

Confidential

## 10 DRUG PROCEDURES ( WITH CONTACT)

- I. Government has constituted a Committee called Therapeutic Committee, this Committee decides the drugs to be included in the tender list. This covers if any drugs are obsolete and they are deleted and other new drugs introduced if any are included in the list.
- II. The Director of Health & F. Services, Bangalore, floats tenders and procedures followed are as per the store purchase manual.
- III. As per the calendar of events on prefixed particular dates sealed tenders are opened by the tender opening Committee in the presence of the representative of the each of the participants where rates quoted by each of the firm are made known. One set of the document is preserved securely under the custody (personel) of the Director and remaining other set of documents are handed over to the Joint Director Government Medical Stores.
- IV. Government have constituted a Committee Known as Experts Committee. The members constituted are by their designation from different institutions and included practically members from every speciality. This Committee goes through comparative statement of the rates quoted to various items with res ective to samples and decides the drugs. If the drugs has passed and fulfilled the minimum requirements as per Drugs Controllers stipulations, such as G.M.F.C, Manufacturing licences, Non Conviction Certificates, besides possession of Income and Sales Tax Clearance Certificate are also looked into.
- V. The process reaches the stage of recommendation of experts Committee and the same is placed before High Power Committee constituted by the Government taking final decisions. With a view to implement certain Government interest in PSUs, SSIs units etc. Besides the procedure the policy as regards to giving either prices preference or preference to PSUs such policy decisions are left to the decisions of the High Power Committee.

The final recommendations of the High Power Committee are submitted to the Government for their approval. Taking instructions of the Government, Rate Contract is fixed in respect of the items approved with formalities as provided in the Tender Notification.

- VI. In Government Medical Stores, Bangalore, effects purchase of drugs and chemicals from R. firms only as per the requirement of the hospitals and whenever necessary with the permission of Government from Public Sector Undertakings or any other approved firms (only from manufacturers).



JOINT DIRECTOR,  
GOVERNMENT MEDICAL STORES, B'LORE.

*Joint Director,*  
GOVT. MEDICAL STORE.  
BANGALORE-560 001

Alia/



DETAILS NOTE ABOUT THE WORKING OF THE GOVERNMENT MEDICAL STORES,  
 PALACE ROAD, BANGALORE-5600 01

*Confidential*

The Government Medical Stores is located in Grace Villa, Palace Road, B'lore. is headed by the Joint Director, under the administrative control of the Director of Health & F.W Services, B'lore. The staff sanctioned for the Government Medical is as noted below:-

Sl.No.	Category	Sanctioned Post
1.	Joint Director	One
2.	Assistant Surgeons	Two
3.	Graduate Pharmacists	four
4.	Secretary	One
5.	Manager (Office Suptd;)	One
6.	Accounts' Superintendent	One
7.	Typist	Two
8.	First Division Assistant	Ten
9.	Second Division Assistant	Thirty Three
10.	Literate Attenders	Five
11.	Driver	One
12.	Cleaner	One
13.	Carpenter	One
14.	Cycle Orderly	Two
15.	Peons	Three
16.	linkers	One
17.	Packers	Forty Two
18.	Watch & Ward	Eleven
19.	Stenographer	One

**TOTAL; One hundred thirtythree only**

The Government Medical Stores is sub-divided into nine Section duly allotting staff as shows against each:-

1. Chief Supervisor Section: Asst. Surgeon  
F.D.A, S.D.A Packers 5
2. Packing Yard: Asst. Surgeon 1SDA-6  
Packers-
3. Purchase Section: Under the control of Joint Director  
S.D.A
4. Accounts' Section: Under the control of Jontrol SDC-4  
and F.D.A-4  
Peons - 1



5. 'A' Stores (Tablets and Injection)	Under the control of G.Ps	
	G.P.	1
	FDA	1
	SDA	4
	Packers	4
6. 'B' Stores (Tincture & Tender)	Under the control of Graduate Pharmacists	
	Graduate Pharmacists	1
	FDA	1
	SDA	3
	Packers	6
7. 'C/D' Stores (Instruments and Equipments)	Under the control of Graduate Pharmacists	
	G.P.	1
	SDA	2
	Packers	3
	G.P	1 vacant
8. Office (Administration)		
	Secretary	1
	Office Suptd;	1
	FDA	1
	SDA	
	Stenographer	
	Typist	
	Peons	
	Cycle Orderly	
	Literate Attendants	
	Packers	
	Drivers	
	Cleaner	
	Watch & Ward	

This office (Administration) is further sub-divided into following sections:-

Supervisory Officer	Secretary	1
Sections:	Office Suptd;	1
Cash	FDA	1
	SDA	1
Audit	FDA	1
Miscellaneous	Cycle	
Form Section	Orderly	1
	Lit.attender	1
Inward	SDA	1
	**	1
	**	1
	Packers	3
	SDA	1
	Lit.attender	1
	Cycle	
	orderly	1
	Packers	2
Typing Section	Stenographer	1
	Typist	2
<b>STAFF</b>		
	SDA	1
	Driver	1
	Cleaner	1
	Watch & Ward	11
	Peons	2



The Joint Director being the Head of the Institution is in overall supervision and controlling authority of all the section of the Govt. Medical Stores, B'lore.

1. CHIEF SUPERVISOR SECTION:-

The Asst. Surgeon holding the post of Chief Material Supervisor in charge of this section and he is in rank to the Joint Director for all administrative duties whenever the Joint Director is on leave or on other duties. The Chief Supervisor is responsible to receive all the supplies from various firms to whom orders would be placed both by the Joint Director, G.M.S B'lore, and by the Director of Health & F.W Services by verifying the quality and specification of the materials supplied by the firm with that of the approved samples at the time of approving the R.C rates. The Chief Supervisor is responsible for maintaining a day Book for all the purchases and make necessary entries under this signature and obtained the initials of the Joint Director is taken of attestation. The C.S is responsible for the safe custody of the articles received till such time they are handed over to the concerned stores including safe delivery under his signature and obtained the full signature of the receiving office from the concerned stores. The C.S is also responsible for the safe custody of samples received from various firms produced in connections with the R.C and will undertake demonstrate them whenever required by the Joint Director, Director of Health & F.W Services and Experts Committee or High Power Committee. The C.S will also maintain a register of samples received and to record its disposal also it will be the responsibility of the C.S to see that the various stores room are correctly locked and sealed with in his presence at the end of each day and take acknowledgement of the concerned store keepers to this effect and report to the Joint Director. The Chief Supervisor is responsible to sort out the dealwood boxes according to forwarding notes. He shall assign the duties of sweeping and cleaning of the packing yard by routine and maintain a register wherein enter the names of persons as such duties. He shall be responsible to verify the rubbish everyday it is removed out of the premises and to see that no Govt. property is mixed with the rubbish.

2. PACKING YARD:-

The Assistant Surgeon in charge of the Packing Yard is having four packing section. The Asst. Surgeon is responsible for the correct despatch of the articles. He will exercise proper supervision over the packing yard during the actual packing of the materials. He is responsible for getting the compiled indent entered in the concerned gate pass books under his signature and submit to the Joint Director for the needful. He is responsible to see that the staff members under him



works efficiently and completes the packing of all the indents received for the day on the same day itself. It will certify on the delivery notes that the packing was done under his direct supervision and also his assistants have to certify that the packing was done in his presence and the packers name shall be noted with the number of boxes used in the columns provided. He is also responsible for the correct delivery of the goods to the lorry driver or the clerk in the presence of watch & word who will actually the consignment and the persons delivering the goods. He is responsible to maintain correct accounts of the packing materials received from the contractor. He is responsible to obtain indents for packing material in time. He will have control over the supplies and see that the packing work does not suffer.

The Assistant Surgeon shall exercise full vigilance and disciplinary control over his section. The packers shall personally responsible for the safe handling of the materials and any leakages or loss during handling of packing shall be recoverable from the packers. One of the senior packers shall examine the duties and supervise the packers in the course of his normal duties. He is also responsible for maintaining watch of the packing materials drawn from the main stores and C.S.

The Assistant Surgeon shall attest that the packing was done under his supervision and the indent passing officer shall check the delivery notes with the issues in the ledger concerned of the Sub-Store and certify about its correctness. The shortages reported by the indentors shall be verified with the existing stock ledger and physical balance and the action will be taken to make good shortages. The transport agency shall also responsible for correct delivery of goods and to make good the shortages.

#### SUPPLY SECTION:-

One Graduate Pharmacist will act as Indent Passing Officer. The indent passing officer will be next in rank to the Chief Supervisor in his duties. He will have the thorough knowledge of the stock position and watch the expenditure. He is responsible to see that drugs which are about to become time bare are expeditiously disposed off. He is responsible to scrutinise the indents and pass such quantities as admissible. He is responsible to see that the quantities passed are properly complied with and sent safely to all the indentors. He will investigate the complaints about any short supply received from them after and obtain orders from the Joint Director.



PURCHASE SECTION:

The staff attached to this section are assisting the Joint Director in floating tenders, preparing comparative statements, attending to the preparation work of Rate Contract. Watching the stock position of the various items, procuring stores by placing orders to the R.C firms and preparation of synoptic statement of the financial year with the help of G.Ps of the stores and also accounts section. They also assist in preparation of notes on the proceedings of the Therapeutics Committee, Experts Committee and High Power Committee Meeting. In addition to the procurement of the supplies in being attended to this section through R.C firms and during emergency and whenever the R.C firms fails to supply, these will be procured on local purchase by calling for quotations and following purchase rules. Whenever the financial powers of the Joint Director exceeds they will obtain the orders from the Director of Health & F.W Services, for procurement of drugs etc:-

SECURITY SECTION:-

This section is placed directly under the administrative control of the Joint Director, Accounts Suptd: is responsible for scrutiny of all the bills received and for their prompt and correct disposal, for making payments to the concerned. He will guide the Joint Director in various purchase transaction and payments connecting to the G.M.S correctly. He will ensure that all the rules and conditions regarding the purchase and payments are complied with by the firms before passing the bills. In case of local purchases he will verify the purchase rules carefully and he is responsible for any lapses therein.

He is also responsible for ensuring the prompt payment by the Billing institutions. He will scrutinise all the contingent bills and ensure about its correctness as per rules before they are submitted to the Director for countersignature. He will have the bill preparing and bill scrutiny and internal audit section. He will have the to maintain a reconciliation register and get its verify at the end of each month. He shall arrange for the postings of expenditure in respect of each institutions district wise on the basis of delivery notes sent to accounts sections. The Accounts Superintendent is responsible to maintain expenditure D.C Register for the supplies made on billing basis, reconciliation of receipt and expenditure etc;.

'A' 'B' & 'C&D' STORES:-

Each one of the above stores is incharge of a Graduate Pharmacist and they are entrusted with the following duties. The G.Ps will be personally responsible for safe custody of articles under their charge and shall take proper care regarding their safe storage. They will receive the stores from the Chief Supervisor and make proper entries in



in the stock ledgers and keep the account properly. They will issue stores stores promptly to the packing yard when indents are placed. They will be responsible for proper maintenance of all stock ledgers day to day and see that both the receipt and issues are entered properly under their initials. They should keep watch about the drugs which are likely to become time barred and taken such action in time as are necessary under the advice of the indent passing officer and to avoid loss to Govt. They will submit a list of drugs which are required to be replenished once in every fifteen days to the Joint Director. They are personally responsible for submitting the annual requirements for preparation of the consolidated annual indent of drugs. They are responsible for the strict discipline in the stores among the staff among the staff working there and bring it to the notice of the Joint Director when even they find lapses. They are also responsible for the correct entries in the delivery notes and for getting the ledgers and delivery notes verified by the internal auditors.

#### OFFICE ADMINISTRATIONS:-

The administrative section consists of One Jay Secretary and a manager who is the section head of all the sections shown against them. The Secretary will check all files and correspondence put up by these sections which passes through the Manager. Further the Secretary will check at random the stock at the stores with reference to the book balance and any shortages noticed will be brought to the notice of the Joint Director for further action. He will also empower to check the packing of drugs at the packing yard according to, and bring to the notice of the Joint Director, if packing is found incorrect. Secretary will scrutinised all correspondence relating to the sections attached to the office (administrative) and assist the Joint Director in all matters governed by rules.

The Manager is the sectional head through whom all the correspondence will pass through. He will have to arrange for the proper distribution of work among the staff. He will get all the tappals opened in the presence of the Joint Director and marked them to the concerned sections after it is seen by the Secretary. He is responsible to maintain all confidential reports and personnel files and also properly statements of all the staffs of the G.M.S.

He is entrusted with the work of maintenance and follow of all the disciplinary files of the staff and also files relating to taking action under K.C.S.R(CCA) rules.

#### ESTABLISHMENT:-

The P.D.S is entrusted with all the correspondence relating to the establishments matters of the entire G.M.S Staff and maintenance of Drs. and preparation of salary and advances and TA bills of the staff. He is assisted by an SDC.



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CASH SECTION:-

The FDC is entrusted with the responsibility of the cash and maintainance of cash book and all other registers and correspondence connected therewith. He is also entrusted with the recovery of Security Deposit and keeping of Security Deposit, Pass Book of the staff, and also he is responsible for maintaining the documents relating to the receipt side of the cash section.

AUDIT:-

The SDC is responsible to maintain the all audit reports of both accountant General and departmental audits and its followup action. He is also responsible to put up replies to the audit paraes related out by the Public accounts committee.

FORM SECTION:-

The FDC is place incharge of this section. They will look after the stock and keeping up of all departments forms and registers, and also financial forms and registers required by the various medical and public health institutions of the state. He will prepare and place the indents of all forms and registers to the Director of Printing and Stationery through through the Joint Director and keep watch of its timerly procurements. He will maintain the stock and issue registers and he is responsible for any losses if found. The supply of stationary and forms is the responsibility of Director of Printing and Stationary B'lore.

MISCELLANOUS SECTION:-

The SDC is entrusted with all the correspondence like electrical works, maintainance of telephone, maintainance of vehicles regarding water supply any other miscellaneous works etc.

INWARD:-

The SDC is responsible to maintain a despatch register of all tappals received and its proper distribution to all the sections and case workers.

OUTWARD:-

The SDC is responsible to maintain a despatch register and the stamp account registers and he is responsible for the correct despatch of letters. This clerk is assisted by three literate attenders.

TYPIST:-

Stenographer is responsible to maintain a fair copying registers and also to see that the typing work goes smoothly without delay.



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WATCH & WARD:-

Two or more watch and ward shall always be present at the main entrance of this office building during working hours and keep watch over all the Class IV (D group employees) about their movement and activities in the Govt. Medical Stores, Premises. They shall see that no packer leaves the premises without the written permission of the supervisory staff. They shall maintain a register of daily checks and report to the Joint Director. They are responsible for any lapses or laxity in checking the packers and their officials' activities.

WATCH & WARD (External):-

There shall be always two or more external watch and Ward at the main gate of Govt. Medical Stores all the time during the day and four watch and Ward during night. They shall thoroughly check all the Class 'D' employees moving out of stores during lunch hour and closing hours. It shall be their duty not to allow any container, vessels, bags and other articles which are likely to be used for pilferage. They shall keep strict watch at the main gate as well as around the premises. The night watchman shall be diligent through out the night and shall make continuous rounds. They should be responsible for any damage to the building or property due to their negligent or laxity. They shall not allow any stranger within the premises without the permission of the Chief Supervisors or Secretary during the absence of the Joint Director. They shall get enter the time of arrival and departure of all the visitors in the register maintained and report to the Joint Director any lapses or notices in this behalf.

TRANSPORT:-

One truck is allotted to the Govt. Medical Stores, for the purpose of transportation packages from the Govt. Medical Stores to the lorry booking offices or to the railway booking office as the case may be and in emergency this truck is being used for the transportation of goods to the peripheral institutions according to the needs. As a matter of routine all the drugs are being transported through a lorry agency whose rate contract is accepted to all the medical and public health institutes. One ambassador car is allotted to the Joint Director for official use. The drivers of these vehicles are responsible to maintain log books and also the maintenance of vehicle, tools and spare parts. They shall attend to the work of getting, renewal of registration and tax exemption certificate and also the fitness certificate from the R.T.O office. They are responsible to maintain their driving licences in currency. He is assisted by a cleaner.

GENERAL:-

The Joint Director being the head of institution is the overall supervising and controlling authority of all the activities of the Government Medical Stores. The Joint Director is also the Drawing and disbursing officer. All bills put up by the Accounts Section are being



signed by the Joint Director before presenting to the treasure. The annual stock verification of the stores is being conducted by the authorised by the Director of Health & F.W Services, B'lore, and is being done during the month of April of each year. The Medical Stores caterers supply services of drugs, equipments instruments and linen to all the departmental institutions through out the state as per the budget provision provided for each institutions. In addition Government Medical Stores is supplying drugs to the Medical Institutions maintained by local bodies quasi Govt. Bodies like corporations boards etc; and also autonomous body functioning under the orders of the Government on billing basis on presentation of thier indents. The Joint Director attends to the work relating to preparation of Rate Contract for supply of drugs, equipments, instruments and linen for which tenders have been floated by the Director of Health & F.W Services and also attending to the Experts and High Power Committee in this behalf for procurement of drugs and equipments etc. Orders will be placed to the R.C Firms and wherever there is no R.C to the Government of India and Government of Karntaka firms within the financial powers and wherever the financial powers exceeds the Director will place orders for procurement by the Medical Stores.

The Government Medical Stores has been provided with the budget provision for procurement of drugs, equipments etc; for inturn supply to All the departmental peripheral institutions for the year 1980-81, 1981-82 and 1982-83 are noted below and the expenditure incurred their against also.

YEAR	BUDGET ALLOTMENT	EXPENDITURE
1980-81	3,77,97,500=00	3,45,34,188=00
1981-82	5,31,30,840=00	5,27,85,607=00
1982-83	5,96,07,782=00	5,95,41,274=00

Yours faithfully,

sd/-

JOINT DIRECTOR,

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GOVERNMENT OF KARNATAKA

No.HFW 217 HPC 92.

Karnataka Government Secretariat,  
M.S.Building, 1st Floor,  
Bangalore, Dated: 7.9.1992.

CIRCULAR

Sub: Streamlining the system for supply of drugs, chemicals, surgical items, etc to Government Hospitals, Centres, Units, Institutions, etc - regarding.

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The Directorate of Health & Family Welfare Services with its Government Medical Stores is responsible to supply drugs, chemicals and surgical items every year for a large number of Government Hospitals, centres, units and institutions. The present system of indenting, procurement, quality control and supply needs to be further streamlined. Government has examined the system in detail and issues this Circular to further streamline the system.

INDENT-2.

The following category of hospitals shall furnish the annual indents directly to the Government Medical Stores in the prescribed format on or before the dates mentioned against them:

- a) Major and Teaching Hospitals
- b) District Hospitals
- c) TB Hospitals

to Government Medical Stores by 31st March every year.

3. The District Health Officer shall be responsible to consolidate the indents for the hospitals and centres detailed below and furnish them to the Government Medical Stores on or before the dates specified against them:

- a) Hospitals (other than Major & Dist. Hospitals)
- b) Community Health Centres
- c) Primary Health Centres

from the Unit Officer to District Health Officer by 7th March & from District Health Officer to Government Medical Stores by 31st March every year.

February 7  
February 28

4. Package Indents shall be determined by a Committee of Officers and Doctors at the field for the following units and Centres:

- a) Primary Health Units
- b) Health & Family Welfare Sub-Centres
- c) Survey, Education and Treatment Centres for Leprosy
- d) Urban Leprosy Centres
- e) Dental Units.



5. The package indents to be so determined shall be by a Committee of Doctors with the following composition:

- a) Joint Director (Government Medical Stores) - Chairman
- b) One District Health Officer -
- c) One Doctor incharge of Primary Health Centre
- d) One Doctor incharge of Primary Health Unit
- e) One Lady Medical Officer
- f) Chief Supervisor (Government Medical Stores) - Member Convenor.

These doctors to be selected at random, one each from each of the four Revenue Divisions.

6. Package Indents shall be determined whenever a fresh rate contract for purchase of drugs, chemicals and surgical items is fixed by Government. The package indents shall be valid for the period of the rate contract.

7. The annual indents for the units and centres as per the package indents determined to be consolidated by the Government Medical Stores by 31ST MARCH every year.

8. The Unit Officers shall furnish the annual indents as per the calender determined in the format at Annexure-I to this circular.

9. The Electronic Data Processing Unit of the Government Medical Stores shall be responsible for inventory control covering:

- a) Stores Management
- b) Purchases
- c) Accounting
- d) Rate Contract

10. The functions and responsibilities of Electronic data processing Unit shall be as per Annexure-II to this Circular. This shall be subject to modifications from time to time, depending upon the requirements and the modifications shall be made by the Directorate of Health and Family Welfare Services.

11. The Electronic Data Processing Unit, needs to be further strengthened in terms of trained personnel and equipment. The Director of Health & Family Welfare Services shall <sup>send</sup> separate proposals in this regard for sanction of Government.



PROCUREMENT. 12. Government Medical Stores shall be responsible to supply upto 60% of the budget provisions available every year for the following hospitals & Centres:

- a) Major & Teaching Hospitals
- b) District Hospitals
- c) Minor Hospitals
- d) Community Health Centres
- e) Primary Health Centres

13. Government Medical Stores shall be responsible to supply upto 100% of the budget provisions available every year for the following units and centres as per the Package Indents determined from time to time:

- a) Primary Health Units
- b) Health & Family Welfare Sub-Centres
- c) Survey, Education and Treatment Centres for Leprosy
- d) Urban Leprosy Centres
- e) Dental Units

14. Government Medical Stores shall be responsible to supply upto 100% of the budget provisions available every year under National programmes like (a) National Family Welfare Programme (b) Maternity and child Health Programme (c) National Programme for Control of Blindness and (d) Other programmes in which drugs, chemicals, etc. have to be supplied.

15. The Unit Officers of the following hospitals shall be responsible to procure upto 40% of the budget provisions available every year depending upon local needs and requirements:

- a) Major and Teaching Hospitals
- b) District Hospitals
- c) T.B. Hospitals.

16. The Zilla Parishads shall be responsible to procure upto 40% of the budget provisions available every year for the following hospitals and centres:

- a) Minor Hospitals
- b) Community Health Centres
- c) Primary Health Centres



The Zilla Parishads to constitute a purchase Committee with the following composition:

- a) Chairman, Health Standing Committee/Administrator - Chairman
- b) Chief Secretary of the Zilla Parishad.
- c) District Surgeon
- d) One Medical Officer of a Minor Hospital
- e) One Medical Officer of Primary Health Centre
- f) District Health Officer - Member-Convenor

17. The Zilla Parishad shall note the following guidelines in procurement:

- a) Requirements of the interim period before receipt of stocks from Government Medical Stores;
- b) Emergent requirements depending upon local needs and conditions;
- c) Items not indented for supply from Government Medical Stores;
- d) Anti-rabies vaccine, anti snake venom, ADS/ATS/AGGS
- e) Disinfectants

18. The Unit Officers and the Zilla Parishads while procuring supplies upto 40% of the budget provisions available every year, shall purchase only under the valid rate contract issued by the Department of Health & Family Welfare Services.

19. Government Medical Stores shall be responsible to consolidate the indents received under para 12, 13 & 14 of the Circular, by 30th April every year. The Joint Director (Government Medical Stores) shall obtain the indents from the Unit Officers and arrange for consolidation.

20. Procurement shall be made only with reference to the indented items by each of the hospitals, centres, units and institutions. Under no circumstances items not indented for should be procured, and the quantity procured shall be only in accordance with the consolidation of indents received.

