

Appendix 2: Data sets

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1 # Study: Albumin in hepatorenal syndrome
2 # Date: 2015-02-17
3 # Analyst: Mahlon M. Wilkes, PhD
4 # R version: 3.0.2
5
6 # Function definitions
7
8
9 fC <- function(x,y=1,z="") {
10   formatC(x,digits=y,format="f",big.mark=z)}
11
12 scrmol2mg <- function(x) {x/88.4}
13
14 scrmg2mol <- function(x) {x*88.4}
15
16 bilimol2mg <- function(x) {x*4/68}
17
18 pool.mean <- function(n,mean,decimal=6) {
19   round(sum(n*mean)/sum(n),decimal)
20 }
21
22 pool.sd <- function(n,sd,decimal=6) {
23   k <- length(n)
24   round(sqrt(sum((n-1)*sd^2)/(sum(n)-k)),decimal)
25 }
26
27 z <- function(xbar,sd,n,x=1.5) {
28   round(pnorm((x-xbar)/sd)*n)
29 }
30
31 bp2map <- function(syst,diast) {
32   syst/3+diast*2/3
33 }
34
35 # Individual patient data of von Kalckreuth et al, 2009
36
37 baseline.7492 <- data.frame(
38   pt.id=as.integer(c(1,2,3,4,5,6,7,7,8,9,10,11,12,13,14,15,16,
39     16,17,18,19,20,21,21,22,19,19,23,24,24,25,26,27,28,26,26,
40     29,30)),
41   tx.n=as.integer(c(1,1,1,1,1,1,2,2,1,1,1,1,1,1,1,2,2,1,1,3,
42     1,2,2,1,3,3,1,2,2,1,3,1,1,3,3,1,1)),
43   success=as.integer(c(0,0,1,1,1,0,1,1,0,1,0,1,1,1,0,1,1,0,
44     0,3,1,0,0,1,3,3,1,2,2,1,2,1,1,2,2,1,1)),
45   age=as.integer(c(56,32,51,46,67,56,48,48,68,39,49,34,48,40,
46     69,58,48,48,67,52,62,38,56,56,60,62,62,67,49,49,56,47,60,
47     60,47,47,48,54)),
48   sex=c("m","m","m","f","f","f","f","f","m","m","m","f",
49     "f","m","f","m","m","m","m","f","m","m","m","m","m",
50     "f","m","m","f","m","f","m","m","m","f","f"),
51   etiology=c("alcoholic","alcoholic","alcoholic","alcoholic",
52     "autoimmune","alcoholic","hepatitis C","hepatitis C",
53     "hepatitis C","alcoholic","alcoholic + other","alcoholic",
54     "alcoholic","hepatitis C","alcoholic","alcoholic",
55     "alcoholic","alcoholic","hepatitis B + C","alcoholic",
56     "hepatitis B","alcoholic","alcoholic","alcoholic",
57     "hepatitis C","hepatitis B","hepatitis B",
58     "alcoholic + hepatitis B","alcoholic","alcoholic",
59     "alcoholic","alcoholic","alcoholic","alcoholic",
60     "alcoholic","alcoholic","alcoholic","alcoholic"),
61   hrs.type=c("I","I","I","I","I","I","II","II","II","I","I",
62     "I","I","I","I","I","I","I","I","II","I","I","I","II",
63     "I","II","I","I","I","I","I","I","I","I","I","I"),
64   child=as.integer(c(3,3,2,3,3,3,3,3,3,3,3,3,3,2,3,3,3,2,
65     3,3,3,3,3,3,3,3,3,3,2,3,3,3,2,3,3,3,2,3,3,3,2,3)),
66   death=c("y","n","y","y","y","y","y","y","n","y","y","y",
67     "y","n","n","n","n","y","n","y","n","y","n","y","y",
68     "n","n","n","y","n","n","n","n","n","n"),

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1 transplant=c("n","n","n","n","n","n","y","y","y","n","n","n", hrs.def="IAC albumin",
2 "n","y","n","n","n","n","n","y","n","n","n","y","n", reversal.def="SCr<1.5",
3 "n","y","y","y","n","y","n","n","y","y","n","n")) followup=450),
4
5 # Study level data data.frame(
6 study <- list( study.id=7506,
7 year=2000,
8 data.frame( author="Uriz et al",
9 study.id=6602, design="prospective",
10 year=2008, hrs.def="IAC unspecified",
11 author="Sanyal et al", reversal.def="SCr<1.5",
12 design=factor("randomized", followup=390),
13 levels=c("randomized","prospective","retrospective")), data.frame(
14 hrs.def="IAC saline and/or albumin", study.id=8255,
15 reversal.def="SCr<=1.5", year=2012,
16 followup=180), author="Narahara et al",
17 data.frame( design="prospective",
18 study.id=6601, hrs.def="IAC saline",
19 year=2008, reversal.def="SCr<1.5",
20 author="Martin-Llahi et al", followup=12*7),
21 design="randomized", data.frame(
22 hrs.def="IAC unspecified", study.id=7492,
23 reversal.def=paste("SCr<", year=2009,
24 fC(scrmol2mg(133)),sep=""), author="von Kalckreuth et al",
25 followup=90), design="retrospective",
26 hrs.def="IAC saline",
27 data.frame( reversal.def="SCr<=1.5",
28 study.id=6739, followup=NA),
29 year=2008, data.frame(
30 author="Neri et al", study.id=8351,
31 design="randomized", year=2011,
32 hrs.def="IAC saline", author="Silawat et al",
33 reversal.def="SCr<1.5", design="randomized",
34 followup=180), hrs.def="IAC unspecified",
35 reversal.def="SCr<1.5",
36 data.frame( followup=NA),
37 study.id=7504, year=2002,
38 author="Moreau et al", data.frame(
39 design="retrospective", study.id=7497,
40 hrs.def="IAC unspecified", year=2007,
41 reversal.def=paste("SCr<", author="Alessandria et al",
42 fC(scrmol2mg(130)),sep=""), design="randomized",
43 followup=63), hrs.def="IAC albumin",
44 reversal.def="SCr<1.5",
45 data.frame( followup=180),
46 study.id=7503, year=2002, data.frame(
47 author="Halimi et al", study.id=7496,
48 design="retrospective", year=2008,
49 hrs.def="IAC unspecified", author="Sharma et al",
50 reversal.def="SCr<1.5", design="randomized",
51 followup=1080), hrs.def="IAC albumin",
52 reversal.def="SCr<=1.5",
53 data.frame( followup=30),
54 study.id=7505, year=2001, data.frame(
55 author="Mulkey et al", study.id=8454,
56 design="prospective", year=2012,
57 hrs.def="IAC saline+albumin", author="Singh et al",
58 reversal.def="SCr<1.5", design="randomized",
59 followup=95), hrs.def="IAC unspecified",
60 data.frame( reversal.def="SCr<1.5",
61 study.id=7380, followup=30),
62 year=2009, data.frame(
63 author="Muñoz et al", study.id=8444,
64 design="prospective", year=2000,

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1  author="Duhamel et al",
2  design="retrospective",
3  hrs.def="IAC unspecified",
4  reversal.def=paste("SCr<",
5    fC(scrmol2mg(133)),sep=""),
6  followup=365),
7
8  data.frame(
9    study.id=7539,
10   year=2010,
11   author="Rivero et al",
12   design="prospective",
13   hrs.def="IAC unspecified",
14   reversal.def="SCr<1.5",
15   followup=90),
16
17  data.frame(
18    study.id=7462,
19    year=2009,
20    author="Skagen et al",
21    design="retrospective",
22    hrs.def="IAC colloid or crystalloid",
23    reversal.def=NA,
24    followup=90),
25
26  data.frame(
27    study.id=7542,
28    year=2007,
29    author="Esraïlian et al",
30    design="retrospective",
31    hrs.def="IAC saline+albumin",
32    reversal.def="SCr<=1.5",
33    followup=360),
34
35  data.frame(
36    study.id=9168,
37    year=2012,
38    author="Tavakkoli et al",
39    design="randomized",
40    hrs.def="IAC albumin",
41    reversal.def="SCr<1.5",
42    followup=90),
43
44  data.frame(
45    study.id=7543,
46    year=1999,
47    author="Angeli et al",
48    design="prospective",
49    hrs.def="IAC saline+albumin",
50    reversal.def="SCr<1.5",
51    followup=30),
52
53  data.frame(
54    study.id=7518,
55    year=2004,
56    author="Wong et al",
57    design="prospective",
58    hrs.def="IAC albumin",
59    reversal.def=paste("SCr<",
60      fC(scrmol2mg(135)),sep=""),
61    followup=90),
62
63  data.frame(
64    study.id=8143,
65    year=2011,
66    author="Salerno et al",
67    design="prospective",
68    hrs.def="IAC albumin",
69    reversal.def="SCr<1.5",
70    followup=90))

study <- do.call(rbind,study)

