NOTES & REFERENCES

Some general notes on the terms and conventions used in this book.

THE POOR

It is difficult to measure poverty and the numbers affected by it. The World Bank estimates that about 800 million people are living in what it calls “absolute poverty”, and probably as many again are only a little better off. The majority live in rural areas, and the greatest concentration is in South and East Asia.

THE THIRD WORLD

There is no satisfactory way of describing the group of countries which contain a high proportion of poor people. In this book the term ‘Third World’ is used as a shorthand which does at least reflect (through the use of the word ‘world’) the diversity of countries it encompasses. The Third World includes about a hundred countries containing some 3,000 million people.

THE RESEARCHERS

The research for this book was carried out by full-time OXFAM staff - principally the author, but with assistance from colleagues in the Third World and in Oxford. The researchers are referred to as ‘we’ in the text.

SOURCES

As well as books, articles and official documents, a large number of experts have been consulted in the course of the research and their letters provide a number of the sources quoted in the references. The term ‘personal communication’ refers to a letter from the person quoted. The phrase ‘in interview with’ means that no written record exists - but that the points made in the interview have afterwards been referred back to the person interviewed.

Some of the sources quoted are OXFAM files. Anyone wishing to see any of the files referred to should write to the Overseas Director, OXFAM, 274 Banbury Road, Oxford OX2 7DZ.

OXFAM SUPPORT

OXFAM seldom provides 100% of the cost of a scheme - so where projects are described as ‘OXFAM-supported’ or ‘OXFAM-funded’, it should be remembered that most of the cost is usually paid for by the local people and/or other aid agencies.

CURRENCIES

The sterling equivalent of local currencies is given in brackets in some cases. The exchange rate used is either that in force on the date in question, or, where the date is a year, the average of end-of-month exchange rates for that year, unless otherwise specified.

COMPANIES

Companies are referred to in the text by their short names - eg ‘Glaxo’ rather than the full name, ‘Glaxo Holdings p.l.c.’

OXFAM’s dialogue with the pharmaceuticals manufacturers continued after this report was completed. It has not been possible to take into account in the text all the points made after June 1982.

MEDICINES

The words drugs, medicines and pharmaceuticals are used interchangeably throughout the book.

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CHAPTER 1

1 Figures derived from:
     Life expectancy at birth in developing countries: 1935-39: 32 years 1965-70: 49 years


3 Dr. Tony Klouda, “Prevention is more expensive than cure, a Review of Health Problems for Tanzania 1971-81”, February 1982. (mimeo)

4 WHO, *Drug Policies Including Traditional Medicines in the Context of Primary Health Care*, Report and Background Documentation of the Technical Discussions held during the 32nd Session of the WHO Regional Committee for SE Asia Regional Office, New Delhi, November 1979, Table 1, p.28.

   - ICSSR/ICMR Report, op.cit., p.5.


8 Dr. David Morley, Professor of Tropical Child Health, Institute of Child Health, University of London, “Severe Measles: A Barometer of Childhood Nutrition”. (mimeo)

9 Yemen General Grain Corporation, Ministry of Supply and Ministry of Health with the assistance of the US Department of Health and Human Services, Public Health Service, Centre for Disease Control and USAID, *Yemen Arab Republic National Nutrition Survey*, November 1980. Definition of anaemia: 11.0 g/dl for pregnant women and below 12.0 g/dl for all other women, lactating and non-lactating.


12 Dr. K.M.S. Aziz of the International Centre for Diarrhoeal Disease Research Bangladesh, in interview with the author, October 1980.

   - ICSSR/ICMR, op.cit., p.7.

15 ICSSR/ICMR, op.cit., p.7.

16 Dr. M. Fernex, "Im Teufelskreis von Krankheit und Armut", Roche Magazin No. 4, August 1978 (translated into English by Roche as "Roche and its fight against tropical diseases").


- Fernex, op.cit.


21 Klouda, 1982, op.cit.
- ICSSR/ICMR, op.cit., p.18.


23 ICSSR/ICMR, op.cit., p.18.

24 Ibid., p.6.


26 Klouda, 1982, op.cit.


28 Dr. Lesley Bacon, Medical Officer, University Hospital, Legon, Ghana, "Ghana - medical care amid economic problems", *Journal of the Royal College of General Practitioners*, July 1980. p.434.

29 O. Jakobsen, "Economic and geographical factors influencing child malnutrition, a study from the Southern Highlands, Tanzania", *BRALUP Paper No. 52*, University of Dar es Salaam, 1978.


31 *Oxfam Field Directors' Handbook*, op. cit., p.3-2.

32 Ibid., pp.3-3, 22-2.

33 Ibid., p.24-2.

Chapter 1

35 ICSSR/ICMR, op.cit., p.7.

36 Bangladesh Health Profile 1977, op.cit.

37 Catholic Institute of International Relations, "Yemen Country Analysis", p. 40. (mimeo)

38 For example, female illiteracy in North Yemen recorded as 97.6%, Yemen Arab Republic Ministry of Health, Annual Statistical Report, 1979. p.3. Also, on unequal distribution of food: "As a result of the existing eating habits the best food is reserved for the adults, especially the men, and the children are thus deprived of necessary proteins." Sjaak van der Geest, "The Efficiency of Inefficiency: Medicine Distribution in South-Cameroon", paper presented at the Seventh International Conference on Social Science and Medicine, Noordwijkerhout, 22-26 June 1981. (mimeo)


41 Klouda, "Prevention is more expensive than cure", July 1981. (draft)

42 ICSSR/ICMR, op.cit., p.6.

43 Smallpox vaccinations were introduced by Jenner in 1796 and well established during the nineteenth century (British Medical Journal, 1896).


46 Dr. John Yudkin, "Drugs, Drug Companies and the underdevelopment of health", paper presented at the Conference on Technology Transfer to the Third World, 10-12 January 1982 at Gonoshasthaya Pharmaceuticals Limited, Bangladesh.


50 Tony Klouda, personal communication, 11 September 1981.

51 - Control of Communicable Diseases in Man, op.cit., pp. 312-314.
- Maurice King, Felicity King, Soebagio Martodipoero, Primary Child Care: Book one, a manual for health workers, Oxford University Press, 1978
- Bo Balldin, Richard Hart, Rolf Huenges, Zier Versluys, Child Health and Community Medical Depts, Kilimanjaro Christian Medical Centre, Child Health, a manual for Medical Assistants and other rural health workers, Africa Medical and Research Foundation, 1975, p.16.2.

52 Ibid.
53 ICSSR/ICMR, op.cit., p.54. (conversion rate from Rupees taken as £1 / Rupees 18)

54 Ibid., p.176: "The total output of the industry increased a hundredfold from Rs. 100 million in 1947 to Rs. 10,500 million in 1978-79 (at current prices). This was due to expanded production, especially of an ever-increasing number of sophisticated drugs and rising prices. The index of production rose from 64 in 1960 to 165 in 1979(1970/100). The drug industry has enjoyed a higher man-average profitability so that investment therein has increased substantially from Rs.240 million in 1952 to Rs.4,500 million in 1977." (i.e. approx. £250 million)

55 - ICSSR/ICMR, op.cit., pp. 5 and 19.

56 OXFAM Field Directors' Handbook, op. cit., Section 3.


58 Ibid.

59 WHO, National Policies and Practices in regard to medicinal products; and related international problems, background document for reference use at technical discussions, Thirty-First World Health Assembly, A31/Technical Discussions/1, 6 March 1978, p.5.


61 Ibid.

62 Dr. Mahler, Director General WHO: "But for the villager and urban slum-dweller great miracles can be achieved with fewer than 30 well-chosen drugs." ("The meaning of 'health for all by the year 2000' " World Health Forum, vol. 2, No. 1. 1981, p.17.)


64 WHO (A31/Technical Discussions/1) 1978, op. cit., p.5.

CHAPTER 2

1 Government of the People's Republic of Bangladesh Ministry of Health and Population Control, Bangladesh Health Profile 1977, Table 11a, p.105.

2 For example, in Bangladesh
- An estimated 325,000 active TB cases (aged over 10) receive no treatment.
- At least 90,000 under fives die each year of pneumonia.
- An estimated 136,000 under fives die of tetanus (mortality 8.6 per 1000).
- A WHO survey records the incidence of neonatal tetanus at 23.9 per 1000, with a case fatality rate of 93.5%.
- An estimated 32 million children under 15 need worm treatment. (Source: Bangladesh Health Profile 1977, op.cit.)
Chapter 2

In Tanzania

- An estimated 130,000 leprosy cases not treated.
- An estimated 36,000 TB cases untreated.
- Hookworm affects up to 5 million. (Source: Dr Tony Klouda "Prevention is more expensive than cure, a Review of Health Problems for Tanzania 1971-1981," February 1982. (mimeo)

Consumption by sales value from M. P. Tifienbacher, director Fabwerke- Hoechst, Table I(i) and (iii) supplementary to paper published in the Proceedings of the US Institute of Medicine (National Academy of Sciences) Conference, Pharmaceuticals for Developing Countries, Washington, January 1979. Figures for the world pharmaceutical market in 1976 (manufacturers' price) The 19 industrialized: Australia, Austria, Belgium, Canada, Denmark, Finland, France, W. Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, South Africa, Sweden, Switzerland, UK and USA. The low income countries: Afghanistan, Bangladesh, Benin, Bhutan, Burundi, Burma, Kampuchea, Central African Empire, Chad, Ethiopia, Guinea, Haiti, India, Kenya, Lao PDR, Lesotho, Madagascar, Malawi, Mali, Mozambique, Nepal, Niger, Pakistan, Rwanda, Sierra Leone, Somalia, Sri Lanka, Tanzania, Uganda, Upper Volta, Vietnam, Yemen Arab Republic, Zaire.

3 WHO, "National Policies and Practices in regard to Medicinal Products: and Related International Problems", Background Document A31/Technical Discussions/1, 6 March 1978, p.9 "... in economic terms the developed countries account for more than 80% of the world pharmaceutical consumption and the developing countries for less than 20%.

- UNIDO, Global Study of the Pharmaceutical Industry (ID/WG.331/6) 22 October 1980, p.29, gives developing country consumption in 1978 as 17.55%. Pharmaceutical consumption in China equals 5.2% of total market (Tables 15-18).

- David Taylor, Medicines, Health and the Poor World, Office of Health Economics, London 1982, p.30. World medicine consumption 1980 manufacturers' prices) was $76,000 million and 20% of sales were in developing countries.

4 - WHO, "National Policies and Practices in regard to Medicinal Products: and Related International Problems", Background Document A31/Technical Discussions/1, 6 March 1978, p.9 "... in economic terms the developed countries account for more than 80% of the world pharmaceutical consumption and the developing countries for less than 20%.

- Dr. V. Fattorusso, "Essential Drugs for the Third World", World Health, May 1981, p.3. Average drug consumption per head is considerably higher in some newly industrializing countries, particularly in Latin America: eg. Brazil $12 and Mexico $11.6 (1976) (UNIDO, op. cit., p.116). In Britain drug consumption per head in 1979 was $76 (retail prices) (SCRIP, World Pharmaceutical Newsletter, No. 621, p.4) and £19.55 (manufacturers' prices) for total UK market of £1,056 million (Association of British Pharmaceutical Industry - ABPI). But Britain ranks low amongst other developed countries, as W. Germany Japan, France, Sweden, Switzerland, USA and others have significantly higher average drug consumption. (UNIDO, 1980, op. cit., p.117.)

- Bangladesh Government report to WHO, "Drug Policy and Management in Bangladesh" (Country Information Paper), for Inter-Country Consultative Meeting on Drug Policies and Management, 13-16 October 1980, New Delhi, (WHO/SEA/DPM/Conslt. meeting 1/7). Drug market for 1979 US $70 million - (at trade prices). "The per capita consumption of drugs (allopathics) is about US $0.82, with a coverage of not more than 28% of the people."

6 See Chapter 9, "National and International Solutions".

- Bangladesh Health Profile 1977, op. cit., Table 5.2, "Central Government Current Expenditure".

9 Klouda, op. cit., p.12.


Klouda, op.cit., p.15.

Ibid. p.17.


*Bangladesh Health Profile 1977*, op.cit., p.69.

Suzanne Williams, OXFAM Field Director, Manaus, in interview with the author, September 1981.


Dr. K.M.S. Aziz, International Centre for Diarrhoeal Research, Bangladesh, in interview with the author, 8 October, 1980.

5 year MBBS course consists of 2770 hours teaching, of which 940 hours (anatomy, embryology, histology); 780 hours (physiology, biochemistry); 10 hours (elementary bacteriology and pathology); 150 pharmacology (no clinical pharmacology); 40 forensic medicine; 25 clinical subjects; 180 medicine, including clinical medicine, paediatrics, skin and venereal disease and therapeutics.


*Bangladesh Health Profile 1977*, op.cit.


Mahler, op.cit, p.10: “Over three-quarters of the world’s migrant doctors can be found in just five countries - Australia, Canada, W. Germany, the UK and the USA.”

*Bangladesh Health Profile 1977*, op.cit., p.73.

Professor P.F. D’Arcy, Head of Department of Pharmacy, Queen’s University of Belfast, Pharmacy in the Third World: a Cause for Concern, *Pharmacy International*, (FIP Sector), June 1980.

Figures given by WHO are contradictory:

(a) The WHO Drug Policies and Management Unit Paper on the trend of essential drug prices in developing countries (1980) (mimeo), “General Principles Section”, p.3 gives the figures as 15-20% of health budgets spent on drugs in developed countries, and 40-60% in developing countries.

(b) The WHO Background Document, “*National Policies and Practices in Regard to Medicinal Products; and related international problems*” (A31/Technical Discussion/1), March 1978, gives expenditure on pharmaceuticals as 10-20% of health expenditure in developed countries, and “as high as 50% in developing countries.”

(c) But, drugs expenditure is shown to be under 30% in Burma, India, Indonesia and Sri Lanka in WHO, *Drug Policies Including Traditional Medicines in the context of Primary Health Care*, Report and Background Documentation of the Technical Discussions held during the 32nd session of the WHO Regional Committee for S.E. Asia, September 1979. Published WHO, Regional Office for S.E. Asia, November 1979, Table 1, p.28.


Sjaak van der Geest of the Anthropological-Sociological Centre, University of Amsterdam, "The Efficiency of Inefficiency: Medicine Distribution in South-Cameroon", paper presented at the Seventh International Conference on Social Science and Medicine, Noordwijkerhout, 22-26 June 1981. (mimeo)

Mark Bowden, Director, Save the Children Fund, Bangladesh, in interview with the author, 18 September, 1980, and others.


Prof. I.C. Tiwari, Dr S.C. Mohapatra and Dr S.D. Gaur, Department of Preventive and Social Medicine, Institute of Medical Sciences, Banaras Hindu University, "Drug Needs and Availability for Primary Health Care in a Rural Community in India", paper presented at Primary Health Care Symposium, 13-16 April 1982 at the Liverpool School of Tropical Medicine.

Ibid.


- Dr. Balasubramanian, UNCTAD, quoted in Provisional Summary Record of the Sixth Meeting Committee A, Thirty-Fifth World Health Assembly, WHO Document A35/A/SR6, 11 May 1982, p.3.
- Dr. J Albably, Director Yemen Government Supreme Board of Drug Control, in interview with David Green of Oxfam and James Firebrace, Coordinator, British Volunteer Programme, August 1980.

- UK figures from SCRIP, No. 621, August 31, 1981.

Drug Policies including Traditional Medicine in the Context of Primary Health Care, op.cit.

Bangladesh Health Profile 1977, op.cit., p.75.


Ann Ferguson, Department of Anthropology, Michigan State University, "The Role of Pharmaceuticals in the Process of Medicalization in Asuncion, El Salvador", paper delivered at the 1980 American Anthropological Association meetings held in Washington DC, December 2-7. (mimeo)


van der Geest, op.cit., p.13.
CHAPTER 3


3 George Teeling-Smith, Director, Office of Health Economics, quoted in New Internationalist, No. 50, April 1977, p.13.


5 Ibid. Exports from Eastern European and other centrally-planned economies: 9.8% of world total (1977) and exports from all developing countries: 3.8% of total. Table 29


7 Ibid., pp.20-24. Besides production of synthetic drugs, biologicals such as insulin can be produced from slaughter-house wastes and others from plant extracts without very advanced technology.

8 Ibid.

9 UNIDO, 1980, op.cit., p.35.


11 UNCTC, 1979, op.cit.

12 Indian Council of Social Science Research (ICSSR) and Indian Council of Medical Research (ICMR), Health for all, an alternative strategy, 1981.

- UNCTC summary draft report of 9 February 1981 with case studies on Argentina, Brazil, Colombia, Costa Rica, Egypt, India, Kenya, Malaysia, Mexico, Sierra Leone, Thailand.

14 Ibid.

15 UNCTC, 1979, op.cit., p.22.

16 OECD, An Industry like no Other - The Pharmaceutical Industry as seen by the OECD, (Summary of the report entitled "Multinational Enterprises, Governments and Technology; the Pharmaceutical Industry" by M. L. Burstall, J. H. Dunning and A. Lake, OECD, Paris 1981), Pharma Information Ciba-Geigy, Roche, Sandoz, Basle, February 1982, Table 11. There are only 3 British manufacturers in the top 25: Glaxo, Beecham and ICI. A league table (at 31 December 1980) on just prescription drugs includes Wellcome ranked No.21 (with ICI and Beecham at 22 and 23) and Fisons at 57. (SCRIP No. 653 & 654, 21 & 24 December 1981, p.19.)