21. Purchase orders on the manufacturers/suppliers under the valid rate contract to be placed as per the following calendar:

*Such items as are available under rate contract*

*The indents should be the name and specification of items and the quantities. As regards medicinal drugs, etc. should be indented*



- a) I Round Purchase by 15th May
- b) II Round purchase by 15th July
- c) III Round purchase by 15th September
- d) IV Round purchase by 15th November.

These purchase orders should ensure availability of stocks to make supplies as per the supply schedule determined.

22. In accordance with the consolidated indents, Government Medical Stores shall hold stocks of essential and emergency drugs required for 3 months to meet immediate and urgent requirements. Purchase orders to be scheduled to ensure the availability of such reserve stocks.

23. To ensure quality control, the stocks received as per the orders shall be subjected to:

- a. Verification with reference to specifications;
- b. Verification with reference to quality;
- c. Verification with reference to expiry dates;
- d. Verification with reference to quantity indented and supplied;
- e. Obtaining analytical report from the manufacturer/supplier for each batch of supply;
- f. Furnishing samples of each batch of stocks received to the Drugs Controller in Karnataka for analytical report;
- g. Obtaining replacement of stocks which are nearing expiry dates;
- h. Action against defaulting manufacturer/supplier for contravention of the terms of the rate contract;
- i. Destruction of sub-standard items;
- j. Strict enforcement of terms and conditions of the rate contract.

75/2/1570

The Joint Director (Government Medical Stores) and the Chief Supervisor (Government Medical Stores) shall be responsible for quality control.

QUALITY CONTROL:



SUPPLY  
SCHEDULE

24. The stocks prepared in accordance with para 21 of the Circular shall be distributed as per the following calendar :

Sl. No. Hospital/Centre/Unit/ Institution/District.	Month
1. All major and Teaching Hospitals and T. Hospitals	June & July
2. Coorg and Chikmagalur Districts.	June & July
3. Bidar, Gulbarga & Raichur Districts.	August
4. Solapur, Chitradurga and Shimoga Districts.	September
5. Dharwad, Solapur and Bijapur Districts.	October
6. Belthangudi Taluk, Uttara Kannada Taluk, Kere Taluk and Rural Districts.	November
7. Kolar, Purkur and Hassan Districts.	December
8. Mysore and Mandya Districts	January

Government Medical Stores shall ensure distribution as per the calendar detailed including the Packaged Indents.

25. The Unit Officer and the District Health Officers shall be responsible to obtain the stocks from the Government Medical Stores as per this calendar and further re-distribute them to various hospitals, centres, units and institutions within the district. Such re-distribution shall be completed within 7 days from the date of receipt of the stocks.

INSPECTION  
AND  
VERIFICATION

26. The Unit Officers and the District Health Officers shall ensure verification of the stocks received with reference to the stocks indented, quality and expiry dates of the items received and report promptly to the Government Medical Stores if there is any discrepancy or variation.

27. The Joint Director (Government Medical Stores) shall be responsible for verification of stocks in the stores of the Government Medical Stores at the end of every six months and furnish certificate to the Director of Health and Family Welfare Services as per Annexure-III to this Circular.

28. The Director of Health and Family Welfare services shall cause annual verification of stocks at Government Medical stores during April and May every year by the Chief Accounts Officer of the Directorate and one officer of the rank of surgeon.



29. The Programme Joint Directors of Directorate of Health & Family Welfare Services, and Joint Director (Medical Education) Directorate of Medical Education, shall be responsible for verification of stocks in various hospitals, centres, units and institutions as detailed below:

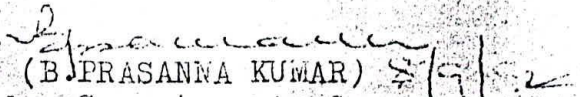
1. Joint Director (Medical Education) ...All teaching hospitals.
2. Joint Director (Health & Planning)
3. Joint Director (Health & Edn. Training)
4. Joint Director (Communicable Diseases)
5. Joint Director (Leprosy)
6. Joint Director (Malaria)
7. Joint Director (Medical)
8. Joint Director (Ophthalmology)
9. Joint Director (Government Medical Stores)

These Programmes, the Joint Directors shall verify the stocks at random in various hospitals, centres, units and institutions during their tours in the districts, in addition to their normal duties and furnish separate reports to the Joint Director (Government Medical Stores) as per Annexure-IV to this Circular.

GENERAL

30. The Director of Health & Family Welfare Services shall ensure strict adherence to these Circular instructions. The Joint Director (Government Medical Stores) shall be directly responsible to ensure compliance to these Circular instructions.

31. This circular shall come into force with immediate effect.

  
(B. PRASANNA KUMAR)

Under Secretary to Government,  
Health & Family Welfare Department.

To:

1. The Director, Health & Family Welfare Services, Bangalore.
2. The Director, Medical Education, Bangalore.
3. The Joint Director, Government Medical Stores, Bangalore.
4. The Chief Secretary, All Zillaparishads.
5. All District Health & Family Welfare Officers.
6. The Chief Supervisor, Government Medical Stores, Bangalore.
7. All District Surgeons.
8. All Joint Directors, Divisional level
9. All Superintendents, Districts and Major Hospitals.
10. Finance Department/ Planning Department.
11. P.S. to Hon'ble Minister for Health & Family Welfare.
12. P.A. to Secretary (H) & (F.W), Health & F.W. Department.
13. The I.F.A., Health & F.W. Department.
14. All Under Secretaries in Health & F.W. Department.
15. All Section Officers in HFW Department.
16. S.G. File/Spares.



ANNEXURE-I

ANNEXURE TO GOVERNMENT CIRCULAR NO.HFW 217 HPC 92

DATED 7TH SEPTEMBER 1992.

INDENT FOR SUPPLY OF DRUGS, SPECIALITIES, CHEMICALS,  
TINCTURES AND SURGICAL ITEMS.

- 
- |                               |   |
|-------------------------------|---|
| 1. INSTITUTION CODE ( ) ..... | 6. HEAD OF THE INSTITUTION<br>(25 CHARACTERS) ..... |
| 2. FINANCIAL YEAR .....       | 7. INSTITUTION NAME<br>(25 CHARACTERS) .....        |
| 3. BUDGET RELEASED .....      | 8. INSTITUTION PLACE<br>(25 CHARACTERS) .....       |
| 4. EXPENDITURE .....          | 9. TALUK & DISTRICT .....                           |
| 5. BALANCE .....              | 10. PIN CODE .....                                  |
- 

DRUG CODE	NAME OF THE ITEM	FORMULA- TION	LAST YEAR CONSUM- PTION	STOCK (N HAND	QTTY RE- QUI- RED	QTTY IN MPU	RATE	AMOUNT
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NO. OF ITEMS INDENTED: .....

SIGNATURE OF THE INDENTING  
MEDICAL OFFICER WITH SEAL

PTO

MMS/\*\*



ANNEXURE-II

ANNEXURE TO GOVT. CIRCULAR NO. HEW 217 HPC 92, DATED  
7TH SEPTEMBER 1992.

I. STOCKS MANAGEMENT SYSTEM

- A. RECEIVING THE REGISTERED AND CODED INDENTS
- B. DATA ENTRY OF THE INDENTS
- C. DATA VALIDATION
- D. PREPARING INDENT ANALYSIS REPORT, REFLECTING THE AVAILABILITY OF THE DRUGS AND COST OF THE INDENT WHICH WILL BE SENT TO THE JOINT DIRECTOR (MEDICAL STORES)/ IPO FOR APPROVAL. THE ORIGINAL INDENT AND I.A.R. ARE SUBMITTED FOR SCRUTINY AND ACCURACY OF THE DATA WHICH SHOULD BE DONE BY THE I.P.C. FOR WHICH HE IS FULLY RESPONSIBLE.
- E. BASED ON INDENT ANALYSIS REPORT FINAL ALLOCATION AND UPDATION OF STOCK FILES AND BUDGET FILES ARE MADE IN COMPUTER.
- F. DELIVERY NOTE PRINTING IN COMPUTER AS PER THE QUANTITY OF DIFFERENT ITEMS ALLOCATED.
- G. AS AND WHEN THE STOCKS ARE RECEIVED, THE STOCK FILES ARE UPDATED.
- H. BUDGET FILES ARE UPDATED AS AND WHEN BUDGET IS RELEASED.

PURCHASE SYSTEM

- A. BASED ON THE REQUIREMENT BOOKS, THE DATA ENTRY WILL BE DONE. A CHECK LIST WILL BE SUBMITTED TO THE JOINT DIRECTOR (MEDICAL STORES) FOR VERIFICATION OF THE DATA.
- B. ON THE APPROVAL OF THE PURCHASE INDENT BY THE JOINT DIRECTOR (MEDICAL STORES) INDENT FOR COUNTERSIGNATURE WILL BE PROCESSED. PRINTED AND SUBMITTED TO JOINT DIRECTOR (MEDICAL STORES) (ALONG WITH CHECKLIST AND FLOPPY CONTAINING THE ABOVE INFORMATION) FOR SUBMISSION TO DIRECTOR OF HEALTH & F.W. SERVICES.
- C. AFTER RECEIVING THE COUNTERSIGNED INDENT, PURCHASE ORDERS ARE PRINTED AND SUBMITTED TO THE JOINT DIRECTOR (MEDICAL STORES)

...PTO



ACCOUNTING SYSTEM

- A. ACCOUNTS RECEIVABLES
- B. ACCOUNTS PAYABLE
- C. BILLS PROCEDURE FOR TREASURIES (BILLS GENERATION)

RATE CONTRACT SYSTEM

- A. LIST OF ITEMS WILL BE SUBMITTED TO THERAPEUTIC COMMITTEE FOR NECESSARY UPDATES WITH REFERENCE TO THE DEPARTMENTAL NEEDS.
- B. AFTER APPROVAL OF LIST OF ITEMS BY THE THERAPEUTIC COMMITTEE THE CHECKLIST OF DRAFT TENDER FORM WILL BE PRINTED AND SUBMITTED TO JOINT DIRECTOR (MEDICAL STORES) WHO IS A MEMBER SECRETARY OF THE COMMITTEE FOR VERIFICATION.
- C. DRAFT TENDER FORMS PRINTED FOR THE ITEMS WHICH ARE APPROVED BY THE THERAPEUTIC COMMITTEE.
- D. FINAL TENDER FORMS WILL BE PRINTED AND SENT TO DIRECTORATE FOR FLOATING OF TENDERS.
- E. DATA ENTRY OF THE TENDERS RECEIVED AND CHECKLIST WILL BE SUBMITTED TO THE JOINT DIRECTOR (MEDICAL STORES) FOR VERIFICATION.
- F. PRINTING OF COMPARATIVE STATEMENT WITH ALL THE CORRECTIONS.
- G. UPDATING EXPERTS COMMITTEE RECOMMENDATIONS AND PRINTING OF THE EXPERTS COMMITTEE RECOMMENDATIONS.
- H. UPDATING OF HIGH POWER COMMITTEE RECOMMENDATIONS AND PRINTING OF THE HIGH POWER COMMITTEE RECOMMENDATIONS.
- I. ISSUING OF THE RATE CONTRACT TO THE TENDERERS AND TO ALL THE INSTITUTIONS (WHICH IS TENDERER WISE AND ITEM WISE).



ANNEXURE-III

Annexure to Government Circular No. HEW 217 HPC 92 dated 7th September 1992  
Half yearly stock Verification Certificate by Joint Director (Govt. Medical Stores).

1. Half Year ending.
2. Dates/period of verification:

3. Quantity of stocks:

	<u>Item</u>	<u>Unit</u>	<u>Balance from</u> <u>pre half</u> <u>Year.</u>	<u>Stocks</u> <u>procured</u> <u>during the</u> <u>half year.</u>	<u>Total</u> <u>stocks</u>	<u>Variation to</u> <u>purchase orders</u> <u>Excess Shortfall</u>
a)	" A " Stores Injection					
b)	" A " Stores Tablets					
c)	" B " Stores					
d)	" C & D " Stores.					

(Itemwise lists for each stores to be furnished & certified)

4. Nature of Stocks:

	<u>Item</u>	<u>Unit</u>	<u>Sub-standard</u>	<u>Date expired</u>	<u>Damaged</u>
a)	'A' Stores Injection				
b)	'A' Stores Tablets				
c)	'B' Stores				
d)	'C&D' Stores				

(Itemwise lists as per observation)

5. Value of Stocks - (Rs. in lakhs)

	<u>Value of opening</u> <u>stock</u>	<u>Stock</u> <u>purchased</u>	<u>Total</u> <u>Value</u>
a)	'A' Stores Injection		
b)	'A' Stores Tablets		
c)	'B' Stores		
d)	'C&D' Stores		

Total:

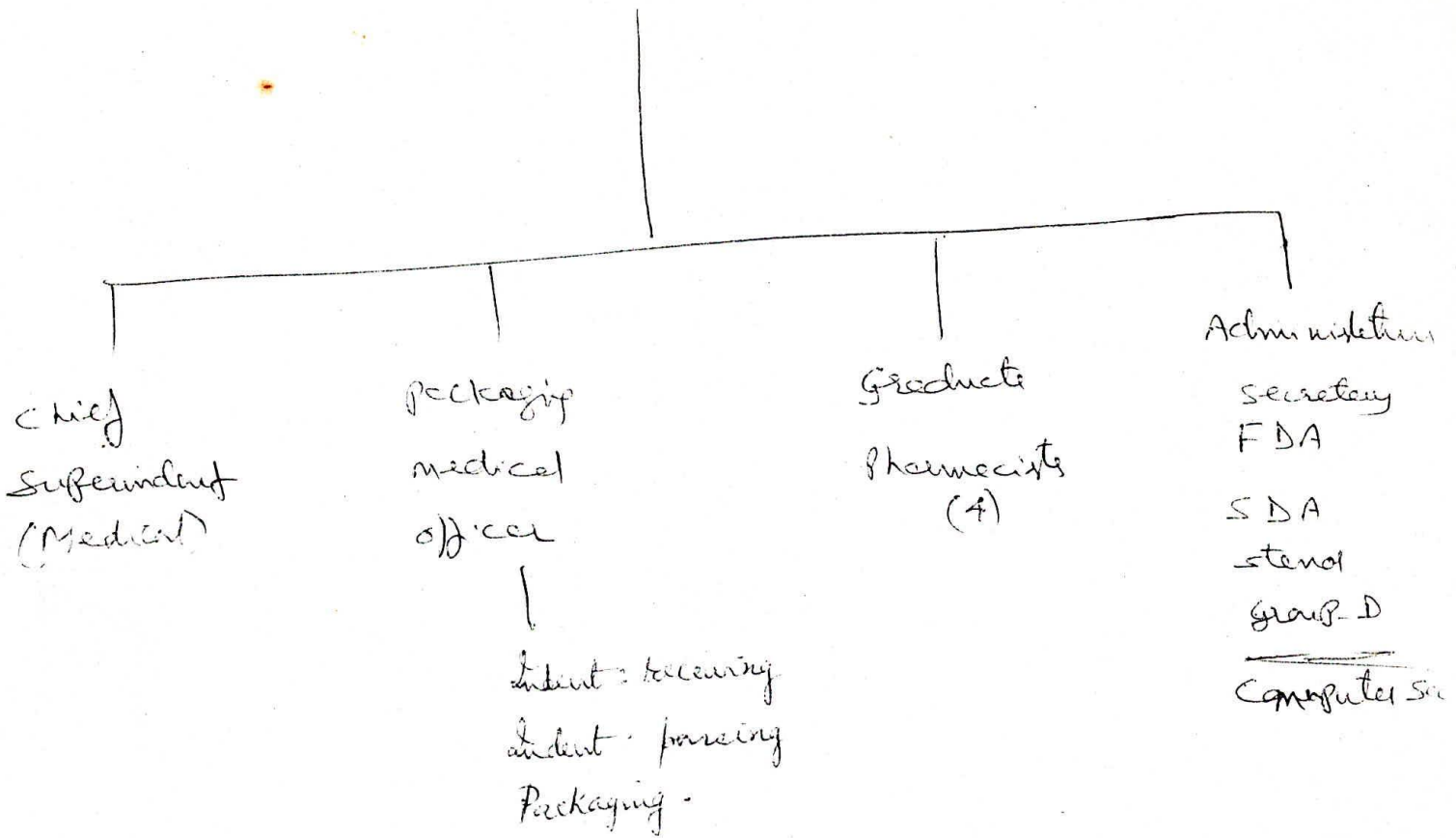
(Value Storewise only)

6. General Observation:



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JD (Medical)



JD - 1

IS - 1

PMO - 1

Pharmacists  
secretary } 4  
secretary } 1  
FDA - 10

S.D.A - 33

stenos - 2

driver - 1

group-D (packer) - 73

130



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Joint Director (Government Medical Stores)

Duties and responsibilities

The Joint Director (J.D.), Government Medical Stores, is the Head of the Department of Medical Stores and is in overall charge of the department.

He/she is the controlling authority of all the sections of the Government Medical Stores. The sections are

- \* Chief Supervisor section
- \* Packing yard
- \* Purchase section
- \* Accounts Section
- \* Stores (A,B,C and D) and
- \* Office (administration)

He/she will assist in floating tenders, preparing comparative statements and attending to work related to the Rate Contract. He/she will also assist in the work of the Therapeutics, Expert and High Power Committees.

He/she is responsible for the purchase of the medicines, instruments and equipment as per rate contract.

He/she will ensure that reorder levels and economic order levels are worked out for the items under rate contract and place orders sufficiently in advance to ensure adequate supplies on time.

He/she will work out the ABC and VED analysis and practices of good material management.

He/she will make local purchases, calling for quotations and following store purchase rules, when

- the Rate Contract firm fails to supply when the purchase will be made at the risk and cost of the R.C.Firm, or
- there is emergency requirement.

The financial powers for such local purchase will be limited to Rs. 25,000/- for any individual purchase (the purchase for any item at a time should not be split to get over this ceiling). In case there is need for exceeding the financial limit, orders must be obtained from Director of Health and Family Welfare services or the Government if it exceeds the powers of the Director of Health and Family Welfare services.



He/she will ensure the smooth working of the department.

He/she will call periodical meetings of the heads of sections, at least once a month, review progress of work and plan the future work.

He/she will ensure that the drugs purchased, in stock and supplied meets the needs for rational use of drugs, and that the drugs are

- safe and are not banned;
- of good quality and according to specifications; and
- according to the rate contract.

The Joint Director will be responsible for quality control, along with the Chief Supervisor.

The Joint Director will investigate complaints about

- short supplies received by the indentors,
- substandard or spurious drugs, and
- such other matters regarding supplies, and take appropriate action.

The Joint Director will arrange for periodical stock taking and physical verification and the report will be sent to the Director, Health and Family Welfare Services for further action.

The annual stock verification will be conducted by the Directorate of Health and Family Welfare Services.

The Joint Director will maintain all performance appraisal confidential reports of the staff in the Department and take appropriate action for improvement of the Department.

He/she will take necessary action for human resources development and continuing education/training of the staff in the department.

The Joint Director is the Drawing and Disbursing Officer of the Department.

The Joint Director reports to the Director of Health Services and Family Welfare.



DUTIES AND RESPONSIBILITIES OF THE CHIEF SUPERVISOR

1. The Chief Supervisor is next in rank in Administration to the Joint Director, Government Medical Stores. He/she shall discharge all the administrative duties when the Joint Director is on leave or on other duties.
2. He/she is responsible to receive all supplies from the various firms with whom orders would have been placed by the Joint Director, Government Medical Stores or by the Director of Health and Family Welfare Services; he ensures that the supplies are received on time and in conformity with purchase the orders.
3. He/she will compare the quality and the specifications of the materials supplied by the Firms with that of the approved samples, and bring to the notice of the Joint Director, any variations or shortcomings in the said supplies and obtain his/her orders. The Chief Supervisor will be responsible for quality control along with the Joint Director.
4. The Chief Supervisor is responsible for maintenance of "DAY BOOK" of purchases day to day and make entries in the said book under his signature and obtain the initials of the Joint Director for each transaction.
5. He/she is responsible for the safe custody of the articles received till such time as they are handed over by him/her to the concerned stores.
6. He/she is personally responsible also for the safe delivery of the stock to the concerned stores, and make necessary entries under his own signature to that effect and obtain the full signature of the receiving officer at the stores (Graduate Pharmacist).
7. He/she is responsible for the safe custody of samples received from various firms and he/she will undertake to demonstrate the samples as and when required by the Joint Director, GMS or Director, Health and Family Welfare Services, or the Expert Committee.
8. He will maintain a register of samples received and disposed off.
9. He will investigate any short or faulty compliance to the indenters and obtain the orders of the Joint Director.
10. He is responsible to maintain upto date the following registers :
  - i) Register providing particulars of RC Firms who fail to comply with the supply orders either in full or partially indicating orders No. and date, particulars of drugs ordered for supply, financial value of the orders placed for supply.
  - ii) Register providing particulars of drugs not replaced by fresh stock when declared substandard by the Drug Controller, indicating batch number, date of expiry, quantity, financial value.



- Register providing particulars of drugs hearing date of expiry which are not replaced when asked for, by the firms indicating batch number, quantity of drugs, financial value of the said drugs.
- (iv) Register of drugs hearing expiry date, and will send a written note three months in advance of the likely expiry of potency of the drugs in stock to the concerned stores and the computer section to check up and to take further action at their end.
11. He/she will be responsible for taking action to recover the cost of drugs from various firms who failed to replace drugs nearing date of expiry, drugs declared substandard, drugs which are deteriorated, drugs and chemicals if found leaky and pillifered from the containers.
12. He is responsible to inform immediately the instance of banning of any drugs to the computer wing for recording and taking action.
13. He will work out and submit reports to the Joint Director the requirement of each of the drugs for the next quarter year, at the end of each preceding quarter ending 30th June, 30th September, 31st December and 31st March.
14. It is the responsibility of the Chief Supervisor to see that the various stores/rooms are properly locked securely, closed and sealed in his presence at the end of each day's work and take acknowledgements of the concerned stores keepers to that effect, and report to the Joint Director.
15. He is responsible for obtaining the analytical reports from the manufacturers for each batch of drugs supplied.
16. He is responsible for furnishing samples of each batch of stock received to the Drugs Controller in Karnataka for obtaining analytical report.
17. He will send daily report of drugs received upto 1 p.m. on any working day to computer section and stores simultaneously.
18. He will participate actively in the departmental meetings, which will be held not less than once a month, to review and take action for the smooth functioning of the department.
19. He is responsible for the proper cleanliness of the premises and disposal of waste.
20. He will carry out any other activity which may be entrusted to him for ensuring adequate supplies of medicines, quantitatively and qualitatively.
- The Chief Supervisor reports to the Joint Director.



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Medical Officer in charge of Packaging Yard (M.O.P.Y.)

The Medical Officer is in charge of the Packaging Yard. He will discharge the duties of the Joint Director, when both Joint Director and Chief Supervisor are not available.

The Medical Officer is responsible for the correct despatch of articles. He/she will receive the indents and pass them, after scrutinizing them for levels of supply appropriate for the institution and availability of budget.

M.O.P.Y. will exercise proper supervision over the packing yard and during the actual packaging of the materials.

He/she is responsible for getting the compiled indent entered in the gate pass book under his/her signature and submit the same to the Joint Director.

He/she will certify the delivery note that the packing was under his/her direct supervision. His/her assistants will certify that the packing was done in his/her presence. The packers' name (s) shall be noted, with the number of boxes used, in the columns provided.

M.O.P.Y. is responsible for the correct delivery of the goods to the lorry driver or clerk, in the presence of the watch and ward.

He/she is responsible to obtain the indents for packing materials on time, ensure supplies and maintain the correct accounts of the packing materials received from the contractor. Packing work should not suffer from want of packing materials.

