

Table S1: Study Selection Based on Inclusion Criteria after Reviewing Full Text

| First author, year | Journal | Title | Include? | Reason of Exclusion |
|--------------------|---|--|----------|--------------------------------|
| Abdollahzad, 2009 | International Journal of Vitamin and Nutrition Research | Effect of vitamin C supplementation on oxidative stress and lipid profiles in hemodialysis patients | No | No measure of desired outcomes |
| Adamowicz, 2002 | Medical Science Monitor | Effect of erythropoietin therapy and selenium supplementation on selected antioxidant parameters in blood of uremic patients on long-term hemodialysis | No | No measure of desired outcomes |
| Aguilera, 1993 | Nephrology Dialysis Transplantation | Effect of vitamin E administration on erythropoietin values and anaemia in hemodialysis patients | No | No measure of desired outcomes |
| Ahmadi, 2013 | Iranian Journal of Kidney Disease | Effect of alpha-lipoic acid and vitamin E supplementation on oxidative stress, inflammation, and malnutrition in hemodialysis patients | Yes | |
| Akizawa, 2004 | Therapeutic Apheresis and Dialysis | Dose-response study of 22-oxacalcitriol in patients with secondary hyperparathyroidism | No | No measure of desired outcomes |
| An, 2012 | Nutrition Research | Omega-3 fatty acid supplementation increases 1,25-dihydroxyvitamin D and fetuin-A levels in dialysis patients | No | Mixed dialysis population |
| Ando, 1999 | Journal of American Society of Nephrology | Eicosapentanoic acid reduces plasma levels of remnant lipoproteins and prevents in vivo peroxidation of LDL in dialysis patients | No | No measure of desired outcomes |
| Antoniadi, 2005 | Renal Failure | Effect of 1-year oral alpha-tocopherol administration on anticardiolipin antibodies in hemodialysis patients | No | No measure of desired outcomes |
| Antoniadi, 2008 | Therapeutic Apheresis and Dialysis | Effect of one-year oral alpha-tocopherol administration on the antioxidant defense system in hemodialysis patients | No | No measure of desired outcomes |
| Ardalan, 2007 | Nephrology Dialysis Transplantation | Vitamin E and selenium co-supplementation attenuates oxidative stress in haemodialysis patients receiving intra-dialysis iron infusion | No | No measure of desired outcomes |
| Armas, 2012 | Clinical Journal of American Society of Nephrology | 25-Hydroxyvitamin D response to cholecalciferol supplementation in hemodialysis. | No | No measure of desired outcomes |
| Asemi, 2016 | Molecular Nutrition and | Effect of the omega-3 fatty acid plus vitamin E supplementation on subjective | No | No measure of |

| | | | | |
|----------------|--|--|-----|--------------------------------|
| | Food Research | global assessment score, glucose metabolism, and lipid concentrations in chronic hemodialysis patients | | desired outcomes |
| Asemi, 2016 | International Urology and Nephrology | Effects of omega-3 fatty acid plus alpha-tocopherol supplementation on malnutrition-inflammation score, biomarkers of inflammation and oxidative stress in chronic hemodialysis patients | Yes | |
| Baldi, 2013 | Journal of Nephrology | Effects of hemodialysis and vitamin E supplementation on low-density lipoprotein oxidizability in end-stage renal failure | No | No measure of desired outcomes |
| Beavers, 2009 | Journal of Renal Nutrition | Effect of over-the-counter fish-oil administration on plasma Lp(a) levels in an end-stage renal disease population | No | No measure of desired outcomes |
| Begum, 2004 | Journal of Renal Nutrition | Supplementation with n-3 and n-6 polyunsaturated fatty acids: effects on lipoxygenase activity and clinical symptoms of pruritus in hemodialysis patients | No | No measure of desired outcomes |
| Bhan, 2015 | Clinical Journal of American Society of Nephrology | Nutritional vitamin D supplementation in dialysis: a randomized trial. | No | No measure of desired outcomes |
| Bhogade, 2008 | Indian Journal of Clinical Biochemistry | Effect of vitamin E supplementation on oxidative stress in hemodialysis patients. | No | No control. |
| Biniiaz, 2014 | Iranian Journal of Kidney Diseases | Effect of Vitamin C Supplementation on Serum Uric Acid in Patients Undergoing Hemodialysis A Randomized Controlled Trial | No | No measure of desired outcomes |
| Biniiaz, 2015 | Saudi Journal if Kidney Diseases and Transplantation | Effect of vitamin C supplementation on marital satisfaction in patients undergoing hemodialysis: A randomized, double-blind and placebo-controlled trial | No | No measure of desired outcomes |
| Boaz, 2000 | Lancet | Secondary prevention with antioxidants of cardiovascular disease in endstage renal disease (SPACE): randomised placebo-controlled trial | No | No measure of desired outcomes |
| Bonomini, 1995 | Nephrology Dialysis Transplantation | Effects of selenium supplementation on immune parameters in chronic uraemic patients on haemodialysis | No | No measure of desired outcomes |
| Bowden, 2007 | Journal of Renal Nutrition | Effects of omega-3 fatty acid supplementation on vascular access thrombosis in polytetrafluorethylene grafts. | No | No measure of desired outcomes |
| Bowden, | Nutrition in Clinical | Fish oil supplementation lowers C-reactive protein levels independent of | Yes | |

