INTRODUCTION
In developing countries urinary tract infections (UTIs) are one of the most commonly diagnosed diseases among the patient seeking medical service and are treated with empirical antibiotics which does not provides cure and causes resistance. UTIs can be categorized as acquired or nosocomial. E.coli is the most common organism responsible for UTI in both sexes. Klebsiella and Proteus are responsible pathogens in community acquired infection and in nosocomial group are Pseudomonas, Proteus, and Enterobacter³.

Increasing resistance to antibiotics and frequent change in the sensitivity pattern of the bacteria are great problems in UTI. General practitioner should take into account the microbial profile and the antibiotics sensitivity pattern during the management⁴. So, it is necessary to look for the most sensitive antibiotics for proper treatment for the UTIs in general practice⁵. This study was carried out to find out the incidence of urinary tract infection and antibiotics susceptibility pattern among bacterial pathogens isolated in patients attending Nepalgunj Medical College Teaching Hospital, Kohalpur.

MATERIAL AND METHODS
This is a cross-sectional study carried out at Nepalgunj Medical College Teaching Hospital, Kohalpur. All patient seeking health services in different departments of Nepalgunj Medical College Teaching Hospital, Kohalpur. This study included male and female patients suspected clinically having UTI symptoms viz history of burning micturition, increased frequency, lower abdominal pain, and frequent fever. Their urine was collected and sent for culture and sensitivity and results were analysed. This study included 191708 both males and females attending NGMC from May 2015 to May 2016.

RESULTS
out of 191708 patients, clinically 1445 patients were suspected to have UTI. Out of 1445 patients the number of males were 266 (18.04%) and the number of females was 1179(77.96%). Out of these 1445, 391 samples grew positive culture. the number of males was 77 (19.69%) and number of females 314(80.31%) (figure 1).
Key words: management. Regular supervision of the sensitivity pattern of pathogenic microorganism is mandatory for effective treatment. Maximum sensitivity to Nitrofurantin and Amikacin. The isolated microorganism demonstrated resistance to cefpodoxime and general practice. This study was carried out to find out the (73.65%). Second most common organism was Klebsiella (19.9%), it was followed by Acinetobacter (3.5%), Enterobacter³.

INTRODUCTION:

Urinary tract infections is a commonly encountered case in general practice. Females are more commonly affected compared to males. UTIs can be categorized as acquired or nosocomial. E.coli is the most common organism responsible for UTI in both sexes. Klebsiella is the commonest uropathogen and in nosocomial group are Pseudomonas, Proteus, and Enterobacter³.

METHODS

This study included 191708 both males and females attending Nepalgunj Medical College and Teaching Hospital. This study included male and female services in different departments of Nepalgunj Medical College and Teaching Hospital, Kohalpur. This study included male and female. Out of 191708 patients, clinically 1445 patients were suspected to have UTI. Out of 1445 patients the number of males were 458 (31.9%) and females 987 (68.1%).fan and in Female 314, 80.3%.

RESULTS

A total number of 1445 patients were clinically suspected for UTI, they had their urine culture done. The incidence of UTI and spectrum of pathogens with their sensitivity were recorded. Urinary tract infections is a commonly encountered case in general practice. Females are more commonly affected than males. E. coli is the commonest uropathogen and Klebsiella is the next. Nitrofurantin and Amikacin were the most effective drug in our study for UTI. The physicians treating such cases in this area should bear this fact in mind. Regular supervision of the sensitivity pattern of pathogenic microorganisms is mandatory for effective treatment. Maximum sensitivity is with Nitrofurantoin 86.9%.

The culture report showed that E Coli is the commonest offender 276(70.58%). Second most common organism was Klebsiella 82 (20.97%) cases. It was followed by Acinetobacter 13 (3.32%), Enterobacter 11 (2.8%), Pseudomonas and Proteus 3 (0.76%) each, Staphylococcus 2 (0.5%) salmonella 1 (0.02%).

