FENESTRATED SCREWS EXPLORATION

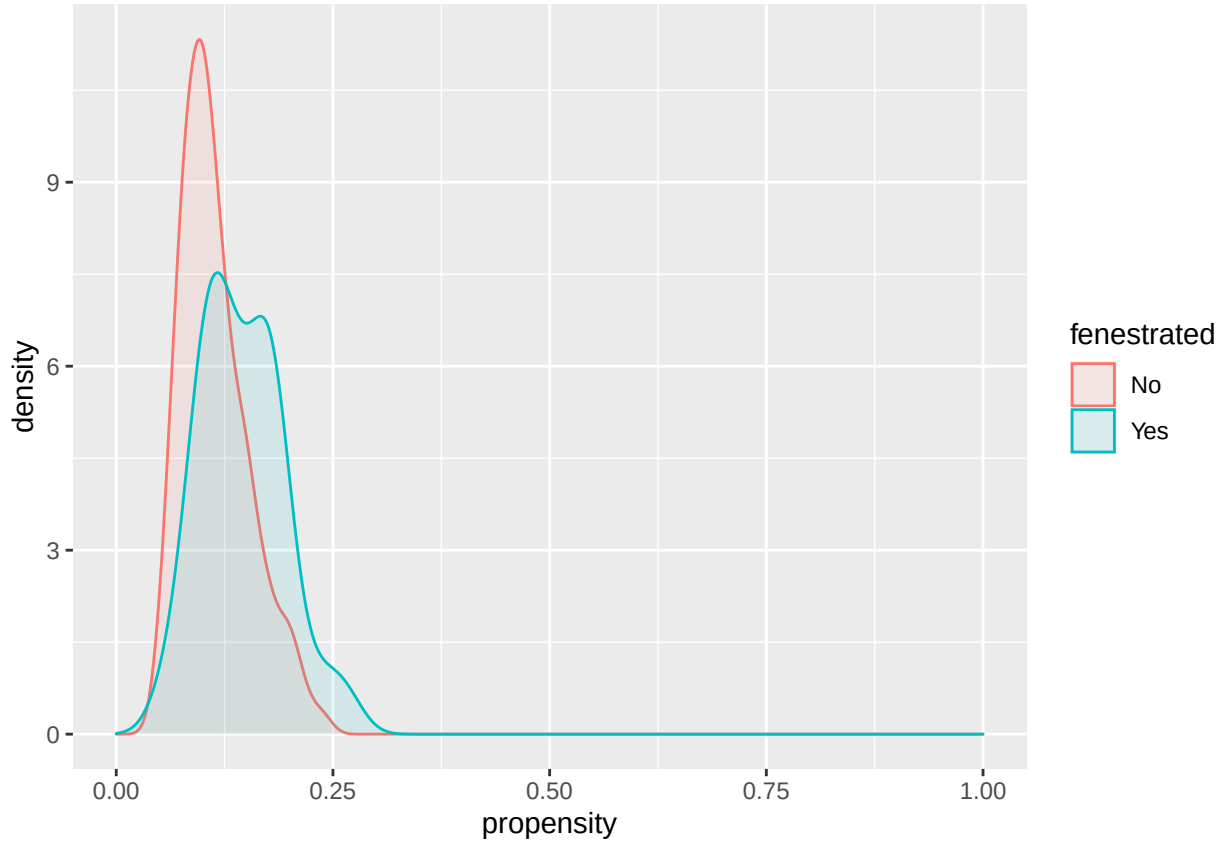
Selected Variables

```
covariates:
- Age
- Osteoporosis / osteopenia
- Global Tilt
- ODI - Score (%)_First Visit
- Pelvic Fixation
- CO3
- ASA classification
- fenestrated
```