| | | | | |
|----------------|---|--|-----|---|
| 2009 | Practice | triglyceride reduction in patients with end-stage renal disease | | |
| Calo, 2014 | Clinical Nutrition | Molecular biology based assessment of green tea effects on oxidative stress and cardiac remodelling in dialysis patients | No | No measure of desired outcomes |
| Candan, 2002 | Cell Biochemistry and Function | Effect of vitamin C and zinc on osmotic fragility and lipid peroxidation in zinc-deficient haemodialysis patients | No | No measure of desired outcomes |
| Castilla, 2006 | American Journal of Clinical Nutrition | Concentrated red grape juice exerts antioxidant, hypolipidemic, and antiinflammatory effects in both hemodialysis patients and healthy subjects | No | Short term intervention (less than 1 month) |
| Castilla, 2008 | American Journal of Clinical Nutrition | Comparative effects of dietary supplementation with red grape juice and vitamin E on production of superoxide by circulating neutrophil NADPH oxidase in hemodialysis patients | No | Short term intervention (less than 1 month) |
| Chan, 2006 | Nephrology Dialysis Transplantation | Effect of ascorbic acid supplementation on plasma isoprostanes in haemodialysis patients. | No | No measure of desired outcomes |
| Chang, 2007 | American Journal of Nephrology | Effects of alpha-lipoic acid on the plasma levels of asymmetric dimethylarginine in diabetic end-stage renal disease patients on hemodialysis: a pilot study | Yes | |
| Chao, 2002 | The Journal of Nutritional Biochemistry | Vitamin C and E supplements improve the impaired antioxidant status and decrease plasma lipid peroxides in hemodialysis patients small star, filled | No | No measure of desired outcomes |
| Chen, 2005 | American Journal of Kidney Diseases | Variable effects of soy protein on plasma lipids in hyperlipidemic and normolipidemic hemodialysis patients | No | No measure of desired outcomes |
| Chen, 2006 | British Journal of Nutrition | Effect of soya protein on serum lipid profile and lipoprotein concentrations in patients undergoing hypercholesterolaemic haemodialysis | No | No measure of desired outcomes |
| Coloma, 2011 | Philippine Journal of Internal Medicine | Effects of Vitamin E on a Biomarker of Inflammation and Precursors of Atherogenesis in Chronic Hemodialysis Patients | Yes | |
| Corredor, 2016 | Food and Chemical Toxicology | Unfermented grape juice reduce genomic damage on patients undergoing hemodialysis | No | No measure of desired outcomes |
| Cristol, 1997 | Nephrology Dialysis Transplantation | Erythropoietin and oxidative stress in haemodialysis: beneficial effects of vitamin E supplementation | No | No measure of desired outcomes |

| | | | | |
|------------------------|--|--|-----|--------------------------------|
| Cruz-Mora, 2014 | Journal of Renal Nutrition | Effects of a symbiotic on gut microbiota in Mexican patients with end-stage renal disease. | No | No measure of desired outcomes |
| Dashti-Khavidaki, 2014 | American Journal of Therapeutics | Effects of Omega-3 Fatty Acids on Depression and Quality of Life in Maintenance Hemodialysis Patients | No | No measure of desired outcomes |
| Daud, 2012 | Vascular Health and Risk Management | Effects of protein and omega-3 supplementation, provided during regular dialysis sessions, on nutritional and inflammatory indices in hemodialysis patients | Yes | |
| Daud, 2013 | Vascular Health and Risk Management | Vitamin E tocotrienol supplementation improves lipid profiles in chronic hemodialysis patients. | Yes | |
| de Mattos, 2017 | Journal of Renal Nutrition | Omega-3 Fatty Acid Supplementation is Associated With Oxidative Stress and Dyslipidemia, but Does not Contribute to Better Lipid and Oxidative Status on Hemodialysis Patients | No | No measure of desired outcomes |
| Degar, 2016 | Clinical Journal of American Society of Nephrology | High Dose Omega-3 Fatty Acid Administration and Skeletal Muscle Protein Turnover in Maintenance Hemodialysis Patients | No | No measure of desired outcomes |
| Delanaye, 2013 | Nephrology Dialysis Transplant | Cholecalciferol in haemodialysis patients: a randomized, double-blind, proof-of-concept and safety study | No | No measure of desired outcomes |
| Delarue, 2008 | British Journal of Nutrition | Fish oil attenuates adrenergic overactivity without altering glucose metabolism during an oral glucose load in haemodialysis patients | No | No measure of desired outcomes |
| Diepeveen, 2015 | Journal of Internal Medicine | Effects of atorvastatin and vitamin E on lipoproteins and oxidative stress in dialysis patients: a randomised-controlled trial | No | No measure of desired outcomes |
| Donnelly, 1992 | Journal of American Society of Nephrology | Effect of n-3 fatty acids from fish oil on hemostasis, blood pressure, and lipid profile of dialysis patients | No | No measure of desired outcomes |
| El-hennawy, 2010 | American Journal of Therapeutics | A Selected Controlled Trial of Supplementary Vitamin E for Treatment of Muscle Cramps in Hemodialysis Patients | No | No measure of desired outcomes |
| El-Nakib, 2013 | International Journal of Nephrology and Renovascular Disease | Role of alpha-lipoic acid in the management of anemia in patients with chronic renal failure undergoing hemodialysis | No | No measure of desired outcomes |

