analize_2

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1 Duomenu analize

```
Warning: NAs introduced by coercion
```

1.1 Glikemijos verčių ir mirštamumo vertinimas

Mirštamumas: Atvykimo gliukoze

ne CD
$\chi^2_{Pearson}(2) = 12.46, p < 0.001$

CD
$\chi^2_{Pearson}(2) = 0.30, p = 0.86$

Mirštamumas: RITS gliukoze

ne CD
$\chi^2_{Pearson}(2) = 12.35, p = 0.001$
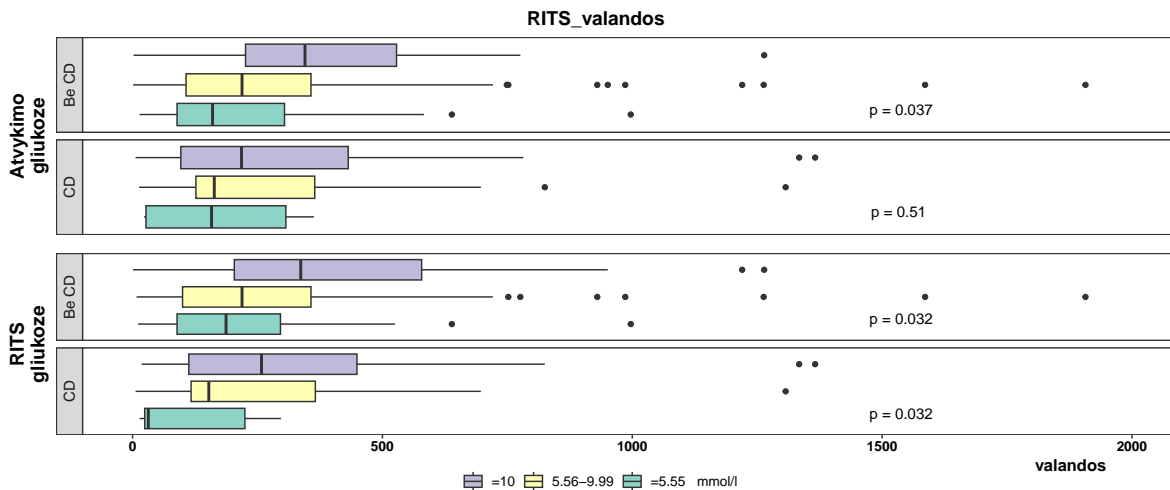
CD
$\chi^2_{Pearson}(2) = 4.52, p = 0.10$
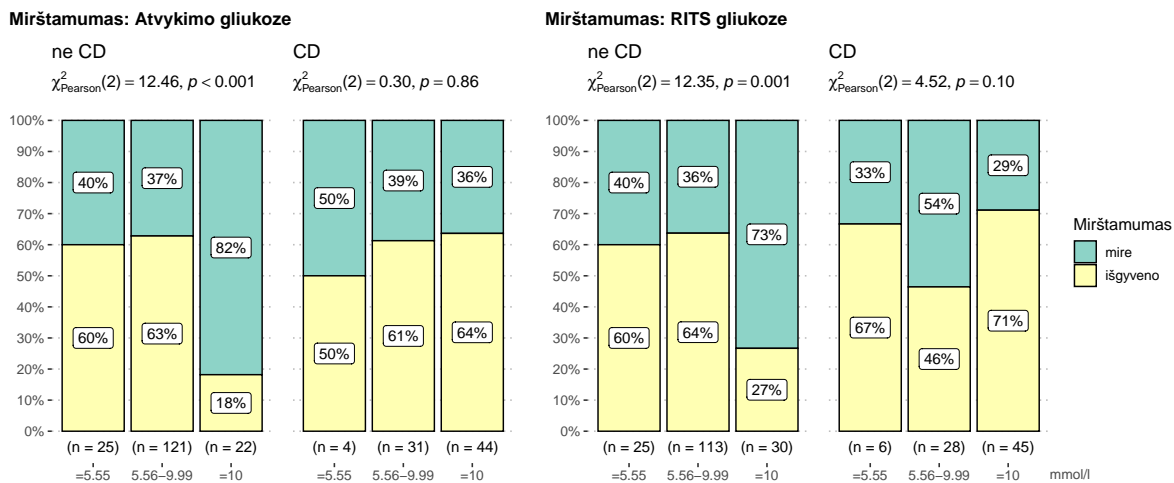
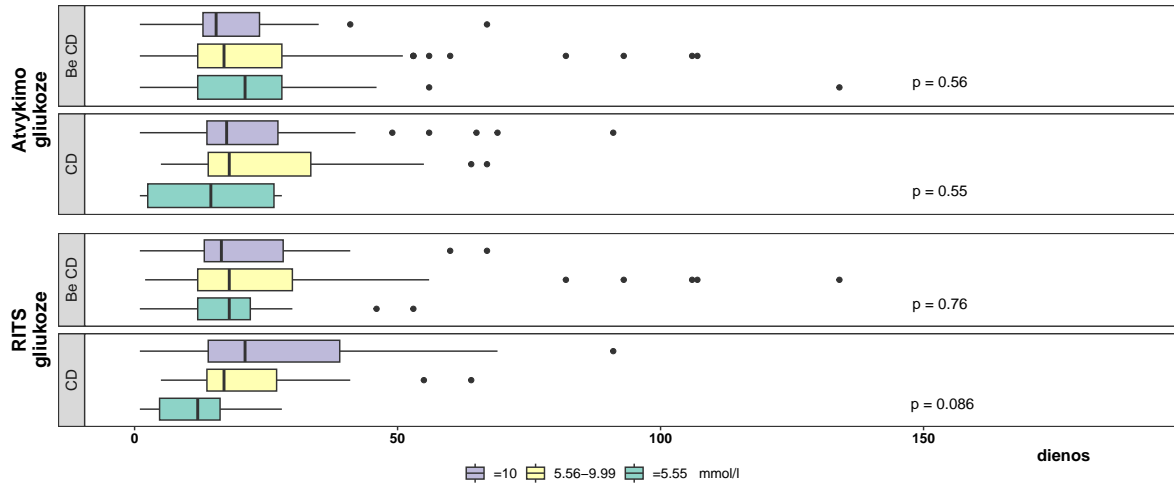## 1.2 Glikemijos verčių ir hospitalizacijos trukmės vertinimas

