ESSENTIAL AND INESSENTIAL

THE CHANGING ROLE OF PHARMACEUTICALS IN WORLD HEALTH

JEREMY A GREENE, MD, PHD HARVARD UNIVERSITY
“There is an urgent need to ensure that the most essential drugs are available at a reasonable price and to stimulate research and development to produce new drugs adapted to the real health requirements of developing countries. This calls for the development of national drugs policies for the whole drug sector, linking drug requirements with health priorities in national health plans formulated within the context of social and economic development.”
BROCK CHISHOLM, FIRST DG
BRITISH MEDICAL JOURNAL, MAY 1950
“Some delegations felt that it was a function of WHO in the present situation to provide essential medical supplies, such as D.D.T., penicillin, and streptomycin, to countries which do not produce these commodities and which, because of the lack of necessary currencies, are unable to import them in the quantities required for carrying out national health projects.

Other delegations stated…that the amount of assistance which W.H.O. could furnish in that field was infinitesimal compared with world needs, and held that medical supplies, like other commodities, should now be obtained through the normal peacetime economic machinery.”
... but *some* drugs are more essential than others!
I. LONG HISTORY OF ESSENTIAL DRUGS

II. DRUGS PROGRAMS AT THE EARLY WHO

III. SHORT HISTORY OF ESSENTIAL DRUGS

... but some drugs are more essential than others!
I. LONG HISTORY OF ESSENTIAL DRUGS
II. DRUGS PROGRAMS AT THE EARLY WHO
III. SHORT HISTORY OF ESSENTIAL DRUGS
GERMAN MILITARY MEDICINE KIT, WWI
AMERICAN RED CROSS POW KIT, C. 1944
the third man, 1949
ALBERT AND KATHERINE COOK,
UGANDA MEDICAL MISSIONS, C. 1905
BRAZILIAN BOY DISPLAYING WORMS PURGED AFTER SINGLE DOSE OF CHENNIPODIUM, 1920 FROM ROCKEFELLER FOUNDATION DEMONSTRATION
Use antitoxin. Use antitoxin freely.

Antitoxin cures diphtheria.
Antitoxin will prevent diphtheria.

ILLINOIS STATE BOARD OF HEALTH

REFINED AND CONCENTRATED

DIPHTHERIA ANTITOXIN

FOR THE PREVENTION OR TREATMENT OF DIPHTHERIA

FOR FREE DISTRIBUTION AMONG THE PEOPLE OF ILLINOIS

THIS ANTITOXIN MUST NOT BE SOLD

DOSAGE AS RECOMMENDED BY THE ILLINOIS STATE BOARD OF HEALTH.

IMMUNIZING DOSE, 1000 UNITS.
CURATIVE DOSE, IN LIGHT CASES, NOT INVOLVING THE LARYNX, ESPECIALLY IN YOUNG CHILDREN: IF TREATMENT IS GIVEN ON FIRST DAY OF DISEASE, 2000 UNITS WILL GENERALLY BE FOUND SUFFICIENT. IF TREATMENT IS NOT GIVEN UNTIL THE SECOND OR THIRD DAY OF DISEASE IT WOULD BE BETTER TO GIVE 3000 UNITS. THIS IS THE CURATIVE DOSE ORDINARILY RECOMMENDED. IF DISEASE IS SEVERE, AND IN ALL CASES OF DIPHTHERITIC LARYNGITIS, 5000 UNITS SHOULD BE ADMINISTERED. IF FAVORABLE RESULTS DO NOT FOLLOW WITHIN TEN HOURS, THE INITIAL DOSE SHOULD BE REPEATED. IT MAY BE DOUBLED, WITH REFINED AND CONCENTRATED ANTITOXIN, GIVING A MAXIMUM OF STRENGTH IN A MINIMUM BULK. IT IS SAFER TO GIVE LARGE DOSES THAN TO RISK THE DANGER OF AN INSUFFICIENT DOSAGE.

JAMES A. EGAN, M. D., SECRETARY.

Diphtheria has an exceedingly low death rate.
Have no fear of antitoxin.
Diphtheria formerly had an exceedingly high death rate.
Have a very wholesome fear of diphtheria.

Diphtheria antitoxin distributed.
USEFUL DRUGS

A SELECTED LIST OF ESSENTIAL DRUGS

WITH

BRIEF DISCUSSIONS OF ACTION, USES AND DOSAGE

Edited

Under the Direction and Supervision of the Council on Pharmacy and Chemistry of the American Medical Association
I. LONG HISTORY OF ESSENTIAL DRUGS

II. DRUGS PROGRAMS AT THE EARLY WHO

III. SHORT HISTORY OF ESSENTIAL DRUGS
EXPERT COMMITTEE ON THE UNIFICATION OF PHARMACOPOEIAS

Report on the First Session held at the


I. Introduction


III. Preparatory Work for the International Pharmacopoeia undertaken during the Session.
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<th>Trademarks Noms déposés</th>
<th>NFN-name Dénominations NFN</th>
<th>'INN, DCI USP-NHR-BP-BAN</th>
<th>Proposal Propositions</th>
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<td>1-methyl-butyl</td>
<td>Pentothal Intraval Tiopan</td>
<td>Thiomebutal</td>
<td>Thiopental (INN, DCI) Thiopental (BAN) Thiopental (INR)</td>
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<td>ethyl</td>
<td>3-methyl-butyl (isoamyl)</td>
<td>Amytal Isomyl Amycal</td>
<td>Pentymal</td>
<td>Amobarbital (INN, DCI) Amobarbital (NHR 50)</td>
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<td>ethyl</td>
<td>1-methyl-1-buteryl(8)</td>
<td>Delvinal</td>
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<td>Vinbarbital (INN, DCI) Vinbarbital (NHR)</td>
<td>Pentenymal</td>
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III. PREPARATORY WORK FOR THE INTERNATIONAL PHARMACOPOEIA.

