	57.000	3.2	63.6	95.7	25.051	4730	4669
<b>train</b>	58.238	6.3	60.8	99.7	20.573	11036	10905

Table 13: Ano do procedimento 6

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	2014.542	2005	2013.5	2021	4.374	4730	4706
<b>train</b>	2014.807	2003	2015.0	2021	4.654	11036	10979

Table 14: Idade no Procedimento 6

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	50.654	7.8	56.6	88.7	26.236	4730	4706
<b>train</b>	58.060	6.6	62.7	101.6	20.425	11036	10979

Table 15: Ano do procedimento 7

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	2015.900	2008	2017.5	2021	4.909	4730	4720
<b>train</b>	2015.545	2007	2016.0	2022	4.091	11036	11014

Table 16: Idade no Procedimento 7

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	43.350	8.8	41.85	81.8	26.331	4730	4720
<b>train</b>	54.814	14.2	59.20	79.1	17.380	11036	11014

Table 17: Ano do procedimento 8

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	2011.75	2008	2010.5	2018	4.349	4730	4726
<b>train</b>	2016.50	2013	2016.5	2020	2.777	11036	11028

Table 18: Idade no Procedimento 8

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	46.15	14.3	44.25	81.8	35.181	4730	4726
<b>train</b>	55.35	36.2	52.90	79.4	16.449	11036	11028

Table 19: Ano do procedimento 9

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	2012	2009	2011	2016	3.606	4730	4727
<b>train</b>	2019	2016	2019	2022	4.243	11036	11034

Table 20: Idade no Procedimento 9

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	40.033	15.0	22.9	82.2	36.730	4730	4727
<b>train</b>	39.600	36.6	39.6	42.6	4.243	11036	11034

Table 21: Ano do procedimento 10

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	NaN	NA	NA	NA	NA	4730	4730
<b>train</b>	2019	2019	2019	2019	NA	11036	11035

Table 22: Idade no Procedimento 10

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	NaN	NA	NA	NA	NA	4730	4730
<b>train</b>	39.7	39.7	39.7	39.7	NA	11036	11035

Table 23: Tempo entre o P1 e P2 (meses)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	73.217	0	83.50	182.2	39.884	4730	3194
<b>train</b>	73.353	0	83.85	197.1	40.278	11036	7710

Table 24: Tempo entre o P2 e P3 (meses)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	53.169	0	57.7	150.4	38.955	4730	4291
<b>train</b>	56.721	0	62.5	170.5	40.031	11036	9998

Table 25: Tempo entre o P3 e P4 (meses)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	32.833	0	16.6	121.8	36.510	4730	4585
<b>train</b>	42.501	0	37.5	142.7	40.865	11036	10697

Table 26: Tempo entre o P4 e P5 (meses)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	33.251	0.0	4.9	127.6	40.574	4730	4669
<b>train</b>	31.969	0.1	10.1	144.3	37.542	11036	10905

Table 27: Tempo entre o P5 e P6 (meses)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	16.421	0.2	3.2	82.4	25.104	4730	4706
<b>train</b>	32.447	0.0	7.8	110.3	37.440	11036	10979

Table 28: Tempo entre o P6 e P7 (meses)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	29.870	0.0	6.95	93.3	40.021	4730	4720
<b>train</b>	32.227	0.1	3.95	142.3	44.659	11036	11014

Table 29: Tempo entre o P7 e P8 (meses)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	2.000	0.3	0.65	6.4	2.938	4730	4726
<b>train</b>	28.975	0.2	18.40	80.9	31.896	11036	11028

Table 30: Tempo entre o P8 e P9 (meses)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	25.567	4.8	8.70	63.2	32.650	4730	4727
<b>train</b>	15.950	5.1	15.95	26.8	15.344	11036	11034

Table 31: Tempo entre o P9 e P10 (meses)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	NaN	NA	NA	NA	NA	4730	4730
<b>train</b>	36.8	36.8	36.8	36.8	NA	11036	11035

Table 32: Número de Mudanças do tipo de DCEI

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.087	0	0	3	0.305	4730	3196
<b>train</b>	0.086	0	0	3	0.292	11036	7711

Table 33: Número de atendimentos

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	2.385	1	2	32	2.230	4730	0
<b>train</b>	2.379	1	2	51	2.219	11036	0

Table 34: Número da Admissão T0 (admissão índice)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	1.415	1	1	17	1.053	4730	0
<b>train</b>	1.443	1	1	32	1.150	11036	0

Table 35: Núm. de episódios de hospitalizações pós-procedimento

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.892	0	0	25	1.740	4730	0
<b>train</b>	0.852	0	0	50	1.663	11036	0

Table 36: Núm. de episódios de hospitalizações pré-procedimento

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.516	0	0	16	1.125	4730	0
<b>train</b>	0.552	0	0	38	1.287	11036	0

Table 37: Ano da admissão T0

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	2010.526	1999	2010	2021	5.767	4730	3
<b>train</b>	2010.606	1999	2010	2021	5.796	11036	17

Table 38: UTI durante a admissão T0

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	1.690	0	0	106.00	6.377	4730	0
<b>train</b>	1.622	0	0	191.95	6.871	11036	0

Table 39: Diálise durante a admissão T0

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.003	0	0	8	0.137	4730	0
<b>train</b>	0.015	0	0	28	0.492	11036	0

Table 40: Readmissão em até 30 dias

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.039	0	0	1	0.194	4730	0
<b>train</b>	0.038	0	0	1	0.191	11036	0

Table 41: Readmissão entre 31 a 60 dias

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.060	0	0	1	0.237	4730	0
<b>train</b>	0.056	0	0	1	0.231	11036	0

Table 42: Readmissão entre 61 a 180 dias

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.096	0	0	1	0.295	4730	0
<b>train</b>	0.094	0	0	1	0.291	11036	0

Table 43: Readmissão em até 1 ano

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.131	0	0	1	0.337	4730	0
<b>train</b>	0.126	0	0	1	0.332	11036	0

Table 44: Tempo de seguimento total (anos)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	5.907	0	4.5	22.6	5.202	4730	0
<b>train</b>	5.868	0	4.4	22.5	5.257	11036	0

Table 45: Óbito intraoperatório

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0	0	0	1	0.015	4730	0
<b>train</b>	0	0	0	1	0.016	11036	0

Table 46: Óbito hospitalar (intraoperatório ou admissao T0)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0	0	0	1	0.015	4730	0
<b>train</b>	0	0	0	1	0.016	11036	0