Grupinis

Bendras

RITS_valandos

RITS_valandos

Lovadieniai

1.3 Glikemija ir prognozes skales

APACHEII
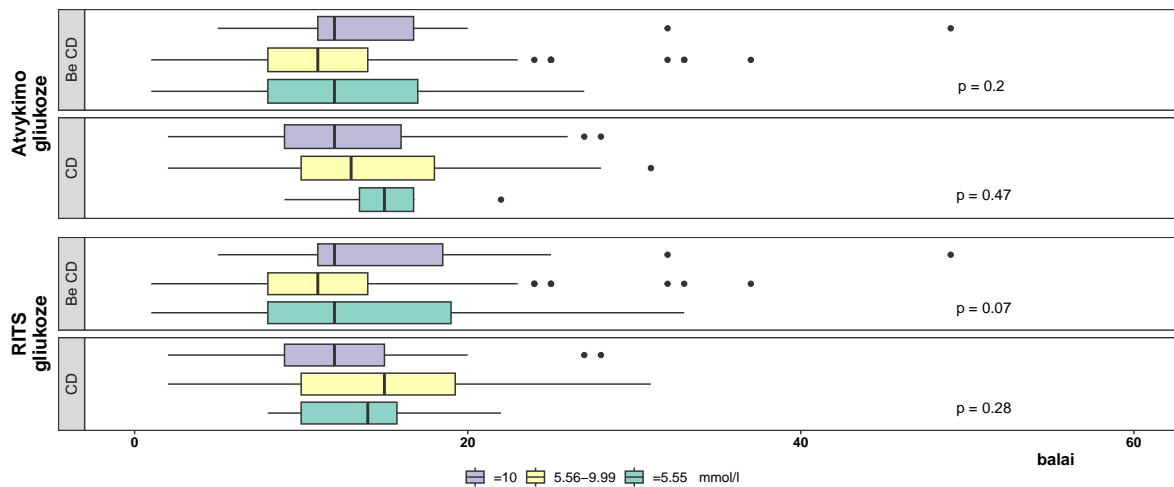
SAPS
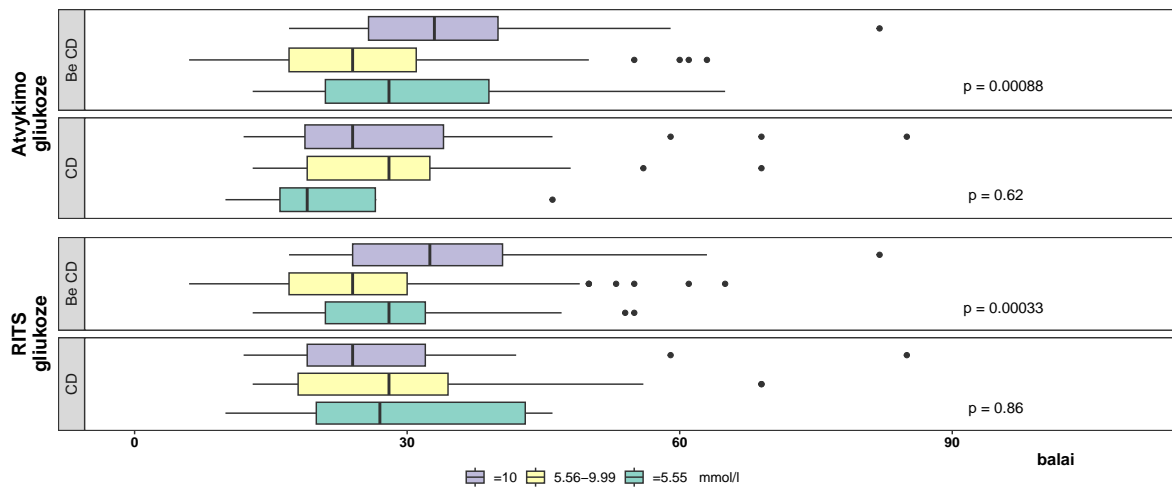
ISARIC 4C
