JK Working

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Load the data

```
load("cardiomort.RData")
load("amy.rdata")
```

Check out some variables, expected mortality is the Hospital Compare metric?

```
all.equal(cardio$`Expected Mortality Rate`,
          cardio$`Observed Deaths`/cardio$`Total Procedures`)
```

```
## [1] "Mean relative difference: 0.5177513"
```

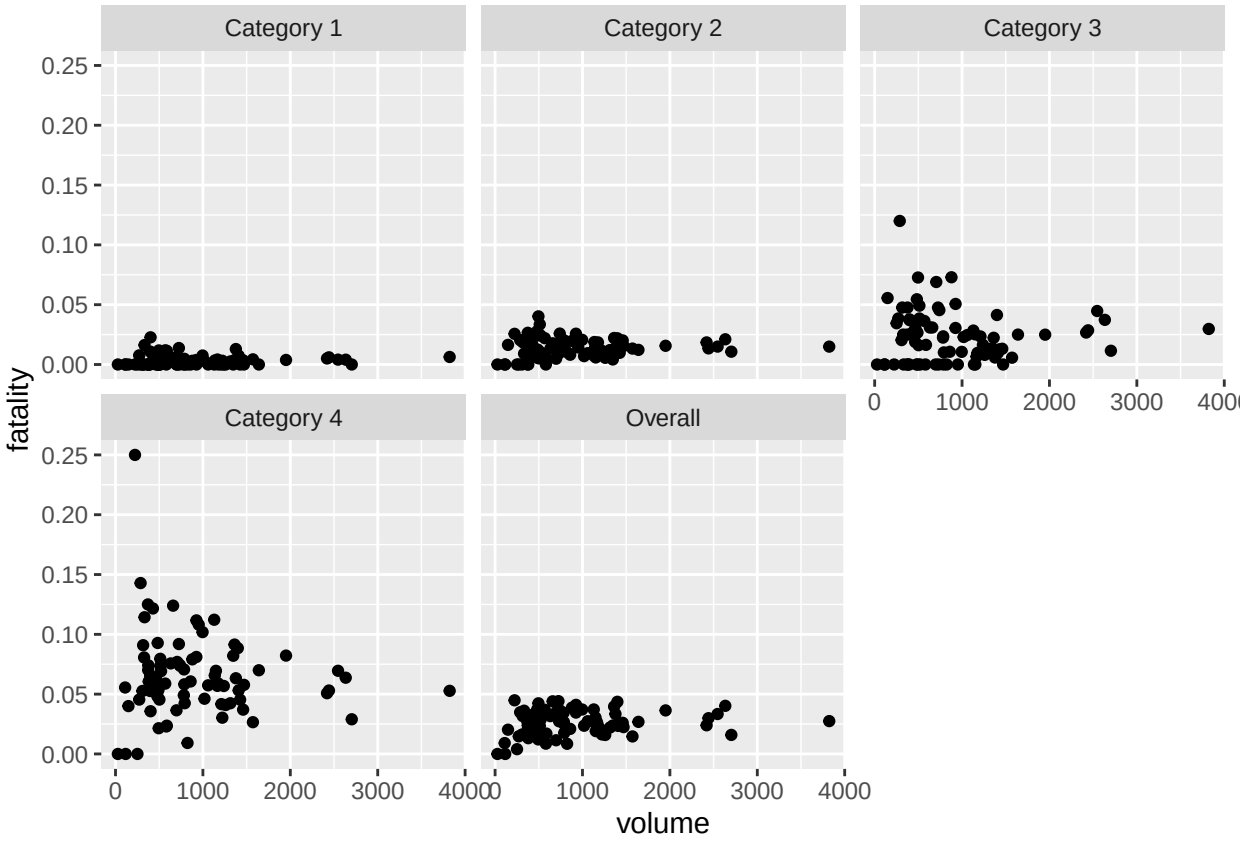
Data cleaning

```
df = cardio %>%
  group_by(`Hospital Name`) %>%
  summarize(volume = max(`Total Procedures`)) %>%
  right_join(cardio) %>%
  mutate(procedure = sub("STAT Mortality ", "", `Procedure Type`)) %>%
  select(-`Procedure Type`) %>%
  mutate(fatality = `Observed Deaths` / `Total Procedures`)
```

