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Compared To Other Antihypertensives, Beta-Blockers Increase Stroke Risk

Beta-blockers are a first-line treatment for hypertension, but compared to other drugs used to treat high blood pressure, they significantly increase a patient's risk of stroke, according to a recent meta-analysis.

Researchers looked at 13 randomized controlled trials involving a total of almost

106,000 patients that compared beta-blockers with other antihypertension drugs, including verapamil (Calan, Verelan, others) and amlodipine (Norvasc). They also analyzed seven studies that compared beta-blockers to placebo or no treatment. The primary outcomes were the rates of stroke and MI.

While overall, beta-blockers reduced the risk of stroke by 19% when compared to placebo or no treatment, the picture shifted when beta-blockers were evaluated against other antihypertensives. When this comparison was made, the researchers found that beta-blockers increased the risk of stroke by 16% compared to the other drugs. The increase in stroke risk was highest for the beta-blocker atenolol (Tenormin): 26%. Researchers found no increased risk of MI for beta-blockers in either comparison.

Lindholm, L. H., Carlberg, B., & Samuelsson, O. (2005). Should beta blockers remain first choice in the treatment of primary hypertension? A meta-analysis. *Lancet*, 366(9496), 1545.

Error Watch

Catching Medication Errors At Admission, Transfer, And Discharge

"Medication reconciliation" means getting a complete, accurate list of a patient's medications upon admission and comparing it to the physician's admission, transfer, or discharge orders to spot and correct discrepancies. According to the U.S. Pharmacopeia (USP), reconciliation failures account for almost half of all hospital medication errors.

From September 2004 to July 2005, 2,022 reconciliation-related medication errors were reported to the USP's MEDMARX program. About 22% occurred during admission, 66% during transfer to another level of care, and 12% at discharge. Slightly more than 50% of the reconciliation errors that happened during admission or transfer and 28% of those that occurred during discharge were caught before reaching the patient; harmful errors were more likely during admission and transfer. The most common types of reconciliation errors were improper dose/quantity, omission errors, and prescribing errors.

There are numerous steps you can take to reduce reconciliation errors. These include helping your facility develop a formal and systematic approach to reconciling a patient's medications, using a standardized form, assigning responsibility for reconciliation to clinicians with sufficient expertise, setting a time limit within which medications should be reconciled, and improving access to complete medication lists at admission.

THE AUTHOR

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Birth Control Patch Increases Exposure To Estrogen

Women who use the weekly birth control patch norelgestromin/ethinyl estradiol (Ortho Evra) receive higher doses of estrogen than if they took oral estrogen, according to the FDA.

Compared to women who take a ►