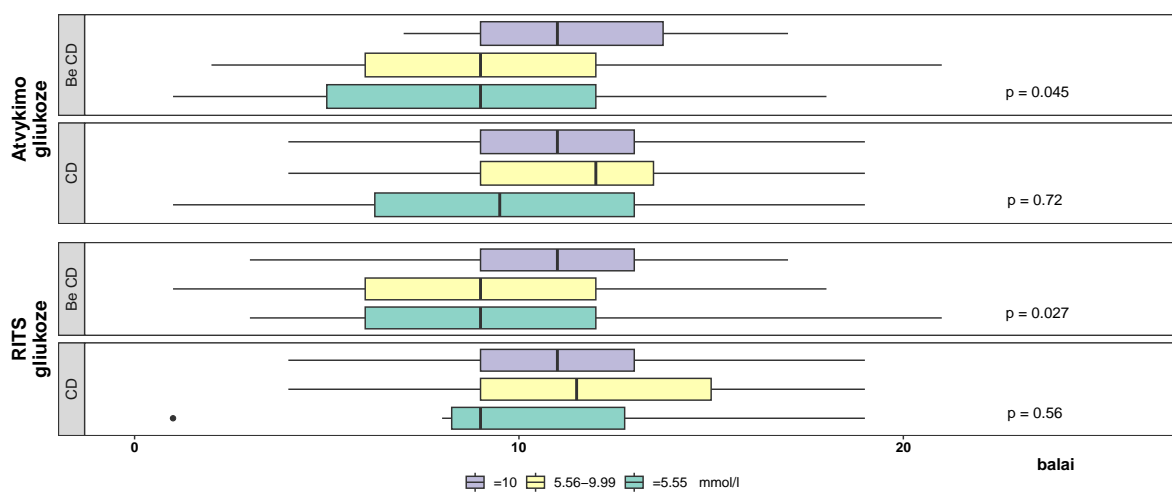
SOFA
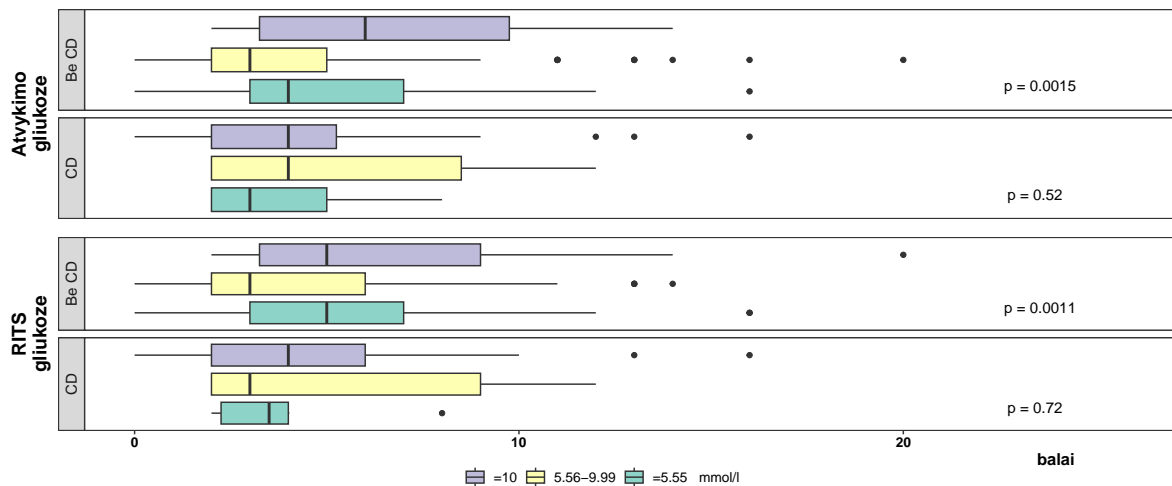
1.4 Hiperglikemija ir kvėpavimo funkcija
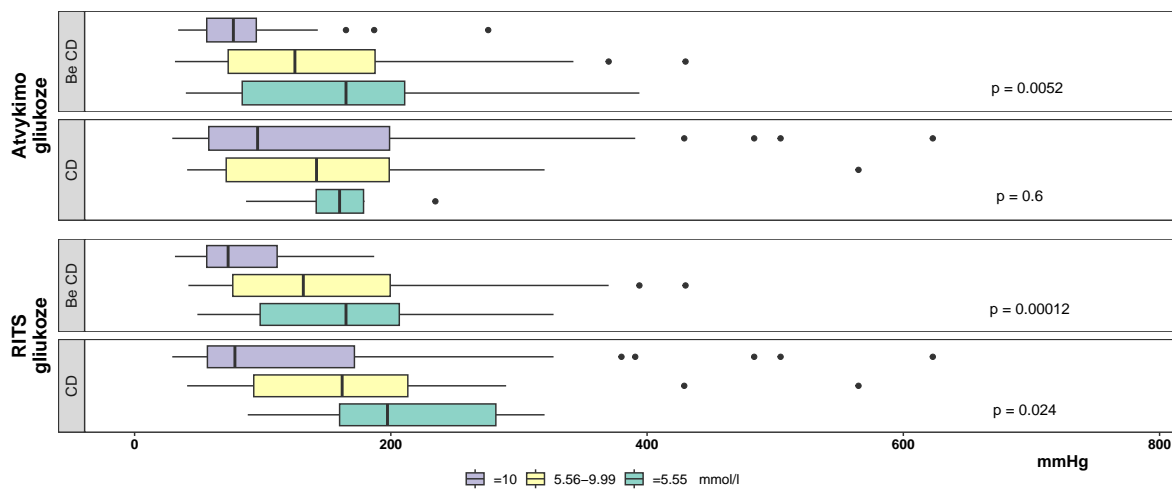
1.5 Hiperglikemija ir kvėpavimo funkcijos nepakankamumo gydymo būdai