Table 47: Óbito durante algum episódio de readmissão hospitalar

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.085	0	0	1	0.278	4730	0
<b>train</b>	0.082	0	0	1	0.274	11036	0

Table 48: Óbito em até 30 dias após a alta T0

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.004	0	0	1	0.065	4730	0
<b>train</b>	0.005	0	0	1	0.068	11036	0

Table 49: Óbito em até 180 dias após a alta T0

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.022	0	0	1	0.147	4730	0
<b>train</b>	0.020	0	0	1	0.142	11036	0



Table 50: Óbito em até 1 ano após a alta T0

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.035	0	0	1	0.185	4730	0
<b>train</b>	0.032	0	0	1	0.175	11036	0

Table 51: Óbito em até 2 anos após a alta T0

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.049	0	0	1	0.217	4730	0
<b>train</b>	0.047	0	0	1	0.212	11036	0

Table 52: Óbito em até 3 anos após a alta T0

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.058	0	0	1	0.234	4730	0
<b>train</b>	0.058	0	0	1	0.234	11036	0

Table 53: Óbito (status final)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.160	0	0	1	0.366	4730	0
<b>train</b>	0.162	0	0	1	0.368	11036	0

Table 54: Tempo de sobrevida (anos)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	4.133	0	2.6	18.4	4.172	4730	4198
<b>train</b>	4.062	0	2.7	20.1	4.074	11036	9803

Table 55: Diárias no serviço de Emergência na admissão T0

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.349	0	0	28	1.652	4730	1794
<b>train</b>	0.301	0	0	21	1.204	11036	4135

Table 56: Anticoagulantes orais

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.345	0	0	98	3.071	4730	1039
<b>train</b>	0.277	0	0	64	2.100	11036	2444

Table 57: Antiarrítmicos

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	4.074	0	0	426	18.035	4730	1039
<b>train</b>	3.561	0	0	844	18.966	11036	2444

Table 58: Antihipertensivo

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.451	0	0	154	4.913	4730	1039
<b>train</b>	0.475	0	0	349	5.537	11036	2444

Table 59: Betabloqueador

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	1.029	0	0	163	6.276	4730	1039
<b>train</b>	1.114	0	0	388	8.732	11036	2444

Table 60: IECA/BRA

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	9.261	0	3	437	22.038	4730	1039
<b>train</b>	8.718	0	2	530	20.008	11036	2444

Table 61: DVA

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	5.437	0	0	1044	33.660	4730	1039
<b>train</b>	4.888	0	0	594	26.817	11036	2444

Table 62: Digoxina

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.247	0	0	47	1.771	4730	1039
<b>train</b>	0.228	0	0	50	1.577	11036	2444

Table 63: Estatinas

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	5.126	0	0	321	16.086	4730	1039
<b>train</b>	5.126	0	0	421	16.750	11036	2444

Table 64: Diuretico

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	8.516	0	0	1290	47.209	4730	1039
<b>train</b>	8.460	0	0	1245	43.829	11036	2444

Table 65: Vasodilator

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	8.859	0	0	2408	56.692	4730	1039
<b>train</b>	9.039	0	0	1278	46.901	11036	2444

Table 66: Insuficiência cardíaca (ivabradina, levosimendan, milrinona, nesiritida, carvedilol)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	4.452	0	0	422	16.426	4730	1039
<b>train</b>	4.476	0	0	453	16.524	11036	2444

Table 67: Antagonista da Aldosterona (espironolactona)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	2.171	0	0	141	8.128	4730	1039
<b>train</b>	1.980	0	0	204	7.594	11036	2444

Table 68: Bloqueador do canal de calcio

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.91	0	0	509	12.282	4730	1039
<b>train</b>	0.49	0	0	370	8.169	11036	2444

Table 69: Trombolitico

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.000	0	0	0	0.000	4730	1039
<b>train</b>	0.001	0	0	3	0.047	11036	2444

Table 70: Antiplaquetario VO

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0	0	0	0	0	4730	1039
<b>train</b>	0	0	0	0	0	11036	2444

Table 71: Antiplaquetario EV

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.015	0	0	8	0.22	4730	1039
<b>train</b>	0.009	0	0	6	0.15	11036	2444

Table 72: Insulina

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.102	0	0	16	0.566	4730	1039
<b>train</b>	0.092	0	0	7	0.424	11036	2444

Table 73: Hipoglicemiante

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.388	0	0	79	3.060	4730	1039
<b>train</b>	0.347	0	0	90	2.744	11036	2444

Table 74: Hormonio tireoidiano

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0	0	0	0	0	4730	1039
<b>train</b>	0	0	0	0	0	11036	2444

Table 75: Broncodilador

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0	0	0	0	0	4730	1039
<b>train</b>	0	0	0	0	0	11036	2444

Table 76: Anticonvulsivante

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.815	0	0	334	10.608	4730	1039
<b>train</b>	0.907	0	0	390	10.600	11036	2444

Table 77: Psicofármacos (Ansiolítico/ antidepresivo/ antipsicótico)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	3.767	0	0	387	13.655	4730	1039
<b>train</b>	3.640	0	0	251	11.860	11036	2444

Table 78: Antibióticos

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	12.809	0	4	1812	61.529	4730	1039
<b>train</b>	13.613	0	4	1626	58.616	11036	2444

Table 79: Antifúngicos

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.257	0	0	122	3.544	4730	1039
<b>train</b>	0.288	0	0	99	3.088	11036	2444

Table 80: Antiviral

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.104	0	0	103	2.359	4730	1039
<b>train</b>	0.103	0	0	131	2.543	11036	2444

Table 81: Antiretroviral

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.005	0	0	20	0.329	4730	1039
<b>train</b>	0.010	0	0	32	0.490	11036	2444

Table 82: Quantidade de classes medicamentosas utilizadas

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	4.776	1	5	16	2.534	4730	1489
<b>train</b>	4.732	1	4	17	2.546	11036	3466

Table 83: Ventilação não invasiva

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.019	0	0	28	0.531	4730	812
<b>train</b>	0.019	0	0	42	0.661	11036	1922

Table 84: Instalação de CEC

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.012	0	0	1	0.108	4730	812
<b>train</b>	0.012	0	0	2	0.110	11036	1922

Table 85: Cirurgia Cardiovascular

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.056	0	0	8	0.374	4730	812
<b>train</b>	0.056	0	0	9	0.373	11036	1922

