Supplemental figure 1

I. To be predefined by the scientists

Define research question and hypothesis
i.e. treatment with drug X reduces joint pathology

Define study design
i.e. two study groups, comparing treatment with drug X and a vehicle control

Determine primary outcome measure to answer the research question.
i.e. synovial inflammation, bone erosion, or cartilage damage

And plan statistical analysis
i.e. two-tailed t-test to compare two treatment groups

II. Required variables for sample size calculation

Mean value and variation of primary outcome measure in previous studies or literature

Define effect size
(anticipated difference between means that you aim to observe)

Power
(typically 0.8; meaning that there is 80% chance to detect a significant difference in means)

Standard deviation
(SD or σ) of the expected data set

Significance level
(α, typically 0.05)

III. Sample size calculation

Calculate sample size by using statistical software
(i.e. G*power, R, nQuery, ...)

Supplemental material

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