

BRINGING CLINICIANS TOGETHER TO DISCUSS CURRENT DRUG THERAPY

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PRACTICE

It can be hard to decide whether you should change your recommendations based on new study findings.

Marketing may create buzz about an outcome that is statistically significant...but may not actually be clinically important.

For example, a study p-value of less than 0.05 indicates that the findings are STATISTICALLY significant...and are likely due to a real difference and not chance alone.

But this doesn't automatically mean that the results are CLINICALLY significant...and make a meaningful difference to patients. P-values don't describe the size of the effect...or the likelihood that a patient will have these results.

Instead, consider the actual difference in outcomes to evaluate if results are clinically meaningful...since big studies may have the statistical power to detect very small differences.

For example, insulin degludec (*Tresiba*, etc) causes fewer episodes of severe hypoglycemia than insulin glargine (*Lantus*, etc)...but the difference in patients with type 2 diabetes is less than one episode per patient per year.

GLP-1 agonists (*Victoza*, etc) are linked to gallbladder disease...but the risk is only about one in 357 patients treated for about 3 years.

And the small benefit of adding *Xarelto* (rivaroxaban) 2.5 mg BID to low-dose aspirin to prevent CV events in patients with stable CV disease is about equal to the increased risk of major bleeding.

In these cases, statistically significant results may not be important enough to change your recommendations.

See our commentary, *Applying Study Results to Patient Care*, for more strategies to help patients weigh pros and cons of meds.

(For more on this topic, see Clinical Resource #331112 at PharmacistsLetter.com.)

Primary Reference – Eikelboom JW, Connolly SJ, Bosch J, et al. Rivaroxaban with or without aspirin in stable cardiovascular disease. N Engl J Med 2017;377:1319-30.

See LEADER NOTES for answers to discussion questions.

DISCUSSION QUESTIONS

OVERVIEW OF CURRENT THERAPY

1. What do we know about measures for secondary cardiovascular prevention?

ANALYSIS OF NEW STUDY

2. What type of study was this? How were the patients selected for inclusion?
3. How were the study groups defined?
4. How were the outcomes evaluated?
5. What were the outcomes of this trial?

See [LEADER NOTES](#) for answers to discussion questions.

6. What were the strengths and weaknesses of this study?

7. Were the results expressed in terms we care about and can use?

HOW SHOULD THE NEW FINDINGS CHANGE CURRENT THERAPY?

8. Do the results change your practice? How?

APPLY THE NEW FINDINGS TO THE FOLLOWING CASE

M.B. is a 72-year-old male patient with a past medical history significant for CAD with one stent placed four years ago, chronic kidney disease (CKD) stage 3, type 2 diabetes, bilateral knee osteoarthritis, and hypertension. His home medications include aspirin 81mg daily, metformin 1,000 mg twice daily, lisinopril 40mg daily, and amlodipine 5mg daily. He feels well with the exception of worsening knee pain that he has been treating with OTC ibuprofen two to three times a day for the past few weeks.

M.B.'s wife passed away two years ago and he has been living alone since then. His daughter is visiting from out of town and would like to talk with you regarding his medications and care. She is concerned about M.B.'s adherence to medications and that he seems to be confused with what he should be taking.

Today, M.B.'s vitals are: BP 162/91 mmHg, HR 62, RR 16, oxygen sats 97%, and BMI 31. His point of care hemoglobin A1C is 7.8%. M.B. denies any cardiac symptoms such as chest pain or difficulty breathing.

9. How could you verify M.B.'s medications?

See [LEADER NOTES](#) for answers to discussion questions.

M.B.'s daughter brought all of his medications to the appointment, and you were able to verify that M.B.'s chronic medications are in alignment with the list in the EHR. However, M.B. admits that he sometimes forgets if he has taken his medications.

M.B.'s daughter is concerned about her father's risk of having another heart attack or stroke, and asks if her father should be taking any other medications to lower his risk. She works as a receptionist at a cardiology office, and overheard the residents talking about a new study that used *Xarelto* to lower risk in patients who've had a heart attack.

10. What counseling do you provide M.B. and his daughter? What should you consider regarding M.B.'s current medication regimen?

You advise M.B. and his daughter that the small CV benefit of adding *Xarelto* is about equal to the risk of major bleeding, and that it is very expensive. You also discuss that statins have been shown to reduce the risk of heart attack and stroke in patients with CV disease, and advise that M.B. start atorvastatin 40 mg daily.

M.B. and his daughter thank you for your explanation about the new study and agree that the risks and cost of adding *Xarelto* outweigh the possible benefit. They also agree with starting atorvastatin to lower M.B.'s risk of another CV event.

You encourage M.B. to keep up the good work with his diabetes control, since his current A1C of 7.8% is nearly at his goal. However, you bring up that M.B.'s BP is now 162/91 mmHg, which is up from 142/78 mmHg at his last visit.

11. What are possible reasons for M.B.'s elevation in BP? How might you manage this increase in BP?

You discuss the BP effects of ibuprofen, and advise trying acetaminophen as an alternative. You also suggest a pill box to help M.B. organize his medications and remember whether he has taken them. M.B. and his daughter agree that switching to acetaminophen is worth a try, and that using a pill box sounds like a good idea.

You advise M.B. to return for a follow-up visit in one month to assess whether changes to his blood pressure medications are necessary.

See [LEADER NOTES](#) for answers to discussion questions.

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Additional Pharmacist's Letter Resources available at PharmacistsLetter.com

Commentary, Glossary of Study Design and Statistical Terms. *Pharmacist's Letter/Prescriber's Letter*. October 2017.

Commentary: Applying Study Results to Patient Care: Relative Risk, Absolute Risk, and Number Needed to Treat. *Pharmacist's Letter/Prescriber's Letter*. October 2017.

Chart, Meds that Can Increase Blood Pressure. *Pharmacist's Letter/Prescriber's Letter*. September 2017.

PL Voices, Using Beta-Blockers After a Heart Attack. *Pharmacist's Letter/Prescriber's Letter*. August 2017.

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PL Voices, Aspirin to Reduce Cardiovascular Risk After a GI Bleed. *Pharmacist's Letter/Prescriber's Letter*. November 2016.

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