indicator which changes to pink if acid is produced.
An inverted small tube (Durham's tube) is immersed
in the medium and gas formation is revealed by the
collection of bubbles at its apex.

. Indole Production :

This test demonstrates the ability of certain
bacteria to decompose the amino-acid tryptophane-
present in peptone-to inole which accumulates in
the medium. Indole is, then, tested for by adding
few drops of Ehrlich or Kovac's reagent which gives
a pink ring in the presence of indole. The organisms
were inoculated in peptone water and after incubation
at 43°C for 48 hours, the reagent was added. If a
pink ring is produced, then, the organism is indole
positive, if a yellow ring is produced, it is indole
negative.

. Voges-Proskauer's Reaction (V.P.) :

Some bacteria ferment glucose with the production
of acetylmethyl carbinol. The latter is tested for

by growing C. jejuni in glucose phosphate peptone
medium for 48 hours at 43°C under microaerophilic
conditions, then concentrated KOH is added. If
an eosin-pink colour is produced, it is positive.

. Methyl Red Test (M.R.) :

This test is done to detect the ability of some
bacteria to produce large amounts of acid on fer-
mentation of glucose, thus lowering the pH of the
medium below 4. This test was done by growing our
isolates on glucose phosphate peptone water. After
incubation at 43°C and under microaerophilic conditions
for 48 hours, few drops of methyl red indicator were
added. A positive test gives a bright red colour and
a negative test gives a yellow colour.

d) Growth Conditions :

- Effect of Different Media on Growth :

The amount of growth on different media was noted.
The used media included : nutrient agar, blood agar,
chocolate agar, Salmonella and Shigella agar, Mac

Conkey's medium and TCBS agar. The plates were in-oculated from the pure isolates and incubated at 43°C for 48 hours under microaerophilic conditions. The degree of growth whether scanly, heavy or no growth was observed.

- Effect of Temperature :

3 plates of Preston medium, inoculated with C. jejuni isolates, were incubated at different temperatures (25 - 37 and 43°C) under microaerophitic conditions for 48 hours. The quantity of growth was observed.

- Effect of Atmosphoric Conditions :

3 plates of Preston medium were inoculated with the isolates and incubated at 43°C under : aerobic conditions, microaerophilic conditions and strict anaerobic conditions for 48 hours without the jar, with the jar without catalyst and with the jar with catalyst respectively. The ability of C. jejuni to grow under each condition was inspected.

8. SENSITIVITY TESTING :

A heavy suspension suspension was made from the Campylobacter isolates using nutrient broth in a sterile test tube. Plates of Preston medium were inoculated, excess removed, and allowed to dry in the incubator. The antimicrobial containing discs were then applied to the surface of the medium. After 24 h. incubation at 43°C in a Gas Pak system the plates were examined for the presence or absence of zones of inhibition around the discs.

Different zone standards for each drug are established. Interpretative standards for anti-microbials are given in (Append. 2). Barry (1973).

9. DIAGNOSIS OF OTHER BACTERIAL PATHOGENS :

Because of the low selectivity of preston medium many outgrowths of contaminant fecal flora had occured. A search for other bacterial pathogens related to the diarrhoeal episode- was carried out among these outgrowths. This was accomplished by :

a. Gram film from each outgrowth.

b. Biochemical reactions.

c. The diagnosis of Staphylococci was confirmed
by coagulase test (slide method). This detects
coagulase bound to the organism. A homogenous sus-
pension of the test organism is made in a drop of
saline, on a slide, then mixed with a drop of un-
diluted citrated plasma. Coagulase positive
Staphylococci clump within 15 seconds because
coagulase precipitates fibrin in the plasma on the
cell surface. (Cruickshank et al 1975).

d. The diagnosis of Smalmonella and Shigella
was confirmed serologically also.

RESULTS

A. CLINICAL DATA

Analysis of the CASE SHEETS reveals :

1. PERSONAL HISTORY :

The age and sex distribution of the cases studied in the present work is shown in Table (4). The age ranged from below one year to 61 years with a mean of 7.636 years. The sample included 89 males and 59 females with a ratio of 1.5/1. The mean age of males was 7.928 years and that of females was 7.195 years. Campylobacter positive patients in this study were all under the age of one year. Table (5) shows their recorded data.

