This study was carried out during the period 1415/1416H, with an aim to investigate the epidemic and antibiotic sensitivity caused by Klebsiella pneumoniae strains in pediatric and nursery wards at maternity and children’s Hospital, Makkah, using blood, urine, Throat swabs and Miscellaneous samples. A total of 20051 samples were examined and bacterial growth were observed in (37%) out of which (9.5%) belonged to K.pneumoniae strains. The percentage of K.pneumoniae development for blood, urine, Throat swabs and miscellaneous samples were (12.2%, 13.9%, 13.6% and 6%) respectively. The highest percentage found in external nursery (48.9%) followed by internal nursery (35.7%) In blood culture samples, the percentage of Kpneumoniae strains isolated from external nursery, Internal nursery and pediatric were (18%, 20% and 5.7%) respectively, and the percentage of hospital aquired bacteremia was more than early or community aquired bacteremia. The mortality rate in bacteremia were (37.9%, 50%, and 5%) at external nursery, Internal nursery and pediatric respectively. The use of central venous catheters and length of hospital stay befor the infection were the most importance risk factors for bacteremia in external nursery on the other hand the length of hospital stay befor the infection and low birth weight were the most important in Internal nursery. In urine samples, urinary tract infections caused by Kpneumoniae strains in pediatric were more in female than male. By using disc diffusion method the effect of 1Q antibiotics were tested on the K.pneumoniae strains isolated from blood the results showed that Imipenem was the most effective antibiotic since not asingle strain was resistant to these antibiotic. On the contrary a (98%) resistance to the antibiotic Ampicillin was observed in these strains. The strains isolated from external nursery and Internal nursery showed high resistance to Gentamicin wich represented (60% and 77.6%) respectively. MIC of antibiotics. to all K.pneumoniae strains was estimated by using 9 popular antibiotics against K.pneumoniae infections. The results of MICso decreased in case of Amikacin, Cefoxitin, Cefotaxime and Tetracycline, however, MIC90 were high for all thesy antibiotics.