



Screening of microalbuminuria among type 2 diabetic patients from Cree Communities

N. Julien, S. Iqbal, D. Dannenbaum, M.
Vasilevsky, Gillian Bartlett
MUHC, 2004



Methods

- Retrospective Chart review 4 communities
- Exposure variables: pt demographics, comorbidity (Chronic disease score), medical visits
- Outcome: presence of albumin-creatinine ratio or 24 hour albuminuria



Patient characteristics of cree cohort, n=203

Characteristics	Mean/Proportion	Standard deviation
<u>Demographics</u>		
Age (years)	52	15
Gender (male)	0.62	
BMI	36	7
Height	164	11
Weight	98	20
Duration of disease	8.8	5.7
Current smoker	0.56	
Chronic Disease Score	5.7	2.0
<u>Biochemistry</u>		
Renal function (mL/s)	38.4	14.9
Serum Creatinine (umol/L)	77	63
Proteinuria (g/day)	1.2	1.9
LDL (mmol/L)	2.8	0.8



Patient characteristics of Cree cohort, n=203

Characteristics	Mean/Proportion	Standard deviation
-----------------	-----------------	--------------------

Other

Systolic/diastolic bp	129/76	16/11
-----------------------	--------	-------

Medical visits	4.4	3.2
----------------	-----	-----

Total visits	12	11
--------------	----	----



Results cont'd

Screened for Microalbuminuria (n=255)

- 78% were screened within last 12 months

BP screened in 85%

Lipid screened in 78%



Bivariate Analysis, n=203

Variable	Not screened Mean/Proportion (SD)	Screened Mean/Proportion (SD)
<u>Patient Demographics</u>		
Age*	52.5 (14.6)	51.3 (16.2)
Sex (male)	58%	63%
Weight*	104.8 (22.7)	96.3 (19.7)
Height	161.6 (12.8)	164.5 (9.8)
BMI	37.9 (7.2)	35.5 (6.9)
<u>Comorbidity</u>		
Duration of disease	8.6 (6.0)	8.8 (5.7)
CDS	5.6(2.4)	5.7(1.8)
Systolic BP	131(15)	128(17)
Diastolic BP*	80(11)	76(11)



Bivariate Analysis cont'd

Variable	Not Screened	Screened
	Mean/Proportion (SD)	Mean/Proportion (SD)
<u>Biochemistry</u>		
Serum Creatinine*	94 (129)	74 (39)
LDL(mmol/L)	2.9 (0.8)	2.8(0.8)
<u>Physician Factors</u>		
Medical visits*	3.1 (2.6)	4.7 (3.3)



Multivariate Analysis

Logistic regression model for variables associated with screening in diabetic clinic, n=159. These include age, weight, diastolic bp, CDS, and medical visits.

Variable	Odd ratio	95% CI	P value
Age	0.99	0.96-1.04	0.96
Weight	0.98	0.95-1.00	0.055
CDS	0.96	0.72-1.29	0.80
Diastolic bp*	0.94	0.90-0.98	<0.05
Medical visits	1.18	0.98-1.4	0.08

^avariable that is statistically significant, $p < 0.05$.



Conclusions

- Patients who are screened are younger, lower weight, have a lower diastolic bp and have more visits with the clinic.
- Need further studies to look at the frequency of patients with renal disease in each clinic among those screened and see if we can estimate proportions of those with renal disease among those who have not been screened.