

11 ()
11

Cystatin C

*

Cystatin C

Cystatin C

(GFR)

Turbidimetry (PETIA)

Cystatin C, RI 1000 Combas Mira

(%) (%) ±
% / % / Cystatin C
(% /) Cystatin C % / % /
P < /

Cystatin C

(GFR)

Cystatin C

baharmoeini @ yahoo.com

Cystatin C

)

(

.()

(GFR)

% /

.()

.()

ml/min

mass

)

.()

...

mg/m²

(

Cystatin C

.()

CC/min

Cys C

Cystatin C

.()

Stabuc

.()

) mg/m²

(

			Cystatin C
		Cystatin C	
) GFR	(
(Crcl <)	(Crcl >)		
(cut off)			cc
/ mg/dl	Cys C		Cystatin C
Crcl <	/ mg/l		
)	Cystatin C	RI 1000 Cobasmira	
(PPV)	((Dako cystatin c PET kit)	Cystatin C
		(PETIA) Turbidimetry	
% /	Cystatin C		
% /	(NPV)		
% /		mg/dl × ml/min * / m ²	
% / (accuracy)		mg/dl	m ²

Cystatin C			Cr Crystatin C
			(Crcl/urine)
Crcl/urine 24 h			
(%)	(%)	(%)	Serum Cys C
+			
(/)	(/)	(/)	Crcl < Cys C > /
			Crcl/urine Cystatin C
			t
(/)	(/)	(/)	Crcl > Cys C < /
()	()	()	

(PPV)

Cystatin C

GFR (Crcl)

±

(%) (%))

(P< /)

% / (NPV)

% /

%

%

% (accuracy)

±

±

.()

(Accuracy)

Crcl<78 ml/min

Cys C

(%)	(%)	(%)	
			Creatinine
			Cystatin C
<hr/>			
			Cystatin C
			-
<hr/>			

			+	Crcl/urine 24 h
(%)	(%)	(%)	Serum Cys C	(+)
			Crcl<	
			Cys C > /	()
			Crcl >	
			Cys C < /	
<hr/>			<hr/>	

/	/	/ - /	Cys C
/	/	/ - /	
<hr/>			
			Cystatin C
			-
<hr/>			

Cystatin C

(%)

(% /)

Cys C

(P< /)

/	/	/ - /	Cys C
/	/	/ - /	
<hr/>			
			Cystatin C
			-
<hr/>			

. (RR= /)

/ Cys C

Cystatin C

/ ± /

t

/ ± /

(P< /)

/ ± /

t

/ ± /

/ () Cys C % / % / % / % / Cystatin C
 Tc⁹⁹ % % . % / % / Cystatin C
 Narvaez Stubuc
 Cys C Cystatin C
 Cr Cys C GFR Cystatin C
)
 (Tc⁹⁹-DTPA
 Cys C GFR < ml/min Cystatin C
 % Serum Cr % % P= /) GFR
 () % Cys C ROC (r= /
 Cys C Crcl<
 ()
 Cys C Maclsaac
 Cys C Cystatin C
 () Larterza Tc⁹⁹-DTPA
 Cystatin C
 GFR Crcl< ml/min
 Cys C Cys C

()

()

Cys C

()

Cys C

Rich

Cys C

Cys C

 $^{125}\text{Iothioalamat}$

GFR < ml/min

Valid

Blind

Cys C

()

Cystatin C

Cys C GFR < ml/min

GFR <

Cystatin C

Cys C

REFERENCES

1. DeVita V, Pine J, Murphy J. Cancer principles and practice of oncology. 7th ed. Philadelphia : Lippincott Williams & Wilkins. 2005; PP: 352-6.
2. Madius NF, Harrington JT. Long term effect of Cisplatin (cddp) on renal function in men. *Cancer* 1978; 41(4): 1274-81.
3. Hardaker WT Jr, Ston RA, Mccoy R. Platinium nephrotoxicity. *Cancer* 1974; 34(4): 1030-2.
4. Stabuc B, Vrhovec L, Stabuc-Silih M, Cizej TE. Improved prediction of decreased creatinine clearance by Serum Cystatin C in cancer patients before and during chemotherapy. *Clin Chem* 2000; 46: 193-7.
5. Laterza OF, Price CP, Scott MG. Cystatin C: An improved estimator of glomerular filtration rate. *Clin Chem* 2002; 48: 699-707.

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6. Braunwald E, Fauci AS, Kasper DL, Hauser SL, Longo DL, Larry Jameson J. Harisson's Principles of Internal Medicine. 15th ed. New York: MC Graw Hill. 2001.
 7. Andreoli TE, Carpenter J, Griggs RC, Loscalzo J. Cecil Essential of medicine. 5th ed. Philadelphia: W.B. Saunders Company. 2001; PP: 223-37.
 8. Hoek FJ, Kemperman FA, Krediet RT. A comparison between Cystatin C, plasma creatinine and the cockcroft and gault formula for the estimation of glomerular filtration rate. *Nephrol Dial Transplant* 2003; 18: 2024-31.
 9. Macisaac RJ, Tsalamandris C, Thomas MC, Premaratne E, Panagiotopoulos S, Smith TJ, et al. The accuracy of cystatin C and commonly used creatinine-based methods for detecting moderate and mild chronic kidney disease in diabetes. *Diabet Med* 2007; 24(4): 443-8.
 10. Narvaez-Sanchez R, Gonzalez L, Salamanca A, Silva M, Rios D, Arevalo S, et al. Cystatin C could be a replacement to serum creatinine for diagnosing and monitoring kidney function in children. *Clin Biochem* 2008; 41(7-8): 498-503.
 11. Herget-Rosenthal S, Marggraf G, Hüsing J, Göring F, Pietruck F, Janssen O, et al. Early detection of acute renal failure by serum Cystatin C. *Kidney Int* 2004; 66: 1115-22.
 12. Uhlmann, Hock KG, Issitt C, Sneeringer RM, Cervelli DR, Gorman RT, et al. Reference intervals for plasma Cystatin C in healthy volunteers and renal patients, as measured by the dade behring BN II system, and correlation with creatinine. *Clin Chem* 2001; 47(11): 2031-3.
 13. Holweger K, Bokemeyer C , Lipp HP. Accurate measurement of individual glomerular filtration rate in cancer Patients: an ongoing challenge. *J Cancer Res Clin Oncol* 2005; 131(9): 559-67.
 14. Bagshaw SM, Bellomo R. Early diagnosis of acute kidney injury. *Curr Opin Crit Care* 2007; 3(6): 638-44.
 15. Coca SG, Yalavarthy R, Concato J, Parikh CR. Biomarkers for the diagnosis and risk stratification of acute kidney injury. *Kidney Int* 2007; 73(9): 1008-16.
 16. Uzun H, Ozmen Keles M, Ataman R, Aydin S, Kalender B, Uslu E, et al. Serum Cystatin C level as a potentially good marker for impaired kidney function. *Clin Biochem* 2005; 38: 792-8.