curable and progress to the end-stage of renal disease. Health care providers and policy makers should be more concerned and prevention programs should be conducted.

Disclosure of Financial Relationships: nothing to disclose

SA-PO2931

Use of Stage-Specific Codes for Chronic Kidney Disease in Administrative Data Shuling Li,[1] Qi Li,[1] Yi Peng,[1] David T. Gilbertson,[1] Robert N. Foley,[1,2] Allan J. Collins.[1,2] *[1]U. S. Renal Data System Coordinating Center, MMRF, Minneapolis, MN; [2]Medicine, University of MN, Minneapolis, MN.*

Chronic kidney disease (CKD) has been recognized as an important public health problem. In 2002, a CKD staging system was first introduced in the National Kidney Foundation's KDOQI guidelines. In October 2005, new ICD-9 codes were introduced to indicate CKD stage. In this study, we evaluated use of stage-specific codes for CKD in three administrative databases: Medicare 5% sample, MarketScan® Research Database (Medstat), and UnitedHealth Group (Ingenix/i3) data in 2006.

We identified 1.5 million Medicare Parts A and B enrollees, 10.4 million fee-for-service enrollees in Medstat, and 7.7 million in Ingenix/i3. Subjects with evidence of CKD, not on dialysis, were identified from ICD-9 codes. Percent of pts with CKD and use of stage-specific codes were examined.

The proportion of pts with CKD was higher in Medicare 5% sample (5.94%) and much lower in Medstat (0.89%) and Ingenix/i3 data (0.65%). 40.6% of Medicare CKD pts had ≥1 stage-specific claim. The proportion was the same in Medstat data, but a bit lower in Ingenix/i3 data (33.1%). Among those who had ≥1 stage-specific claim, a majority of them had one stage code (ranging from 64.3%-69.9%), followed by those with two different stage codes (25.5%-28.1%) and those with ≥3 different codes (4.7%-7.6%). Based on the stage code on the claim for pts who had only one stage-specific claim or on the last claim for those who had ≥2 claims with different stage codes, we found very similar distribution of CKD stages between CKD pts enrolled in Medicare and Medstat, but relatively smaller proportions of CKD pts with stage 3 or higher in Ingenix/i3 data.

	Unknown stage	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Medicare 5% sample (n=89,040)	59.4	3.0	5.3	20.6	7.9	3.8
Medstat (n=92,838)	59.4	2.2	5.5	21.5	8.5	2.9
Ingenix/i3 (n=50,365)	66.9	3.7	6.3	15.9	4.9	2.3

The results of this study show that stage-specific CKD codes are substantially under utilized by health care professionals. Further studies are needed to evaluate whether increased awareness of CKD is associated with better management and whether the coding is accurately performed.

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SA-PO2932

Community Screening and Intervention for Hypertension, Diabetes and Chronic Kidney Disease in Poor Resource Setting in Eastern Nepal S. K. Sharma,[1] P. Karki,[1] B. Pahari,[1] M. Sijapati,[1] S. Gautam,[1] L. Thapa,[1] N. R. Shrestha,[1] M. Ghimire,[1] A. Ghimire,[1] B. Ene Iordache,[2] S. Carminati,[2] N. Perico,[2] G. Remuzzi.[2] *[1]BP Koirala Institute of Health Science, Dharan, Nepal; [2]Mario Negri Institute, Bergamo, Italy.*

Nepal cannot afford renal replacement therapy (RRT) for ESRD due to lack of resources. Early diagnosis of CKD and its risk factors and their management may reduce the need of RRT.

As a part of a community-based screening and intervention program (partially supported by ISN-COMGAN), 13,000 people from 3 districts of Eastern Nepal were evaluated by a brief questionnaire, physical examination, blood pressure measurement, blood sampling and spot urine collection. Mean age of screened population was 39.5 years and 49% had sedentary lifestile. Hypertension, obesity, diabetes were found in 36%, 5.3% and 12% of the screened population, respectively. 40% of hypertensive and 48% of diabetics patients were newly detected during the screening. Proteinuria (dipstick ≥ 1+) and quantitative microalbuminuria (ACR≥ 30 mg/g) were detected in 4.3% and 7.7% of people, respectively. Estimated GFR (MDRD) <60 ml/min/1.73m^2 was documented in 10.6%. Two or more cardiovascular risk factors were present in 29.6% of the screened population. 4100 subjects positive at screening entered an intervention program to control hypertension, diabetes and halt CKD progression by combining lifestyle modifications and pharmacological management with cheap drugs. 3240 patients reached 6 to 30 month follow-up. Results are in Table.

	Percent of patients on treatment reaching the target
BP control (< 140/90 mmHg)	73%
Fasting glucose (< 120 mg/dl)	63%
Reduction/stable proteinuria	51%

The burden of CKD and cardiovascular risk factors are high in Eastern Nepal. Reasonable hypertension, blood sugar and proteinuria control was achieved in this program.

This community approach provides a useful tool for follow-up and adherence to effective therapeutic interventions of individuals at risk for or with CKD and hopefully to prevent renal disease progression.

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SA-PO2933

Metabolic Syndrome (MS) by Itself Is a Risk Factor for Microalbuminuria Independently of Its Individual Components: The Ericabel Study W. Van Biesen,[1] M. Jadoul,[2] J. M. Krzesinski,[3] C. Tielemans,[4] R. Vanholder,[1] H. Warrinier.[5] *[1]Nephrol., UZGent; [2]Nephrol., Clin.St Luc; [3]Nephrol., CHU Liege; [4]Nephrol., Hop Erasme; [5]Roche, Belgium.*

Background: Obesity, blood pressure (BP), glucose intolerance and dyslipidemia each are associated with microalbuminuria (MA). This study evaluates the impact of MS by itself (on top of its individual components) on MA.

