You have performed a pilot study on male X (mice/humans, anything with a sex)

Based on these pilot data,

1. what sample size would you need to show that treatment 1 is different from no treatment?
2. What about showing a difference between treatment 1 and treatment 2?
3. Assuming that the male from the no treatment were the same ones that were treated with treatment 1, how many would you need to show a difference?
4. If you were hoping to determine whether there is a sex effect, what might you do?