**Data dictionary**

**Datasets**

1. dat *readRDS(“tug\_dat.rds")*
   1. Historical dataset of outcomes used to build the app’s predictive abilities
2. feas.dat *read.csv("therapist\_final\_060321.csv")*
   1. Contemporary dataset of outcomes collected at the same clinic of tug\_dat.rds

**R Scripts**

1. lmm\_building.R
   1. Script used to examine different linear mixed models for TUG recovery. This script used tug\_dat.rds dataset
2. Lmm\_tug\_prediction.R
   1. Script used to create dynamic predictions with linear mixed models from lmm\_building.R script. Package JMBayes is used to create predictions.

**Variables**

1. id: unique patient identifier (factor)
2. ATI\_Num Patient id variable. Mutated to id for consistency across datasets
3. age: age at surgical date (continuous)
4. bmi
5. sex\_f: 1=female, 0 = male (factor)
6. time: postoperative days (continuous)
7. tug: timed up and go (continuous)
8. base\_tug: initial postoperative tug value (continuous)
9. pre\_tug: preoperative tug observation (continuous)
10. surgeon: Name of patient’s surgeon (factor with 4 levels)
11. location: Name of clinic location (factor with 3 levels)
12. dos: Date of surgery (continuous)
13. k.40 knot placement for piecewise linear term
14. feas 1 = contemporary data, 0 = historical data (factor)
15. base\_ind 1 = baseline observation, 0 = not baseline observation (factor)
16. time.center scaled version of time (time – mean(time))/sd(time)