# Group level data

group <- list(

data.frame(
  group.id=1,
  study.id=6602,
  n=56,
  age=50.6,
  age.sd=10.5,
  scr.0=3.96,
  scr.0.sd=2.19,
  bilirubin=15.0,
  bilirubin.sd=13.6,
  salb=2.6,
  salb.sd=0.84,
  scr.incr.vol=NA,
  ascites=54,
  sbp=NA,
  infection=14,
  bleed.gi=2,
  hcc=4,
  map=75.5,
  map.sd=11.4,
  hr=NA,
  hr.sd=NA,
  hbg=NA,
  hbg.sd=NA,
  wbc=NA,
  wbc.sd=NA,
  plt=NA,
  plt.sd=NA,
  dose.ter1=pool.mean(c(56-13,13),
    c(4,pool.mean(c(3,6.3-3),c(4,8))))),
  t.ter1=6.3,
  dose.nadr=NA,
  t.nadr=NA,
  dose.mido=NA,
  t.mido=NA,
  dose.octreo=NA,
  t.octreo=NA,
  dose.alb.dx=NA,
  t.alb.dx=NA,
  dose.alb.tx=48.2,
  t.alb.tx=6.3,
  dose.alb.lvp=NA,
  t.alb.lvp=NA,
  dose.alb.sbp=NA,
  t.alb.sbp=NA,
  conc.alb=NA,
  reversal=19,
  t.reversal=14,
  survival=24,
  t.survival=180),

data.frame(
  group.id=1,
  study.id=6601,
  n=17,
  age=59,
  age.sd=10,
  scr.0=scrmol2mg(318.2),
  scr.0.sd=scrmol2mg(128.8),
  bilirubin=bilimol2mg(307.8),
  bilirubin.sd=bilimol2mg(324.9),
  salb=3.0,
  salb.sd=0.7,
  scr.incr.vol=NA,

```

```

1 ascites=NA,
2 sbp=NA,
3 infection=12,
4 bleed.gi=NA,
5 hcc=NA,
6 map=73,
7 map.sd=10,
8 hr=NA,
9 hr.sd=NA,
10 hbg=NA,
11 hbg.sd=NA,
12 wbc=NA,
13 wbc.sd=NA,
14 plt=NA,
15 plt.sd=NA,
16 dose.ter1=pool.mean(c(3,4),c(6,12)),
17 t.ter1=7,
18 dose.nadr=NA,
19 t.nadr=NA,
20 dose.mido=NA,
21 t.mido=NA,
22 dose.octreo=NA,
23 t.octreo=NA,
24 dose.alb.dx=NA,
25 t.alb.dx=NA,
26 dose.alb.tx=190/7,
27 t.alb.tx=7,
28 dose.alb.lvp=NA,
29 t.alb.lvp=NA,
30 dose.alb.sbp=NA,
31 t.alb.sbp=NA,
32 conc.alb=20,
33 reversal=z(115,18,6,scrmg2mol(1.5)),
34 t.reversal=15,
35 survival=NA,
36 t.survival=90),
37
38 data.frame(
39 group.id=1,
40 study.id=6739,
41 n=26,
42 age=59,
43 age.sd=4,
44 scr.0=scrmol2mg(248),
45 scr.0.sd=scrmol2mg(96),
46 bilirubin=NA,
47 bilirubin.sd=NA,
48 salb=2.71,
49 salb.sd=0.32,
50 scr.incr.vol=NA,
51 ascites=26,
52 sbp=NA,
53 infection=5,
54 bleed.gi=0,
55 hcc=0,
56 map=82,
57 map.sd=2,
58 hr=85.35,
59 hr.sd=9.4,
60 hbg=NA,
61 hbg.sd=NA,
62 wbc=NA,
63 wbc.sd=NA,
64 plt=NA,
65 plt.sd=NA,
66 dose.ter1=pool.mean(c(5,14),c(3,1.5)),
67 t.ter1=5+14,
68 dose.nadr=NA,
69 t.nadr=NA,
70 dose.mido=NA,
71 t.mido=NA,
72 dose.octreo=NA,
73 t.octreo=NA,
74 dose.alb.dx=NA,
75 t.alb.dx=NA,
76 dose.alb.tx=44,
77 t.alb.tx=5+14,
78 dose.alb.lvp=NA,
79 t.alb.lvp=NA,
80 dose.alb.sbp=NA,
81 t.alb.sbp=NA,
82 conc.alb=20,
83 reversal=21,
84 t.reversal=14,
85 survival=26-10,
86 t.survival=180),
87
88 data.frame(
89 group.id=1,
90 study.id=7504,
91 n=99,
92 age=56,
93 age.sd=10,
94 scr.0=scrmol2mg(254),
95 scr.0.sd=scrmol2mg(99),
96 bilirubin=bilimol2mg(200),
97 bilirubin.sd=bilimol2mg(220),
98 salb=2.75,
99 salb.sd=0.73,
100 scr.incr.vol=NA,
101 ascites=99,
102 sbp=NA,
103 infection=36,
104 bleed.gi=22,
105 hcc=10,
106 map=78,
107 map.sd=20,
108 hr=80,
109 hr.sd=18,
110 hbg=NA,
111 hbg.sd=NA,
112 wbc=NA,
113 wbc.sd=NA,
114 plt=NA,
115 plt.sd=NA,
116 dose.ter1=3.2,
117 t.ter1=11.4,
118 dose.nadr=NA,
119 t.nadr=NA,
120 dose.mido=NA,
121 t.mido=NA,
122 dose.octreo=NA,
123 t.octreo=NA,
124 dose.alb.dx=NA,
125 t.alb.dx=NA,
126 dose.alb.tx=38,
127 t.alb.tx=11.4,
128 dose.alb.lvp=NA,
129 t.alb.lvp=NA,
130 dose.alb.sbp=NA,
131 t.alb.sbp=NA,
132 conc.alb=NA,
133 reversal=z(138,59,58,scrmg2mol(1.5)),
134 t.reversal=11,
135 survival=99-75,
136 t.survival=360),
137
138 data.frame(
139 group.id=1,
140 study.id=7503,

```

```

1  n=16,
2  age=60.4,
3  age.sd=9.8,
4  scr.0=scrml2mg(286),
5  scr.0.sd=scrml2mg(112),
6  bilirubin=bilimol2mg(196),
7  bilirubin.sd=bilimol2mg(186),
8  salb=2.6,
9  salb.sd=0.7,
10 scr.incr.vol=NA,
11 ascites=NA,
12 sbp=NA,
13 infection=NA,
14 bleed.gi=NA,
15 hcc=0,
16 map=bp2map(123,62),
17 map.sd=bp2map(15,14),
18 hr=NA,
19 hr.sd=NA,
20 hbg=NA,
21 hbg.sd=NA,
22 wbc=NA,
23 wbc.sd=NA,
24 plt=NA,
25 plt.sd=NA,
26 dose.ter1=4,
27 t.ter1=7,
28 dose.nadr=NA,
29 t.nadr=NA,
30 dose.mido=NA,
31 t.mido=NA,
32 dose.octreo=NA,
33 t.octreo=NA,
34 dose.alb.dx=NA,
35 t.alb.dx=NA,
36 dose.alb.tx=0,
37 t.alb.tx=0,
38 dose.alb.lvp=NA,
39 t.alb.lvp=NA,
40 dose.alb.sbp=NA,
41 t.alb.sbp=NA,
42 conc.alb=NA,
43 reversal=6,
44 t.reversal=5,
45 survival=1,
46 t.survival=1080),
47
48 data.frame(
49 group.id=1,
50 study.id=7505,
51 n=12,
52 age=53.5,
53 age.sd=(60.2-44.8)/3,
54 scr.0=3.4,
55 scr.0.sd=(4.0-2.5)/3,
56 bilirubin=6.2,
57 bilirubin.sd=(20.5-1.7)/3,
58 salb=2.9,
59 salb.sd=(3.4-2.4)/3,
60 scr.incr.vol=NA,
61 ascites=12,
62 sbp=NA,
63 infection=NA,
64 bleed.gi=NA,
65 hcc=3,
66 map=76,
67 map.sd=(83-68)/3,
68 hr=91,
69 hr.sd=(110-74)/3,
70 hbg=NA,
71 hbg.sd=NA,
72 wbc=NA,
73 wbc.sd=NA,
74 plt=NA,
75 plt.sd=NA,
76 dose.ter1=pool.mean(c(10,16),c(4,2)),
77 t.ter1=26,
78 dose.nadr=NA,
79 t.nadr=NA,
80 dose.mido=NA,
81 t.mido=NA,
82 dose.octreo=NA,
83 t.octreo=NA,
84 dose.alb.dx=60,
85 t.alb.dx=2,
86 dose.alb.tx=pool.mean(c(4,2),c(40,20)),
87 t.alb.tx=6,
88 dose.alb.lvp=NA,
89 t.alb.lvp=NA,
90 dose.alb.sbp=NA,
91 t.alb.sbp=NA,
92 conc.alb=NA,
93 reversal=5,
94 t.reversal=26,
95 survival=12-9,
96 t.survival=95),
97
98 data.frame(
99 group.id=1,
100 study.id=7380,
101 n=13,
102 age=pool.mean(c(8,5),c(51.5,58.6)),
103 age.sd=pool.sd(c(8.5),c(5.3*sqrt(8),6.9*sqrt(5))),
104 scr.0=pool.mean(c(8,5),c(3.0,3.9)),
105 scr.0.sd=pool.sd(c(8.5),c(1.7*sqrt(8),1.5*sqrt(5))),
106 bilirubin=NA,
107 bilirubin.sd=NA,
108 salb=NA,
109 salb.sd=NA,
110 scr.incr.vol=NA,
111 ascites=NA,
112 sbp=NA,
113 infection=1,
114 bleed.gi=2,
115 hcc=NA,
116 map=pool.mean(c(8,5),c(70.1,68.8)),
117 map.sd=pool.sd(c(8.5),c(9.1*sqrt(8),6.5*sqrt(5))),
118 hr=NA,
119 hr.sd=NA,
120 hbg=NA,
121 hbg.sd=NA,
122 wbc=NA,
123 wbc.sd=NA,
124 plt=NA,
125 plt.sd=NA,
126 dose.ter1=pool.mean(c(8,5),c(55.6/12.5,20.2/5)),
127 t.ter1=pool.mean(c(8,5),c(12.5,5)),
128 dose.nadr=NA,
129 t.nadr=NA,
130 dose.mido=NA,
131 t.mido=NA,
132 dose.octreo=NA,
133 t.octreo=NA,
134 dose.alb.dx=mean(c(30,80)),
135 t.alb.dx=1.5,
136 dose.alb.tx=pool.mean(c(8,5),c(57.5,68)),
137 t.alb.tx=pool.mean(c(8,5),c(12.5,5)),
138 dose.alb.lvp=NA,
139 t.alb.lvp=NA,
140 dose.alb.sbp=NA,