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Concentration on overall sales is low in the drug industry compared to other high-technology manufacturing industries, eg. car production, in which the largest company had about 25% of the market in 1977. (UNIDO, 1980, op.cit. pp.55-6.)

For 18 Western industrialized countries this positive trade balance was $2,445.1 million and for just two Eastern European countries $170.2 million in 1977. (Unpublished data from UNCTAD.)


David Piachaud, London School of Economic, “Medicines and the Third World”, 1979. (mimeo)

Dr. Oliver Munyaradzi, Minister of Health, text of speech delivered at the meeting of Chief Pharmacists of the Africa Region in Harare, 26 April 1982, Department of Information, Press statement 358/82/DC.


- Dr. Mohammed Jafer Saeed, “The Other Face of Drug Companies” (translated from Arabic), p.5. (mimeo)

UNCTAD, *Technology policies in the pharmaceutical sector in the Philippines*, study prepared by Mr Esteban Bautista and Mr Wilfredo Clemente in co-operation with the UNCTAD Secretariat, (UNCTAD/TT/36), United Nations, 1980, p.25.


38 Ibid., p.225.
39 Ibid., p.238.
40 - Assis Pacheco, op. cit., pp.98-103.
42 Dr. Carol Barker, “Pharmaceuticals Policy”, unpublished draft, undated. (The maximum profit allowed was set at a fixed percentage of the CIF price.)
44 Ibid.
46 UNCTAD, *Case studies in the transfer of technology the pharmaceutical industry in India*, study prepared by the Jawarharlal Nehru University and the Indian Council of Scientific and Industrial Research, United Nations, 1977, pp.4-7, Table 19 (p.38) and Table 20 (pp.40-41).
48 - ICSSR/ICMR, op.cit.
- UNCTAD, 1977, op. cit.
49 Hathi, op.cit., p.95.
50 The April 1979 Drugs (Prices Control) Order attempted to keep down the prices of essential drugs by fixing lower price mark-ups for more essential items. In practice this has encouraged production of less essential drugs with higher profit margins. (Mukarram Bhagat *Aspects of the Drug Industry in India*, Centre for Education and Documentation, Bombay, February 1982, pp.90-95.)
52 Ibid. The policy of licensed capacity is intended to restrict production of non-essential drugs. In practice, many companies have been producing far in excess of their licensed capacities without action being taken, but the dapsone case has parallels. Alembic Chemical was required to export its unlicensed over-production of penicillin - a much-needed drug. The Indian public sector pioneered bulk drug production in the country and almost all its output is of important bulk drugs, but they have a poor record for reaching production targets, idle capacities and heavy financial losses. (Bhagat, op.cit.)
Chapter 3

THE 8 LEADING COMPANIES

1. Pfizer Laboratories Ltd. US subsidiary.
2. Glaxo (Bangladesh) Ltd. British subsidiary.
3. Fisons (Bangladesh) Ltd. British subsidiary.
5. Hoechst Pharmaceuticals Co. Ltd. W. German subsidiary.
7. Organon (Bangladesh) Ltd. Dutch subsidiary.
8. ICI Bangladesh Manufacturers Ltd. British subsidiary.

FOREIGN CONTROL

For example: Glaxo: Glaxo Holdings controls 70% of the equity and the Government 30%. Glaxo had 4 members on the Board to 3 Government representatives. (Information from Glaxo (Bangladesh) 1980). ICI: the British parent company also holds 70% of the equity. Fisons: The Bangladesh Government holds 51% of the equity shares, but Fisons holds 51% of controlling shares and has 3 representatives on the board to the Government’s 2. BPI: May & Baker U.K. holds 60% of the equity; and is solely responsible for the management of the company under a management contract.

There are 25 medium-sized national companies which manufacture a further 15% of products and 133 small companies that account for the remaining 10% - these produce only simple liquid formulations.

55 Dr. H.K.M.A. Hye, then Director Drug Administration, personal communication, 7 May 1981. The Government tender is restricted to the local market for all items produced locally: “Procurement is by generic name but we have the constraint that the local market is dominated (80-85%) by large brand name producers and their subsidiaries. Drugs manufactured locally cannot be imported, even if cheaper foreign sources are available.”

56 Dr. Hye in interview with the author, Delhi, 20 October 1980.

- Sales 1977 Taka 800 million (“Country Information Paper - Bangladesh” Drug Policies Including Traditional Medicines in the Context of Primary Health Care, WHO Regional Office for S.E. Asia New Delhi, November 1979.)
- Drug expenditure 1981 estimated at 1,500 million taka (Expert Committee Report, Bangladesh, 11 May 1982, op. cit. p.92.)

58 - Ibid.
- Dr. Hye in interview with the author, 20 October 1980.

59 Expert Committee Report, Bangladesh, op. cit.


61 Bristol-Myers (Bangladesh) Ethical Pharmaceutical Market in 1977 (estimates from Marketing division). Total market 50 million dollars.

% of market
(a) vitamins, haematinics, tonics 30
(b) antibiotics 20
(c) analgesics 10
(d) antacids 10
(e) tranquilizers, antidepressants, sedatives 8
(f) antidiarrhoeals & anti-dysentric 7
(g) anti TB 6
(h) others 9 Total 100%
One local marketing manager interviewed (September 1980) considered (a) an underestimate and the true figure nearer 40%, and (c) and (d) overestimates in terms of value, not volume. The Marketing Director of Squibb of Bangladesh Ltd. gives turnover in 1980 as vitamins and nutritionals - 31.8% and antacids - 12.8%.


We understand from inquiries made by our Field staff in Bangladesh that these product lists were current at the beginning of 1982, but we have no written confirmation from either company of precisely which drugs are currently marketed in Bangladesh. See Appendices 11 and III. Also, WHO, 1979, op.cit.

64 See Chapter 5,

65 Antidiarrhoeals: *Fistrep* (combination of streptomycin sulphate and clioquinol) and *Enterfram* (liquid preparation of neomycin sulphate and kaolin). For dangers of clioquinol, see page and for appropriateness of antibiotics for use in diarrhoea (especially "infantile diarrhoea") recommended in Fisons (Bangladesh) Limited *Price List of Products*, 1 September 1978.

"Antibiotic....preparations should be avoided for the treatment of diarrhoea even when a bacterial cause is suspected." (BNF, 1981, op. cit., p.40, original emphasis.)


68 Prof. M.D. Rawlins, Head Department of Pharmacological Sciences, University of Newcastle upon Tyne, personal communication, 8 February 1982.

69 Letter from Fisons (UK) to Prof. Rawlins, 21 February 1981.

70 Dr. John Yudkin, personal communication 25 November 1980. "*Digeplex*: No justification for using enzymes in 'indigestion'. The indications would be malabsorption for pancreatic failure - which can indeed happen in long-standing malnutrition, but needs specific diagnosis before it's used. Also vitamin B complex deficiency is not a basic cause of digestive disorders." (original emphasis)

71 Dr. Martin Schweiger, personal communication, 13 July 1980.


73 GLAXO UK: In our letter of 8 May 1981 to Glaxo's Group Consumer Products Co-ordinator we wrote: "On medicines you will remember I was keen to have the names of colleagues on the Ethical Pharmaceuticals side with whom I might discuss issues such as the product range in Bangladesh and the feasibility of switching production to drugs more in line with health needs and the priorities of the Government in Bangladesh." We received no reply. We wrote a long letter raising specific and general queries on 20 January 1982, with follow-up telephone calls on 26 March, 13 and 26 April and letters on 27 April and 19 May. On 29 January 1982 J. Barr (Group Public Relations) wrote: "This our letter of 20 January has been passed to this office for actioning and further contact will be made when the matters raised have been fully considered". A further letter of 16 June 1982 from Glaxo's Public Relations Manager does not respond to our request for comments on the range of products sold in Bangladesh (or give details of their current product range), citing the fact that in 1981 we discussed these issues with Mr Barnett, Glaxo Group Consumer Products Coordinator. In fact our discussion then focussed mainly on sales of artificial baby milk and Mr. Barnett suggested the Bangladesh pharmaceutical product range would be more appropriately discussed with colleagues on the ethical pharmaceuticals side.

GLAXO (BANGLADESH): Mr. Zaman, Marketing Services Manager and Mr. Chowdhury, Marketing Director, were helpful when we interviewed them on 7 and 8 October 1980.
Fisons: Mr. Mohammad Nurul Alam, Marketing Manager of Fisons (Bangladesh) Ltd. was also most helpful when we talked to him on 26 September 1980. Our letter to the Divisional Chairman of Fisons UK Pharmaceuticals Division of 18 January 1982 unfortunately did not reach Fisons, a copy was sent on 24 March which cut down the time for them to contact their subsidiary. Fisons Deputy Chairman wrote on 27 April 1982 to say: “Naturally I am very concerned about your criticisms, implied or otherwise, relating to the activities of Fisons (Bangladesh) and consequently you will appreciate that I find it necessary to investigate your 'facts' thoroughly before responding on relevant matters due course.” We had no further comments by time of going to press.

Expert Committee report, 11 May 1982, op. cit. Of the 1742 locally manufactured products recommended for withdrawal only 174 are produced by the 8 foreign-controlled manufacturers.

Ibid., p.9. Verdivitone is referred to as “multivitamin combination with alcohol and glycerophosphate. A highly misused habit-forming drug which is dangerous in hepatic malaisis. Chronic wastage of country's resources ...” (p.10) Squibb of Bangladesh point out: “Verdivitone is purchased mainly by the more affluent sector of the community and at 11% per volume, has a lower alcohol content than other vitamin tonics made here. Alcohol is used to preserve the B complex vitamins which would otherwise degrade quickly ...”. They also cite “the large rural industry producing cheap (and dangerous) alcohol from palm, sugar and rice.” (R. Bower, Managing Director, personal communication, 3 May 1982.)

Dr. C. G. Roepnack and Dr. R. W. Timmers, Hoechst Head Office, personal communication, 22 March 1982.

F. K. Ghuznavi, Chairman ICI Bangladesh Manufacturers Ltd., in interview with the author, 1 October 1980.


Mohammed Nurul Alam, Marketing Manager, Fisons (Bangladesh) Ltd., personal communication, 19 February 1981.


Ibid.

Dr. E. Snell and Mr. Lee (APBI) in interview with the author, 25 March 1981.

Dr. H.K.A. Hye, ex-Director Drug Administration - Ministry of Health, Bangladesh, personal communication, 7 May 1981.

“Merck in Bangladesh, Marketing Plan 1980(-1982)”, op. cit. The marketing claims made for Neurobion are discussed in more detail in Chapter 5.

Ibid., pp. 3, 6, 11.

Dr. Hye, personal communication, 10 August 1981.

Government of the People's Republic of Bangladesh, Directorate of Drugs Administration, “Import Figures of Finished Drugs for the Calendar Year 1980.”

E. Merck have argued that: “The import of our products to Bangladesh does not cost the country a penny in foreign exchange. As long as the country has been in existence, we have been closely cooperating with the Government in the conclusion of barter agreements, under which Merck supplies laboratory chemicals, reagents, diagnostics, industrial chemicals and
pharmaceutical specialities. Against the supply of these items, we purchase from Bangladesh goods such as molasses, textiles, industrial gloves, wheat grain for animal feed, jute and jute goods, wet blue skin, tea, cutlery, for none of which it is easy to find a ready buyer. We can even claim that we provide aid to Bangladesh through our contacts with customers for these goods by supplying know-how to that country, for example in the manufacture of textiles and for the production of cutlery. We feel this should be mentioned in order to complete the picture of our activities in the country ...” (Drs. Mehrhof and Niederehe, E. Merck, personal communication, 29 March 1982.) But the former Director of Drug Administration questions how much the barter arrangement is really helping Bangladesh in exchanging mainly finished medicines (many of which are “non-essential”) for commodities (like jute, jute goods, tea and hides) which are ‘easily exportable items, and if sold in the open international market would fetch valuable hard foreign exchange.’ “The statement that import of E. Merck products does not cost us a penny in foreign exchange is mischievous.” (Dr. H.K.M.A. Hye, personal communication, 20 April 1982.)

92 Government of the People’s Republic of Bangladesh, “Import Figures of Pharmaceuticals Raw Materials for the calendar year 1980”.
93 Hye, 10 August 1981, op. cit.
94 Expert Committee, Bangladesh, op. cit., p.92.
95 Ibid.
96 Pascale Brudon, “L’Industrie Pharmaceutique Suisse dans les Pays sous developpes”, Memoire presente pour le diplome de recherche en etudes de developpement, Institut Universitaire d’Etudes de Developpement, Geneva, 1981. Of the 36: 13 are for psychiatric and neurological use; 7 cardiovasculars; 3 antibiotics; 2 anti-cancer drugs. (p.211)
97 Ibid.
99 Ibid., p.203. Sandoz has a similar vanilla-flavoured preparation Meritene amongst its best-selling products in Mexico (p.207).
100 Ibid., p.257.
101 See Chapter 10.

CHAPTER 4

3 Ibid., pp.192-197, pp.202-203 and p.260. Bactrim was the 11th top-selling drug on the Mexican market in 1978. 20 tablets of the same drug were available more cheaply from: Burroughs Wellcome (Septrin) at 92.70 pesos. Laboratorios Tegur de Mexico (Bactifor) at 71.80 pesos. Industria Farmaceutica Andromaco (Andoprim) at 68.55 pesos. Laboratorios Fustery (Polibatrim) at 66 pesos. The 4 top-selling drugs can all be obtained more cheaply as generics: Bristol-Myers Pentrexyl and Bayer’s Binotal as ampicillin; Upjohn’s Lincocin as lincomycin, and Pfizer’s Terramicina as oxytetracycline.
Chapter 4

Khan, op.cit.


<table>
<thead>
<tr>
<th>PRODUCT/ MANUFACTURER</th>
<th>TRADE PRICE BANGLADESH</th>
<th>TRADE PRICE UK £</th>
<th>PERCENTAGE DIFFERENCE %</th>
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<tr>
<td>BEECHAM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amoxcil</td>
<td>Taka 212.50</td>
<td>£5.90</td>
<td>111</td>
</tr>
<tr>
<td>100x250 mg caps.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orbenin</td>
<td>Taka 165.75</td>
<td>£4.60</td>
<td>221</td>
</tr>
<tr>
<td>100x250 mg caps.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penbritin</td>
<td>Taka 718.25</td>
<td>£19.95</td>
<td>26</td>
</tr>
<tr>
<td>100x250 mg caps.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIBA GEIGY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tofranil</td>
<td>Taka 149.36</td>
<td>£4.14</td>
<td>-27</td>
</tr>
<tr>
<td>100x25 mg tabs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fisons</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genaspirin</td>
<td>Taka 21.25</td>
<td>£0.59</td>
<td>65</td>
</tr>
<tr>
<td>250x300 mg tabs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imferon</td>
<td>Taka</td>
<td></td>
<td></td>
</tr>
<tr>
<td>331.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100x2 ml amp.</td>
<td>= Taka 9.20</td>
<td>41.58</td>
<td>413</td>
</tr>
<tr>
<td>GLAXO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Betnelan</td>
<td>Taka 53.80</td>
<td>£1.49</td>
<td>168</td>
</tr>
<tr>
<td>100 tabs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Betnesol-N</td>
<td>Taka 12.25</td>
<td>£0.34</td>
<td>117</td>
</tr>
<tr>
<td>5ml drops</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grisovin</td>
<td>Taka 218.00</td>
<td>£6.05</td>
<td>95</td>
</tr>
<tr>
<td>500x125 mg tabs.</td>
<td>= Taka 11.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pirion</td>
<td>Taka 4.50</td>
<td>£0.12</td>
<td>260</td>
</tr>
<tr>
<td>50x4 mg tabs.</td>
<td>= Taka 0.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ventolin</td>
<td>Taka 27.75</td>
<td>£0.77</td>
<td>75</td>
</tr>
<tr>
<td>100x2 mg tabs.</td>
<td>= Taka 1.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOECHST</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lasix</td>
<td>Taka 38.95</td>
<td>£1.08</td>
<td>498</td>
</tr>
<tr>
<td>25x2 ml amps.</td>
<td>= Taka 6.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atromid-S</td>
<td>Taka 51.00</td>
<td>£1.41</td>
<td>14</td>
</tr>
<tr>
<td>50x500 mg caps.</td>
<td>= Taka 1.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avloclor</td>
<td>Taka 165.75</td>
<td>£4.60</td>
<td>-22</td>
</tr>
<tr>
<td>500x250 mg tabs.</td>
<td>= Taka 3.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fulcin</td>
<td>Taka 55.25</td>
<td>£1.53</td>
<td>24</td>
</tr>
<tr>
<td>100x125 mg tabs.</td>
<td>= Taka 1.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inderal</td>
<td>Taka 63.75</td>
<td>£1.77</td>
<td>121</td>
</tr>
<tr>
<td>250x10 mg tabs.</td>
<td>= Taka 3.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>250x40 mg tabs.</td>
<td>Taka 174.25</td>
<td>£4.84</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>= Taka 9.21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

