| **Study** | **Participants** | **Exposure** | **Intake Status Ascertainment** | **Results** |
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| O'Donnell, 2011127; Ontarget Investigators, 2008128; Telmisartan Randomised AssessmeNt Study in ACEiswcDI,, 2008129; Kawasaki, 1993130  Location: 40 countries  Setting: Clinical research center based  Design: Prospective Cohort study  Study Name: Cohorts from ONTARGET and TRANSCEND  . | Study of: Adults N: 28880  % Male: 70.6 Mean Age/Range/Age at Baseline: mean 66.52 (SD 7.22) Race: NR Systolic BP: mean 141. 72 (SD 17.29) mmHg Diastolic BP: NR Magnesium: NR Calcium: NR Other Minerals: NR Mean BMI: mean 28.10 (SD 4.55) % with Hypertension: 69.9 % with history of CVD: strok 21.2% MI 48.4% % with Type 2 diabetes: 37.1 % with Kidney disease: NR % with history of Kidney stones: NR  Inclusion: Participants aged >=55 years with established CV disease or high-risk diabetes mellitus, who had heart failure, low ejection fraction, significant valvular disease, serum creatinine greater than 3.0 mg/dL (265 mol/l), renal artery stenosis, nephrotic range proteinuria, or blood pressure higher than 160/100 mmHg were included. Exclusion: NA | Exposure Type: Estimated 24-Hour Urinary Potassium Excretion (Kawasaki equation) Exposure Unit: g/d  Exposure Type: Estimated Sodium Excretion (Kawasaki equation) Exposure Unit: g/d  Duration(in months): 56 Exposure to Follow Up Time: NR  Composite outcome (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) Dose format: range G1, Dose: <2 G2, Dose: 2-2.99 G3, Dose: 3-3.99 G4, Dose: 4-5.99 G5, Dose: 6-6.99 G6, Dose: 42924 G7, Dose: >8  All-cause mortality (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF), CHF (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF), CV death (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF), MI (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF), Stroke (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) Dose format: range G1, Dose: <2 G2, Dose: 2-2.99 G3, Dose: 3-3.99 G4, Dose: 4-5.99 G5, Dose: 6-6.99 G6, Dose: 42924 G7, Dose: >8 Q1, Dose: <1.50 Q2, Dose: 1.50-1.99 Q3, Dose: 2.00-2.49 Q4, Dose: 2.50-3.00 Q5, Dose: >3.00  Primary outcome (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) Dose format: range Q1, Dose: <1.50 Q2, Dose: 1.50-1.99 Q3, Dose: 2.00-2.49 Q4, Dose: 2.50-3.00 Q5, Dose: >3.00 | Sodium measure: Single 24-hour urine analysis with validation Best sodium measure recorded: once, before the run-in period of the trial Sodium, Method of Validation: The Kawasaki formula was used to estimate 24-hour sodium urinary excretion from a fasting morning urine sample and the approach was valid by previous studies in healthy control participants (ref 18) and patients taking antihypertensive therapy (ref 19). Additional assessment of validity was conduct in subsample at 2- year follow-up and final visit., Single 24-hour urine analysis with validation Best potassium measure recorded: once, before the run-in period of the trial Potassium, Method of Validation: The Kawasaki formula was used to estimate 24-hour potassium urinary excretion from a fasting morning urine sample. Additional assessment of validity was conduct in subsample at 2- year follow-up and final visit. Mortality Outcomes-Method of Ascertainment: Hospital records CVD, CHD, stroke, kidney stones/disease Outcomes-Method of ascertainment: Hospital records | All-cause mortality (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) (g/d/Outcome): Median 56 months (IQR 53-60) FU G1 cases: 123, total: 818, G2 cases: 359, total: 2654, G3 cases: 683, total: 5699, G4 cases: 1537, total: 14156, G5 cases: 404, total: 3380, G6 cases: 183, total: 1326, G7 cases: 141, total: 847 Adjustment: Age, sex, race/ethnicity (white vs nonwhite), prior history of stroke or myocardial infarction, creatinine, body mass index, comorbid vascular risk factors (hypertension, diabetes mellitus, atrial fibrillation, smoking, LDL, and high-density lipoprotein), treatment