| | | | | |
|---------------------|---|--|-----|--|
| Eleftheriadis, 2010 | Therapeutic Apheresis and Dialysis | Alpha-tocopherol administration decreases serum urate levels in hemodialysis patients. | No | No measure of desired outcomes |
| Eljaoudi, 2015 | Phytotherapy Research | Consumption of Argan Oil Improves Anti-Oxidant and Lipid Status in Hemodialysis Patients | No | No measure of desired outcomes |
| Ewers, 2009 | Journal of Renal Nutrition | Effects of unsaturated fat dietary supplements on blood lipids, and on markers of malnutrition and inflammation in hemodialysis patients | No | Non-relevant nutrients |
| Fanti, 2006 | Nephrology Dialysis Transplantation | Positive effect of dietary soy in ESRD patients with systemic inflammation-- correlation between blood levels of the soy isoflavones and the acute-phase reactants | Yes | |
| Fijter, 1995 | Haematologica | Does Additional Treatment With Fish Oil Mitigate The Side Effects Of Recombinant Human Erythropoietin In Dialysis Patients? | No | No measure of desired outcomes |
| Fukuda, 2015 | PLoS One | Effects of nutritional supplementation on fatigue, and autonomic and immune dysfunction in patients with end-stage renal disease: a randomized, double-blind, placebo-controlled, multicenter trial. | No | Intervention using enteral nutrition supplement |
| Fumeron, 2005 | Nephrology Dialysis Transplantation | Effects of oral vitamin C supplementation on oxidative stress and inflammation status in haemodialysis patients | Yes | |
| Galli, 2001 | Kidney International Supplement | Vitamin E, lipid profile, and peroxidation in hemodialysis patients | No | No measure of desired outcomes |
| Ghanel, 2012 | Iranian Red Crescent Medical Journal | Efficacy of omega-3 fatty acids supplementation in treatment of uremic pruritus in hemodialysis patients: a double-blind randomized controlled trial. | No | No measure of desired outcomes |
| Gharekhani, 2014 | European Journal of Clinical Pharmacology | The effect of omega-3 fatty acids on depressive symptoms and inflammatory markers in maintenance hemodialysis patients: a randomized, placebo-controlled clinical trial. | Yes | |
| Gharekhani, 2014 | Journal of Renal Nutrition | Effects of oral supplementation with omega-3 fatty acids on nutritional state and inflammatory markers in maintenance hemodialysis patients | No | Duplicate of Gharekhani 2014, Eur J Clin Pharmacol |
| Gharekhani 2016 | Iranian Journal of Kidney Disease | Potential Effects of Omega-3 Fatty Acids on Insulin Resistance and Lipid Profile in Maintenance Hemodialysis Patients: a Randomized Placebo- | No | No measure of desired outcomes |

| | | | | |
|------------------|---|---|-----|--------------------------------|
| | | Controlled Trial | | |
| Giray, 2003 | Clinica Chimica Acta | The effect of vitamin E supplementation on antioxidant enzyme activities and lipid peroxidation levels in hemodialysis patients | No | No measure of desired outcomes |
| Guo, 2013 | Nutrients | Zinc supplementation alters plasma aluminum and selenium status of patients undergoing dialysis: a pilot study. | No | No measure of desired outcomes |
| Hansen, 2014 | BMC Nephrology | The influence of vitamin D analogs on calcification modulators, N-terminal pro-B-type natriuretic peptide and inflammatory markers in hemodialysis patients: a randomized crossover study | No | No control |
| Harving, 2015 | Clinical Nephrology | n-3 polyunsaturated fatty acids and adiponectin in patients with end-stage renal disease. | Yes | |
| Himmelfarb, 2007 | Journal of Renal Nutrition | Gamma-tocopherol and docosahexaenoic acid decrease inflammation in dialysis patients | Yes | |
| Himmelfarb, 2014 | Journal of American Society of Nephrology | Provision of antioxidant therapy in hemodialysis (PATH): a randomized clinical trial | Yes | |
| Hodkova, 2005 | Renal Failure | Influence of parenteral iron therapy and oral vitamin E supplementation on neutrophil respiratory burst in chronic hemodialysis patients | No | No measure of desired outcomes |
| Hodkova, 2006 | Renal Failure | Influence of oral vitamin E therapy on micro-inflammation and cardiovascular disease markers in chronic hemodialysis patients | Yes | |
| Hsu, 2007 | American Journal of Clinical Nutrition | Chronic green tea extract supplementation reduces hemodialysis-enhanced production of hydrogen peroxide and hypochlorous acid, atherosclerotic factors, and proinflammatory cytokines | No | No randomization |
| Hung, 2013 | Journal of Renal Nutrition | A pilot study of active vitamin D administration and insulin resistance in African American patients undergoing chronic hemodialysis | Yes | |
| Hung, 2015 | Nephrology Dialysis Transplant | Omega-3 fatty acids inhibit the up-regulation of endothelial chemokines in maintenance hemodialysis patients | Yes | |
| Ibrahim, 2015 | Hemodialysis International | Study of the effect of vitamin D supplementation on glycemic control in type 2 diabetic prevalent hemodialysis patients | No | No measure of desired outcomes |
| Irish, 2017 | JAMA Internal Medicine | Effect of Fish Oil Supplementation and Aspirin Use on Arteriovenous Fistula Failure in Patients Requiring Hemodialysis: A Randomized Clinical Trial | No | No measure of desired outcomes |