Table 86: Transplante cardíaco

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.002	0	0	1	0.045	4730	812
<b>train</b>	0.001	0	0	1	0.038	11036	1922

Table 87: Cirurgia Toracica

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.002	0	0	2	0.050	4730	812
<b>train</b>	0.003	0	0	4	0.073	11036	1922

Table 88: Outros procedimentos cirúrgicos (cir geral, gastrocir, plástica, uro, vascular)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.112	0	0	9	0.559	4730	812
<b>train</b>	0.103	0	0	11	0.514	11036	1922

Table 89: Traqueostomia

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.003	0	0	5	0.09	4730	812
<b>train</b>	0.001	0	0	1	0.03	11036	1922

Table 90: Intervenção coronária percutânea

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.012	0	0	3	0.138	4730	812
<b>train</b>	0.010	0	0	4	0.126	11036	1922

Table 91: Intervenção cardiovascular em laboratório de hemodinâmica (alcoolização septal, valvoplastia percutânea, stent em vasos pulmonares)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.009	0	0	3	0.132	4730	812
<b>train</b>	0.007	0	0	3	0.109	11036	1922

Table 92: Stent

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0	0	0	0	0	4730	812
<b>train</b>	0	0	0	0	0	11036	1922

Table 93: Angioplastia

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.002	0	0	1	0.039	4730	812
<b>train</b>	0.001	0	0	2	0.039	11036	1922

Table 94: Cateterismo

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.125	0	0	4	0.399	4730	812
<b>train</b>	0.122	0	0	7	0.405	11036	1922

Table 95: Eletrofisiologia

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.094	0	0	6	0.511	4730	812
<b>train</b>	0.077	0	0	11	0.458	11036	1922

Table 96: Suporte cardiocirculatório (ECMO, BIA, Bio-PUMP)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.225	0	0	535	9.148	4730	812
<b>train</b>	0.055	0	0	177	2.630	11036	1922

Table 97: Cateter venoso central

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.028	0	0	4	0.198	4730	812
<b>train</b>	0.029	0	0	4	0.206	11036	1922

Table 98: Drenagem de tórax (instalação /troca) e punção pericárdica ou pleural

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.005	0	0	3	0.084	4730	812
<b>train</b>	0.006	0	0	6	0.114	11036	1922

Table 99: Quantidade de procedimentos invasivos

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.685	0	0	554	9.573	4730	812
<b>train</b>	0.482	0	0	197	3.151	11036	1922

Table 100: Cardioversão/ Desfibrilação (sessão)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.005	0	0	4	0.113	4730	1062
<b>train</b>	0.007	0	0	5	0.124	11036	2504

Table 101: Transfusão de hemoderivados

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.028	0	0	18	0.467	4730	812
<b>train</b>	0.031	0	0	34	0.553	11036	1922

Table 102: Interconsulta médica (Especialidades cirúrgicas, infecto, uro, nefro, psiquiatra, dermatologista, alergista, oncologista, geriatra, etc)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.297	0	0	50	1.608	4730	812
<b>train</b>	0.373	0	0	199	3.154	11036	1922

Table 103: Equipe Multiprofissional (enf, fono, fisio, nutri, serviço social, psicologia)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	3.091	0	0	258	12.221	4730	812
<b>train</b>	2.955	0	0	365	13.216	11036	1922

Table 104: ECG

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	3.956	0	2	74	5.782	4730	812
<b>train</b>	3.866	0	2	140	5.760	11036	1922

Table 105: Holter

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.105	0	0	5	0.36	4730	812
<b>train</b>	0.105	0	0	5	0.35	11036	1922



Table 106: Teste de esforço

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.011	0	0	3	0.116	4730	812
<b>train</b>	0.010	0	0	2	0.104	11036	1922

Table 107: Espirometria / Ergoespirometria

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.003	0	0	1	0.055	4730	812
<b>train</b>	0.005	0	0	2	0.075	11036	1922

Table 108: Tilt Test

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.002	0	0	1	0.048	4730	812
<b>train</b>	0.003	0	0	2	0.052	11036	1922

Table 109: Polissonografia

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.002	0	0	2	0.045	4730	812
<b>train</b>	0.001	0	0	2	0.043	11036	1922

Table 110: Quantidade de exames por métodos gráficos

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	4.079	0	2	74	5.932	4730	812
<b>train</b>	3.990	0	2	140	5.896	11036	1922

Table 111: Exames laboratoriais (exames bioquímicos, exames hematologia/coagulação, anticorpos, dosagem sérica de fármacos)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	58.918	0	10	3238	163.149	4730	812
<b>train</b>	59.278	0	10	3474	167.820	11036	1922

Table 112: Culturas (hemocultura, cultura de secreções, urocultura e cultura de cateteres)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.291	0	0	21	1.128	4730	812
<b>train</b>	0.294	0	0	25	1.141	11036	1922

Table 113: Quantidade de exames de análises clínicas

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	59.209	0	10	3253	164.007	4730	812
<b>train</b>	59.572	0	10	3487	168.703	11036	1922

Table 114: Citologias

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.006	0	0	4	0.101	4730	812
<b>train</b>	0.006	0	0	5	0.101	11036	1922

Table 115: Biopsias (cardíaca, esterno, parede torácica, tumor em mediastino, pulmonar)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.016	0	0	7	0.267	4730	812
<b>train</b>	0.015	0	0	10	0.253	11036	1922

Table 116: Quantidade de exames histopatológicos

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.022	0	0	7	0.295	4730	812
<b>train</b>	0.020	0	0	10	0.280	11036	1922

Table 117: Angio RM

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.005	0	0	2	0.100	4730	812
<b>train</b>	0.003	0	0	4	0.078	11036	1922

Table 118: Angio TC

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.035	0	0	4	0.235	4730	812
<b>train</b>	0.034	0	0	6	0.232	11036	1922

Table 119: Angiografia

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.002	0	0	1	0.045	4730	812
<b>train</b>	0.002	0	0	3	0.053	11036	1922

Table 120: Aortografia

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.002	0	0	1	0.042	4730	812
<b>train</b>	0.002	0	0	2	0.053	11036	1922

Table 121: Arteriografia

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.001	0	0	1	0.023	4730	812
<b>train</b>	0.001	0	0	2	0.030	11036	1922

Table 122: Cavografia

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.007	0	0	1	0.081	4730	812
<b>train</b>	0.007	0	0	1	0.085	11036	1922