DPV poreikis

DPV poreikis: Atvykimo gliukoze

ne CD
$\chi^2_{Pearson}(2) = 10.29,\ p < 0.001$

CD
$\chi^2_{Pearson}(2) = 1.62,\ p = 0.56$

DPV poreikis: RITS gliukoze

ne CD
$\chi^2_{Pearson}(2) = 11.70,\ p = 0.001$

CD
$\chi^2_{Pearson}(2) = 0.94,\ p = 0.61$
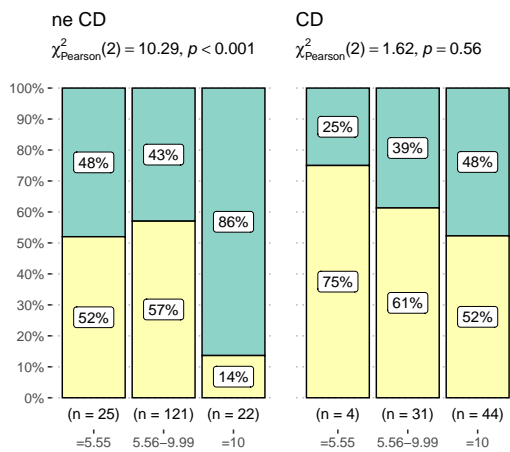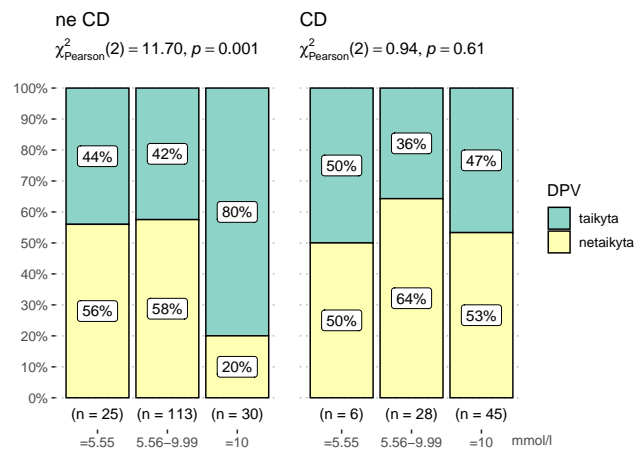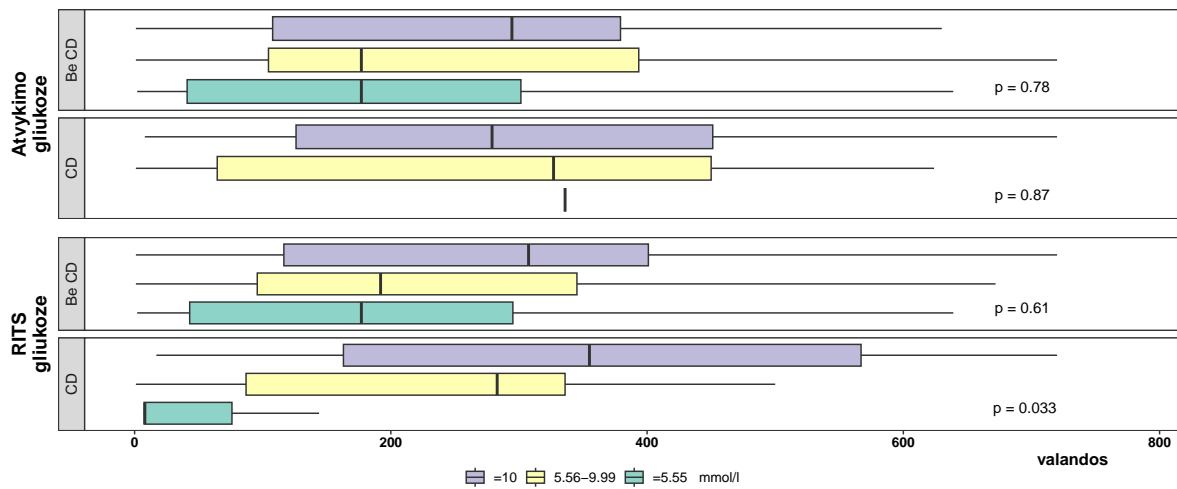
DPV valandos

HF poreikis

HF poreikis: Atvykimo gliukoze

ne CD
$\chi^2_{Pearson}(2) = 3.16, p = 0.11$

CD
$\chi^2_{Pearson}(2) = 4.15, p = 0.13$

HF poreikis: RITS gliukoze

ne CD
$\chi^2_{Pearson}(2) = 8.58, p = 0.02$

CD
$\chi^2_{Pearson}(2) = 8.13, p = 0.02$
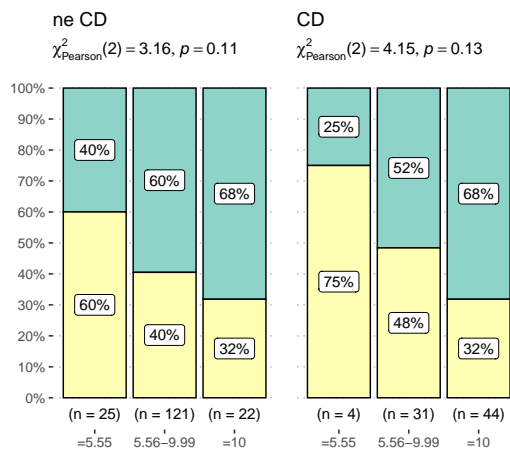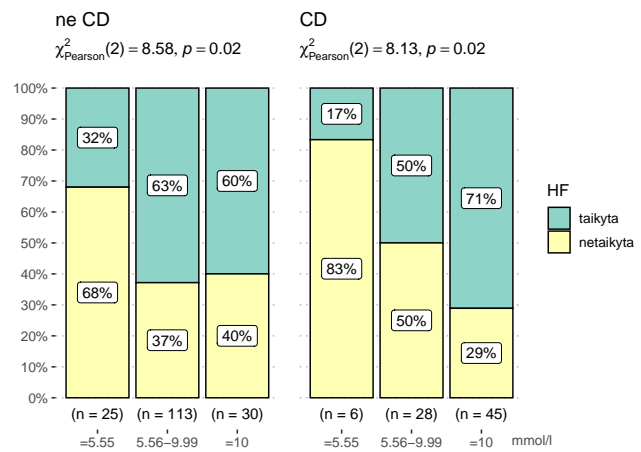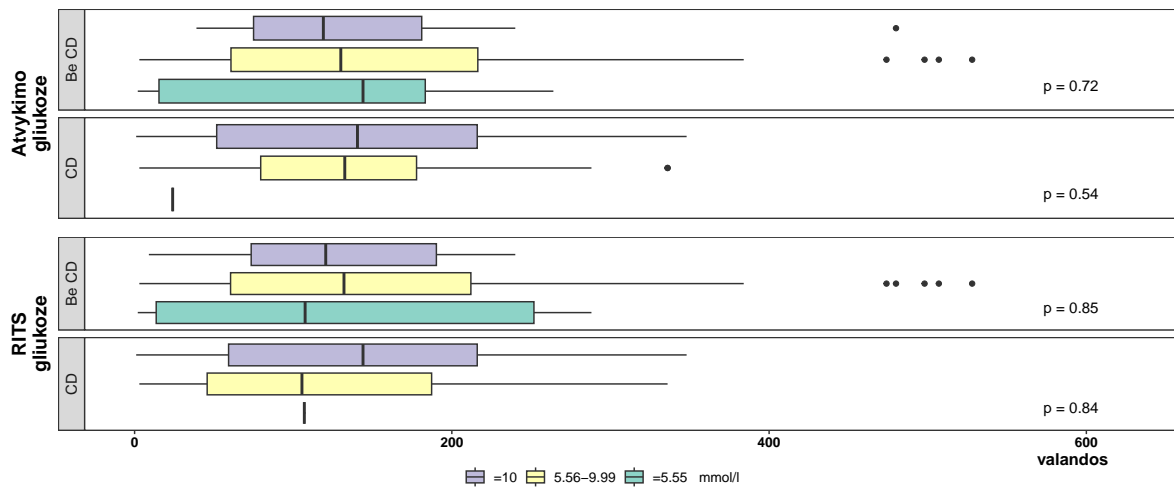
HF valandos