Propensity Scores Common Support

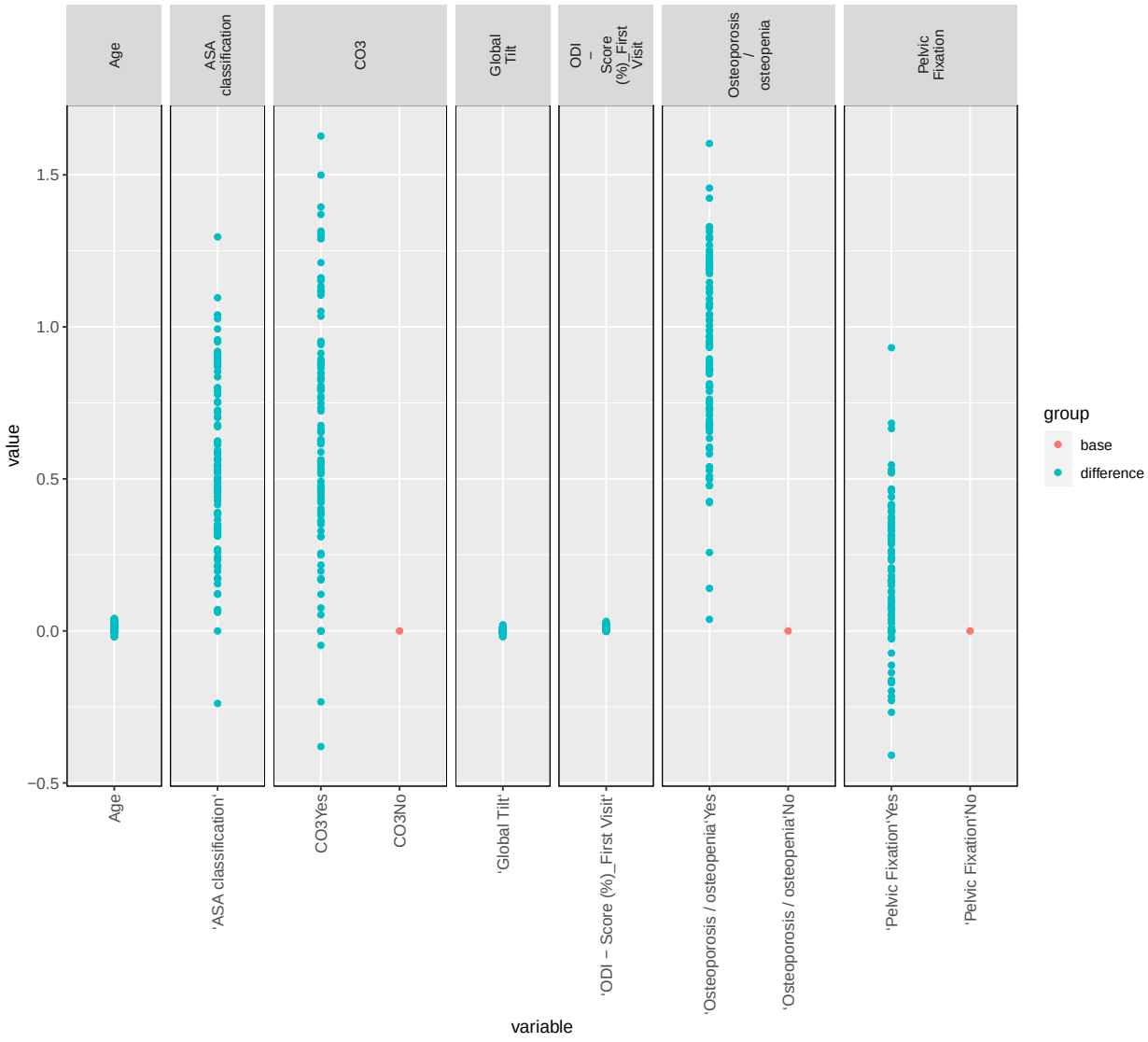
Model Stats

- Treatment proportion: 0.12
- Model Type: elastic_net
- Accuracy: 0.8822018
- Params: alpha: 0.1 lambda: 0.0484856