216
<table>
<thead>
<tr>
<th>Product</th>
<th>Price (£)</th>
<th>Price (Tk)</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mysoline 100x250 mg tabs</td>
<td>£0.76</td>
<td>27.55</td>
<td>0.88</td>
</tr>
<tr>
<td>Synalar ointment 5gm</td>
<td>£0.28</td>
<td>10.20</td>
<td>0.30</td>
</tr>
<tr>
<td>Synalar N ointment 5gm</td>
<td>£0.29</td>
<td>10.63</td>
<td>0.31</td>
</tr>
<tr>
<td>PFIZER Terramycin 100x250 mg caps</td>
<td>£2.51</td>
<td>90.50</td>
<td>5.19</td>
</tr>
<tr>
<td>Terramycin SF 100x250 mg caps</td>
<td>£2.64</td>
<td>95.20</td>
<td>5.39</td>
</tr>
<tr>
<td>Vibramycin 10x100 mg caps</td>
<td>£1.09</td>
<td>39.50</td>
<td>5.48</td>
</tr>
<tr>
<td>Vibramycin Syrup 50mg/5ml/30ml</td>
<td>£0.40</td>
<td>14.40</td>
<td>1.72</td>
</tr>
</tbody>
</table>

**Sources:**

- UK Chemists and Druggists Price List, February 1980. Bangladesh manufacturers price lists valid February 1980, except Hoechst Bangladesh price list dated 1.8.80. (£1 = Taka 36)
- Monthly income of rural Bangladeshi family taken as Tk.400 (approx. £11) Prices from: Fisons Bangladesh Ltd. Price list (1.9.78) and ICI Bangladesh Manufacturers Limited Price list (4.1.80) effective November 1981 and UK Chemist & Druggist Price List, November 1981. UK family net monthly income taken as £583.
- WHO, “‘National Policies and Practices in Regard to Medicinal Products; and Related International Problems’. Background Document, A/31/Technical Discussions/1, 6 March 1978. Industry sources also concede that market factors influence prices. For example, Ciba Geigy’s internal write-up of a hearing held as part of a seminar on Third World policies: It took nearly 45 minutes of persistent questioning for the company to admit that the price at which drugs are sold from its Basle headquarters to other countries is influenced by market factors.
- “‘Prices of drugs in the private sector were uncontrolled and manufacturers charged whatever the market would bear.’” UNCTAD Report Pharmaceutical Policies in Sri Lanka, 1977, op.cit., p.6. Also: “The only general conclusion that can be drawn on this issue is that TNCs have charged whatever national markets would bear, and the market power of the leading firms has enabled them to limit the sales of many important drugs to that part of the population which could afford the going price - a part of which, in many countries, is very small indeed.” Oscar Gish & Loretta Lee Feller, Planning Pharmaceuticals for Primary Health Care, American Public Health Association International Health Programs Monograph Series No.2., 1979. p.25.
- 500 tablets Valium (5mg) trade price: £6.56; 500 tablets diazepam (5mg) trade price: £3. From Chemists & Druggist Price List, December 1981.
Chapter 4

16 Dr. Zafrullah Chowdhury, "Essential Drugs for the Poor: Myth and Reality in Bangladesh", paper presented at the Primary Health Care Symposium, Liverpool School of Tropical Medicine, 13-16 April 1982, p.11, Table 3. (mimeo)

17 UNCTAD, Technology Policies in the Pharmaceutical Sector in the Philippines, op.cit.

18 "..price competition remains the most important tool of success for generics producers." (Ciba Geigy Pharma, Generics Policy Divisional Policy Affairs Pharma Policy V1/81, Basle, 1981.)


20 Ciba Geigy Pharma, "Generics are a fact", April 1981.

21 The situation is one of ‘oligopoly ’: "The principal rule is that price competition except on very limited occasions, is an antisocial practice to be strictly avoided." R.J. Barnett and R.E. Muller, Global Reach: The Power of the Multinational Corporations, Simon and Schuster, New York, 1974. p.32.


25 Estimates for 1978. Personal communication from David Taylor, Deputy Director, Office of Health Economics: 23,000 licences of right granted when Committee on Safety of Medicines came into existence, to cover sales of existing products. Since 1972, 13,000 licences withdrawn. Following licences granted by CSM: 3,250 priority category 3,500 prescription only 2,500 generics 8,000 over-the-counter drugs 750 herbal 500 homeopathic.


- UNCTAD, Technology Policies in the pharmaceutical sector in Nepal, study prepared by the UNCTAD secretariat in cooperation with Dr. P.N. Suwal (UNCTAD/TT/34), United Nations, 1980, p.16.

27 Brudon, op.cit., p.212.


30 Ibid., p.7.

31 See also: Dr. Sanjaya Lall, Institute of Economics and Statistics, Oxford University, "Emerging Trends and future prospects in the less developed countries", in George Teeling-Smith and Nicholas Wells (ed), Medicines for the year 2000, OHE, London, 1979, p.104.


33 WHO, A31/Technical Discussions/1, op.cit.


218
Others may put the question differently. For example, D.W. McMullan of Beecham writes: "It is unlikely that the pricing of pharmaceuticals to Third World countries will ever be seen as fair to all interested parties. One must remember that, if the pharmaceutical industry is to flourish, it must make a profit. However, it is a matter of debate whether a patient for example in the UK or in Germany should subsidise the price of medicines to a patient in Bangladesh or Poland." (Personal communication, 22 March 1982.)

- Dr. Michael W. Hodin, Director of Public Affairs Pfizer International Inc., personal communication, 17 March 1982.

- More recently the *Financial Times* reports that Smith-Kline "almost trebled its sales between 1976 and last year." R & D spending in 1981 was 120 million dollars and operating profit that year 525.8 million dollars. (*F. T.* Survey, op.cit.)

*Financial Times* Survey, op.cit.


FDA Bureau of Drugs *New Drug Evaluation Project*, Briefing book, October 1979, Table IV-i, quoted by Brudon, 1981, op.cit., p.226. Similarly in France according to Lumbroso out of about 250 drugs in each year, "only 5 are innovations of any therapeutic interest". (Lumbroso in Blum, et al. (ed), 1981, op.cit., p.62.)

*SCRIP*, No. 633, op.cit.


Ibid.


"Roche and its fight against tropical diseases", translation (by Roche) of article in *Roche Magazine*, No.4, August 1978.

Ibid.

Ibid.

- Dr. Milton Silverman, University of California, personal communication, 10 August 1981.

- And "Practical Roche responses to the special needs of Developing Countries", attachment 6 to personal communication from S. Redfern, Roche Products Ltd., 13 April 1982.


Dr. L. C. Goodwin, Director of Science at the Zoological Society of London quotes the Research Director of Wellcome, Dr. John Vane, as saying that in 1978 Wellcome spent "£250,000 on the chemotherapy of tropical diseases, out of a research and development budget of more than
Chapter 4

£29 million - less than 1 percent." ('Pharmacy and World Health Organisation Special Programme', extracts from Dr. Goodwin's Harrison Memorial Lecture, The Pharmaceutical Journal, 21 October 1978.) According to Wellcome in 1982 "R & D expenditure in respect of disease control in the poor communities of the developing countries is in fact many times greater". (Dr. Arnold Worlock, The Wellcome Foundation Limited, personal communication, 28 May 1982.) According to Roche about 10% of total R & D effort "is directly orientated to the needs of developing countries". (S. Redfern, Pharmaceutical Division, Roche Products Limited, personal communication, 4 May 1982.)

Goodwin, op.cit.
52
Taylor, op.cit., p.35.
53
54
55
- Financial Times Survey, op.cit.
- Prof. George Teeling-Smith, Director Office of Health Economics, personal communication, 17 February 1982.

Ibid.
56
WHO unpublished draft paper on the Trend of Essential Drug Prices in Developing Countries, 1980, p.6. of "General Principles" section. "It is estimated that in 1980 the World Consumption of Pharmaceuticals will reach 42.533 million dollars and, if the trend of investing 8-10% of sales (as the industry states) in research and development continues, the estimated amount for this purpose to be charged to developing countries will be considerable. Theoretically, the contribution could be 813.6 million dollars - 10% of the total consumption."

Estimated at 90,000 million US dollars 1982. (Financial Times Survey, op.cit.)
59
60
Ibid.
61
Ibid.
62
Ciba-Geigy, "Generics are a Fact", op. cit.
63
64
65
UNIDO, Global Study of the Pharmaceutical Industry, prepared by the Secretariat of UNIDO (ID/WG.331/6), 22 October 1980.
66
- Government of Guyana et al., op.cit.
- Also UNCTAD, Technology Policies and planning for the pharmaceutical sector in the developing countries, United Nations, 1980.
67
For example, Zambia (Martyn Young, OXFAM Field Director, Zambia, personal communication, 28 March 1980).
68
"Generics are a Fact", op.cit.
69
Dr. Gordon Fryers, Director of Strategic Affairs, Reckitt and Colman, "The balance of public interest", in Medicines for the year 2000, OHE, op.cit., p.124.
70
Government of Guyana et al., op.cit., p.6.
71
72

220
Aspirin, chlorpromazine, ferrous sulphate, piperazine, analgin (aspirin + phenacetin + caffeine + codeine phosphate).

Advertisement appeared, for example, in *Indian Express*, 29 December 1980, and *India Today*, 1-15 February 1981.

Theo Fergusson, Manager Quality Control Laboratory, Lesotho Dispensary Association, personal communication, 2 July 1980.


UNCTC, 1979, op.cit.


UNCTC, "Case Study on India", draft report on "Transnational Corporations in the pharmaceutical industry of developing countries"; 9 February 1981.


Dr. Hye, personal communication, 20 April 1982.


The *Daily Telegraph*, 3 December 1979, "Drug Factories make one product for sale at two prices". Subsequently the Chairman of one of the companies, Arthur H. Cox and Co., wrote to the *Telegraph* supporting the arguments (15 December). But the Chairman of Thomas Kerfoot and Co. Ltd. wrote retracting his earlier statement that they manufactured Valium and Indocid on behalf of the brand-name producers.

UNIDO, op.cit.


Von Grebmer, op.cit., p.18.

Barnet and Muller, op.cit.


Dr. Hye in interview with the author, 20 October 1980.

CIF prices per Kg of tetracycline (period July 1979-June 1980):

<table>
<thead>
<tr>
<th>Company</th>
<th>Price (Taka)</th>
</tr>
</thead>
<tbody>
<tr>
<td>K.D.H. Lab</td>
<td>444</td>
</tr>
<tr>
<td>Pfizer</td>
<td>800</td>
</tr>
<tr>
<td>Squibb</td>
<td>1,440</td>
</tr>
</tbody>
</table>
But Pfizer has also paid comparatively higher prices, e.g. Taka 1,280 for oxytetracycline (per Kg CIF) compared to Taka 610 paid by local manufacturer, Albert David.

96 R. Bower, Managing Director Squibb of Bangladesh Ltd., personal communication, 3 May 1982.

97 CIF prices per kg for trimethoprim: Square - Taka 1,700 ICI (for Wellcome) - Taka 9,000. Dr. Arnold Worlock, Group Marketing Director, The Wellcome Foundation Ltd., comments: "On the subject of your query relating to the sale of trimethoprim in Bangladesh, we are fully aware that trimethoprim may now be purchased from sources other than the Wellcome Foundation Ltd., at prices which are considerably lower than our own. Our price includes necessarily an R & D cost element which does not arise in the case of trimethoprim which is shipped by companies that have not had to sustain over many years, technical and marketing risks in the discovery and development of the product. (No doubt you know that the cost of discovering and developing a new pharmaceutical substance is now estimated at £35 million or more.) Our price includes of course the stamp of Wellcome's quality control, which may not be available in all the cheap imitations of brand-name products whose patents have run out."

(Wellcome price includes of course the stamp of Wellcome's quality control, which may not be available in all the cheap imitations of brand-name products whose patents have run out."

(Personal communication, 28 May 1982.)

98 Dr. Hye, whilst Director, Drug Administration Bangladesh, in interview with the author, Delhi, 20 October 1980. Wellcome were compelled to reduce the price of trimethoprim from Taka 9000 to Taka 7700 per kg. "after a lot of argument and a few long-distance phone calls".

(Wellcome price includes of course the stamp of Wellcome's quality control, which may not be available in all the cheap imitations of brand-name products whose patents have run out."

(Personal communication, 28 May 1982.)

99 CIF prices per kg for levamisole:

<table>
<thead>
<tr>
<th>Brand</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opsonin</td>
<td>Taka 1,081</td>
</tr>
<tr>
<td>Square</td>
<td>Taka 2,422</td>
</tr>
<tr>
<td>ICI</td>
<td>Taka 5,400</td>
</tr>
</tbody>
</table>

100 Peter Cunliffe, ICI Pharmaceuticals Division, personal communication, 11 February 1982.

101 Ibid.

102 Dr. Hye, personal communication, 20 April 1982.

103 Dr. Hye in interview with the author, 20 October 1980.

104 Comparative prices during 1979/80 (all per kg CIF) for Metronidazole:

<table>
<thead>
<tr>
<th>Brand</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemist Lab</td>
<td>Taka 266</td>
</tr>
<tr>
<td>Square</td>
<td>Taka 775</td>
</tr>
<tr>
<td>BPI</td>
<td>Taka 1,395</td>
</tr>
</tbody>
</table>

May and Baker tell us they are supplying metronidazole to Bangladesh at a price as low as they can afford in relation to UK production costs which are not comparable with those of Eastern Europe or China. (Mr. Washburton and Mr. Walker, in interview with author, 5 July 1982.)

105 - Import prices per kg CIF:

<table>
<thead>
<tr>
<th>Brand</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPI</td>
<td>Taka 648</td>
</tr>
<tr>
<td>Therapeutics</td>
<td>Taka 1,680</td>
</tr>
</tbody>
</table>

from Cyanamid

The Drug Administration released the first consignment of 38 kg with a severe warning and the company subsequently reduced its price to Taka 1,100. (Dr Hye, personal communication, 20 April 1982.)

- Cyanamid advise us that they no longer supply this raw material to Bangladesh, "therefore comment with respect to purchase requirements from Therapeutics are no longer relevant".

(Mrs Barri M. Blauvelt, Area Manager Far East Medical Products, American Cyanamid Company, personal communication, 17 May 1982.)

106 Dr Hye, "Drug Policy and Management". (undated mimeo based on a report prepared earlier for WHO)
Procurement and manufacture of drugs for use in primary health care in Bangladesh, May 1979, report of the study team recruited by the World Bank for the Government of the People’s Republic of Bangladesh. “The relatively very high costs of some medicines produced commercially in Bangladesh is striking.” (p. 12)

Ibid.

- Brand name products make up just over 90% of medicines prescribed by GPs in the UK (excluding hospital sales) (P. F. Lumley, ABPI, personal communication, 21 June 1982)

Office of Health Economics, Health Care Research Expenditure, Briefing No. 6, June 1978.

CHAPTER 5


2 Including in 1980, Glaxo, Merck Sharp & Dohme, Nicholas, Reckitt & Colman and Wellcome ( MIMS Middle East, Volume 11, Number 2, 1980).

3 Merck Sharp & Dohme advise us in 1982 “The Mohdar Corporation, as you mention, distributes our products; it does not, we are assured, hire a ‘part-time’ salesman to promote (our) products. Rather, representation is made by Merck employees who are well trained and carefully supervised. Merck has a large, worldwide organisation and for a distributor to be the Company’s surrogate with physicians would certainly be the exception rather than the rule. The Company, cannot however, always provide professional representation where it operates through distributors, as in Yemen. In all arrangements with distributors, an agreement to comply with Merck standards is an important stipulation of the contract. Merck field and headquarters executives know these distributors well and visit them periodically to have first-hand knowledge of their operations. The training given to Company representatives is intensive and detailed...” “No system that we know of is infallible, which is why we took immediate steps to investigate the situation suggested by your letter.” (John Stuart, Executive Director Public Affairs, Merck, Sharp & Dohme, 18 March 1982.) At the time of going to press, we have no response from Glaxo to this case specifically raised with them by letter on 20 January 1982.


6 UNCTC, Transnational Corporations and the Pharmaceutical Industry, (ST/CTC/9), United Nations, New York, 1979. p.47 Some estimates suggest that marketing costs may be higher than 20% and more or less equal to actual production costs:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Production: 30%</td>
<td>Trades promotion 11%</td>
</tr>
<tr>
<td></td>
<td>Sales 10%</td>
</tr>
<tr>
<td></td>
<td>Advertising 8%</td>
</tr>
<tr>
<td></td>
<td>TOTAL 29%</td>
</tr>
</tbody>
</table>

(Plus research 10%, general overheads 15%, profit 16%) Figures quoted by Charles Levinson, Secretary General International Federation of Chemical and General Workers Unions, “The Multinational Pharmaceutical Industry”. (mimeo)

7 Dorit Braun, “Pharmaceutical Transnationals in Colombia”, Chapter 8 of unpublished PhD thesis 1980. Figures are based on the estimated marketing expenditure of foreign firms (including 3 national firms with small sales volume) and health budgets 1971-1974. Marketing costs as % of health budget ranged between 46% and 55%. Estimated marketing expenditure taken as 26% of sales on the basis of a 1970 study by AFIDRO (industry representative body) - verified for costs of 10 foreign companies 1972/3 by Braun.
Chapter 5


10 Lionel and Herxheimer, op.cit.

11 Dr. Burley, Head of International Medical Liaison, Ciba-Geigy, personal communication, "Comments on your list of requests to companies" attached to letter of 21 May 1981.

12 ABPI, "Code of Practice for the Pharmaceutical Industry", op.cit., p.vii (3.3).


14 Professor M. D. Rawlins, University of Newcastle and advisor to Committee on Safety of Medicines, in interview with the author, 31 March 1982.

