<table>
<tr><th colspan="3" rowspan="3">Variables X
(Colonnes)</th><th colspan="4">Facteurs Y (lignes)
Variable de réponse</th></tr>
<tr><th colspan="3">Qualitative</th><th rowspan="2">Quantitative</th></tr>
<tr><th colspan="2">Nominale</th><th>Ordinale *
(#quantitative non normale)</th></tr>
<tr><th colspan="3"></th><th>2 groupes</th><th>> 2 groupes</th><th></th><th></th></tr>
<tr><td rowspan="4">Qualitative (groupes)
Facteur d'étude</td><td rowspan="2">2</td><td>Indépendant</td><td>> 5 : Chi2
< 5 : Test exact de Fisher</td><td>> 5 : Chi2</td><td>U de Mann-Whitney.</td><td>> 30 ou normale : t de Student
*< 30 : Test de Mann-Whitney-Wilcoxon</td></tr>
<tr><td>Appariée</td><td>> 5 : Chi2 de Mac Nemar
< 5 : Test exact de Fisher</td><td>Q de Cochran.</td><td>Test de rangs signés de Wilcoxon</td><td>> 30 ou normale : t de Student apparié
*< 30 : Test de rangs signés de Wilcoxon</td></tr>
<tr><td>> 2</td><td>Indépendant</td><td colspan="2">Chi2</td><td>Test de Kruskal-Wallis</td><td>ANOVA (Analyse de variance)
*Test de Kruskal-Wallis</td></tr>
<tr><td colspan="2">Apparié</td><td colspan="2">Q de Cochran.</td><td colspan="2">Test de Friedman</td></tr>
<tr><td colspan="3">Quantitative</td><td>Régression logistique</td><td>R. logistique multinomiale</td><td>Test de corrélation de Spearman
(Tau de Kendall)</td><td>Test de corrélation de Pearson
Régression linéaire</td></tr>
<tr><td colspan="3">Censurée
(time to event)</td><td colspan="3">Cox regression (hasard ratio =Exp B)</td><td>kaplan meier (logrank test)</td></tr>
</table>

Start Here

A guide for choosing the most common statistical tests

Q1	Q2	Q3	Q4	Q5	Statistical test
Bivariate /Mutivariable	Difference /Correlation	Independent / Paired	Type of outcome (and Normality)	No of groups	
Bivariate	Difference	Independent (un-paired)	Continuous (Normal)	2	Student's t-test
				>2	One-way ANOVA
			Continuous (Non-normal)/ Ordinal	2	Mann-Whitney U test
				>2	Kruskal-Wallis H test
			Nominal	2	Chi-square test/ Fisher's exact test
				>2	Chi-square test
			Time to Event (survival)		Log-Rank test (Kaplan-Meier plot)
		Dependent (paired)	Continuous (Normal)	2	Paied t-test
				>2	Repeated measured ANOVA
			Continuous (Non-normal)/ Ordinal	2	Wilcoxon signed-rank test
				>2	Friedman test
			Nominal	2	McNemar's test
	Correlation		Continuous (Normal)		Pearson's correlation (r)
			Continuous (Non-normal)/ Ordinal		Spearman's correlation (ρ)
			Nominal (2 levels)	2	Spearman/Kappa (Agreement)
Multivariable			Continuous		Linear Regression
			Ordinal		Ordered Logistic Regression
			Nominal	(2 levels)	Binary Logistic Regression
			Nominal	(>2levels)	Multinomial Logistic Regression
			Time to Event (survival)		Cox Regression
			Count variable		Poisson regression

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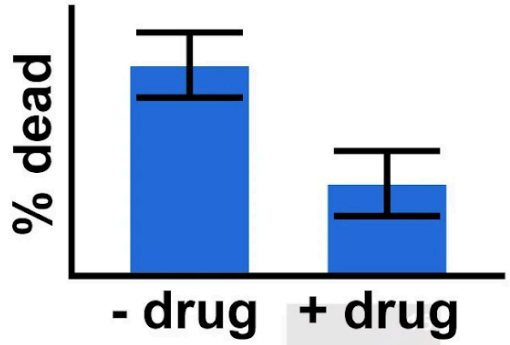
Statistical Significance Tests

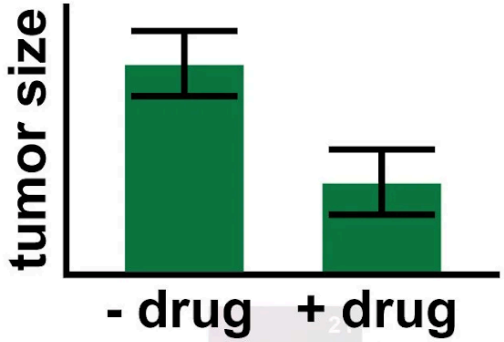
Fisher's Exact Test

x-axis: 2 categories (- or + drug)
y-axis: 2 categories (dead or alive)



Students T-Test

x-axis: 2 categories (- or + drug)
y-axis: continuous (tumor size)



Regression Analysis

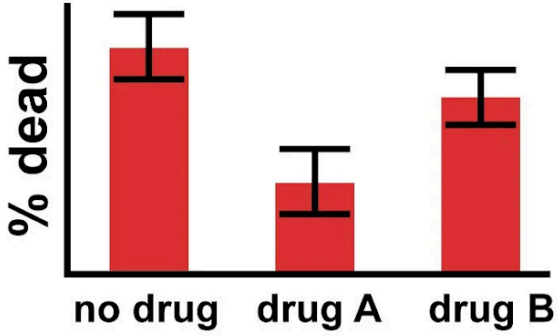
x-axis: continuous (drug dose)
y-axis: continuous (tumor size)



Practically Science.com

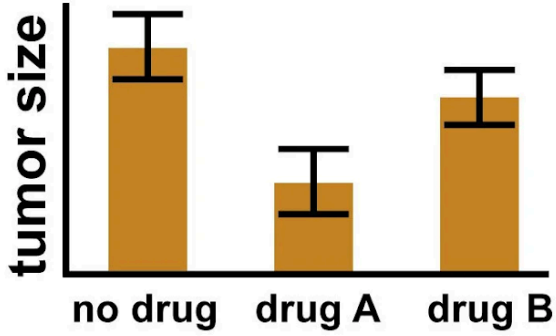
Chi-Square Test

x-axis: **>**2 categories (drug A, B, etc.)
y-axis: >2 categories (dead or alive)



ANOVA

x-axis: **>**2 categories (drug A, B, etc.)
y-axis: continuous (tumor size)



Multiple Regression

x/z-axis: **>2** continuous (drug dose)
y-axis: continuous (tumor size)