Model Coefficients

Bootstraping replicas: 100




```
##                          variable low_ci median  up_ci t_value selected
##  1:                     (Intercept) -7.368 -5.189 -3.069   4.444        *
##  2:                             Age -0.014  0.011  0.036   0.898
##  3:                           CO3No  0.000  0.000  0.000      NA
##  4:                          CO3Yes -0.025  0.641  1.383   1.630
##  5:          'ASA classification'  0.065  0.529  1.033   1.901        *
##  6:                'Global Tilt' -0.014  0.000  0.013   0.043
##  7: 'ODI - Score (%)_First Visit'  0.000  0.010  0.024   1.488
##  8: 'Osteoporosis / osteopenia'No  0.000  0.000  0.000      NA
##  9: 'Osteoporosis / osteopenia'Yes  0.336  0.882  1.379   3.139        *
## 10:           'Pelvic Fixation'No  0.000  0.000  0.000      NA
## 11:          'Pelvic Fixation'Yes -0.222  0.129  0.609   0.731
```

Average Treatment Effects - Reinterventions

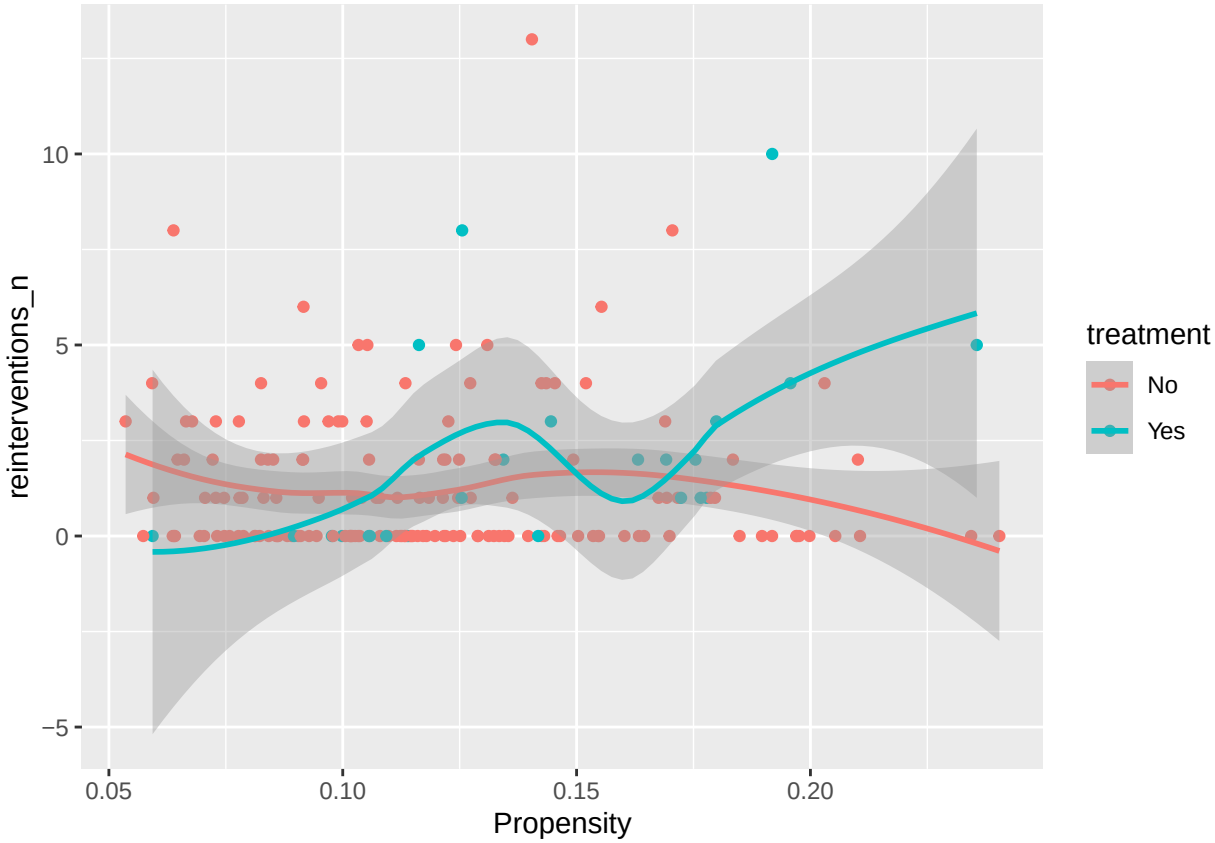
Outcome: reinterventions_n

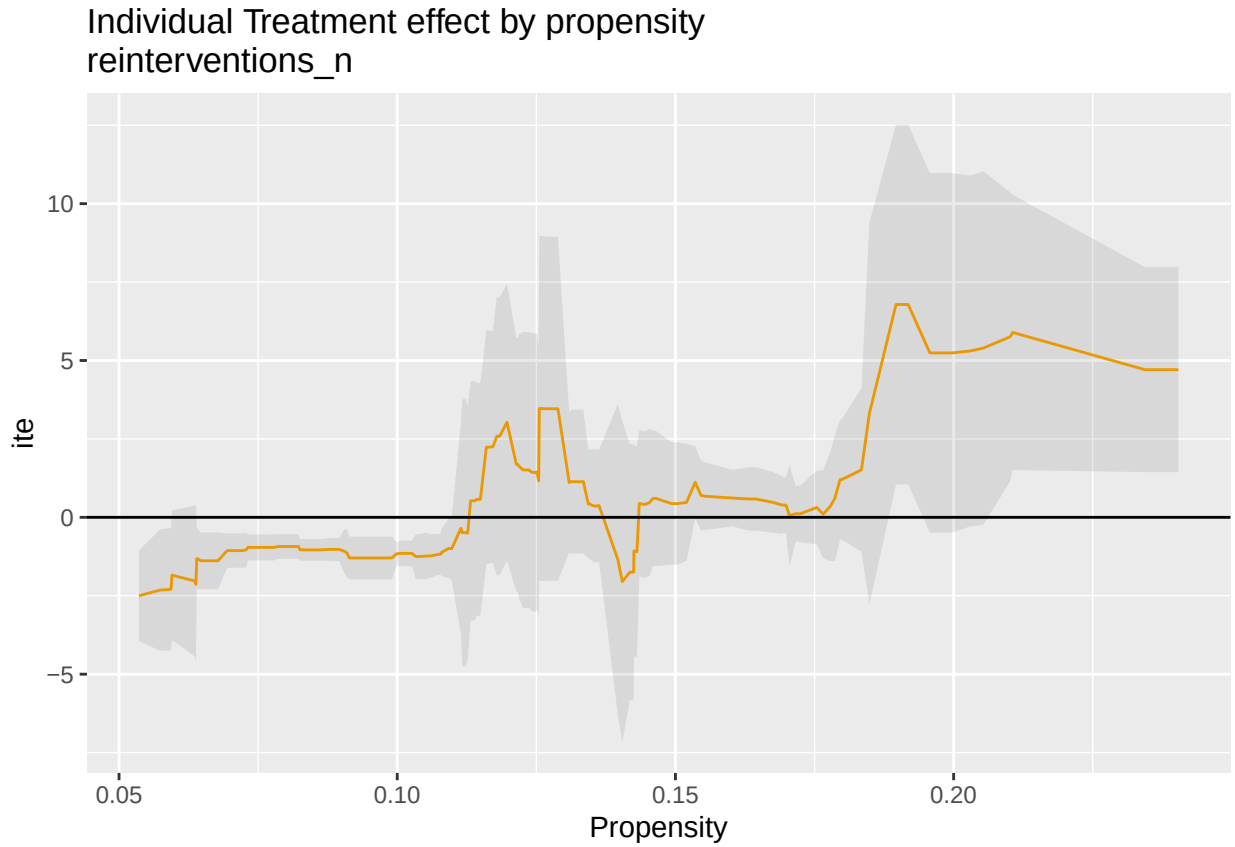
```
Distribution:
  0%  25%  50%  75% 100%
   0    0    0    2   13
Model Type Y: boosting
RMSE: 2.20604679902546
Params: nrounds: 50.0
max_depth: 2
eta: 0.3
gamma: 0.0
colsample_bytree: 0.6
min_child_weight: 1.0
subsample: 0.5

Model Type No: boosting
RMSE: 1.91103510239684
Params: nrounds: 50.0
max_depth: 1
eta: 0.3
gamma: 0.0
colsample_bytree: 0.6
min_child_weight: 1.0
subsample: 1.0

ATE (Yes-No): 0.335 (Std.Error: 0.403)
Observational differences in treatment 0.814 (Yes-No)

   treatment  outcome
1:        No 1.269231
2:       Yes 2.083333
```