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```

1   t.alb.sbp=NA,
2   conc.alb=NA,
3   reversal=z(1.7,0.8*sqrt(8),8),
4   t.reversal=9,
5   survival=3,
6   t.survival=450),
7
8   data.frame(
9   group.id=1,
10  study.id=7506,
11  n=6,
12  age=54,
13  age.sd=(75-42)/3,
14  scr.0=3.9,
15  scr.0.sd=0.7*sqrt(9),
16  bilirubin=14,
17  bilirubin.sd=6*sqrt(9),
18  salb=3.2,
19  salb.sd=0.2*sqrt(9),
20  scr.incr.vol=NA,
21  ascites=6,
22  sbp=NA,
23  infection=NA,
24  bleed.gi=NA,
25  hcc=NA,
26  map=68,
27  map.sd=2*sqrt(9),
28  hr=81,
29  hr.sd=4*sqrt(9),
30  hbg=NA,
31  hbg.sd=NA,
32  wbc=NA,
33  wbc.sd=NA,
34  plt=NA,
35  plt.sd=NA,
36  dose.ter1=0.75*6,
37  t.ter1=10.6,
38  dose.nadr=NA,
39  t.nadr=NA,
40  dose.mido=NA,
41  t.mido=NA,
42  dose.octreo=NA,
43  t.octreo=NA,
44  dose.alb.dx=NA,
45  t.alb.dx=NA,
46  dose.alb.tx=pool.mean(c(1,10.6-1),c(70,30)),
47  t.alb.tx=10.6,
48  dose.alb.lvp=NA,
49  t.alb.lvp=NA,
50  dose.alb.sbp=NA,
51  t.alb.sbp=NA,
52  conc.alb=20,
53  reversal=5,
54  t.reversal=15,
55  survival=NA,
56  t.survival=NA),
57  #For reversal Fig. 1, SCr>2.4 (see text, p. 45)
58
59  data.frame(
60  group.id=1,
61  study.id=8255,
62  n=8,
63  age=59.1,
64  age.sd=11.8,
65  scr.0=3.01,
66  scr.0.sd=0.76,
67  bilirubin=9.4,
68  bilirubin.sd=7.6,
69  salb=2.5,
70  salb.sd=0.4,
71
72  scr.incr.vol=NA,
73  ascites=8,
74  sbp=NA,
75  infection=4,
76  bleed.gi=1,
77  hcc=0,
78  map=74,
79  map.sd=14,
80  hr=94,
81  hr.sd=8,
82  hbg=NA,
83  hbg.sd=NA,
84  wbc=NA,
85  wbc.sd=NA,
86  plt=NA,
87  plt.sd=NA,
88  dose.ter1=2.8,
89  t.ter1=6.3,
90  dose.nadr=NA,
91  t.nadr=NA,
92  dose.mido=NA,
93  t.mido=NA,
94  dose.octreo=NA,
95  t.octreo=NA,
96  dose.alb.dx=NA,
97  t.alb.dx=NA,
98  dose.alb.tx=25.7,
99  t.alb.tx=6.3,
100 dose.alb.lvp=NA,
101 t.alb.lvp=NA,
102 dose.alb.sbp=NA,
103 t.alb.sbp=NA,
104 conc.alb=NA,
105 reversal=6,
106 t.reversal=15,
107 survival=1,
108 t.survival=84),
109
110 data.frame(
111 group.id=1,
112 study.id=7492,
113 n=30-6,
114 age=mean(baseline.7492[baseline.7492$hrs.typ=="I", "age"]),
115 age.sd=sd(baseline.7492[baseline.7492$hrs.typ=="I", "age"]),
116 scr.0=NA,
117 scr.0.sd=NA,
118 bilirubin=NA,
119 bilirubin.sd=NA,
120 salb=NA,
121 salb.sd=NA,
122 scr.incr.vol=NA,
123 ascites=NA,
124 sbp=NA,
125 infection=NA,
126 bleed.gi=NA,
127 hcc=NA,
128 map=NA,
129 map.sd=NA,
130 hr=NA,
131 hr.sd=NA,
132 hbg=NA,
133 hbg.sd=NA,
134 wbc=NA,
135 wbc.sd=NA,
136 plt=NA,
137 plt.sd=NA,
138 dose.ter1=pool.mean(c(25,13),c(3.9,3.4)),
139 t.ter1=pool.mean(c(25,13),c(6.5,8.3)),
140 dose.nadr=NA,
141 t.nadr=NA,

```

```

1  dose.mido=NA,
2  t.mido=NA,
3  dose.octreo=NA,
4  t.octreo=NA,
5  dose.alb.dx=NA,
6  t.alb.dx=NA,
7  dose.alb.tx=pool.mean(c(25,13),c(28.5,24.6)),
8  t.alb.tx=pool.mean(c(25,13),c(6.5,8.3)),
9  dose.alb.lvp=NA,
10 t.alb.lvp=NA,
11 dose.alb.sbp=NA,
12 t.alb.sbp=NA,
13 conc.alb=NA,
14 reversal=30-6-9,
15 t.reversal=20,
16 survival=17,
17 t.survival=NA),
18
19 data.frame(
20 group.id=1,
21 study.id=8351,
22 n=30,
23 age=NA,
24 age.sd=NA,
25 scr.0=3.01,
26 scr.0.sd=1.255,
27 bilirubin=3.40,
28 bilirubin.sd=2.092,
29 salb=2.45,
30 salb.sd=0.673,
31 scr.incr.vol=NA,
32 ascites=NA,
33 sbp=NA,
34 infection=NA,
35 bleed.gi=NA,
36 hcc=NA,
37 map=bp2map(92.3,55.3),
38 map.sd=bp2map(19.77,14.79),
39 hr=NA,
40 hr.sd=NA,
41 hbg=NA,
42 hbg.sd=NA,
43 wbc=NA,
44 wbc.sd=NA,
45 plt=NA,
46 plt.sd=NA,
47 dose.ter1=1.5,
48 t.ter1=7,
49 dose.nadr=NA,
50 t.nadr=NA,
51 dose.mido=NA,
52 t.mido=NA,
53 dose.octreo=NA,
54 t.octreo=NA,
55 dose.alb.dx=NA,
56 t.alb.dx=NA,
57 dose.alb.tx=12.5,
58 t.alb.tx=7,
59 dose.alb.lvp=NA,
60 t.alb.lvp=NA,
61 dose.alb.sbp=NA,
62 t.alb.sbp=NA,
63 conc.alb=NA,
64 reversal=round(30*pnorm((1.5-1.34)/0.554)),
65 t.reversal=7,
66 survival=30-6,
67 t.survival=NA),
68
69 data.frame(
70 group.id=1,
71 study.id=7497,
72 n=5,
73 age=55,
74 age.sd=2*sqrt(12),
75 scr.0=2.5,
76 scr.0.sd=0.3*sqrt(12),
77 bilirubin=5.1,
78 bilirubin.sd=1*sqrt(12),
79 salb=3,
80 salb.sd=0.1*sqrt(12),
81 scr.incr.vol=NA,
82 ascites=NA,
83 sbp=NA,
84 infection=NA,
85 bleed.gi=NA,
86 hcc=NA,
87 map=74,
88 map.sd=3*sqrt(12),
89 hr=NA,
90 hr.sd=NA,
91 hbg=NA,
92 hbg.sd=NA,
93 wbc=NA,
94 wbc.sd=NA,
95 plt=NA,
96 plt.sd=NA,
97 dose.ter1=pool.mean(c(8,2),c(6,12)),
98 t.ter1=pool.mean(c(4,1),c(6,14)),
99 dose.nadr=NA,
100 t.nadr=NA,
101 dose.mido=NA,
102 t.mido=NA,
103 dose.octreo=NA,
104 t.octreo=NA,
105 dose.alb.dx=NA,
106 t.alb.dx=NA,
107 dose.alb.tx=46,
108 t.alb.tx=pool.mean(c(4,1),c(6,14)),
109 dose.alb.lvp=NA,
110 t.alb.lvp=NA,
111 dose.alb.sbp=NA,
112 t.alb.sbp=NA,
113 conc.alb=20,
114 reversal=4,
115 t.reversal=pool.mean(c(4,1),c(6,14)),
116 survival=5-1,
117 t.survival=180),
118
119 data.frame(
120 group.id=2,
121 study.id=7497,
122 n=4,
123 age=56,
124 age.sd=3*sqrt(10),
125 scr.0=2.3,
126 scr.0.sd=0.2*sqrt(10),
127 bilirubin=4.1,
128 bilirubin.sd=1*sqrt(10),
129 salb=3,
130 salb.sd=0.2*sqrt(10),
131 scr.incr.vol=NA,
132 ascites=NA,
133 sbp=NA,
134 infection=NA,
135 bleed.gi=NA,
136 hcc=NA,
137 map=71,
138 map.sd=2*sqrt(10),
139 hr=NA,
140 hr.sd=NA,

```