Table 123: Cintilografia

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.061	0	0	5	0.345	4730	812
<b>train</b>	0.067	0	0	5	0.358	11036	1922

Table 124: Ecocardiograma

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.536	0	0	24	1.240	4730	812
<b>train</b>	0.532	0	0	23	1.191	11036	1922

Table 125: Exames endoscópicos (EDA, colonoscopia, retossigmoidoscopia, broncoscopia)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.014	0	0	3	0.157	4730	812
<b>train</b>	0.016	0	0	6	0.172	11036	1922

Table 126: Flebografia

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.029	0	0	5	0.260	4730	812
<b>train</b>	0.038	0	0	5	0.299	11036	1922

Table 127: PET-CT

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.004	0	0	3	0.075	4730	812
<b>train</b>	0.005	0	0	2	0.075	11036	1922

Table 128: Ultrassom

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.179	0	0	14	0.807	4730	812
<b>train</b>	0.168	0	0	14	0.760	11036	1922

Table 129: Tomografia

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.142	0	0	15	0.636	4730	812
<b>train</b>	0.163	0	0	15	0.664	11036	1922

Table 130: Radiografias

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	2.982	0	1	129	6.75	4730	812
<b>train</b>	2.950	0	2	192	7.23	11036	1922

Table 131: Ressonancia magnetica

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.084	0	0	6	0.336	4730	812
<b>train</b>	0.069	0	0	4	0.296	11036	1922

Table 132: Quantidade de exames diagnóstico por imagem

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	4.083	0	2	138	8.486	4730	812
<b>train</b>	4.059	0	2	232	9.051	11036	1922

Table 133: Dieta enteral (frasco)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.045	0	0	91	1.622	4730	1064
<b>train</b>	0.032	0	0	115	1.747	11036	2504

Table 134: Dieta parenteral (frasco)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.001	0	0	3	0.050	4730	1064
<b>train</b>	0.001	0	0	5	0.065	11036	2504

Table 135: Bomba de infusão contínua (horas)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	1.206	0	0	1527	28.925	4730	1064
<b>train</b>	0.825	0	0	1269	19.936	11036	2504

Table 136: Marca-passo temporário (por hora)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.209	0	0	102	3.312	4730	1064
<b>train</b>	0.136	0	0	180	2.884	11036	2504

Table 137: Número de procedimentos na admissão T0

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	1.016	1	1	3	0.140	4730	0
<b>train</b>	1.015	1	1	5	0.138	11036	0

Table 138: Número de procedimentos em até 30 dias

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.009	0	0	3	0.103	4730	0
<b>train</b>	0.008	0	0	3	0.095	11036	0

Table 139: Número de procedimentos em até 60 dias

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.010	0	0	3	0.117	4730	0
<b>train</b>	0.009	0	0	3	0.096	11036	0

Table 140: Número de procedimentos em até 180 dias

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.013	0	0	3	0.132	4730	0
<b>train</b>	0.012	0	0	4	0.131	11036	0

Table 141: Número de procedimentos em até 1 ano

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	0.009	0	0	3	0.124	4730	0
<b>train</b>	0.012	0	0	3	0.126	11036	0

Table 142: Quantidade de classes medicamentosas de ação cardiovascular

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	3.154	1	3	10	1.767	4730	1958
<b>train</b>	3.094	1	3	10	1.770	11036	4577

Table 143: Quantidade de medicamentos de ação cardiovascular

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	45.406	0	10	5140	150.312	4730	1039
<b>train</b>	43.429	0	10	1937	125.002	11036	2444

Table 144: Quantidade de antimicrobianos (antibióticos e antifúngicos)

split	Mean	Min	Median	Max	Standard Deviation	N	Missing
<b>test</b>	13.066	0	4	1812	62.662	4730	1039
<b>train</b>	13.902	0	4	1626	59.742	11036	2444

## Categorical variables

```
paste_matrix <- function(...,sep = " ",collapse = NULL){
  n <- max(sapply(list(...),nrow))
  p <- max(sapply(list(...),ncol))

  matrix(paste(...,sep = sep,collapse = collapse),n,p)
}
```

```
percent <- function(x) paste0("(", lapply(x, as.character), "%)")
```

```
addpercentage <- function(df, horizontal = FALSE){
  if (horizontal){
    x <- df %>%
      prop.table(margin = 1) %>%
      addmargins(FUN = list(Total = sum), quiet = TRUE) %>%
      round(2) * 100

    x[nrow(x),] <- " "
    x[-(nrow(x)),] <- lapply(x[-(nrow(x))], ], percent)
  } else {
    x <- df %>%
      prop.table(margin = 2) %>%
      addmargins(FUN = list(Total = sum), quiet = TRUE) %>%
      round(2) * 100

    x[, ncol(x)] <- " "
    x[, -(ncol(x))] <- lapply(x[, -(ncol(x))], percent)
```

```

}

y <- matrix(x, nrow = nrow(df) + 1)

df <- df %>%
  addmargins(FUN = list(Total = sum), quiet = TRUE)

df_final <- paste_matrix(df, y)
rownames(df_final) <- rownames(df)
colnames(df_final) <- colnames(df)
return(df_final)
}

transpose_columns <- c()

for (column in columns_list$categorical_columns){
  if (length(unique(df[[column]])) > 5) next

  variable_name <- df_names %>%
    filter(variable.name == column) %>%
    .$field.label

  abbreviated_name <- df_names %>%
    filter(variable.name == column) %>%
    .$field.label

  caption <- sprintf('Contingency table between %s and %s',
    str_replace(outcome_column, "_", " "),
    variable_name)

  if (column %in% transpose_columns){

    temp_table <- table(df[[column]],
      df[[outcome_column]],
      useNA = "ifany") %>%
      addpercentage(horizontal = TRUE)

    has_na <- df[[column]] %>% is.na() %>% sum > 0

    if (has_na){
      rownames(temp_table)[nrow(temp_table) - 1] <- "NA"
    }

    t <- temp_table %>%
      as.data.frame %>%
      rownames_to_column(var=abbreviated_name) %>%
      kbl(align = "c", booktabs = T, digits = 2, format = 'latex',
        caption = caption) %>%
      row_spec(length(unique(df %>% .[[column]] %>% replace_na("NA"))),
        hline_after = T) %>%
      collapse_rows(1, latex_hline = "none") %>%
      column_spec(4, border_right = T) %>%
      add_header_above(c(setNames(1, ' '),
        setNames(length(unique(df[[outcome_column]]),
          outcome_column))) %>%
        kable_styling(latex_options = c("HOLD_position", "repeat_header"))

  } else {
    temp_table <- table(df[[outcome_column]],
      df[[column]],
      useNA = "ifany") %>%