He/she is responsible for the strict discipline of the staff in the section.

M.O.P.Y. will report to the Joint Director.



DUTIES AND RESPONSIBILITIES OF THE GRADUATE PHARMACISTS

1. The Graduate Pharmacists in charge of stores will be personally responsible for the safe custody of the articles under their charge and shall exercise proper care in their safe and proper storage.
2. They will receive the stores from the Chief Supervisor as and when he calls for them to do so and make proper entry in the stock ledgers and keep an account for them.
3. They will promptly issue stores to the packing yard whenever indents are placed for the same.
4. They will be responsible for the proper maintenance of all stock ledgers day-to-day and see that both the receipts and issues are entered under their initials.
5. They will submit a list of drugs which require replenishment in stock every fifteen days without fail to the Joint Director, Government Medical Stores.
6. The Graduate Pharmacists will be watchful of the drugs:
  - i) likely to become time barred and take action as necessary under the advice of JD,GMS;
  - ii) drugs coming under cold chain system are properly stored at the low temperatures as required and no other items other than drugs are kept in the refrigerators;
  - iii) watch narcotic and addictive drugs;
  - iv) watch that drugs banned by Drug Controller do not find their way into the stores; in the event such drugs are on stock, they are immediately identified and destroyed and discounted from stock under the orders of Joint Director;
  - v) the longevity of drugs as at the point of supply; whether they have 75 per cent of life if supplied through RC; if not, immediately bring it to the notice of Joint Director and seek his orders.
7.
  - a) The Graduate Pharmacists will be responsible for maintaining batchwise stock and issue drugs batchwise, on first in first out basis.
  - b) It is his/her responsibility to see that refrigerators are examined and inside temperature measured twice a day and recorded twice a day. It is his duty to immediately report to Joint Director if he finds any refrigerator faulty or goes out of order.



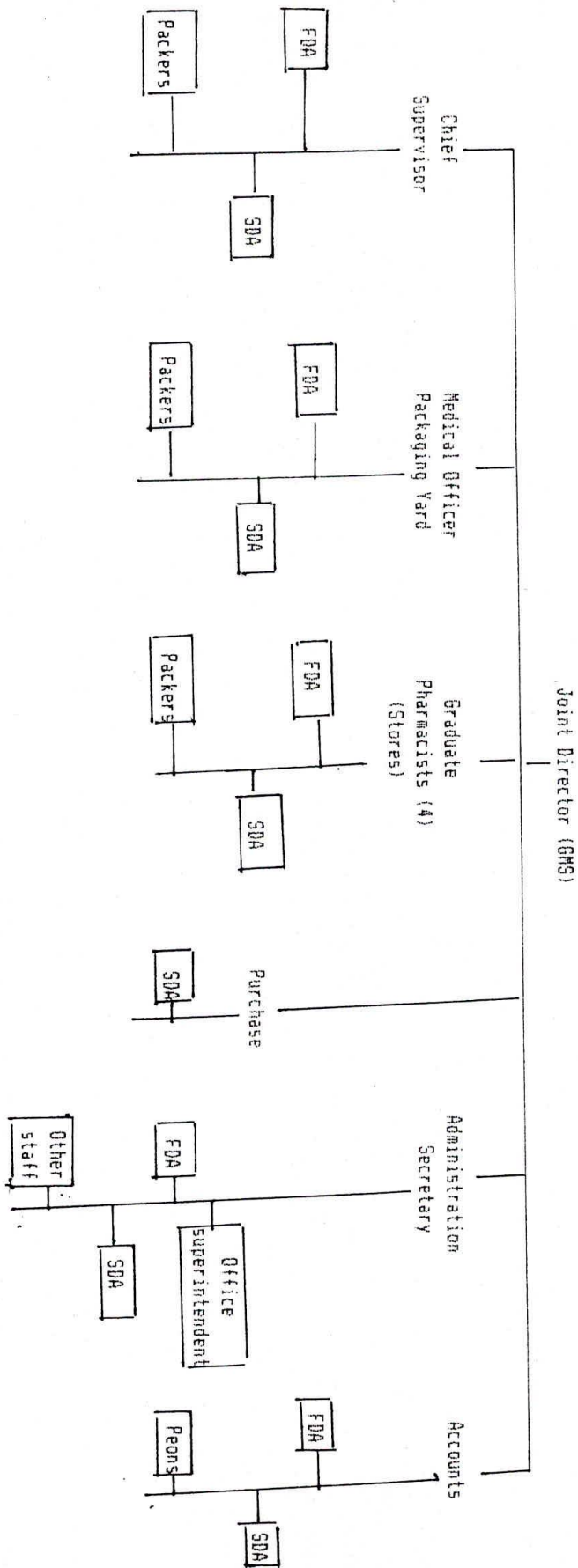
8. The Graduate Pharmacists are personally responsible for furnishing annual requirements of the respective stores for the preparation of the consolidated annual medical indent of Government Medical Stores, keeping in view the past twelve months stock expenditure and balance.
9. They will be responsible for strict discipline amongst the staff working under their control.
10. They will promptly report to the Joint Director when they suspect that any of the staff is not discharging his/her duties properly or when he/she may be involved in any irregular act.
11. They will be responsible for the correct entries in the delivery notes and for getting the ledgers and delivery notes verified by the internal auditor (one of the FDA to function as internal auditor).
12. They will see that the doors, windows and other possible entry points of the stores are closed securely and sealed in his/her presence at the end of the day's work and certify to that effect in the register maintained by the Chief Supervisor.

The Graduate Pharmacists report to the Joint Director.



Government Medical Stores

Organizational Flow Chart



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Joint Director (Government Medical Stores)

Duties and responsibilities

The Joint Director (J.D.), Government Medical Stores, is the Head of the Department of Medical Stores and is in overall charge of the department.

He/she is the controlling authority of all the sections of the Government Medical Stores. The sections are

- \* Chief Superintendent section
- \* Packing yard
- \* Purchase section
- \* Accounts Section
- \* Stores (A,B,C and D) and
- \* Office (administration)

He/she will assist in floating tenders, preparing comparative statements and attending to work related to the Rate Contract. He will also assist in the work of the Therapeutics, Expert and High Power Committees.

He/she is responsible for the purchase of the medicines, instruments and equipment as per rate contract.

He/she will ensure that reorder levels and economic order levels are worked out for the items under rate contract and place orders sufficiently in advance to ensure adequate supplies on time.

He/she will work out the ABC and VED analysis and practices of good material management.

He/she will make local purchases, calling for quotations and following store purchase rules, when

- the Rate Contract firm fails to supply, or
  - there is emergency requirement.
- when the purchase will be made at the discretion of the J.D.*

The financial powers for such powers will be limited to Rs. 25,000/- for any individual purchase (the purchase for any item at a time should not be split to get over this ceiling). In case there is need for exceeding the financial limit, orders must be obtained from Director of Health and Family Welfare services or the Government if it exceeds the powers of the Director of Health and Family Welfare services.



He/she will ensure the smooth working of the department.

He/she will call periodical meetings of the heads of sections, at least once a month, review progress of work and plan the future work. S

*and* He/she will ensure that the drugs purchased, in stock and supplied meets the needs for rational use of drugs, that the drugs are

- safe and are not banned;
- of good quality and according to specifications; and
- according to the rate contract.

The Joint Director will be responsible for quality control, *along with the chief Supervisor.*

The Joint Director will investigate complaints about

- short supplies received by the indentors,
- substandard or spurious drugs, and
- such other matters regarding supplies,

*and take appropriate action.*

The Joint Director will arrange for periodical stock taking and physical verification and the report will be sent to the Director, Health and Family Welfare Services for further action.

The annual stock verification will be conducted by the Directorate of Health and Family Welfare Services.

*The Joint Director*

*Department* He/she will maintain all performance appraisal confidential reports *of the staff in* and take appropriate action for improvement of the Department.

He/she will take necessary action for human resources development and continuing education/training of the staff in the department.

The Joint Director is the Drawing and Disbursing Officer of the Department.

The Joint Director reports to the Director of Health Services and Family Welfare.



DUTIES AND RESPONSIBILITIES OF THE CHIEF SUPERVISOR

1. The Chief Supervisor is next in rank in Administration to the Joint Director, Government Medical Stores. He shall discharge all the administrative duties when the Joint Director is on leave or on other duties. /she
2. He <sup>she</sup> is responsible to receive all supplies from the various firms <sup>with</sup> whom orders would have been placed by the Joint Director, Government Medical Stores or by the Director of Health and Family Welfare Services; he ensures that the supplies are <sup>in</sup> conformity with <sup>the</sup> purchase orders. ^
3. He <sup>she</sup> will compare the quality and the specifications of the materials supplied by the Firms with that of the approved samples, and bring to the notice of the Joint Director, any variations or shortcomings in the said supplies and obtain his <sup>her</sup> orders. The Chief Supervisor will be responsible for quality control along with the Joint Director. ^
4. <sup>The Chief Supervisor</sup> He <sup>she</sup> is responsible for maintenance of "DAY BOOK" of purchases day to day and make entries in the said book under his signature and obtain the initials of the Joint Director for each transaction. ^
5. He <sup>she</sup> is responsible for the safe custody of the articles received till such time as they are handed over by him <sup>her</sup> to the concerned stores. ^/her
6. He <sup>she</sup> is personally responsible also for the safe delivery of the stock to the concerned stores, and make necessary entries under his own signature to that effect and obtain the full signature of the receiving officer at <sup>the</sup> stores (Graduate Pharmacist). ^
7. He <sup>she</sup> is responsible for the safe custody of samples received from various firms and he <sup>she</sup> will undertake to demonstrate the samples as and when required by the Joint Director, GMS or Director, Health and Family Welfare Services, or the Expert Committee. ^/she
8. He will maintain a register of samples received and disposed off.
9. He will investigate any short or faulty compliance to the indenters and obtain the orders of the Joint Director.
10. He is responsible to maintain upto date the following registers :
  - i) Register providing particulars of RC Firms who fail to comply with the supply orders either in full or partially indicating orders No. and date, particulars of drugs ordered for supply, financial value of the orders placed for supply.
  - ii) Register providing particulars of drugs not replaced by fresh stock when declared substandard by the Drug Controller, indicating batch number, date of expiry, quantity, financial value.

iii) Register providing particulars of drugs nearing date of expiry which are not replaced when asked for, by the firms indicating batch number, quantity of drugs, financial value of the said drugs.

iv) Register of drugs nearing expiry date, and will send a written note three months in advance of the likely expiry of potency of the drugs in stock to the concerned stores and the computer section to check up and to take further action at their end.

11. He <sup>she</sup> will be responsible for taking action to recover the cost of drugs from various firms who failed to replace drugs nearing date of expiry, drugs declared substandard, drugs which are deteriorated, drugs and chemicals if found leaky and pilfered from the containers.
12. He is responsible to inform immediately the instance of banning of any drugs to the computer wing for recording and taking action.
13. He will work out and submit reports to the Joint Director the requirement of each of the drugs for the next quarter year, at the end of each preceding quarter ending 30th June, 30th September, 31st December and 31st March.
14. It is the responsibility of the Chief Supervisor to see that the various Stores/rooms are properly locked securely, closed and sealed in his presence at the end of each day's work and take acknowledgements of the concerned stores keepers to that effect, and report to the Joint Director.
15. He is responsible for obtaining the analytical reports from the manufacturers for each batch of drugs supplied.
16. He is responsible for furnishing samples of each batch of stock received to the Drugs Controller in Karnataka for obtaining analytical report.
17. He will send daily report of drugs received upto 1 p.m. on any working day to computer section and stores simultaneously.
18. He will participate actively in the departmental meetings, which will be held not less than once a month, to review and take action for the smooth functioning of the department.
19. He is responsible for the proper cleanliness of the premises and disposal of waste.
20. He will carry out any other activity which may be entrusted <sup>to</sup> him for ensuring adequate supplies of medicines, quantitatively and qualitatively.

The Chief Supervisor reports to the Joint Director.



# Medical Officer incharge of Packaging Yard (M.O.P.Y.)

is/# The Medical Officer <sup>is</sup> incharge of the <sup>ag</sup> Packing Yard. He will discharge the duties of the Joint Director, when both Joint Director and Chief Supervisor are not available.

109 The Medical Officer is responsible for the correct despatch of articles. He/she will receive the indents and pass them, after scrutinizing them for levels of supply appropriate for the institution and availability of budget. M.O.P.Y. will <sup>m</sup> receive exercise proper supervision over the packing yard and during the actual packing of the materials.

He/she is responsible for getting the compiled indent entered in the gate pass book under his/her signature and submit the same to the Joint Director.

He/she will certify the delivery note that the packing was under his/her direct supervision. His/her assistants will certify that the packing was done in his/her presence. The packers' name (s) shall be noted, with the number of boxes used, in the columns provided.

M.O.P.Y. is responsible for the correct delivery of the goods to the lorry driver or clerk, in the presence of the watch and ward.

⊙ He/she is responsible to obtain the indents for packing materials on time, ensure supplies and maintain the correct accounts of the packing materials received from the contractor. Packing work should not suffer from want of packing materials.

⊗ M.O.P.Y. will report to the Joint Director.

⊗ He/she is responsible for the strict discipline of the staff in the section.

DUTIES AND RESPONSIBILITIES OF THE GRADUATE PHARMACISTS

1. The Graduate Pharmacists in charge of stores will be personally responsible for the safe custody of the articles under their charge and shall exercise proper care in their safe and proper storage.
2. They will receive the stores from the Chief Supervisor as and when he calls for them to do so and make proper entry in the stock ledgers and keep an account for them.
3. They will promptly issue stores to the packing yard whenever indents are placed for the same.
4. They will be responsible for the proper maintenance of all stock ledgers day-to-day and ~~use~~ that both the receipts and issues are entered under their initials.
5. They will submit a list of drugs which require replenishment in stock every fifteen days without fail to the Joint Director, Government Medical Stores.
6. The Graduate Pharmacists will be watchful of the drugs:
  - i) likely to become time barred and take action ~~time~~ as necessary under the advice of ~~Drug Controller~~ JD, GMS;
  - ii) drugs coming under cold chain system are properly stored at the low temperatures as required and no other items other than drugs are kept in the refrigerators;
  - iii) watch narcotic and addictive drugs;
  - iv) watch that drugs banned by Drug Controller do not find their way into the stores; in the event such drugs are on stock, ~~if banned~~, are immediately identified and destroyed and discounted from stock under the orders of Joint Director;
  - v) the longevity of drugs as at the point of supply; whether they have 75 per cent of life if supplied through RC; if not, immediately bring it to the notice of Joint Director and seek his orders.
7. a) The Graduate Pharmacists will be responsible for maintaining batchwise stock and issue drugs batchwise, on first-come-in, first-served basis.  
b) it is his <sup>her</sup> responsibility to see that refrigerators are examined and inside temperature measured twice a day, recorded twice a day. It is his duty to immediately report to Joint Director if he finds any refrigerator faulty or goes out of order.

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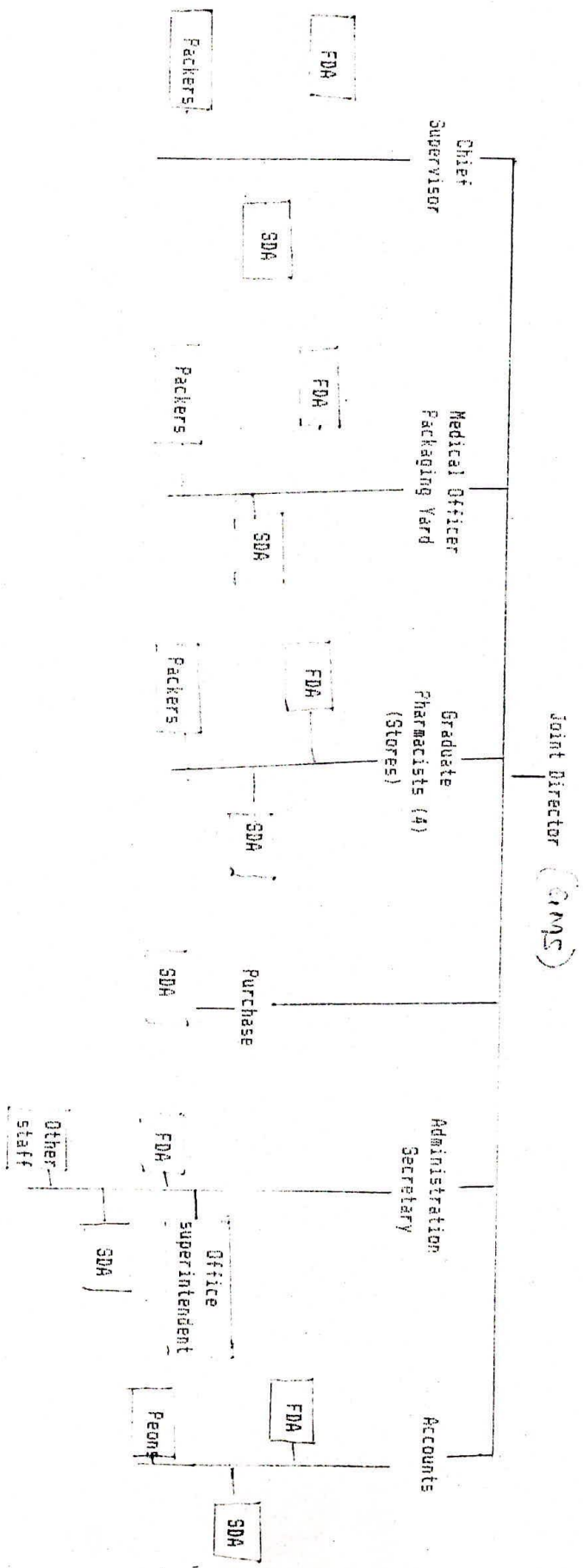
*Graduate Pharmacists*

8. They <sup>are</sup> personally responsible for furnishing annual requirements of the respective stores for the preparation of the consolidated annual medical indent of Government Medical Stores, keeping in view the past twelve *months stock expenditure and balance.*
9. They will be responsible for strict discipline amongst the staff working under their control.
10. They will promptly report to the Joint Director when they suspect that any of the staff is not discharging his <sup>job</sup> duties properly or when he <sup>may</sup> be involved in any irregular act. *n/ker*
11. They will be responsible for the correct entries in the delivery notes and for getting the ledgers and delivery notes verified by the internal auditor (one of the FDA to function as internal auditor).
12. They will see that the doors <sup>and other possible entry points</sup> of the stores are closed securely and sealed in his <sup>presence</sup> at the end of the day's work and certify to that effect in the register maintained by the Chief Supervisor. *n/ker*

5 The Graduate Pharmacists reports to the Joint Director.

Government Medical Stores

Organizational Flow Chart



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SL. NO.	ITEM CODE	ITEM	CLASSIFICATION	PACKING	QUANTITY	UNIT RATE	AMOUNT
1.	100100	Aluminium Hydroxide - 500mg Tab.	B	1000	5,000.00	148.00	740,000.00
2.	100200	Magnesium Trisilicate - 500mg Tab.	A	1000	12,000.00	144.00	1,728,000.00
3.	100600	Atropine Sulphate - 0.6mg/ml Inj.	B	1 amp	900,000.00	1.05	945,000.00
4.	101000	Paraffin Liquid	C	450ml	700.00	40.50	28,350.00
5.	101401	Loperamide - 2mg Tab.	A	100	35,000.00	39.50	1,382,500.00 ?
6.	101600	Digoxin - 0.25mg	C	500	1,000.00	98.50	98,500.00
7.	103000	Mephentermine - 30mg/ml	C	10ml	12,000.00	34.46	413,520.00
8.	103001	Mephentermine - 15mg/ml	C	1ml	2,000.00	2.72	5,440.00
	103455	Spirolactone - 25mg Tab.	C	100	200.00	113.40	22,680.00
10.	103500	Adrenaline - 1 in 1000/	B	1ml	66,000.00	1.60	105,600.00
11.	104300	Acetylsalicylic Acid - 300mg	A	1000	35,000.00	80.00	2,800,000.00
12.	104900	Paracetamol - 125mg/5ml	A	450ml	80,000.00	61.65	4,932,000.00
13.	105000	Paracetamol - 500mg	A	1000	30,000.00	172.50	5,175,000.00
13a.	105101	Pentazocane - 25mg IP Tab.	C				
13b.		Pentazocane - 30mg/ml					
14.	105300	Phenobarbitone - 30mg	B	1000	4,000.00	180.00	720,000.00
15.	105400	Phenobarbitone - 60mg	B	1000	3,000.00	330.00	990,000.00
16.	105200	Phenobarbitone - 200mg	C	1ml	2,500.00	2.15	5,375.00
17.	105500	Chlorpromazine - 25mg/ml	C	2ml	18,000.00	4.31	77,580.00
18.	105700	Chlorpromazine - 25mg	C	1000	275.00	172.12	47,333.00
19.	105800	Chlorpromazine - 50mg	C	1000	250.00	307.44	76,850.00
20.	106500	Promethazine - 10mg	A				
		Promethazine - 25mg					
		Promethazine - 25mg/ml					
		Promethazine - 5mg/5ml					
							20,293,738.00





SL. NO.	ITEM CODE	ITEM	CLASSIFICATION	PACKING	QUANTITY	UNIT RATE	AMOUNT
							65,807,453.50
44.	112700	Benzyl Pencillin - 5 lac IU (100 vials)	B	1.00 vial	150,000.00	4.10	615,000.00
45.	112800	Benzyl Pencillin - 10 lac IU	A	1.00 vial	300,000.00	8.02	2,406,000.00
46.	112900	Procaine Pencillin - 4 lac IU	A	1.00 vial	500,000.00	6.38	3,190,000.00
47.	113000	Procaine Pencillin - 20 lac IU	A	1 vial	600,000.00	12.50	7,500,000.00
48.	113100	Benzathine Pencillin - 6 lac IU	C	1 vial	40,000.00	6.25	250,000.00
49.	113200	Benzathine Pencillin - 12 lac IU	B	1 vial	50,000.00	10.25	512,500.00
50.		Benzathine Pencillin - 24 lac IU		1 vial		19.65	0.00
51.	113900	Ethanbutol - 200mg IP	A	1000	6,500.00	470.00	3,055,000.00
52.	113901	Ethanbutol - 400mg IP	A	1000	1,300.00	877.00	1,140,100.00
53.	114000	Isoniazid - 100mg	C	1000	4,000.00	74.00	296,000.00
54.	114300	Refampicin - 150mg	A	1000	3,000.00	1,386.00	4,158,000.00
55.	114400	Refampicin - 300mg	A	1000	2,000.00	2,338.70	4,677,400.00
56.	114500	Streptomycin - 1g IP Inj.	A	1000	15,000.00	5,160.00	77,400,000.00
57.	115100	Clofazimine - 100mg Cap.	C	100	2,000.00	179.48	358,960.00
58.	115101	Clofazimine - 50mg	C	1000	180.00	864.00	155,720.00
59.	116500	Mebendazole - 100mg/5ml	C	30ml	1,750.00	8.19	14,332.50
60.	116600	Mebendazole - 100mg IP	A	1000	10,000.00	1,103.33	11,033,333.33
61.		Metronidazole - 200mg	A				
62.		Metronidazole - 400mg					
63.		Ferrous Fumarate - 150mg + Folic Acid - 2.5mg	A	1000	25,000.00	105.10	2,627,500.00
64.		Ferrous Sulphate - 200mg + Folic Acid - 0.5mg	A				
65.		Folic Acid - 5mg	C				
66.	118900	I.V. Dextrose - 5% IP	A	540ml	200,000.00		
67.	119100	I.V. Dextrose - 25%	C	25ml	25,000.00		