```

1  hbg=NA,
2  hbg.sd=NA,
3  wbc=NA,
4  wbc.sd=NA,
5  plt=NA,
6  plt.sd=NA,
7  dose.ter1=NA,
8  t.ter1=NA,
9  dose.nadr=0.3*60*60*24/1000,
10 t.nadr=pool.mean(c(3,1),c(5,14)),
11 dose.mido=NA,
12 t.mido=NA,
13 dose.octreo=NA,
14 t.octreo=NA,
15 dose.alb.dx=NA,
16 t.alb.dx=NA,
17 dose.alb.tx=56,
18 t.alb.tx=pool.mean(c(3,1),c(5,14)),
19 dose.alb.lvp=NA,
20 t.alb.lvp=NA,
21 dose.alb.sbp=NA,
22 t.alb.sbp=NA,
23 conc.alb=20,
24 reversal=3,
25 t.reversal=pool.mean(c(3,1),c(5,14)),
26 survival=4-2,
27 t.survival=180),
28
29 data.frame(
30 group.id=1,
31 study.id=7496,
32 n=20,
33 age=47.8,
34 age.sd=9.8,
35 scr.0=3.0,
36 scr.0.sd=0.5,
37 bilirubin=7.6,
38 bilirubin.sd=(40.0-0.7)/4,
39 salb=2.6,
40 salb.sd=0.6,
41 scr.incr.vol=NA,
42 ascites=NA,
43 sbp=NA,
44 infection=NA,
45 bleed.gi=NA,
46 hcc=NA,
47 map=81.4,
48 map.sd=11.4,
49 hr=NA,
50 hr.sd=NA,
51 hbg=NA,
52 hbg.sd=NA,
53 wbc=NA,
54 wbc.sd=NA,
55 plt=NA,
56 plt.sd=NA,
57 dose.ter1=5.8,
58 t.ter1=8.1,
59 dose.nadr=NA,
60 t.nadr=NA,
61 dose.mido=NA,
62 t.mido=NA,
63 dose.octreo=NA,
64 t.octreo=NA,
65 dose.alb.dx=60,
66 t.alb.dx=2,
67 dose.alb.tx=30,
68 t.alb.tx=8.1,
69 dose.alb.lvp=NA,
70 t.alb.lvp=NA,
71 dose.alb.sbp=NA,
72 t.alb.sbp=NA,
73 conc.alb=20,
74 reversal=10,
75 t.reversal=15,
76 survival=11,
77 t.survival=30),
78
79 data.frame(
80 group.id=2,
81 study.id=7496,
82 n=20,
83 age=48.2,
84 age.sd=13.4,
85 scr.0=3.3,
86 scr.0.sd=1.3,
87 bilirubin=5.2,
88 bilirubin.sd=(28.0-1.0)/4,
89 salb=2.4,
90 salb.sd=0.4,
91 scr.incr.vol=NA,
92 ascites=NA,
93 sbp=NA,
94 infection=NA,
95 bleed.gi=NA,
96 hcc=NA,
97 map=78.2,
98 map.sd=5.3,
99 hr=NA,
100 hr.sd=NA,
101 hbg=NA,
102 hbg.sd=NA,
103 wbc=NA,
104 wbc.sd=NA,
105 plt=NA,
106 plt.sd=NA,
107 dose.ter1=NA,
108 t.ter1=NA,
109 dose.nadr=1*24,
110 t.nadr=7.8,
111 dose.mido=NA,
112 t.mido=NA,
113 dose.octreo=NA,
114 t.octreo=NA,
115 dose.alb.dx=60,
116 t.alb.dx=2,
117 dose.alb.tx=30,
118 t.alb.tx=7.8,
119 dose.alb.lvp=NA,
120 t.alb.lvp=NA,
121 dose.alb.sbp=NA,
122 t.alb.sbp=NA,
123 conc.alb=20,
124 reversal=10,
125 t.reversal=15,
126 survival=11,
127 t.survival=30),
128
129 data.frame(
130 group.id=1,
131 study.id=8454,
132 n=23,
133 age=51.4,
134 age.sd=11.6,
135 scr.0=3.27,
136 scr.0.sd=0.71,
137 bilirubin=3.99,
138 bilirubin.sd=2.58,
139 salb=2.78,
140 salb.sd=0.40,

```

```

1  scr.incr.vol=NA,
2  ascites=23,
3  sbp=NA,
4  infection=7,
5  bleed.gi=NA,
6  hcc=NA,
7  map=64.7,
8  map.sd=11.9,
9  hr=NA,
10 hr.sd=NA,
11 hbg=NA,
12 hbg.sd=NA,
13 wbc=NA,
14 wbc.sd=NA,
15 plt=NA,
16 plt.sd=NA,
17 dose.terl=3.13,
18 t.terl=7.82,
19 dose.nadr=NA,
20 t.nadr=NA,
21 dose.mido=NA,
22 t.mido=NA,
23 dose.octreo=NA,
24 t.octreo=NA,
25 dose.alb.dx=NA,
26 t.alb.dx=NA,
27 dose.alb.tx=20,
28 t.alb.tx=7.82,
29 dose.alb.lvp=NA,
30 t.alb.lvp=NA,
31 dose.alb.sbp=NA,
32 t.alb.sbp=NA,
33 conc.alb=NA,
34 reversal=9,
35 t.reversal=15,
36 survival=7,
37 t.survival=30),
38
39 data.frame(
40 group.id=2,
41 study.id=8454,
42 n=23,
43 age=48.3,
44 age.sd=11.6,
45 scr.0=3.10,
46 scr.0.sd=0.66,
47 bilirubin=4.66,
48 bilirubin.sd=5.72,
49 salb=2.78,
50 salb.sd=0.20,
51 scr.incr.vol=NA,
52 ascites=23,
53 sbp=NA,
54 infection=6,
55 bleed.gi=NA,
56 hcc=NA,
57 map=65.2,
58 map.sd=10.2,
59 hr=NA,
60 hr.sd=NA,
61 hbg=NA,
62 hbg.sd=NA,
63 wbc=NA,
64 wbc.sd=NA,
65 plt=NA,
66 plt.sd=NA,
67 dose.terl=NA,
68 t.terl=NA,
69 dose.nadr=0.59*24,
70 t.nadr=9.3,
71
72 dose.mido=NA,
73 t.mido=NA,
74 dose.octreo=NA,
75 t.octreo=NA,
76 dose.alb.dx=NA,
77 t.alb.dx=NA,
78 dose.alb.tx=20,
79 t.alb.tx=9.3,
80 dose.alb.lvp=NA,
81 t.alb.lvp=NA,
82 dose.alb.sbp=NA,
83 t.alb.sbp=NA,
84 conc.alb=NA,
85 reversal=10,
86 t.reversal=15,
87 survival=8,
88 t.survival=30),
89
90 data.frame(
91 group.id=1,
92 study.id=8444,
93 n=12,
94 age=54.5,
95 age.sd=(75-40)/3,
96 scr.0=scrmo12mg(mean(c(130.9,176.4,196.0,199.6,204.2,
97 221.4,246.9,265.5,274.2,278.3,338.8,381.9))),
98 scr.0.sd=scrmo12mg(sd(c(130.9,176.4,196.0,199.6,204.2,
99 221.4,246.9,265.5,274.2,278.3,338.8,381.9))),
100 bilirubin=NA,
101 bilirubin.sd=NA,
102 salb=NA,
103 salb.sd=NA,
104 scr.incr.vol=NA,
105 ascites=12,
106 sbp=NA,
107 infection=4,
108 bleed.gi=NA,
109 hcc=NA,
110 map=NA,
111 map.sd=NA,
112 hr=NA,
113 hr.sd=NA,
114 hbg=NA,
115 hbg.sd=NA,
116 wbc=NA,
117 wbc.sd=NA,
118 plt=NA,
119 plt.sd=NA,
120 dose.terl=mean(c(2,6)),
121 t.terl=mean(c(2,4,4,8,9,10)),
122 dose.nadr=NA,
123 t.nadr=NA,
124 dose.mido=NA,
125 t.mido=NA,
126 dose.octreo=NA,
127 t.octreo=NA,
128 dose.alb.dx=NA,
129 t.alb.dx=NA,
130 dose.alb.tx=0,
131 t.alb.tx=0,
132 dose.alb.lvp=NA,
133 t.alb.lvp=NA,
134 dose.alb.sbp=NA,
135 t.alb.sbp=NA,
136 conc.alb=NA,
137 reversal=6,
138 t.reversal=10,
139 survival=12-8,
140 t.survival=NA),

```

