INTRODUCTION
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Advances in science and technology, improved living standards and advanced education of the public have opened up a number of new avenues to prevention. The concept of health has now changed its direction from curative approach to preventive approach. Preventive medicine is not now confined simply to vaccination, quarantine, insecticide spraying and chemoprophylaxis, rather it has reached the new era of 'screening'. Screening for different diseases at their pre-symptomatic stage and with appropriate intervention to halt the evolution of the disease cascade at its presymptomatic stage is now the real target of preventive medicine.

The concept of screening for individual diseases entered the multiphasic epoch in early 1950s by an increasing number of screening tests. An offshoot of the screening is the screening for 'risk factors' of disease and identification of 'high risk groups'. Since we do not have specific weapons against chronic diseases, screening and regular health check-ups acquired an important place in the early detection of cancer, diabetes, rheumatism, renal and cardiovascular diseases, the so called "diseases of civilization". The goals of medicine are to
promote health, to preserve health, to restore health when it is impaired and to minimize suffering and distress which can be more practically achieved by prevention. Primary prevention is the action taken prior to the onset of disease which removes the possibility that a disease will ever occur. The concept of primary prevention is now being mainly applied to the prevention of chronic diseases like coronary heart disease, hypertension and cancer based on elimination or modification of risk factors of disease.

The concept of prevention of acute pyelonephritis during pregnancy by treating the women having bacteriuria at their presymptomatic stage is not new. As early as in 1956, Kass screened the antenatal patients for bacteriuria by urine culture and found that about 40% of the bacteriuric pregnant women subsequently developed acute pyelonephritis. Later, he reported that acute pyelonephritis, which was one of the most frequent medical causes of hospitalisation during pregnancy could virtually be eliminated by treating the patients having asymptomatic bacteriuria. Later on a lot of studies were conducted by various workers by different methods and a lot of facts were accumulated from different corners of the world.

Although symptomatic urinary tract infections are diagnosed frequently during pregnancy, various studies
show that a number of pregnant women have bacteriuria that is asymptomatic and goes unnoticed unless urine cultures are obtained. The prevention and treatment of bacteriuria is of considerable importance not only to prevent acute pyelonephritis and chronic renal disease in mothers but also to reduce prematurity and perinatal mortality. Over the last four decades, gradually increasing importance is being paid on detection and treatment of asymptomatic bacteriuria in pregnancy.

The presence of actively multiplying bacteria somewhere within the urinary tract excluding the distal urethra at a time when the patient is having no urinary symptoms is defined as "asymptomatic bacteriuria" (Hankins & Whalley, 1985). Significant bacteriuria is defined as $10^5$ or more bacterial counts in one ml of urine. The bacteria which are contaminated during collection usually counts less than $10^3$ per ml of urine. The interpretation of bacterial cultures of urine has been greatly aided by the use of quantitative methods. Analysis of the bacterial colony counts of urines obtained from large number of patients has indicated that, except for certain defined clinical circumstances a colony count greater than 1,00,000 per millilitre of freshly voided urine generally indicates the presence of true bacteriuria, that is of actual multiplication of bacteriuria within the urinary tract. This quantitative approach has been of value not only in
defining the presence or absence of infection of the urinary tract in the usual clinical setting but also it has provided a means for determining the presence of asymptomatic infection of the urinary tract. Perhaps equally important it has provided a dimension which must be taken into account in the study of the natural history and pathogenesis of pyelonephritis.

Asymptomatic bacteriuria is found with particular frequency in those population groups that are particularly likely to develop pyelonephritis i.e. patients with diabetes mellitus, pregnancy, obstructive uropathy, past histories of instrumentation etc. The incidence of asymptomatic bacteriuria in pregnant women is between 7-10% as reported by various authors. About 50% of these patients proceed to symptomatic urinary tract infection while about 30% eventually develop pyelonephritis if left untreated. Acute pyelonephritis, otherwise is rare among non-pregnant women. There occurs increased urinary stasis during the first trimester of pregnancy due to pressure of gravid uterus over the lower urinary tract. Also the hormonal changes during pregnancy leads to increased urinary stasis. Urinary stasis predisposes to bacterial colonisation and so the incidence of bacteriuria is increased during pregnancy. According to Stenqvist et al (1989), the frequency of bacteriuria increases about one percent during pregnancy.
The patients with asymptomatic bacteriuria were treated by different antimicrobials and were followed-up by various authors. It was found that continuous administration of antimicrobials to prospective mothers with asymptomatic bacteriuria prevented clinical urinary tract infection and reduced the incidence of prematurity and perinatal mortality (Mac Donald et al, 1983). Thus routine screening of antepartum patients for bacteriuria is desirable. Unfortunately, it is often avoided for various reasons including the expense of urine bacterial colony counts. Therefore, a screening test was sought which would be inexpensive and easily performed by untrained personnel.