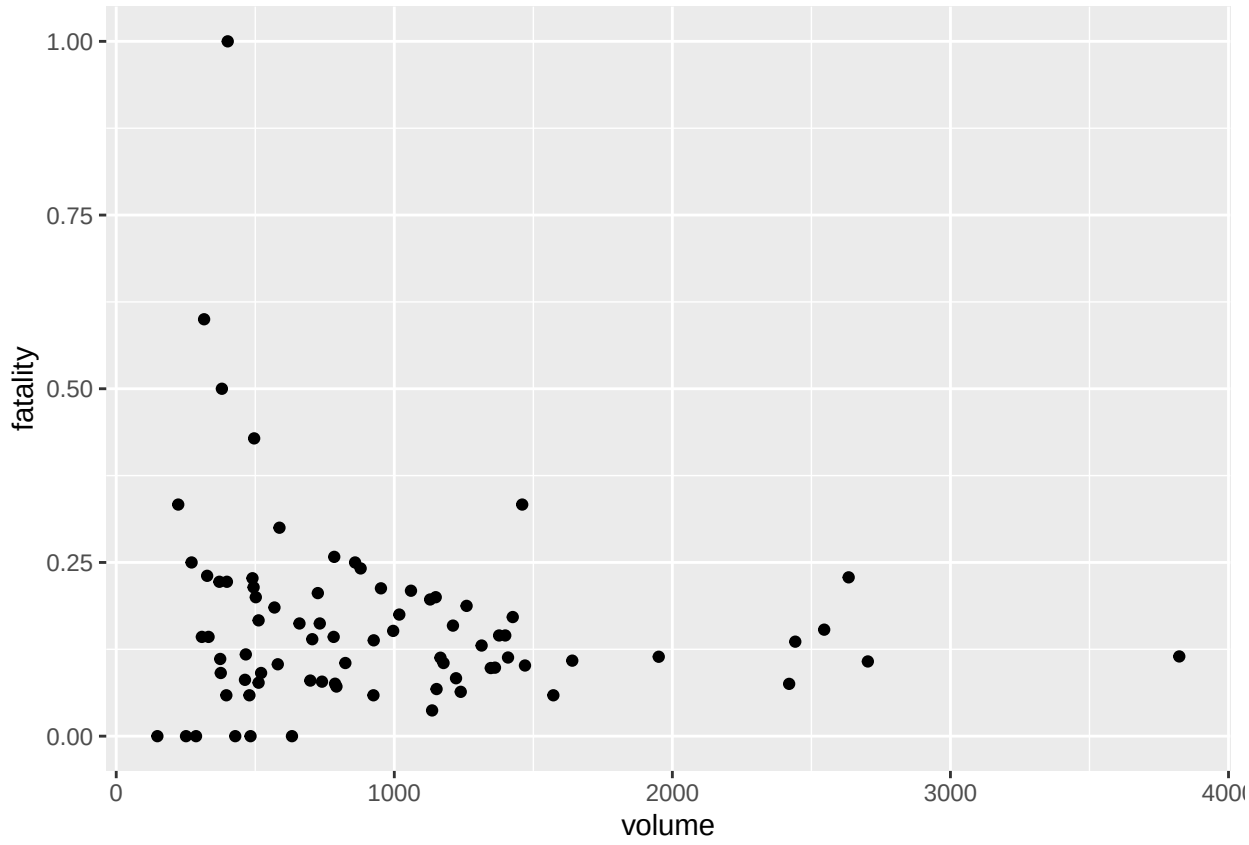
```
## `summarise()` ungrouping output (override with `.groups` argument)
```

```
## Joining, by = "Hospital Name"
```

```
# Plot fatality rate versus total volume by category
df %>% filter(procedure !="Category 5") %>%
  ggplot(aes(x=volume, y=fatality)) +
  geom_point() +
  facet_wrap(~ procedure)
```




```
df %>% filter(procedure =="Category 5") %>%
  ggplot(aes(x=volume, y=fatality)) +
  geom_point()
```