NIV poreikis

NIV poreikis: Atvykimo gliukoze

ne CD

$\chi^2_{Pearson}(2) = 1.37, p = 0.59$

CD

$\chi^2_{Pearson}(2) = 2.93, p = 0.23$

NIV poreikis: RITS gliukoze

ne CD

$\chi^2_{Pearson}(2) = 8.96, p = 0.02$

CD

$\chi^2_{Pearson}(2) = 2.56, p = 0.28$
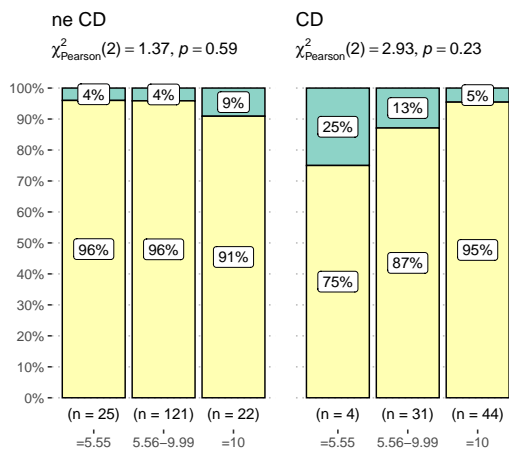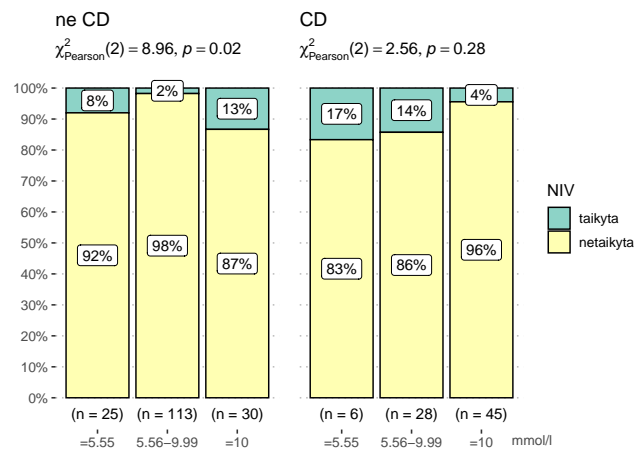
NIV valandos
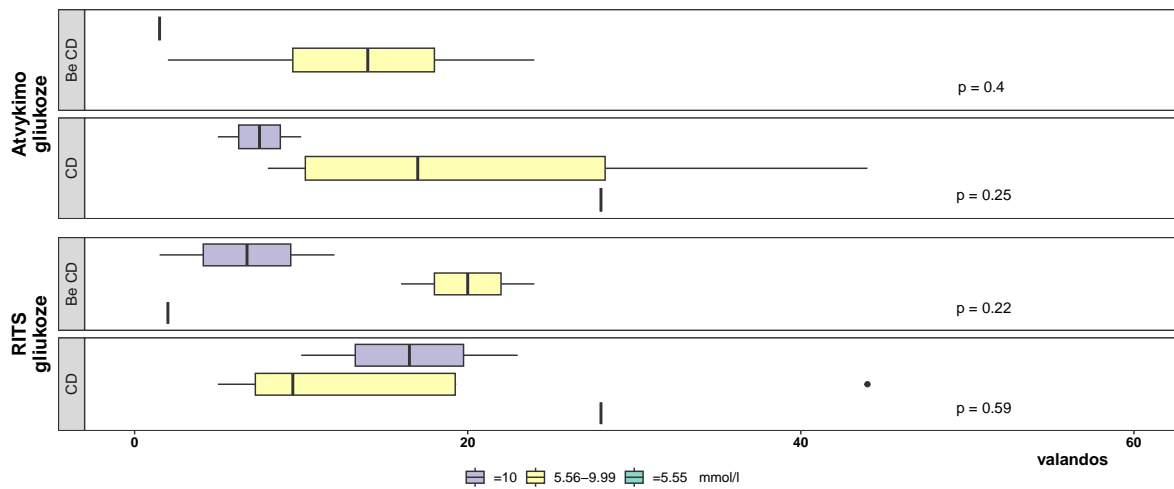
1.6 Hiperglikemija ir kraujotakos palaikymo būdai