| | | | | |
|----------------------|---|---|-----|---|
| Islam, 2000 | Atherosclerosis | Alpha-tocopherol supplementation decreases the oxidative susceptibility of LDL in renal failure patients on dialysis therapy | No | No measure of desired outcomes |
| Inal, 1999 | Free Radical Research | Antioxidant status and lipid peroxidation in hemodialysis patients undergoing erythropoietin and erythropoietin-vitamin E combined therapy | No | No measure of desired outcomes |
| Jabbari, 2016 | Romanian Journal of Internal Medicine | The Effect of Omega-3 Supplement on Serum Lipid Profile in Patients Undergoing Hemodialysis: A Randomized Clinical Trial | No | No measure of desired outcomes |
| Janiques, 2014 | Journal Brasileiro de Nefrologia | Effects of grape powder supplementation on inflammatory and antioxidant markers in hemodialysis patients: a randomized double-blind study | Yes | |
| Jean, 2008 | Nephrology Dialysis Transplant | Daily oral 25-hydroxycholecalciferol supplementation for vitamin D deficiency in haemodialysis patients: effects on mineral metabolism and bone markers | No | No measure of desired outcomes |
| Kajbaf, 2016 | Journal of Research in Pharmacy Practice | Does Omega-3 supplementation decrease carotid intima-media thickening in hemodialysis patients? | No | No measure of desired outcomes |
| Kalantar-Zadeh, 2005 | Journal of Renal Nutrition | An anti-inflammatory and antioxidant nutritional supplement for hypoalbuminemic hemodialysis patients: a pilot/feasibility study | No | Intervention using enteral nutrition supplement |
| Kamgar, 2009 | Journal of the National Medical Association | Antioxidant therapy does not ameliorate oxidative stress and inflammation in patients with end-stage renal disease | Yes | |
| Khabbazi, 2012 | Journal of Renal Nutrition | Effects of alpha-lipoic acid supplementation on inflammation, oxidative stress, and serum lipid profile levels in patients with end-stage renal disease on hemodialysis | Yes | |
| Khajehdehi, 2000 | Journal of Renal Nutrition | Lipid-lowering effect of polyunsaturated fatty acids in hemodialysis patients. | No | No measure of desired outcomes |
| Khajehdehi, 2001 | Nephrology Dialysis Transplantation | A randomized, double-blind, placebo-controlled trial of supplementary vitamins E, C and their combination for treatment of haemodialysis cramps | No | No measure of desired outcomes |
| Khalatbari, 2013 | Hemodialysis International | Effects of flaxseed consumption on systemic inflammation and serum lipid profile in hemodialysis patients with lipid abnormalities | Yes | |
| Kidir, 2015 | Renal Failure | Effect of cholecalciferol replacement on vascular calcification and left ventricular mass index in dialysis patients | No | No randomization |

| | | | | |
|------------------|--|--|-----|--------------------------------|
| Kooshki, 2011 | Annals of Nutrition and Metabolism | Effects of marine omega-3 fatty acids on serum systemic and vascular inflammation markers and oxidative stress in hemodialysis patients | Yes | |
| Kooshki, 2011 | Renal Failure | Effects of omega-3 fatty acids on serum lipids, lipoprotein (a), and hematologic factors in hemodialysis patients | No | No measure of desired outcomes |
| Kuragano, 2014 | International Journal of Artificial Organs | Effect of protoconized therapy for renal anemia on adverse events of patients with maintenance hemodialysis | No | No measure of desired outcomes |
| Lee, 2015 | Marine Drugs | The effects of omega-3 fatty acid on vitamin D activation in hemodialysis patients: a pilot study | Yes | |
| Lemos, 2012 | Nutrition Research | Flaxseed oil supplementation decreases C-reactive protein levels in chronic hemodialysis patients | Yes | |
| Li, 2014 | PLoS One | Effect of cholecalciferol supplementation on inflammation and cellular alloimmunity in hemodialysis patients: data from a randomized controlled pilot trial | No | No measure of desired outcomes |
| Lok, 2012 | Journal of American Medical Association | Effect of fish oil supplementation on graft patency and cardiovascular events among patients with new synthetic arteriovenous hemodialysis grafts: a randomized controlled trial | No | No measure of desired outcomes |
| Løssl, 1999 | Lipids | The effect of n-3 fatty acids on leukotriene formation from neutrophils in patients on hemodialysis. | No | No measure of desired outcomes |
| Lu, 2007 | American Journal of Kidney Disease | Serum vitamin E and oxidative protein modification in hemodialysis: a randomized clinical trial | No | No measure of desired outcomes |
| Maccarrone, 1999 | Journal of American Society of Nephrology | Activation of 5-lipoxygenase and related cell membrane lipoperoxidation in hemodialysis patients. | No | No measure of desired outcomes |
| Mafra, 2009 | Nephrology Dialysis Transplantation | Alpha-tocopherol supplementation decreases electronegative low-density lipoprotein concentration [LDL(-)] in haemodialysis patients | No | No measure of desired outcomes |
| Mann, 2016 | Nutrients | The VITAH Trial-Vitamin D Supplementation and Cardiac Autonomic Tone in Patients with End-Stage Kidney Disease on Hemodialysis: A Blinded, Randomized Controlled Trial | No | No measure of desired outcomes |
| Marckmann, 2012 | Nephrology Dialysis Transplantation | Randomized controlled trial of cholecalciferol supplementation in chronic kidney disease patients with hypovitaminosis D | Yes | |