allocation (ramipril, telmisartan, or both, and treatment with statins, beta-blockers, diuretic therapy, calcium antagonist, and antithrombotic therapy), fruit and vegetable consumption, level of exercise, baseline blood pressure and change in systolic b blood pressure from baseline to last follow-up, and urinary potassium Compared to those with estimated baseline sodium excretion of 4 to 5.99 g per day, higher baseline sodium excretion was associated with an increased risk of CVD death, MI, stroke, and hospitalization for CHF. Lower sodium excretion was associated with an increased risk of CVD death, and hospitalization for CHF in multivariable analysis.  CHF (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) (g/d/Outcome): Median 56 months (IQR 53-60) FU G1 cases: 52, total: 818, G2 cases: 137, total: 2654, G3 cases: 242, total: 5699, G4 cases: 532, total: 14156, G5 cases: 137, total: 3380, G6 cases: 58, total: 1326, G7 cases: 55, total: 847 Adjustment: Age, sex, race/ethnicity (white vs nonwhite), prior history of stroke or myocardial infarction, creatinine, body mass index, comorbid vascular risk factors (hypertension, diabetes mellitus, atrial fibrillation, smoking, LDL, and high-density lipoprotein), treatment allocation (ramipril, telmisartan, or both, and treatment with statins, beta-blockers, diuretic therapy, calcium antagonist, and antithrombotic therapy), fruit and vegetable consumption, level of exercise, baseline blood pressure and change in systolic b blood pressure from baseline to last follow-up, and urinary potassium Compared to those with estimated baseline sodium excretion of 4 to 5.99 g per day, higher baseline sodium excretion was associated with an increased risk of CVD death, MI, stroke, and hospitalization for CHF. Lower sodium excretion was associated with an increased risk of CVD death, and hospitalization for CHF in multivariable analysis.  CV death (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) (g/d/Outcome): Median 56 months (IQR 53-60) FU G1 cases: 87, total: 818, G2 cases: 227, total: 2654, G3 cases: 403, total: 5699, G4 cases: 886, total: 14156, G5 cases: 230, total: 3380, G6 cases: 129, total: 1326, G7 cases: 95, total: 847 Adjustment: Age, sex, race/ethnicity (white vs nonwhite), prior history of stroke or myocardial infarction, creatinine, body mass index, comorbid vascular risk factors (hypertension, diabetes mellitus, atrial fibrillation, smoking, LDL, and high-density lipoprotein), treatment allocation (ramipril, telmisartan, or both, and treatment with statins, beta-blockers, diuretic therapy, calcium antagonist, and antithrombotic therapy), fruit and vegetable consumption, level of exercise, baseline blood pressure and change in systolic b blood pressure from baseline to last follow-up, and urinary potassium Compared to those with estimated baseline sodium excretion of 4 to 5.99 g per day, higher baseline sodium excretion was associated with an increased risk of CVD death, MI, stroke, and hospitalization for CHF. Lower sodium excretion was associated with an increased risk of CVD death, and hospitalization for CHF in multivariable analysis.  Composite outcome (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) (g/d/Outcome): Median 56 months (IQR 53-60) FU G1 cases: 165, total: 818, G2 cases: 482, total: 2654, G3 cases: 918, total: 5699, G4 cases: 2148, total: 14156, G5 cases: 568, total: 3380, G6 cases: 244, total: 1326, G7 cases: 204, total: 847 Adjustment: Age, sex, race/ethnicity (white vs nonwhite), prior history of stroke or myocardial infarction, creatinine, body mass index, comorbid vascular risk factors (hypertension, diabetes mellitus, atrial fibrillation, smoking, LDL, and high-density lipoprotein), treatment allocation (ramipril, telmisartan, or both, and treatment with statins, beta-blockers, diuretic therapy, calcium antagonist, and antithrombotic therapy), fruit and vegetable consumption, level of exercise, baseline blood pressure and change in systolic b blood pressure from baseline to last follow-up, and urinary potassium Compared to those with estimated baseline sodium excretion of 4 to 5.99 g per day, higher baseline sodium excretion was associated with an increased risk of CVD death, MI, stroke, and hospitalization for CHF. Lower sodium excretion was associated with an increased risk of CVD death, and hospitalization for CHF in multivariable analysis.  