Vazopresoriu poreikis

Vazopresoriu poreikis: Atvykimo gliukoze

ne CD
$\chi^2_{Pearson}(2) = 11.27, p = 0.001$

CD
$\chi^2_{Pearson}(2) = 0.27, p = 0.88$
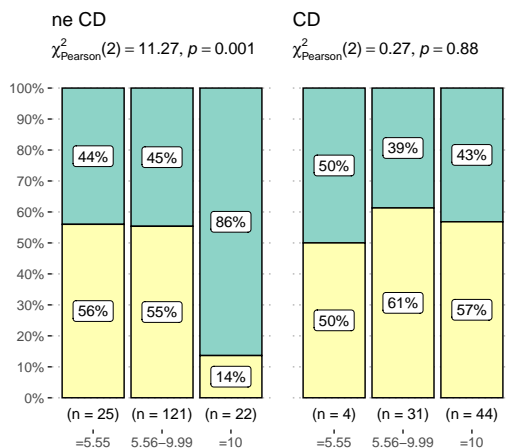
Vazopresoriu poreikis: RITS gliukoze

ne CD
$\chi^2_{Pearson}(2) = 13.54, p < 0.001$

CD
$\chi^2_{Pearson}(2) = 0.19, p = 0.91$
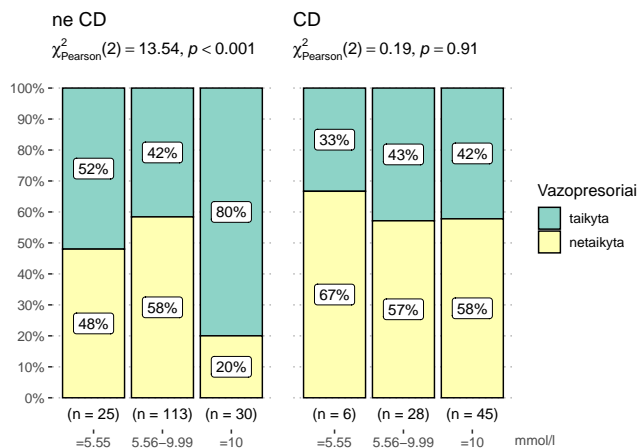
ECMO

EKMO poreikis: Atvykimo gliukoze

ne CD
$\chi^2_{Pearson}(2) = 8.37, p = 0.03$

CD
$\chi^2_{Pearson}(2) = 2.30, p = 0.32$

EKMO poreikis: RITS gliukoze

ne CD
$\chi^2_{Pearson}(2) = 4.54, p = 0.17$

CD
$\chi^2_{Pearson}(2) = 0.69, p = 0.71$
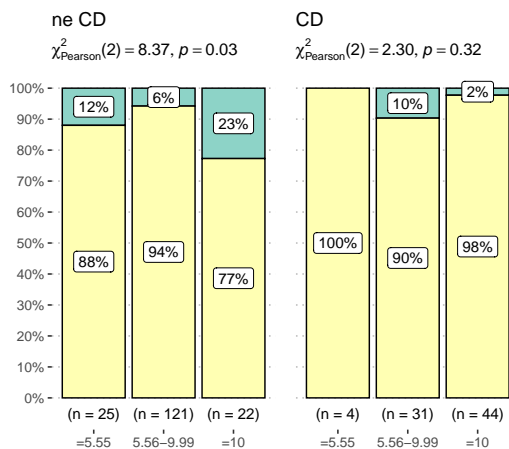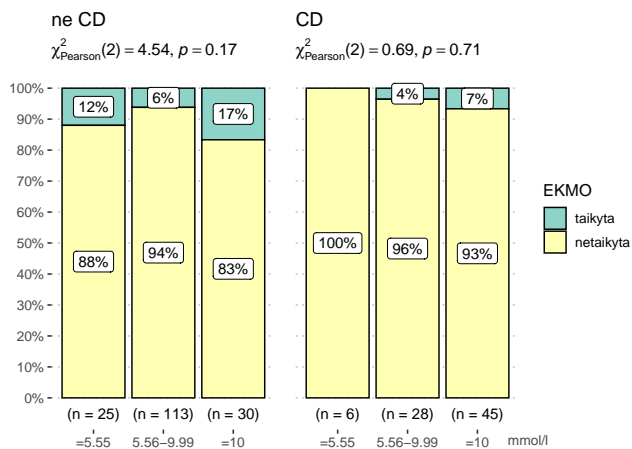
ECMO dienos
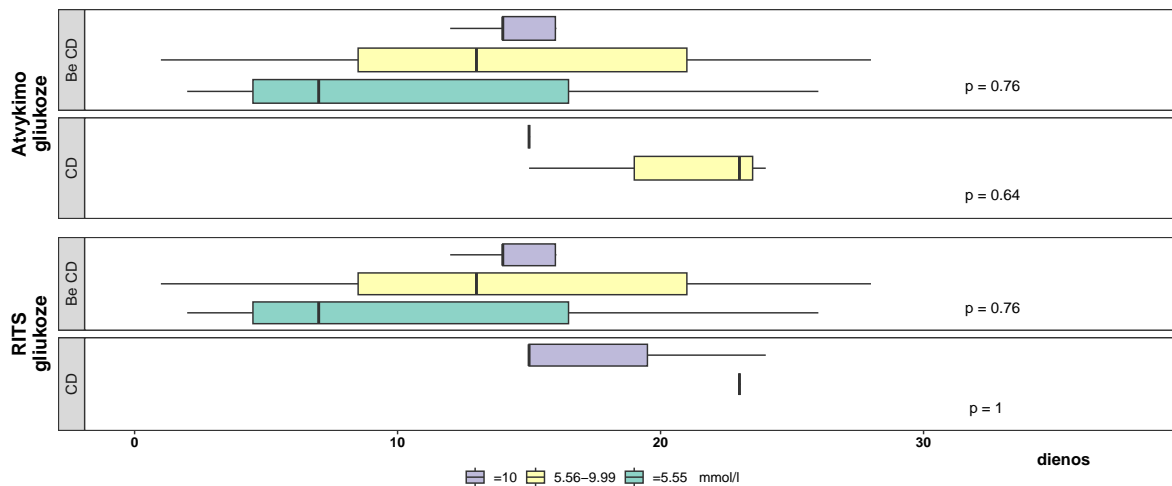
ECMO atjungta

