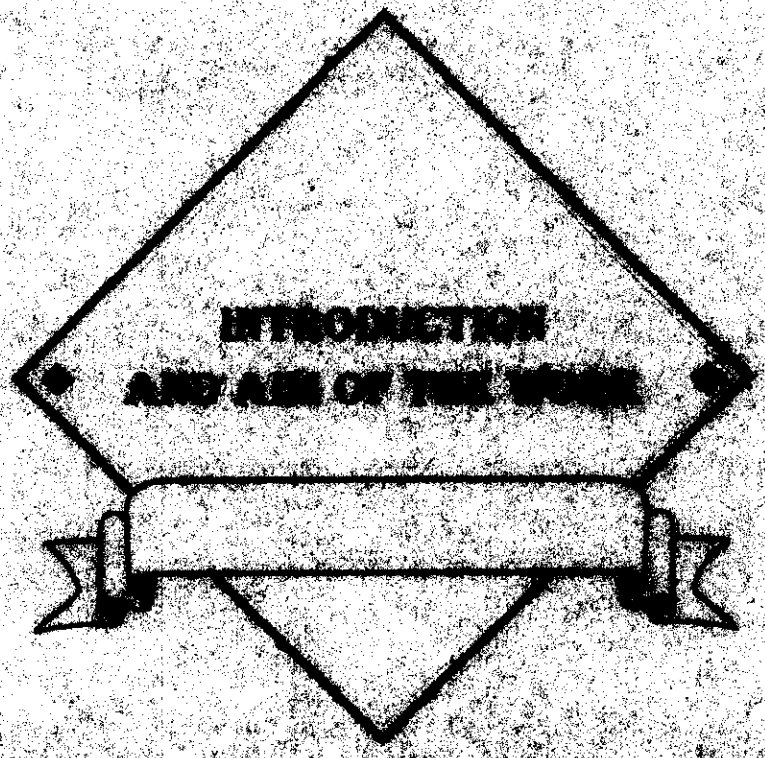

INTRODUCTION

Staphylococcus aureus (*S. aureus*) was among the first organisms recognized to have the ability to resist antimicrobial therapy **(Schaberg, et al., 1985).** Resistance once acquired, is a stable characteristic of the organism, i.e. one showing hereditary continuity **(Novick and Bouanchaud, 1971).**

S. aureus continues to be a major pathogen, affecting patients of all ages. It was only shortly after the introduction of methicillin into clinical use in the 1960s that methicillin-resistant strains of *S. aureus* (MRSA) were first reported. **(Jevons, et al., 1963).**

Although the clinical significance of methicillin resistance has been questioned in the past, there is now widespread acknowledgment of the pathogenicity of MRSA. Furthermore, during the past decade there has been steady increase in the incidence of infections caused by this bacterium. **(Saravolatze et al., 1982; Brumfit & Hamilton-Miller, 1989; Muder et al., 1991).**

It is widely recognized that resistance to methicillin is usually accompanied by concomitant resistance to a number of unrelated classes of antimicrobials **(Brumfit &Hamilton-Miller, 1989).**

Thus, strains of MRSA are almost invariably multiple drug-resistant. Choosing appropriate agents to treat infections caused by MRSA has, therefore, become a considerable problem **(Sandra, et al., 1992).**

Because of the morbidity and mortality associated with MRSA infections, their preventable nature and current requirement for treatment, it is reasonable to investigate resources into controlling the transmission of

MRSA. The control of this organism is expensive both financially and in terms of human resources.

In view of high prevalence of MRSA in hospitals, effective measures must be introduced to control its spread as a nosocomial infection pathogen, otherwise it may seriously disrupt the efficient delivery of health care services in the country.

AIM OF THE WORK

This study will be undertaken to document more precisely the rapidly emerging drug resistance seen amongest *S. aureus* isolates at our Benha University Hospital, and to discuss the methods of prevention applied.

Antibiotic susceptabilities are going to be determined for strains of methicillin-sensitive *S. aureus* (MSSA) as well as methicillin resistant *S. aureus* (MRSA) isolated.