

Harm/Etiology

1. Is this evidence about harm valid?
 - a. Were there clearly defined groups of patients, similar in all important ways other than exposure to the treatment or other cause?
 - b. Were treatments/exposures and clinical outcomes measured in the same ways in both groups? (Was the assessment of outcomes either objective or blinded to exposure?)
 - c. Was the follow-up of the study patients sufficiently long (for the outcome to occur) and complete?
 - d. Do the results of the harm study fulfill some of the diagnostic tests for causation?
 - i. Is it clear that the exposure preceded the onset of the outcome?
 - ii. Is there a dose-response gradient?
 - iii. Is there any positive evidence from a “dechallenge-rechallenge” study?
 - iv. Is the association consistent from study to study?
 - v. Does the association make biological sense?
2. Is this valid evidence about harm important?

	Adverse Outcome		Totals
	Present (Case)	Absent (Controls)	
Exposed to Treatment (RCT or cohort)	a	b	a+b
Not Exposed to Treatment (RCT or cohort)	c	d	c+d
Totals	a+c	b+d	a+b+c+d

- a. In a randomized trial or cohort study:
 - i. $RR = [a/(a+b)]/[c/(c+d)]$
 - b. Is a case-control study:
 - i. Relative odds = ad/bc
 - c. What is the magnitude of the association between the exposure and outcome?
 - d. What is the precision of the estimate of the association between the exposure and the outcome?
3. To convert odds ratio (or relative odds) to a NNH:
- a. $NNH = 1 + [PEER*(OR-1)]/[(1-PEER)*(PEER)*(OR-1)]$
4. Can we apply the valid, important results of this harm study to our patient?
- a. Is our patient so different from those included in the study that its results cannot apply?
 - b. What is our patient's risk of benefit and harm from the agent?
 - c. What are our patient's preferences, concerns, and expectations from this treatment?
 - d. What alternative treatments are available?