

# EVIDENCE-BASED ORTHOPAEDICS

## GLOSSARY OF TERMS FOR EVIDENCE-BASED ORTHOPAEDICS\*

The glossary below provides definitions for several terms found in the structured abstracts of the Evidence-Based Orthopaedics section, many of which may not be familiar to orthopaedic surgeons.

*The following terms are commonly used in abstracts describing trials of therapeutic interventions.*

**EER** is the experimental (new treatment) event rate.

**CER** is the control (old treatment or non-treatment) event rate.

**CI** (confidence interval) quantifies the uncertainty in measurement. CI is usually reported as a 95% CI, which is the range of values within which we can be 95% sure that the true value for the whole population lies.

*When the experimental treatment reduces the risk for a bad event:*

**ARR** (absolute risk reduction) is the absolute arithmetic difference in bad event rates between the experimental and control groups, calculated as  $|EER - CER|$ .

**RRR** (relative risk reduction) is the proportional reduction in bad event rates between the experimental and control groups, calculated as  $|EER - CER|/CER$  and accompanied by a 95% CI.

*When trying to interpret the benefit of a new therapy, the NNT can be helpful to clinicians.*

**NNT** (number needed to treat) is the number of patients who need to be treated to prevent 1 additional bad outcome, calculated as  $1/ARR$ , rounded up to the nearest whole number, and accompanied by a 95% CI.

*When the experimental treatment increases the probability of a good event:*

**ABI** (absolute benefit increase) is the absolute arithmetic difference in good event rates between the experimental and control groups, calculated as  $|EER - CER|$ .

**RBI** (relative benefit increase) is the proportional increase in good event rates between the experimental and control groups, calculated as  $|EER - CER|/CER$  and accompanied by a 95% CI.

**NNT** (number needed to treat) is the number of patients who need to be treated to achieve 1 additional favorable outcome, calculated as  $1/ARR$ , rounded up to the nearest whole number, and accompanied by a 95% CI.

*When the experimental treatment increases the probability of a bad event:*

**ARI** (absolute risk increase) is the absolute arithmetic difference in bad event rates between groups, when the experimental treatment harms more patients than the control treatment, calculated as  $|EER - CER|$ .

**RRI** (relative risk increase) is the proportional increase in bad event rates between the experimental and control groups, calculated as  $|EER - CER|/CER$  and accompanied by a 95% CI.

**NNH** (number needed to harm) is the number of patients that, if they received the experimental treatment, would lead to 1 additional person being harmed compared with the number of patients who received the control treatment, calculated as  $1/ARI$ , rounded up to the nearest whole number, and accompanied by a 95% CI.

\*Based on information from the American College of Physicians Journal Club.