



Roche

...for better patient care in kidney disease



cobas[®]
Life needs answers

Kidney disease and its growing importance

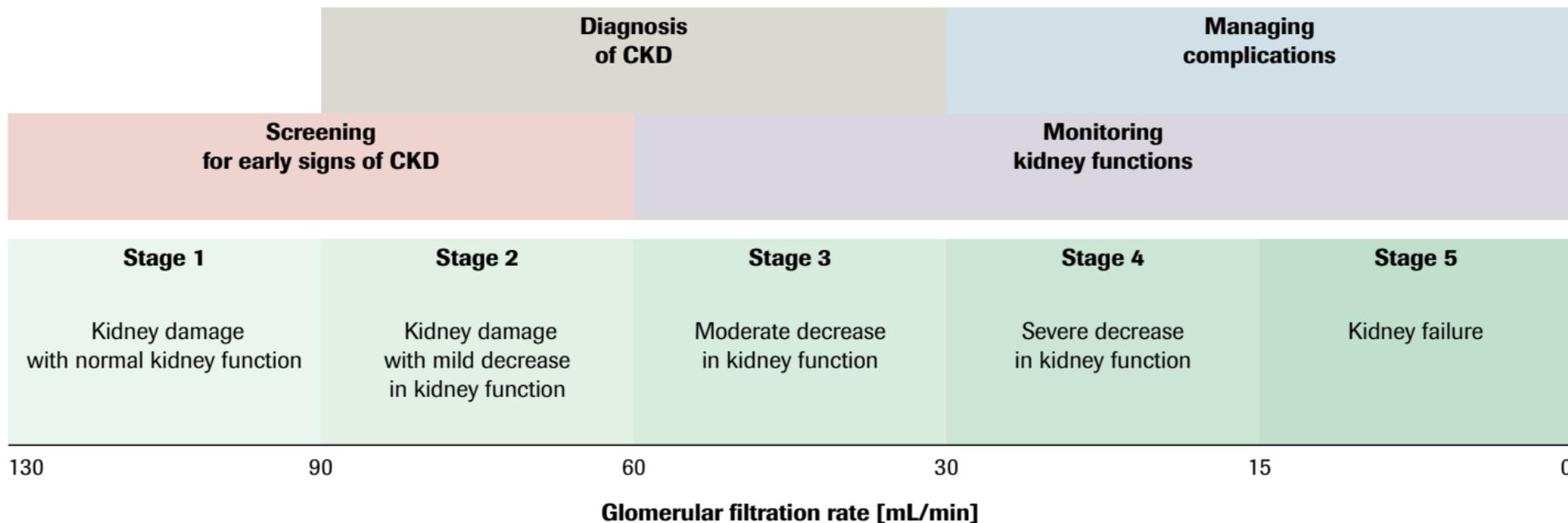


Chronic kidney disease is a serious condition affecting roughly 10% of the adult population¹, many of whom remain unaware as their kidneys slowly deteriorate.

Kidney failure is a situation in which the kidneys fail to function adequately. The conditions can be broadly categorized into acute and chronic: acute kidney injury and chronic kidney disease. Acute kidney disease is a rapid loss of kidney function. Whereas in chronic kidney disease the loss of kidney functions happens over a number of years with very few, if any, symptoms.

The course of kidney disease and possible serious complications can be managed, if detected early, treated adequately and monitored constantly with the right diagnostic tools.

The course of chronic kidney disease (CKD)



The right tools for screening for early signs of CKD

Marker	What does it indicate?	Who might be affected?	Test/Tool
Urine Albumin (for physicians)	Urine albumin is an early warning sign that might indicate kidney damage or disease.	People with hypertension, diabetes or family history of kidney disease.	Combur-Test Line (marketed as Chemstrip® Test in US and Canada)
Urine Albumin (Patient self-test for regular screening)			Combur ⁵ Test HC (sold in pharmacies, not globally available)

The right tools supporting the diagnosis of CKD

Marker	What does it indicate?	Who might be affected?	Test/Tool
Cystatin C	Endogenous marker for the early detection of mild kidney dysfunction, by calculating the glomerular filtration rate.	Patients with mild kidney dysfunction.	Cystatin C
PTH PTH (1-84)*	To determine whether PTH levels are responding normally to changes in blood calcium levels and to confirm removal of the gland(s) causing the problem.	In patients with kidney disease and/or failure, phosphate may not be excreted efficiently, disrupting its balance with calcium.	Elecsys® PTH

