Objective: Incidence of bacterial enteric pathogens among Saudi children below the age of 10 years.

Methods: Fifty thousand and four hundred stool samples were collected from children below the age of 10 years. The stool samples were cultured on standard media for isolation of enteric pathogens. The isolates were identified using standard biochemical tests.

Results: Pathogenic organisms were isolated from 10,004 stool samples. The most common pathogen was Escherichia coli (56%) followed by Campylobacter species (28%) and Shigella species (15%).

Conclusion: Food-borne infection is a significant cause of diarrhea in Saudi children.
of 50400 stool specimens were examined during this period. Three thousand one hundred and twenty three (6%) positive stools were identified out of which 99% were from outpatients.

The specimens were examined macroscopically for

<table>
<thead>
<tr>
<th>Organism</th>
<th>No. (%)</th>
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<td>Salmonella species</td>
<td>1762 (56)</td>
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In developing countries, most of the diarrheal infections appear to be caused by bacteria and protozoa. At RKH bacterial etiology was (6%) of 50400 specimens investigated. *Salmonella* being the most frequent (56%) followed by *Campylobacter* (27%) and *Shigella* (15%). Our findings are similar to previous reports from Riyadh, Qadri et al. and Al Bawardy et al. Previous studies from Riyadh by Robertson and Al Rasheed showed lower *Campylobacter* isolation rate (8%) and (3%), another report from Israel showed similar results (1%) which indicate either improved laboratory techniques or increased incidence of *Campylobacter* infection among children.

A study from Libya showed a (6%) of *Shigella* species isolates among children aged from a few days to 3 years. In Ethiopia, Thailand, Brazil and Mexico, *Shigella* is the most common pathogen whereas *Campylobacter* predominates in Central Africa. Antimicrobial resistance was found to be common amongst the *Shigella* isolates with (50%) resistance to Ampicillin and (53%) resistance to Chloramphenicol. These indicate antibiotic abuse. *Salmonella* isolates showed relatively lower incidence of resistance (15.5%) with *Ampicillin* compared to previous result from Jeddah (23%).

*Acronosas, Vibrio* and *E. Coli* isolates were fully sensitive to antibiotics tested in this study, they were not included in Table 4 because of the small number of the cases.

It must be stressed that most of the bacterial gastro-enteritis is usually a mild uncomplicated disease which should not be treated with antibiotics. In the rare instances of septicemia or secondary infection, antimicrobial chemotherapy should be guided by susceptibility testing.

In conclusion, food-borne infection is common in Saudi children and is likely to be associated with food hygiene. *Salmonella* food poisoning species were dominant pathogenic organisms followed by *Campylobacter* and *Shigella* species. Antimicrobial resistance was found to be common among the *Salmonella* and *Shigella* isolates. Treatment of infected patients, if indicated, should be guided by *in vitro* susceptibility testing.

**References**