# Putting the R in PhaRmacy

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## **Tasks**

- Database access
- Forecast
- Stock control
- Shiny

### Database access

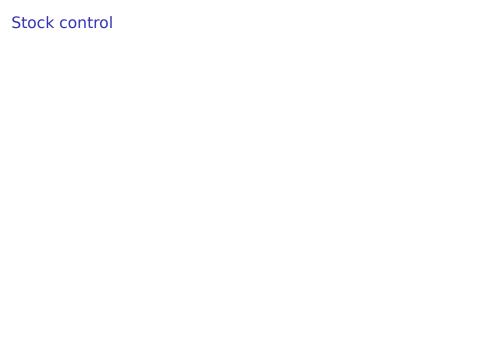
- Some of the tables are very large indeed
- Each run filters by date, site, and drug supplier
- We use dbplyr to do all the filtering on the SQL database rather than pulling it into R
- We avoid storing and preprocessing as much as possible but the transaction table requires storing so we just download new entries

### **Forecast**

- Forecasting did not work very well
- ▶ I wrote some very neat and tidy code though ☺
- make\_tsibble(), forecast\_series, plot\_forecast, show\_accuracy

# forecast\_series

```
forecast series <- function(data, horizon, frequency = "Data"
  if(frequency == "Daily"){
    values <- c("week", "A")</pre>
  } else {
    values <- c("year", "N")</pre>
  data %>%
    fabletools::model("MEAN" = fable::MEAN(quantity),
                       "SNAIVE" = fable::SNAIVE(quantity ~ ]
                       "ARIMA" = fable::ARIMA(quantity, app:
                       "ETS" = fable::ETS(quantity ~ season
    fabletools::forecast(h = horizon)
}
```



# Shiny

### Take home

- Don't email a load of code files around!
- Package and document your code
- Goldilocks functions- not too big, not too small