





## 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

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

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.

User Input		Program Output	
Select Calculation and Test Type			
<input checked="" type="radio"/> Sample Size <input type="radio"/> Power		<input checked="" type="radio"/> 1 Sided <input type="radio"/> 2 Sided	
Select Hypothesis Test Parameters			
Null Proportion	Alternative Proportion	Alpha	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
Calculate Power/Sample Size			
Power	Sample Size	Approx Lower Count Critical Value	Approx Upper Count Critical Value
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Calculate Exact Alpha/Power			
Exact Alpha Level		Exact Power	
<input type="text"/>		<input type="text"/>	

## 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				Program Output						
Select Parameters										
Type Calculation <input type="radio"/> Sample Size <input checked="" type="radio"/> Power		Type Input <input type="radio"/> Hazard Ratio <input checked="" type="radio"/> Survival Proportions <input type="radio"/> Medians			Sided <input checked="" type="radio"/> 1 Sided <input type="radio"/> 2 Sided					
Number Strata		Proportion in Standard Group			Alpha					
<input type="text"/>		<input type="text"/>			<input type="text"/>					
Years of Accrual		Years of Follow-up			Accrual Rate					
<input type="text"/>		<input type="text"/>			<input type="text"/>					
Stratum	Proportion	Hazard Rate, Std.	Hazard Rate, Exp.	Hazard Ratio	Proportion Surviving, Std.	Survival Time, Std.	Proportion Surviving, Exp.	Survival Time, Exp.	Median Survival, Std.	Median Survival Exp.
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Power					Total Accrual					
<input type="text"/>					<input type="text"/>					
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.

User Input		Program Output	
<input checked="" type="radio"/> Sample size <input type="radio"/> Power	1 Sided Test	Alpha	.05
Accrual	Follow	Comp Risk	0.00
Proportion in Experimental Sample			
.5			
Hazard Rate (Experimental)	Hazard Ratio	Ratio Defining Equivalence	1.20
Power	Sample Size		
.90			

Calculate

## 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.

For further details, view the [Help Document](#).

User Input		Program Output	
Input Values (e.g. events out of total sample size of trial)			
Number of Events	Alpha	Upper Limit	
Total Sample Size	.05	Lower Limit	

Calculate

いろいろ試して見ることで生物統計学に興味を湧くことを期待しています。

2021/4/22 藤井雅志