EKMO atjungimas: Atvykimo gliukoze

ne CD
$\chi^2_{Pearson}(2) = 0.19, p = 0.91$

CD
$\chi^2_{Pearson}(1) = 4.00, p = 0.05$
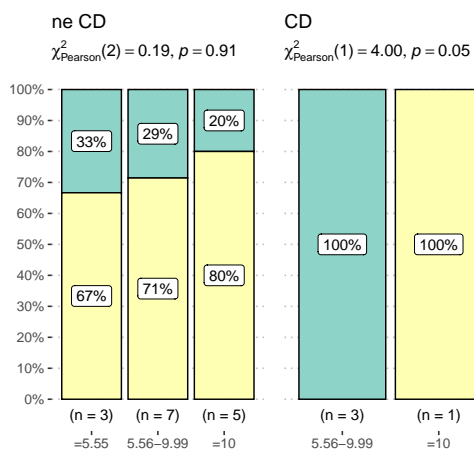
EKMO atjungimas: RITS gliukoze

ne CD
$\chi^2_{Pearson}(2) = 0.19, p = 0.91$

CD
$\chi^2_{Pearson}(1) = 0.44, p = 0.50$
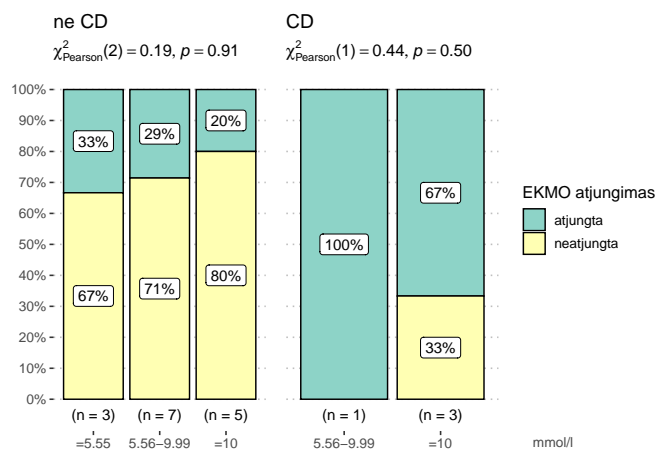
1.7 Hiperglikemija ir pakaitinė inkstų terapija

PIT

PIT: Atvykimo gliukoze

ne CD
$\chi^2_{Pearson}(2) = 3.12$, $p = 0.25$

CD
$\chi^2_{Pearson}(2) = 0.49$, $p = 0.78$

PIT: RITS gliukoze

ne CD
$\chi^2_{Pearson}(2) = 4.38$, $p = 0.14$

CD
$\chi^2_{Pearson}(2) = 0.13$, $p = 0.94$
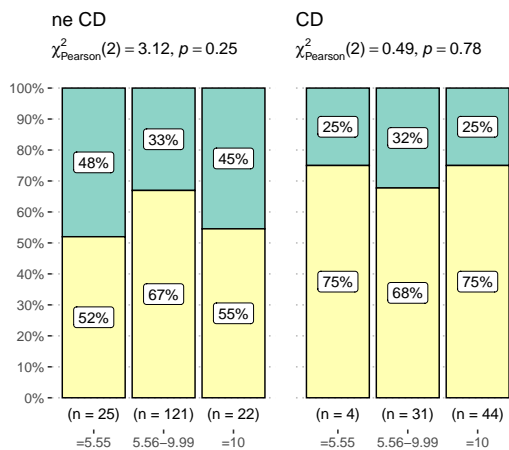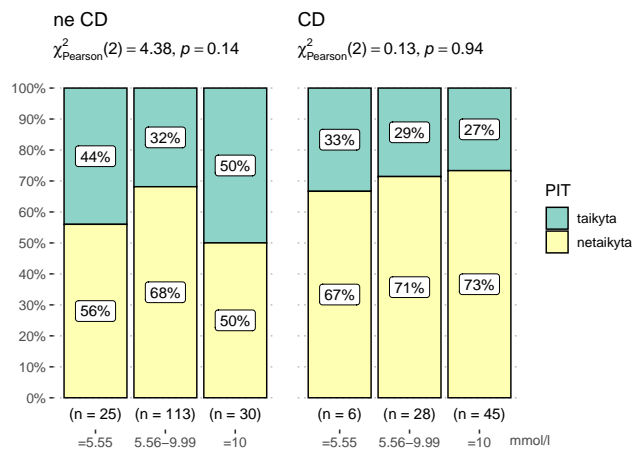
PIT val
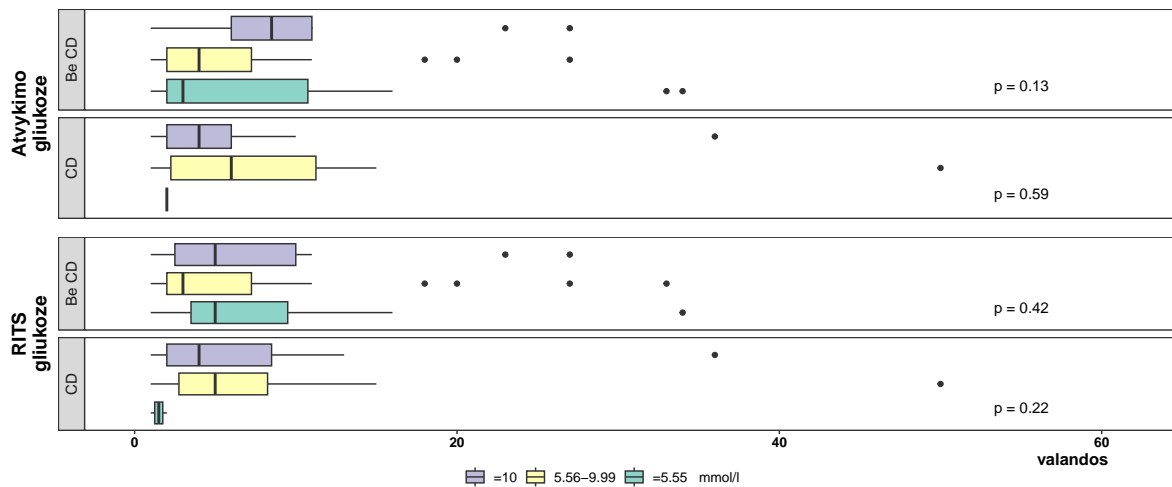
1.8 Logistinis modelis