```

```

addpercentage

has_na <- df[[column]] %>% is.na() %>% sum > 0

if (has_na){
  colnames(temp_table)[ncol(temp_table) - 1] <- "NA"
}

t <- temp_table %>%
  as.data.frame %>%
  rownames_to_column(var=outcome_column) %>%
  kbl(align = "c", booktabs = T, digits = 2, format = 'latex',
      caption = caption, label = i) %>%
  row_spec(2, hline_after = T) %>%
  column_spec(length(unique(df %>% .[[column]] %>% replace_na("NA")))) + 1,
              border_right = T) %>%
  collapse_rows(1, latex_hline = "none") %>%
  add_header_above(c(' ' = 1,
                     setNames(length(unique(df[[column]])),
                               abbreviated_name))) %>%
  kable_styling(latex_options = c("HOLD_position", "repeat_header"))

}
print(t)
i <- i + 1
}

```

Table 145: Contingency table between split and Sexo

split	Sexo		Total
	0	1	
test	2249 (30%)	2481 (30%)	4730
train	5200 (70%)	5836 (70%)	11036
Total	7449 (100%)	8317 (100%)	15766

Table 146: Contingency table between split and Doença cardíaca

split	Doença cardíaca				Total
	0	1	2	NA	
test	2722 (30%)	355 (31%)	1064 (31%)	589 (29%)	4730
train	6434 (70%)	788 (69%)	2399 (69%)	1415 (71%)	11036
Total	9156 (100%)	1143 (100%)	3463 (100%)	2004 (100%)	15766

Table 147: Contingency table between split and Classe funcional de IC (NYHA)

split	Classe funcional de IC (NYHA)			Total
	1	2	NA	
test	1784 (30%)	405 (30%)	2541 (30%)	4730
train	4211 (70%)	941 (70%)	5884 (70%)	11036
Total	5995 (100%)	1346 (100%)	8425 (100%)	15766



Table 148: Contingency table between split and Hipertensão arterial

split	Hipertensão arterial		Total
	0	1	
test	3598 (30%)	1132 (30%)	4730
train	8335 (70%)	2701 (70%)	11036
Total	11933 (100%)	3833 (100%)	15766

Table 149: Contingency table between split and Infarto do miocárdio prévio / Doença arterial coronariana

split	Infarto do miocárdio prévio / Doença arterial coronariana		Total
	0	1	
test	4293 (30%)	437 (30%)	4730
train	10030 (70%)	1006 (70%)	11036
Total	14323 (100%)	1443 (100%)	15766

Table 150: Contingency table between split and Insuficiência cardíaca

split	Insuficiência cardíaca		Total
	0	1	
test	3020 (30%)	1710 (30%)	4730
train	7105 (70%)	3931 (70%)	11036
Total	10125 (100%)	5641 (100%)	15766

Table 151: Contingency table between split and Fibrilação / flutter atrial

split	Fibrilação / flutter atrial		Total
	0	1	
test	4007 (30%)	723 (30%)	4730
train	9376 (70%)	1660 (70%)	11036
Total	13383 (100%)	2383 (100%)	15766

Table 152: Contingency table between split and Parada cardíaca prévia/ Taquicardia ventricular instável

split	Parada cardíaca prévia/ Taquicardia ventricular instável		Total
	0	1	
test	4133 (30%)	597 (32%)	4730
train	9740 (70%)	1296 (68%)	11036
Total	13873 (100%)	1893 (100%)	15766

Table 153: Contingency table between split and Transplante cardíaco prévio

split	Transplante cardíaco prévio		Total
	0	1	
test	4727 (30%)	3 (25%)	4730
train	11027 (70%)	9 (75%)	11036
Total	15754 (100%)	12 (100%)	15766

Table 154: Contingency table between split and Valvopatias/ Prótese valvares

split	Valvopatias/ Prótese valvares		Total
	0	1	
test	4416 (30%)	314 (30%)	4730
train	10296 (70%)	740 (70%)	11036
Total	14712 (100%)	1054 (100%)	15766

Table 155: Contingency table between split and Endocardite prévia

split	Endocardite prévia		Total
	0	1	
test	4690 (30%)	40 (30%)	4730
train	10943 (70%)	93 (70%)	11036
Total	15633 (100%)	133 (100%)	15766

Table 156: Contingency table between split and Diabetes melittus

split	Diabetes melittus		Total
	0	1	
test	4200 (30%)	530 (28%)	4730
train	9690 (70%)	1346 (72%)	11036
Total	13890 (100%)	1876 (100%)	15766

Table 157: Contingency table between split and Insuficiência renal crônica

split	Insuficiência renal crônica		Total
	0	1	
test	4551 (30%)	179 (29%)	4730
train	10595 (70%)	441 (71%)	11036
Total	15146 (100%)	620 (100%)	15766

Table 158: Contingency table between split and Hemodiálise

split	Hemodiálise		Total
	0	1	
test	4725 (30%)	5 (26%)	4730
train	11022 (70%)	14 (74%)	11036
Total	15747 (100%)	19 (100%)	15766

Table 159: Contingency table between split and Acidente Vascular Cerebral/ Acidente isquêmico transitório prévios

split	Acidente Vascular Cerebral/ Acidente isquêmico transitório prévios		Total
	0	1	
test	4571 (30%)	159 (32%)	4730
train	10696 (70%)	340 (68%)	11036
Total	15267 (100%)	499 (100%)	15766

Table 160: Contingency table between split and Doença pulmonar obstrutiva crônica

split	Doença pulmonar obstrutiva crônica		Total
	0	1	
test	4665 (30%)	65 (31%)	4730
train	10888 (70%)	148 (69%)	11036
Total	15553 (100%)	213 (100%)	15766

Table 161: Contingency table between split and Neoplasia em tratamento ou tratada recentemente (12 meses)

split	Neoplasia em tratamento ou tratada recentemente (12 meses)		Total
	0	1	
test	4691 (30%)	39 (35%)	4730
train	10962 (70%)	74 (65%)	11036
Total	15653 (100%)	113 (100%)	15766