185,197,101.33





SL. NO.	ITEM CODE	ITEM	CLASSIFICATION	PACKING	QUANTITY	UNIT RATE	AMOUNT
94.	125400	Chlorhexidine Gluconate - 7.5% liquid	C	1000ml	500.00	450.00	229,448,861.69 230,000.00
95.	126901	Whitfield Ointment Benzioc Acid - 6%	C	15g	50,000.00	6.00	300,000.00
96.		Whitfield Ointment Benzioc Acid - 6%	C	450g	1,000.00	150.00	150,000.00
97.	127300	Zinc Oxide - 2% IP (skin)	C	20g	5,000.00	4.25	21,250.00
98.	127600	Miconazole Nitrate - 2% (skin) BP	C	5g	100,000.00	4.18	418,000.00
99.	128000	Dusting Powder (absorbable glove powder)	C	450g	2,500.00		
100.	128301	Gentian Violet topical - 2% VSP	C	450ml	5,000.00		
101.	128400	Hydrogen Peroxide(unbreakable dark bottle) IP	B	1 lt.	5,000.00		
102.	129600	Pyridine Aldoxime Methiodide Inj.	C	20ml	5,000.00	120.00	600,000.00
103.	129700	Ether anaesthetic(in ambered coloured bottle)	B	500ml	5,000.00		
104.	131900	Mannitol - 20% infusion	A	100ml	50,000.00	25.71	1,285,714.29
105.	132300	Water for injection (in machine made ampules)	A	5ml	4,500,000.00		
106.	143600	Ranitidine - 150mg IP Tab.	A	1000	2,000.00	1,866.00	3,772,000.00
107.	143603	Ranitidine - 50mg/2ml Inj.	C	2.00	30,000.00	2.80	84,000.00
108.	144303	Etophylline - 46.5mg with Throphylline 14mg/5ml Syr.	C	100ml	12,500.00	9.91	123,875.00
109.	148100	Dopamine Hydrochloride - 40mg/ml IV BP/USP	C	5ml	5,000.00	22.90	114,500.00
110.	149700	Metoclopramide HCL - 5mg/ml Inj.	C	2ml	50,000.00	2.10	105,000.00
111.		Metoclopramide HCL - 10mg Tab.	C	100	5,000.00	42.60	213,000.00
112.		Metoclopramide HCL - 5mg/5ml	C	30ml	50,000.00	5.79	289,500.00
113.		Diazepam Tab.	A				
114.		Diazepam Inj.					
115.		Diazepam Syr.					
116.		Indometacin - 25mg Cap.	C				
117.		Pethidine - 50mg/ml Inj.	B				

237,155,700.98

SL. NO.	ITEM CODE	ITEM	CLASSIFI- CATION	PACKING	QUANTITY	UNIT RATE	AMOUNT
118.		Halothane liquid, anaesthetic	A				
119.		Thiopental sodium - 0.5g amp.	A				
120.		Nitrous Oxide liquid, anaesthetic	A				
121.		Oxygen cylinder on trolleys with flowmeter 2 mark	A				
122.		Magnesium Sulphate powder - 10g/4ml	C				
123.		Doxycyclin - 100mg Cap.	B				
124.		Co-trimoxazole Tab.	A				
125.		Co-trimoxazole Syr.					
126.		Dapsone - 25mg Tab	B				
127.		Dapsone - 50mg Tab					
128.		Dapsone - 100mg Tab					
129.		Thiacetazone - 150mg Tab.	B				
130.		Diethyl Carbazazine - 50mg Tab.	B				
131.		Diethyl Carbazazine - 125mg/5ml Syr.					



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LIST OF ESSENTIAL DRUGS

Sno.	Medicine	Dosage	Monthly Qty. Required
1	AMIKACIN SULPHATE VIAL	250 MG	
2	AMIKACIN SULPHATE VIAL	500 MG	
3	AMIKACIN SULPHATE VIAL	100 MG	
4	AMINOPHYLLIN AMP.	250MG/10ML	
5	AMOXYCILLIN CAP.	250 MG	
6	AMOXYCILLIN CAP.	500 MG	
7	AMPICILLIN CAP.	500 MG	
8	AMPICILLIN INJ.	500 MG	
9	ATENOLOL TAB	50 MG	
10	ATROPINE SULPHATE AMP.	0.65MG/1ML	
11	BENZYL PENICILLIN VIAL	10 LAC	
12	CALCIUM GLUCONATE AMP.	10 ML	
13	CALCIUM, VITAMIN TAB.		
14	CARBAMAZIPINE	200 MG	
15	CEFAZOLIN SODIUM VIAL	1 GM	
16	CEFAZOLIN SODIUM VIAL	250 MG	
17	CEFAZOLIN SODIUM VIAL	500 MG	
18	CEFOTAXIME SODIUM VIAL	1 GM	
19	CEFOTAXIME SODIUM VIAL	250 MG	
20	CEFUROXIME INJ.	750 MG	

## LIST OF ESSENTIAL DRUGS

Sno.	Medicine	Dosage	Monthly Qty. Required
21	CEPHALEXIN CAP.	250 MG	
22	CEPHALEXIN CAP.	500 MG	
23	CIPROFLOXACIN I.V.	100 ML	
24	CIPROFLOXACIN TAB.	500 MG	
25	CIPROFLOXACIN TAB.	750 MG	
26	CLOXACILLIN CAP.	250 MG	
27	CLOXACILLIN CAP.	500 MG	
28	CLOXACILLIN VIAL	250 MG	
29	CLOXACILLIN VIAL	500 MG	
30	COTRIMAZOLE TAB.	S.S.	
31	COTRIMAZOLE TAB.	D.S.	
32	COTRIMOXAZOLE SYP	50 ML	
33	CREMAFFIN LIQUID	210 ML	
34	DEXAMETHASONE VIAL	8 MG/2 ML	
35	DEXTROPROPOXYPHENE & ACETAMINOPHEN	350-400 MG	
36	DEXTROSE	5%, 540 ML	
37	DEXTROSE 5%, SODIUM CHLORIDE 0.9%	540 ML	
38	DEXTROSE AMP.	50%, 25 ML	
39	DEXTROSE AMP.	25%, 25 ML	
40	DEXTROSE VIAL	50%, 100ML	



## LIST OF ESSENTIAL DRUGS

Sno.	Medicine	Dosage	Monthly Qty. Required
41	DIAZEPAM AMP.	10 MG/ML	
42	DIAZEPAM TAB.	5 MG	
43	DICLOFENAC SODIUM GEL	50 GMS	
44	DICLOFENAC SODIUM TAB.	50 MG	
45	DISULFIRAM TAB.	250 MG	
46	DOMPERIDONE TAB.	10 MG	
47	DOPAMINE HCL AMP.	200 MG	
48	DOXYCYCLINE CAP.	100 MG	
49	ELECTROLYTE M	540 ML	
50	ELECTROLYTE P	540 ML	
51	ENALAPRIL MALEATE TAB	2.5 MG	
52	ENALAPRIL MALEATE TAB	5 MG	
53	ENALAPRIL MALEATE TAB	10 MG	
54	ERYTHROMYCIN SYP.	60 ML	
55	ERYTHROMYCIN TAB.	250 MG	
56	ETHAMBUTOL TAB.	800 MG	
57	ETOFYLLINE & THEOPHYLLINE AMP.	2 ML	
58	ETOFYLLINE & THEOPHYLLINE RETARD TAB.	300 MG	
59	ETOFYLLINE & THEOPHYLLINE TAB.	100 MG	
60	FRUSEMIDE TAB.	40 MG	

LIST OF ESSENTIAL DRUGS

Sno.	Medicine	Dosage	Monthly Qty. Required
61	FRUSMIDE AMP.	20 MG/2 ML	
62	GENTAMYCIN E DRDPS	3 ML	
63	GENTAMYCIN VIAL	80 MG	
64	GLIBENCLAMIDE	5 MG	
65	HEPARIN VIAL	5000 IV	
66	HYDROCORTISONE SOD. SUCCINATE VIAL	100 MG	
67	IBUPROFEN	200 MG	
68	IBUPROFEN	400 MG	
69	IMIPRAMINE HCL	25 MG	
70	IMIPRAMINE HCL	75 MG	
71	INSULIN VIAL	40IV/ML 10	
72	INTRAVEL SODIUM VIAL	500 MG	
73	LIGNOCAINE INJ.	1%, 30 ML	
74	LIGNOCAINE INJ. VIAL	2%, 30 ML	
75	LIGNOCAINE JELLY	2%, 30 GM	
76	LIGNOCAINE WITH ADRENALINE INJ. VIAL	2%, 30 ML	
77	MANNITOL	20%, 350ML	
78	MEBENDAZOLE TAB.	100 MG	
79	MEGLUMINE IOTHALMATE/DIATRIZOATE	76%, 20 ML	
80	METRONIDAZOLE TAB.	200 MG	



## LIST OF ESSENTIAL DRUGS

Sno.	Medicine	Dosage	Monthly Qty. Required
81	METRONIDAZOLE TAB.	400 MG	
82	METRONIDAZOLE VIAL	100 ML	
83	MULTIVITAMIN DROPS	15 ML	
84	NEUROBION TAB.		
85	NIFEDIPINE CAP.	5 MG	
86	NIFEDIPINE CAP.	10 MG	
87	NIFEDIPINE TAB.	20 MG	
88	NORFLOXACIN CAP.	400 MG	
89	PANCURONIUM BROMIDE	4MG/2ML	
90	PARACETAMOL AMP.	150 MG/ML	
91	PARACETAMOL SYP.	60 ML	
92	PARACETAMOL TAB.	500 MG	
93	PARACETAMOL/IBUPROFEN		
94	PENTAZOCINE LACTATE AMP.	30 MG/ML	
95	PENTOXIFYLLINE TAB.	400 MG	
96	POTASSIUM CHLORIDE AMP.	150MG/10ML	
97	PREDNISOLONE TAB.	5 MG	
98	PROCAINE PENICILLIN VIAL	4 LAC	
99	PRDSTIGMIN AMP.	0.5 MG/ML	
100	PYRAZINAMIDE TAB.	500 MG	

## LIST OF ESSENTIAL DRUGS

Sno.	Medicine	Dosage	Monthly Qty. Required
101	RANITIDINE HCL AMP.	50 MG	
102	RANITIDINE HCL TAB.	150 MG	
103	RIFAMPICIN CAP.	150 MG	
104	RIFAMPICIN CAP.	450 MG	
105	RIFAMPICIN CAP.	600 MG	
106	RINGER LACTATE	540 ML	
107	SALBUTAMOL RESP. SOLN	15 ML	
108	SALBUTAMOL TAB.	2 MG	
109	SALBUTAMOL TAB.	4 MG	
110	SODIUM CHLORIDE SOLN.	540 ML	
111	SUCCINYL CHOLINE INJ.	50 MG/10 M	
112	TERBUTALINE SULPHATE AMP.	0.5MG/1ML	
113	VITAMINS AND MINERALS CAP.		



GOVERNMENT MEDICAL STORES, BANGALORE.

Item Name (1)	Formulation (2)	Levels.* (3)
<b>1. <u>ANTACIDS</u></b>		
Aluminium Hydroxide 500 mg	Tablets	1, 2, 3
Magnesium trisilicate 500 mg	Tablets	1, 2, 3
Cisapride 10 mg	Tablets	1, 2, 3
Ranitidine 150 mg IP	Tablets	1, 2, 3
<b>2. <u>ANTEDOTES</u></b>		
Atropine Sulphate 0.5 mg/ml IP (100 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Diphtheria Antitoxin (ADS) 10,000 IU/AMP IP	Injection	1, 2
Tetanus Antitoxin 10,000 IU/VIAL IP (100 VIAL IN CBB WITH HCP) BP.	Injection	--
Polyvalent Anti-snake venom serum. Lyophilised Ative 0.2% Phenol Before	Injection with distilled water Lyphilisation	1, 2, 3
Pyridine Aldoxime Methiodide (PAM) Antidote for Organo Phosphorus Poisoning (10 AMPS IN CBB)	Injection	1, 2, 3
<b>3. <u>ANTI-SPASMODICS</u></b>		
Valathamate Bromide 8mg/ml 1ml AMP (25 AMPS IN CBB WITH HCP.)	Injection	1, 2, 3
Valathamate Bromide 10mg	Tablet	1, 2, 3
Hyoscine Butyl Bromide 20 mg/ml BP. (100 AMPS In CBB WITH HCP)	Injection	1, 2

\* 1. District Hospital    2. 30 - 100 beds hospital    3. Primary Health Centre.

Item Name (1)	Formulation (2)	Levels (3)
<b>4. LAXATIVE</b>		
Paraffin-Liquid (20 BOTS PKG IN CBB WITH HCP) IP/BP	Liquid	1, 2, 3
<b>5. ANTI-DIARRHOEAL</b>		
Purozolidone 2% Suspension	Suspension	1, 2, 3
Loperamide 2mg	Tablet	1, 2, 3
<b>6. CARDIAC</b>		
Digoxin 0.25 mg/ml IP (25 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Digoxin 0.25 mg IP	Tablet	1, 2, 3
Diltiazem 30 mg	Tablet	1, 2
Procainamide 100mg/ml IP	Injection	1,2
Propranolol 40 mg IP	Tablet	1, 2, 3
Verapamil Hydrochloride 40 mg IP	Tablet	1, 2
Verapamil HCL 5mg/2ml IP	Injection	1, 2
Dilsopyramide 150mg	Capsule	1
Nefedipine 10mg	Tablet	1, 2
Nefedipine Retard 20 mg USP	Tablet	1, 2
Dihydrallazine 25mg USP	Tablet	1, 2
Metoprolol 50mg	Tablet	1, 2
<b>6.1 ANTI-ANGINAL</b>		
Enalapril Maleate 5mg (Strip)	Tablet	1, 2, 3
Glyceryl Trinitrate 0.5mg IP	Tablet	1, 2, 3
Isosorbide 5 Mono Nitrate 20 mg	Tablet	1, 2, 3



Item Name (1)	Formulation (2)	Levels (3)
<b>6.2 EMERGENCY</b>		
Mephentermine 30mg/ml IP.	Injection	1, 2, 3
Mephentermine 15mg/ml IP.	Injection	1, 2, 3
Adrenaline 1 In 1000 BP	Injection	1, 2, 3
Dopamine Hydrochloride 40mg/ml IV BS/USP (25 AMPS IN CBB WITH HCP).	Injection-IV	1, 2, 3
Bupivacaine Hydrochloride 100mg/ml BP/USP (100 AMPS IN CBB WITH HCP)	Injection	1, 2
<b>6.3 ANTI-HYPERTENSIVE</b>		
Methyldopa 250mg IP/BP	Tablet	1, 2, 3
Reserpine 1mg/ml USP. (100 AMPS In CBB WITH HCP)	Injection	1, 2
Dihydrallazine 25mg USP		
<b>7. DIURETIC</b>		
Frusemide 40mg Amiloride HCL 5mg	Tablet	
Frusemide 20mg/ml IP. (100 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Chlorthalidone 100mg USP	Tablet	1, 2, 3
Spiroinolactone 25mg	Tablet	1, 2, 3
<b>ANTI-DIABETIC</b>		
Phenformin HCL 50mg IP (IN TIMED DISINTEGRATION FORM)	Capsule	1, 2, 3
Insulin 40 IU/ml IP IP(100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Insulin-protamin Zinc 40 IU/ml IP (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Insulin Zinc Suspension (Lente) 40 IU/ml (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3

Item Name (1)	Formulation (2)	Levels (3)
Purified Insulin 40 Units/ml Pork Monocomponent	Injection	1, 2,
Purified Insulin 40 Units/ml Isophane	Injection	1, 2,
Purified Insulin 40 Units/ml zinc suspension	Injection	1, 2,
Purified Insulin 40 Units/ml Mixture of Neutral and Isophane	Injection	1, 2,
Purified Insulin 40 Units/ml Monocomponent - Human	Injection	1,
Glybenclamide 5mg IP	Tablet	1, 2, 3
Tolbutamide 0.5mg IP/BP	Tablet	1, 2, 3
<b>9. <u>ANTI-VERTIGO</u></b>		
Cinnarizine 25mg	Tablet	1
<b>10. <u>ANTI-COAGULANT</u></b>		
Heparin 5000 IU/ML IP (100 VIALS IN CBB WITH HCP)	Injection	1, 2
<b>10.1 <u>COAGULANT</u></b>		
Adrenochrome Monosemi Carbazone 0.75mg/ml (100 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Adrenochrome Monosemicarbazone 0.5mg	Tablet	1, 2, 3
<b>11. <u>ANALGESIC/ANTIPYRETIC</u></b>		
Paracetamol 125mg/5ml IP/BP.	Suspension	1, 2, 3
Paracetamol 500mg BP/IP.	Tablet	1, 2, 3
Ketorolac Tromethamine 30mg/ml	Injection	1, 2
Pentazocine Lactate 30mg/ml IP. (25 AMPS IN CBB WITH HCP)	Injection	1, 2, 3



Item Name (1)	Formulation (2)	Levels (3)
Buprenorphine HCL 0.3mg/ml	Injection	1, 2
Buprenorphine 0.2mg	Tablet	1
Ketamine 10mg/ml USP	Injection	1, 2
Ketamine 50mg/ml USP	Injection	1, 2
Ibuprofen 400mg BP.	Tablet	1, 2, 3
Ibuprofen 200mg IP	Tablet	1, 2, 3
Diclofenac Sodium 50mg	Tablet	1, 2, 3
Diclofenac Sodium 100mg S.R	Tablet	1, 2, 3
Diclofenac Sodium 25mg/ml	Tablet	1, 2, 3
Diclofenac Sodium 50mg	Injection	1, 2, 3
Diclofenac Diethylammonium EQ to Diclofenac Sodium 1% W/V	GEL GEL	1, 2, 3
Indomethacin 25mg	Tablet	1, 2, 3

12. DENTAL

Clove Oil IP (25 BOT IN CBB WITH HCP)	Oil	1, 2, 3
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13. ANTI-EPILEPTIC

Phenobarbitone 200mg/1ml IP (100 AMPS in CBB WITH HCP)	Injection	1, 2, 3
Phenobarbitone 30mg IP	Tablet	1, 2, 3
Phenobarbitone 60mg IP	Tablet	1, 2, 3
Phenytoin Sodium 100mg/ IP	Tablet	1, 2, 3
Phenytoin Sodium 100mg/2ml	Tablet	1, 2, 3
Carbamazepine 200 MG IP	Tablet	1, 2
Sodium Valproate 200mg	Tablet	1, 2
Trihexy Phenidyl Hydrochloride 2mg USP	Tablet	1

Item Name (1)	Formulation (2)	Levels (3)
<b>14. <u>PSYCHOTHERAPEUTIC</u></b>		
Chlorpromazine 25mg/ml IP (100 AMPS IN CBB WITH HCP)	Injection	1, 2
Chlorpromazine 25 mg/ml IP	Tablet	1, 2, 3
Chlorpromazine 100mg/ml IP	Tablet	1, 2, 3
Diazepam 10mg/2ml IP (100 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Diazepam 5mg IP	Tablet	1, 2, 3
Fluzetine HCL 20 mg	Capsule	1, 2
Amitryptiline Hydrochloride 25mg IP/BP	Tablet	1, 2, 3
Trifluoperazine 5mg IP	Tablet	1, 2
Fluphenazine Decanoze 25mg/ml BP(100 VIALS IN CBB WITH HCP)	Injection	1
Lithium Carbonate 300mg IP	Tablet	1
<b>15. <u>ANTI-ALLERGIC</u></b>		
Promethazine 2.5% W/V USP (100 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Promethazine 25 mg IP	Tablet	1, 2, 3,
Oxymetazoline 0.05% Aquoves Solution (Nasal Drops)USP (50 BOT IN CBB)sterile	Drops	1, 2, 3
Hydrocortisone Nasal NFI (50 BOT IN CBB)Sterile	Drops	1, 2
Chlorpheniramine Maleate 10mg/ml IP	Injection	1, 2, 3
Chlorpheniramine Maleate 4/mg IP	Tablet	1, 2, 3
Astemizole 10 mg	Tablet	1, 2,
Terfenadine 60 mg	Tablet	1
Embramine 25 mg (PKG IN CBB)	Tablet	1, 2, 3



Item Name (1)	Formulation (2)	Levels (3)
<b>16. ANTI-GOUT</b>		
Allopurinol 100 mg	Tablet	1, 2
<b>17. ANAESTHETIC</b>		
Gallamine 40mg/ml IP (100 AMPS IN CBB WITH HCP)	Injection	1, 2
Suzamethonium Chloride 50mg/ml	Injection	1, 2
Pancuronium Bromide 2mg/ml (100 AMPS IN CBB WITH HCP)	Injection	1, 2
Tubocurarine 10mg/ml IP (100 AMPS IN CBB WITH HCP)	Injection	1, 2
Neostigmine 0.5 mg/ml IP (100 AMPS IN CBB WITH HCP)	Injection	1, 2
Ether-Anaesthetic IP (IN AMBER COLOURED BOTTLES)	Liquid	1, 2, 3
Hyaluronidaze 1500 IU/ml (100 AMPS IN CBB WITH HCP)	Injection	1, 2,
Ethyl Chloride-spray with leak proof valve IP. (25 BOT. IN CBB)	Liquid	1, 2, 3
Halothane BP	Liquid	1, 2
Lignocaine 1% W/V IP (25 VIAL IN CBB)	Injection	1, 2, 3
Lignocaine 2% with Adrenaline (25 VIAL IN CBB)	Injection	1, 2, 3
Lignocaine 2% W/V PLAIN BP. (25 VIAL IN CBB)	Injection	1, 2,
Lignocaine 4% W/V (Topical) (25 BOT. IN CBB) USP.	Liquid	1, 2, 3
Lignocaine 5% W/V (Heavy) (25 AMPS IN CBB WITH HCP)	Injection	1, 2,
Lignocaine Dental cartridge (25 AMPS IN CBB WITH HCP)	Injection	1

Item Name (1)	Formulation (2)	Levels (3)
Lignocaine - Viscous 2% (25 VIAL IN CBB)	Liquid	1
Lignocaine 2% Jelly USP. (100 tubes in CBB)	Jelly	1, 2, 3
Thiapentone Sodium 500mg IP (25 AMPS in CBB)	Injection	1, 2
Thiapentone Sodium 1mg BP (25 AMP/VIAL IN CBB)	Injection	1

18. ANTI-INFECTIVE

18.1 ANTI-FUNGAL

Hamycin (vaginal) 4LAC IV (Strips)	Ovules	1, 2, 3
Nystatin 1LAC IV Vaginal IP. (Aluminium Foils in CBB)	Tablet	1, 2
Griseofulvin 250mg	Tablet	
Griseofulvin 125mg	Tablet	
Miconazole Nitrate 2% (Skin) (100 Tubes in CBB) BP/USP.	Ointment	1, 2
Miconazole Nitrate 2% (EAR)	Drops	1, 2

18.2 ANTI-BACTERIAL

Tetracycline-Oxy 50mg/ml IP (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Tetracycline 250mg IP	Capsule	1, 2, 3
Cefotazime 1mg	Injection	1, 2
Doxycycline HCL 100mg	Capsule	1, 2, 3
Gentamicin 40mg/ml IP/BP. (100 VIAL in CBB)	Injection	1, 2
Ampicillin 250mg IP/BP (100 VIAL IN CBB)	Injection	1, 2, 3



