Understanding outcomes and the potential benefits of a therapy you are considering for your patient is an important component of Evidence-Based Medicine. The flip side of the coin, however, is equally important. Will the therapy harm my patient?

Often, the Evidence-Based literature you find will discuss both and you will need to discuss with your patient the benefits of the therapy weighed against the risk of adverse effects. At other times, the information on harm is not that clear and the risk of a therapeutic intervention will not appear until the therapy is underway.

MeSH Subheadings:

MeSH is the controlled vocabulary that is used in MEDLINE (PubMed). By using MeSH terms as opposed to keywords in a search, you can increase the relevance of your findings. While articles on benefit, as you have learned, can be easily found using the PubMed “Clinical Queries” and “mapping” features, it’s a bit more tricky with harm. Within most MeSH terms are “subheadings”. These subheadings can be used to focus on a particular aspect of a subject and are a rich source for harm/risk-related terminology. Samples include:

- Adverse Effects
- Contraindications
- Poisoning
- Toxicity

The following case demonstrates how you can apply subheadings when looking for evidence on risk and harm.
A case:

S. is a 5-year old girl who was diagnosed with Selective Mutism and prescribed Prozac, 30 mg/day. Two weeks later, S. returns to your clinic after experiencing confusion, nausea and excessive tiredness. Her mother asks you if the newly-prescribed Prozac might be contributing to her new symptoms, especially since a search of your drug database indicates that the initial dosage was on the high end of the scale for pediatric dosing. You want to search the literature to see if there are any indications that Prozac might be the culprit and if it is indeed the best treatment for her.

P=5 year-old girl with selective mutism
I=Prozac (fluoxetine)
C=X
O=reduction/elimination of negative symptoms

When looking for good evidence surrounding issues of harm, many of the standard EBM search tools do not work as they otherwise would. The best way to approach this search would to:

1. Go to PubMed but not clinical queries right away!
2. Go to the MeSH database on the right under More Resources
3. Search for Prozac (fluoxetine WILL appear) – PubMed mapping at work!
4. Under Fluoxetine are listed checkboxes with subheadings. Choose adverse effects and toxicity
5. Under the PubMed search builder at the top right of the page, click the button Add to search builder and leave the selection at AND
6. Don’t search yet! Next, select and copy what you see in the box (it should read (“Fluoxetine/adverse effects”[Mesh] OR "Fluoxetine/toxicity"[Mesh]))
7. Return to PubMed by clicking that choice at the bottom of the page under POPULAR.
8. Now choose Clinical Queries (under PubMed Tools on the PubMed home page) and paste the copied data into the search box and click Search. After the search is run, choose the Category: Therapy. You may also want to try Scope: Narrow.
9. From here, you MAY want to use Limits to limit for current date range and age group. THIS will give you a focused, harm-based search with good evidence.

Wow! Not the easiest search on record but by learning how to use the MeSH database in conjunction with Clinical Queries, you will have an easier time finding solid Evidence-Based information on therapy’s evil twins harm and risk.