MI (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) (g/d/Outcome): Median 56 months (IQR 53-60) FU G1 cases: 42, total: 818, G2 cases: 123, total: 2654, G3 cases: 277, total: 5699, G4 cases: 655, total: 14156, G5 cases: 189, total: 3380, G6 cases: 68, total: 1326, G7 cases: 58, total: 847 Adjustment: Age, sex, race/ethnicity (white vs nonwhite), prior history of stroke or myocardial infarction, creatinine, body mass index, comorbid vascular risk factors (hypertension, diabetes mellitus, atrial fibrillation, smoking, LDL, and high-density lipoprotein), treatment allocation (ramipril, telmisartan, or both, and treatment with statins, beta-blockers, diuretic therapy, calcium antagonist, and antithrombotic therapy), fruit and vegetable consumption, level of exercise, baseline blood pressure and change in systolic b blood pressure from baseline to last follow-up, and urinary potassium Compared to those with estimated baseline sodium excretion of 4 to 5.99 g per day, higher baseline sodium excretion was associated with an increased risk of CVD death, MI, stroke, and hospitalization for CHF. Lower sodium excretion was associated with an increased risk of CVD death, and hospitalization for CHF in multivariable analysis.  Stroke (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) (g/d/Outcome): Median 56 months (IQR 53-60) FU G1 cases: 40, total: 818, G2 cases: 130, total: 2654, G3 cases: 250, total: 5699, G4 cases: 601, total: 14156, G5 cases: 141, total: 3380, G6 cases: 64, total: 1326, G7 cases: 56, total: 847 Adjustment: Age, sex, race/ethnicity (white vs nonwhite), prior history of stroke or myocardial infarction, creatinine, body mass index, comorbid vascular risk factors (hypertension, diabetes mellitus, atrial fibrillation, smoking, LDL, and high-density lipoprotein), treatment allocation (ramipril, telmisartan, or both, and treatment with statins, beta-blockers, diuretic therapy, calcium antagonist, and antithrombotic therapy), fruit and vegetable consumption, level of exercise, baseline blood pressure and change in systolic b blood pressure from baseline to last follow-up, and urinary potassium Compared to those with estimated baseline sodium excretion of 4 to 5.99 g per day, higher baseline sodium excretion was associated with an increased risk of CVD death, MI, stroke, and hospitalization for CHF. Lower sodium excretion was associated with an increased risk of CVD death, and hospitalization for CHF in multivariable analysis.  All-cause mortality (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) (g/d/Outcome): Median 56 months (IQR 53-60) FU Q1 cases: 263, total: 2194, Q2 cases: 1209, total: 9711, Q3 cases: 1203, total: 9877, Q4 cases: 535, total: 4850, Q5 cases: 221, total: 2249 Adjustment: Age, sex, ethnicity (white versus non-white), prior history of stroke or myocardial infarction, creatinine, BMI, co-morbid vascular risk factors (hypertension, diabetes mellitus, atrial fibrillation, smoking, LDL and HDL), treatment allocation (ramipril, telmisartan or both) and treatment with statins, beta-blockers, diuretic therapy, calcium antagonist, and antithrombotic therapy, fruit and vegetable consumption, level of exercise, baseline blood pressure and change in systolic blood pressure from baseline to last follow-up, and urinary sodium No significant association between potassium intake and risk of all-cause moratlity.  