1.8.1 SAPS

```
Confusion Matrix and Statistics

         Reference
Prediction X0 X1
       X0 84 44
       X1  7 29
```

```
              Accuracy : 0.689
                95% CI : (0.6122, 0.7589)
   No Information Rate : 0.5549
   P-Value [Acc > NIR] : 0.0003035

                 Kappa : 0.3372

 Mcnemar's Test P-Value : 4.631e-07

             Precision : 0.8056
                Recall : 0.3973
                    F1 : 0.5321
            Prevalence : 0.4451
        Detection Rate : 0.1768
  Detection Prevalence : 0.2195
     Balanced Accuracy : 0.6602

       'Positive' Class : X1
```

1.9 SAPS + glu_fac

```
Confusion Matrix and Statistics

          Reference
Prediction X0 X1
       X0 83 38
       X1  8 35

              Accuracy : 0.7195
                95% CI : (0.6441, 0.7868)
   No Information Rate : 0.5549
   P-Value [Acc > NIR] : 1.063e-05

                 Kappa : 0.4081

 Mcnemar's Test P-Value : 1.904e-05

             Precision : 0.8140
                Recall : 0.4795
                    F1 : 0.6034
            Prevalence : 0.4451
```

```
       Detection Rate : 0.2134
 Detection Prevalence : 0.2622
    Balanced Accuracy : 0.6958

      'Positive' Class : X1
```

1.10 SOFA

```
Confusion Matrix and Statistics

          Reference
Prediction X0 X1
       X0 85 53
       X1  6 20

               Accuracy : 0.6402
                 95% CI : (0.5617, 0.7136)
    No Information Rate : 0.5549
    P-Value [Acc > NIR] : 0.01637

                  Kappa : 0.2222

 Mcnemar's Test P-Value : 2.115e-09

              Precision : 0.7692
                 Recall : 0.2740
                     F1 : 0.4040
             Prevalence : 0.4451
         Detection Rate : 0.1220
   Detection Prevalence : 0.1585
      Balanced Accuracy : 0.6040

       'Positive' Class : X1
```

1.10.1 ISARIC4C

```
Confusion Matrix and Statistics

          Reference
```

```
Prediction X0 X1
       X0 78 33
       X1 13 40

                Accuracy : 0.7195
                  95% CI : (0.6441, 0.7868)
     No Information Rate : 0.5549
     P-Value [Acc > NIR] : 1.063e-05

                   Kappa : 0.4164

 Mcnemar's Test P-Value : 0.005088

               Precision : 0.7547
                  Recall : 0.5479
                      F1 : 0.6349
              Prevalence : 0.4451
          Detection Rate : 0.2439
    Detection Prevalence : 0.3232
       Balanced Accuracy : 0.7025

        'Positive' Class : X1
```

1.11 ISARIC4C + gliukoze 2 faktoriais

```
Confusion Matrix and Statistics

          Reference
Prediction X0 X1
       X0 80 31
       X1 11 42

                Accuracy : 0.7439
                  95% CI : (0.67, 0.8088)
     No Information Rate : 0.5549
     P-Value [Acc > NIR] : 4.333e-07

                   Kappa : 0.4671

 Mcnemar's Test P-Value : 0.00337
```

```
        Precision : 0.7925
           Recall : 0.5753
               F1 : 0.6667
       Prevalence : 0.4451
   Detection Rate : 0.2561
Detection Prevalence : 0.3232
 Balanced Accuracy : 0.7272

   'Positive' Class : X1
```

1.12 APACHEII

```
Confusion Matrix and Statistics

          Reference
Prediction X0 X1
       X0 83 37
       X1  8 36

             Accuracy : 0.7256
               95% CI : (0.6506, 0.7923)
  No Information Rate : 0.5549
  P-Value [Acc > NIR] : 4.994e-06

                Kappa : 0.4218

Mcnemar's Test P-Value : 2.993e-05

            Precision : 0.8182
               Recall : 0.4932
                   F1 : 0.6154
           Prevalence : 0.4451
       Detection Rate : 0.2195
Detection Prevalence : 0.2683
    Balanced Accuracy : 0.7026

     'Positive' Class : X1
```

1.13 APACHEII + gliukozė 2 faktoriais

```
Confusion Matrix and Statistics

          Reference
Prediction X0 X1
        X0 82 30
        X1  9 43

               Accuracy : 0.7622
                 95% CI : (0.6896, 0.8251)
    No Information Rate : 0.5549
    P-Value [Acc > NIR] : 2.846e-08

                  Kappa : 0.5045

 Mcnemar's Test P-Value : 0.001362

              Precision : 0.8269
                 Recall : 0.5890
                     F1 : 0.6880
             Prevalence : 0.4451
         Detection Rate : 0.2622
   Detection Prevalence : 0.3171
      Balanced Accuracy : 0.7451

       'Positive' Class : X1
```

```
Call:
NULL

Coefficients:
            Estimate Std. Error z value Pr(>|z|)
(Intercept)  -3.3805     0.5718  -5.912 3.38e-09 ***
APACHEII      0.2266     0.0420   5.395 6.85e-08 ***
`glu_fac 10`  2.2945     0.6858   3.346 0.000821 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)
```

```
    Null deviance: 225.37  on 163  degrees of freedom
Residual deviance: 159.74  on 161  degrees of freedom
AIC: 165.74

Number of Fisher Scoring iterations: 5
```