| | | | | |
|-------------------|---|--|-----|--------------------------------|
| Massart, 2014 | American Journal of Kidney Diseases | Biochemical parameters after cholecalciferol repletion in hemodialysis: results From the VitaDial randomized trial | No | No measure of desired outcomes |
| Mazani, 2013 | Journal of Renal Nutrition | Effects of zinc supplementation on antioxidant status and lipid peroxidation in hemodialysis patients | No | No measure of desired outcomes |
| Mazzaferro, 2000 | Nephrology Dialysis Transplantation | Changes in bone turnover after parathyroidectomy in dialysis patients: role of calcitriol administration | No | No measure of desired outcomes |
| Maxwell, 1978 | Clinical Pharmacology and Therapeutics | Calcitriol in dialysis patients | No | No measure of desired outcomes |
| Meireles, 2016 | Clinical Nutrition | Effect of cholecalciferol on vitamin D-regulatory proteins in monocytes and on inflammatory markers in dialysis patients: A randomized controlled trial | No | Mixed dialysis population |
| Merino, 2015 | Therapeutic Apheresis and Dialysis | Effects of a single, high oral dose of 25-hydroxycholecalciferol on the mineral metabolism markers in hemodialysis patients | No | No measure of desired outcomes |
| Mieczkowski, 2014 | Medical Science Monitor | Long-term cholecalciferol administration in hemodialysis patients: a single-center randomized pilot study | No | No measure of desired outcomes |
| Mirfatahi, 2016 | International Urology and Nephrology | Effect of flaxseed oil on serum systemic and vascular inflammation markers and oxidative stress in hemodialysis patients: a randomized controlled trial | Yes | |
| Mirfatahi, 2016 | Iranian Journal of Kidney Diseases | Effects of Flaxseed Oil on Serum Lipids and Lipoproteins in Hemodialysis Patients: a Randomized Controlled Trial | No | No measure of desired outcomes |
| Miskulin, 2016 | Journal of American Society of Nephrology | Ergocalciferol Supplementation in Hemodialysis Patients With Vitamin D Deficiency: A Randomized Clinical Trial | Yes | |
| Moeinzadeh, 2016 | Iranian Journal of Kidney Diseases | Effects of Omega-3 Fatty Acid Supplementation on Serum Biomarkers, Inflammatory Agents, and Quality of Life of Patients on Hemodialysis | No | No measure of desired outcomes |
| Naeini, 2017 | Journal of Research in Pharmacy Practice | The Effect of Vitamin D Administration on Intracellular Adhesion Molecule-1 and Vascular Cell Adhesion Molecule-1 Levels in Hemodialysis Patients: A Placebo-controlled, Double-blinded Clinical Trial | No | No measure of desired outcomes |
| Naini, 2015 | Journal of Research in Medical Sciences | The effect of Vitamin D administration on treatment of anemia in end-stage renal disease patients with Vitamin D deficiency on hemodialysis: A placebo-controlled, double-blind clinical trial | No | No measure of desired outcomes |
| Naini, 2016 | Journal of Research in | The effect of vitamin D administration on serum leptin and adiponectin levels | No | No measure of |