15 Dr. U.K. Sheth, quoted by Shiranand Karkal (winner of Rajika Kripalani Young Journalist's award, doing internship Kem Hospital, Bombay) "Drugging the Indian", article in Debonair, October 1980.

16 "Merck in Bangladesh, Marketing Plan 1980(-1982)", dated December 1979 (forwarded to E. Merck, West Germany with letter from Merck Emedia Export Co. m.b.H. Bangladesh Branch of 22 January 1980) p.11.

17 Ibid., pp.11 and 17.

18 Ibid., p.11, and from p.8: "3.4 SEGMENTATION OF DOCTORS

<table>
<thead>
<tr>
<th></th>
<th>Total 1978</th>
<th>Important visited</th>
<th>Actually to be visited</th>
<th>Planned estimated 1980</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP</td>
<td>7,500</td>
<td>3,800</td>
<td>2,000</td>
<td>2,500</td>
<td>8,000</td>
</tr>
<tr>
<td>Specialists</td>
<td>500</td>
<td>400</td>
<td>250</td>
<td>300</td>
<td>700</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8,000</td>
<td>4,200</td>
<td>2,250</td>
<td>2,800</td>
<td>8,700</td>
</tr>
<tr>
<td>Students</td>
<td>3,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3,500</td>
</tr>
</tbody>
</table>

Medical opinion: British.''


20 Dr. J.S. Yudkin, MRCP, Senior Lecturer in Medicine, Faculty of Medicine, University of Dar-es-Salaam, "To Plan is to Choose" 1978, p.9. (mimeo)

- Milton Silverman and Mia Lydecker, "The Promotion of Prescription Drugs and other Puzzles", in Ibid., p.86. Guatemala, Mexico and Brazil, ratio 1:3.
- Dr. J.S. Yudkin, "The Economics of Pharmaceutical supply in Tanzania". (undated mimeo)
- UNCTAD Technology policies in the Pharmaceutical sector in Nepal, (UNCTAD/TT/34), United Nations 1980, p.13. ("Altogether therefore, there are 70 full-time and about 70-80 part-time detailmen employed by the private sector to promote its products to approximately 400 doctors. The main activity of these representatives is to visit the doctors with samples and brochures. It is estimated that some doctors with a large private practice in Kathmandu and are visited by an average of three to four detailmen daily. There is no Government control on promotional activity by drug companies.")
Dr. Paul Nicholson, Searle Research and Development (UK), personal communication, 25 March 1982: "Water absorption in the small intestine is linked to sodium absorption. There are several mechanisms by which sodium is absorbed, of which glucose-facilitated sodium transport is most important for successful rehydration by the oral route. The concentration of glucose in the oral solution is of fundamental importance in optimising sodium transport. Solutions with low concentrations of glucose provide inadequate supplies for transport processes. High concentrations may lead to a reverse of the desired effect. Nevertheless, some believe that glucose must be present in adequate quantities to have nutritional value also. In addition, although the glucose and sodium are absorbed in equimolar concentrations, many paediatricians have been concerned that the administration of too much sodium can lead to hypernatraemia in some infants."

**CONCENTRATION OF 3 DIFFERENT PREPARATIONS:**

<table>
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<tr>
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<th>WHO</th>
<th>REHIDRAT</th>
<th>BNF</th>
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<tbody>
<tr>
<td>Sugar</td>
<td>111</td>
<td>188</td>
<td>200</td>
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<td>Sodium</td>
<td>90</td>
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<td>Potassium</td>
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<tr>
<td>Bicarbonate</td>
<td>30</td>
<td>20</td>
<td>18</td>
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</tbody>
</table>

(Nicholson)

Ibid.


Dr. Tim Lusty, OXFAM Medical Adviser, in interview with the author, April 1982. The UNICEF price for a sachet to make up 1 litre of the WHO solution is $0.07 a sachet (*UNIPAC catalogue/Price List 1982*, UN children's Fund Supply Division Package and Assembly Centre, Copenhagen.)

Noor Mohammed, Senior Field Organiser, E. Merck, in interview with the author, Rajshahi, 29 September 1980.


IFPMA, Statement to the 32nd World Health Assembly, Geneva, 7-25 May 1979, item 2.7.2 on the subject of the WHO Action Programme on Essential Drugs.


Letter from Barry Cohen, op.cit.
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37 Noor Mohammed, op. cit.
38 Drs. Mehrhof and Niederehe, E. Merck, Darmstadt, West Germany, personal communication, 29 March 1982.
39 "Merck in Bangladesh", op.cit., p.17.
40 Ibid., p.27.
41 Ibid., p.22.
42 M.D. Rawlins, Professor of Clinical Pharmacology, Head of Department of Pharmacological Sciences, University of Newcastle, personal communication, 17 September 1981.
43 Drs. Mehrhof and Niederehe, op. cit.
45 Silverman and Lydecker, in Blum, et al., op.cit., p.86.
46 Ibid.
47 Ibid., p.85.
48 Dr. Milton Silverman, personal communication, 10 August 1981.
49 The anomalies are documented in Milton Silverman, Philip Lee and Mia Lydecker, Prescriptions for Death - the Drugging of the Third World, University of California, Berkeley, 1982.
51 Ibid. The current Thai Valium leaflet now includes a “Tolerance” paragraph, and the following “Precautions”: “(1) It may cause abnormality to the blood cells, liver and kidneys. (2) It should not be used during the first trimester pregnancy. (3) It may cause drowsiness. While taking this medicine, the patient should not drive nor operate machinery. (4) While taking this medicine, avoid alcohol, or drink or medicine containing alcohol.” And the following warning: “It may cause habituation and be hazardous. It must be used according to the physician’s instructions.”
53 Ibid., p.356. We have no comments from Glaxo on why these leaflets were issued without precautions on use.
54 The British National Formulary, 1981 (Volume 1) lists the following cautions for use of the combined Oestrogen-progestogen pills: diabetes, hypertension, cardiac or renal disease, migraine, epilepsy, depression, asthma, multiple sclerosis, wearing of contact lenses, cigarette-smoking, obesity, and drug interactions. Contra-indications: thrombosis and history of thrombo-embolic disease, recurrent jaundice, chronic liver disease, sickle-cell anaemia, hyperlipidaemia, mammary or endometrial carcinoma, severe migraine, undiagnosed vaginal bleeding. And side-effects: nausea, vomiting, headache, breast tenderness, changes in body weight, changes in libido, depression, chloasma, hypertension, impairment of liver function, benign hepatic tumours, reduced menstrual loss, ‘spotting’ in early cycles, amenorrhoea. (p.210).
55 Government of the People’s Republic of Bangladesh, Ministry of Health and Population Control (Health Division) Drugs Administration, “Requirements for Registration of New
and Unintroduced Medicines", (undated), collected September 1980. Also form for
"Application for Approval of Recipe of Pharmaceutical Preparation".

56 ABPI, 1979, op.cit., p.369. Also comment on Cytamen current indications in Bangladesh
from Geoffrey Potter, Group Public Relations Manager, Glaxo, personal communication, 16 June 1982.


58 A.H. Goodspeed, MB BS MRCS LRCP Dip.Pharm.Med, personal communication, 2
April 1981.

59 Professor M.D. Rawlins, op.cit.

60 Ibid.

61 Drs. Mehrhof and Niederehe, op. cit. p.3.

62 Ibid.

63 "Merck in Bangladesh", op.cit., p.15: daily cost of treatment with Neurobion (actual
prices 31/12/79) Taka 11.88.

64 ABPI, 1979, para 17.2.p.x.

65 Dr. J.Z. Galvez-Tan, Personal communication, 2 May 1980. (Promotion observed in Samer
and Leyte provinces and documented February 1980.)

66 Ibid. (Promotion in the Davao-Cotabato area, documented April 1980).

67 Ibid.

68 Dr. J.Z. Galvez-Tan, "Medical Plants: an alternative to the rising costs of medicines". (mimeo)

69 Dr. Satoto, Semarang, personal communication, 25 June 1980.

70 Dr. Humayun K.M. Hye, personal communication, 10 August 1981.

71 For instance, in Bangladesh senior doctors, some of them professors in the government
medical colleges, are shareholders of Pfizer and ICI. ICI comment: "It is not ICI's policy
to encourage doctors in Bangladesh or in any other country to become shareholders. It
is probable that amongst the 700,000 shareholders of ICI loan and equity stock some will
be members of the medical profession." (P. Cunliffe, Chairman, Pharmaceuticals Division,
11 February 1982.)

PFIZER advise us: "... it is not Pfizer's policy to encourage persons to become shareholders.
We do not believe that it is our function to render investment advice to doctors or any
other segment of the public. The situation in Bangladesh resulted from Pfizer's application
to the Government (then Pakistan) a number of years ago, for the opening of a
manufacturing branch in East Pakistan. The Government, in an effort to encourage local
investment, granted approval of the project conditional upon a certain portion of the equity
being allotted to members of the medical profession in East Pakistan." (M. W. Hodin,
Director of Public Affairs, Pfizer, personal communication, 17 March 1982.)


73 Dr Hassani, private doctor and director of Norwegian Save-the-Children Fund Clinic,
Ibb, in interview with the author, September 1980.

74 Anthony Hall, OXFAM Field Director, Recife, Brazil, personal communication, 10 June
1980.

75 Anne Ferguson, Department of Anthropology, Michigan State University, "The effects
of source of supply of medications on health care services dispensed in pharmacies in a
Salvadoran town", paper presented at the Central States Anthropology Society, 56th
Annual Meetings held in Ann Arbor, Michigan, April 9-12, 1980. (mimeo)
76 Ibid.

77 Dr. John S. Yudkin, "The Economics of Pharmaceutical Supply in Tanzania", International Journal of Health Services, Volume 10, number 3, 1980, p.460. In April 1982, in response to our enquiry, a spokesman of A.H. Robbins in Richmond, Virginia, US, advised us by telephone that a company executive was due to visit Tanzania and would look into the matter. The British National Formulary (1981) comments on cough expectorants like Robitussin (guaiphenesin): "There is no evidence that any drug given by mouth has specific action in promoting expectoration of bronchial secretions by stimulation or augmentation of the cough reflex... There is thus no scientific basis for prescribing these drugs although a harmless expectorant mixture may have a useful role as a placebo." (p.93) Prof. Peter Parish puts it more forcefully: guaiphenesin etc. "are present in many cough medicines and from the point of view of effectiveness you may as well choose them by taste or colour." (Medicines, A Guide for Everybody, Penguin, 1981, p.103). Regarding Dimotane (containing 4 drugs including an antihistamine and expectorant and sympathomimetic) the BNF comments: "Combinations such as expectorant and cough suppressant, sympathomimetic and sedative, and any or all of these with other types of drug such as antihistamines are to be deprecated." (p.95 original emphasis)

78 For example in Britain the ABPI "Code of Practice for the Pharmaceutical Industry", op.cit., includes 5 paragraphs of guidelines and restrictions on the distribution of samples. Para. 16.1 states: "Except when provided for indentification or demonstration purposes, samples should only be supplied in response to a signed request from a doctor...When samples are provided to assist doctors in the recognition or identification of a product...only the minimum quantity necessary for this purpose should be supplied."

79 Hathi Committee, op.cit.

80 Paul E. Jenkins, UNAIS. Sahel Region Upper Volta, personal communication, 1 December 1981 (OXFAM Project VOL 114).

81 For example, stock at Ahmed Alhadry's Sandileer, the local pharmacy in Al Jabin, included 10 free samples, including Upjohn's Erythromycin, Boehringer's Gynaecosid, Warner & Co's (UK) Sinutab Decongestant, Dumex's antidepressive Imiprex, Knoll's Osadrin and others from Italian manufacturers. (Check made on 22 June 1980 by members of the British Organisation for Community Development Health Team.)

82 Government of the Yemen Arab Republic, “Fourth Annual Report on the Activities of the Supreme Board for Medicines and Medical Equipment during 1979", (translated from the Arabic) and as reported in The Lancet, 4 July 1981. Whilst waiting to see the WHO representative in Sana'a, September 1980, we observed a member of staff being given a free sample of an Asthma spray for a sore throat.

83 Dr. John Yudkin, "To plan is to choose", 1979. (mimeo)

84 Dr. Ann Hoskins, British Organisation for Community Development, Discussion paper from the BHS Drug Committee on the problems of drugs in Yemen, May 1981.

85 Priscilla Annamanthodo, OXFAM, "Medicines in Upper Volta", research paper, Ouagadougou, October 1980. (mimeo)

86 S. Redfern, Roche Products Ltd., attachment to personal communication, 4 May 1982.

87 Professor Nurul Islam, in interview with the author, 6 October 1980.

88 ABPI, 1979, op.cit. Organon products, p.730.


90 Dr. Sultana Khanum, paediatrician, SCF Children's Nutrition Unit, Dacca, in interview with the author, 24 September 1980.


93 Dr. Hassani, private doctor and director of Norwegian SCF Clinic, Ibb, in interview with the author, September 1980.

94 Nurul Islam, op.cit.

CHAPTER 6

1 Dr. Sultana Khanum, paediatrician, SCF Children’s Nutrition Unit, Dacca, in interview with the author, 24 September 1980.

2 Letter from Dr. Cliff David, CIHR doctor, at the Mother and Child Health Centre, Sana’a, to CIHR London office, (PM/140) undated.

3 David Werner, personal communication, 20 July 1981.

4 Anne Ferguson, Department of Anthropology, Michigan State University, “The Role of Pharmaceuticals in the process of medicalization in Asuncion, El Salvador”, paper delivered at the 1980 American Anthropological Association Meetings held in Washington, DC, 2-7 December. (mimeo)


6 David Werner, seminar for OXFAM staff, OXFAM House, Oxford, 8 September 1981.

7 Sjaak van der Geest, University of Amsterdam, “The Efficiency of Inefficiency: Medicine Distribution in South-Cameroon”, paper presented at Seventh International Conference on Social Science and Medicine, Noordwijkerhout, 22-26 June 1981, p.7. (mimeo)


9 Anne Ferguson, “The Effects of Source of Supply of Medications on Health Care Services dispensed in pharmacies in a Salvadoran town”, paper presented at the Central States Anthropology Society 56th Annual Meeting held in Ann Arbor, Michigan, 9-12 April 1980, p.31. (mimeo)

10 E. J Fullager, Divisional Manager Sandoz Products Limited quoting Indian colleagues. “The FAO/WHO Expert Group 1962 surveyed the food supplies of various parts of the world and summarised that India had the lowest calcium consumption (347 mg per day). The National Institute of Nutrition in India carried out a survey of the dietary habits of Indians and they found that the average daily intake of calcium of Indian children is 300 mg or less (ICMR 1980). The report mentioned that high levels of calcium intake “are not easy to achieve in practice in countries where the dietary calcium is mostly obtained from cereal and other vegetables and only to a lesser extent from milk and milk products ”. (Personal communication, 9 June 1982.) This does not mean that health depends on calcium-intakes as high as Europe and North America (930 mg France; 1116 mg USA; highest: 1329 mg Finland ). On high consumption, less is absorbed. “On a dietary intake of 600 to 1000 mg a normal adult absorbs about half the ingested calcium and net absorption varies little over this range. When calcium intakes fall below 500 mg adaptive mechanisms increase the proportion which is absorbed. In severe calcium restriction the efficiency of absorption can reach up to 70 to 80%...” (Dr G. J. Ebrahim, “The Problems of Undernutrition”, Nutrition and Disease, in R. J. Jarrett (ed), Croom Helm London, 1979, p.105.) 11 Fullager, op.cit.

12 Whole cow’s milk representative values for nutrients (per 100g of edible portion): Calories: 64, Protein: 3.3, Fat 3.6, Carbohydrate 4.7, Iron 0.1, vitamin A potency approx. 150, Thiamine 0.04, Riboflavin 0.15, Nicotinamide 0.1, Ascorbic acid 1.0 (B.S. Platt, Tables of representative values of foods commonly used in tropical countries, Liverpool School of Tropical Medicine, reprinted 1982, pp.26-27.)
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13 - Platt, op.cit.
- Ebrahim, op.cit., p.105.
14 - Brudon, op.cit.
- David Werner in interview with Adrian Moyes, OXFAM Public Affairs Unit, 30 June 1980.

23 Purchased Cee-NU 4 October 1980. Black market price of 2 capsules Taka 350 (£9.72) - This is only one of many prescription drugs that can be bought on the black market.

24 For example: “Widely divergent views and requirements of regulatory authorities often make it impossible to maintain our international standard and therefore, when starting to compare product information in different countries it is inevitable that deviations are noted ... Unfortunately again, there are as far as medical standards are concerned, in many instances no strict criteria as a result of transcultural differences ..” (Dr T. Vossenaar, Organon, personal communication, 23 April 1982.)

25 For example a conversation between participants at the Mario Negri Institute in Milan in June 1981 revealed the very different thinking over painkillers in Europe. In Britain aspirin and paracetamol, are sold over the counter, but phenacetin and dipyrone have been removed from the market. But dipyrone is widely used in W. Germany. Italy considers the risks of kidney damage from phenacetin as less of a problem than the dangers of overdose of paracetamol.

