

EXECUTIVE SUMMARY-LOW TYRAMINE

Name of Expert Review Group:

Medicine RD Network

Rationale:

Low tyramine diet recommendations were reviewed to determine current best practice guidelines. The goal of the Medicine Expert Review Group is to review current literature regarding clinical guidelines and nutritional management specifically to:

1. Determine if there is a need for a low tyramine diet
2. Review current diet criteria and update with current recommendations.

Guidelines:

1. A low tyramine diet is required to reduce the risk of a hypertensive crisis in individuals taking certain monoamine oxidase inhibitors (MAOI); therefore, it is recommended that the diet be maintained.
2. High tyramine foods with >6 mg/serving of tyramine should be avoided. These foods include: aged cheeses, aged and cured meats, banana peel, broad bean pods (fava beans), marmite, sauerkraut, soy sauce, other soybean condiments, tap beer are absolutely restricted.
3. Limit alcohol intake to no more than two 12 oz servings of bottled/canned beer (including non alcoholic beer) or two 4 oz glasses of wine per day.
4. All foods must be fresh or properly frozen as tyramine content can increase in spoiled and improperly stored meat, poultry and fish.
5. A low tyramine diet must be followed for an additional two weeks after an MAOI is discontinued.

Evidence Review:

A low tyramine diet is required to prevent a hypertensive crisis due to the drug-nutrient interaction between certain monoamine oxidase inhibitors (MAOI) and tyramine.

Tyramine is a vasoactive amine, found in food, that is broken down by monoamine oxidase - A. MAOIs are medications that may prevent the action of this enzyme, allowing tyramine to enter the bloodstream. The conversion of excess tyramine to norepinephrine can then lead to a potentially fatal hypertensive crisis¹.

The need for dietary restriction of tyramine depends on the type of MAOI, its dosage, and delivery method².

A simplified MAOI diet has been developed based on a critical analysis of literature and tyramine assay results. High tyramine foods with >6 mg/serving of tyramine should be avoided. Aged cheeses, aged and cured meats, banana peel, broad bean pods (fava beans), marmite, sauerkraut, soy sauce, other soybean condiments, tap beer are absolutely restricted. Limit alcohol to no more than two 12 oz servings of bottled/canned beer (including non alcoholic beer) or two 4 oz glasses of wine per day. All foods must be fresh or properly frozen as tyramine content can increase in spoiled and improperly stored meat, poultry and fish^{3,4}.

A low tyramine diet must be followed for an additional two weeks after an MAOI is discontinued^{4,5}.

Anticipated Impact:

None

Practice Change:

No change to current practice is anticipated as there has been no new evidence since last review.

Diets Included in the Review:

Low Tyramine

References:

1. Rapaport, M.H. Dietary restrictions and drug interactions with monamine oxidase inhibitors: the state of the art. J. Clin. Psychiatry, 2007, Suppl 8, 42-46.
2. Flockhart, D.A. Dietary restrictions and drug interactions with monamine oxidase inhibitors: an update. J. Clin. Psychiatry, 2012, 73, Suppl 1. 17-24.
3. Gardner, D.M., Shulman, K.I., Walker, S.E, Tailor, S.A.N. The making of a user friendly MAOI diet. J. Clin. Psychiatry, 1996, 57(3) 99-103.
4. PEN. (2010) Eating Guidelines for a Low Tyramine Diet. Retrieved from <http://www.pennutrition.com.uml.idm.oclc.org/viewhandout.aspx?Portal=UbY=&id=JMDrXAM=&PreviewHandout=BA==>
5. Wimbiscus, M., Kostenko, O., Malone, D. MAO inhibitors: Risks, benefits, and lore. Cleveland Clinic Journal of Medicine 2010; 77(12) 859-882.

GRADING OF EVIDENCE:

Level C - The conclusion is supported by limited evidence or expert opinion.

The evidence consists solely of results from a limited number of studies of weak design for answering the question addressed.

Members:

Site:

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