Precise Care Matrix, Wellness

Translated. homocysteine, s adenosyl homocysteine, homocysteic acid and homocysteine thiolactone

A summary of secrets for Clinicians, Practitioners, Researchers, Pharmacists, Care Providers, Patients, Public Health workers, Data Scientists, Public Administrators, Educators, Population managers, Services, Services Workers and Communities ready to resolve the challenges of this and earlier eras while moving strongly toward resolution of what's next.

Objective Definitions.

Tangential Management of Homocysteine to be at or below 6 or 7 micromoles per liter, with an objective of 3.7 um/L and threshold of symptomatic intervention beginning at 10 um/L and asymptomatic intervention beginning at bout 15 um/L, according to a study and refined by other studies, search literature, clinical literature and data, can typically produce a decrease in risk for unassured vital being from 500 down to 1 among a population of about 10,000 over a decade of observations. Objectives for s adenosylhomocysteine are about 0.012 um/L or lower in this context. This decrease was exhibited among all causes of unassured vital being including diminished behavior, susceptibility to diminished behavior exhibited by others, adverse health outcomes, sudden adverse health events, mishaps or outcomes without any conscious intent by oneself or others, as well as detrimental aspects of aging and disease.

Managing homocysteine

1. Homocysteine
    1. Bystolic or Nebivolol. Saline. NMDA Receptor inhibitors
    2. Phosphatidylcholine, Choline, Alpha-GPC, Choline Kinase alpha inhibitor Pregnenolone, DHEA, S - Methylmethionine sulfonium, Methylsulfonylmethane, A complete mineral supplements, minerals from pink Himalayan sea salt, a complete natural vitamin supplement with B12/B6/thiamine/pantothenic acid/K2/Biotin, Riboflavin, other vitamins. Glutathione. Catalase. Selenium. Sulfobetaine. Superoxide Dismutase. N Acetyl L Cysteine. Peroxiredoxin-6. Cysteine. Histidine. Cystathionine.
2. Transsulfuration Pathway Depletion of Homocysteine.
    1. This suggest that sulfur should be added to B6, Methionine, NAD+, Serine, Danshen/Red Sage/Salvia M, Propionate, Succinate.
    2. Metabolites Cystathionine, Cysteine, Alpha-Ketobutyrate, CoA, Glutathione, and simple Sulfates such as H2S or HS, and Cystine.
3. Managing Homocysteic Acid, Derivative of Homocysteine
    1. Saline along with Alkalinization Therapy.
    2. Vitamin K1 and Vitamin K2 as Menaquione-4.
    3. NMDA Receptor inhibitors
4. Managing Homocysteine Thiolactone, Derivative of Homocysteine
    1. However, PON1 by a number of factors.
    2. PON1 Translocation through SREBP2 and SP1 integration at the PON1 promoter occurs resultant of Statin, Quercetin and Glucose.
    3. PON1 activation through the aryl hydrocarbon receptor occurs resultant of Quercetin, Resveratrol and Aspirin utilization.
    4. Berberine, however, induces PON1 through the JNK-c-JUN signaling pathway. Resveratrol is a phytoalexin. trans 3,4,5,4′-tetramethoxystilbene
    5. Pomegranate juice polyphenolics stimulate PON1 expression through the PPARγ-PKA-cAMP signaling pathway.
    6. Unknown mechanisms of action enable PON1 upregulation resultant of utilizing Curcumin, Betanin, Isothiocyanates, Licorice Polyphenolics, and olive oil.
5. BHMT Pathway for decreasing Homocysteine through recycling into Methionine
    1. Glutathione. Trimethylglycine. 6s 5678 Tetrahydrofolate, Zinc. N Acetyl-L Cysteine, Peroxiredoxin.
6. BHMT2 Pathway Homocysteine through recycling into Methionine
    1. Glutathione. S-Methylmethionine (S – Methylmethionine Sulfonium). 6s 5678 Tetrahydrofolate, Zinc. N Acetyl-L Cysteine, Peroxiredoxin.
7. Thetin-Homocysteine Methylpherase Pathways decreasing Homocysteine through recycling into Methionine
    1. Dimethylthetin, Trimethylsulfonium, dimethylsulfonioacetate, ethylmethylthetin, dimethyl-alpha-propiothetin, dimethyl-beta-propiothetin, ethyl methyl-beta-propiothetin, dimethyl-gamma-butyrothetin, methionine, methylsulfonium, trimethylsulfonium, ethyldimethylsulfonium, butyldimethylsulfonium.
8. Thiopurine/Thioether S – Methyltransferase
    1. S-Adenosyl homocysteine, H+, and 6 methylthiopurine.
    2. 6 – methyl thioguanine, H+ and S -adenosyl L homocysteine.
    3. S -adenosyl L homocysteine and a thiopurine s – methylether
9. Methionine Synthase
    1. 5, Methyltetrahydrofolate, Vitamin B12 Methylcobalamin
10. Trimethylsulfonium Tetrahydrofolate N Methyltransferase
    1. Trimethylsulfonium and 6s 5678 Tetrahydrofolate bidirectionally potentiates dimethylsulfide and 5 methyltetrahydrofolate
11. S-adenosyl Methionine Synthetase
    1. Methionine, Water and ATP, potentiate phosphate, diphosphate and S-Adenosyl Methionine.
12. MARS1/MARS2 Methionyl – tRNA – Methionyl Ligase
    1. Methionine is important because it is a starting factor or primer in synthesis of more than 99.5 percent of gene transcription products. MARS1, for instance, as Methionine tRNA Ligase catalyzes synthesis of AMP, diphosphate, L-methionyl tRNAMet from ATP, L – methionine and tRNAMet. MARS1 occurs in the Nucleus of Homo Sapiens and MARS2 occurs in the mitochondria, performing a role in enabling incipient nuances of synthesis of RNA in Ribosomal Molecular Machines.
13. S-adenosyl Homocysteine Hydrolase
    1. NAD+ availability, compared to NADH, potentiates production of Homocysteine from S-Adenosyl Homocysteine.
14. INMT, Indolethylamine N – Methyltransferase, Thioether S - Methyltransferase
    1. Dimethyl Sulfide, Trimethylsulfonium, a primary methylated amine, a secondary methylated amine. 2-methylthioethanol, Dimethyl Selenide, Dimethyl Telluride, Diethylsulfide, Tryptamine, Diethylsulfide, all along with H+. Increased levels of S-Adenosyl Methionine can naturally potentiate this enzyme toward S-Adenosyl Methionine, but the trimethylated versions of these substrate are exclusive in catalyzing activity toward S – Adenosyl Methionine. Trimethylsulfonium, Trimethylselenonium, Trimethyltellurium , and possibly Trimethylglycine, although Trimethylglycine can be used by BHMT to produce Methionine and Dimethylglycine. Trimethylsulfonium produces linear graphs of the depletion of S-Adenosyl

Homocysteine because it is used by TTMT toward 6s 5678 Tetrahydrofolate/Dimethylsulfide, used toward Thioglycolic Acid/Methionine by Thetin - Homocysteine Methylpherase , and used toward S-Adenosyl Methionine/Dimethyl Sulfide.