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### URINARY TRACT INFECTION IN MALNOURISHED INFANTS AND CHILDREN

Thesis

Submitted for partial fulfillment in M. Sc. degree
In PEDIATRICS

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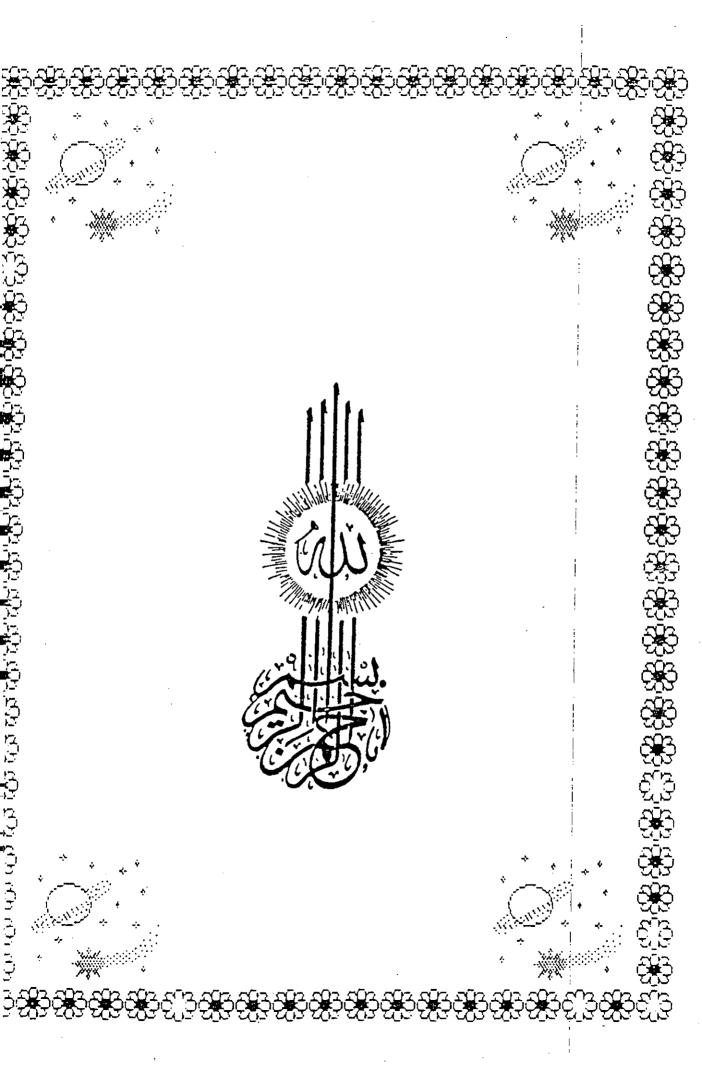
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#### List of Abbreviations

CFU Colony forming unit

E. coli Escherichia coli

Ig Immunoglobulin

KWO Kwashiorkor

M. tuberculosis Mycobacterium tuberculosis

PEM Protein-energy malnutrition

PNL Polymorphonuclear leukocytes

S. aureus Staphylococcus aureus

UTI Urinary tract infection

VUR Vesico-ureteral reflux

X Mean

± S.D Standard deviation

M.A.C. Mid arm circumference

S.F.T. Skin fold thickness

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INTRODUCTION		

#### INTRODUCTION

Protein-energy malnutrition is a range of pathological conditions arising from coincident lack, in varying proportions, of protein and calories, occurring most frequently in infants and young children and commonly associated with infections (Michel, 1994).

Protein energy malnutrition is the most important nutritional disease in the developing countries because of its high prevalence and its relationship with child mortality rates, impaired physical growth and inadequate social and economic development (Torun and Viteri, 1988).

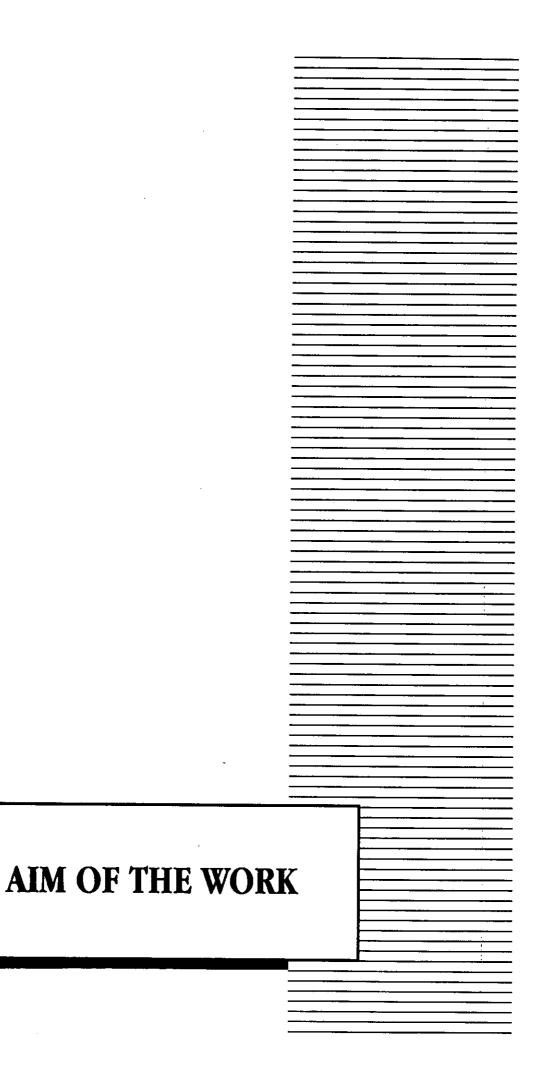
The clinical presentation of protein-energy malnutrition varies with the degree and duration of protein and energy depletion, as well as with the age of the individual. The mild and moderate degrees of protein-energy malnutrition can be detected by nutritional assessment, in particular by anthropometry. The two well-known syndromes of protein-energy malnutrition, marasmus and kwashiorkor, occur in the most severe cases (Michel, 1994).

The relationship between malnutrition and infection is synergistic one, where each factor adversely affect the other (Hateh, 1981).

Urinary tract infection occurs more commonly in infancy than at any other age. Predisposing factors include congenital obstruction, ureterovesical valve dysfunction, immaturity or dysruption of host defenses, and exposure through fecal soiling to pathogens that can enter the urinary tract (Hoberman et al., 1993).

Accumulating evidence suggests that urinary tract infection is a relatively common cause of febrile illness in the first 2 years of life, that the majority of these infections are "occult" (i.e., without specific symptoms referable to the urinary tract), and that most infections remain undiagnosed if tests are not routinely performed to detect them (Michael et al., 1994).

Esherichia coli is the most common bacteria infecting the urinary tract, but other enterobacteriaceae and enterococcus may cause urinary tract infections (Linda, 1995).



#### AIM OF THE WORK

- 1. To assess the prevalence of urinary tract infection in infants with protein-energy malnutrition.
- 2. To evaluate reliability of dipstick test for diagnosis of urinary tract infection as compared to culture.
- 3. To know about the most common infectious organism in these cases, this may be of help in starting early specific treatment.