Item Name (1)	Formulation (2)	Levels (3)
Ampicillin 500mg IP/BP. (100 VIAL in CBB)	Injection	1, 2, 3
Ampicillin 250mg IP/BP	Capsule	1, 2, 3
Amoxicillin 250mg BP/IP.	Capsule	1, 2,
Amoxycillin 500mg	Injection	1, 2,
Norfloxacin 400mg	Tablet	1, 2
Nalidixic Acid 500mg	Tablet	1, 2
Nalidixic Acid 200mg/5ml	Syrup	1, 2
Ciprofloxacin 500mg	Tablet	1, 2
Ciprofloxacin 2mg/ml	Injection	1, 2
Chloramphenicol Succinate 1mg Vial IP. (100 VIAL In CBB)	Injection	1, 2
Chloramphenicol 250mg IP. (100 VIAL In CBB)	Capsule	1, 2, 3
Chloramphenicol 500mg IP (100 VIAL In CBB)	Injection	1, 2, 3
Cloxacillin 500mg/VIAL IP/BP. (100 VIAL in CBB WITH HCP)	Injection	1, 2
Cloxacillin 250mg IP/BP. (Aluminium Foil Packing.)	Capsule	1, 2
Erythromycin estolate 100mg/5ml USP.	Suspension	1, 2, 3
Erythromycin estolate 250mg IP/BSP	Tablet	1, 2, 3
Kanamycin Sulphate 1mg IP (100 VIAL IN CBB WITH HCP)	Injection	1
Pencillin-Benzyl 5 LACS IV IP (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Benzyl Pencillin 10LAcS IV IP (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3

Item Name (1)	Formulation (2)	Levels (3)
Fortified Procaine Pencillin 4LACS IV IP. (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Pencillin Procaine 20 LACS IV IP. (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3,
Benzathene Pencillin 6 LACS IV IP. (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Benzathene Pencillin 12 LACS IV IP. (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Benzathene Pencillin 24 LACS IV IP. (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Sulphadiazine 500mg IP.	Tablet	1, 2, 7
Sulphadimidine 500mg IP.	Tablet	1, 2, 3
Trimethoprim 80mg     400 mg Sulphamethoxazole <sup>^</sup> Bp/IP.	Tablet	1, 2, 3
Trimethoprim 40mg Sulphamethoxazole 200mg	Tablet	1, 2, 3
Trimethoprim 40mg Sulphamethoxazole 200mg/5ml	Suspension	1, 2, 3
Methenamine mandalate 0.5mg USP.	Tablet	1, 2, 3

### 18.3 ANTI-TB

Ethambutol 200mg IP	Tablet	1, 2, 3
Ethambutol 400mg IP	Tablet	1, 2, 7
Ethambutol 600mg IP	Tablet	1, 2, 3
Ethambutol 800mg IP	Tablet	1, 2, 3
Isoniazid 100mg IP	Tablet	1, 2, 3
Isoniazid 300mg IP	Tablet	1, 2, 3
Rifampicin 150mg IP	Capsule	1, 2, 3



Item Name (1)	Formulation (2)	Levels (3)
Rifampicin 300mg IP	Capsule	1, 2, 3
Rifampicin 450mg IP	Capsule	1, 2, 3
Rifampicin 100mg/ml IP	Syrup	1, 2, 3
Streptomycin 1mg IP (100 VIAL IN CBB WITH HCP).	Injection	1, 2, 3
<b><u>ANTI-LEPROSY</u></b>		
Clofazimine 100mg IP.	Capsule	1, 2, 3
Clofazimine 50mg	Capsule	1, 2, 3
<b><u>ANTI-AMOEBIAC</u></b>		
Metronidazole 5MG/ML 100ML in Aqueous Base BP. (100 BOTTLES IN CBB WITH HCP)	Injection/IV	1, 2
Metronidazole Benzoxylate Suspension Equivalent to 200mg/5ml Metronidazole	Suspension	1, 2, 3
Metronidazole 200mg BP/IP	Tablet	1, 2, 3
Metronidazole 400mg BP/IP	Tablet	1, 2, 3
Trinidazole	Injection	
Tinidazole 300mg	Tablet	1, 2, 3
Tinidazole 500mg	Tablet	1, 2
Metochlorpramide HCL 10mg BP	Tablet	1, 2
Metochlopramide HCL 5mg/5ml	Liquid	1, 2
Metochlopramide HCL 5mg/ml (25 AMPS IN CBB WITH HCP)	Injection	1, 2,
Domperidon 10mg	Tablet	1

HORMONES

1	Injection	Triamcinolone Acetonide IM 40mg/ml USP. (Cortico Steroids)
1, 2, 3	Injection	Dexamethasone 4mg/ml IP. (100 VIALS IN CBB WITH HCP)
1, 2	Injection	Hydroxy progesterone 250mg/ml USP
1, 2, 3	Injection	Oxytocin 5 IU/ml IP. (100 AMPS IN CBB WITH HCP)
1	Cream	Dienestrol Cream (Cream Base) (0.01% W/W with Applicator USP. 25 Tubes in CBB)
1, 2, 3	Tablet	Methyl Ergometrine 0.125mg IP
1, 2, 3	Injection	Methyl Ergometrine 0.2mg/ml IP (100 AMPS IN CBB WITH HCP)

OBSTETRIC

1, 2, 3	Tablet	Diethyl carbamazine Citrate 100mg IP/BP/USP.
1, 2, 3	Tablet	Diethyl carbamazine Citrate 50mg IP/BP/USP.

7 ANTI-FILARIAL

1, 2, 3	Tablet	Sulpadoxine 500mg Pyrimethamine 35mg
1, 2, 3	Tablet	Primaquine 2.5mg IP
1, 2, 3	Tablet	Primaquine 7.5mg BP.
1, 2, 3	Tablet	Chloroquine 250mg BP.
1, 2, 3	Injection	Chloroquine 250mg/AMP IP/BP. (100 AMPS IN CBB WITH HCP)

6 ANTI-MALARIAL

Item Name	(1)	Formulation	(2)	Levels	(3)
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Item Name (1)	Formulation (2)	Levels (3)
Trimacinolone Acetonoides 10mg/ml USP (Intra Articular Cortico Steroid)	Injection	1
Prednisalone 5mg IP	Tablet	1, 2, 3
Prednisalone 10mg IP	Tablet	1, 2
Prednisalone 20mg IP	Tablet	1
Thyroxine Sodium 100mg IP	Tablet	1, 2, 3
Stilbesterol Diphosphate 100mg	Capsule	1, 2
Stilbesterol Diphosphate 250mg	Injection	1, 2
<b>21. <u>VACCINES</u></b>		
Tetanus Toxoid 10 doses IP/BP (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
<b>22. <u>SERA</u></b>		
Anti "A" Sera IP	Sera	1, 2, 3
Anti "B" Sera IP	Sera	1, 2, 3
Anti "AB" Sera	Sera	1, 2, 3
Anti "D" Sera (monoclonal)	Sera	1, 2, 3
Coombs Sera	Sera	1, 2, 3
Australia Antigen Kits for Elisa method	Antigen	1
Australia Antigen Kits for Slide Test	Antigen	1, 2, 3
VDRL Kits of Slide Test	Diagnosits	1, 2, 3
<b>23. <u>ANTI-HELMINTHICS</u></b>		
Me <sup>b</sup> endazole 100mg	Tablet	
Me <sup>b</sup> endazole 100mg/5ml	Suspension	

Item Name (1)	Formulation (2)	Levels (3)
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24. ANTI-CANCER

Cyclophosphomide 50mg/VIAL	Injection	1
Cyclophosphomide 100mg/VIAL	Injection	1
Cyclophosphomide 200 mg/VIAL	Injection	1
Cyclophosphomide 500mg/VIAL	Injection	1
Cyclophosphomide 50mg IP	Tablet	1
Cyclophosphomide 100mg	Tablet	1
Azathioprine 25 mg	Tablet	1
Mercaptopurine 50mg BP.	Tablet	1
Vincristine Sulphate 1mg/VIAL	Injection	1
Doxurubicin HCL 10mg USP.	Injection	1
Mitomycin C 2mg/ VIAL USP.	Injection	1
Mitomycin c 10mg/ VIAL USP.	Injection	1
Asperginase 1000 KU/VIAL Containing Asperginase 10000 KU/VIAL	Injection	1
Bleomycin 15mg Usp.	Injection	1
Actinomycin D (containing Actinomycin 500 mcg and Mannitol 20mg USP.	Injection	1
Cisplatinum 10mg/VIAL	Injection	1
Flurouracil 250gm	Capsule.	1
Methotrexate 50mg/2ml BP.	Injection	1
Methotrexate 2.5mg Tabs. BP.	Tablets	1
Methotrexate 5mg/ml Intrethecal	Injection	1
Flurouracil 50mg/ml IP/USP.	Injection	1
5-Flurouracil 250mg/5ml/ USP.	Injection	1



Item Name (1)	Formulation (2)	Levels (3)
Chlorambucil 2mg BP.	Tablet	1
Chlorambucil 5mg BP.	Tablet	1
Melphalan 2mg BP.	Tablet	1
Melphalan 5mg BP.	Tablet	1
Thio-Tepa 15mg USP.	Injection	1
Thioguanine 40mg BP.	Tablet	1
Calcium Leucovorin 3 mg/ml. USP.	Injection	1
Calcium Leucovorin 50 mg	Tablet	1
Procarbazine 50 mg	Capsule	1
Hydroxy Urea 500 mg	Capsule	1
Tomoxifen 10 mg	Tablet	1

25. HOEMOPOIETIC

Ferrous Sulphate 200mg IP Sugar coated	Tablet	1, 2, 3
Ferrous Fumarate 200mg IP	Tablet	1, 2, 3
Iron-dextran 50mg/ml Im/IV (100 AMPS in CBB WITH HCP) IP	Injection	1, 2, 3
Iron-dextran 50mg/ml 10ml +1ml dual Pack	Injection	1, 2, 3

6. VITAMINS AND MINERALS

Calcium Gluconate 10% IV IP (50 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Calcium Gluconate 500mg IP/BP.	Tablet	1, 2, 3
Vitamin-K 10mg/ml IP. (100 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Folic Acid 5mg BP	Tablet	1, 2, 3

Item Name (1)	Formulation (2)	Levels (3)
Vitamin-A in Aqueous Base - 50,000 IU/ml USP. (100 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Vitamin A 50,000 IU.	Tablet	1, 2, 3
Vitamin A 50,000 IU/ml in Aqueous Base	Drops	1, 2, 3
Vitamin-B Complex NFI (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Vitamin B Complex-Therapeutic NFI	Tablet	1, 2, 3
Vitamin-B Complex Therapeutic NFI	Drops	1, 2, 3
Vitamin-B1-33mg B6-33mg B12-33.3mcg/ml (50 AMPS IN CBB WITH HCP)	Injection	1, 2
Riboflavin Vitamin B2 20mg	Tablet	1, 2
Vitamin C 500mg/5ml NFI (50 AMPS IN CBB WITH HCP)	Injection	1, 2
Vitamin C 100mg/IP.	Tablet	1, 2, 3

27. IV FLUIDS

Dextrose 5% IV IP (Packing in CBB)	Injection-IV	1, 2, 3
Dextrose 10%IV IP (Packing in CBB)	Injection-IV	1, 2, 3
Dextrose 25%IV IP (50 AMPS IN CBB WITH HCP)	Injection-IV	1, 2
Dextrose 50%IV IP (50 AMPS IN CBB WITH HCP)	Injection-IV	1, 2
Electrolyte Gastric Replacement Solution with 5% Dextrose	Injection-IV	1, 2
Electrolyte Maintenance Solution with 5% Dextrose	Injection-IV	1, 2
Electrolyte Maintenance Paediatric Solution with 5% Dextrose	Injection-IV	1, 2



Item Name (1)	Formulation (2)	Levels (3)
Potassium Chloride 15% W/V USP/BP	Injection	1, 2
Sodium Bicarbonate 7.5% W/V	Injection	1, 2, 3
Sodium Chloride 0.9% IP	Injection-IV	1, 2, 3
Normal Saline IP, 25 ml	Injection-IV	1, 2, 3
Sodium Chloride with Dextrose	Injection-IV	1, 2, 3
Sodium Lactate-Compound (Molar-Lactate) IP.	Injection-IV	1, 2, 3
Dextran 40 IN Normal Saline IP.	Injection-IV	1, 2
Plasma Volume Substitute Containing 3.5% degraded Gelatine	Injection-IV	1, 2
Low Molecular WT Dextran 540ml	Injection-IV	1, 2
Mannitol 10% IV IP.	Injection-IV	1, 2, 3
Mannitol 10% IV IP	Injection-IV	1, 2, 3
Mannitol 20% IV IP.	Injection-IV	1, 2, 3
Water for Injection (in Machine made AMPS) IP.	Injection	1, 2, 3

28. ANTI-ASTHMATIC

Salbutamol 4mg IP.	Tablet	1, 2, 3
Salbutamol 2mg/5ml	Syrup	1, 2, 3
Salbutamol Sulphate 100mcg/mt (200 Metered Doses)	Inhaler	1, 2
Terbutalin 1.5mg/ml	Syrup	1, 2, 3
Terbutalin 2.5mg/ml USP.	Tablet	1, 2, 3
Terbutalin 0.5mg/ml (50 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Aminophylline 2.5% IV IP. (50 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Theophylline 100mg IP/BP.	Tablet	1, 2, 3

Item Name (1)	Formulation (2)	Levels (3)
29. <u>SKIN</u>		
Calamine Lotion BP.	Liquid	1, 2, 3
Glycerin IP.	Liquid	1, 2
Benzyl Benzoate Application 25%	Emulsion	1, 2, 3
Gamma Benzene Hexachloride 1%	Liquid	1, 2, 3
Certrimide Cream BP.	Ointment	1, 2, 3
Silver Sulphadiazine 1%	Cream	1, 2, 3
Betamethasone 0.1% (Skin)	Ointment	1, 2, 3
Betamethasone Valerate 0.12% with chionoform 3% Base.	Cream	1, 2
Betamethasone with Neomycin Sulphate	Cream	1, 2
Dexamethasone Acetate 0.1% and Framycetin Sulphate cream 1%	Cream	1, 2
Clobetasol Butyrate	Ointment	1, 2
Nitrofurazone 0.2% water soluble Base (skin) USP.	Cream	1, 2, 3
Povidone iodine USP 5% W/W (0.5% in cream base)	Cream	1, 2
Povidone Lotion USP 5%	Lotion	1, 2, 3
Paraffin White Soft IP. Ointment Base	Ointment	1, 2, 3
Podophyllum Resin IP.	Powder	1, 2
Potassium Permanganate IP. (In Amber coloured bottle)	Crystals	1, 2, 3
Psoralen 5mg	Tablet	1, 2
Whitfield Ointment with Benzoic Acid 6%	Ointment	1, 2, 3
Sulphur Skin Ointment 10% IP.	Ointment	1, 2, 3



Item Name (1)	Formulation (2)	Levels (3)
Coalter ointment USP.	Ointment	1, 2
Turpentine Liniment IP.	Liquid	1, 2, 3
Zinc Oxide (skin) 15% IP.	Ointment	1, 2, 3
Benzoin CO TR IP.	Liquid	1, 2, 3
Gentian Violet 2% USP. Topical	Solution	1, 2, 3
Gentian Violet 1% USP. Topical	Solution	1, 2, 3
Hydrogen Peroxide (in unbreakable dark Bottle) IP.	Liquid	1, 2, 3
Iodine-Weak Solution TR-IP	Liquid	1, 2, 3
Mythyl Salicylate IP. 4% W/W Mephensin IP %% Iodine IOP 5% W/W	Ointment	1, 2, 3
Polymyxin B Sulphate 5000 Unit with Bacitracin 400 units and Neomycine 3400 Units/gm IP/BP.	Powder	1, 2, 3
Framycetin Sulphate 1% W/W IP.	Ointment	1, 2, 3

30. EYE/EAR

Chloraphenical 5% (Ear) BP.	Drops	1, 2, 3
Sulphacetamide 20% EAR BP	Drops	1, 2, 3
Chloramphenicol 1% (EYE) IP/BP	Ointment	1, 2, 3
Chloramphenicol 0.5% EYE DROPS	Drops	1, 2, 3
Framycetin Sulphate IP 5MG	Drops	1, 2, 3
Dexamethasone Sod. Meta sulphobenzoate 0.116% W/V Framycetin	Drops	1
Chloraphenical Applicaps 1% (EYE) Sterile	Ointment	1, 2, 3
Gentamicin 0.3% W/V USP	Drops	1, 2, 3
Gentamicin 1% (EYE) USP	Ointment	1, 2, 3

Item Name (1)	Formulation (2)	Level (3)
Sulphacetamide 10% (EYE) USP	Drops	1, 2,
Phenyl Ephrine HCL 5%	Drops	1, 2
Phenyl Ephrine HCL 10%	Drops	1, 2
Tetracyclin 1% (EYE) USP	Ointment	1, 2,
Fluorescin Corneal stain strips (OPTH) USP.	OPTH Strips	1
Homotropine Hydrochloride 2% Eye drops USP. Sterile	Eye Drops	1, 2
Fluorescein Sodium 10% USP.	Injection	1
Cyclopentolate HCL 1% Eye BP.	Eye Drops	1, 2
Betamethasone 0.1% with Neomycine (eye) Sterile	Ointment	1, 2
Betamethasone 0.1% with Neomycine 0.5% (eye) NFI Sterile.	Drops	1, 2
Philocarpine 2% (eye) NFI/BP.Sterile	Drops	1, 2
Philocarpine 4% (eye) BP.Sterile	Drops	1, 2
Atropine 1% (eye) IP.	Ointment	1, 2



## II. ACCESSORIES

Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
01.	Cotton wool, Absorbable IP, 500g.Nett	Dressing	1, 2, 3
02.	Sterilised medicated paraffin gauze containing Framycetin 500 Units/gm and Neomycin Sulphate IP 0.35% W/W 10cms X 10cms.	Dressing	1, 2, 3
03.	Gelatin Sponge-Absorbable 10mm X 10mm X 10mm (Dental) USP Packing in CBB.	Dressing	1, 2
04.	Gelatin Sponge-Absorbable 70mm X 50mm X 1mm (nasal) Packing in CBB	Dressing	1, 2
05.	Gelatin Sponge- Absorbable 80mm X 25mm X 7mm (Gynec.)USP Packing in CBB	Dressing	1, 2
06.	Gelatin Sponge-Absorbable 70mm X 50 mm (general) USP Packing in CBB	Dressing	1, 2
07.	Plaster-Adhesive Zinc Oxide 20% - 10cm X 10M USP.	Dressing	1, 2, 3
08.	Transparent Hypo Allergic Plaster having Bi-directional tear, size 5cms X 9.14MTS	Dressing	1, 2
09.	Porous elastic Adhesive Bandage 8cms X 4MTS	Dressing	1, 2
10.	Transparent Hypo Allergic Plaster having Bi-directional tear size 7.5cms X 9.14MTS	Dressing	1, 2
11.	Plaster of Paris IP.	Powder	1, 2, 3
12.	Drip set-polythene for IV administration- sterilised with Gamma irradiation - Batch certificate from B.A.R.C./K.M.I.O.	Appliance	1, 2, 3
13.	Disposable Blood collection bags (CPDA Solution) 350 ml capacity	Bags	1, 2

Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
14.	Disposable Blood collection double bags (CPDA Solution) 350 ml capacity	Bags	1, 2
15.	Disposable Blood Lancets	Lancet	1, 2,
16.	Disposable Blood Drawing Sets	Drawing Set	1, 2,
17.	Hypodermic Needles SS ISI 1.5" X 18	Appliance	1, 2,
18.	Hypodermic Needles SS ISI 1.5" X 20	Appliance	1, 2,
19.	Hypodermic Needles SS ISI 1.5" X 22	Appliance	1, 2,
20.	Hypodermic Needles SS ISI 1.5" X 24	Appliance	1, 2,
21.	Hypodermic Needles SS ISI 1" X 18	Appliance	1, 2,
22.	Hypodermic Needles SS ISI 1" X 20	Appliance	1, 2,
23.	Hypodermic Needles S.S. ISI 1" X 22	Appliance	1, 2,
24.	Hypodermic Needles S.S. ISI 1" X 24	Appliance	1, 2,
25.	Disposable Needles 20G X 1"	Appliance	1, 2
26.	Disposable Needles 22 G X 1"	Appliance	1, 2
27.	Disposable Needles 24 G X 1"	Appliance	1, 2,
28.	Disposable Needles 26G X 1"	Appliance	1, 2,
29.	Syringe 200 All Glass Interchangeable ISI.	Syringe	1, 2,
30.	Disposable Syringe 2.5ml	Syringe	1, 2
31.	Syringe 500 All Glass Interchangeable ISI	Syringe	1, 2,
32.	Disposable Syringe	Syringe	1, 2
33.	Syringe 1000 all glass Interchangeable ISI	Syringe	1, 2,
34.	Disposable Syringe 10 ml	Syringe	1, 2,
35.	Syringe 2000 all glass Interchangeable ISI	Syringe	1, 2,



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
36.	Clinical Thermometer Centigrade ISI Packing in plastic tube with cap.	Appliance	1, 2, 3
37.	Rectal Thermometer Centigrade Packing in plastic tube with cap.	Appliance	1, 2, 3
38.	Gloves Surgical 6 size ISI Each Pair in Plastic cover and 25 pair in CBB	Appliance	1, 2
39.	Disposable Gloves 6 size ISI Each Pair in Plastic cover and 25 pair in CBB	Appliance	1, 2
40.	Gloves Surgical 6.5 size ISI Each Pair in Plastic cover and 25 pair in CBB	Appliance	1, 2
41.	Disposable Gloves 6.5 size ISI Each Pair in Plastic cover and 25 pair in CBB	Appliance	1, 2
42.	Gloves Surgical 7 size ISI Each Pair in Plastic cover and 25 pair in CBB	Appliance	1, 2
43.	Disposable Gloves 7 size ISI Each Pair in Plastic cover and 25 pair in CBB	Appliance	1, 2
44.	Gloves Surgical 7.5 size ISI Each Pair in Plastic cover and 25 pair in CBB	Appliance	1, 2
45.	Examination Gloves Size 6 Not for surgical procedures 25 pairs in plastic bag in carton	Appliance	1, 2, 3
46.	Examination Gloves Size 6.5 Not for surgical procedures 25 pairs in plastic bag in carton	Appliance	1, 2, 3
47.	Examination Gloves Size 7.5 Not for surgical procedures 25 pairs in plastic bag in carton	Appliance	1, 2, 3
48.	Disposable Gloves size 7.5 ISI Each pair in plastic cover and 25 pairs in CBB	Appliance	1, 2

Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
49.	Sheeting waterproof mackintosh 36" width	Sheeting	1, 2, 3
50.	Acid Benzioc Powder IP 450gm Bleaching Powder GR 2 33% Chlorine ISI (Laminated HDPE Packing)	Powder	1, 2, 3
51.	Chlorine tablet 2.5gm Containing 300mg Chlorine	Tablet	1, 2, 3
52.	Denture Base Material Heat curing ISI ADAS	Powder	1
53.	Denture Base Material Cold curing ISI ADAS	Powder	1
54.	Denture Impression Material ISI ADAS	Powder	1
55.	Gum Paint-TRS Aconite, Belladonna, Iodimitis, Benzo in Methopip	Gum Paint	1
56.	Mercury Ip	Liquid	1
57.	Silicate Cement ISI/ADAS Glass ionomer filling material powder 15 gms and Liquid 10 gms	Cement	1
58.	Dental Prophylaxis paste	Paste	1
59.	Sterile Absorbant Dental Points	Dental-point	1
60.	Dental Restorative Universal and Catalyst. Catalyst Paste-1, Universal Paste-1, Mixing stick-35	Appliance	1
61.	Dental Restorative Acid Etch Bond Technique catalyst and Universal Resins Etching liquid 1 Brush Handle 100 disposable brushes and 100 disposable mixing wells.	Appliance	1
62.	Dental Floss	String	1
63.	Dental Stone Plaster ADAS	Powder	1
64.	Mercury triple Distilles for Dental Use ISI/ADAS	Mercury	1



