

Urea estimations of the urine can be accurately and rapidly done by the Marshall method; and, from the standpoint of practicability, it leaves little to be desired. It is useful only in conjunction with ureteral catheterization.

Chloride estimation, by the Lutke Martius method, requires standardized solutions, and carefully graduated apparatus. It consumes considerable time, and, besides, requires daily collection of the urine with a knowledge of daily chloride-intake.

All retention tests require, of course, the withdrawal of blood; and cryoscopy is, undoubtedly, the simplest, provided that proper apparatus is at hand. It requires careful attention to the details and consumes considerable time.

Blood-urea can be done by either the Folin or the Marshall method, and the total rest-nitrogen, preferably by Folin's method, but any of these methods is impracticable for the general practitioner.

Where only one test can be employed, the most value is unquestionably to be obtained from the use of phthalein; and this is particularly so from the standpoint of the surgeon. From practical experience with a number of the more promising tests, the information obtained is frequently unreliable. Phthalein alone has proved of value.

Estimation of function in renal surgery by means of phthalein has become so important that its position is firmly established. The surgeon to-day is not justified in performing a nephrectomy or other significant procedures tending to disturbed renal function, without having first learned the renal function.

Ureteral catheterization alone is not sufficient, with demonstration of apparently normal urine; as it not infrequently happens that the obviously diseased kidney is much the better kidney.

DR. WILLIAM S. THAYER (Baltimore): For the last two years, in association with Dr. Rowntree, Dr. Fitz and Dr. Baetjer, have studied the renal function of a considerable number of patients under my observation, in and outside the wards of the Johns Hopkins Hospital. These studies have taken into consideration the intake and the output of salt and water, the elimination of iodide of potassium and lactose after the manner of Schlayer, as well as the estimation of the incoagulable nitrogen in the blood and the excretion of phenolsulphonephthalein.