| | | | | |
|-------------------------|--|--|-----|--------------------------------|
| | Medical Sciences | in end-stage renal disease patients on hemodialysis with vitamin D deficiency: A placebo-controlled double-blind clinical trial | | desired outcomes |
| Nakabayashi, 2011 | Nephrology Dialysis Transplant | Effects of synbiotic treatment on serum level of p-cresol in haemodialysis patients: a preliminary study | No | No measure of desired outcomes |
| Natarajan, 2014 | BioMed Research International | Randomized controlled trial of strain-specific probiotic formulation (Renadyl) in dialysis patients | Yes | |
| Navarro-González, 2013 | Journal of Clinical Pharmacology | Anti-inflammatory profile of paricalcitol in hemodialysis patients: a prospective, open-label, pilot study | No | No control |
| Ohkawa, 2004 | Atherosclerosis | Pro-oxidative effect of alpha-tocopherol in the oxidation of LDL isolated from co-antioxidant-depleted non-diabetic hemodialysis patients | No | No measure of desired outcomes |
| Omrani, 2015 | Nephro-Urology Monthly | The Effect of Selenium Supplementation on Acute Phase Reactants and Thyroid Function Tests in Hemodialysis Patients | Yes | |
| Omrani, 2016 | Journal of Renal Injury Prevention | Effect of selenium supplementation on lipid profile in hemodialysis patients. | No | No measure of desired outcomes |
| Pakfetrat, 2015 | Journal of Nephrology | Effects of turmeric on uremic pruritus in end stage renal disease patients: a double-blind randomized clinical trial | Yes | |
| Pakfetrat, 2015 | Hemodialysis International | Role of turmeric in oxidative modulation in end-stage renal disease patients. | No | No measure of desired outcomes |
| Peck, 1996 | American Journal of Clinical Nutrition | Effect of three sources of long-chain fatty acids on the plasma fatty acid profile, plasma prostaglandin E2 concentrations, and pruritus symptoms in hemodialysis patients | No | No measure of desired outcomes |
| Perunicic-Pekovis, 2007 | Nephrology | Effect of n-3 fatty acids on nutritional status and inflammatory markers in haemodialysis patients. | No | No control |
| Poulia, 2011 | Journal of Renal Nutrition | Omega-3 fatty acids supplementation does not affect serum lipids in chronic hemodialysis patients | Yes | |
| Ramos, 2005 | Nefrologia | Lipoprotein oxidation profile in end stage renal disease patients. Role of vitamin C supplementation | No | No measure of desired outcomes |

| | | | | |
|--------------------------|--|--|-----|---|
| Ramos, 2015 | Journal of Renal Nutrition | The short-term effects of olive oil and flaxseed oil for the treatment of constipation in hemodialysis patients | No | No measure of desired outcomes |
| Rasic-Milutinovic, 2007 | Renal Failure | Effects of N-3 PUFAs supplementation on insulin resistance and inflammatory biomarkers in hemodialysis patients | No | No control |
| Rasmussen, 2010 | Nutrition Research | The content of docosahexaenoic acid in serum phospholipid is inversely correlated with plasma homocysteine levels in patients with end-stage renal disease | No | No measure of desired outcomes |
| Rassaf, 2016 | Clinical Journal of American Society of Nephrology | Vasculoprotective Effects of Dietary Cocoa Flavanols in Patients on Hemodialysis: A Double-Blind, Randomized, Placebo-Controlled Trial | Yes | |
| Rattanasompattikul, 2013 | Journal of Cachexia, Sarcopenia and Muscle | Anti-Inflammatory and Anti-Oxidative Nutrition in Hypoalbuminemic Dialysis Patients (AIONID) study: results of the pilot-feasibility, double-blind, randomized, placebo-controlled trial | No | Intervention using enteral nutrition supplement |
| Ristic-Medic, 2014 | Scientific World Journal | Effects of dietary milled seed mixture on fatty acid status and inflammatory markers in patients on hemodialysis | No | No control |
| Rivara, 2015 | Journal of Renal Nutrition | A pilot randomized crossover trial assessing the safety and short-term effects of pomegranate supplementation in hemodialysis patients | No | No control |
| Rodhe, 2013 | Journal of Renal Nutrition | The effect of sea buckthorn supplement on oral health, inflammation, and DNA damage in hemodialysis patients: a double-blinded, randomized crossover study | No | Non-relevant nutrients |
| Roosbeh, 2011 | Renal Failure | Comparative effects of silymarin and vitamin E supplementation on oxidative stress markers, and hemoglobin levels among patients on hemodialysis | No | No measure of desired outcomes |
| Rusu, 2013 | International Urology and Nephrology | The influence of vitamin E supplementation on erythropoietin responsiveness in chronic hemodialysis patients with low levels of erythrocyte superoxide dismutase | No | No measure of desired outcomes |
| Safa, 2014 | International Urology and Nephrology | Effects of alpha lipoic acid supplementation on serum levels of IL-8 and TNF- α in patient with ESRD undergoing hemodialysis | Yes | |
| Sagheb, 2012 | Sleep Medicine | Efficacy of vitamins C, E, and their combination for treatment of restless legs | No | No measure of |