Table 162: Contingency table between split and Tipo de Procedimento 1

split	Tipo de Procedimento 1		Total
	1	2	
test	3276 (30%)	1454 (30%)	4730
train	7636 (70%)	3400 (70%)	11036
Total	10912 (100%)	4854 (100%)	15766

Table 163: Contingency table between split and Tipo de Reoperação 1

split	Tipo de Reoperação 1				Total
	1	2	3	NA	
test	1170 (30%)	272 (30%)	12 (36%)	3276 (30%)	4730
train	2742 (70%)	637 (70%)	21 (64%)	7636 (70%)	11036
Total	3912 (100%)	909 (100%)	33 (100%)	10912 (100%)	15766

Table 164: Contingency table between split and Tipo de Procedimento 1 (merge: procedure type com reop type)

split	Tipo de Procedimento 1 (merge: procedure type com reop type)				Total
	1	2	3	4	
test	3276 (30%)	1170 (30%)	272 (30%)	12 (36%)	4730
train	7636 (70%)	2742 (70%)	637 (70%)	21 (64%)	11036
Total	10912 (100%)	3912 (100%)	909 (100%)	33 (100%)	15766

Table 165: Contingency table between split and Tipo de Dispositivo ao final do procedimento 1

split	Tipo de Dispositivo ao final do procedimento 1				Total
	1	2	3	4	
test	3627 (29%)	559 (32%)	419 (33%)	125 (28%)	4730
train	8668 (71%)	1213 (68%)	835 (67%)	320 (72%)	11036
Total	12295 (100%)	1772 (100%)	1254 (100%)	445 (100%)	15766

Table 166: Contingency table between split and Tipo de Dispositivo ao final do procedimento 1

split	Tipo de Dispositivo ao final do procedimento 1		Total
	1	2	
test	4186 (30%)	544 (32%)	4730
train	9881 (70%)	1155 (68%)	11036
Total	14067 (100%)	1699 (100%)	15766

Table 167: Contingency table between split and Óbito intraoperatório 1

split	Óbito intraoperatório 1	
	0	Total
test	4730 (30%)	4730
train	11036 (70%)	11036
Total	15766 (100%)	15766

Table 168: Contingency table between split and Tipo de Reoperação 2

split	Tipo de Reoperação 2				Total
	1	2	3	NA	
test	1027 (32%)	472 (32%)	33 (27%)	3198 (29%)	4730
train	2232 (68%)	1002 (68%)	88 (73%)	7714 (71%)	11036
Total	3259 (100%)	1474 (100%)	121 (100%)	10912 (100%)	15766

Table 169: Contingency table between split and Tipo de Dispositivo ao final do procedimento 2

split	Tipo de Dispositivo ao final do procedimento 2					Total
	1	2	3	4	NA	
test	1131 (31%)	198 (31%)	140 (36%)	63 (31%)	3198 (29%)	4730
train	2492 (69%)	444 (69%)	247 (64%)	140 (69%)	7713 (71%)	11036
Total	3623 (100%)	642 (100%)	387 (100%)	203 (100%)	10911 (100%)	15766

Table 170: Contingency table between split and Óbito intraoperatório 2

split	Óbito intraoperatório 2		Total
	0	NA	
test	1535 (32%)	3195 (29%)	4730
train	3326 (68%)	7710 (71%)	11036
Total	4861 (100%)	10905 (100%)	15766

Table 171: Contingency table between split and Tipo de Reoperação 3

split	Tipo de Reoperação 3				Total
	1	2	3	NA	
test	201 (28%)	177 (31%)	20 (32%)	4332 (30%)	4730
train	522 (72%)	401 (69%)	42 (68%)	10071 (70%)	11036
Total	723 (100%)	578 (100%)	62 (100%)	14403 (100%)	15766

Table 172: Contingency table between split and Tipo de Dispositivo ao final do procedimento 3

split	Tipo de Dispositivo ao final do procedimento 3					Total
	1	2	3	4	NA	
test	271 (28%)	72 (29%)	62 (39%)	34 (34%)	4291 (30%)	4730
train	695 (72%)	179 (71%)	98 (61%)	65 (66%)	9999 (70%)	11036
Total	966 (100%)	251 (100%)	160 (100%)	99 (100%)	14290 (100%)	15766

Table 173: Contingency table between split and Óbito intraoperatório 3

split	Óbito intraoperatório 3			Total
	0	1	NA	
test	438 (30%)	1 (25%)	4291 (30%)	4730
train	1035 (70%)	3 (75%)	9998 (70%)	11036
Total	1473 (100%)	4 (100%)	14289 (100%)	15766

Table 174: Contingency table between split and Tipo de Reoperação 4

split	Tipo de Reoperação 4				Total
	1	2	3	NA	
test	48 (25%)	82 (33%)	10 (30%)	4590 (30%)	4730
train	144 (75%)	169 (67%)	23 (70%)	10700 (70%)	11036
Total	192 (100%)	251 (100%)	33 (100%)	15290 (100%)	15766

Table 175: Contingency table between split and Tipo de Dispositivo ao final do procedimento 4

split	Tipo de Dispositivo ao final do procedimento 4					Total
	1	2	3	4	NA	
test	88 (31%)	30 (27%)	15 (33%)	12 (29%)	4585 (30%)	4730
train	200 (69%)	80 (73%)	30 (67%)	30 (71%)	10696 (70%)	11036
Total	288 (100%)	110 (100%)	45 (100%)	42 (100%)	15281 (100%)	15766

Table 176: Contingency table between split and Óbito intraoperatório 4

split	Óbito intraoperatório 4		Total
	0	NA	
test	145 (30%)	4585 (30%)	4730
train	340 (70%)	10696 (70%)	11036
Total	485 (100%)	15281 (100%)	15766

Table 177: Contingency table between split and Tipo de Reoperação 5

split	Tipo de Reoperação 5				Total
	1	2	3	NA	
test	22 (31%)	34 (32%)	4 (29%)	4670 (30%)	4730
train	49 (69%)	72 (68%)	10 (71%)	10905 (70%)	11036
Total	71 (100%)	106 (100%)	14 (100%)	15575 (100%)	15766

Table 178: Contingency table between split and Tipo de Dispositivo ao final do procedimento 5

split	Tipo de Dispositivo ao final do procedimento 5					Total
	1	2	3	4	NA	
test	35 (35%)	15 (27%)	5 (23%)	6 (46%)	4669 (30%)	4730
train	65 (65%)	41 (73%)	17 (77%)	7 (54%)	10906 (70%)	11036
Total	100 (100%)	56 (100%)	22 (100%)	13 (100%)	15575 (100%)	15766

