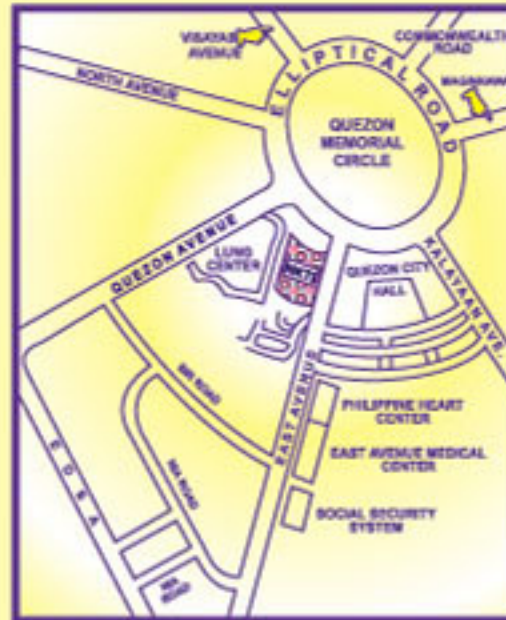


ADVANTAGES OF URINE FLOW CYTOMETRY

- Most of the manual steps are standardized
- Quantitative measurements of native urine (uncentrifuged)
- Variations in results among laboratory staff are eliminated
- Faster turnaround time
- RBC information suggesting origin of hematuria is available

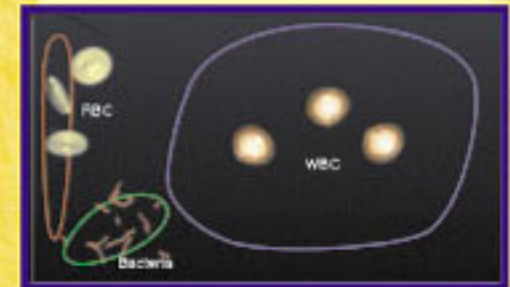


For more information
Please call the Clinical Microscopy Section
924-3601 loc. 1063



NATIONAL
KIDNEY AND
TRANSPLANT
INSTITUTE

DEPARTMENT OF LABORATORY MEDICINE

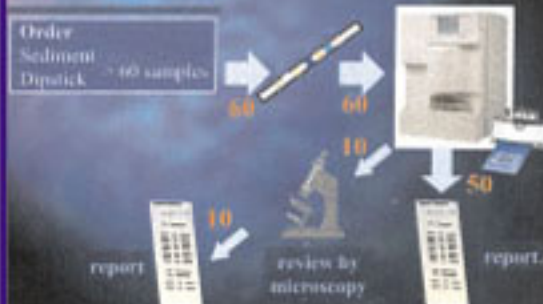


URINE FLOW CYTOMETRY

EXCITING NEW TECHNOLOGY
FOR TODAY'S MODERN
LABORATORY

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Work Flow with the UF



ISO 9001:2000
CERTIFIED

A REVOLUTION IN URINE ANALYSIS

Ever wondered how the simple urinalysis is done in the laboratory? To date, this test is still an almost-completely manual procedure in a high-tech world, making it less than simple.

Attempts have been made to automate the procedure, but so far few have been successful.

The urinalysis is a two-stage examination involving a chemical analysis and a particle analysis. In recent years, National Kidney and Transplant Institute (NKTi) has successfully automated the chemical analysis step by using a machine to read dipsticks used in this procedures thereby standardizing the reading, eliminating subjectivity in interpretation and cutting in half the time it takes for this steps to be done.

Today, the NKTi will FULLY automate urinalysis, incorporating urine particle analysis step into automation!



UF-50 URINE CELL ANALYZER

Display of the result

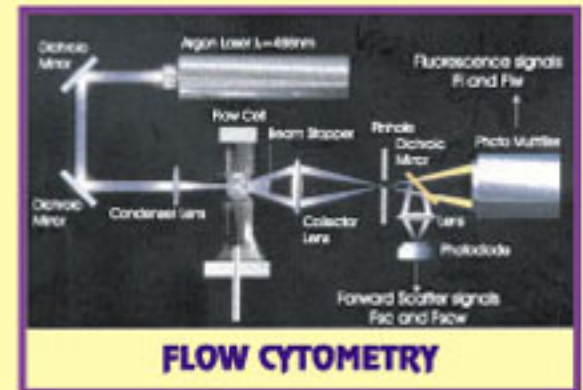
==== SAMPLER====		HGD:AbC456789-1D345	
Smp#:AbC456789-1B345		AbC456789-1D345	
Rack :1234		0001-01)	
Tube :10			
RBC	12345.6+	[μ L]	12345.6 [/HPF]
WBC	12345.6	[μ L]	12345.6 [/HPF]
EC	12345.6	[μ L]	12345.6 [/HPF]
CAST	1234.56	[μ L]	1234.56 [/LPF]
BACT	12345.6	[μ L]	12345.6 [/HPF]
P. CAST	+	X'TAL	+
SRC	+	SPERM	+
YLC	+		
RBC-Info. Microcytic?			
A.START		Cancel	

Imagine a machine capable of detecting and identifying particles in the urine...

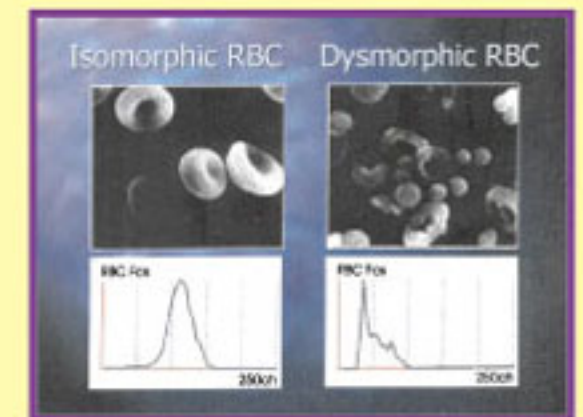
Imagine the same machine capable of measuring exactly the particle size, as well as determining the exact concentration of such particles per micro liter of urine!

The UF-50 Urine Cell Analyzer of the NKTi is such a machine. The flow cytometer detects urine particles, identifies them and determines their concentration, analogous to the way Hematology analyzers classify blood particles and count them. Since the machine directly examines the urine without the customary centrifugation in manual urinalysis, this time-consuming step is eliminated from the procedure and the TRUE concentration of the urine particle is determined.

A concentrated laser beam irradiates each particle that passes through a chamber called the Sheath Flow Cell and changes in light scatter are detected and measured, directly translating into particle size and character.



Furthermore, the machine detects distorted or *dysmorphic* red cells, a finding present in renal as opposed to a bladder origin of hemorrhage.



A revolution in urine analysis is finally at hand.