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
65.	Silver Amalgum Alloy with 60% Silver ISI	Powder	1
66.	Orthodontic Wire Dentaurem 0.6 0.7, 0.8, and 0.9 mm gauge. Plastic packing in CBB	Wire	1
67.	Arch Wire for Orthodontic purpose gauge 0.014, 0.016, 0.018 & 0.20. Plastic packing in CBB	Wire	1
68.	Full Teeth sets Complete Square Mould, Tapering Mould avoid Mould (shade stellan 1, 2, 3, 4, 5, or equivalent	Mould	1
69.	Anterior Teeth Sets (lower and Upper Square and Tapering Mould Stellan Shades 1, 2, 3, 4, 5, or equivalent	Teeth	1
70.	Posterior Teeth sets (Different Shades and Sizes)	Teeth	1
71.	Calcium Hydroxide - Dycal catalyst 13gm Base 11gm 1 PAD in CBB Packing	Paste	1
72.	Dental Carving wax Block 4cms X 1.5cms X 1.5cms	Wax	1
73.	Pumice Powder for Polishing	Powder	1
74.	Zinc Oxide euginol Impression Paste. Zinc Oxide Paste 125gm Euginol Paste 85gms Mixing Pad 1. ISI.	Paste	1
75.	Intra Dental Wire Soft 16	Wire	1
76.	Zinc Oxiphosphate Cement ISI/ADAS	Cement	1
77.	Dextrose Anhydrous (injectable Grade) IP/BP free from physical impurities. (PKD. in Double Poly B AG in KEG with Painted Label on KEG.	Powder	1,
78.	Mannitol Powder for Injection in Airtight Polybag IP/USP/BP Double Polybag 0.2mm thickness, sealed, painted label to be affixed with batch No.	Powder	1,

Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
79.	Sodium chloride (INJ Grade) IP free from physical impurities PKD in airtight 0.2mm Polybag sealed in carton.	Powder	1, 2
80.	Sodium Citrate IP. (INJ Grade) PKD in Ploybag in Plastic Bottles.	Powder	1, 2
81.	Bottle-Approx 72 mm Dia 165mm HT. 38.5mm Screw neck USP Type 1.	Glass Bottle	1, 2
82.	Bottle-Approx 79.5mm Dia 210mm HT 38.5mm screw neck USP Type 1.25 Bottle in CBB with HCP. Overflow capacity 665ml USP.	Glass Bottle	1, 2
83.	Cap Screw Aluminium with Centre open for manual srew sealing screw (Neck Bottles to fixing the rubber plugs USP (Packing in CBB)	Closure Screw	1, 2
84.	Foil Seals Aluminium Assorted colours for fixing and sealing over both screw type and sealing Type Aluminium Caps (Packing in CBB with Embosemen T "Government of Karnataka".	Closure	1, 2
85.	Rubber Plugs for 540ml USP Type-1 Bottles of smooth surface alround with one hole for infusion needle and other for air inlet on top ISI packing in polybag in corrugated CBB.	Closure	1, 2
86.	Sodium Iodide 1% Solution W/V (Disinfectant and Bactericidal Packed in CBB)	Liquid	
87.	IV Cannula Set (made of Teflon) Hinge Type biway connection at the top. Sizes 14, 16, 18, 20, 22 Gammairradiation certificate from B.A.R.C./K.M.I.O. Packing in CBB.	Appliance	
88.	Autoclave Indicator Labels 2.5cms X 5cms	Labels	



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
89.	Skin Contact Jelly Ultra Sound	Jelly	1, 2
90.	Sterilised Surgical Suture Plain Catgut 2/0 USP.	Suture	1, 2
91.	Sterilised Surgical Suture Plain Catgut 1/0 USP.	Suture	1, 2
92.	Sterilised Surgical Suture Plain Catgut 1 USP.	Suture	1, 2
93.	Sterilised Surgical Suture Plain Catgut 2 USP.	Suture	1, 2
94.	Sterilised Surgical Suture Plain Catgut 3 USP.	Suture	1, 2
95.	Sterilised Surgical Suture Chromic Catgut 3/0 USP.	Suture	1, 2
96.	Sterilised Surgical Suture Chromic Catgut 2/0 USP.	Suture	1, 2
97.	Sterilised Surgical Suture Chromic Catgut 1/0 USP.	Suture	1, 2
98.	Sterilised Surgical Suture Chromic Catgut 1 USP.	Suture	1, 2
99.	Sterilised Surgical Suture Chromic Catgut 2 USP.	Suture	1, 2
100.	Sterilised Surgical Suture Straight Needle Chromic 2/0 USP. Round Body 60mm.	Suture + Needle	1, 2
101.	Sterilised Surgical Suture Straight Needle Chromic 2/0 Round Body 45mm USP.	Suture + Needle	1, 2
102.	Sterilised Surgical Suture Straight Needle Chromic 2/0 Round Body 60mm USP.	Suture + Needle	1, 2
103.	Sterilised Surgical Suture Straight Needle Chromic 1/0 Round Body 45mm USP.	Suture + Needle	1, 2

Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
104.	Sterilised Surgical Suture Curved Needle Chromic 4/0 Round Body 16mm USP.	Suture + Needle	1, 2
105.	Sterilised Surgical Suture Curved Needle Chromic 3/0 Round Body 22mm USP.	Suture + Needle	1, 2
106.	Sterilised Surgical Suture Curved Needle Chromic 2/0 Round Body 65mm USP.	Suture + Needle	1, 2
107.	Sterilised Surgical Suture Curved Needle Chromic 2/0 Round Body 45mm USP.	Suture + Needle	1, 2
108.	Sterilised Surgical Suture Curved Needle Chromic 2/0 Round Body 30mm USP.	Suture + Needle	1, 2
109.	Sterilised Surgical Suture Curved Needle Chromic 1/0 Round Body 45mm USP.	Suture + Needle	1, 2
110.	Sterilised Surgical Suture Curved Needle Chromic 1/0 Round Body 30mm USP.	Suture + Needle	1, 2
111.	Sterilised Surgical Suture Curved Needle Chromic 1 Round Body 45mm USP.	Suture + Needle	1, 2
112.	Sterilised Surgical Suture Curved Cutting Needle Chromic 1 60mm USP.	Suture + Needle	1, 2
113.	Sterilised Surgical Suture Curved Cutting Needle Plain 4/0 16mm USP.	Suture + Needle	1, 2
114.	Sterilised Surgical Suture Curved Cutting Needle Plain 3/0 16mm USP.	Suture + Needle	1, 2
115.	Sterilised Surgical Suture Curved Rev. Cutting Needle Chromic 6/0 Round Body 8mm USP.	Suture + Needle	1, 2



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
116.	Sterilised Surgical Suture Curved Blunt Needle Chromic 1 Round Body 63mm USP.	Suture + Needle	1
117.	Sterilised Surgical Suture 1/2 Circle Chromic 1 Heavy 45mm Needle USP.	Suture + Needle	1, 2
118.	Sterilised Surgical Suture 1/2 Circle Trocar Point 1 40mm Needle USP.	Suture + Needle	1, 2
119.	Sterilised Surgical Suture 1/2 Circle Trocar Point Cutting 2 Chromic 40mm Heavy Needle USP.	Suture + Needle	1, 2
120.	Sterilised Surgical Suture 1/2 Circle Round Body 1/0 Chromic 40mm Heavy Needle USP.	Suture + Needle	1, 2
121.	Sterilised Surgical Suture 1/2 Circle Round Body 3/0 Chromic 25mm Needle USP.	Suture + Needle	1, 2
122.	Sterilised Surgical Suture 1/2 Circle Round Body 2/0 Chromic 45mm Needle USP.	Suture + Needle	1, 2
123.	Sterilised Surgical Suture 1/2 Circle Round Body 1/0 Chromic 45mm Needle USP.	Suture + Needle	1, 2
124.	Sterilised Surgical Suture 1/2 Circle Round Body 1/0 Chromic 30mm USP.	Suture + Needle	1, 2
125.	Sterilised Surgical Suture 1/2 Circle Mayo's Chromic 1/0 45mm Heavy Needle USP.	Suture + Needle	1, 2
126.	Sterilised Surgical Suture 1/2 Circle Reverse Cutting Chromic 50mm Needle USP.	Suture + Needle	1, 2
127.	Sterilised Surgical Suture 1/2 Circle Reverse Cutting and Round Body 2/0 Chromic 36mm Needle USP.	Suture + Needle	1, 2

S1. No.	Item Name (1)	Formulation (2)	Levels (3)
128.	Sterilised Surgical Suture 5/8 Circle Round Body Chromic 1/0 55mm Needle USP.	Suture + Needle	1, 2
129.	Sterilised Surgical Suture 3/8 Circle Round Body Chromic 1/0 45mm Needle USP.	Suture + Needle	1, 2
130.	Sterilised Surgical Suture 8/0 60mm Curved Micro Point USP. Round Body 45mm USP.	Suture + Needle	1
131.	Black Virgin Silk, Spatulated 8/0 60mm Curved Micro Point Double Needle USP.	Suture + Needle	1
132.	Black Virgin Slik, Spatulated 8/0 60mm Curved Micro Point Double Needle USP.	Suture + Needle	1
133.	Mersilk Black Braided Silk 4/0 16mm Curved Round Body Needle USP.	Suture + Needle	1, 2
134.	Virgin Black Braided Silk 8/0 8mm 1/2 Circle Reverse Cutting Micro Point Needle USP.	Suture + Needle	1, 2
135.	Mersilk Bck Braided Silk 6/0 8mm 1/4 Circle Spatulated Micro Point Needle USP.	Suture + Needle	1, 2
136.	Mersilk Black Braided Silk 4/0 20mm 1/2 Circle Round Body Needle USP.	Suture + Needle	1, 2
137.	Mersilk Black Braided Silk 3/0 25mm 1/2 Circle Round Body Needle USP.	Suture + Needle	1, 2
138.	Mersilk Black Braided Silk 2/0 30mm 1/2 Circle Round Body Needle USP.	Suture + Needle	1, 2
139.	Mersilk Black Braided Silk 1/0 30mm 1/2 Circle Round Body Needle USP.	Suture + Needle	1, 2
140.	Mersilk Black Braided Silk 2/0 50mm 1/2 Straight Round Body Needle USP.	Suture + Needle	1, 2



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
141.	Green Size 2, Coated Braided Polyester with 45mm Heavy Tapercut Needle USP.	Suture + Needle	1, 2
142.	Sutopak Pre Cut Suture in Sterile over wrap packs 2/0 X 2 X 75cms USP.	Suture + Needle	1, 2
143.	Sutopak Pre Cut Suture in Sterile over wrap packs 1 X 2 X 75cms USP.	Suture + Needle	1, 2
144.	Sutopak Pre Cut Suture in Sterile over wrap packs 3/0 10 X 75cms USP.	Suture + Needle	1, 2
145.	Braided Mersilelne Suture 5/0 8mm 1/4 Circle micro Point Spatulated Double Needle USP.	Suture + Needle	1, 2
146.	Braided Coated Mersilelne Suture 4/0 8mm 1/4 Circle Micro Point Spatulated Needle USP.	Suture + Needle	1, 2
147.	Braided mersilelne Suture 2/0 30mm 1/2 Circle Round Body Needle USP.	Suture + Needle	1, 2
148.	Synthetic Absorbable Suture 4/0 16mm 1/2 Circle Tapercut Heavy Needle USP.	Suture + Needle	1, 2
149.	Synthetic Absorbable Suture 2/0 40mm 1/2 Circle Round Body Needle USP.	Suture + Needle	1, 2
150.	Synthetic Absorbable Suture 1/0 40mm 1/2 Circle Round Body Needle USP.	Suture + Needle	1, 2
151.	Synthetic Absorbable Suture 1 40mm 1/2 Circle Round Body Heavy Needle USP.	Suture + Needle	1, 2
152.	Synthetic Absorbable Suture 3/0 36mm 1/2 Circle Taper Cut Needle USP.	Suture + Needle	1, 2
153.	Synthetic Absorbable Suture 3/0 17mm 1/2 Circle Taper Cut Needle USP.	Suture + Needle	1, 2

Sl. No.	Item Name (1)	Formulation (2)	Level (3)
154.	Synthetic Absorbable Suture 1/0 40mm 1/2 Circle Taper Cut Needle USP.	Suture + Needle	1.
155.	Synthetic Absorbable Suture Violet Size 1 90cms 1/2 Circle, 40mm Tapercut Heavy Needle USP.	Suture + Needle	1.
156.	Synthetic Absorbable Suture Violet Size 1 90 cms 1/2 Circle, Reverse Cutting 45mm Heavy Needle USP.	Suture + Needle	1.
157.	Synthetic Absorbable Suture Violet Size 4/0 70cms 1/2 Circle Round Body 16mm Needle USP.	Suture + Needle	1.
158.	Synthetic Absorbable Suture Violet Size 5/0 45cms 1/2 Circle Round Body 16mm Double Needle USP.	Suture + Needle	1.
159.	Synthetic Absorbable Suture Undyed Braided Size 2/0 76cms Straight Cutting 60mm Needle USP.	Suture + Needle	1.
160.	Monofilament Nylon Suture 10/0 6mm curved Spatulated Micro Point Needle USP.	Suture + Needle	1
161.	Monofilament Nylon Suture 10/0 6mm 3/8 Circle Spatulated Micro Point Double Needle USP.	Suture + Needle	1
162.	Monofilament Nylon Suture 8/0 8mm Curved Reverse cutting Micro Point Needle USP.	Suture + Needle	1
163.	Monofilament Polymade Suture 5/0 12mm Curved Reverse Cutting Needle USP.	Suture + Needle	1.
164.	Monofilament Polymade Suture 2/0 45mm Curved Reverse Cutting Needle USP.	Suture + Needle	1.
165.	Monofilament Polymade Suture 3/0 26mm Curved Cutting USP.	Suture + Needle	1.
166.	Monofilament Polymade Suture 1/0 40mm 1/2 Circle Round Body (Loop Suture) Needle USP.	Suture + Needle	1, 2



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
167.	Monofilament Polymade Suture 1 50mm 1/2 Circle Round Body Heavy (Loop Suture) Needle USP.	Suture + Needle	1, 2
168.	Monofilament Polymade Suture 1/0 40mm 1/2 Circle Heavy Needle USP.	Suture + Needle	1, 2
169.	Monofilament Polymade Suture 1 40mm 1/2 Circle Heavy Needle USP.	Suture + Needle	1, 2
170.	Monofilament Polymade Black Size 1, 100cms 1/2 Circle Reverse, Cutting, 500mm Heavy Needle USP.	Suture + Needle	1, 2
171.	Polypropylene Mesh Size 6cm * 11cm	Mesh	1, 2
172.	Polypropylene Mesh Size 15cm * 15cm	Mesh	1, 2
173.	Polypropylene Mesh Size 30cm * 30cm	Mesh	1
174.	Monofilament Prolene Suture 6/0 13mm Curved Round Body Double Needle USP.	Suture + Needle	1, 2
175.	Monofilament Prolene Suture 3/0 22mm curved Cutting Needle USP.	Suture + Needle	1, 2
176.	Monofilament Prolene Suture 2/0 25mm Taper Cut Needle (90cms Suture) USP.	Suture + Needle	1, 2
177.	Monofilament Prolene Mesh 17cms X 11cms USP.	Mesh	1, 2
178.	Monofilament Prolene Mesh 8.5cms X 11 cms USP.	Mesh	1, 2
179.	Monofilament Prolene Suture 2/0 17mm 1/2 Circle Taper Cut Needle USP.	Suture + Needle	1, 2
180.	Monofilament Prolene Suture 1/0 25mm 1/2 Circle Taper Cut Needle USP.	Suture + Needle	1, 2

Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
<b>X-RAY</b>			
181.	Barium Sulphate - Compound IP.	Powder	1, 2
182.	Barium Sulphate Suspension 95% W/V (Micropaque Suspension for Double Contrast for Gastro Intestinal Tract) IP/BP.	Suspension	1, 2
183.	Sodium Meglumine Amidotrizoate (Iodine Content 60% USP) (10 AMPS IN CBB)	Injection	1, 2
184.	Sodium meglumine Amidotrizoate (Iodine Content 76% USP) (10 AMPS IN CBB)	Injection	1, 2
185.	Iohexol 10ml 180mg/ml (25 AMPS IN CBB WITH HCP)	Injection	1, 2
186.	Iohexol 10ml 240mg/ml (25 AMPS IN CBB WITH HCP)	Injection	1, 2
187.	Iohexol 10ml 300mg/ml (25 AMPS IN CBB WITH HCP)	Injection	1, 2

**NOTE :**

1. Items No. 52 to 76 will be in use where Dental Surgeon is available.
2. Items No. 77 to 87 will be in use where Intravenous fluid preparation facility is available.
3. Items No. 130 to 140 will be in use where Eye/ENT/Plastic Surgery facilities are available.
4. All suture material have expiry dates. Check for some on indenting and on regular basis.
5. Needles and suture material when bought separately are more economical and useful to the surgeons who can use without wasting.
6. There are other Indian Companies apart from Johnson and Johnson who manufacture and market suture material.
7. All synthetic suture material are rarely used and very expensive and need to be given to individual surgeon who use them for accounting. They are not economical to be purchased and stored.

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### III. LABORATORY CHEMICALS

01. Acetic Acid 1% IP
02. Benedict's qualitative reagent  
(20 Bots. in a CB box with Honeycomb partition NFI)
03. Benedict's quantitative solution reagent
04. Xylene - pure.
05. Chloroform A.R.
06. Acetone Extra Pure
07. Paraffin Wax MF 58 degree C to 60 degree C
08. Potassium Aluminium Sulphate purified
09. Haematoxyllin
10. Mercuric Chloride purified
11. Eosin
12. Bismack Brown
13. Light Green
14. Potassium Iodine IP.
15. Formaldehyde
16. Gold Chloride 1gm
17. Activated Charcoal
18. Sodium Bicarbonate
19. Glacial Acetic Acid
20. Methylene Blue
21. Gentian Violet
22. Sodium Chloride
23. Carbol-Fuschin
24. Glycerine



25. Sodium Meta-Bisulphate
26. Potassium Hydrogen Ortho Phosphate
27. Sodium Hydrogen Ortho Phosphate
28. Potassium Di-chromate
29. Concentrated Sulphuric Acid
30. Concentrated Nitric Acid
31. Tri-Sodium Citrate
32. Orange-G
33. Schiff Reagent
34. Neutral Red
35. Sudan III
36. Mercuric Oxide
37. Sodium Thiosulphate
38. Iodine
39. Alcian Blue
40. Phospho-tungstic Acid
41. Liquid Paraffin
42. DFX Mountant
43. Liquid Ammonia
44. Concentrated Hydrochloric Acid
45. Sulpho Salicylic Acid
46. Sodium Nitro Prusside
47. Thrombokinase 10 mg Tablet
48. Silver Nitrate
49. Egg Albumin Flakes
50. Potassium Hydroxide

51. Calcium Chloride
52. Schorr's Solution
53. Drabkin's Solution
54. Glycol Methacrylate
55. Sodium Ethoxide
56. Sodium Methoxide
57. Para-formaldehyde
58. Calcium Acetate
59. Sodium Acetate
60. Sodium Borohydride
61. Acid Fuchsin
62. Basic Fuchsin
63. Ether AR
64. Glacial Acetic Acid AR
65. Sodium Tungstate AR
66. Molybdic Acid AR
67. Copper Sulphate AR
68. Sodium Carbonate AR
69. Sodium Hydroxide AR
70. Tartaric Acid AR
71. Potassium Oxalate AR
72. Sodium Citrate
73. Ammonium Oxalate
74. Ammonium Sulphate
75. Picric Acid AR
76. Ferric Chloride AR
77. Perchloric Acid AR
78. Trichloro Acetic Acid AR

Table 17.2.1 Essential Drug List for 30 to 100 Bed Hospitals

Sl.No.	Item Name	Formulation
1	Atropine sulphate 0.5 mg/ml IP, 1 ml	Inj
2	Valthamate Bromide 8 mg/ml 1 ml	Inj
3	Mephentermine 30 mg/ml IP, 10 ml	Inj
4	Adrenaline 1 IN 1000 BP, 1ml	Inj
5	Heparin 5000 IU/ml IP, 5ml	Inj
5	Pentazocine Lactate 30 mg/ml, 1 ml	Inj
6	Diazepam 10 mg/ 2 ml IP, 2 ml	Inj
7	Suxamethonium Chloride 50 mg/ml, 10 ml	Inj
8	Dexamethasone 4 mg/ml IP, 2ml	Inj
9	Hydrocortisone Sodium Succinate	Inj
10	Insulin 40 iu/ml IP, 10 ml	Inj
11	Frusemide 20 mg/ml IP, 2 ml	Inj
12	Methyl Ergometrine 0.2 mg/ml IP, 1 ml	Inj
13	Oxytocin 5 iu/ml IP, 1 ml	Inj
14	Gentamicin 40 mg/ml IP/BP, 2 ml	Inj
15	Pencillin - Benzyl 5 lacs IU IP	Inj
16	Benzyl Pencillin 10lacs IU IP	Inj
17	Polyvalent anti-snake venom	Inj
18	Dextrose 5 % INJ. IV IP	INJ. IV
19	Aminophylline 2.5 % INJ. IV IP, 10 ml	Inj
20	Ketamine 50 mg/ml USP, 10 ml	Inj
21	Pyridine Aldoxime Methiodide, 20 ml	Inj
22	Lignocaine 2 % W/V plain BP, 30 ml	Inj
23	Thiopentone Sodium 500 mg IP	Inj
<del>24</del>	<del>Analgin 0.5 gm with Benzaphen, 2 ml</del>	<del>Inj</del>
25	Ranitidine 50 mg, 2 ml	Inj
26	Dopamine Hydrochloride 40 mg, 5 ml	INJ. IV
27	Metoclopramide HCL 5 mg/ml, 2 ml	Inj
28	Aqueous solution of Hemocoagul, 1 ml	Inj
29	Aluminium Hydroxide 500mg	Tab
30	Furozolidone 100 mg	Tab
<del>31</del>	<del>Iodo Chlorohydroxy Quinoline</del>	<del>Tab</del>
32	Propranolol 40 mg IP	Tab
33	Spiroinol Actone 25 mg	Tab
34	Acetyl Salicylic Acid 200 mg	Tab
<del>35</del>	<del>Analgin 500 mg/ml USSIP, 30 ml</del>	<del>Inj</del>
<del>36</del>	<del>Analgin 500 mg IP</del>	<del>Tab</del>
37	Paracetamol 500 mg BP/IP	Tab
38	Phenobarbitone 30 mg IP	Tab
39	Phenobarbitone 60 mg IP	Tab
40	Diazepam 5 mg IP	Tab
41	Phenytyon Sodium 100 mg IP	Tab
42	Ibuprofen 400 mg IP	Tab
43	Diclofenac Sodium 50 mg	Tab
44	Indomethacin 25 mg	Tab
45	Hydroxy progesterone 250 mg/ml, 1 ml	Inj
46	Prednisalone 5 mg IP	Tab
47	Insulin Zinc Suspension (Lente)	Inj
48	Glybenclamide 5 mg IP	Tab
49	Frusemide 40 mg IP	Tab
50	Tetracycline 250 mg IP	Caps