Table 179: Contingency table between split and Óbito intraoperatório 5

split	Óbito intraoperatório 5		Total
	0	NA	
test	61 (32%)	4669 (30%)	4730
train	131 (68%)	10905 (70%)	11036
Total	192 (100%)	15574 (100%)	15766

Table 180: Contingency table between split and Tipo de Reoperação 6

split	Tipo de Reoperação 6				Total
	1	2	3	NA	
test	6 (23%)	15 (33%)	2 (33%)	4707 (30%)	4730
train	20 (77%)	31 (67%)	4 (67%)	10981 (70%)	11036
Total	26 (100%)	46 (100%)	6 (100%)	15688 (100%)	15766

Table 181: Contingency table between split and Tipo de Dispositivo ao final do procedimento 6

split	Tipo de Dispositivo ao final do procedimento 6					Total
	1	2	3	4	NA	
test	13 (32%)	8 (32%)	1 (14%)	2 (22%)	4706 (30%)	4730
train	27 (68%)	17 (68%)	6 (86%)	7 (78%)	10979 (70%)	11036
Total	40 (100%)	25 (100%)	7 (100%)	9 (100%)	15685 (100%)	15766

Table 182: Contingency table between split and Óbito intraoperatório 6

split	Óbito intraoperatório 6		Total
	0	NA	
test	24 (30%)	4706 (30%)	4730
train	57 (70%)	10979 (70%)	11036
Total	81 (100%)	15685 (100%)	15766

Table 183: Contingency table between split and Tipo de Reoperação 7

split	Tipo de Reoperação 7				Total
	1	2	3	NA	
test	3 (30%)	5 (28%)	2 (50%)	4720 (30%)	4730
train	7 (70%)	13 (72%)	2 (50%)	11014 (70%)	11036
Total	10 (100%)	18 (100%)	4 (100%)	15734 (100%)	15766

Table 184: Contingency table between split and Tipo de Dispositivo ao final do procedimento 7

split	Tipo de Dispositivo ao final do procedimento 7					Total
	1	2	3	4	NA	
test	4 (31%)	4 (31%)	1 (100%)	0 (0%)	4721 (30%)	4730
train	9 (69%)	9 (69%)	0 (0%)	4 (100%)	11014 (70%)	11036
Total	13 (100%)	13 (100%)	1 (100%)	4 (100%)	15735 (100%)	15766

Table 185: Contingency table between split and Óbito intraoperatório 7

split	Óbito intraoperatório 7		Total
	0	NA	
test	10 (31%)	4720 (30%)	4730
train	22 (69%)	11014 (70%)	11036
Total	32 (100%)	15734 (100%)	15766

Table 186: Contingency table between split and Tipo de Reoperação 8

split	Tipo de Reoperação 8			Total
	1	2	NA	
test	0 (0%)	4 (44%)	4726 (30%)	4730
train	3 (100%)	5 (56%)	11028 (70%)	11036
Total	3 (100%)	9 (100%)	15754 (100%)	15766

Table 187: Contingency table between split and Tipo de Dispositivo ao final do procedimento 8

split	Tipo de Dispositivo ao final do procedimento 8				Total
	1	2	4	NA	
test	2 (29%)	2 (50%)	0 (0%)	4726 (30%)	4730
train	5 (71%)	2 (50%)	1 (100%)	11028 (70%)	11036
Total	7 (100%)	4 (100%)	1 (100%)	15754 (100%)	15766



Table 188: Contingency table between split and Óbito intraoperatório 8

split	Óbito intraoperatório 8		Total
	0	NA	
test	4 (33%)	4726 (30%)	4730
train	8 (67%)	11028 (70%)	11036
Total	12 (100%)	15754 (100%)	15766

Table 189: Contingency table between split and Tipo de Reoperação 9

split	Tipo de Reoperação 9		Total
	2	NA	
test	3 (60%)	4727 (30%)	4730
train	2 (40%)	11034 (70%)	11036
Total	5 (100%)	15761 (100%)	15766

Table 190: Contingency table between split and Tipo de Dispositivo ao final do procedimento 9

split	Tipo de Dispositivo ao final do procedimento 9			Total
	1	2	NA	
test	2 (67%)	1 (50%)	4727 (30%)	4730
train	1 (33%)	1 (50%)	11034 (70%)	11036
Total	3 (100%)	2 (100%)	15761 (100%)	15766

Table 191: Contingency table between split and Óbito intraoperatório 9

split	Óbito intraoperatório 9		Total
	0	NA	
test	3 (60%)	4727 (30%)	4730
train	2 (40%)	11034 (70%)	11036
Total	5 (100%)	15761 (100%)	15766

Table 192: Contingency table between split and Tipo de Reoperação 10

split	Tipo de Reoperação 10		Total
	2	NA	
test	0 (0%)	4730 (30%)	4730
train	1 (100%)	11035 (70%)	11036
Total	1 (100%)	15765 (100%)	15766

Table 193: Contingency table between split and Tipo de Dispositivo ao final do procedimento 10

split	Tipo de Dispositivo ao final do procedimento 10		Total
	2	NA	
test	0 (0%)	4730 (30%)	4730
train	1 (100%)	11035 (70%)	11036
Total	1 (100%)	15765 (100%)	15766

Table 194: Contingency table between split and Óbito intraoperatório 10

split	Óbito intraoperatório 10		Total
	0	NA	
test	0 (0%)	4730 (30%)	4730
train	1 (100%)	11035 (70%)	11036
Total	1 (100%)	15765 (100%)	15766

Table 195: Contingency table between split and Mudança do tipo de DCEI: entre o Procedimento 1 e Procedimento 2

split	Mudança do tipo de DCEI: entre o Procedimento 1 e Procedimento 2			Total
	0	1	NA	
test	1441 (31%)	91 (33%)	3198 (29%)	4730
train	3135 (69%)	188 (67%)	7713 (71%)	11036
Total	4576 (100%)	279 (100%)	10911 (100%)	15766

Table 196: Contingency table between split and Mudança do tipo de DCEI: entre o Procedimento 2 e Procedimento 3

split	Mudança do tipo de DCEI: entre o Procedimento 2 e Procedimento 3			Total
	0	1	NA	
test	408 (30%)	31 (33%)	4291 (30%)	4730
train	974 (70%)	63 (67%)	9999 (70%)	11036
Total	1382 (100%)	94 (100%)	14290 (100%)	15766