Table I: Spectrum of microorganism in urine culture (n=391)

<table>
<thead>
<tr>
<th>Microorganism</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.coli</td>
<td>276</td>
<td>70.58</td>
</tr>
<tr>
<td>Klebsiella</td>
<td>80</td>
<td>20.97</td>
</tr>
<tr>
<td>Acinetobacter</td>
<td>13</td>
<td>3.32</td>
</tr>
<tr>
<td>Enterobacter</td>
<td>11</td>
<td>2.8</td>
</tr>
<tr>
<td>Pseudomonas</td>
<td>3</td>
<td>0.76</td>
</tr>
<tr>
<td>Proteus</td>
<td>3</td>
<td>0.76</td>
</tr>
<tr>
<td>Staphylococcus</td>
<td>2</td>
<td>0.05</td>
</tr>
<tr>
<td>Salmonella</td>
<td>1</td>
<td>0.02</td>
</tr>
</tbody>
</table>

Table II shows that the maximum sensitivity is with microorganism Nitrofurantin (175, 49.1%) followed by Amikacin (157, 40.1%). The most common pathogenic microorganism E Coli isolated in our study demonstrated resistance with Cefpodoxime (90 , 23.01% and Cefotaxime (89, 22.76%) (Table II).

Isolated microorganism showed maximum number of sensitivity with the antibiotics Nitrofurantin and Amikacin. The most common pathogenic microorganism isolated in our study demonstrated resistance with Cefpodoxime and Cefotaxime.

DISCUSSION

In the present study of 1445 clinically suspected UTI cases uropathogens were isolated in 391 (27.05%) cases. Female patients comprised of 80.3% positive culture, and in males 77 19.7%.

Subedi N et al and Raza S et al have reported culture positive in 17.4% cases and 19.7% cases respectively. In our study the culture was found to be positive in 27.05%. The rate is considerably higher in this part of Nepal showing that UTI is commoner. In the present study the rate of UTI in males was 19.7% and in females 80.31%.

Khan G et al showed the infection rate in females to the tune of 77% and in males 22.8%. In the present study E Coli was the most sensitive antibiotic. Subedi N et al in a study showed highest number of susceptibility with Piperacillin-Tazobactum and Ceftriaxone. In our studt Cefpodoxime and Cefotaxime showed a poor effectiveness.

Other workers have also reported that E Coli was the most frequently isolated.

The antibiotic susceptibility in our study showed that the highest percentage of sensitivity was with Nitrofurantin (93.65%), and with Amikacin (88.6%). Raza S et al showed that Amikacin is the most sensitive antibiotic. Subedi N et al in a study showed highest number of susceptibility with Piperacillin-Tazobactum and Ceftriaxone. In our studt Cefpodoxime and Cefotaxime showed a poor effectiveness.

Shaifai et al in a study showed that highest susceptibility with Nitrofurantoin 86.9%.

CONCLUSION

Urinary tract infection is a commonly encountered problem in the hospital patients. Females are more commonly affected than males. E. coli is the commonest uropathogen and Klebsiella is the next. Nitrofurantin and Amikacin were the most effective drug in our study for UTI. The physicians treating such cases in this area should bear this fact in mind. Regular sensitivity patterns are needed as the sensitivity of the bacteria keeps on changing.

REFERENCES

Abbreviations: AK=Amikacin; AMC=Amoxyclav; AMP=Ampicillin; AZM=Azithromycin, CB=Carbenicillin; CFM=Cefixime; CIP=Ciprofloxacin; COT=Co-Trimoxazole; GEN=Gentamycin; NA=Nalidixic Acid; OF=Ofloxacin; NX=Norfloxacin; PI=Piperacillin; TOB=Tobramycin, Nit-nitrofurantin, PB=Polymyxin B, CXM =Cefotaxime, CPD =Cefpodoxime, MRP= Meropenam, LEV= Levofloxacin, GAT= Gatifloxacin, CLR= Clarithromycin, C=Chloramphenicol,DO=doxycycline, VA=vancomycin

Table II: Antibiotic sensitivity pattern of isolated pathogenic microorganism

Abbreviations: AK=Amikacin; AMC=Amoxyclav; AMP=Ampicillin; AZM=Azithromycin, CB=Carbenicillin; CFM=Cefixime; Cx=Cephoxitine; CAZ=Ceftazidime; CTR=Ceftriaxone; CIP=Ciprofloxacin; COT=Co-Trimoxazole; GEN=Gentamycin; NA=Nalidixic Acid; OF=Ofloxacin; NX=Norfloxacin; PI=Piperacillin; TOB=Tobramycin, Nit-nitrofurantin, PB=Polymyxin B, CXM =Cefotaxime, CPD =Cefpodoxime, MRP= Meropenam, LEV= Levofloxacin, GAT= Gatifloxacin, CLR= Clarithromycin, C=Chloramphenicol, DO=doxycycline, VA=vancomycin