```

1 data.frame(
2 group.id=1,
3 study.id=7539,
4 n=41,
5 age=NA,
6 age.sd=NA,
7 scr.0=NA,
8 scr.0.sd=NA,
9 bilirubin=NA,
10 bilirubin.sd=NA,
11 salb=NA,
12 salb.sd=NA,
13 scr.incr.vol=NA,
14 ascites=NA,
15 sbp=NA,
16 infection=20,
17 bleed.gi=NA,
18 hcc=NA,
19 map=NA,
20 map.sd=NA,
21 hr=NA,
22 hr.sd=NA,
23 hbg=NA,
24 hbg.sd=NA,
25 wbc=NA,
26 wbc.sd=NA,
27 plt=NA,
28 plt.sd=NA,
29 dose.ter1=1.5*6,
30 t.ter1=7,
31 dose.nadr=NA,
32 t.nadr=NA,
33 dose.mido=NA,
34 t.mido=NA,
35 dose.octreo=NA,
36 t.octreo=NA,
37 dose.alb.dx=NA,
38 t.alb.dx=NA,
39 dose.alb.tx=mean(c(70,rep(30,6))),
40 t.alb.tx=7,
41 dose.alb.lvp=NA,
42 t.alb.lvp=NA,
43 dose.alb.sbp=NA,
44 t.alb.sbp=NA,
45 conc.alb=NA,
46 reversal=22,
47 t.reversal=NA,
48 survival=round(0.55*20)+round(0.24*21),
49 t.survival=90),
50
51 data.frame(
52 group.id=1,
53 study.id=7462,
54 n=49,
55 age=52.73,
56 age.sd=10.56,
57 scr.0=2.50,
58 scr.0.sd=1.26,
59 bilirubin=NA,
60 bilirubin.sd=NA,
61 salb=NA,
62 salb.sd=NA,
63 scr.incr.vol=NA,
64 ascites=round(49*97/102),
65 sbp=NA,
66 infection=round(49*27/102),
67 bleed.gi=NA,
68 hcc=NA,
69 map=NA,
70 map.sd=NA,
71 hr=NA,
72 hr.sd=NA,
73 hbg=NA,
74 hbg.sd=NA,
75 wbc=NA,
76 wbc.sd=NA,
77 plt=123,
78 plt.sd=NA,
79 dose.ter1=NA,
80 t.ter1=NA,
81 dose.nadr=NA,
82 t.nadr=NA,
83 dose.mido=3*pool.mean(c(3,28,9,11,8),seq(5,15,by=2.5)),
84 t.mido=16.8,
85 dose.octreo=3*pool.mean(c(23,35),c(100,200)),
86 t.octreo=16.8,
87 dose.alb.dx=60,
88 t.alb.dx=2,
89 dose.alb.tx=0,
90 t.alb.tx=0,

```

```

1  dose.alb.lvp=NA,
2  t.alb.lvp=NA,
3  dose.alb.sbp=NA,
4  t.alb.sbp=NA,
5  conc.alb=NA,
6  reversal=24,
7  t.reversal=30,
8  survival=60-26,
9  t.survival=30),
10 data.frame(
11   group.id=1,
12   study.id=9168,
13   n=6,
14   age=52,
15   age.sd=12.95,
16   scr.0=2.64,
17   scr.0.sd=0.71,
18   bilirubin=7.95,
19   bilirubin.sd=7.76,
20   salb=2.67,
21   salb.sd=0.20,
22   scr.incr.vol=NA,
23   ascites=NA,
24   sbp=NA,
25   infection=0,
26   bleed.gi=NA,
27   hcc=0,
28   map=73.36,
29   map.sd=6.68,
30   hr=89.09,
31   hr.sd=13.04,
32   hbg=NA,
33   hbg.sd=NA,
34   wbc=NA,
35   wbc.sd=NA,
36   plt=NA,
37   plt.sd=NA,
38   dose.ter1=NA,
39   t.ter1=NA,
40   dose.nadr=0.1*56.18*60*24/1000,
41   t.nadr=18,
42   dose.mido=NA,
43   t.mido=NA,
44   dose.octreo=NA,
45   t.octreo=NA,
46   dose.alb.dx=NA,
47   t.alb.dx=NA,
48   dose.alb.tx=mean(c(20,60)),
49   t.alb.tx=18,
50   dose.alb.lvp=NA,
51   t.alb.lvp=NA,
52   dose.alb.sbp=NA,
53   t.alb.sbp=NA,
54   conc.alb=20,
55   reversal=3,
56   t.reversal=NA,
57   survival=2,
58   t.survival=90),
59 data.frame(
60   group.id=2,
61   study.id=9168,
62   n=9,
63   age=52.9,
64   age.sd=12.61,
65   scr.0=2.58,
66   scr.0.sd=0.83,
67   bilirubin=11.61,
68   bilirubin.sd=12.21,
69   salb=2.62,
70   salb.sd=0.32,
71   scr.incr.vol=NA,
72   ascites=NA,
73   sbp=NA,
74   infection=0,
75   bleed.gi=NA,
76   hcc=0,
77   map=69.75,
78   map.sd=7.08,
79   hr=84.25,
80   hr.sd=9.7,
81   hbg=NA,
82   hbg.sd=NA,
83   wbc=NA,
84   wbc.sd=NA,
85   plt=NA,
86   plt.sd=NA,
87   dose.ter1=NA,
88   t.ter1=NA,
89   dose.nadr=NA,
90   t.nadr=NA,
91   dose.mido=5*3,
92   t.mido=18,
93   dose.octreo=0.1*3,
94   t.octreo=18,
95   dose.alb.dx=NA,
96   t.alb.dx=NA,
97   dose.alb.tx=mean(c(20,60)),
98   t.alb.tx=18,
99   dose.alb.lvp=NA,
100  t.alb.lvp=NA,
101  dose.alb.sbp=NA,
102  t.alb.sbp=NA,
103  conc.alb=20,
104  reversal=7,
105  t.reversal=NA,
106  survival=5,
107  t.survival=90),
108 data.frame(
109   group.id=1,
110   study.id=7543,
111   n=5,
112   age=62,
113   age.sd=round(3*sqrt(5),1),
114   scr.0=5.0,
115   scr.0.sd=round(0.9*sqrt(5),1),
116   bilirubin=4.3,
117   bilirubin.sd=round(1.3*sqrt(5),1),
118   salb=3.0,
119   salb.sd=round(0.1*sqrt(5),1),
120   scr.incr.vol=5,
121   ascites=5,
122   sbp=0,
123   infection=0,
124   bleed.gi=0,
125   hcc=0,
126   map=75.9,
127   map.sd=round(3.0*sqrt(5),1),
128   hr=84,
129   hr.sd=round(6*sqrt(5)),
130   hbg=NA,
131   hbg.sd=NA,
132   wbc=NA,
133   wbc.sd=NA,
134   plt=NA,
135   plt.sd=NA,
136   dose.ter1=NA,
137   t.ter1=NA,

```