27 King, King and Martodipoero, Primary Child Care, A manual for health workers, Oxford University Press, 1978, p.129.
28 Ibid.
29 Both Ciba-Geigy and Searle agree there is a problem. Dr. Burley, Ciba-Geigy: “You are almost certainly right about the unconsidered use of clioquinol in children, particularly young children where diarrhoea needs to be treated with fluid replacement and proper food. I will look into exactly what we say about the use of clioquinol in young children now. ” (Personal communication, 23 February 1982.) But Ciba’s package insert (dated 21 December 1981), forwarded by Dr. Burley on 12 March 1982, contains no warning about the importance of oral rehydration in treating children. Package inserts for Searle’s Lomotil purchased in Egypt
in 1982 contain no warnings about oral rehydration. But Dr. Nicolson of G. D. Searle writes: "We have agreed that the importance of replenishing fluid and salts in the treatment of diarrhoea particularly in children is something which should be further emphasised in our literature (advertising, package inserts, etc.) It is true that the problem of dehydration in the context of diarrhoea may not be fully appreciated by physicians in private or public health practice. While we may help in the educational process by providing responsible information, the problem is one which must be tackled fundamentally in professional medical education on a worldwide basis." (Personal communication, 25 March 1982.)


36 Ibid., p.8.


38 Medawar and Freese, op.cit., p.16.


40 *SCRIP*, No 630, 30 September, 1981, p.11.


42 Medawar and Freese, op.cit.

43 "You have raised the question of communicating information to the illiterate. This problem we presume, is not one which confronts only Searle or the pharmaceutical industry. Your practical suggestions will be welcomed and considered." (Dr. Nicholson, Searle Research and Development (UK), personal communication, 25 March 1982.)


45 - Parish, op. cit., p.137.

- Hansson, op. cit.

46 ICADIS News, No 1, Information Centre Against Drug-Induced Sufferings, Japan, November 1981.

47 - Hansson, op. cit.

- Prof. Rawlins of Committee of Safety of Medicines, in interview with the author, 31 March 1982.


- UK MIMS, February 1980.


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51 Dr. D. M. Burley, personal communication, 21 May 1981.

52 Dr Sayeed Hyder (ed), *The Prescriber's Guide, '79*, June 1979. Dose: Adults 1-2 tablets thrice daily (250 mg clioquinol x 6 / 1500 mg daily x 7 / 10.5 gms.)

- "An investigation by Professor Tadao Tsubaki established that 96 per cent of the SMON patients in the sample had taken oxyquinoline. He also found that neurological symptoms generally began to appear when a total dose of 10 to 50 grammes had been reached, and that the time span between the taking of oxyquinoline and the beginning of neurological symptoms was 50 days at a daily dose of 600 mg and 30 days at a daily dose of 1200 mg oxyquinoline, that a larger dose tended to produce a more severe pathological picture." (Hansson, op.cit.)

53 *The Lancet*, Editorial 28 May 1977:..."the companies deny that the neurological damage from clioquinol is a serious risk outside Japan. This denial is unconvincing because cases of clioquinol damage have been observed outside Japan, and identical abnormalities of the nervous system have been reproduced in animals."

- *The Lancet*, 2 September 1978: "A quiet change in the indications is not enough. Drug regulatory authorities, manufacturers and distributors ... should now emphasise to the public that these drugs should no longer be used for ... non-specific diarrhoeas." (From: Social Audit leaflet on clioquinol: "Bad information means Bad Medicine.", 1981.)

54 Mr A. Wahid, Managing Director of Fisons Bangladesh quoted in "Crisis in the Drug Industry", *Robbar*, 1 June 1980, Dacca - cited by Dr. Zafrullah Chowdhury, "Essential Drugs for the Poor: Myth and Reality in Bangladesh", paper presented at the Primary Health Care Symposium, Liverpool School of Tropical Medicine, 13-16 April 1982. (mimeo)

55 Prof. G. Peters, University of Lausanne, "Information and Education about Drugs", in Blum et al. (ed), op.cit., pp.105-106.

56 Mohammed Nurul Alam, Marketing Manager, Fisons (Bangladesh) Limited, in interview with the author, 26 September 1980.

57 Ferguson, 2-7 December 1980, op. cit., p.9.

58 Ibid., pp. 15-16.


61 Ibid.

62 Parish, op.cit., p.201.


64 Gribbin. Flavell Matts, op.cit., p.9.

65 Text of advertisement distributed in Bangladesh.

66 Dr. Martin Schweiger, Rangpur Dinajpur Rehabilitation Service, personal communication, 28 September 1980.

67 Organon (Bangladesh) Limited, *Therapeutic Index*, undated.

68 ABPI 1979, op.cit., p.730.

69 Dr. R.J. Bloemen, Organon, personal communication, 21 December 1981.

70 "Organon Product Safeguards" re: Orabolin tablets and drops. The revised therapeutic index has not been received at the time of going to press, June 1982. Four months after Organon advised us of their intention to revise the entry for Orabolin, we were informed: "The entry..."
in the Therapeutic Index should be corrected, including incorporation of side-effects and contra-
indications. As soon as this has been printed I will send you a copy.” (Dr. T. Vossenaar, Organon,
personal communication, 23 April 1982.)

71 ABPI, 1979, op.cit., p.1013.
73 P. W. Cunliffe, Chairman Pharmaceuticals Division, ICI, personal communication, 11 February 1982.
74 Dr. D. M. Burley, Ciba-Geigy, personal communication, 1 April 1982.
   - Dr. D. M. Burley, Ciba-Geigy, personal communication, 4 February 1982.
   - Silverman, Lee and Lydecker, op.cit., p.60.
76 - Dr. Burley, personal communication 4 February 1982.
77 - The withdrawal of amidopyrine was recommended “because of its ability to form carcinogenic nitrosamines either spontaneously or by interaction with nitrites in food”, P. Epstein and J. S. Yudkin, letter to The Lancet, 13 August, 1978.
   - SCRIP No. 666, op.cit.
78 - Ibid.
   - Brudon, op.cit., p.236.
80 Entry for Cibalgin (with aminophenazone) MIMS Middle East, Volume 11, Number 2, 1980, p.57.
81 Brudon, op.cit., p.236.
82 Dr. Burley, personal communication, 4 February 1982.
83 - Ibid.
   - SCRIP No. 666, op. cit.
84 The Lancet, 14 November 1981, op.cit.
85 Brudon, op.cit., p.236.
86 The Lancet, 14 November 1981, op. cit.
87 - Ibid.
   - Personal communication from Stephen de Winter of Belbo Film Productions.
88 Dr. Burley, personal communication, 4 February 1982.
90 Ibid.
91 The Lancet, 2 August 1980, op. cit.
92 Dr. Burley, Ciba-Geigy, personal communication, 12 March 1982. Ciba have stressed that “It is not right to infer that amidopyrine has been dumped in the Third World. On the contrary far more has been sold in the developed world ...” (Burley, personal communication, 4 February 1982, op. cit.)
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94 Yudkin, 1980, op. cit. Of course manufacturers do not agree: “Novalgin (dipyrone) is still an irreplaceable analgesic having a wide therapeutic profile encompassing excellent analgesic, spasmyloitic, anti-inflammatory and antipyretic activity”. (Dr R. W. Timmers and Dr C. G. Roepnack, Hoechst, West Germany, personal communication, 22 March 1982.)


- Martindale: “Its (dipyrone) use is justified only in serious or life-threatening situations where no alternative antipyretic is available or suitable.” (p.191)

96 In early 1982 an expert advisory committee proposed that pyrazolone products such as dipyrone should be placed under prescription only regulations. This was subsequently altered to apply to injectables only. (SCRIP No. 679, 29 March 1982.) 70 manufacturers and 162 products are affected by the new proposals. Decisions on a further 1,000 plus combination products are awaited (SCRIP No. 685, 19 April 1982). Hoechst objection: “The authorities justify these measures by saying that there are grounds for believing that ... metamizole (dipyrone) can cause agranulocytosis and shock. We have repeatedly pointed out that the available data do not in any way justify measures as severe as those the BGA is now requiring. Reliable figures on the - much overestimated - frequency of the adverse reactions will be available next year from the Boston study on agranulocytosis and aplastic anaemia.” (SCRIP No. 689, 3 May 1982.) Also Timmers and Roepnack, personal communication, 22, March 1982, op. cit.


99 Hoechst have sent us the product inserts for Novalgin (for Bangladesh) which contain a warning in red in English: “The drug may cause fatal agranulocytosis.” From our research drug-sellers had no idea of any safety warnings. ‘Agranulocytosis’ meant nothing to most.

100 Dr. H.K.M. Hye, while Director Drugs Administration, personal communication, 10 August 1981. Novalgin and other dipyrones are included in the drugs recommended for withdrawal in the 1982 Expert Committee Report: “Evaluation of Registered/Licensed Products and Draft National Drug Policy, May 11, 1982”, Dacca, Bangladesh.


102 Dr. Tony Klouda, OXFAM Medical Adviser Tanzania, personal communication, 11 September, 1981.

103 - Dr. Hassani, private practitioner and director of Norwegian SCF clinic, Ibb, in interview with the author, September 1980.


104 Dr. Ann Hoskins, op. cit., p.10.

105 Institute of Development Studies Health Group, Health Needs and Health Services in Rural Ghana, Volumes 1 and 2, IDS in collaboration with ISSER, University of Ghana; NHPU, Ministry of Health, Government of Ghana and Department of Community Health, Korle Bu; IDS, Brighton, June 1978.

106 Ibid.

107 - Mohammed Nurul Islam, Fisons (Bangladesh) Marketing Manager, in interview with the author, 26 September 1980.

- Dr. H.K.M. Hye, personal communication, 10 August 1981.

108 Dr. Mira Shiva, Voluntary Health Association of India, personal communication, 24 August 1981.
Dr. Martin Schweiger, "In Sickness or in Wealth", BBC Radio 4, transcript of programme transmitted 26 June 1979.

- Similarly tonic preparations containing isoniazid and vitamins are on sale in the Philippines - David Werner, in interview with the author, 8 September, 1981.


Sumycin (tetracycline oral suspension) purchased on 28 September 1980 at drug store in Baragharia village, Rajshahi.

- In Britain tetracycline is contraindicated in pregnancy and for children under twelve. (British National Formulary 1981, op.cit., p.159.)
- "Tetracyclines may cause a yellow to brown discolouration of the teeth in the developing foetus or child..." (ABPI 1979, op.cit., p.467.)

The Managing Director of Squibb of Bangladesh Limited writes: "I am puzzled as to why you have singled out Sumycin Syrup as being sold over the counter when most pharmaceuticals in Bangladesh can be purchased in this manner. We in Squibb share your concern about this practice, but regrettably there is little we can do about it... I would welcome your letting me have the name and address of the dealer you allege recommends Sumycin for young children suffering from diarrhoea in order that we can investigate. We never have promoted this product for the treatment of diarrhoea." (R. Bower, Squibb, personal communication, 3 May 1982.)

Mr. Bower makes no comment on the lack of any warnings on the Sumycin pack or bottle, but writes: "Since you raise the question of product information in general, I take the opportunity of informing you that Squibb worldwide policy is to place all product facts before doctors. Bangladesh is no exception." (op.cit.)


Brudon, op.cit., p.197. Upjohn comment: "Lincocin sells well in Mexico. But it also sells well in Japan, Italy and other countries. And it sells well because it is an effective, life-saving antibiotic, not because of the magnitude of promotion in any particular country." (Berger, 1982, op.cit.)

Package insert for Rivomycin Strepto, manufactured by Rivopharm Laboratories, Manno, Switzerland, purchased in Ibb, North Yemen, September 1980.

- Martindale, p.1107.
- British National Formulary 1981, op. cit.: "chloramphenicol is a potent, potentially toxic, broad-spectrum antibiotic which should be reserved for the treatment of life-threatening infections..."

Dr. E. Tagman and Dr. S. Balluz, Rivopharm SA, Manno, Switzerland, personal communication, 11 February 1982.

Drs Tagman and Balluz, personal communications 8 April 1982 and 17 May 1982. Rivomycin Strepto is no longer licensed for sale in Switzerland. Rivopharm comment: "We still consider chloramphenicol and dihydrostreptomycin a useful combination in the treatment of intestinal infection with susceptible organisms; but it should only be given under medical supervision." (Personal communication, 17 May 1982, op. cit.)

Albert David (Bangladesh) Ltd, Vademecun, medical products list. (Current September 1980.

- Information from: David Newell, OXFAM Field Director, and Concern Volunteers, Dacca, Bangladesh;
- Sue Becklerleg, Nutritionist, "Breastfeeding case studies in the town of Ibb". (mimeo
1980) Injections prescribed by the Nasser Hospital; Suzanne Williams, OXFAM Field Director, Manaus.


125 Shamsud Doha, Pharmacist, Save the Children Fund, Dacca, in interview with the author, 9 October 1980.

126 Annamandthodo, op. cit.

127 Letter from a VSO worker at Institute of Medicine, Kathmandu to Ritchie Coggan, BBC, London, 5 June 1979.

128 - Gaby Taylor, OXFAM Field Director, Zaire in interview with the author, 1980.
- Annamandthodo, op. cit.

129 - Dr. Abhay Bang, Medico Friend Circle, Gopuri, Wardha, personal communication, September 1980.
- Bharat Dogra, researcher and journalist, personal communication December 1980, quoting studies by Dr. K. B. Sharma, the Salmonella Centre at Lady Harding Medical College, Delhi; Central Research Institute, Kesouli.

130 Prof. Philip Lee, Statement before the sub-committee on Monopoly, Small Business Committee, United States Senate, 26 May, 1976.

131 Dr. C. E. Gordon-Smith, Dean of the London School of Hygiene and Tropical Medicine, paper delivered at the US Institute of Medicine, National Academy of Sciences, Proceedings Conference on Pharmaceuticals for Developing Countries, Washington, January 1979.

132 Lee, op. cit.

133 Mike Muller, The Health of Nations; A North-South Investigation, Faber and Faber, 1982, pp.114-115.

CHAPTER 7

1 WHO, "WHO urges a blending of merits between Western and Traditional Medicine", WHO Features No. 46, April 1979.

2 Dr. W. D. Sutherland, "A systems analysis of a rural primary health centre in India including a study of the integration of indigenous practitioners into the primary health centre", dissertation for Master of Community Health, Liverpool School of Tropical Medicine, 1978.

3 Ibid.

4 Mrs. Najma Sarwar, social researcher, carrying out survey of patients at SCF Children's Nutrition Unit, Dacca, in interview with the author, 24 September 1980.

5 Priscilla Annamandthodo, OXFAM, "Medicines in Upper Volta", Ouagadougou, 1980. (mimeo)

6 WHO, op. cit.

7 Dr. H.K.M Hye, "Utilisation of Traditional Medicines in Primary Health Care". (undated mimeo)

8 WHO, op. cit.

9 Dr. Aziz, International Centre for Diarrhoeal Disease Research, Dacca, in interview with the author, 8 October 1980.

10 Dr. Tony Klouda, "Prevention is more expensive than cure", a Review of Tanzania's Problems in Health, 1971-81, July 1981 draft, p.11.

11 WHO, op. cit.

12 Klouda, op. cit.

236
13 - Mark Bowden, Director, Save the Children Fund, Bangladesh, in interview with the author, 18 September, 1980.
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that available in the Ayurvedic texts, as the tribal communities have lived in far greater
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questionnaires revealed that 70.2% of patients consulting the traditional healers were educated
beyond primary school revel (against regional average for population with secondary education
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Also:
- OXFAM Project Write-up, “Bangladesh 20”, August 1978. (mimeo)
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October 1980.
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Initial funding included:

<table>
<thead>
<tr>
<th>Source</th>
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<td>NOVIB (Holland) US $</td>
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<td>Christian Aid</td>
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<td>GK Trust and others</td>
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</table>

(Source Gonoshasthaya Pharmaceuticals Newsletter, op.cit.)

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Chowdhury and Chowdhury, 1982, op.cit., p.11.

Located

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Letter from Dr. Luise Parsons, Medical Officer, Immanuel Hospital, Enga Province, Papua New Guinea to Ritchie Cogan, BBC Producer, London, 7 June 1979.

Letter from Dr. J. Moir, Medical Officer, rural health centre, Madang Province, Papua New Guinea to Ritchie Cogan, BBC, 11 July 1979.

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Dr. Carol Barker, "Pharmaceuticals Policy", draft of unpublished chapter, undated.


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Dr. Braga quoted in Provisional Summary Record of the Fifth Meeting of Committee A, Thirty Fifth World Health Assembly (A35/A/SR/5) 10 May 1982, p.7.


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Barker, 1982, op.cit.


Professor G. Peters, University of Lausanne, "Rapport Mission au Mozambique du 8 au 19 octobre 1980".


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Peters, op.cit.

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60 David Beynon, M.Pharm, Drug Cost Comparison, "Improving Pharmaceutical distribution to the rural areas", 21 February 1980. (mimeo)
62 Anne Ferguson, "The effects of source of supply of medications on health care services dispensed in pharmacies in a Salvadoran town", 1980, p.8. (mimeo)
63 A limited list of products to be sold off prescription in grocers’ shops was drawn up in August 1977. (Barker, op.cit.)
64 UNCTAD, Technology Policies in the Pharmaceutical Sector in Cuba, 1980, op.cit.
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66 SCRIP, No. 689, 3 May 1982, p.11.
67 Yemen Arab Republic Ministry of Health, Fourth Annual Report on the activities of the Supreme Board for Medicines and Medical Equipment, 1979: "The majority of (import) authorisations have been given without their being presented to the Supreme Board." (translation from the Arabic).
- But controls have held the rise in the drug price index below the rate of other sectors of the chemical industry.
72 - Study by Constantine Vaitos quoted by R.J. Barnet and R.E. Muller, Global Reach, Jonathan Cape, London, 1975, p.158.
75 Professor Lionel, Faculty of Medicine, Colombo, in interview with David Bull of OXFAM’s Public Affairs Unit, 11 September 1980.
76 UNCTC, 15th July 1981, op.cit., p.16.
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79 Ibid., p.23.
80 Professor Lionel, op.cit.
83 Professor Carlos Mazargao, quoted by Joseph Hanlon, "Are 300 drugs enough?", New Scientist, 7 September 1978.
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2 World Health Organisation, United Nations Conference on Trade and Development, United
Nations Children’s Fund. Other UN agencies involved in pharmaceuticals include:
United Nations Development Programme (UNDP), United Nations Action Programme for
Economic Co-operation (UNAPEC), United Centre for Transnational Corporations
(UNCTC). Other international organisations such as the World Bank and Asian Development
Bank are helping to fund drugs projects, for example setting up local production.