For screening the antenatal patients for bacteriuria a number of screening tests have been developed in course of time. The ideal screening test should satisfy the criteria of acceptability, repeatability and validity besides others such as simplicity, safety, rapidity and ease of administration. Tests with greater accuracy may be more expensive and time consuming and the choice of the test therefore often be based on compromise.

Since Kass (1956) defined criteria of significant bacteriuria, the use of quantitative assessment of bacterial populations as an aid to the differentiation between infection and contamination of urine has gained wide acceptance. The pour-plate method is considered as the standard technique
for performing viable counts on urine but requires trained
staff for setting of the cultures. The urine should be
cultured within an hour or two of collection or should be
refrigerated to avoid misleading results, which is practically
difficult in general practice. Further, the examination of
large number of specimens as at antenatal clinics and in
population surveys makes demands on laboratory services,
which may become practically less feasible if the standard
method is employed routinely. Therefore, efforts have been
made to develop simpler cultural methods such as the filter-
spot strip inoculation technique of Leigh and Williams (1964)
and the semiquantitative methods of Cattell and Lafford (1963)
and of Guttman and Stotes (1963). Though these are
technically less complicated, they are still dependent on
the delivery to the laboratory of a freshly passed specimen.

Hackey and Sandys (1965, 1966) described a Jip-
inoculum transport medium in which a metal or plastic spoon
carried the transport medium and which may be inoculated by
simply dipping in the specimen after which it need not
reach the laboratory for incubation for 24-48 hours.

Juttmann and Naylor (1967) developed a similar
method with many advantages. An ordinary 3 by 1 inch
(7.5 by 2.5 cm) glass slide was coated for a length of
about 2 inch with Nutrient agar on one side and Mac Conkey's
agar on the other was inoculated by dipping the coated end
into the fresh urine specimen. After allowing excess urine to drain for a few seconds, the slide was returned to its original small cylindrical aluminium container and after replacing the screw cap, it was sent to the laboratory. After overnight incubation, the number of colonies which have grown on the slide was counted with a hand lens. The preparation is cheap enough to be discarded after use. 50 to 100 colonies on the dip-slide correspond to a viable bacterial count of 10,000 per ml (Naylor & Fotwann, 1967).

Some developments in dip-slide was done by some authors and dip-slide method was found out to be a simple, cheap and effective medium for screening for bacteriuria.

Several new methods for detection of bacteriuria were studied to evaluate their usefulness as screening procedures such as filter paper culture - tetrazolium test combined with nitrite indicator, agar-cup method, Griess test, phenzopyridine test, subnormal glucose test and triphenyl tetrazolium chloride (T.T.C.) test.

Regarding the treatment evolution, classical course of treatment is now going to be replaced by single dose therapy. Single dose therapy with different antimicrobials for treatment of asymptomatic bacteriuria was found to be equally effective as compared to traditional dosage schedule. The major benefits of single dose therapy would be lower cost,
fewer side effects, less potential hazard to the foetus and assured patient compliance.

The present study is being conducted with the following AIMS & OBJECTIVES:

1. To screen the antenatal patients' urine samples to find out the overall prevalence of asymptomatic bacteriuria by both standard as well as dip-slide method in this Bundelkhand area.

2. To evaluate the efficacy of dip-slide method for screening the antenatal patients for bacteriuria.

3. To identify the organisms of the specimen which shows significant bacteriuria and to find out the sensitivity of the organisms to various antimicrobial agents.

4. To treat the patient with sensitive chemotherapeutic agent.

5. To analyse the relationship of asymptomatic bacteriuria with age, parity, community (rural or urban) and socio-economic status.

6. To estimate the prevalence of asymptomatic bacteriuria in patients with bad obstetric history, anaemia, toxaemia, premature pain and high risk pregnancies.

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