```

1  dose.nadr=NA,
2  t.nadr=NA,
3  dose.mido=pool.mean(c(2,3),3*c(7.5,12.5)),
4  t.mido=20,
5  dose.octreo=pool.mean(c(2,3),3*c(0.1,0.2)),
6  t.octreo=20,
7  dose.alb.dx=40,
8  t.alb.dx=4,
9  dose.alb.tx=mean(c(10,20)),
10 t.alb.tx=20,
11 dose.alb.lvp=2*3*8/5,
12 t.alb.lvp=1,
13 dose.alb.sbp=NA,
14 t.alb.sbp=NA,
15 conc.alb=20,
16 reversal=0,
17 t.reversal=20,
18 survival=4,
19 t.survival=30),
20
21 data.frame(
22 group.id=1,
23 study.id=7518,
24 n=14,
25 age=pool.mean(c(14,4),c(55.9,52.7)),
26 age.sd=pool.sd(c(14,4),c(2.3,5.0)*sqrt(c(10,4))),
27 scr.o=pool.mean(c(14,4),scrmol2mg(c(233,345))),
28 scr.o.sd=pool.sd(c(14,4),scrmol2mg(c(29,83)*sqrt(c(10,4)))),
29 bilirubin=pool.mean(c(14,4),bilimol2mg(c(45,71))),
30 bilirubin.sd=
31   pool.sd(c(14,4),bilimol2mg(c(8,16)*sqrt(c(10,4)))),
32 salb=pool.mean(c(14,4),c(3.2,3.3)),
33 salb.sd=pool.sd(c(14,4),c(0.3,0.5)*sqrt(c(10,4))),
34 scr.incr.vol=NA,
35 ascites=14,
36 sbp=3,
37 infection=2,
38 bleed.gi=2,
39 hcc=NA,
40 map=pool.mean(c(14,4),c(81,79)),
41 map.sd=pool.sd(c(14,4),c(5,4)*sqrt(c(10,4))),
42 hr=pool.mean(c(14,4),c(75,91)),
43 hr.sd=pool.sd(c(14,4),c(5,3)*sqrt(c(10,4))),
44 hbg=pool.mean(c(14,4),c(9.4,9.7)),
45 hbg.sd=pool.sd(c(14,4),c(0.4,0.4)*sqrt(c(10,4))),
46 wbc=NA,
47 wbc.sd=NA,
48 plt=pool.mean(c(14,4),c(102,78)),
49 plt.sd=pool.sd(c(14,4),c(19,22)*sqrt(c(10,4))),
50 dose.terl=NA,
51 t.terl=NA,
52 dose.nadr=NA,
53 t.nadr=NA,
54 dose.mido=2.5,
55 t.mido=14,
56 dose.octreo=0.025*24,
57 t.octreo=14,
58 dose.alb.dx=50,
59 t.alb.dx=5,
60 dose.alb.tx=50,
61 t.alb.tx=14,
62 dose.alb.lvp=NA,
63 t.alb.lvp=NA,
64 dose.alb.sbp=NA,
65 t.alb.sbp=NA,
66 conc.alb=NA,
67 reversal=10,
68 t.reversal=14,
69 survival=14-7,
70 t.survival=90),
71
72 data.frame(
73 group.id=1,
74 study.id=8143,
75 n=40,
76 age=62,
77 age.sd=1.2*sqrt(40),
78 scr.o=3.17,
79 scr.o.sd=0.19*sqrt(40),
80 bilirubin=15.1,
81 bilirubin.sd=1.6*sqrt(40),
82 salb=2.8,
83 salb.sd=0.06*sqrt(40),
84 scr.incr.vol=NA,
85 ascites=round(40*0.96),
86 sbp=NA,
87 infection=round(40*(0.15+0.237)),
88 bleed.gi=round(40*0.132),
89 hcc=NA,
90 map=80.4,
91 map.sd=1.3*sqrt(40),
92 hr=76,
93 hr.sd=1.3*sqrt(40),
94 hbg=10.5,
95 hbg.sd=0.2*sqrt(40),
96 wbc=11394,
97 wbc.sd=848*sqrt(40),
98 plt=120,
99 plt.sd=7.4*sqrt(40),
100 dose.terl=pool.mean(c(20,20),c(0.5*5,12)),
101 t.terl=8.7,
102 dose.nadr=NA,
103 t.nadr=NA,
104 dose.mido=NA,
105 t.mido=NA,
106 dose.octreo=NA,
107 t.octreo=NA,
108 dose.alb.dx=mean(c(70,100)),
109 t.alb.dx=2,
110 dose.alb.tx=27,
111 t.alb.tx=8.7,
112 dose.alb.lvp=NA,
113 t.alb.lvp=NA,
114 dose.alb.sbp=NA,
115 t.alb.sbp=NA,
116 conc.alb=NA,
117 reversal=round(40*0.3),
118 t.reversal=14,
119 survival=NA,
120 t.survival=NA),
121
122 data.frame(
123 group.id=2,
124 study.id=8143,
125 n=24,
126 age=62,
127 age.sd=1.2*sqrt(24),
128 scr.o=3.17,
129 scr.o.sd=0.19*sqrt(24),
130 bilirubin=15.1,
131 bilirubin.sd=1.6*sqrt(24),
132 salb=2.8,
133 salb.sd=0.06*sqrt(24),
134 scr.incr.vol=NA,
135 ascites=round(24*0.96),
136 sbp=NA,
137 infection=round(24*(0.15+0.237)),
138 bleed.gi=round(24*0.132),
139 hcc=NA,
140 map=80.4,
141 map.sd=1.3*sqrt(24),

```

```

1   hr=76,                                     sd(group$dose.ter1*group$t.ter1,na.rm=TRUE)
2   hr.sd=1.3*sqrt(24),
3   hbg=10.5,                                  group$mido.z <-
4   hbg.sd=0.2*sqrt(24),                      (group$dose.mido*group$t.mido-
5   wbc=11394,                                  mean(group$dose.mido*group$t.mido,na.rm=TRUE))/
6   wbc.sd=848*sqrt(24),                       sd(group$dose.mido*group$t.mido,na.rm=TRUE)
7   plt=120,
8   plt.sd=7.4*sqrt(24),                       group$octreo.z <-
9   dose.ter1=NA,                               (group$dose.octreo*group$t.octreo-
10  t.ter1=NA,                                  mean(group$dose.octreo*group$t.octreo,na.rm=TRUE))/
11  dose.nadr=NA,                               sd(group$dose.octreo*group$t.octreo,na.rm=TRUE)
12  t.nadr=NA,
13  dose.mido=pool.mean(c(22,2),c(22.5,37.5)),  group$nadr.z <-
14  t.mido=8.7,                                  (group$dose.nadr*group$t.nadr-
15  dose.octreo=pool.mean(c(22,2),c(0.3,0.6)),  mean(group$dose.nadr*group$t.nadr,na.rm=TRUE))/
16  t.octreo=8.7,                                sd(group$dose.nadr*group$t.nadr,na.rm=TRUE)
17  dose.alb.dx=mean(c(70,100)),
18  t.alb.dx=2,
19  dose.alb.tx=27,
20  t.alb.tx=8.7,
21  dose.alb.lvp=NA,
22  t.alb.lvp=NA,
23  dose.alb.sbp=NA,
24  t.alb.sbp=NA,
25  conc.alb=NA,
26  reversal=round(24*0.3),
27  t.reversal=NA,
28  survival=NA,
29  t.survival=NA))
30  group <- do.call(rbind,group)
31
32  # Intermediate computations
33
34  group$dose.alb.tot <-
35  ifelse(is.na(group$dose.alb.dx),
36  group$dose.alb.tx,
37  (group$t.alb.dx*group$dose.alb.dx+
38  group$t.alb.tx*group$dose.alb.tx)/
39  (group$t.alb.dx+group$t.alb.tx))
40
41  group$t.alb.tot <-
42  ifelse(is.na(group$t.alb.dx),
43  group$t.alb.tx,
44  group$t.alb.dx+group$t.alb.tx)
45
46  group$dose.alb.cum <-
47  group$t.alb.tx*group$dose.alb.tx
48
49  study <-
50  study[!study$study.id%in%group[group$dose.alb.cum==0,"study
51  .id"],]
52
53  row.names(study) <- NULL
54
55  group <- group[group$dose.alb.cum>0,]
56
57  study <- merge(study,
58  data.frame(
59  study.id=as.numeric(unlist(dimnames(
60  tapply(group$n,group$study.id,sum)))),
  N=tapply(group$n,group$study.id,sum)))
  study <- study[order(study$year,study$author),]
  row.names(study) <- NULL
  group$t.ter1.z <-
  (group$dose.ter1*group$t.ter1-
  mean(group$dose.ter1*group$t.ter1,na.rm=TRUE))/
  sd(group$dose.ter1*group$t.ter1,na.rm=TRUE)
  group$mido.z <-
  (group$dose.mido*group$t.mido-
  mean(group$dose.mido*group$t.mido,na.rm=TRUE))/
  sd(group$dose.mido*group$t.mido,na.rm=TRUE)
  group$octreo.z <-
  (group$dose.octreo*group$t.octreo-
  mean(group$dose.octreo*group$t.octreo,na.rm=TRUE))/
  sd(group$dose.octreo*group$t.octreo,na.rm=TRUE)
  group$nadr.z <-
  (group$dose.nadr*group$t.nadr-
  mean(group$dose.nadr*group$t.nadr,na.rm=TRUE))/
  sd(group$dose.nadr*group$t.nadr,na.rm=TRUE)
  group$vaso.z <- (group$mido.z+group$octreo.z)/2
  group[!is.na(group$dose.ter1),"vaso.z"] <-
  group[!is.na(group$dose.ter1),"ter1.z"]
  group[!is.na(group$dose.nadr),"vaso.z"] <-
  group[!is.na(group$dose.nadr),"nadr.z"]
  group$drug <-
  factor(ifelse(!is.na(group$dose.ter1),
  "terlipressin",
  ifelse(!is.na(group$dose.nadr),
  "noradrenaline","midodrine/octreotide")),
  levels=c("terlipressin","midodrine/octreotide","noradrenaline"))
  group$t.tx <-
  ifelse(!is.na(group$t.ter1),group$t.ter1,
  ifelse(!is.na(group$t.mido),group$t.mido,group$t.nadr))
  group <- merge(group,
  study[,c("study.id","design","N","year","author")])
  group$study.group <- 1:nrow(group)
  row.names(group) <- NULL
  # Mortality data
  mortality <- list(
  data.frame(
  group.id=1,
  study.id=7496,
  t=6,
  died=1,
  count=3),
  data.frame(
  group.id=1,
  study.id=7496,
  t=9,
  died=1,
  count=1),
  data.frame(
  group.id=1,
  study.id=7496,
  t=10,
  died=1,
  count=1),
  data.frame(

```