3 WHO Regular Budget 1980/1 Total: $477,135,300 United States $115,158,410 (24%) France
26,058,955) W.Germany 34,078,960) Italy 14,518,920) 51.9% of total budget. Japan 38,774,010)
U.K. 19,106,305) Source: WHO, Proposed Programme Budget for the financial period

4 Dr. Mahler: “How often do I still see you misusing its WHO’s very limited financial resources
by perpetuating fragmented projects, requesting fellowships that have very little relevance to
your essential manpower needs, and asking for equipment and supplies of marginal utility!”
Meeting, Thirty-Fourth World Health Assembly, Geneva, 4-22 May 1981, Verbatim Record

5 Dr. J. F. Dunne, Chief of the Pharmaceuticals Unit, Division of Diagnostic, Therapeutic and
Rehabilitative Technology collects information from member states on regulatory decisions
taken (approving and banning drugs) and compiles these into Drug Information Bulletins.
These are then circulated to health and regulatory authorities worldwide. Unfortunately as
Dr. Dunne is almost a one-person department, these bulletins have been appearing only at
6-monthly intervals.

6 Dr. Mahler was appointed as DG in May 1973, and reappointed in May 1978, (his re-election
is due in 1983). WHO, “Prophylactic and Therapeutic Substances”, Report by the Director-

7 Ibid., p.2.

8 Catherine Stenzl, Coordinator International Research Group for Drug Legislation and
Programs, “The Role of International Organisations in Medicines Policy”, in Blum,
Hershheimer, Stenzl and Woodcock (ed) Pharmaceuticals and Health Policy, Croom Helm,
Dr. Balasubramanian, Technology Division, UNCTAD, *Provisional Summary Record of the Sixth Meeting*, Committee A discussion on Action Programme on Essential Drugs, Thirty-Fifth World Health Assembly (A35/A/SR/6) 11 May 1982, pp.2-3.

Mrs. Quintero, UNIDO, *Provisional Summary Record of the Fifth Meeting*, Committee A discussion on the Action Programme of Essential Drugs, Thirty-Fifth World Health Assembly (A35/A/SR/5) 10 May 1982, pp.2-4.

Stenzl, op.cit., p.226 There has been discussion on expanding the Copenhagen operation and for WHO to cooperate with UNICEF in bulk-purchasing on behalf of Third World governments.

WHO, Action Programme on Essential Drugs, *Report by the Executive Board Ad Hoc Committee on Drug Policies on behalf of the Executive Board*, Thirty-Fifth World Health Assembly (A35/7) 1 April 1982.

Ibid., Annex 1 “Relevant Health Assembly Resolutions” (WHA31.32)

WHO, (A35/7) 1 April 1982, op.cit.


Prof. Benhassine, WHO (A35/A/SR/5) 10 May 1982, op.cit., p.15. Delegates expressing dissatisfaction with slow progress included France, Netherlands, Mozambique, the Nordic countries and Bolivia. The West German delegate expressed concern that 4 years had passed since the adoption of resolution 31.32 with no detailed work plan.

WHO, (A35/7) 1 April 1982, p.5 Also Dr. Morck, Chairman of the Ad-Hoc Committee reported to delegates: "The Ad-Hoc Committee, at its most recent meeting, in March 1982, had anticipated that detailed information on the IFPMA offer would be available in time for it to be distributed to the Health Assembly...That was not the case...As the Director-General had said in January 'Due appreciation could be expressed only when the Health Assembly fully understood the extent of the offer and its effect in practical terms'.” (WHO (A35/A/SR/4) 10 May 1982, op.cit., pp.2-3.

WHO Minute of Executive Board Meeting (Document EB69/SR/9), January 1982.


International Federation of Pharmaceutical Manufacturers Associations (IFPMA), "WHO Action Programme on Essential Drugs", Statement by Dr. Ernst Vischer, President of IFPMA, to Committee A, Thirty-Fifth World Health Assembly, 10 May 1982.

Ibid.

Dr. F.S. Antezana, Senior Scientist, Action Programme on Essential Drugs, WHO, Geneva, in interview with the author, 26 May 1981. Health Action International, “The WHO and the Pharmaceutical Industry”. HA1 briefing paper for the Thirty-Fifth World Health Assembly: "There was disagreement between WHO and the industry because industry... claimed that Rwanda's request resembled a 'straightforward tender' and that not all drugs requested were intended for primary health care. WHO felt that the industry's reasons for turning down the request from Rwanda were spurious."

"This episode has wider implications, since the WHO seemed unhappy about the industry's package approach, in which drugs were supplied only if technical services were provided as well. The Manager of the WHO's Action Programme on Essential Drugs, Dr. W. B. Wanandi, has been reported as saying that the WHO wanted the industry to quote separately for the supply of drugs and associated services - since 'the WHO's primary concern was the price of the actual drugs'. (SCRIP No.592. 20 May 1981, p.13.) A third reason why the negotiations faltered is that WHO considered some of the industry's conditions to be unduly restrictive.
Chapter 10

The industry’s insistence on near-monopoly conditions suggested it was in effect bidding for preferential supply terms in exchange for technical cooperation.”


24 For example: Dr. Annandale (Samoa): “That dialogue between WHO and industry did not appear to have made much progress and the small developing countries could not afford to wait indefinitely.” Mr. Rahman (Bangladesh) hoped that suitable mechanisms could be worked out without hampering progress towards self-reliance and without jeopardising the interests of individual developing countries as regards their own needs and choice.” Also Dr. Quamina (Trinidad & Tobago), Prof. Benhassine (Algeria), Dr. Sikkel (Netherlands), Prof. Lacronique (France). But others like the West German delegate argued that the scheme would not inhibit local production because it was only a first step. WHO Provisional Summary Records, (A35/A/SR/4-5-6) op.cit. 25 ‘Catalyst ‘ expression used by Chilean and Cuban delegates, WHO (A35/A/SR4-5-6), op.cit.


27 Dr. Borgono (Chile), WHO (A35/A/SR/5) 10 May 1982,op.cit.,p.2.

28 Text of Dr. Sikkel’s intervention in Committee A. Also recorded in WHO (A35/A/SR/5) op.cit., pp.14-15.


- Text of resolution adopted in WHO Third Paper of Committee A (A35/40) op.cit.


32 Prof. Hayes, quoted in Provisional Summary Record, Committee A (A35/A/SR/5) op.cit., p.10.

33 - Dr. J. Bryant quoted in SCRIP No. 697, 31 May 1982. Also reported as saying “If the international industry can be seen to be addressing the criticisms of its marketing practices and cooperates in the essential drugs list, he believes a WHO marketing code could be held off”.

- Dr. C.E. Koop (US Surgeon General) “praised the assembly for having avoided divisive discussions of a WHO pharmaceutical code similar to the code on the marketing of breast milk substitutes...the United States believes it is inappropriate for the WHO to get involved in commercial marketing codes”. (From: “World Health Assembly Gives Impetus to WHO Programs”, EURG-1, Press Release, Geneva, 14 May 1982.)

34 In 1976 out of total OECD drug exports to developing countries four-fifths came from 5 countries: France (17.6%) West Germany (17.1%) USA (17%) UK (15.6%) and Switzerland (11.9%)


36 The Medicines Act 1968, Section 48, “Postponement of restrictions in relation to exports”, HMSO.

In Britain, Member of Parliament Jack Ashley was told that detailed breakdowns of drug exports were not available and could only be collected at disproportionate cost.


Barnes, op.cit.


As (49) and (50).

Dr. Dukes, WHO (Europe) Regional Officer for Pharmaceuticals, at international drug regulation session of the US Food and Drug Law Institute, Washington, quoted in *SCRIP* No. 697, 31 May 1982, p.10.

*SCRIP* No. 628, op.cit.

Review in *SCRIP* No. 684, 14 April 1982, p.5. "Drug Problems in Nordic countries in the light of the control of psychopharmaceuticals". Regulatory authorities in developed countries face difficulties in finding independent experts to assess drugs because of "industry's penetration of the medical profession".

The EEC Council has rejected the concept of "need" (relative efficacy compared with marketed drugs) as registration criteria. (Gilles de Mourot, "The industry and the international regulatory environment" *EFTA Bulletin*, No. 3, Volume XXII, June/August 1981, p.2.)
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62 WHO (A35/7) 1 April 1982, op.cit.

63 Overseas Development Administration, Statistics of UK Assistance in Developing Countries in 1980, Table 9.

64 Cox, op.cit.

65 Ken Temple, Health and Population Division of Overseas Development Administration, personal communication, 11 February 1982. Total UK multilateral and bilateral health aid in 1980 was £109 million (12.7% of total aid). Mr. Temple gives a helpful break down: “We would not wish you to give importance to this figure since prominent within it are the food aid items, both multilateral and bilateral, which is on the borderline of health aid. But similarly the 4.4% figure reached by totalling amounts of direct health benefit gives a false impression, because it leaves out sizeable contributions to the International Development Association and European Development Fund (some of which must be devoted to health projects) as well as one-quarter of our bilateral aid. We guess that the true figure lies somewhere between 8% and 10%.”

66 Department of Trade and Industry, statistics on UK exports of Medicinal and Pharmaceutical Products for 12 months ended December 1980. (Complete statistics for 1981 exports are not available.)

67 ODA, 1980 Statistics, op.cit., Table 5, p.20.

68 See for example Real Aid: a Strategy for Britain, the report of the UK Independent Committee on Aid (forthcoming).

69 Peggy Burton, SRN, Cheaper by the Million, H.E. Walter, Worthing, 1979.

70 Dr. James Burton, Médical Director ECHO, personal communication 25 August, 1981.


72 Dr. Burton and Bill Davies is interview with the author, 5 August, 1980.


74 Dr. H.K.M. Hye and Dr. Martin Schweiger, in interview with the author, during September/October 1980.

75 Dr. Tim Lusty, OXFAM’s Medical Adviser, in interview with the author.


78 Prof. G. Peters, “Information and Education about Drugs”, in Blum, et.al., op.cit. p.99.

79 These publications include:


- The Haslemere Group, Who Needs the Drug Companies? a Haslemere Group, War on Want and Third World First publication, undated.


And a series of studies and articles by Dr. Sanjaya Lall of the Oxford Institute of Economics and Statistics.


The Alliance for the Prudent Use of Antibiotics (APUA), “Statement Regarding Worldwide Antibiotic Misuse”, (APUA President, Prof. Stuart Levy, Department of Molecular Biology and Microbiology, Tufts University, Boston, USA.)


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Medawar and Freese, 1982, op.cit.


Khor Kok Peng, CAP Research Director, various interviews with the author during 1980/1.

"Forty-four Problem Drugs", a consumer action and resource kit on pharmaceuticals, IOCU, Penang, May 1981.


"IFPMA Structure and Activities", IFPMA, Zurich, 1981.

*SCRIP* No. 281.


Dr. Ernst Vischer, IFPMA President, Statement to Committee A, 35th World Health Assembly, May 1982, p.3.

Ibid.


Ibid.

*SCRIP*, No. 650, 9 December 1981.

HAI, 1982, op.cit.
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101 Ibid.

102 Catherine Stenzl, "The Role of International Organisations" in Blum, et al., op.cit., p.228.


104 For example Swedish doctors have taken part in a boycott of Ciba-Geigy products. Drug manufacturers could also be vulnerable to consumer boycotts because of their diversification from prescription drugs into over-the-counter medicines, cosmetics, toilet and household articles, food & drink products etc.

105 Dr. D. M. Burley, Head of International Medical Liaison, Ciba-Geigy, Horsham, personal communication, 21 May 1981.


108 Dr. Burley, Ciba-Geigy, personal communication, 3 March 1982. Servipharm also offers consultancy services in setting up rural drug schemes and contributes training materials, such as copies of David Werner’s *Where There is No Doctor*.

109 George Teeling-Smith, *ABPI News*.

110 Ciba-Geigy, *Pharma and the Third World*, p.204.


115 IFPMA, May 1979, op.cit.

116 Janssen Pharmaceutica, "The Worm Problem in the World".


118 *The Wellcome Trust*, pp.80-85.

119 S.Q.Zaman (Marketing Services Manager) and Mr. Chowdhury (Marketing Manager) of Glaxo (Bangladesh) Ltd., in interview with the author, 7/8 October 1980.

120 Mohammed Nurul Alam, Marketing Manager, Fisons (Bangladesh) Ltd., in interview with the author, 26 September 1980.

121 *The Illustrated Weekly of India*, 6 September 1981.

122 Dr. D. M. Burley, Ciba-Geigy, personal communication, 21 May 1981.


124 Address to the PMA Public Relations Section annual meeting, excerpts reported in "Quotes of Notes" broadsheet "PMA President Engman on the Third World", PMA, 28 September 1981.


126 George Teeling-Smith, "Drug Companies and the Third World", *ABPI News, August 1976*.

Sanjaya Lall, (Institute of Economics and Statistics, Oxford University) and Senaka Bibile
(University of Sri Lanka), "The Political Economy of Controlling Transnationals: the

Ibid., p.685.

Letter from C. Joseph Stetler, President Pharmaceutical Manufacturers Association to the

Lall and Bibile, 1977 op.cit., p.685.

Ibid., p.686.

Ibid.

UNCTAD, case studies in transfer of technology: Pharmaceutical policies in Sri Lanka


Dr. Michael Hodin, Director of Public Affairs, Pfizer, personal communication, 17 March
1982.

Dr. Gladys Jayewardene, Chairman SPC (after the Bandaranaike Government was replaced
by the Jayewardene Government), *A critical study of the purchases of the State Pharmaceuticals
Corporation of Sri Lanka referred to in the UNCTAD Report 1977*, Rainbow Printers,
Colombo, 21 September 1981. WHO was sent the critical study by the author asking them
to publish it. WHO declined.

Ibid.

The reference to expanding trade with Eastern Europe and China comes from one sentence,
(quoted out of context), of a 2-page article by S. A. Wickremansinghe and S. Bibile (who
Dr. Jayewardene's study is critical that the 1977 UNCTAD Report did not make it clear that
most SPC purchases after the adoption of the new policies continued to be from traditional
suppliers. But para. 109 and Table 3 of the UNCTAD Report make it clear that most drug
imports in 1976 were still from developed market economies.

V.T. Herat Gunaratne, Director WHO Regional Office for South-East Asia, 'Bringing down

D. C. Jayasuriya, Attorney-at-Law, "Regulating the drug trade in the Third World", *World
Health Forum* 2(3), WHO, 1981, pp 423-426. It is also interesting to note that the SPC was
criticised by the medical establishment and the press for buying tetracycline from the Polish
company Polfa, as this was said to be sub-standard. But in 1980/1 - after liberalisation of
drug import - Polfa tetracycline held over 80% of the market in Sri Lanka.

In view of our criticism in the previous section, it is only fair to Pfizer to emphasise that we
have no firm evidence that they were actively involved in the Bangladesh lobby. It is interesting
to note that Dr. Hodin of Pfizer informs us that "the managing director of Pfizer Bangladesh
is a man as interested in the progress and development of his country as he is in the success
of his business. As such, he is quite active in Community and Country affairs in Bangladesh,
including the Bangladesh Association of Pharmaceutical Industries." (Dr. Hodin, personal

Dr. H. K. M. Hye and Dr. Jahangir, Director and Deputy Director, Drug Administration,
Bangladesh, in interview with the author, September and October 1980.

146 Ibid.

147 Dr. Hye, whilst Director of Drug Administration, in interview with the author, 20 October 1980.

148 Letter from Bangladesh Association of Pharmaceutical Industries to the Deputy Prime Minister in-charge at the Ministry of Industries, 22 June 1981.

149 Ibid.

150 Ibid.

151 "Association’s Stand on Important Matters concerning Pharmaceutical Industry", p.2.

152 Ibid., p.3.

153 Letter from Bangladesh Association of Pharmaceutical Industries, to the Honourable State Minister for Commerce, 26 August 1981. Retail prices have been pegged for some years. We have seen in Chapter 4 that they have been described as "strikingly" high in relation to actual production costs. The Association’s letter argues somewhat bizarrely that "the benefit of control, although intended for the consumer, hardly reaches them, because "intermediaries in the distribution channel... make unauthorised profits and black money." Whereas if price control were to be lifted "the average increase in the cost of medicines computed based on maximum retail price will increase by 12% to 15%. But, since the consumers are already paying higher prices for some of the products than the approved MRP, the real cost increase to the consumers will be about 5-7%." (Somehow, magically without price controls retailers will stop overcharging customers.) The letter also states: "Once our products are correctly priced in terms of their real value these will be available in adequate quantities and consumers will pay less than what they are currently paying." (Retailers and manufacturers in Bangladesh each accused the other of holding back supplies of drugs to make their sale more profitable when interviewed during our 1980 research trip.)