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Table 17. Essential Drug List for 30 to 100 Bed Hospitals Continued

Sl.No.	Item Name	Formulation
51	Ampicillin 250d mg IP/BP	Inj
52	Ampicillin 500 mg BP/IP	Inj
53	Amoxicillin 400 mg	Caps
54	Norfloxacin 400 mg	Tab
55	Ciprofloxacin 500 mg	Tab
56	Ciprofloxacin 2 mg/ml	INJ. IV
57	Ampicillin 250d mg IP/BP	Caps
58	Chloramphenicol 250 mg IP	Caps
59	Erythromycin Estolate 250 mg	Tab
60	Pencillin Procaine 20 lacs IU	Inj
61	Benzaphene Pencillin 12 lacs	Inj
62	Sulphamethoxazole 400 mg	Tab
63	Metronidazole 5 mg/ml, 100 ml	INJ. IV
64	Metronidazole 400 mg BP/IP	Tab
65	Metronidazole 100 mg	Tab
66	Tetanus Toxoid 10 doses IP/BP	Inj
67	Anti Rabie Vaccine, 30 ml	Vcc
68	Calcium Gluconate 500 mg IP/BP	Tan
69	Dextrose 25 % INJ. IV IP, 5 ml	INJ. IV
70	Potassium Chloride 15 % W/V USP	Inj
71	Sodium Bicarbonate 7.5 % W/P, 25 ml	INJ. IV
72	Sodium Chloride 0.9 % IP, 540 ml	INJ. IV
73	Sodium Chloride with Dextrose, 540 ml	INJ. IV
74	Sodium Lactate-compound, 540 ml	INJ. IV
75	Salbutamol 4mg IP	Tab
76	Terbutalin 2.5 mg USP	Tab
77	Chlorphenical Applicaps 1 %	Oint
78	Gentamycin 0.3 % W/V USP, 3 ml	Drops
79	Chlorpheniramine Meclate 10 mg, 1 ml	Inj
80	Chlorpheniramine Meclate 4 mg	Tab
81	Chlorohexidine Gluconate 7.5 %, 1 lt	Lqd
82	Benzoin CO TR IP, 450 ml	Lqd
83	Iodine - Weak Solution TR-IP, 450 ml	Lqd
84	Ether - Anaesthetic IP, 500 ml	Lqd
85	Halothane BP, 250 ml	Lqd
86	Lignocaine 5 % W/V (Heavy), 2 ml	Inj
87	Mannitol 20 % INJ. IV IP, 100 ml	INJ. IV
88	Valathamate Bromide 10 mg	Tab
89	Ranitidine 150 mg	Tab
90	Etophylin 169.4 mg Theophylline, 2 ml	Inj
91	Framycetin Sulphate 1 % W/W IP, 100 gm	Oint
92	Metochloropramide	Tab
93	Digoxin 0.25 mg IP	Tab
94	Vitamin B Complex-therapeutic	Tab
95	Vitamin B1 - 33 mg B6 - 33 mg, 3 ml	Inj
96	Benzyl Benzoate application 25 %, 450 ml	Emul
97	Dichlorometaxyleneol 105 % RWC/3, 5 lt	Lqd
98	Formaldehyde IP, 500 ml	Lqd
99	Water for Injection, 5 ml	Inj

Table 17.2.2 List of Drugs for District Hospitals

Injections	Tablets
1. Ketorol	1. <del>Analgin 500 mg</del>
2. Aminophylline	2. Aspirin 150 mg, 300 mg
3. Atropine	3. Paracetamol 500 mg
4. Adrenaline	4. Cap. Ampicillin - 250 mg, 500 mg
5. Botrophase	5. Atenolol 25 mg, 50 mg
6. Benzethene Pencillin 12 Lakhs	6. Tab. Buscopan
7. A S V (Anti snake Venom Serum)	7. <del>Brufen 200 mg, 400 mg</del>
8. Betamethasone 4 mg./ml.	8. B. Complex Therapeutic and Prophylactic
9. Baralgan or Buscopan	9. Multi Vitamin Therapeutic and Prophylactic
10. Vit. 'C' (500 mg)	10. Cap. Chloromycetine 250 mg, 500 mg
11. Calcium Gluconate	11. Tab. CPM 4 mg
12. Chloromycetine	12. Ciprofloxacin 500 mg, 250 mg
13. C. P. 10 Lakhs (Crystalline Penicillin)	13. Digoxin 0.25 mg
14. <del>50 Lakhs</del> 10 Lakhs	14. Diazepam 5 mg
15. Dopamine	15. Diiodohydroxy Quinoline
16. Deriphyllin	16. Deriphyllin retard
17. Dextrose 5%	17. Diclonac Sodium
18. Dexamethasone	18. Euglucon 5 mg, 2.5 mg
19. Ampicillin 500 mg	19. Cap. Tetracycline 250 mg, 500 mg
20. Fructodex (10 Per cent)	20. Tab. Ethambutal 600 mg, 800 mg
21. Dextrose Saline	21. Ferrous Sulphate (300 mg)
22. Haemaccel (450 ml)	22. Tab. Lasix 40 mg
23. Insulin - Plain 10 ml vial	23. Tab. Furazolidine (100 mg)
24. Insulin - Lente 10 ml vial	24. Tab. Folic Acid (5 mg)
25. Lasix	25. Tab. INH 300 mg
26. Metaclopropamide	26. Loparamide
27. Metronidazole	27. Tab. Mebendazole & Albith - 400 mg
28. Normal Saline	28. Magnesium Trisilicate
29. Hydrocortizone Sodium Succinate	29. Tab. Methyl Dopa 250 mg
30. <del>100 mg</del> 100 mg	30. Cap. Nifedipine 5, 10, 20 mg
31. Mannitol 20 %	31. Tab. Prednisolone 5, 10 mg
32. Pro. penicilline (4 Lakhs)	32. Tab. Phenobarbitone Sodium 30 mg, 60 mg
33. Ranitidine	33. Tab. Ranitidine 150mg, 300 mg
34. P <sub>2</sub> am (2-Pyridine Aldoxine Meth-oxide 25	34. Cap. Rifampicin 150 mg, 450 mg
35. Ringer lactate	35. Tab. Salbutamol 2 mg, 4 mg
36. Streptomycine (IG)	36. Tab. Pyrizinamide 750 mg
37. Tetrac ampoule (0.5 cc)	37. Tab. Septan D.S. Co-trimoxazole, DS
38. <del>Strepto penicillin 1/2 gm single dose</del>	38. Tab. Vitamin 'C' 100 mg, 500 mg
39. I. V. Ciprofloxacin 100 ml	39. Tab. Norflaxcin 400 mg
40. Dextrose 25 %, 50 %	40. Metronidazole
41. Diclofenac Sodium	41. Chloroquine
42. Omnatax 500 mg, 1000 mg	42. Erythromycine Estecolate 250 mg
43. Garamycin 80 mg	
44. Inferon F12	
45. Human insulin - Human actrapid	
46. Human insulin - Human mixtard	
47. Phenobarbitone Sodium (Luminal) 200 mg	
48. <del>100 mg</del> ampoules	



Table 17.2.2. Conti...

Skin & STD	Other Tablets
<b>I Ointments</b>	1. Grisovin FP
1. Ledercolt	2. Nizal
2. Eumosome	3. Canesten Vag
3. Tenovate	4. Roxid
4. Diprovate	5. Neoporsalin
5. Dentalene	6. Recolina
6. Diprovate MF	<b>Anaesthetics</b>
7. Dipsalic	1. Inj Thiopentone sodium, 0.5 gm/vial
8. Millicortin-vioform	2. Inj Succinyl scoline, 50 mg/cc-10 ml vial
9. Betagel	<del>3. Inj Paulon (Infar Company), Ampoule</del>
10. Diprovate RD	4. Atracurium (Tracurium), Ampoule
11. Diplene	5. Inj Vekuronium Bromide (Norcuron),
<del>12. Fembesol</del>	6. <del>Ketronil</del> , 50 mg/cc - 10 ml vial
13. Steriderm	7. Inj Pethidine, Ampoule
14. Exel	8. Morphine, Ampoule
15. Elziderm	9. Inj Diazepam, Ampoule
<b>II Anti Fungal Ointment</b>	10. Inj Pentarycine, Ampoule
1. Phytolol	11. Inj Tramadal Hydrochloride (Tramazac), 50
2. Nizral	<del>12. Inj Propofol</del> , Ampoule
3. Canesten	13. Inj Glycopyrrolate, Ampoule
4. Fungitop	14. Inj Neostigmine, 0.5 mg/ml - amp
5. Fumin	15. Inj Phenergan, Ampoule
6. Tinederm	16. Inj Synostamin, Ampoule
7. Candid	17. Inj Ephedrin Hydrochloride, Ampoule
8. Candid B lotion	18. Inj Propionolal, Ampoule
9. Surfaz	19. Halothane, 200 ml bottles
<b>Other Ointments</b>	20. Diethyl ether, 500 ml bottles
1. Cotaryl	21. Inj Lignocaine Hydrochloride, 2 %
2. Aلودerm	22. Inj Lignocaine Hydrochloride, 4 %
3. GAB	23. Inj Lignocaine Heavy, 5 % ampoule
4. Siloderm	24. Inj Sensoracaine, 0.5 % ampoule/ vial
5. Ayur calamine	25. Inj Sensoracaine Heavy, 0.5 % 4 ml
6. Dermical	26. <del>Inj Propofol</del> , tubes
7. Moisturex	27. Lignocaine viscous, bottles
8. Clinade	<b>Emergency Drugs</b>
9. Erytop	1. Inj Adrenaline, ampule
10. Fucidin	2. Inj Lasix, ampoule
11. Ensamycin	3. Inj Mephentine, 30 mg/cc - 10 ml vial
12. Gentamycin	4. Inj Mannitol 10 %, 250 ml bottles
13. Silverex	5. Inj Dopamine, Ampoules
14. Airol	
15. Retino	
16. Persol forte	
<b>Anti Allergic Tablets</b>	
1. Hisnofil	
2. Zetop	
3. Alerid	
4. Rhizine	
5. Faristal Iontabs	
6. Polaramine repetabs	
7. Trexyl 60 mg	



GOVERNMENT MEDICAL STORES, BANGALORE.

Item Name (1)	Formulation (2)	Levels (3)
<b><u>ANTACIDS</u></b>		
Aluminium Hydroxide 500 mg	Tablets	1, 2, 3
Magnesium trisilicate 500 mg	Tablets	1, 2, 3
Cisapride 10 mg	Tablets	1, 2, 3
Ranitidine 150 mg IP	Tablets	1, 2, 3
<b><u>ANTEDOTES</u></b>		
Atropine Sulphate 0.5 mg/ml IP (100 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Diphtheria Antitoxin (ADS) 10,000 IU/AMP IP	Injection	1, 2
Tetanus Antitoxin 10,000 IU/VIAL IP (100 VIAL IN CBB WITH HCP) BP.	Injection	--
Polyvalent Anti-snake venom serum. Lyophilised Active 0.2% Phenol Before Lyphilisation	Injection with distilled water Lyphilisation	1, 2, 3
Pyridine Aldoxime Methiodide (PAM) Antidote for Organo Phosphorus poisoning (10 AMPS IN CBB)	Injection	1, 2, 3
<b><u>ANTI-SPASMODICS</u></b>		
Valathamate Bromide 8mg/ml 1ml AMP (25 AMPS IN CBB WITH HCP.)	Injection	1, 2, 3
Valathamate Bromide 10mg	Tablet	1, 2, 3
Hyoscine Butyl Bromide 20 mg/ml BP. (100 AMPS In CBB WITH HCP)	Injection	1, 2

1. District Hospital    2. 30 - 100 beds hospital    3. Primary Health Centre.



Item Name	Formulation (2)	Levels (3)
<u>LAXATIVE</u>		
Paraffin-Liquid (20 BOTS PKG IN CBB WITH HCP) IP/BF	Liquid	1, 2, 3
<u>ANTI-DIARRHOEAL</u>		
Furozolidone 2% Suspension	Suspension	1, 2, 3
Loperamide 2mg	Tablet	1, 2, 3
<u>CARDIAC</u>		
Digoxin 0.25 mg/ml IP (25 AMPS IN CBB WITH HCP)	Injection	1, 2,
Digoxin 0.25 mg IP	Tablet	1, 2, 3
Diltiazem 30 mg	Tablet	1, 2
Procainamide 100mg/ml IP	Injection	1,2
Propranolol 40 mg IP	Tablet	1, 2, 3
Verapamil Hydrochloride 40 mg IP	Tablet	1, 2
Verapamil HCL 5mg/2ml IP	Injection	1, 2
Dilsopyramide 150mg	Capsule	1
Nefedipine 10mg	Tablet	1, 2
Nefedipine Retard 20 mg USP	Tablet	1, 2
Dihydrallazine 25mg USP	Tablet	1, 2
Metoprolol 50mg	Tablet	1, 2
<u>ANTI-ANGINAL</u>		
Enalapril Maleate 5mg (Strip)	Tablet	1, 2, 3
Glyceryl Trinitrate 0.5mg IP	Tablet	1, 2, 3
Isosorbide 5 Mono Nitrate 20 mg	Tablet	1, 2, 3

Drug Name	Formulation	Levels (3)
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4.2 EMERGENCY

Mephentermine 30mg/ml IP.	Injection	1, 2, 3
Mephentermine 15mg/ml IP.	Injection	1, 2, 3
Adrenaline 1 In 1000 BP.	Injection	1, 2, 3
Epinephrine Hydrochloride 40mg/ml IV BP USP (25 AMPS IN CBS WITH HCP).	Injection-IV	1, 2, 3
Eupivacaine Hydrochloride 100mg/ml BP/USP (100 AMPS IN CBS WITH HCP)	Injection	1, 2

5. ANTI-HYPERTENSIVE

Methyldopa 250mg IP/BP	Tablet	1, 2, 3
Reserpine 1mg/ml USP. (100 AMPS In CBS WITH HCP)	Injection	1, 2
Dihydrochloride 25mg USP		

7. DIURETIC

Furosemide 40mg Furosemide HCL 5mg	Tablet	
Furosemide 20mg/ml IP. (100 AMPS IN CBS WITH HCP)	Injection	1, 2, 3
Chlorthalidone 100mg USP	Tablet	1, 2, 3
Spironolactone 25mg	Tablet	1, 2, 3

8. ANTI-DIABETIC

Phenformin HCL 50mg IP (IN TIMED DISINTEGRATION FORM)	Capsule	1, 2, 3
Insulin 40 IU/ml IP IP (100 VIAL IN CBS WITH HCP)	Injection	1, 2, 3
Insulin-protamin Zinc 40 IU/ml IP (100 VIAL IN CBS WITH HCP)	Injection	1, 2, 3
Insulin Zinc Suspension (Lente) 40 IU/ml (100 VIAL IN CBS WITH HCP)	Injection	1, 2, 3



Item Name (1)	Formulation (2)	Levels (3)
Purified Insulin 40 Units/ml Pork Monocomponent	Injection	1, 2,
Purified Insulin 40 Units/ml Isophane	Injection	1, 2,
Purified Insulin 40 Units/ml zinc suspension	Injection	1, 2,
Purified Insulin 40 Units/ml Mixture of Neutral and Isophane	Injection	1, 2,
Purified Insulin 40 Units/ml Monocomponent - Human	Injection	1,
Glybenclamide 5mg IP	Tablet	1, 2, 3
Tolbutamide 0.5mg IP/BP	Tablet	1, 2, 3
9. <u>ANTI-VERTIGO</u>		
Cinnarizine 25mg	Tablet	1
10. <u>ANTI-COAGULANT</u>		
Heparin 5000 IU/ML IP (100 VIALS IN CBB WITH HCP)	Injection	1, 2
10.1 <u>COAGULANT</u>		
Adrenochrome Monosemi Carbazone 0.75mg/ml (100 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Adrenochrome Monosemicarbazone 0.5mg	Tablet	1, 2, 3
11. <u>ANALGESIC/ANTIPYRETIC</u>		
Paracetamol 125mg/5ml IP/BP.	Suspension	1, 2, 3
Paracetamol 500mg BP/IP.	Tablet	1, 2, 3
Ketorolac Tromethamine 30mg/ml	Injection	1, 2
Pentazocine Lactate 30mg/ml IP. (25 AMPS IN CBB WITH HCP)	Injection	1, 2, 3



Item Name (1)	Formulation (2)	Levels (3)
Buprenorphine HCL 0.3mg/ml	Injection	1, 2
Buprenorphine 0.2mg	Tablet	1
Ketamine 10mg/ml USP	Injection	1, 2
Ketamine 50mg/ml USP	Injection	1, 2
Ibuprofen 400mg BP.	Tablet	1, 2, 3
Ibuprofen 200mg IP	Tablet	1, 2, 3
Diclofenac Sodium 50mg	Tablet	1, 2, 3
Diclofenac Sodium 100mg S.R	Tablet	1, 2, 3
Diclofenac Sodium 25mg/ml	Tablet	1, 2, 3
Diclofenac Sodium 50mg	Injection	1, 2, 3
Diclofenac Diethylammonium EG to Diclofenac Sodium 1% W/V	GEL GEL	1, 2, 3
Indomethacin 25mg	Tablet	1, 2, 3

12. DENTAL

Clove Oil IP (25 BOT IN CBB WITH HCP)	Oil	1, 2, 3
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13. ANTI-EPILEPTIC

Phenobarbitone 200mg/1ml IP (100 AMPS in CBB WITH HCP)	Injection	1, 2, 3
Phenobarbitone 30mg IP	Tablet	1, 2, 3
Phenobarbitone 60mg IP	Tablet	1, 2, 3
Phenytoin Sodium 100mg/ IP	Tablet	1, 2, 3
Phenytoin Sodium 100mg/2ml	Tablet	1, 2, 3
Carbamazepine 200 MG IP	Tablet	1, 2
Sodium Valproate 200mg	Tablet	1, 2
Trihexy Phenidyl Hydrochloride 2mg USP	Tablet	1



Item Name (1)	Formulation (2)	Levels (3)
<b><u>PSYCHOTHERAPEUTIC</u></b>		
Chlorpromazine 25mg/ml IP (100 AMPS IN CBB WITH HCP)	Injection	1, 2
Chlorpromazine 25 mg/ml IP	Tablet	1, 2, 3
Chlorpromazine 100mg/ml IP	Tablet	1, 2, 3
Diazepam 10mg/2ml IP (100 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Diazepam 5mg IP	Tablet	1, 2, 3
Fluzetine HCL 20 mg	Capsule	1, 2
Amitryptiline Hydrochloride 25mg IP/BP	Tablet	1, 2, 3
Trifluperazine 5mg IP	Tablet	1, 2
Fluphenazine Decanoze 25mg/ml BP(100 VIALS IN CBB WITH HCP)	Injection	1
Lithium Carbonate 300mg IP	Tablet	1
<b><u>ANTI-ALLERGIC</u></b>		
Promethazine 2.5% W/V USP (100 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Promethazine 25 mg IP	Tablet	1, 2, 3,
Oxymetazoline 0.05% Aquoves Solution (Nasal Drops)USP (50 BOT IN CBB)sterile	Drops	1, 2, 3
Hydrocortisone Nasal NFI (50 BOT IN CBB)Sterile	Drops	1, 2
Chlorpheniramine Maleate 10mg/ml IP	Injection	1, 2, 3
Chlorpheniramine Maleate 4/mg IP	Tablet	1, 2, 3
Astemizole 10 mg	Tablet	1, 2,
Terfenadine 60 mg	Tablet	1
Embramine 25 mg (PKG IN CBB)	Tablet	1, 2, 3



Item Name (1)	Formulation (2)	Level (3)
16. <u>ANTI-GOUT</u>		
Allopurinol 100 mg	Tablet	1, 2
17. <u>ANAESTHETIC</u>		
Gallamine 40mg/ml IP (100 AMPS IN CBB WITH HCP)	Injection	1, 2
Suzamethonium Chloride 50mg/ml	Injection	1, 2
Pancuronium Bromide 2mg/ml (100 AMPS IN CBB WITH HCP)	Injection	1, 2
Tubocurarine 10mg/ml IP (100 AMPS IN CBB WITH HCP)	Injection	1, 2
Neostigmine 0.5 mg/ml IP (100 AMPS IN CBB WITH HCP)	Injection	1, 2
Ether-Anaesthetic IP (IN AMBER COLOURED BOTTLES)	Liquid	1, 2,
Hyaluronidaze 1500 IU/ml (100 AMPS IN CBB WITH HCP)	Injection	1, 2,
Ethyl Chloride-spray with leak proof valve IP. (25 BOT. IN CBB)	Liquid	1, 2,
Halothane BP	Liquid	1, 2
Lignocaine 1% W/V IP (25 VIAL IN CBB)	Injection	1, 2,
Lignocaine 2% with Adrenaline (25 VIAL IN CBB)	Injection	1, 2,
Lignocaine 2% W/V PLAIN BP. (25 VIAL IN CBB)	Injection	1, 2,
Lignocaine 4% W/V (Topical) (25 BOT. IN CBB) USP.	Liquid	1, 2,
Lignocaine 5% W/V (Heavy) (25 AMPS IN CBB WITH HCP)	Injection	1, 2,
Lignocaine Dental cartridge (25 AMPS IN CBB WITH HCP)	Injection	1



Item Name (1)	Formulation (2)	Levels (3)
Lignocaine - Viscous 2% (25 VIAL IN CBB)	Liquid	1
Lignocaine 2% Jelly USP. (100 tubes in CBB)	Jelly	1, 2, 3
Thiapentone Sodium 500mg IP (25 AMPS in CBB)	Injection	1, 2
Thiapentone Sodium 1mg BP (25 AMP/VIAL IN CBB)	Injection	1

18. ANTI-INFECTIVE

18.1 ANTI-FUNGAL

Hamycin (vaginal) 4LAC IV (Strips)	Ovules	1, 2, 3
Nystatin 1LAC IV Vaginal IP. (Aluminium Foils in CBB)	Tablet	1, 2
Griseofulvin 250mg	Tablet	
Griseofulvin 125mg	Tablet	
Miconazole Nitrate 2% (Skin) (100 Tubes in CBB) DP/USP.	Ointment	1, 2
Miconazole Nitrate 2% (EAR)	Drops	1, 2

18.2 ANTI-BACTERIAL

Tetracycline-Oxy 50mg/ml IP (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Tetracycline 250mg IP	Capsule	1, 2, 3
Cefotazime 1mg	Injection	1, 2
Doxycycline HCL 100mg	Capsule	1, 2, 3
Gentamicin 40mg/ml IP/BP. (100 VIAL in CBB)	Injection	1, 2
Ampicillin 250mg IP/BP (100 VIAL IN CBB)	Injection	1, 2, 3



Item Name (1)	Formulation (2)	Level (3)
Ampicillin 500mg IP/BP. (100 VIAL in CBB)	Injection	1, 2, 3
Ampicillin 250mg IP/BP	Capsule	1, 2, 3
Amoxicillin 250mg BP/IP.	Capsule	1, 2,
Amoxycillin 500mg	Injection	1, 2,
Norfloxacin 400mg	Tablet	1, 2
Nalidixic Acid 500mg	Tablet	1, 2
Nalidixic Acid 200mg/5ml	Syrup	1, 2
Ciprofloxacin 500mg	Tablet	1, 2
Ciprofloxacin 2mg/ml	Injection	1, 2
Chloramphenicol Succinate 1mg Vial IP. (100 VIAL In CBB)	Injection	1, 2
Chloramphenicol 250mg IP. (100 VIAL In CBB)	Capsule	1, 2, 3
Chloramphenicol 500mg IP (100 VIAL In CBB)	Injection	1, 2, 3
Cloxacillin 500mg/VIAL IP/BP. (100 VIAL in CBB WITH HCP)	Injection	1, 2
Cloxacillin 250mg IP/BP. (Aluminium Foil Packing.)	Capsule	1, 2
Erythromycin estolate 100mg/5ml USP.	Suspension	1, 2, 3
Erythromycin estolate 250mg IP/BSP	Tablet	1, 2, 3
Kanamycin Sulphate 1mg IP (100 VIAL IN CBB WITH HCP)	Injection	1
Pencillin-Benzyl 5 LACS IV IP (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Benzyl Pencillin 10LAcS IV IP (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3