(a) Scope of the International Pharmacopoeia.

The Committee discussed the scope and content of an international pharmacopoeia. Professor Cook wished it to be extended so as to present to medical men a comprehensive list of the drugs considered to have outstanding value in medical practice. Such a list might be divided into two sections, a primary list of the essential drugs, and a secondary list of less important but useful drugs. It was decided that, for the present, monographs should be prepared only of the essential drugs.
SOMETHING CAN BE DONE ABOUT TUBERCULOSIS

Ten years ago tuberculosis was a disease for which little could be done. Patients were condemned to spend years in bed-ridden isolation. Today new chemical drugs and antibiotics are revolutionizing the treatment of tuberculosis.
STREPTOMYCIN PRODUCTION,
1946
I. LONG HISTORY OF ESSENTIAL DRUGS

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(Courtesy of Eli Lilly & Company, Indianapolis.)

Figure 24. Select an "across-the-corner" position at the desk.
CRITIQUE OF PHARMACEUTICAL HARM IN GLOBAL NORTH: KEFAUVER AND KELSEY
BAUNDUNG CONFERENCE, 1955:
NEHRU, NKRUMA, NASSER, SUKARN
The commune hospital prepares Chinese medicine for its patients.

"Barefoot" doctor Shen Pan-non checks on the commune families' health.
### The selection of essential drugs

Report of a WHO Expert Committee

#### Technical Report Series

615

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Special terms for developing countries are obtainable on application to the WHO Representatives or WHO Regional Offices listed above or to the World Health Organization, Distribution and Sales Service, 1211 Geneva 27, Switzerland. Orders from countries where sales agents have not yet been appointed may also be sent to the Geneva address, but must be paid for in pounds sterling, US dollars or Swiss francs.

Price: Sw. fr. 8.50

Prices are subject to change without notice.
Packed drug kits being moved prior to despatch from Copenhagen.

Photo WHO / E. Mandelma
After Nairobi – what?

NAIROBI CONFERENCE ON THE RATIONAL USE OF DRUGS, 1985
Every minute, five people die of AIDS.
The concept of essential medicines: lessons for rich countries

Hans V Hogerzeil

Rich countries should follow the lead of poor countries and adopt a more systematic way of controlling the cost of drugs.

Industrialised countries, faced with increasing demands for quality health care by ageing populations and ever increasing costs of medicines, can learn from low income countries how to respond to pharmaceutical policy issues in a comprehensive way.

Since the 1970s many developing countries have started national programmes for essential drugs to promote the availability, accessibility, affordability, quality, and rational use of medicines. The cornerstones of such programmes are the careful selection of essential medicines for public supply and reimbursement, based on a systematic review of comparative efficacy, safety, and value for money; evidence based national clinical guidelines as the basis for training and rational prescribing; and a national medicines policy to balance conflicting policy objectives and to express government commitment to a common goal. Industrialised countries would do well to consider and adopt
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12/02/2009

JEREMY A. GREENE, MD, PHD
LEVITT ASKS LAW ON DRUG PROFITS

Controller Urges Regulation of 'Essential' Medicine

By TERENCE SMITH

State Controller Arthur Levitt has called for Federal legislation to limit the profits a drug company may earn from a patented drug that is essential to life.

In a letter sent last week to John W. Gardner, the Secretary of Health, Education and Welfare, Mr. Levitt suggested that new legislation should be drafted "which would grant to a regulatory agency, such as your department, the power to impose reasonable restrictions on excess profits" from essential patented drugs.

The Controller explained that by drugs essential to life, he meant drugs that are necessary for healthful living, and that Thorazine, a tranquilizer, would fall in this category.

The Secretary passed that letter on to the Antitrust Division of the Department of Justice, which is considering an inquiry.

Mr. Levitt's concern grows out of his contention that the state is being forced to pay unreasonably high prices for three tranquilizing drugs — Thorazine, Compazine and Stelazine.

The state annually buys $2.5-million worth of these drugs, which are manufactured exclusively in this country by Smith, Kline and French Laboratories of Philadelphia.

Called 'Miracle Drug'

The drugs, according to Mr. Levitt, "mean for literally thousands of patients the difference between being in a mental institution and being free to go about their daily affairs."

"Thorazine is, in effect, a miracle drug," he said. "I question whether one company should have a patent on a miracle drug."

Drug companies have maintained that their prices are fair and that the patent system is both good and necessary.

In his second letter to Sec-

when such a basis is used in connection with so-called miracle or wonder drugs, critical needs in the area of health are adversely affected," he said.

F. Markoe Rivinus, president of Smith, Kline and French, said last week: "Although we have not seen Mr. Levitt's letter, he apparently is proposing a change in the United States patent system, which has provided the incentive for the discovery and development of lifesaving drugs by the American pharmaceutical industry."

"To disrupt this system would disrupt progress in health. Of the important drug developments in the last century, most have come from the United States. For this reason we do not believe that changing the patent system would be in the public interest."

The state currently pays $36 for a thousand tablets of Thorazine, the most widely used of the three drugs. Despite quantity reductions granted to the state by Smith, Kline and French, Mr. Levitt maintains that the prices are "unjustifiably high."

In an audit prepared by his staff, the Controller also asserted that the patent on Thoraz-