## EVALUATION OF THE STATUS OF THE TRANSPLANTED KIDNEY BY NUCLEAR MEDICINE TECHNIQUES

Division of Nuclear Medicine, Alabama University Medical Center Birmingham, Alabama, U.S.A.

W .Newlon Tauxe, M. D.

Following a single injection of radioactive orthoiodohipputate (OIH), several procedures can be carried out: renal plasma flow, bladder retention (both volume and percent dose to be excreted, sequential scintigraphy and time / activity (renographic curves). While these procedures are quite easy on the patient, they are quite time-consuming if performed by hand to the technologist / physician team.

We have therefore developed a computer macrofunction—or series of linked programs—for processing of all these procedures so that they may be carried out easily, accurately and in a very short time.

The five clear separable behaviour patterns are characterized as follows:

	ERPF ml/min	EI
Normal	275	0.92-1.05
Acute CMR	100-250	0.50-0.80
Chr. HR*	50-250	0.00-1.05
ATN	50-275	0.00-0.02
PRO	300-400	0.55-0.08

<sup>\*</sup> In two phases

Both the fact and the pathway of rejection are clearly evident up to a week prior to manifestations revealed by other modalities.