

TRENDS IN SALMONELLA ISOLATES 1984 - 1994

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Introduction:

Salmonella gastro-enteritis has shown a visible increase over the past years. Furthermore, changing trends in serotype prevalence and seasonal prevalence provide valuable insight into the possible factors which may be the cause for such increase.

Methods:

Since the Bacteriology laboratory at St. Luke's Hospital is responsible for the testing of all microbiological specimens from both governmental hospitals and health centres, the data stored in this department was evaluated in order to establish the patterns evident over the past ten years.

Data evaluation utilised retrospectively details of all the positive cases which yielded a culture/s of enteric pathogens. All duplicate results from multiple tests requested from the same patient during a single gastro-intestinal episode were carefully sought and treated as one isolate in order to prevent magnification of actual figures.

Results:

The results following extrapolation of the data collated are documented in the following graphs.

Comments:

The prevalence of Salmonella isolates over other enteric pathogens is substantial and is much higher than that normally seen in most European countries.

It can be clearly seen that over the past ten years, a gradual but constant increase in the number of Salmonella isolates per year has occurred. This is easily explainable by the concurrent expansion in the catering and hospitality industry which has been evident in Malta over the past decade.

The seasonal trends again show a rise as the year progresses reaching a peak in the summer months and then declining as winter approaches. This is also explainable from the increase and pressures on the catering industry in the summer months from a combination of more tourists, higher ambient temperatures and the use of often untrained part-time help.

The changes in Salmonella serotypes over the past ten years shows practically no cases of Salmonella enteritidis up to 1986. By 1990 this serotype increased in incidence and has now become the prevalent serotype in the Maltese Islands. Since from personal information, the phage type of these isolates is almost always PT4, the possibility of contamination of eggs could be a very real one.

YEARLY SALMONELLA ISOLATES (1984 - 94)

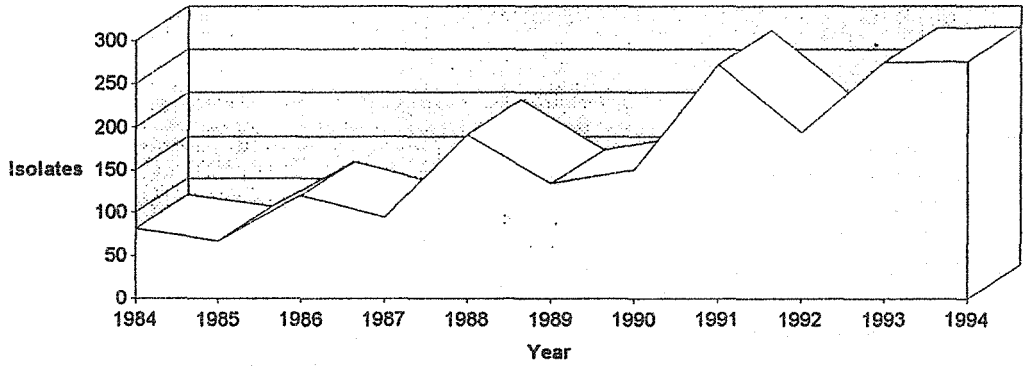


Fig. 1

MONTHLY SALMONELLA ISOLATES (1994)

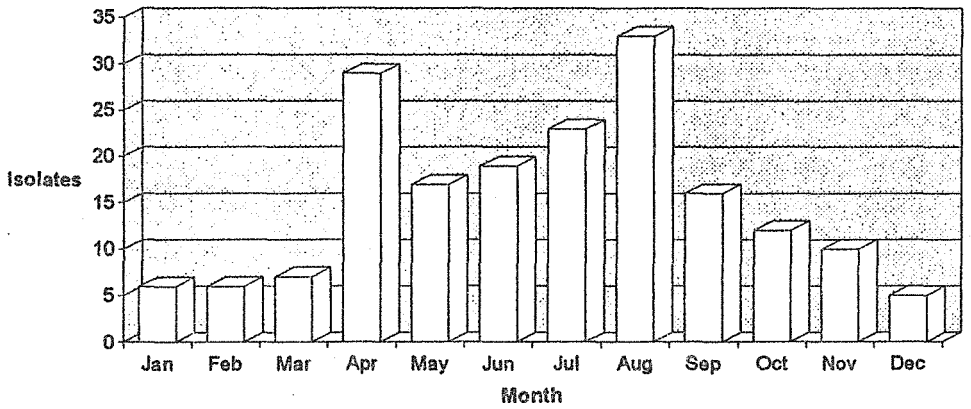


Fig. 2

MAJOR SALMONELLA SEROVARS (1984 - 1994)

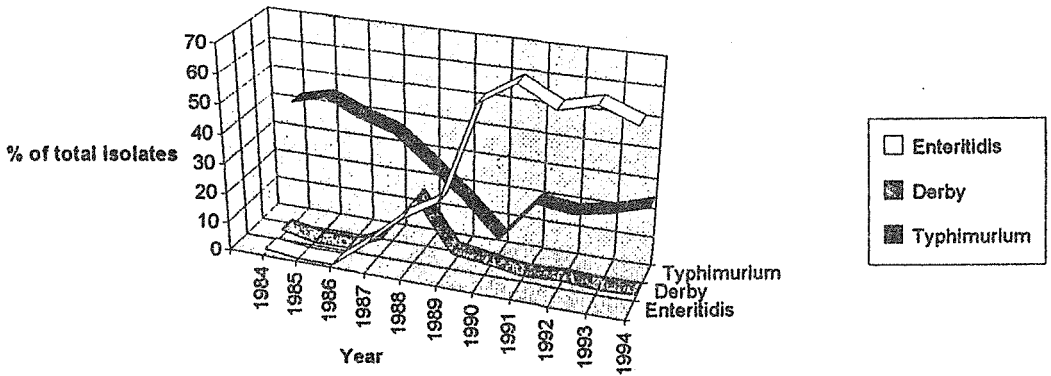


Fig. 3

ENTERIC PATHOGEN ISOLATES (1994)

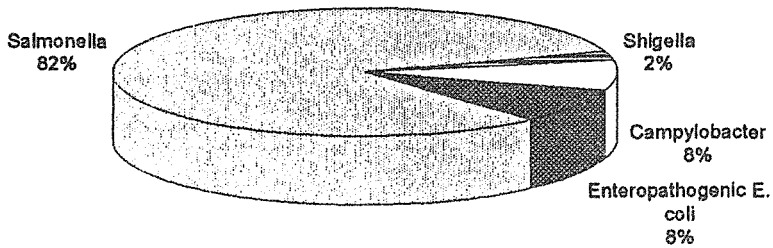


Fig.4