

URINARY RESEARCH CENTER

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Dear Sir:

I am submitting the enclosed to be considered for publication in your Journal. In support of my thesis as expressed here, I can say that I have worked over 50 years in diagnostic and research microbiology, personally involved at the bench in clinical and public health laboratories including 11 1/2 years as State Health Laboratory Director for Nevada (retired in 1981). I have researched the technical aspects of lab diagnosis for over 15 years, involving split clinical samples of over 10,000 urines and have successfully applied the classical pure culture technology to UTI as performed everywhere for diagnosis of other disease entities such as TB, salmonella, gonorrhea, etc.)

I have solid clinical basis for the enclosed by way of subsequent tests on 2500+ urines from 525+ chronic UT patients in the presently ongoing study. (Tests done in duplicate for comparison with present day technology.)

I hope you can advise me soon of its acceptance for publication.

Sincerely yours,

Paul Fugazzotto, PhD

\*Director Nevada State Health Laboratory, Retired

# URINARY TRACT INFECTIONS:

*need for pure culture  
technology in clinical  
laboratory diagnosis.*

by Paul Fugazzotto . PhD\*

## Urinary Research Center

Rapid City, SD 57702

Paul Fugazzotto, MSPH, Ph.D. Director

Recent director of the Nevada State Health Lab (1970-1981)

50 years experience in research/diagnostic microbiology

## URINARY TRACT INFECTIONS

### The Need for Pure Culture Technology in Clinical Laboratory Diagnosis

By Paul Fugazzotto\* Ph.D.

Considering the estimated 700,000 patients of chronic urinary tract infections (UTI) and its advanced stage of interstitial cystitis (IC) currently wandering from doctor to doctor — to clinics and the like for years, seeking effective treatment to little or no avail, why is it (in spite of all the success reported by the "specialists" in UTI management) that these same chronic cases continue to increase and go on unabated for years? It appears that time has long since arrived when the medical community and the diagnostic should take stock of themselves for the magnitude of diagnostic and treatment failures that they are creating. The Health Care Financing Administration and other Federal health agencies are also responsible in approving traditional procedure with no proof of its validity, thus misleading clinicians into treating for fictitious diagnoses.

For all other disease entities, such as tuberculosis, scarlet fever, gonorrhea, typhoid, dysentery, etc. - the laboratory applies classical pure culture technology to find the index organism which identifies the disease, irrespective of numbers and of all the contaminants that may also be present. In UTI, the clinical labs, using an elementary superficial technology, look for and organisms which, in the technicians' judgment, appear in "large numbers" – and report them to the doctor as causative agents. While other disease entities are identified by a single species of bacteria, UTI has been reported due to as many as 17 different species, with focus on bacillary coliform strains, because it is traditional that these strains are "known" to be the main cause. Doctors often prescribe antibiotics aimed at these traditional strains even without urine tests done at all. Patients often harbor more than one of these strains at one time or different strains at different times; however they receive the same "shotgun" treatment regardless.

Using classical pure culture technology for UTI/IC as in all other disease entities – I look for organisms historically established as pathogens by Pasteur, Koch, Ehrlich and others. In recent research involving more than 2500 clinical specimens from over 525 known symptomatic patients nationwide, I have found two strains of related coccus species that are responsible for 96% of all the cases, proven by the experience that these patients respond very firmly to specific antibiotics never used in traditional therapy. The critical focus of the new technology (as published in October of 1987) is to culture for urine bacteria after removal of all of the suppressant urine chemicals by a preliminary washing, since it stands to reason that raw urine containing waste products, antibiotics and other components which interfere with emergence of the causative agents are not valid test specimens. To accept and process such raw specimens in native form renders that test grossly biased; there can be no assurance of a valid diagnosis.

The U.S. Health agencies must be urged to outlaw the traditional elementary test (basis of the fictitious diagnoses leading to chronic UTI/IC); and initiate the reliable, well-established pure culture technology for routine testing in all medical laboratories. Clinicians must also demand this change in clinical lab traditional shotgun therapy without having a valid lab diagnosis with supporting antibiotic panel reports.

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