Table 197: Contingency table between split and Mudança do tipo de DCEI: entre o Procedimento 3 e Procedimento 4

split	Mudança do tipo de DCEI: entre o Procedimento 3 e Procedimento 4			Total
	0	1	NA	
test	141 (31%)	4 (14%)	4585 (30%)	4730
train	316 (69%)	24 (86%)	10696 (70%)	11036
Total	457 (100%)	28 (100%)	15281 (100%)	15766

Table 198: Contingency table between split and Mudança do tipo de DCEI: entre o Procedimento 4 e Procedimento 5

split	Mudança do tipo de DCEI: entre o Procedimento 4 e Procedimento 5			Total
	0	1	NA	
test	57 (31%)	4 (44%)	4669 (30%)	4730
train	125 (69%)	5 (56%)	10906 (70%)	11036
Total	182 (100%)	9 (100%)	15575 (100%)	15766

Table 199: Contingency table between split and Mudança do tipo de DCEI: entre o Procedimento 5 e Procedimento 6

split	Mudança do tipo de DCEI: entre o Procedimento 5 e Procedimento 6			Total
	0	1	NA	
test	22 (30%)	2 (29%)	4706 (30%)	4730
train	52 (70%)	5 (71%)	10979 (70%)	11036
Total	74 (100%)	7 (100%)	15685 (100%)	15766

Table 200: Contingency table between split and Mudança do tipo de DCEI: entre o Procedimento 6 e Procedimento 7

split	Mudança do tipo de DCEI: entre o Procedimento 6 e Procedimento 7			Total
	0	1	NA	
test	8 (29%)	1 (33%)	4721 (30%)	4730
train	20 (71%)	2 (67%)	11014 (70%)	11036
Total	28 (100%)	3 (100%)	15735 (100%)	15766

Table 201: Contingency table between split and Mudança do tipo de DCEI: entre o Procedimento 7 e Procedimento 8

split	Mudança do tipo de DCEI: entre o Procedimento 7 e Procedimento 8			Total
	0	1	NA	
test	3 (27%)	1 (100%)	4726 (30%)	4730
train	8 (73%)	0 (0%)	11028 (70%)	11036
Total	11 (100%)	1 (100%)	15754 (100%)	15766

Table 202: Contingency table between split and Mudança do tipo de DCEI: entre o Procedimento 8 e Procedimento 9

split	Mudança do tipo de DCEI: entre o Procedimento 8 e Procedimento 9		Total
	0	NA	
test	3 (60%)	4727 (30%)	4730
train	2 (40%)	11034 (70%)	11036
Total	5 (100%)	15761 (100%)	15766

Table 203: Contingency table between split and Mudança do tipo de DCEI: entre o Procedimento 9 e Procedimento 10

split	Mudança do tipo de DCEI: entre o Procedimento 9 e Procedimento 10		Total
	0	NA	
test	0 (0%)	4730 (30%)	4730
train	1 (100%)	11035 (70%)	11036
Total	1 (100%)	15765 (100%)	15766

Table 204: Contingency table between split and Diálise durante os episódios de hospitalização

split	Diálise durante os episódios de hospitalização		Total
	0	1	
test	4722 (30%)	8 (18%)	4730
train	11000 (70%)	36 (82%)	11036
Total	15722 (100%)	44 (100%)	15766

Table 205: Contingency table between split and UTI durante os episódios de hospitalização

split	UTI durante os episódios de hospitalização		Total
	0	1	
test	3756 (30%)	974 (30%)	4730
train	8799 (70%)	2237 (70%)	11036
Total	12555 (100%)	3211 (100%)	15766

Table 206: Contingency table between split and Admissão em até 180 dias antes da T0

split	Admissão em até 180 dias antes da T0		Total
	0	1	
test	4406 (30%)	324 (30%)	4730
train	10290 (70%)	746 (70%)	11036
Total	14696 (100%)	1070 (100%)	15766

Table 207: Contingency table between split and Readmissões pós-T0 com diálise

split	Readmissões pós-T0 com diálise				Total
	0	1	2	3	
test	4725 (30%)	5 (26%)	0 (0%)	0 (0%)	4730
train	11019 (70%)	14 (74%)	2 (100%)	1 (100%)	11036
Total	15744 (100%)	19 (100%)	2 (100%)	1 (100%)	15766

Table 208: Contingency table between split and Desfecho principal da admissão T0

split	Desfecho principal da admissão T0	
	0	Total
test	4730 (30%)	4730
train	11036 (70%)	11036
Total	15766 (100%)	15766

Table 209: Contingency table between split and Readmissão cirúrgica em até 30 dias

split	Readmissão cirúrgica em até 30 dias		Total
	0	1	
test	4689 (30%)	41 (30%)	4730
train	10940 (70%)	96 (70%)	11036
Total	15629 (100%)	137 (100%)	15766

Table 210: Contingency table between split and Readmissão cirúrgica entre 31 a 60 dias

split	Readmissão cirúrgica entre 31 a 60 dias		Total
	0	1	
test	4701 (30%)	29 (31%)	4730
train	10972 (70%)	64 (69%)	11036
Total	15673 (100%)	93 (100%)	15766

Table 211: Contingency table between split and Readmissão cirúrgica entre 61 a 180 dias

split	Readmissão cirúrgica entre 61 a 180 dias		Total
	0	1	
test	4679 (30%)	51 (34%)	4730
train	10938 (70%)	98 (66%)	11036
Total	15617 (100%)	149 (100%)	15766

Table 212: Contingency table between split and Readmissão cirúrgica em até 1 ano

split	Readmissão cirúrgica em até 1 ano		Total
	0	1	
test	4700 (30%)	30 (23%)	4730
train	10934 (70%)	102 (77%)	11036
Total	15634 (100%)	132 (100%)	15766

Table 213: Contingency table between split and Desfecho final do estudo

split	Desfecho final do estudo			Total
	1	2	3	
test	755 (30%)	2330 (30%)	1645 (30%)	4730
train	1786 (70%)	5398 (70%)	3852 (70%)	11036
Total	2541 (100%)	7728 (100%)	5497 (100%)	15766

Table 214: Contingency table between split and Ventilação mecânica / IOT

split	Ventilação mecânica / IOT		Total
	1	NA	
test	878 (31%)	3852 (30%)	4730
train	1971 (69%)	9065 (70%)	11036
Total	2849 (100%)	12917 (100%)	15766