| | | | | |
|------------------|--|--|-----|--------------------------------|
| | | syndrome in hemodialysis patients: a randomized, double-blind, placebo-controlled trial. | | desired outcomes |
| Saifullah, 2007 | Nephrology Dialysis Transplantation | Oral fish oil supplementation raises blood omega-3 levels and lowers C-reactive protein in haemodialysis patients--a pilot study | Yes | |
| Salehi, 2013 | Nephrology Dialysis Transplantation | Selenium supplementation improves the nutritional status of hemodialysis patients: a randomized, double-blind, placebo-controlled trial | Yes | |
| Sato, 2003 | Clinical Nephrology | Effects of vitamin supplementation on microcirculatory disturbance in hemodialysis patients without peripheral arterial disease | No | No measure of desired outcomes |
| Schmitz, 2002 | Journal of American Society of Nephrology | Prophylaxis of hemodialysis graft thrombosis with fish oil: double-blind, randomized, prospective trial. | No | No measure of desired outcomes |
| Seibert, 2013 | Nephron Clinical Practice | Influence of cholecalciferol supplementation in hemodialysis patients on monocyte subsets: a randomized, double-blind, placebo-controlled clinical trial | Yes | |
| Shema-Didi, 2012 | Free Radical Biology and Medicine | One year of pomegranate juice intake decreases oxidative stress, inflammation, and incidence of infections in hemodialysis patients: A randomized placebo-controlled trial | Yes | |
| Shema-Didi, 2013 | Nutrition Research | Pomegranate juice intake attenuates the increase in oxidative stress induced by intravenous iron during hemodialysis | No | No measure of desired outcomes |
| Shema-Didi, 2014 | Nutrition Journal | Does Pomegranate intake attenuate cardiovascular risk factors in hemodialysis patients? | No | No measure of desired outcomes |
| Shirazian, 2013 | Journal of Renal Nutrition | The effect of ergocalciferol on uremic pruritus severity: a randomized controlled trial | No | No measure of desired outcomes |
| Siefker, 2006 | Journal of Medicinal Food | Safety and antioxidant effects of a modest soy protein intervention in hemodialysis patients | Yes | |
| Sinsakul, 1984 | American Journal of Clinical Nutrition | Lack of effect of vitamin E therapy on the anemia of patients receiving hemodialysis | No | No measure of desired outcomes |
| Sirich, 2014 | Clinical Journal of American Society of Nephrology | Effect of increasing dietary fiber on plasma levels of colon-derived solutes in hemodialysis patients | Yes | |

| | | | | |
|------------------------|--|---|-----|--------------------------------|
| Siroverm 2008 | Renal Failure | Beneficial hematologic effects of daily oral ascorbic acid therapy in ESRD patients with anemia and abnormal iron homeostasis: a preliminary study | No | No measure of desired outcomes |
| Smith, 2003 | Lipids | Vitamin E supplementation increases circulating vitamin E metabolites tenfold in end-stage renal disease patients | No | No measure of desired outcomes |
| Sørensen, 2015 | Journal of Renal Nutrition | The Effect of n-3 Fatty Acids on Small Dense Low-Density Lipoproteins in Patients With End-Stage Renal Disease: A Randomized Placebo-Controlled Intervention Study | No | No measure of desired outcomes |
| Sohrabi, 2016 | American Journal of Kidney Diseases | Intradialytic Oral Protein Supplementation and Nutritional and Inflammation Outcomes in Hemodialysis: A Randomized Controlled Trial | Yes | |
| Soleimani, 2017 | Kidney International | Probiotic supplementation in diabetic hemodialysis patients has beneficial metabolic effects. | Yes | |
| Sultana, 2016 | International Urology and Nephrology | Oral vitamin C supplementation reduces erythropoietin requirement in hemodialysis patients with functional iron deficiency | No | No measure of desired outcomes |
| Svensson, 2006 | Clinical Journal of American Society of Nephrology | N-3 fatty acids as secondary prevention against cardiovascular events in patients who undergo chronic hemodialysis: a randomized, placebo-controlled intervention trial | No | No measure of desired outcomes |
| Svensson, 2007 | Journal of Renal Nutrition | The effect of n-3 fatty acids on heart rate variability in patients treated with chronic hemodialysis. | No | No measure of desired outcomes |
| Svensson, 2008 | Nephrology Dialysis Transplantation | The effect of n-3 fatty acids on lipids and lipoproteins in patients treated with chronic haemodialysis: a randomized placebo-controlled intervention study. | No | No measure of desired outcomes |
| Svensson, 2010 | Journal of Nephrology | The effect of n-3 fatty acids on levels of methylarginines in patients with end-stage renal disease. | No | No measure of desired outcomes |
| Tabibi, 2017 | Hemodialysis International | Effects of flaxseed oil on blood hepcidin and hematologic factors in hemodialysis patients | No | No measure of desired outcomes |
| Taccone-Gallucci, 2006 | Kidney International | N-3 PUFAs reduce oxidative stress in ESRD patients on maintenance HD by inhibiting 5-lipoxygenase activity | No | No measure of desired outcomes |
| Tayebi-Khosroshahi, | Iranian Journal of Kidney Disease | Effect of omega-3 fatty acid on oxidative stress in patients on hemodialysis. | No | No measure of desired outcomes |