reinterventions_n
10
5
0
−5
0.05
0.10
0.15
0.20
Propensity
treatment
No
Yes

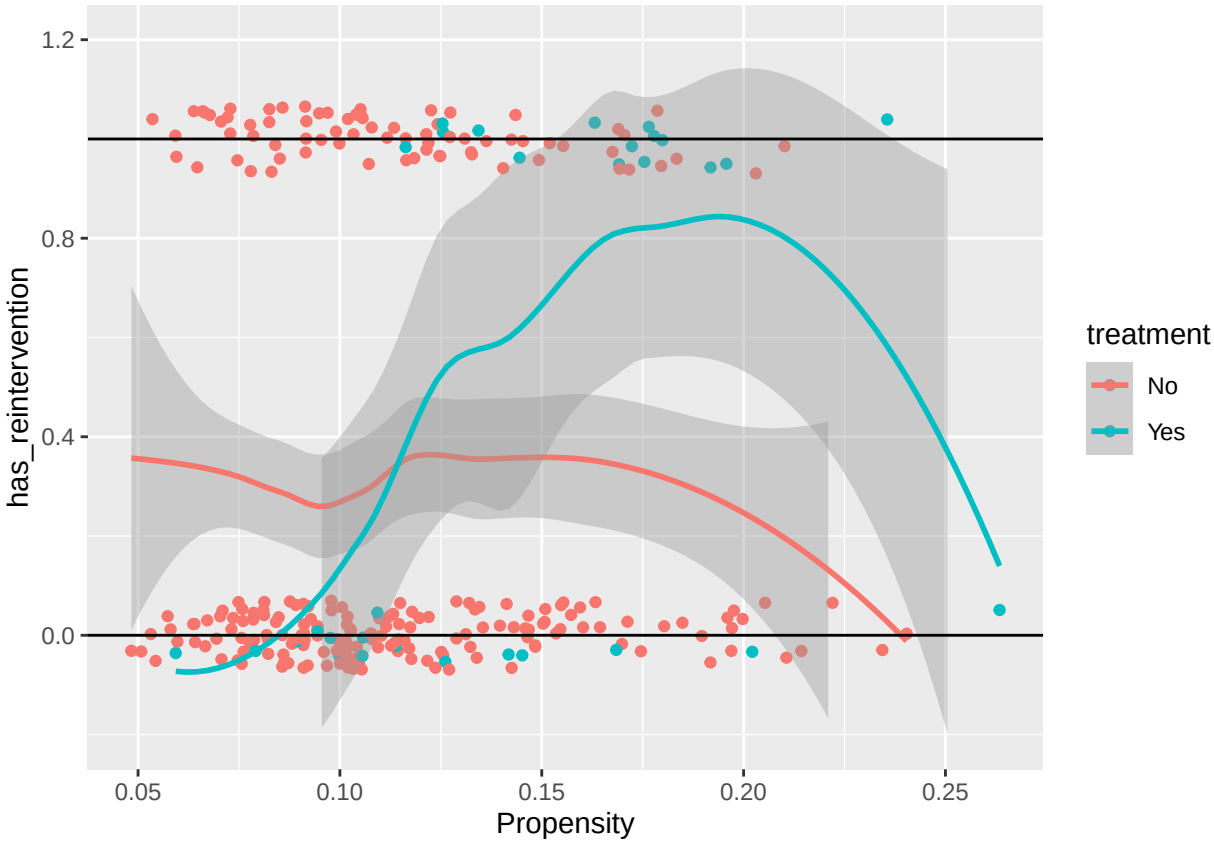


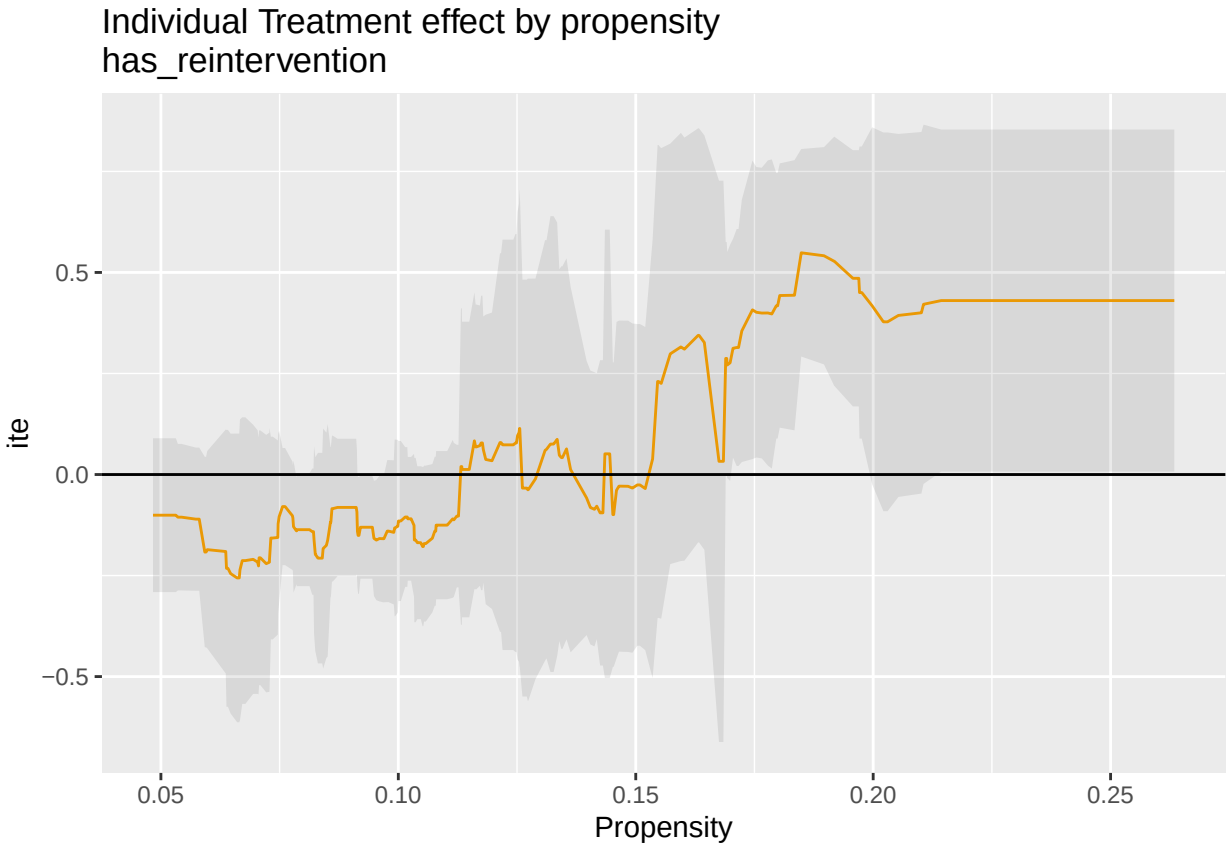

```
Outcome: has_reintervention
Distribution:
Proportion
  0.338403
Model Type Y: boosting
Accuracy: 0.747619047619048
Params: nrounds: 50.0
max_depth: 5
eta: 0.4
gamma: 0.0
colsample_bytree: 0.6
min_child_weight: 1.0
subsample: 0.5

Model Type No: boosting
Accuracy: 0.65513413506013
Params: nrounds: 50.0
max_depth: 1
eta: 0.3
gamma: 0.0
colsample_bytree: 0.8
min_child_weight: 1.0
subsample: 0.7142857

ATE (Yes-No): 0.001 (Std.Error: 0.055)
Observational differences in treatment 0.165 (Yes-No)
```

```
   treatment   outcome
1:        No 0.3189655
2:       Yes 0.4838710
```




Individual Treatment effect by propensity
has_reintervention
ite
0.5
0.0
−0.5
0.05
0.10
0.15
0.20
0.25
Propensity