

# **ABCD FIX: A mnemonic for rapidly checking the quality of an RCT on therapy.**

- Allocation concealed?
- Blinding?
- Comparable groups?
- Drop outs?
- Follow up?
- Intention to treat ?
- X factor—other obvious sources of bias?



Approaching a research article is a little like approaching the purchase of a used car. Before buying it, there are several things that you should check to assess its quality.



Is it a piece of junk?

Imperfect, but serviceable?



Or a gem that you can drive away and trust?

One can quickly check the tires, listen to the engine, and run through a quick imaginary check list. Most used cars are not perfect and so it might not fulfill every check point. And even if you are satisfied, it doesn't mean that someone with more experience may not uncover a fatal flaw. But you can decide if the car meets at least *minimum* a threshold of quality before considering the purchase.

The same is true with assessing a randomized controlled trial on therapy. Before deciding whether its results should affect how you manage a patient, it is wise to get a sense of how *trustworthy* it is.

As a busy practitioner, it will be helpful if you learn how to make a rapid assessment of a research article to see if it passes the sniff test and is worthy of your time and consideration.

A useful tool is the ABCD FIX mnemonic. With a little practice, you should be able to do a quick quality check in about 5 minutes before deciding to read the whole article.

## ABCD FIX Check list

- ✓ **A-** was allocation into the different arms of the study concealed during the randomization process? (For more information, see the *Concealed Allocation* review.)
- ✓ **B-** exactly who (if anyone) was blinded? Patients, practitioner, outcome measurers, statisticians? If no one at all is blinded, this is a significant weakness. (For more information, see the *Blinding* review.)
- ✓ **C-** were the groups comparable in each arm of the study in all important characteristics that might make one group respond to therapy differently than the other? (For more information, see *Comparable Groups* review.) Were they treated comparably (e.g., in terms of type of intervention and number of visits)?
- ✓ **D-** were there many drop outs from therapy (5-20% rule).
- ✓ **F-** do you think follow up was long enough? Was it complete enough? Were many subjects lost at follow up (5 and 20% rule)?
- ✓ **I-** if there were drop outs, or subjects who crossed over from one treatment arm of the study to another treatment arm, were they accounted for by doing an "intention to treat" analysis? (For more information, see the *Intention to Treat* review.)
- ✓ **X-** were there an "x factor" sources of bias that concerned you (e.g., problems with how the study was executed where bias or error could have been easily introduced)?