SUMMARY AND CONCLUSION

The value of Metronidazole in the prevention of wound sepsis after appendicectomy was assessed in a prospective, controlled, randomised, clinical trial involving ninety patients .

Thirty patients were in the control group where no prophylaxis was given; thirty were treated by prophylactic systemic Penicillin-Streptomycin and thirty were given prophylactic Metronidazole .

The trial also included an assessment of the value of delayed primary wound closure in gangrenous and perforated appendices. Ten patients were included in the delayed closure group and in 10 patients the wound was closed primarily .

In both the control and the antibiotic group wound sepsis occurred in 33% of patients. This was reduced significantly to 13% in the Metronidazole group. The results were even more evident in patients with gangrenous or perforated appendices where wound sepsis in the control group occurred in 6 out of 7 patients. In the antibiotic group it occurred

in 5 out of 6 patients and in the Metronidazole group in only 1 out of 7 patients. In patients with normal or inflamed appendices there was no statistical difference between the control, antibiotic and Metronidazole group .

Delayed primary closure was also effective in reducing wound sepsis, only 4 out of 10 patients (with gangrenous or perforated appendices) had wound sepsis compared to 8 out of 10 patients in the primary closure group .

It is concluded that Metronidazole in the regimen used in this trial, where pre-operative medication of 1 g. Metronidazole was given rectally followed by 1 g. every 8 hours until oral feeding is allowed, when Metronidazole was given in 250 mg. tablets three times daily to the end of the seventh day, is effective in reducing wound sepsis, particularly in gangrenous or perforated appendices .

Delayed primary wound closure showed a statistically significant reduction of wound sepsis and is recommended in all patients with gangrenous or perforated appendices .

The debatable statement is whether it is improper to withhold Metronidazole prophylaxis in patients subjected to

appendicectomy. The possibility of rendering this valuable drug useless by the emergence of resistant strains in apparently normal and slightly inflamed appendices makes one hesitate to use it in every patient but to limit its use in gangrenous and perforated cases .

The second point is that Metronidazole is only effective against anaerobes, which are the most common causative organisms. However, aerobic wound infections still occur and a local antiseptic agent as Povidone-iodine which is effective against all organisms is a possible acceptable alternative and there appears to be a place for a controlled trial comparing Metronidazole with dry powder povidone-iodine or with the local instillation in the wound of a broad-spectrum antibiotic effective against anaerobes as chloramphenicol or Lincomycin .