154 "Association’s Stand on Important Matters concerning Pharmaceutical Industry", op. cit., p.3.

155 Ibid., p.1.

156 Ibid., p.2.

157 P.W. Cunliffe, Chairman Pharmaceuticals Division, ICI, personal communication, 11 February 1982. ICI is not amongst the offenders in selling a mass of tonics and other over-the-counter remedies.


- Letter from Dr. J. S. Yudkin, Consultant/Senior lecturer in General Medicine, Whittington Hospital to Prof. Nurul Islam, 18 July 1982.

- The criteria have also been praised by Dr. G. Tognoni, Head, Laboratory of Clinical Pharmacology, Instituto di Ricerche Farmacologiche Mario Negri, Milan (Temporary Adviser to WHO Expert Committee on the Selection of Essential Drugs (letter to Prof. Nurul Islam, 26 July 1982).


162 - Expert Committee Report, op.cit.
163 Ibid.
164 Ibid.
165 - The Drugs (Control) Ordinance, 1982.
167 Ibid.
168 Dr. Z. Choudhury, personal communication, 24 June 1982.
169 The Pulse, 9 May 1982.
170 The New Nation, 10 June 1982.
172 - "Merck in Bangladesh, Marketing Plan 1980 (-1982)".
- Ciba-Geigy is planning to set up production in Bangladesh (Dr. Burley, personal communication, 1982).
173 Department of Trade and Industry, Overseas Trade Statistics. Nigeria was Britain's largest export market with sales worth over £64 million (compared to exports of over £20 million to the USA and £59 million to W. Germany).
174 Dr. Burley, Head of International Medical Liaison, Ciba-Geigy, personal communication, 21 May 1981.
- In 1978 a British Minister of State drew attention to a report by the Economic Development Committee for the Chemicals Industry showing that the "innovative pharmaceutical industry as a whole remains one of the major growth sectors of the chemical industry as a whole." (Roland Moyle quoted in Medicines for the year 2000, OHE 1979, op.cit.)
176 Dr. Alan Hayes, Chairman, Plant Protection Division ICI, "What can the Agrochemical Industry Learn from the Pharmaceutical Industry?", Agrochemical Conference, Dolder Hotel, Zurich, September 1981.

CHAPTER 11

1. Dr. Burley, Head of International Medical Liaison, Ciba-Geigy, personal communication, 21 May 1981.
APPENDIX I
THE WHO SELECTION OF ESSENTIAL DRUGS, 1979

1. **ANAESTHETICS**

   1.1 general anaesthetics
   - ether, anaesthetic
   - halothane
   - nitrous oxide
   - oxygen
   - thiopental

   1.2 local anaesthetics
   - bupivacaine
   - lidocaine

2. **ANALGESICS, ANTIPYRETICS, NONSTEROIDAL ANTI-INFLAMMATORY DRUGS AND DRUGS USED TO TREAT GOUT**

   2.1 non-opioids
   - acetylsalicylic acid
   - allopurinol
   - ibuprofen
   - indometacin
   - paracetamol

   2.2 analgesics, narcotics and narcotic antagonists
   - morphine
   - naloxone

3. **ANTIALLERGICS**

   - chlorphenamine
   - cromoglicic acid

4. **ANTIDOTES**

   4.1 general
   - charcoal, activated
   - ipecacuanha
   - sodium sulfate

   4.2 specific
   - atropine
   - deferoxamine
   - dimercaprol
   - naloxone
   - protamine sulfate
   - sodium calcium edetate
   - sodium nitrite
   - sodium thiosulfate

5. **ANTIEPILEPTICS**

   - diazepam
   - ethosuximide
   - phenobarbital
   - phenytoin

6. **ANTIINFECTIVE DRUGS**

   6.1 anthelmintic drugs
   - mebendazole
   - niclosamide
   - piperazine
   - pyrantel
   - tiabendazole

   6.2 antiamoebic drugs
   - chloroquine
   - diloxanide
   - metronidazole

---

The document lists essential drugs categorized under different sections such as anaesthetics, analgesics, antiallergics, antidotes, antiepileptics, and antiinfecive drugs. Each category includes specific drugs that are essential for various medical conditions.
6.3 antibacterial drugs

6.3.1 penicillins

- ampicillin
- benzathine benzylpenicillin
- benzylpenicillin
- phenoxymethylpenicillin
- procaine benzylpenicillin

6.3.2 other antibacterial drugs

- chloramphenicol
- cloxacillin
- erythromycin
- gentamicin
- metronidazole
- salazosulfapyridine
- spectinomycin
- sulfadimidine
- sulfamethoxazole + trimethoprim
- tetracycline

6.3.3 antileprosy drugs

- clofazimine
- dapsone
- rifampicin

6.3.4 antituberculosis drugs

- ethambutol
- isoniazid
- pyrazinamide
- rifampicin
- streptomycin
- thioacetazone + isoniazid

6.4 antifilarial drugs

- diethylcarbamazine
- suramin sodium

6.5 antifungal drugs

- amphotericin B
- griseofulvin
- nystatin

6.6 antileishmaniasis drugs

- pentamidine
- sodium stibogluconate

6.7 antimalarial drugs

- chloroquine
- primaquine
- quinine

6.8 antischistosomal drugs

- metrifonate
- oxamniquine
- praziquantel

6.9 antitypanosomal drugs

- melarsoprol
- pentamidine
- suramin sodium

7. ANTIMIGRAINE DRUGS

- ergotamine
<table>
<thead>
<tr>
<th></th>
<th>MAIN LIST</th>
<th>COMPLEMENTARY DRUGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.</td>
<td>ANTINEOPLASTIC AND IMMUNOSUPPRESSIVE DRUGS</td>
<td>azathioprine, bleomycin, busulfan, calcium folinate, chlorambucil, cyclophosphamide, cytarabine, doxorubicin, flurouracil, methotrexate, procarbazine, vincristine</td>
</tr>
<tr>
<td>9.</td>
<td>ANTIPARKINSONISM DRUGS</td>
<td>biperiden, levodopa+carbidopa</td>
</tr>
<tr>
<td>10.</td>
<td>DRUGS AFFECTING THE BLOOD</td>
<td>ferrous salt, folic acid, hydroxocobalamin, heparin, phytomenadione, protamine sulfate, warfarin</td>
</tr>
<tr>
<td>10.1</td>
<td>antianaemia drugs</td>
<td>ferrous salt + folic acid, iron dextran</td>
</tr>
<tr>
<td>10.2</td>
<td>anticoagulants and antagonists</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>BLOOD PRODUCTS AND BLOOD SUBSTITUTES</td>
<td>dextran 70, albumin, human normal, antihaemophilic factor IX complex (coagulation factors II, VII, IX, X concentrate)</td>
</tr>
<tr>
<td>11.1</td>
<td>plasma substitute</td>
<td></td>
</tr>
<tr>
<td>11.2</td>
<td>plasma fractions for specific uses</td>
<td></td>
</tr>
<tr>
<td>11.3</td>
<td>plasma substitute</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>CARDIOVASCULAR DRUGS</td>
<td>glyceryl trinitrate, isosorbide dinitrate, propranolol, verapamil</td>
</tr>
<tr>
<td>MAIN LIST</td>
<td>COMPLEMENTARY DRUGS</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td>12.2 antiarrhythmic drugs</td>
<td>isoprenaline</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lidocaine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>procainamide</td>
<td></td>
</tr>
<tr>
<td></td>
<td>propranolol</td>
<td></td>
</tr>
<tr>
<td>12.3 antihypertensive drugs</td>
<td>hydralazine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>hydrochlorothiazide</td>
<td></td>
</tr>
<tr>
<td></td>
<td>propranolol</td>
<td></td>
</tr>
<tr>
<td></td>
<td>sodium nitroprusside</td>
<td></td>
</tr>
<tr>
<td>12.4 cardiac glycosides</td>
<td>digoxin</td>
<td></td>
</tr>
<tr>
<td>12.5 drugs used in shock or anaphylaxis</td>
<td>dopamine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>epinephrine</td>
<td></td>
</tr>
<tr>
<td>13. DERMATOLOGICAL DRUGS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.1 fungicides</td>
<td>benzoic acid +</td>
<td></td>
</tr>
<tr>
<td></td>
<td>salicyclic acid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>miconazole</td>
<td></td>
</tr>
<tr>
<td></td>
<td>nystatin</td>
<td></td>
</tr>
<tr>
<td>13.2 antiinfective drugs</td>
<td>neomycin +</td>
<td></td>
</tr>
<tr>
<td></td>
<td>bacitracin</td>
<td></td>
</tr>
<tr>
<td>13.3 antiinflammatory and antipruritic drugs</td>
<td>betamethasone</td>
<td></td>
</tr>
<tr>
<td></td>
<td>calamine lotion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>hydrocortisone</td>
<td></td>
</tr>
<tr>
<td>13.4 astringents</td>
<td>aluminium acetate</td>
<td></td>
</tr>
<tr>
<td>13.5 keratoplastic and keratolytic agents</td>
<td>coal tar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>salicylic acid</td>
<td></td>
</tr>
<tr>
<td>13.6 scabicides and pediculicides</td>
<td>benzyl benzoate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>lindane</td>
<td></td>
</tr>
<tr>
<td>14. DIAGNOSTIC AGENTS</td>
<td>edrophonium</td>
<td></td>
</tr>
<tr>
<td>14.1 ophthalmic drugs</td>
<td>fluorescein</td>
<td></td>
</tr>
<tr>
<td>14.2 radiographic oil media</td>
<td>adipiodone meglumine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>barium sulfate</td>
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<tr>
<td></td>
<td>iopanoic acid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>meglumine amidotrizoate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>sodium amidotrizoate</td>
<td></td>
</tr>
<tr>
<td>Section</td>
<td>Main List</td>
<td>Complementary Drugs</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
<td>----------------------</td>
</tr>
<tr>
<td><strong>15. DISINFECTANTS</strong></td>
<td>chlorhexidine</td>
<td>iodine</td>
</tr>
<tr>
<td><strong>16. DIURETICS</strong></td>
<td>amiloride</td>
<td>furosemide</td>
</tr>
<tr>
<td><strong>17. GASTROINTESTINAL DRUGS</strong></td>
<td>aluminium hydroxide</td>
<td>calcium carbonate</td>
</tr>
<tr>
<td>17.1 antacids and other antiulcer drugs</td>
<td>cimetidine</td>
<td>magnesium hydroxide</td>
</tr>
<tr>
<td>17.2 antiemetics</td>
<td>promethazine</td>
<td>metoclopramide</td>
</tr>
<tr>
<td>17.3 antihaemorrhoidals</td>
<td>local anaesthetic, astringent and antiinflammatory drug</td>
<td></td>
</tr>
<tr>
<td>17.4 antispasmodics</td>
<td>atropine</td>
<td></td>
</tr>
<tr>
<td>17.5 cathartics</td>
<td>senna</td>
<td></td>
</tr>
<tr>
<td>17.6 Diarrhoea, drugs used in</td>
<td>codeine</td>
<td></td>
</tr>
<tr>
<td>17.6.1 antidiarrhoeal</td>
<td>oral rehydration salts</td>
<td></td>
</tr>
<tr>
<td>17.6.2 replacement solution</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>18. HORMONES</strong></td>
<td>dexamethasone</td>
<td>fludrocortisone</td>
</tr>
<tr>
<td>18.1 adrenal hormones and synthetic substitutes</td>
<td>hydrocortisone</td>
<td>prednisolone</td>
</tr>
<tr>
<td>18.2 androgens</td>
<td>testosterone</td>
<td></td>
</tr>
<tr>
<td>18.3 estrogens</td>
<td>ethinylestradiol</td>
<td></td>
</tr>
<tr>
<td>18.4 insulins and other antidiabetic agents</td>
<td>compound insulin</td>
<td>zinc suspension</td>
</tr>
<tr>
<td></td>
<td>insulin injection</td>
<td>glibenclamide</td>
</tr>
<tr>
<td>18.5 oral contraceptives</td>
<td>ethinylestradiol</td>
<td>norethisterone</td>
</tr>
<tr>
<td></td>
<td>levonorgestrel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ethinylestradiol + norethisterone</td>
<td></td>
</tr>
<tr>
<td>18.6 ovulation inducers</td>
<td>clomifene</td>
<td></td>
</tr>
<tr>
<td>18.7 progestogens</td>
<td>norethisterone</td>
<td></td>
</tr>
<tr>
<td>18.8, thyroid hormones and antagonists</td>
<td>levothyroxine</td>
<td>potassium iodide</td>
</tr>
</tbody>
</table>
19. IMMUNOLOGICALS

19.1 sera and immunoglobulins
- anti-D immunoglobulin (human)
- antirabies hyperimmune serum
- antivenom sera
- diphtheria antitoxin
- immunoglobulin, human normal
- tetanus antitoxin

19.2 vaccines

19.2.1 for universal immunisation
- BCG vaccine (dried)
- diphtheria-pertussis-tetanus vaccine
- diphtheria-tetanus vaccine
- measles vaccine
- poliomyelitis vaccine
- tetanus vaccine

19.2.2 for specific groups of individuals
- influenza vaccine
- meningococcal vaccine
- rabies vaccine
- typhoid vaccine
- yellow fever vaccine

20. MUSCLE RELAXANTS AND CHOLINESTERASE INHIBITORS
- neostigmine
- gallamine
- pyridostigmine
- suxamethonium

21. OPHTHALMOLOGICAL PREPARATIONS

21.1 antiinfective
- silver nitrate
- sulfacetamide
- tetracycline

21.2 antiinflammatory
- hydrocortisone

21.3 local anaesthetics
- tetracaine

21.4 miotics
- pilocarpine

21.5 mydriatics
- homatropine
- epinephrine

21.6 systemic
- acetazolamide

22. OXYTOCICS
- ergometrine
- oxytocin
MAIN LIST

23. PERITONEAL DIALYSIS SOLUTION

24. PSYCHOTHERAPEUTIC DRUGS

25. DRUGS ACTING ON THE RESPIRATORY TRACT

25.1 antiasthmatic drugs

25.2 antitussives

26. SOLUTIONS CORRECTING WATER, ELECTROLYTE AND ACID-BASE DISTURBANCES

26.1 oral

26.2 parenteral

27. VITAMINS AND MINERALS

COMPLEMENTARY DRUGS

intraperitoneal dialysis solution

amitriptyline
chlorpromazine
diazepam
fluphenazine
haloperidol
lithium carbonate

aminophylline
epinephrine
salbutamol

beclometasone
cromoglicic acid
ephe drine

codeine

oral rehydration salts
(for glucose-salt solution)
potassium chloride

compound solution of
sodium lactate
glucose
sodium bicarbonate
potassium chloride
sodium chloride
water for injection

ascorbic acid
ergocalciferol
nicotinamide
pyridoxine
retinol
riboflavin
sodium fluoride
thiamine

