臨床研究の作り方



SWOG の統計ツール(Statistical Tools) の利用

米国の Southwest Oncology Group (SWOG) の Cancer Research and Biostatistics (CRAB)が公開している STATISTICAL TOOLS を利用しましょう。

https://stattools.crab.org/index.html





STATISTICAL TOOLS	Ø DESIGN ♥ C	ANALYSIS V	PROBABILITIES >	✓ OTHER TOOLS ▼	Ø ABOUT US ♥	
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Statistical Tools

✓ Design	Q Analysis
One Arm Binomial	Frequency Table
One Arm Normal	Binomial Confidence Interval
One Arm Survival	• II Probabilities
One Arm Expected Events	Binomial
Two Stage	<u>Normal</u>
Two Arm Binomial	Poisson
Two Arm Normal	<u>Chi-Square</u>
Two Arm Survival	Probability of Observing a Rare Event
Two Arm Expected Events	✓ Other Tools
Binomial Interaction	Prognostic Mixture
Survival Interaction	Survival Converter
Binomial Noninferiority	
Survival Noninferiority	
Continuous Marker Prognostic Power	

がんの臨床研究ですぐ使える Tool です。比較的良く使用するのは以下の項目です。他にも必要に応じて利用して下さい。

One Arm Binominal: 第 II 相試験の必要症例数算定

One Arm Binomial

One Arm Binomial program calculates either estimates of sample size or power for one sample binomial problem. The first button calculates approximate power or sample size and critical values (reject if \geq critical value). The second button calculates "exact" power and alpha for the given null and alternative proportions and sample size. Note, sample size and null and alternative proportions can be changed before using the second button.

proportions and sample size. Hotely sample size and man and accordance proportions can be changed before doing the second become									
User Input		Program Output							
Select Calculation and Test Type									
Sample Size Power		1 Sided 2 Sided							
Select Hypothesis Test Parameters									
Null Proportion	Alternative Proportion			Alpha					
0			٥	.05	٥				
Calculate Power/Sample Size									
Power Sample Size	Approx Lower Count Critical Value		Approx Upper Count Critical Value						
.90									
Calculate Exact Alpha/Power									
Exact Alpha Level	Exact Power								

Two Arm Survival: RCT における症例数算定

Two Arm Survival

Two Arm Survival is a program to calculate either estimates accrual or power for differences in survival times between two groups. The program allows for unequal sample size allocation between the two groups. The survival time estimates also allow for multiple strata or risk groups.

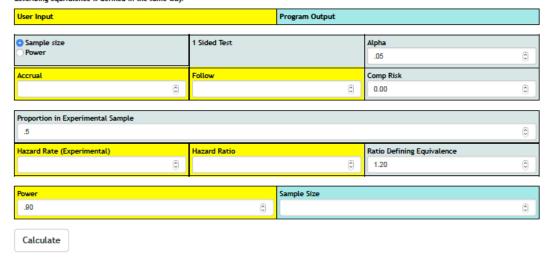
For further details, view the Help Document.

User Input					Progr	Program Output						
Select Parai	meters											
Type Calculation Sample Size Power				Type Input Hazard Ratio Survival Proportions Medians				Sided 1 Sided 2 Sided				
Number Strata Pr				Proportion in Standard Group				Alpha				
1 *				0.5				0.05				
Years of Accrual				Years of Follow-up			Δ	Accrual Rate				
0				(2)			0	9				
Stratum	Proportion	Hazard Rate, Std.	Hazare Rate, Exp.	d Hazard Ratio	Proportion Surviving, Std.	Survival Time, Std.		portion viving,	Survival Time, Exp.	Median Survival, Std.	Median Survival Exp.	
1	1 🔾				(3)	9		٥	(3)			
Power					Total	Accrual						
Calculate												

Survival Noninferiority:非劣性試験における症例数算定

Survival Noninferiority

Survival Noninferiority is a program to calculate either estimates of sample size or power for equivalence studies. Exponential distributions are assumed and are specified using the ratio of the hazard for the experimental treatment to the hazard for the standard treatment. The ratio of hazard rates describing equivalence is defined in the same way.



Binominal Confidence Interval:率の 95%信頼区間

Binomial Confidence Interval

This program calculates a non-asymptotic binomial confidence interval. For sample sizes > 1000, a large sample approximation is used.

いろいろ試して見ることで生物統計学に興味が湧くことを期待しています。

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