Table (4): Age and Sex Distribution of studied cases.

Age in years	SEX				Total	
	Males		Females			
	No	%	No	%	No	%
0 - 1	47	31.75 %	37	25.00 %	84	56.75 %
1 - 10	19	12.83 %	8	4.40 %	27	18.24 %
10 - 20	7	4.72 %	7	4.72 %	14	9.45 %
20 - 30	10	6.75 %	1	0.67 %	11	7.43 %
30 - 40	3	2.02 %	3	2.02 %	6	4.05 %
40 - 50	1	0.67 %	3	2.02 %	4	2.70 %
50 - 60 +	2	1.35 %	-	-	2	1.35 %
Total	89	60.14 %	59	39.86%	148	100 %
Mean	7.928		7.195		7.636	

Table (5): Clinical data of Campylobacter positive cases.

CLINICAL DATA	CASE I	CASE II	CASE III	CASE IV	CASE V
Age	4 months	6 months	9 months	7 months	8 months
Sex	♂	♀	♂	♀	♂
Occupation (father).	farmer	carpenter	farmer	hosp.labourer	carpenter
Duration	7 days	3 days	7 days	7 days	3 days
No of motion during previous 24 h.	7	8	4	3	5
Vomiting	+	+	+	+	+
Colic	+	+	+	-	+
Rise of temperature	+	-	+	-	+
Previous treatment	+	-	-	-	-
Consistency	watery	watery	semi-solid	watery	watery
Colour	Yellowish	Yellowish	Greenish	Greenish	Yellowish
Mucous	+	+	+	+	+
R.B.C's.	+	-	+	+	+
W.B.C's.	+	+	+	+	+

2. SIGNS AND SYMPTOMS :

From Tables (6,7 and 8), most cases (94 = 63.513%) had the diarrhoeal episode for 1-5 days. The mean duration of illness before seeking medical advice was 5.459 days.

(58 = 39.189 %) of cases had 6 - 10 motions in the previous 24 hours. The mean number of motion was 9.952.

(89 = 60.135 %) of patients suffered from vometing.

(123 = 83.108 %) complained of abdominal pain.

(98 = 66.216 %) had a rise of temperature.

(51 = 34.459 %) received treatment before we obtained their specimens.

Table (6) : Number of motions during the previous
24 hours.

| Number of Motions | SEX | | | | Total | |
| | ♂ | | ♀ | | | |
	No	%	No	%	No	%
3 — 5	31	34.831 %	17	28.813 %	48	32.432 %
6 — 10	30	33.707 %	28	47.457 %	58	39.189 %
10 — 20 +	28	31.460 %	14	23.728 %	42	28.378 %
Total	89	100.000 %	59	100.000 %	148	100.000 %
Mean	10.348		9.355		9.952	

Table (7): Duration of illness before seeking for treatment.

Duration	SEX				Total	
	♂		♀			
	No	%	No	%	No	%
1 - 5	55	61.797 %	39	66.101 %	94	63.513
6 - 10	26	29.213 %	14	23.728 %	40	27.027
11- 15 +	8	8.988 %	6	10.169 %	14	9.459
Total	89	100.000 %	59	100.000 %	148	100.000 %
Mean	5.292		5.711		5.459	

Table (8): Signs and Symptoms.

Signs and Symptoms	SEX				Total	
	♂		♀			
	No	% (1)	No	% (2)	No	%(3)
Vomiting	51	57.303 %	38	64.406 %	89	60.135 %
Colic	71	79.775 %	52	88.135 %	123	83.108 %
Rise of temperature	67	75.280 %	31	52.542 %	98	66.216 %
Recived treatment	34	38.202 %	17	28.813 %	51	34.459 %

(1) Calculated from No of ♂ (89).

(2) Calculated from No of ♀ (59).

(3) Calculated from total No (148).