These data were collected between the years 1961 and 1964, less than 10 years after the diagnosis of bacteriuria was statistically established on a firm basis by counting the number of bacteria in voided urine. At that time, there was a general feeling that most patients with bacteriuria had pyelonephritis, but there were no techniques available to distinguish renal from bladder infection. By using the cystoscope and ureteral catheter, and by measuring the magnitude of renal contamination from bladder bacteria, we developed a technique which showed that only 50% of bacteriuric patients had renal bacteriuria and that these were equally distributed between unilateral and bilateral involvement. Several studies from different parts of the world have confirmed these results in diverse population groups.

Techniques are presented for accurately localizing the specific site of urinary tract infections, especially the separation of bladder from renal infection and the identification of the urethra or prostate as the tissue site of bacterial persistence in the male. Additional data demonstrate that the cure of kidney infections is dependent upon the urinary concentrations of antimicrobial agents and not the serum levels. [The SCI® indicates that this paper has been cited over 300 times since 1965]

Thomas A. Stamey
Department of Surgery
Division of Urology, S287
Stanford University School of Medicine
Stanford, CA 94305

August 9, 1979