```

1   group.id=1,
2   study.id=7496,
3   t=11,
4   died=1,
5   count=1),
6
7   data.frame(
8   group.id=1,
9   study.id=7496,
10  t=12,
11  died=1,
12  count=1),
13
14  data.frame(
15  group.id=1,
16  study.id=7496,
17  t=13,
18  died=1,
19  count=2),
20
21  data.frame(
22  group.id=1,
23  study.id=7496,
24  t=c(13,17,19,21,25,30),
25  died=rep(0,6),
26  count=c(3,1,1,1,1,4)),
27
28  data.frame(
29  group.id=2,
30  study.id=7496,
31  t=c(5,6,7,9,10,12,15,21,30),
32  died=c(rep(1,6),0,0,0),
33  count=c(1,3,2,1,1,1,2,2,7)),
34
35  data.frame(
36  group.id=1,
37  study.id=8454,
38  t=4,
39  died=1,
40  count=2),
41
42  data.frame(
43  group.id=1,
44  study.id=8454,
45  t=4,
46  died=0,
47  count=1),
48
49  data.frame(
50  group.id=1,
51  study.id=8454,
52  t=6,
53  died=1,
54  count=4),
55
56  data.frame(
57  group.id=1,
58  study.id=8454,
59  t=7,
60  died=1,
61  count=4),
62
63  data.frame(
64  group.id=1,
65  study.id=8454,
66  t=8,
67  died=1,
68  count=1),
69
70  data.frame(
71  group.id=1,
72  study.id=8454,
73  t=11,
74  died=1,
75  count=2),
76
77  data.frame(
78  group.id=1,
79  study.id=8454,
80  t=17,
81  died=1,
82  count=1),
83
84  data.frame(
85  group.id=1,
86  study.id=8454,
87  t=18,
88  died=1,
89  count=1),
90
91  data.frame(
92  group.id=1,
93  study.id=8454,
94  t=19,
95  died=0,
96  count=7),
97
98  data.frame(
99  group.id=2,
100 study.id=8454,
101 t=c(3,5,6,7,9,10,15,17,18,19),
102 died=c(rep(1,9),0),
103 count=c(1,2,2,3,1,1,2,1,2,8)),
104
105 data.frame(
106 group.id=1,
107 study.id=7541,
108 t=3,
109 died=1,
110 count=1),
111
112 data.frame(
113 group.id=1,
114 study.id=7541,
115 t=5,
116 died=1,
117 count=1),
118
119 data.frame(
120 group.id=1,
121 study.id=7541,
122 t=9,
123 died=1,
124 count=1),
125
126 data.frame(
127 group.id=1,
128 study.id=7541,
129 t=10,
130 died=1,
131 count=2),
132
133 data.frame(
134 group.id=1,
135 study.id=7541,
136 t=13,
137 died=1,
138 count=1),
139
140 data.frame(

```

```

1   group.id=1,
2   study.id=7541,
3   t=14,
4   died=1,
5   count=1),
6
7   data.frame(
8   group.id=1,
9   study.id=7541,
10  t=15,
11  died=1,
12  count=1),
13
14  data.frame(
15  group.id=1,
16  study.id=7541,
17  t=18,
18  died=1,
19  count=1),
20
21  data.frame(
22  group.id=1,
23  study.id=7541,
24  t=30,
25  died=1,
26  count=1),
27
28  data.frame(
29  group.id=1,
30  study.id=7541,
31  t=33,
32  died=1,
33  count=2),
34
35  data.frame(
36  group.id=1,
37  study.id=7541,
38  t=34,
39  died=1,
40  count=1),
41
42  data.frame(
43  group.id=1,
44  study.id=7541,
45  t=37,
46  died=1,
47  count=2),
48
49  data.frame(
50  group.id=1,
51  study.id=7541,
52  t=45,
53  died=0,
54  count=1),
55
56  data.frame(
57  group.id=1,
58  study.id=7541,
59  t=29,
60  died=0,
61  count=1),
62
63  data.frame(
64  group.id=1,
65  study.id=7541,
66  t=370,
67  died=0,
68  count=1),
69
70  data.frame(
71  group.id=1,
72  study.id=7541,
73  t=14,
74  died=1,
75  count=4),
76
77  data.frame(
78  group.id=1,
79  study.id=7462,
80  t=7,
81  died=1,
82  count=4),
83
84  data.frame(
85  group.id=1,
86  study.id=7462,
87  t=14,
88  died=1,
89  count=1),
90
91  data.frame(
92  group.id=1,
93  study.id=7462,
94  t=14,
95  died=0,
96  count=3),
97
98  data.frame(
99  group.id=1,
100 study.id=7462,
101 t=21,
102 died=1,
103 count=6),
104
105 data.frame(
106 group.id=1,
107 study.id=7462,
108 t=21,
109 died=0,
110 count=5),
111
112 data.frame(
113 group.id=1,
114 study.id=7462,
115 t=28,
116 died=1,
117 count=3),
118
119 data.frame(
120 group.id=1,
121 study.id=7462,
122 t=28,
123 died=0,
124 count=2),
125
126 data.frame(
127 group.id=1,
128 study.id=7462,
129 t=35,
130 died=1,
131 count=3),
132
133 data.frame(
134 group.id=1,
135 study.id=7462,
136 t=35,
137 died=0,
138 count=4),
139
140 data.frame(
141 group.id=1,
142 study.id=7462,
143 t=42,
144 died=1,
145 count=4),
146
147 data.frame(

```

```

1  group.id=1,                                data.frame(
2  study.id=7462,                               group.id=1,
3  t=48,                                         study.id=8255,
4  died=0,                                      t=c(2,23,27,34,36,40,84),
5  count=1),                                   died=c(rep(1,6),0),
6  data.frame(                                  count=c(rep(1,5),2,1)),
7  group.id=1,
8  study.id=7462,
9  t=70,
10 died=1,
11 count=1),
12 data.frame(
13 group.id=1,
14 study.id=7462,
15 t=77,
16 died=0,
17 count=2),
18 data.frame(
19 group.id=1,
20 study.id=7462,
21 t=91,
22 died=0,
23 count=10),
24 data.frame(
25 group.id=1,
26 study.id=6602,
27 t=c(2,3,4,5,6,8,9,14,15,17,18,19,
28     22,23,26,27,34,38,44,45,98,104,114,
29     154,158,163,170,178,192,205,208,
30     211,272,289),
31 died=c(rep(1,23),rep(0,24)),
32 count=c(5,2,2,1,2,2,rep(1,5),2,rep(1,11+24))),
33 data.frame(
34 group.id=1,
35 study.id=6739,
36 t=c(15,15-1,30,30-1,60,60-1,90,90-1,180,180-1,180+1),
37 died=c(1,0,1,0,1,0,1,0,1,0,0,0),
38 count=c(3,3,3,2,1,1,2,3,1,3,4)),
39 data.frame(
40 group.id=1,
41 study.id=7504,
42 t=c(2,4,6,8,9,10,11,12,13,15,16,18,20,
43     22,24,25,27,29,30,31,32,34,39,40,42,
44     43,62,68,83,86,98,113,
45     24,25,27,33,42,49,52,60,63,76,103,
46     118,180,360),
47 died=c(rep(1,32),rep(0,14)),
48 count=c(3,6,1,3,5,4,3,7,5,5,5,2,5,2,1,2,
49     rep(1,16+13),11)),
50 data.frame(
51 group.id=1,
52 study.id=7505,
53 t=c(15,29,31,34,34,36,37,42,45,95,111),
54 died=c(rep(1,4),0,0,rep(1,4),0),
55 count=c(rep(1,7),2,rep(1,3))),
56 data.frame(
57 group.id=1,
58 study.id=7380,
59 t=c(14,15*30,10*30,30,60,360,6,12,4,8,12,16,20),
60 died=c(0,1,0,1,1,0,rep(1,7)),
    count=rep(1,13)),
    data.frame(
    group.id=1,
    study.id=8255,
    t=c(2,23,27,34,36,40,84),
    died=c(rep(1,6),0),
    count=c(rep(1,5),2,1)),
    data.frame(
    group.id=1,
    study.id=7497,
    t=c(1,3,10,20,51),
    died=c(1,0,0,0,0),
    count=1),
    data.frame(
    group.id=2,
    study.id=7497,
    t=c(16,80,10,20),
    died=c(1,1,0,0),
    count=1),
    data.frame(
    group.id=1,
    study.id=7543,
    t=c(44,472,75,80,29),
    died=c(0,0,1,0,1),
    count=1),
    data.frame(
    group.id=1,
    study.id=7518,
    t=c(16,14,28,30,90,90,14,30,45,60),
    died=c(0,rep(0,2),rep(1,7)),
    count=c(5,rep(1,9)))
    mortality <- do.call(rbind,mortality)
    mortality <- as.data.frame(lapply(mortality,
    function(x) rep(x,mortality$count)))
    mortality <- merge(mortality,group[,
    c("group.id","study.id","study.group","n","dose.alb.tx",
    "t.alb.tx","dose.alb.cum","vaso.z","drug","t.tx","age",
    "scr.0","bilirubin","salb","map","design","N","year",
    "author")])
    # Predictor data
    predictor <- list(
    data.frame(
    study.id=7503,
    var="age",
    responder.n=13,
    responder=62,
    responder.sd=10,
    nonresponder.n=5,
    nonresponder=57,
    nonresponder.sd=7,
    signif=FALSE),
    data.frame(
    study.id=7503,
    var="scr",
    responder.n=13,
    responder=scrml2mg(298),
    responder.sd=scrml2mg(124),
    nonresponder.n=5,
    nonresponder=scrml2mg(257),
    nonresponder.sd=scrml2mg(78),

```