* Test currently under development

The right tools for monitoring kidney functions

Marker	What does it indicate?	Who might be affected?	Test/Tool
Vitamin D	Low levels of vitamin D can be seen in kidney disease and occur in persons with early kidney failure.	In patients with kidney failure a lack of calcitriol production prevents calcium absorption.	Elecsys® Vitamin D3 (25-OH)
PTH PTH (1-84)*	To determine whether PTH levels are responding normally to changes in blood calcium levels and to confirm removal of the gland(s) causing the problem.	In patients with kidney disease and/or failure, phosphate may not be excreted efficiently, disrupting its balance with calcium.	Elecsys PTH
Cystatin C	Endogenous marker for monitoring kidney dysfunction, by calculating the glomerular filtration rate. Cystatin C is far less susceptible to non-renal variability than serum creatinine, and therefore provides more reliable information.	Patients with kidney dysfunction.	Cystatin C

* Test currently under development

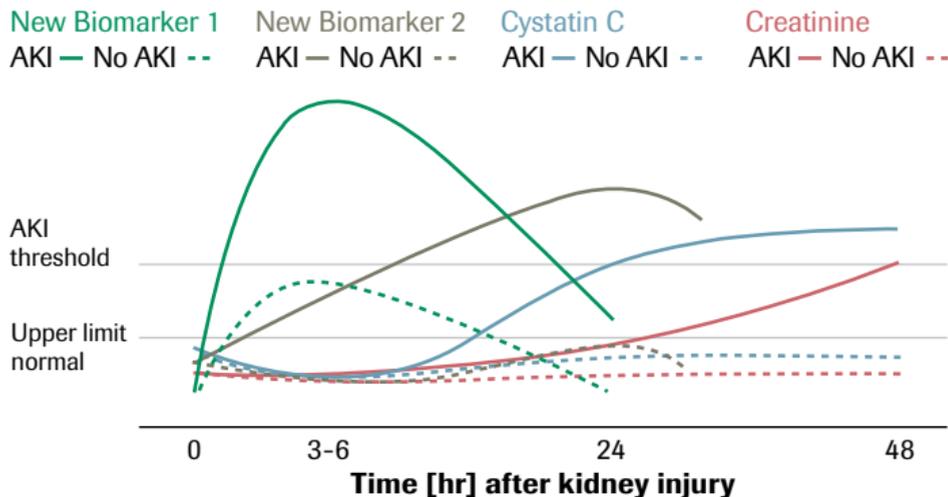
The right tools for managing complications

Marker	What does it indicate?	Who might be affected?	Test/Tool
IRF (immaturereticulocytefraction)	Measurement of reticulocytes maturity indicating the rate of erythropoiesis.	Anemic patients in treatment.	IRF
Ret He	Measurement of the quality of erythropoiesis e.g. following therapy with erythropoietin or iron.	Anemic patients in treatment.	Ret He
Hematopoiesis	Examination of various factors to gain insights into decreased erythrocyte production.	Patients with renal anemia.	Hemoglobin, RBC Folate, Folate, Vitamin B12, Ferritin, Transferrin
Cardiac	Prediction of cardiac co-morbidities associated with kidney disorders, cardiovascular events and death. Cardiac risk stratification in patients with chronic renal failure.	Chronic hemodialysis and asymptomatic patients with chronic kidney disease. Patients with renal disease and dialysis patients.	Elecsys® NT-ProBNP Troponin T 4 th gen., Troponin T hs test

The right tools for the future of diagnosis of acute kidney injury

Chronic kidney disease is well served by today's diagnostic tools. However, there is still a need for new biomarkers that identify structural damage after only a matter of hours which could significantly improve outcomes for patients e.g. after kidney injury.

Roche is continuously investing in research into improved kidney disease tests.



Ideal time course of change in novel biomarker levels for the earlier detection of AKI. Cystatin C today provides the earliest measure of kidney dysfunction.²

For further information please contact the booth person or leave your contact details at the booth

Contact:

Name

Address

Email

Telephone number

Profession

Areas of interest:

- Screening for CKD
- Diagnosis of CKD
- Monitoring of CKD
- Managing complications of CKD
- Future of diagnosis of acute kidney injury

Additional comments:



COBAS, COBAS C, LIFE NEEDS ANSWERS,
CHEMSTRIP, COMBUR-TEST and ELECSYS
are trademarks of Roche.

©2010 Roche

Roche Diagnostics Ltd.
CH-6343 Rotkreuz
Switzerland
www.roche.com

References

- 1 World Kidney Day (2010). Fact Sheet; online; http://api.ning.com/files/kQnCwXXxjZunuta*Jv-uYP9YRBBghQG-KUuFfLXYK--w_/HypertensionandCKDdocFACTSHEETwithLOGOS.pdf
- 2 McIlroy, D., Wagener, G., Lee, H., (2010). Biomarkers of Acute Kidney Injury - An Evolving Domain. *Anesthesiology*, Volume 112, Issue 4, Page 998-1004.