

Contents

| <i>Chapter</i> | <i>Page</i> |
|---|-------------|
| Glossary of Acronyms | ix |
| 1. SUMMARY | 3 |
| Introduction | 3 |
| The Drug Approval Process | 4 |
| History and Objectives of Postmarketing Surveillance | 5 |
| Methods of Surveillance | 6 |
| Issues and Options | 8 |
| 2. THE DRUG APPROVAL PROCESS. | 13 |
| Notice of Claimed Investigation for a New Drug | 13 |
| IND Application Process | 13 |
| Compassionate or Treatment ID. | 15 |
| The New Drug Application Process | 16 |
| Abbreviated New Drug Application | 17 |
| Requirements Following Approval | 18 |
| 3. HISTORY AND OBJECTIVES OF POSTMARKETING SURVEILLANCE | 23 |
| 4. METHODS OF DRUG EVALUATION | 31 |
| Types of Studies | 31 |
| Detection and Association | 32 |
| Case Studies in Drug Evaluation | 36 |
| 5. CURRENT ACTIVITIES | 41 |
| 6. ISSUES AND OPTIONS | 49 |

| <i>Appendixes</i> | <i>Page</i> |
|--|-------------|
| A. Selected Excerpts From the Statutes Governing Drugs and Medical Devices | 57 |
| B. Conclusions and Recommendations of the Joint Commission on Prescription Drug Use, Jan.23, 1980 | 59 |
| References | 63 |
| Index | 69 |

List of Tables

| <i>Table No.</i> | <i>Page</i> |
|---|-------------|
| 1. Guidelines for Duration of Animal Toxicity Studies for Oral and Parental Drugs | 14 |
| 2. Studies Required in FDA's Premarketing Drug Approval Process. | 15 |
| 3. FDA's Drug Classification System | 16 |
| 4. Percentage of Reports of Suspected ADRs in Great Britain by Class of Reporter and Method Used | 25 |
| 5. Likelihood of Observing an ADR | 33 |
| 6. Number of Patients Required To Detect One, Two, or Three ADRs With No Background Incidence of Adverse Reaction | 34 |
| 7. Number of Patients Required in Drug-Treated Group To Detect One ADR With Background Incidence of Adverse Reaction | 34 |

| | |
|---|----|
| 8. Number of Patients Required in Drug-Treated Group To Allow for Examination of 100 Adverse Reactions | 35 |
| 9. Potential Uses by FDA of Medicaid Data From Michigan and Minnesota | 43 |
| 10. Data Sources Available to FDA for Estimating Actual Populations of Drug Users.. | 43 |
| 11. Number and Percentage of FDA's Adverse Event Reports by Source, 1972-78 | 45 |

Figures

| | |
|---|-------------|
| <i>Figure No.</i> | <i>Page</i> |
| 1. Yellow Card Report Form Used in Great Britain | 24 |
| 2. Comparison of Additional Drug-Induced Effects of Decreasing Incidences | 35 |
| 3. Drug Experience/Epidemiologic Sources Available to FDA for Postmarketing Surveillance and Risk Assessment | 41 |

Glossary of Acronyms

| | | | |
|--------|---|--------|---|
| ADAMHA | Alcohol, Drug Abuse, and Mental Health Administration (PHS) | NBS | National Bureau of Standards (Department of Commerce) |
| ANDA | abbreviated new drug application | NCHS | National Center for Health Statistics (DHHS) |
| ADR | adverse drug reaction | NCI | National Cancer Institute (NIH) |
| CDC | Centers for Disease Control | NDA | new drug application |
| CDS | Center for Drug Surveillance | NIDA | National Institute on Drug Abuse (ADAMHA) |
| CFR | Code of Federal Regulations | NIH | National Institutes of Health (DHHS) |
| DEA | Drug Enforcement Agency | NHLBI | National Heart, Lung, and Blood Institute (NIH) |
| DES | diethylstilbestrol | PHS | Public Health Service (DHHS) |
| DHHS | Department of Health and Human Services | PMS | postmarketing surveillance |
| DRA | drug regulatory authority | SOAR | screening of adverse reactions (method) |
| ETIP | Experimental Technology Incentives Program (NBS) | U.S.C. | United States Code |
| FDA | Food and Drug Administration | WHO | World Health Organization |
| HMO | health maintenance organization | | |
| IND | investigational new drug | | |