```

1      signif=FALSE),
2
3      data.frame(
4      study.id=7503,
5      var="bilirubin",
6      responder.n=13,
7      responder=bilimol2mg(155),
8      responder.sd=bilimol2mg(176),
9      nonresponder.n=5,
10     nonresponder=bilimol2mg(307),
11     nonresponder.sd=bilimol2mg(182),
12     signif=FALSE),
13
14     data.frame(
15     study.id=7503,
16     var="salb",
17     responder.n=13,
18     responder=2.6,
19     responder.sd=0.8,
20     nonresponder.n=5,
21     nonresponder=2.7,
22     nonresponder.sd=0.5,
23     signif=FALSE),
24
25     data.frame(
26     study.id=7503,
27     var="map",
28     responder.n=13,
29     responder=bp2map(124,64),
30     responder.sd=bp2map(16,14),
31     nonresponder.n=5,
32     nonresponder=bp2map(119,55),
33     nonresponder.sd=bp2map(13,13),
34     signif=FALSE),
35
36     data.frame(
37     study.id=7504,
38     var="age",
39     responder.n=53,
40     responder=53,
41     responder.sd=10,
42     nonresponder.n=38,
43     nonresponder=60,
44     nonresponder.sd=10,
45     signif=TRUE),
46
47     data.frame(
48     study.id=7504,
49     var="scr",
50     responder.n=53,
51     responder=scrml2mg(263),
52     responder.sd=scrml2mg(100),
53     nonresponder.n=38,
54     nonresponder=scrml2mg(245),
55     nonresponder.sd=scrml2mg(80),
56     signif=FALSE),
57
58     data.frame(
59     study.id=7518,
60     var="age",
61     responder.n=10,
62     responder=55.9,
63     responder.sd=2.3*sqrt(10),
64     nonresponder.n=4,
65     nonresponder=52.7,
66     nonresponder.sd=5.0*sqrt(4),
67     signif=FALSE),
68
69     data.frame(
70     study.id=7518,
71     var="scr",
72     responder.n=10,
73     responder=scrml2mg(233),
74     responder.sd=scrml2mg(29*sqrt(10)),
75     nonresponder.n=4,
76     nonresponder=scrml2mg(345),
77     nonresponder.sd=scrml2mg(83*sqrt(4)),
78     signif=FALSE),
79
80     data.frame(
81     study.id=7518,
82     var="bilirubin",
83     responder.n=10,
84     responder=bilimol2mg(45),
85     responder.sd=bilimol2mg(8*sqrt(10)),
86     nonresponder.n=4,
87     nonresponder=bilimol2mg(71),
88     nonresponder.sd=bilimol2mg(16*sqrt(4)),
89     signif=FALSE),
90
91     data.frame(
92     study.id=7518,
93     var="salb",
94     responder.n=10,
95     responder=3.2,
96     responder.sd=3*sqrt(10),
97     nonresponder.n=4,
98     nonresponder=3.3,
99     nonresponder.sd=5*sqrt(4),
100    signif=FALSE),
101
102    data.frame(
103    study.id=7518,
104    var="map",
105    responder.n=10,
106    responder=81,
107    responder.sd=5*sqrt(10),
108    nonresponder.n=4,
109    nonresponder=79,
110    nonresponder.sd=4*sqrt(4),
111    signif=FALSE),
112
113    data.frame(
114    study.id=7496,
115    var="age",
116    responder.n=20,
117    responder=47.0,
118    responder.sd=12.0,
119    nonresponder.n=20,
120    nonresponder=49.0,
121    nonresponder.sd=11.4,
122    signif=FALSE),
123
124    data.frame(
125    study.id=7496,
126    var="scr",
127    responder.n=20,
128    responder=3.0,
129    responder.sd=1.0,
130    nonresponder.n=20,
131    nonresponder=3.3,
132    nonresponder.sd=0.9,
133    signif=FALSE),
134
135    data.frame(
136    study.id=7496,
137    var="bilirubin",
138    responder.n=20,
139    responder=6.2,
140    responder.sd=(36.0-0.8)/3.5,

```

```

1 nonresponder.n=20,
2 nonresponder=6.9,
3 nonresponder.sd=(40.0-0.7)/3.5,
4 signif=FALSE),
5
6 data.frame(
7 study.id=7496,
8 var="salb",
9 responder.n=20,
10 responder=2.5,
11 responder.sd=0.5,
12 nonresponder.n=20,
13 nonresponder=2.6,
14 nonresponder.sd=0.5,
15 signif=FALSE),
16
17 data.frame(
18 study.id=7496,
19 var="map",
20 responder.n=20,
21 responder=83.0,
22 responder.sd=8.5,
23 nonresponder.n=20,
24 nonresponder=76.7,
25 nonresponder.sd=8.3,
26 signif=TRUE),
27
28 data.frame(
29 study.id=7380,
30 var="age",
31 responder.n=8,
32 responder=51.5,
33 responder.sd=5.3*sqrt(8),
34 nonresponder.n=5,
35 nonresponder=58.6,
36 nonresponder.sd=6.9*sqrt(5),
37 signif=FALSE),
38
39 data.frame(
40 study.id=7380,
41 var="scr",
42 responder.n=8,
43 responder=3.0,
44 responder.sd=1.7*sqrt(8),
45 nonresponder.n=5,
46 nonresponder=3.9,
47 nonresponder.sd=1.5*sqrt(5),
48 signif=FALSE),
49
50 data.frame(
51 study.id=7380,
52 var="map",
53 responder.n=8,
54 responder=70.1,
55 responder.sd=9.1*sqrt(8),
56 nonresponder.n=5,
57 nonresponder=68.8,
58 nonresponder.sd=6.5*sqrt(5),
59 signif=FALSE),
60
61 data.frame(
62 study.id=8454,
63 var="age",
64 responder.n=19,
65 responder=46.0,
66 responder.sd=10.1,
67 nonresponder.n=27,
68 nonresponder=52.6,
69 nonresponder.sd=11.9,
70 signif=FALSE),
71
72 data.frame(
73 study.id=8454,
74 var="scr",
75 responder.n=19,
76 responder=3.08,
77 responder.sd=0.6,
78 nonresponder.n=27,
79 nonresponder=3.27,
80 nonresponder.sd=0.7,
81 signif=FALSE),
82
83 data.frame(
84 study.id=8454,
85 var="bilirubin",
86 responder.n=19,
87 responder=4.8,
88 responder.sd=6.4,
89 nonresponder.n=27,
90 nonresponder=4.0,
91 nonresponder.sd=2.2,
92 signif=FALSE),
93
94 data.frame(
95 study.id=8454,
96 var="salb",
97 responder.n=19,
98 responder=2.8,
99 responder.sd=0.2,
100 nonresponder.n=27,
101 nonresponder=2.7,
102 nonresponder.sd=0.3,
103 signif=TRUE),
104
105 data.frame(
106 study.id=8454,
107 var="map",
108 responder.n=19,
109 responder=69.3,
110 responder.sd=9.3,
111 nonresponder.n=27,
112 nonresponder=61.9,
113 nonresponder.sd=11.2,
114 signif=TRUE),
115
116 data.frame(
117 study.id=7635,
118 var="map",
119 responder.n=19,
120 responder=72.8,
121 responder.sd=11.6,
122 nonresponder.n=37,
123 nonresponder=76.9,
124 nonresponder.sd=11.3,
125 signif=FALSE),
126
127 data.frame(
128 study.id=7488,
129 var="age",
130 responder.n=18,
131 responder=58,
132 responder.sd=9,
133 nonresponder.n=21,
134 nonresponder=55,
135 nonresponder.sd=10,
136 signif=FALSE),
137
138 data.frame(
139 study.id=7488,
140 var="scr",
141 responder.n=18,

```

```
1 responder=3.5,
2 responder.sd=1.4,
3 nonresponder.n=21,
4 nonresponder=3.9,
5 nonresponder.sd=1.4,
6 signif=FALSE),
7
8 data.frame(
9 study.id=7488,
10 var="bilirubin",
11 responder.n=18,
12 responder=6,
13 responder.sd=7,
14 nonresponder.n=21,
15 nonresponder=24,
16 nonresponder.sd=20,
17 signif=TRUE),
18
19 data.frame(
20 study.id=7488,
21 var="salb",
22 responder.n=18,
23 responder=3.0,
24 responder.sd=0.6,
25 nonresponder.n=21,
26 nonresponder=2.8,
27 nonresponder.sd=0.7,
28 signif=FALSE),
29
30 data.frame(
31 study.id=7488,
32 var="map",
33 responder.n=18,
34 responder=76,
35 responder.sd=13,
36 nonresponder.n=21,
37 nonresponder=79,
38 nonresponder.sd=9,
39 signif=FALSE)
40
41 )
42
43 predictor <- do.call(rbind,predictor)
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
```