| | | | | |
|--------------------------|--|---|-----|--------------------------------|
| 2010 | | | | |
| Tayebi-Khosroshahi, 2012 | Saudi Journal of Kidney Diseases and Transplantation | Effect of treatment with omega-3 fatty acids on C-reactive protein and tumor necrosis factor-alfa in hemodialysis patients | No | No control |
| Tayebi-Khosroshahi, 2013 | Iranian Journal of Kidney Disease | Effect of omega-3 supplementation on serum level of homocysteine in hemodialysis patients | No | No measure of desired outcomes |
| Tayebi-Khosroshahi, 2013 | Nephro-Urology Monthly | Comparison of vitamin e and L-carnitine, separately or in combination in patients with intradialytic complications | No | No measure of desired outcomes |
| Taziki, 2007 | Saudi Journal of Kidney Diseases and Transplantation | The effect of low dose omega-3 on plasma lipids in hemodialysis patients | No | No measure of desired outcomes |
| Temple, 2000 | Journal of Renal Nutrition | Selenate-supplemented nutritional formula increases plasma selenium in hemodialysis patients | No | No measure of desired outcomes |
| Tomayko, 2015 | Journal of Renal Nutrition | Intradialytic protein supplementation reduces inflammation and improves physical function in maintenance hemodialysis patients | Yes | |
| Tonelli, 2015 | BMC Nephrology | Trace element supplementation in hemodialysis patients: a randomized controlled trial | No | No measure of desired outcomes |
| Tokmak, 2008 | Nephrology Dialysis Transplant | High-dose cholecalciferol to correct vitamin D deficiency in haemodialysis patients | No | No measure of desired outcomes |
| T úri, 1999 | Nephrology Dialysis Transplantation | Erythropoietin and oxidative stress in haemodialysis: beneficial effects of vitamin E supplementation. | No | No measure of desired outcomes |
| VanBeber, 1995 | Journal of Renal Nutrition | The effect of dietary omega-3, -6, and -9 fatty acid supplements on serum fatty acid concentrations in renal dialysis patients: Implications for immune response | No | No measure of desired outcomes |
| Viramontes-H örner, 2015 | Journal of Renal Nutrition | Effect of a symbiotic gel (Lactobacillus acidophilus + Bifidobacterium lactis + inulin) on presence and severity of gastrointestinal symptoms in hemodialysis patients. | Yes | |

| | | | | |
|-------------------|---|--|-----|--------------------------------|
| Wang, 2016 | Journal of Clinical Psychopharmacology | Efficacy of High-Dose Supplementation With Oral Vitamin D3 on Depressive Symptoms in Dialysis Patients With Vitamin D3 Insufficiency: A Prospective, Randomized, Double-Blind Study | No | Mixed dialysis population |
| Wasio, 2008 | Nephron Clinical Practice | Oral vitamin C supplementation in hemodialysis patients and its effect on the plasma level of oxidized ascorbic acid and Cu/Zn superoxide dismutase, an oxidative stress marker | No | No measure of desired outcomes |
| Wasse, 2014 | Journal of Vascular Access | Very high-dose cholecalciferol and arteriovenous fistula maturation in ESRD: a randomized, double-blind, placebo-controlled pilot study | No | No measure of desired outcomes |
| Weissingner, 2006 | Proteomics | Effects of oral vitamin C supplementation in hemodialysis patients: a proteomic assessment. | No | No measure of desired outcomes |
| Wu, 2015 | Journal of Medicinal Food | Effects of Pomegranate Extract Supplementation on Cardiovascular Risk Factors and Physical Function in Hemodialysis Patients | Yes | |
| Xie, 2015 | International Journal of Clinical and Experimental Medicine | Effects of fermentable dietary fiber supplementation on oxidative and inflammatory status in hemodialysis patients | Yes | |
| Yeksan, 1992 | International Journal of Artificial Organs | Effect of vitamin E therapy on sexual functions of uremic patients in hemodialysis | No | No measure of desired outcomes |
| Yukawa, 1992 | Journal of Nutritional Science and Vitaminology | Prevention of aortic calcification in patients on hemodialysis by long-term administration of vitamin E | No | No measure of desired outcomes |
| Zachara, 2001 | Journal of Trace Elements in Medicine and Biology | Selenium and glutathione levels, and glutathione peroxidase activities in blood components of uremic patients on hemodialysis supplemented with selenium and treated with erythropoietin | No | No measure of desired outcomes |
| Zachara, 2009 | Acta Biochimica Polonica | Selenium supplementation to chronic kidney disease patients on hemodialysis does not induce the synthesis of plasma glutathione peroxidase | No | No measure of desired outcomes |
| Zachara, 2011 | Biological Trace Element Research | The effect of selenium supplementation in the prevention of DNA damage in white blood cells of hemodialyzed patients: a pilot study | No | No measure of desired outcomes |
| Zhang, 2013 | BMC Nephrology | Cross-over study of influence of oral vitamin C supplementation on inflammatory status in maintenance hemodialysis patients | Yes | |

| | | | | |
|-------------|-----------|---|----|--------------------------------|
| Zheng, 2016 | Nutrients | Cholecalciferol Additively Reduces Serum Parathyroid Hormone and Increases Vitamin D and Cathelicidin Levels in Paricalcitol-Treated Secondary Hyperparathyroid Hemodialysis Patients | No | No measure of desired outcomes |
|-------------|-----------|---|----|--------------------------------|