Methodology: The Ericabel study is an epidemiological cohort study of treated hypertensive patients aged 40-70 years, followed in a primary care setting. MS was defined according to ATP III. BP was measured according to WHO with a calibrated device (Omron 6). MA was tested with the Micral test.

Results 856 records were completed (52% male). Systolic blood pressure (BPsys) in this cohort was 143.2±15.7mmHg. In the cohort, 45% had MS, and 17% had MA. The odd's ratio (OR) for MA was 2.6 (95% CI 1.7-4.0) for MS vs non MS. MS was a risk factor for MA, independent of waist circumference, body weight, BPsys, lipid and glucose levels. Body weight was only a risk factor for MA if part of MS. BPsys and fasting glucose were independent risk factors for MA, whereas total and HDL cholesterol were not.

Tertile	Lowest	Lowest	Middle	Middle	Highest	Highest
OR for MA(95CI)	no MS	MS	no MS	MS	no MS	MS
Body weight	1	1.4(0.6-3.3)	1.1(0.5-2.3)	1.8(0.9-3.7)	0.6(0.2-1.8)	3.6(1.9-6.5)
BP sys	1	3.1(1.3-7.5)	1.5(0.6-3.7)	3.9(1.6-9.3)	2.7(1.1-9.6)	6.3(2.7-14.5)
Tot.l cholest.	1	1.6(0.8-3.3)	0.6(0.3-1.6)	2.7(1.3-5.5)	0.7(0.3-1.6)	1.9(0.9-4.1)
HDL cholest.	1	4.1(1.5-10.9)	1.5(0.5-4.5)	4.1(1.4-11.7)	1.7(0.6-4.8)	3.4(1.1-10.9)
fast. glucose	1	1.2(0.5-3.1)	1.0(0.5-2.1)	1.5(0.6-3.7)	2.4(1.0-5.8)	4.6(2.5-8.4)

Conclusion: In this primary care cohort, the prevalence of MS and MA are high. MS appears as an independent risk factor for MA, as were BPsys and fasting glucose. This is the first epidemiological study that supports that MS is more than an accumulation of individual risk factors. Lifestyle interventions aiming at correction of MS should be emphasized in this population often considered as being at low risk for CKD.

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SA-PO2934

Increased α-Oxoaldehyde Levels in Plasma and Urine after Intake of Carbonated Soft Drink: Risk of Chronic Kidney Disease (CKD)? Keisuke Nakayama,[1] Masaaki Nakayama,[1] Hiroyuki Terawaki,[2] Toshinobu Sato,[3] Masahiro Kohno,[4] Sadayoshi Ito.[1] *[1]Research Division of Dialysis and Chronic Kidney Disease, Tohoku University Graduate School of Medicine, Sendai, Japan; [2]Division of Kidney and Hypertension, The Jikei Universiity School of Medicine, Tokyo, Japan; [3]Department of Blood Purification, Tohoku University Hospital, Sendai, Japan; [4]New Industry Creation Hatchery Center, Tohoku University, Sendai, Japan.*

It was recently reported that intake of carbonated soft drinks was associated with hypertension (JAMA 2005) and CKD (Epidemiology 2007), and these drinks reportedly contained methylglyoxal (MG), one of the α-oxoaldehydes, at various concentrations. We previously reported that plasma MG levels were significantly elevated in CKD patients and associated with the prevalence of cardiovascular disease history. In this study, we measured the level of α-oxoaldehydes including MG, glyoxal (GO) and 3-deoxyglucosone (3DG) in 7 types of soft drink, and a carbonated drink (300ml) with highest levels of MG (7.2μM) among these was used for a loading test in 6 healthy volunteers. Time-course changes in plasma and urine concentrations of MG, GO and 3DG after oral administration, were measured by the ESI/LC/MS method, as reported previously. Both plasma and urine levels of MG (p<0.05, p<0.01; in plasma, in urine, respectively), as well as GO (p=0.09, p=0.08) and 3DG (p=0.05, p<0.05), increased at 30 min in plasma and 60 min in urine after intake, and returned to basal levels within 120 min. Thus, intake of soft drinks transiently increase plasma α-oxoaldehyde levels, followed by enhanced urinary excretion. These results indicate that some soft drinks could be an exogenous source of carbonyl burden, which may be linked with the pathological mechanism of hypertension and renal injury.

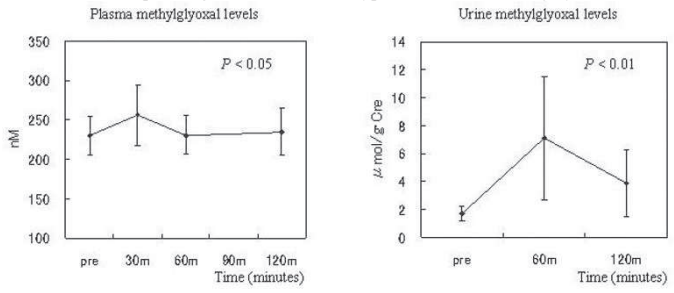

Figure. Plasma and urine methylglyoxal levels (P value: ANOVA with repeated measures)

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