CHF (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) (g/d/Outcome): Median 56 months (IQR 53-60) FU Q1 cases: 97, total: 2194, Q2 cases: 431, total: 9711, Q3 cases: 401, total: 9877, Q4 cases: 187, total: 4850, Q5 cases: 97, total: 2249 Adjustment: Age, sex, ethnicity (white versus non-white), prior history of stroke or myocardial infarction, creatinine, BMI, co-morbid vascular risk factors (hypertension, diabetes mellitus, atrial fibrillation, smoking, LDL and HDL), treatment allocation (ramipril, telmisartan or both) and treatment with statins, beta-blockers, diuretic therapy, calcium antagonist, and antithrombotic therapy, fruit and vegetable consumption, level of exercise, baseline blood pressure and change in systolic blood pressure from baseline to last follow-up, and urinary sodium There was no significant association between potassium excretion and CV mortality, MI, and hospitalization for CHF  CV death (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) (g/d/Outcome): Median 56 months (IQR 53-60) FU Q1 cases: 173, total: 2194, Q2 cases: 725, total: 9711, Q3 cases: 695, total: 9877, Q4 cases: 320, total: 4850, Q5 cases: 145, total: 2249 Adjustment: Age, sex, ethnicity (white versus non-white), prior history of stroke or myocardial infarction, creatinine, BMI, co-morbid vascular risk factors (hypertension, diabetes mellitus, atrial fibrillation, smoking, LDL and HDL), treatment allocation (ramipril, telmisartan or both) and treatment with statins, beta-blockers, diuretic therapy, calcium antagonist, and antithrombotic therapy, fruit and vegetable consumption, level of exercise, baseline blood pressure and change in systolic blood pressure from baseline to last follow-up, and urinary sodium There was no significant association between potassium excretion and CV mortality, MI, and hospitalization for CHF  MI (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) (g/d/Outcome): Median 56 months (IQR 53-60) FU Q1 cases: 86, total: 2194, Q2 cases: 495, total: 9711, Q3 cases: 483, total: 9877, Q4 cases: 241, total: 4850, Q5 cases: 107, total: 2249 Adjustment: Age, sex, ethnicity (white versus non-white), prior history of stroke or myocardial infarction, creatinine, BMI, co-morbid vascular risk factors (hypertension, diabetes mellitus, atrial fibrillation, smoking, LDL and HDL), treatment allocation (ramipril, telmisartan or both) and treatment with statins, beta-blockers, diuretic therapy, calcium antagonist, and antithrombotic therapy, fruit and vegetable consumption, level of exercise, baseline blood pressure and change in systolic blood pressure from baseline to last follow-up, and urinary sodium There was no significant association between potassium excretion and CV mortality, MI, and hospitalization for CHF  Primary outcome (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) (g/d/Outcome): Median 56 months (IQR 53-60) FU Q1 cases: 375, total: 2194, Q2 cases: 1633, total: 9711, Q3 cases: 1617, total: 9877, Q4 cases: 750, total: 4850, Q5 cases: 355, total: 2249 Adjustment: Age, sex, ethnicity (white versus non-white), prior history of stroke or myocardial infarction, creatinine, BMI, co-morbid vascular risk factors (hypertension, diabetes mellitus, atrial fibrillation, smoking, LDL and HDL), treatment allocation (ramipril, telmisartan or both) and treatment with statins, beta-blockers, diuretic therapy, calcium antagonist, and antithrombotic therapy, fruit and vegetable consumption, level of exercise, baseline blood pressure and change in systolic blood pressure from baseline to last follow-up, and urinary sodium No significant association between potassium intake and risk of composite outcome.  Stroke (Composite outcome includes CV mortality, MI, stroke, and hospitalization for CHF) (g/d/Outcome): Median 56 months (IQR 53-60) FU Q1 cases: 135, total: 2194, Q2 cases: 454, total: 9711, Q3 cases: 425, total: 9877, Q4 cases: 189, total: 4850, Q5 cases: 79, total: 2249 Adjustment: Age, sex, ethnicity (white versus non-white), prior history of stroke or myocardial infarction, creatinine, BMI, co-morbid vascular risk factors (hypertension, diabetes mellitus, atrial fibrillation, smoking, LDL and HDL), treatment allocation (ramipril, telm |