calcium
gluconate

Note: Spellings in this Appendix follow those given by WHO but do not always correspond to accepted British spelling.
## APPENDIX II
### GLAXO (BANGLADESH) LTD. PRODUCT RANGE.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>FORMULATION ON UK MARKET</th>
<th>FORMULATION ON WHO LIST (1979)</th>
<th>PRODUCT RECOMMENDED FOR WITHDRAWAL, BANGLADESH EXPERT COMMITTEE MAY 1982</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANTIBIOTICS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. <strong>CLINMYCIN Capsules</strong></td>
<td>A broad spectrum antibiotic containing 250 mg oxytetracycline dihydrate in each capsule</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2. <strong>CLINMYCIN Syrup</strong></td>
<td>Pleasantly flavoured broad spectrum antibiotic syrup, containing 125 mg oxytetracycline calcium in each 5 ml</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>3. <strong>CRYSTAPEN Injection</strong></td>
<td>Single dose injection containing 500,000 units of crystalline sodium salt of benzylpenicillin</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>4. <strong>CRYSTAPEN V Granules</strong></td>
<td>A flavoured syrup produced by adding 5 spoons of boiled &amp; cooled water (spoon provided). Each teaspoonful of syrup (5 ml) contains 125 mg phenoxymethyl penicillin</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>5. <strong>CRYSTAPEN V Tablets</strong></td>
<td>Tablets containing phenoxymethyl penicillin 125 mg 250 mg</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>6. <strong>GRISOVIN-FP Tablets</strong></td>
<td>Each tablet contains 125 mg fine particles of griseofulvin</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>7. <strong>NEOBACRIN Ointment</strong></td>
<td>Skin &amp; eye ointment containing 5 mg neomycin and 500 units zinc bacitracin in each gram</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>PRODUCT</td>
<td>DESCRIPTION</td>
<td>FORMULATION ON UK MARKET</td>
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<tr>
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<td>-------------------------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>8. SECLOPEN Injection</td>
<td>Single dose injection containing 300,000 units of procaine penicillin G and 100,000 units of benzylpenicillin</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>9. STREPTOMYCIN SULPHATE Injection</td>
<td>Single dose injection containing equivalent of 1 gram streptomycin sulphate</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>CORTICOSTEROIDS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. BETNELAN Tablets</td>
<td>Each tablet contains 0.5 mg betamethasone</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>11. BETNESOL-N Eye Ointment</td>
<td>0.1% betamethasone disodium phosphate with 0.5% neomycin sulphate in a bland paraffin base</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>12. BETNESOL-N Eye, Ear &amp; Nose Drops</td>
<td>0.1% betamethasone disodium phosphate with 0.5% neomycin sulphate</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>13. BETNOVATE-N Cream</td>
<td>0.1% betamethasone 17-valerate with 0.5% neomycin sulphate</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>14. BETNOVATE-N Ointment</td>
<td>0.1% betamethasone 17-valerate with 0.5% neomycin sulphate in a bland paraffin base</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>PHARMACEUTICALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. ADEXOLIN Liquid</td>
<td>Containing vitamin A 12,000 units and vitamin D 2,000 units per ml</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>16. ANCOLOXIN Tablets</td>
<td>Each tablet containing 25 mg meclozine hydrochloride and 50 mg pyridoxine hydrochloride</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>PRODUCT DESCRIPTION</td>
<td>FORMULATION ON UK MARKET</td>
<td>FORMULATION ON WHO LIST (1979)</td>
<td>PRODUCT RECOMMENDED FOR WITHDRAWAL, BANGLADESH EXPERT COMMITTEE MAY 1982</td>
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<tr>
<td>---------------------</td>
<td>--------------------------</td>
<td>--------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>17. BECADEX Drops</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>18. BECADEX Syrup</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>19. BECADEX Tablets</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>20. BERIN Injection</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>21. BERIN Tablets</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>22. *CALCI-OSTELIN Injection</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>23. CALCI-OSTELIN + B12 Injection</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>24. CALCI-OSTELIN + B12 Tablets</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>25. CALDEFERRUM Tablets</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
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<td>26. CELIN Flavoured Tablets</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>27. CYTAMEN Injection</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>28. CYTEXIN Liquid</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>29. DEQUADIN Lozenges</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>PRODUCT</td>
<td>DESCRIPTION</td>
<td>FORMULATION ON UK MARKET</td>
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<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>30. ERBOLIN Tablets</td>
<td>Each tablet contains 0.4 mg of the total alkaloids of ergot</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>31. FESOLATE Tablets</td>
<td>Sugar-coated tablets containing ferrous sulphate 200 mg, copper sulphate 2.5 mg and manganese sulphate 2.5 mg</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>32. GLAXOSE-D</td>
<td>Finely powdered dextrose monohydrate B.P. (98.9%) with vitamin D (250 units per oz) and calcium glycerophosphate</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>33. HALIBORANGE</td>
<td>Syrup of vitamin A, C &amp; D with concentrated orange juice</td>
<td>No (only tablets)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>34. HELMACID</td>
<td>Pleasently flavoured anthelmintic syrup containing in each teaspoonful (5 ml) equivalent of 600 mg piperazine hydrate</td>
<td>No</td>
<td>Yes (without flavour)</td>
<td>No</td>
</tr>
<tr>
<td>35. HELMACID with Senna</td>
<td>Chocolate-flavoured anthelmintic granules, containing in each 10 gms (4 teaspoons) piperazine phosphate 4 g and calcium sennosides equivalent to 1.5 g of powdered senna pod</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>36. KAOPEX-N Suspension</td>
<td>Suspension of light kaolin, pectin and neomycin</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>37. KAPILIN Tablets</td>
<td>Each tablet contains 10 mg acetomenaphthone</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>PRODUCT</td>
<td>DESCRIPTION</td>
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<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>38. KAPILIN Ampoules</td>
<td>1 ml ampoules each containing 10 mg menaphthone sodium bisulphite</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>39. LAXENNA Tablets</td>
<td>Tablets containing activity of 600 mg senna pod</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>40. MINADEX Syrup</td>
<td>Mineral vitamin tonic in orange-flavoured syrup</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>41. MYCIL Ointment</td>
<td>Anti-fungal ointment containing 0.5% chlorphenesin</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>42. MYCIL Powder</td>
<td>Anti-fungal, antibacterial medicated powder containing chlorphenesin 1% and zinc oxide 5%</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>43. NEO-NACLEX Tablets</td>
<td>Long-acting oral diuretic each tablet containing 2.5 mg bendrofluazide</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>44. OSTOCALCIUM Tablets</td>
<td>Calcium and vitamin D tablet (calcium phosphate 325 mg, calcium sodium lactate 162 mg, and vitamin D 500 units)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>45. PARAPYRIN Tablets</td>
<td>Analgesic &amp; antipyretic tablet containing paracetamol and aspirin</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>46. PIRITON Expectorant</td>
<td>Each teaspoonful (5 ml) contains chlorpheniramime maleate 2.5 mg, ammonium chloride 125 mg, sodium citrate 55 mg and glycerin.</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>47. PIRITON-G Linctus</td>
<td>Each teaspoonful (5 ml) contains chlorpheniramime maleate 2.5 mg, gualphenesin 100 mg, sodium citrate 55 mg, and glycerin</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>PRODUCT</td>
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</tr>
<tr>
<td>48. PIRITON Tablets</td>
<td>Antihistamine tablet containing chlorpheniramine maleate 4 mg</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>49. PLEXAN Injection</td>
<td>Injection of liver extract with added vitamin B12</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>50. PREPALIN</td>
<td>A sterile oily solution for injection containing 100,000 units of vitamin A per ml</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>51. PROBERON Injection</td>
<td>Vitamin B-complex injection</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>52. STIBATIN</td>
<td>A sterile solution of pentavalent sodium antimony (V) gluconate 100 mg per ml</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>53. VENTOLIN Tablets</td>
<td>Tablets containing 2 mg salbutamol sulphate</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>NEW PRODUCTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54. CEPOREX Capsules</td>
<td>A broad spectrum bacterial antibiotic containing 250 mg cephalexin monohydrate in each capsule</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>55. VIBELAN FORTE-C Capsules</td>
<td>A preparation of vitamin B-complex with therapeutic quantities of vitamin C in each capsule</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>56. VENTOLIN Elixir</td>
<td>An effective bronchodilator containing salbutamol sulphate 1 mg and guaiphenesin 50 mg in each teaspoonful</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

*CALCI-OSTELIN injection not on July 1981 Price List, but no evidence of withdrawal since March 1980 Medical List; included in May 1982 Review.*
## APPENDIX III

### FISONs (BANGLADESH) LIMITED PRODUCT RANGE

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<thead>
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<th>FORMULATION ON WHO LIST (1979)</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>liquids</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. DIGEPLEX</td>
<td>Digestive enzymes with vitamin B-complex</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>2. DIMYRIL</td>
<td>Iso-aminile citrate (for irritating cough)</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>3. ENTERFRAM</td>
<td>Neomycin sulphate &amp; kaolin (for infantile diarrhoea etc)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>4. FIDAPLEX</td>
<td>Vitamin B-complex with sodium glycerophosphate and calcium glycerophosphate (avitaminosis convalescence and debility)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>5. FULFORD'S GRIPE WATER</td>
<td>(For babies &amp; young children)</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>6. HYPACID</td>
<td>Aluminium phosphate gel (For hyperacidity &amp; peptic ulcer)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>7. MINOLAD</td>
<td>Vits A, D, Lysine, Iron, Minerals, Choline, Methionine (a nutritional tonic for adults and children)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>8. NEO-FERILEX</td>
<td>Iron choline citrate with Vit B-complex (for iron deficiency anaemia)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>tablets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. ANTISMAT</td>
<td>Ephedrine, Theophylline, Phenobarbitone and Aluminium hydroxide (for bronchial asthma)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
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</tr>
<tr>
<td>10. CALCIPAN</td>
<td>Calcium Pantotherate (for burning feet syndrome, post-operative distension, paralyticileus, muscular cramps, and protective action against toxicity of streptomycin and dihydrostreptomycin)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>11. FICAL-D</td>
<td>Calcium lactate 150 mg Calcium gluconate 290 mg Calciferol (vitamin D 500 I.U) Calcium and vitamin D supplement)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>12. FIDAPLEX</td>
<td>Vitamin B-complex Prophylaxis of Avitaminosis-B</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>13. FITAMOL</td>
<td>Paracetamol 500 mg</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>14. FISTREP</td>
<td>Streptomycin sulphate and lodochlorhydroxyquinoline (anti-dysenteric/anti-diarrhoeal)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>15. FOLFETAB</td>
<td>Ferrous fumarate and folic acid (for iron deficiency-anaemia)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>16. FOLIC ACID</td>
<td>(For megaloblastic anaemia of pregnancy)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>17. GENASPRIN</td>
<td>Acetylsalicylic acid 300 mg</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>18. GENATOSAN</td>
<td>Multivitamins (Restores physical power, guards against disease, promotes appetite and growth)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>19. HYPACID</td>
<td>Aluminium phosphate (for hyperacidity &amp; pectic ulcer)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>20. PEPS</td>
<td>Anti-cough lozenge</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>PRODUCT</td>
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</tr>
<tr>
<td><strong>CAPSULES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. DECAPLEX FORTE</td>
<td>Ferrous fumarate, vitamin C, B1, B12 and folic acid (For iron deficiency anaemia)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>22. DECATONE*</td>
<td>A geriatric preparation containing vitamins, iron, minerals, digestive enzymes and hormones.</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>23. FIDAPLEX-C</td>
<td>High potency vitamin B-complex with vitamin C &amp; dried yeast</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>INJECTABLES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. CALCIPAN</td>
<td>Calcium pantothenate 100 mg/ml</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>25. FIDAPLEX</td>
<td>Vitamin B-complex with lignocaine hydrochloride</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>26. IMFERON</td>
<td>Iron dextran 50 mg</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>27. LIVEX B.C.</td>
<td>Liver extract with vitamin B-complex and lignocaine hydrochloride (for haemopoiesis)</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>OINTMENTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. FRAMYCORT</td>
<td>Neomycin sulphate with hydrocortisone acetate</td>
<td>No</td>
<td>No (not with neomycin sulphate - but framycetin sulphate in U.K.)</td>
<td>Yes</td>
</tr>
<tr>
<td>29. ZAM-BUK</td>
<td>(Medicated ointment)</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>30. AURALGICIN</td>
<td>Ear drops. Chlorbutol, phenazone, ephedrine and potassium hydroxyquinoline</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
### PRODUCT DESCRIPTION FORMULA

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>31. FRAMYGEN</td>
<td>Eye/ear drops. Neomycin, sulphate, benzalk chloride and benzyl alcohol</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

(not with neomycin sulphate but framycetin sulphate in U.K.)

(From product List September 1978 and Price List February 1981)

* DECATONE: Although this is listed in Fisons (Bangladesh) February 1981 Institutional Price list and included in the May 1982 Review of Products on the market, a letter from Fisons UK to Professor Rawlins (21 February 1980) states that DECATONE was withdrawn from the Bangladesh market in June 1979.

### APPENDIX IV

**DRAFT NATIONAL DRUG POLICY FOR BANGLADESH FROM EXPERT COMMITTEE REPORT. 11 MAY 1982.**

To achieve the objectives of national drug policy and to provide guidelines for the formation of programme the following actions are to be taken:

Selection and provision of essential drugs:

3.1 The major strategy is to overcome constraint of limited resources for the option utilization. This also calls for the elimination of all unnecessary, useless drugs and drugs of doubtful efficacy from the market. A limited list of 150 essential drugs considered adequate for most therapeutic purposes shall be selected. Out of this about 45 essential drugs will be selected for the primary level of health care on the basis of priority health need, cost, safety and suitability of treatment of common disease and symptoms by up to Thana level health workers.

Besides, for the protection of the vast majority of people in the rural areas from hazards of undue prescribing in an attempt to give them relief by basic health workers it is essential to limit the essential drugs to 12 which are considered safe and adequate for common medical problems.

Besides there may be a list of another about 100 supplementary drugs needed for tertiary level of health care by specialists. The various brands of drugs in the market shall be evaluated annually on the basis of their usefulness, essentiality and cost-effectiveness in the light of up to date available information. In future, only products which are considered essential and relevant to health needs of the country and are consistent with this policy shall be licensed or registered. The selected essential drugs shall be given preferential treatment in terms of licensing, import authorization, duties and other financial benefits.
The selected 45 essential drugs for primary health care shall be allowed to be manufactured or sold only under their generic names. As soon as possible and not later than 1983, a National Formulary will be prepared and published, which shall include all the formulations that will be allowed for manufacture, import or sale in this country. Products such as liquid vitamin mixtures, multiple combinations of potent drugs, combination of antibiotics with other active drugs, alkali mixtures, gripe waters, cough mixtures, tonics, balms, digestive enzyme preparations, habit-forming drugs, vaporubs and other similar useless and non-essential products will be identified and their licensing/registration shall be cancelled so that such products are completely eliminated from Bangladesh.

**DRUG ACT**

3.2 The Drugs Act 1940 shall be revised or replaced by a new drug legislation incorporating provisions for:

i. a system of registration of all medicinal products including ayurvedic, unani and homeopathic medicines;

ii. enforcement of good manufacturing practices;

iii. full control of labelling, advertising;

iv. control of prices of finished drugs and pharmaceutical raw materials;

v. prescription control of toxic/poisonous and habit-forming drugs;

vi. summary trial for offences in special drug courts;

vii. heavy penalties including confiscation if equipment and properties for manufacture and/or selling of spurious and sub-standard drugs;

viii. departmental adjudication for fine of up to taka 10,000/-;

ix. heavy penalties for possessing or selling of drugs stolen from government stores, hospitals and dispensaries;

x. regulation of technology transfer and licensing agreement with foreign collaborators;

xi. restriction of ownership of retail pharmacist to professional pharmacists only;

xii. control of manufacture and sale of unani, ayurvedic and homeopathic drugs;

xiii. the patent laws in respect of pharmaceutical substances shall be revised.

Product patent in respect of pharmaceutical substances shall not be allowed. Process patent may be allowed for a limited period of time if only the basic substance is manufactured within the country. The tariff structure in respect of pharmaceutical raw materials for selected essential drugs, quality control equipment and chemicals shall be revised. A drug technical advisory board consisting of representatives from the pharmaceutical profession, industry, Pharmacy dept. of the University, representations from the professional organisations, experts from the profession shall be constituted to review from time to time for the implementation of drug policy.

**DRUG ADMINISTRATION**

3.3 The Directorate of Drug Administration will be expanded and adequately staffed with experts in medical and pharmaceutical sciences. In view of the gross inadequacy of drug inspectors, all Thana Health Administrators shall be given a special course of training and be empowered to act as drug inspectors for the purpose, so that they can take meaningful sanctions against wholesalers, retailers and peddlers of drugs at Thana levels and below. All the government drug control laboratories should be brought under the control of Drug Administration. A properly staffed and equipped National Drug Control Laboratory with appellate facilities will be set up as early as possible, not later than
1985. Besides its function in respect of drug control and administration, the National Drug Control Administration Laboratory will devote itself to develop appropriate standards and specifications for unani and ayurvedic drugs. It will also help develop national formulations for unani and ayurvedic drugs.

The fees for licensing, registration and testing of drugs which are ridiculously low at present shall be enhanced. Licensing or registration fees for new products which are not included in the national list of essential drugs shall be very high (not less than taka 5000/-). The renewable fees of licensing, registration and testing shall be utilised for the expansion and development of drug administration and drug testing laboratories. No manufacturer will be allowed to produce drugs without adequate quality control facilities. However, the small national drug manufacturers may be allowed to establish quality control laboratories on a collective basis.

3.4 Local Production

The existing capacities of local pharmaceutical industries especially those owned by Bangladeshi nationals, shall be enhanced through liberal licensing for balancing and modernisation and by increasing entitlement for the import of raw materials. Government facilities for the economic and efficient production of essential drugs for primary health care, intravenous fluid and vaccines shall be expanded. Multinational companies will not be allowed to manufacture simple products like common analgesics, vitamins, antacids, etc. Such products will be exclusively manufactured by local firms. Local production of basic pharmaceuticals in bulk shall be promoted to attain self-reliance. To encourage such production, special benefits and protections will be provided to private investors. The public industrial sector shall also take appropriate measures for the local production of essential basic pharmaceuticals in bulk, including vital antibiotics.

3.5 Control of Prices

Government shall control the prices of finished drugs as well as those of pharmaceutical raw and packaging materials and intermediates. Level prices will be fixed for the 45 essential drugs for primary health care and their corresponding raw materials. It will be ensured that all raw and packaging materials of acceptable quality are procured from international sources at competitive prices only. The retail prices of finished drugs will be fixed on the basis of costing and reasonable profitability. Undue overhead expenditure shall be prevented. A maximum of 100% mark up for fast moving items and 150% for slow moving items over cost of raw materials shall be allowed.

In the case of injectable and sterile preparations, the mark-up may go up to 200%. No mark-up will be allowed on the cost of packaging materials, but actual cost on them will be added.

The agency responsible for drug control and administration shall be responsible for the control of pricing and their enforcement.

3.6 Distribution and Utilization

Retail sale of drugs and medicines shall be allowed only under the supervision of qualified pharmacists. As soon as possible, arrangement must be made to authorise the establishment of private retail pharmacies within the premises of every Government hospital up to the Thana Health Complex, where under the ownership (on lease) and management of qualified pharmacists, and under the supervision of hospital authorities, essential drugs will be made available for sale at fixed prices against prescriptions of qualified physicians.

3.7 Traditional Unani, Ayurvedic and Homeopathic system of medicine have a long tradition in many countries including Bangladesh. These systems are now exempted from the drug laws. Consequently unethical and not uncommonly harmful products proliferate and alcohol containing tonics are much abused.

Appropriate action requires to be taken for necessary training of their personnel, screening of the products and wherever possible identification of their active ingredients, and standardisation. A National Pharmacopia of Traditional Medicine should be prepared.
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