EBM & Critical Appraisal Calculations: One Guide to Rule Them All

Therapy Calculations	
EER (Experimental Event Rate)	a/(a+b)
CER (Control Event Rate)	c/(c+d)
ARR (Absolute Risk Reduction)	CER-EER
RR (Relative Risk)	EER/CER
RRR (Relative Risk Reduction)	1-RR
NNT (Number Needed to Treat)	1/ARR

Harm Calculations	
EER (Experimental Event Rate)	a/(a+b)
CER (Control Event Rate)	c/(c+d)
ARI (Absolute Risk Increase)	EER-CER
RR (Risk Ratio)	EER/CER
NNH (Number Needed to Harm)	1/ARI

Diagnosis Calculations	
Sensitivity (Sn)	TP/(TP+FN)
Specificity (Sp)	TN/(FP+TN)
Positive Predictive Value (PPV)	TP/(TP+FP)
Negative Predictive Value (NPV)	TN/(FN+TN)
Likelihood Ratio (LR) +	Sn/(1-Sp)
Likelihood Ratio (LR) -	(1-Sn)/Sp

	Outcome Present	Outcome Absent
Exposure: Yes	A	B
Exposure: No	C	D

Therapy & Harm ← → **Diagnosis**

	Disease Present	Disease Absent
Test Positive	A True Positive (TP)	B False Positive (FP)
Test Negative	C False Negative (FN)	D True Negative (TN)

Ask yourself: Was the study well-designed? Can/should I apply the results to my patient? What does my patient want?

EBM & Critical Appraisal Explanations: One Guide to Rule Them All

- CER (Control Event Rate):

- EER (Experimental Event Rate):

- RR: (Relative Risk or Risk Ratio):

- RRR (Relative Risk Reduction):

- ARR (Absolute Risk Reduction):

- ARI (Absolute Risk Increase):

- NNT (Number Needed to Treat):

- NNH (Number Needed to Harm):

- Sn (Sensitivity):

- Sp (Specificity):

- PPV (Positive Predictive Value):

- NPV (Negative Predictive Value):

- LR+ (Positive Likelihood Ratio):

- LR- (Negative Likelihood Ratio):