

A medical study of heart surgery investigates the effect of a drug called a beta-blocker on the pulse rate of the patient during surgery. The pulse rate will be measured at a specific point during the operation. The investigators will use 20 patients facing heart surgery as subjects. You have a list of these patients, numbered 1 to 20, in alphabetical order.

1. Describe the design of a completely randomized experiment to test the effect of beta-blockers on pulse rate during surgery. Write a few sentences about how you would implement your design.

2. Use the section from the random digits table below to carry out the randomization required by your design and report the result.

96746	12149	37823	71868	18442	35119	62103	39244
96927	19931	36809	74192	77567	88741	48409	41903
43909	99477	25330	64359	40085	16925	85117	36071
15689	14227	06565	14374	13352	49367	81982	87209
36759	58984	68288	22913	18638	54303	00795	08727

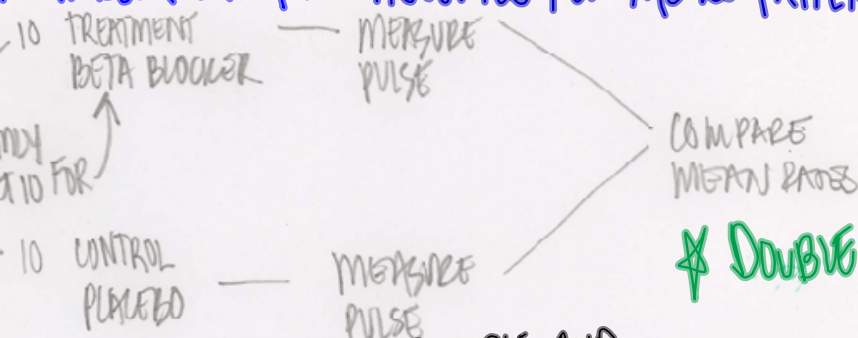
A medical study of heart surgery investigates the effect of a drug called a beta-blocker on the pulse rate of the patient during surgery. The pulse rate will be measured at a specific point during the operation. The investigators will use 20 patients facing heart surgery as subjects. You have a list of these patients, numbered 1 to 20, in alphabetical order.

- Describe the design of a completely randomized experiment to test the effect of beta-blockers on pulse rate during surgery. **Write a few sentences about how you would implement your design.**

SRS = SIMPLE RANDOM SAMPLE ASSUMED FOR THE 20 PATIENTS

★ 20 PATIENTS
SRS

IDEALLY CHOSEN BY SRS



I HAVE RANDOMIZED IN SELECTION OF SAMPLE AND IN ASSIGNMENT OF TREATMENT TO REDUCE BIAS

THERE IS A CONTROL GROUP TO REDUCE THE EFFECT OF LURKING VARIABLES.
REPETITION WILL HELP REDUCE EFFECTS OF VARIATION.

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96746	12149	37823	71858	18442	35119	62103	39244
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- # PATIENT LIST 01 THROUGH 20 ✓
- READ DIGITS 2 @ A TIME
AT

TREATMENT GROUP

18, 19, 10, 03, 06, 08, 11, 15, 13, 09

PLACEBO GROUP

= REMAINING PATIENTS

= 01, 02, 04, 05, 07, 12, 14, 16, 17, 20