ODPRN ONTARIO DRUG POLICY RESEARCH NETWORK

RESEARCH MINUTE

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Glyburide not associated with higher risk of adverse cardiovascular events compared to gliclazide

Among older patients hospitalized for acute myocardial infarction or percutaneous coronary intervention, receiving glyburide was not associated with an increased risk of future adverse cardiovascular events compared to gliclazide

What does this mean?

- Some sulfonylureas such as glyburideare thought to be associated with adverse cardiovascular events by blocking potassium pumps in the heart.
- In this study, no differences were found in risk of cardiovascular events (acute myocardial infarction or heart failure) or death between patients prescribed glyburide versus gliclazide for diabetes.
- These findings suggest that the effect of glyburide on ischemic preconditioning is of little clinical relevance.

Clinical Implications

- ✓ The effects of glyburide on the heart are likely of little clinical relevance.

How do we know this?

The ODPRN conducted a population-based cohort study on patients aged 66 years and older who were hospitalized for acute myocardial infarction (AMI) or who underwent percutaneous coronary intervention (PCI) between April 1, 2007 and March 31, 2010 while receiving either glyburide or gliclazide. Using propensity score matching, 1690 patients treated with glyburide were matched to 984 patients treated with gliclazide at the time of hospitalization for AMI or PCI. No difference was found in the risk of a composite outcome of death or hospitalization for myocardial infarction or heart failure among patients prescribed glyburide compared with those prescribed gliclazide (adjusted hazard ratio 1.01; 95% confidence interval 0.86 to 1.18).There were no differences between groups in secondary analyses of risk of future adverse cardiovascular events.

Juurlink, D.N., Gomes, T., Shah, B. R., & Mamdani, M. M. (2012). Adverse cardiovascular events during treatment with glyburide (glibenclamide) or gliclazide in a high-risk population. *Diabet Med, 29*(12), 1524-1528.

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