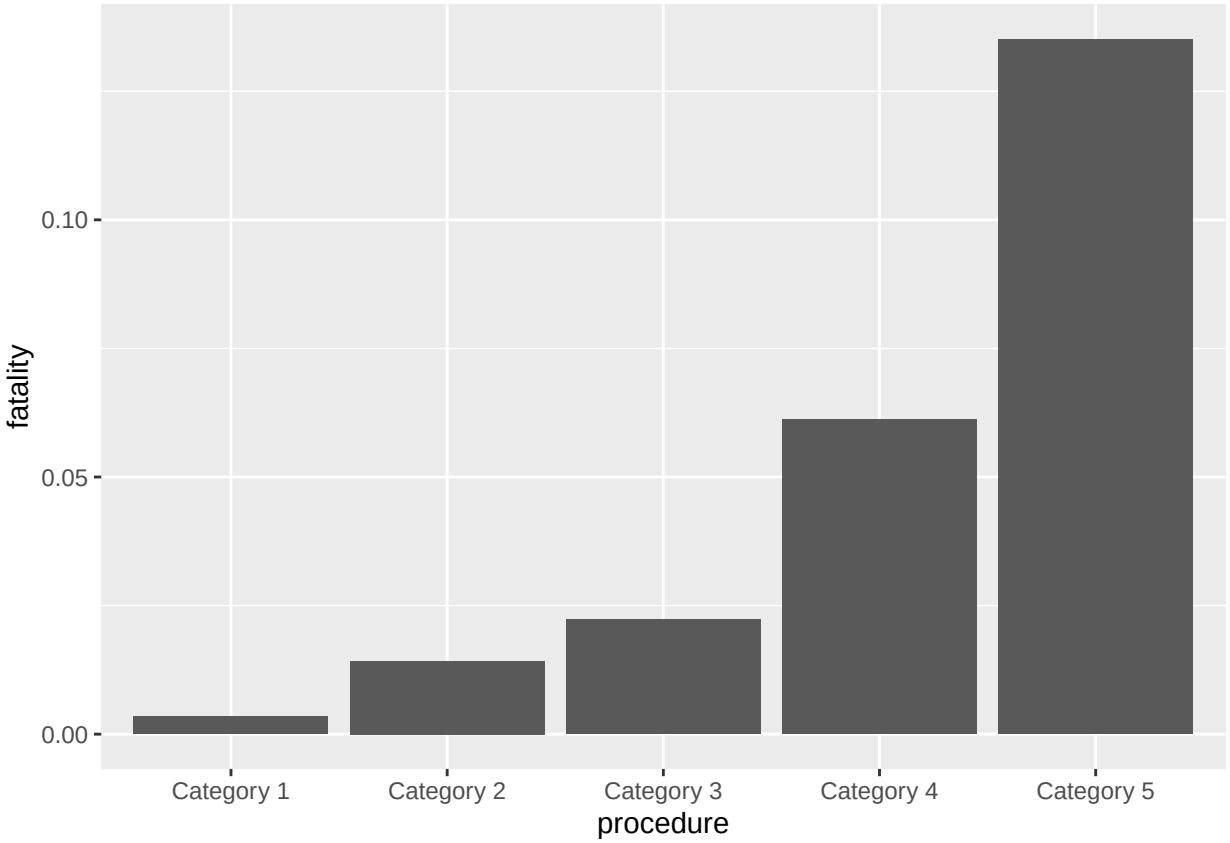


Andrea's mortality rate by procedure plot

```
dt=df%>%
  group_by(procedure)%>%
  summarize(deaths=sum(`Observed Deaths`), tot=sum(`Total Procedures`))%>%
  mutate(fatality=deaths/tot) %>%
  select(procedure, fatality, ) %>%
  filter(procedure !="Overall")
```

```
## `summarise()` ungrouping output (override with `.groups` argument)
```

```
dt %>%
  ggplot(aes(x=procedure, y=fatality))+
  geom_col()
```


fatality
0.10
0.05
0.00
Category 1
Category 2
Category 3
Category 4
Category 5
procedure