Item Name (1)	Formulation (2)	Level (3)
Fortified Procaine Pencillin 4LACS IV IP. (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Pencillin Procaine 20 LACS IV IP. (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Benzathene Pencillin 6 LACS IV IP. (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Benzathene Pencillin 12 LACS IV IP. (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Benzathene Pencillin 24 LACS IV IP. (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Sulphadiazine 500mg IP.	Tablet	1, 2, 3
Sulphadimidine 500mg IP.	Tablet	1, 2, 3
Trimethoprim 80mg Sulphamethoxazole Bp/IP.	Tablet	1, 2, 3
Trimethoprim 40mg Sulphamethoxazole 200mg	Tablet	1, 2, 3
Trimethoprim 40mg Sulphamethoxazole 200mg/5ml	Suspension	1, 2, 3
Methenamine mandalate 0.5mg USP.	Tablet	1, 2, 3

### 18.3 ANTI-TB

Ethambutol 200mg IP	Tablet	1, 2, 3
Ethambutol 400mg IP	Tablet	1, 2, 3
Ethambutol 600mg IP	Tablet	1, 2, 3
Ethambutol 800mg IP	Tablet	1, 2, 3
Isoniazid 100mg IP	Tablet	1, 2, 3
Isoniazid 300mg IP	Tablet	1, 2, 3
Rifampicin 150mg IP	Capsule	1, 2, 3



Item Name (1)	Formulation (2)	Levels (3)
Rifampicin 300mg IP	Capsule	1, 2, 3
Rifampicin 450mg IP	Capsule	1, 2, 3
Rifampicin 100mg/ml IP	Syrup	1, 2, 3
Streptomycin 1mg IP (100 VIAL IN CBB WITH HCP).	Injection	1, 2, 3

#### 18.4 ANTI-LEPROSY

Clofazimine 100mg IP.	Capsule	1, 2, 3
Clofazimine 50mg	Capsule	1, 2, 3

#### 18.5 ANTI-AMOEBIAC

Metronidazole 5MG/ML 100ML in Aqueous Base BP. (100 BOTTLES IN CBB WITH HCP)	Injection/IV	1, 2
Metronidazole Benzoxylate Suspension Equivalent to 200mg/5ml Metronidazole	Suspension	1, 2, 3
Metronidazole 200mg BP/IP	Tablet	1, 2, 3
Metronidazole 400mg BP/IP	Tablet	1, 2, 3
Trinidazole	Injection	
Tinidazole 300mg	Tablet	1, 2, 3
Tinidazole 500mg	Tablet	1, 2
Metochlorpramide HCL 10mg BP	Tablet	1, 2
Metochlorpramide HCL 5mg/5ml	Liquid	1, 2
Metochlorpramide HCL 5mg/ml (25 AMPS IN CBB WITH HCP)	Injection	1, 2,
Domperidon 10mg	Tablet	1



Item Name (1)	Formulation (2)	Level (3)
<b>18.6 ANTI-MALARIAL</b>		
Chloroquine 250mg/AMP. IP/BP. (100 AMPS in CBB WITH HCP)	Injection	1, 2, 3
Chloroquine 250mg BP.	Tablet	1, 2, 3
Primaquine 7.5mg BP.	Tablet	1, 2, 3
Primaquine 2.5mg IP	Tablet	1, 2, 3
Sulpadoxine 500mg Pyrimethamine 35mg	Tablet	1, 2, 3
<b>18.7 ANTI-FILARIAL</b>		
Diethyl carbanmazine Citrate 50mg IP/BP/USP.	Tablet	1, 2, 3
Diethyl carbamazine Citrate 100mg IP/Bp/USP.	Tablet	1, 2, 3
<b>19. OBSTETRIC</b>		
Methyl Ergometrine 0.2mg/ml IP (100 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Methyl Ergometrine 0.125mg IP	Tablet	1, 2, 3
Dienostrol Cream (Cream Base) (0.01% W/W with Applicator USP, 25 Tubes in CBB)	Cream	1
Oxytocin 5 IU/ml IP. (100 AMPS in CBB WITH HCP)	Injection	1, 3
<b>20. HORMONES</b>		
Hydroxy progesterone 250mg/ml USP	Injection	1, 2
Dexamethasone 4mg/ml IP. (100 VIALS IN CBB WITH HCP)	Injection	1, 2, 3
Triamcinolone Acetonide IM 40mg/ml USP. (Cortico Steroids)	Injection	1



Item Name (1)	Formulation (2)	Levels (3)
Trimacinalone Acetonide 10mg/ml USP (Intra Articular Cortico Steroid)	Injection	1
Prednisalone 5mg IP	Tablet	1, 2, 3
Prednisalone 10mg IP	Tablet	1, 2
Prednisalone 20mg IP	Tablet	1
Thyroxine Sodium 100mg IP	Tablet	1, 2, 3
Stilbesterol Diphosphate 100mg	Capsule	1, 2
Stilbesterol Diphosphate 250mg	Injection	1, 2
<b>21. <u>VACCINES</u></b>		
Tetanus Toxoid 10 doses IP/BP (100 VIAL IN CBS WITH HCP)	Injection	1, 2, 3
<b>22. <u>SERA</u></b>		
Anti "A" Sera IP	Sera	1, 2, 3
Anti "B" Sera IP	Sera	1, 2, 3
Anti "AB" Sera	Sera	1, 2, 3
Anti "D" Sera (monoclonal)	Sera	1, 2, 3
Coombs Sera	Sera	1, 2, 3
Australia Antigen Kits for Elisa method	Antigen	1
Australia Antigen Kits for Slide Test	Antigen	1, 2, 3
VDRL Kits of Slide Test	Diagnosts	1, 2, 3
<b>23. <u>ANTI-HELMINTHICS</u></b>		
Mekendazole 100mg	Tablet	
Mekendazole 100mg/5ml	Suspension	



Item Name (1)	Formulation (2)	Levels (3)
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24. ANTI-CANCER

Cyclophosphomide 50mg/VIAL	Injection	1
Cyclophosphomide 100mg/VIAL	Injection	1
Cyclophosphomide 200 mg/VIAL	Injection	1
Cyclophosphomide 500mg/VIAL	Injection	1
Cyclophosphomide 50mg IP	Tablet	1
Cyclophosphomide 100mg	Tablet	1
Azathioprine 25 mg	Tablet	1
Mercaptopurine 50mg BP.	Tablet	1
Vincristine Sulphate 1mg/VIAL	Injection	1
Doxurubicin HCL 10mg USP.	Injection	1
Mitomycin C 2mg/ VIAL USP.	Injection	1
Mitomycin c 10mg/ VIAL USP.	Injection	1
Asperginase 1000 KU/VIAL Containing Asperginase 10000 KU/VIAL	Injection	1
Bleomycin 15mg Usp.	Injection	1
Actinomycin D (containing Actinomycin 500 mcg and Mannitol 20mg USP.	Injection	1
Cisplatinum 10mg/VIAL	Injection	1
Flurouracil 250gm	Capsule.	1
Methotrexate 50mg/2ml BP.	Injection	1
Methotrexate 2.5mg Tabs. BP.	Tablets	1
Methotrexate 5mg/ml Intrathecal	Injection	1
Flurouracil 50mg/ml IP/USP.	Injection	1
5-Flurouracil 250mg/5ml/ USP.	Injection	1



Item Name (1)	Formulation (2)	Levels (3)
Chlorambucil 2mg BP.	Tablet	1
Chlorambucil 5mg BP.	Tablet	1
Melphalan 2mg BP.	Tablet	1
Melphalan 5mg BP.	Tablet	1
Thio-Tepa 15mg USP.	Injection	1
Thioguanine 40mg BP.	Tablet	1
Calcium Leucovorin 3 mg/ml. USP.	Injection	1
Calcium Leucovorin 50 mg	Tablet	1
Procarbazine 50 mg	Capsule	1
Hydroxy Urea 500 mg	Capsule	1
Tomoxifen 10 mg	Tablet	1

25. HOEMOPOIETIC

Ferrous Sulphate 200mg IP Sugar coated	Tablet	1, 2, 3
Ferrous Fumarate 200mg IP	Tablet	1, 2, 3
Iron-dextran 50mg/ml Im/IV (100 AMPS in CBB WITH HCP) IP	Injection	1, 2, 3
Iron-dextran 50mg/ml 10ml +1ml dual Pack	Injection	1, 2, 3

26. VITAMINS AND MINERALS

Calcium Gluconate 10% IV IP (50 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Calcium Gluconate 500mg IP/BP.	Tablet	1, 2, 3
Vitamin-K 10mg/ml IP. (100 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Folic Acid 5mg BP	Tablet	1, 2, 3



Item Name (1)	Formulation (2)	Levels (3)
Vitamin-A in Aqueous Base - 50,000 IU/ml USP. (100 AMPS IN CBB WITH HCP)	Injection	1, 2, 3
Vitamin A 50,000 IU.	Tablet	1, 2, 3
Vitamin A 50,000 IU/ml in Aqueous Base	Drops	1, 2, 3
Vitamin-B Complex NFI (100 VIAL IN CBB WITH HCP)	Injection	1, 2, 3
Vitamin B Complex-Therapeutic NFI	Tablet	1, 2, 3
Vitamin-B Complex Therapeutic NFI	Drops	1, 2, 3
Vitamin-B1-33mg B6-33mg B12-33.3mcg/ml (50 AMPS IN CBB WITH HCP)	Injection	1, 2
Riboflavin Vitamin B2 20mg	Tablet	1, 2
Vitamin C 500mg/5ml NFI (50 AMPS IN CBB WITH HCP)	Injection	1, 2
Vitamin C 100mg/IP.	Tablet	1, 2, 3

7. IV FLUIDS

Dextrose 5% IV IP (Packing in CBB)	Injection-IV	1, 2, 3
Dextrose 10% IV IP (Packing in CBB)	Injection-IV	1, 2, 3
Dextrose 25% IV IP (50 AMPS IN CBB WITH HCP)	Injection-IV	1, 2
Dextrose 50% IV IP (50 AMPS IN CBB WITH HCP)	Injection-IV	1, 2
Electrolyte Gastric Replacement Solution with 5% Dextrose	Injection-IV	1, 2
Electrolyte Maintenance Solution with 5% Dextrose	Injection-IV	1, 2
Electrolyte Maintenance Paediatric Solution with 5% Dextrose	Injection-IV	1, 2



Item Name (1)	Formulation (2)	Levels (3)
Potassium Chloride 15% W/V USP/BP	Injection	1, 2
Sodium Bicarbonate 7.5% W/V	Injection	1, 2, 3
Sodium Chloride 0.9% IP	Injection-IV	1, 2, 3
Normal Saline IP	Injection-IV	1, 2, 3
Sodium Chloride with Dextrose	Injection-IV	1, 2, 3
Sodium Lactate-Compound (Molar-Lactate) IP.	Injection-IV	1, 2, 3
Dextran 40 IN Normal Saline IP.	Injection-IV	1, 2
Plasma Volume Substitute Containing 3.5% degraded Gelatine	Injection-IV	1, 2
Low Molecular WT Dextran 540ml	Injection-IV	1, 2
Mannitol 10% IV IP.	Injection-IV	1, 2, 3
Mannitol 10% IV IP	Injection-IV	1, 2, 3
Mannitol 20% IV IP.	Injection-IV	1, 2, 3
Water for Injection (in Machine made AMPS) IP.	Injection	1, 2, 3

### B. ANTI-ASTHMATIC

Salbutamol 4mg IP.	Tablet	1, 2, 3
Salbutamol 2mg/5ml	Syrup	1, 2, 3
Salbutamol Sulphate 100mcg/mt (200 Metered Doses)	Inhaler	1, 2
Terbutalin 1.5mg/ml	Syrup	1, 2, 3
Terbutalin 2.5mg/ml USP.	Tablet	1, 2, 3
Terbutalin 0.5mg/ml (50 AMPS IN CBE WITH HCP)	Injection	1, 2, 3
Aminophylline 2.5% IV IP. (50 AMPS IN CBE WITH HCP)	Injection	1, 2, 3
Theophylline 100mg IP/BP.	Tablet	1, 2, 3



Item Name (1)	Formulation (2)	Levels (3)
<u>SKIN</u>		
Calamine Lotion BP.	Liquid	1, 2, 3
Glycerin IP.	Liquid	1, 2
Benzyl Benzoate Application 25%	Emulsion	1, 2, 3
Gamma Benzene Hexachloride 1%	Liquid	1, 2, 3
Certrimide Cream BP.	Ointment	1, 2, 3
Silver Sulphadiazine 1%	Cream	1, 2, 3
Betamethasone 0.1% (Skin)	Ointment	1, 2, 3
Betamethasone Valerate 0.12% with chionoform 3% Base.	Cream	1, 2
Betamethasone with Neomycin Sulphate	Cream	1, 2
Dexamethasone Acetate 0.1% and Framycetin Sulphate cream 1%	Cream	1, 2
Clobetasol Butyrate	Ointment	1, 2
Nitrofurazone 0.2% water soluble Base (skin) USP.	Cream	1, 2, 3
Povidone iodine USP 5% W/W (0.5% in cream base)	Cream	1, 2
Povidone Lotion USP 5%	Lotion	1, 2, 3
Paraffin White Soft IP. Ointment Base	Ointment	1, 2, 3
Podophyllum Resin IP.	Powder	1, 2
Potassium Permanganate IP. (In Amber coloured bottle)	Crystals	1, 2, 3
Psoralen 5mg	Tablet	1, 2
Whitfield Ointment with Benzoic Acid 6%	Ointment	1, 2, 3
Sulphur Skin Ointment 10% IP.	Ointment	1, 2, 3



Item Name (1)	Formulation (2)	Levels (3)
Coalter ointment USP.	Ointment	1, 2
Turpentine Liniment IP.	Liquid	1, 2, 3
Zinc Oxide (skin) 15% IP.	Ointment	1, 2, 3
Benzoin CO TR IP.	Liquid	1, 2, 3
Gentian Violet 2% USP. Topical	Solution	1, 2, 3
Gentian Violet 1% USP. Topical	Solution	1, 2, 3
Hydrogen Peroxide (in unbreakable dark Bottle) IP.	Liquid	1, 2, 3
Iodine-Weak Solution TR-IP	Liquid	1, 2, 3
Mythyl Salicylate IP. 4% W/W Mephensin IP %% Iodine IOP 5% W/W	Ointment	1, 2, 3
Polymyxin B Sulphate 5000 Unit with Bacitracin 400 units and Neomycine 3400 Units/gm IP/BP.	Powder	1, 2, 3
Framycetin Sulphate 1% W/W IP.	Ointment	1, 2, 3

#### EYE/EAR

Chloraphenical 5% (Ear) BP.	Drops	1, 2, 3
Sulphacetamide 20% EAR BP	Drops	1, 2, 3
Chloramphenicol 1% (EYE) IP/BP	Ointment	1, 2, 3
Chloramphenicol 0.5% EYE DROPS	Drops	1, 2, 3
Framycetin Sulphate IP 5MG	Drops	1, 2, 3
Dexamethasone Sod. Meta sulphobenzoate 0.116% W/V Framycetin	Drops	1
Chloraphenical Applicaps 1% (EYE) Sterile	Ointment	1, 2, 3
Gentamicin 0.3% W/V USP	Drops	1, 2, 3
Gentamicin 1% (EYE) USP	Ointment	1, 2, 3



## II. ACCESSORIES

Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
01.	Cotton wool, Absorbable IP, 500g. Nett	Dressing	1, 2, 3
02.	Sterilised medicated paraffin gauze containing Framycetin 500 Units/gm and Neomycin Sulphate IP 0.35% W/W 10cms X 10cms.	Dressing	1, 2, 3
03.	Gelatin Sponge-Absorbable 10mm X 10mm X 10mm (Dental) USP Packing in CBB.	Dressing	1, 2
04.	Gelatin Sponge-Absorbable 70mm X 50mm X 1mm (nasal) Packing in CBB	Dressing	1, 2
05.	Gelatin Sponge- Absorbable 80mm X 25mm X 7mm (Gynec.)USP Packing in CBB	Dressing	1, 2
06.	Gelatin Sponge-Absorbable 70mm X 50 mm (general) USP Packing in CBB	Dressing	1, 2
07.	Plaster-Adhesive Zinc Oxide 20% - 10cm X 10M USP.	Dressing	1, 2, 3
08.	Transparent Hypo Allergic Plaster having Bi-directional tear, size 5cms X 9.14MTS	Dressing	1, 2
09.	Porous elastic Adhesive Bandage 8cms X 4MTS	Dressing	1, 2
10.	Transparent Hypo Allergic Plaster having Bi-directional tear size 7.5cms X 9.14MTS	Dressing	1, 2
11.	Plaster of Paris IP..	Powder	1, 2, 3
12.	Drip set-polythene for IV administration- sterilised with Gamma irradiation - Batch certificate from B.A.R.C./K.M.I.O.	Appliance	1, 2, 3
13.	Disposable Blood collection bags (CPDA Solution) 350 ml capacity	Bags	1, 2



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
14.	Disposable Blood collection double bags (CPDA Solution) 350 ml capacity	Bags	1, 2
15.	Disposable Blood Lancets	Lancet	1, 2, 3
16.	Disposable Blood Drawing Sets	Drawing Set	1, 2, 3
17.	Hypodermic Needles SS ISI 1.5" X 18	Appliance	1, 2, 3
18.	Hypodermic Needles SS ISI 1.5" X 20	Appliance	1, 2, 3
19.	Hypodermic Needles SS ISI 1.5" X 22	Appliance	1, 2, 3
20.	Hypodermic Needles SS ISI 1.5" X 24	Appliance	1, 2, 3
21.	Hypodermic Needles SS ISI 1" X 18	Appliance	1, 2, 3
22.	Hypodermic Needles SS ISI 1" X 20	Appliance	1, 2, 3
23.	Hypodermic Needles S.S. ISI 1" X 22	Appliance	1, 2, 3
24.	Hypodermic Needles S.S. ISI 1" X 24	Appliance	1, 2, 3
25.	Disposable Needles 20G X 1"	Appliance	1, 2
26.	Disposable Needles 22 G X 1"	Appliance	1, 2
27.	Disposable Needles 24 G X 1"	Appliance	1, 2, 3
28.	Disposable Needles 26G X 1"	Appliance	1, 2, 3
29.	Syringe 2CC All Glass Interchangeable ISI.	Syringe	1, 2, 3
30.	Disposable Syringe 2.5ml	Syringe	1, 2
31.	Syringe 5CC All Glass Interchangeable ISI	Syringe	1, 2, 3
32.	Disposable Syringe	Syringe	1, 2
33.	Syringe 10CC all glass Interchangeable ISI	Syringe	1, 2, 3
34.	Disposable Syringe 10 ml	Syringe	1, 2,
35.	Syringe 20CC all glass Interchangeable ISI	Syringe	1, 2, 3



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
36.	Clinical Thermometer Centigrade ISI Packing in plastic tube with cap.	Appliance	1, 2, 3
37.	Rectal Thermometer Centigrade Packing in plastic tube with cap.	Appliance	1, 2, 3
38.	Gloves Surgical 6 size ISI Each Pair in Plastic cover and 25 pair in CBB	Appliance	1, 2
39.	Disposable Gloves 6 size ISI Each Pair in Plastic cover and 25 pair in CBB	Appliance	1, 2
40.	Gloves Surgical 6.5 size ISI Each Pair in Plastic cover and 25 pair in CBB	Appliance	1, 2
41.	Disposable Gloves 6.5 size ISI Each Pair in Plastic cover and 25 pair in CBB	Appliance	1, 2
42.	Gloves Surgical 7 size ISI Each Pair in Plastic cover and 25 pair in CBB	Appliance	1, 2
43.	Disposable Gloves 7 size ISI Each Pair in Plastic cover and 25 pair in CBB	Appliance	1, 2
44.	Gloves Surgical 7.5 size ISI Each Pair in Plastic cover and 25 pair in CBB	Appliance	1, 2
45.	Examination Gloves Size 6 Not for surgical procedures 25 pairs in plastic bag in carton	Appliance	1, 2, 3
46.	Examination Gloves Size 6.5 Not for surgical procedures 25 pairs in plastic bag in carton	Appliance	1, 2, 3
47.	Examination Gloves Size 7.5 Not for surgical procedures 25 pairs in plastic bag in carton	Appliance	1, 2, 3
48.	Disposable Gloves size 7.5 ISI Each pair in plastic cover and 25 pairs in CBB	Appliance	1, 2



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
49.	Sheeting waterproof mackintosh 36" width	Sheeting	1, 2, 3
50.	Acid Benzioc Powder IP 450gm Bleaching Powder GR 2 33% Chlorine ISI (Laminated HDPE Packing)	Powder	1, 2, 3
51.	Chlorine tablet 2.5gm Containing 300mg Chlorine	Tablet	1, 2, 3
52.	Denture Base Material Heat curing ISI ADAS	Powder	1
53.	Denture Base Material Cold curing ISI ADAS	Powder	1
54.	Denture Impression Material ISI ADAS	Powder	1
55.	Gum Paint-TRS Aconite, Belladonna, Iodimitis, Benzo in Methopip	Gum Paint	1
56.	Mercury Ip	Liquid	1
57.	Silicate Cement ISI/ADAS Glass ionomer filling material powder 15 gms and Liquid 10 gms	Cement	1
58.	Dental Prophylaxis paste	Paste	1
59.	Sterile Absorbant Dental Points	Dental-point	1
60.	Dental Restorative Universal and Catalyst. Catalyst Paste-1, Universal Paste-1, Mixing stick-35	Appliance	1
	Dental Restorative Acid Etch Bond Technique catalyst and Universal Resins Etching liquid 1 Brush Handle 100 disposable brushes and 100 disposable mixing wells.	Appliance	1
62.	Dental Floss	String	1
63.	Dental Stone Plaster ADAS	Powder	1
64.	Mercury triple Distiltes for Dental Use ISI/ADAS	Mercury	1



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
65.	Silver Amalgum Alloy with 60% Silver ISI	Powder	1
66.	Orthodontic Wire Dentauram 0.6 0.7, 0.8, and 0.9 mm gauge. Plastic packing in CBB	Wire	1
67.	Arch Wire for Orthodontic purpose gauge 0.014, 0.016, 0.018 & 0.20. Plastic packing in CBB	Wire	1
68.	Full Teeth sets Complete Square Mould, Tapering Mould avoid Mould (shade stellan 1, 2, 3, 4, 5, or equivalent	Mould	1
69.	Anterior Teeth Sets (lower and Upper Square and Tapering : Mould Stellan Shades 1, 2, 3, 4, 5, or equivalent	Teeth	1
70.	Posterior Teeth sets (Different Shades and Sizes)	Teeth	1
71.	Calcium Hydroxide - Dycal catalyst 13gm Base 11gm 1 PAD in CBB Packing	Paste	1
72.	Dental Carving wax Block 4cms X 1.5cms X 1.5cms	Wax	1
73.	Pumice Powder for Polishing	Powder	1
74.	Zinc Oxide euginol Impression Paste. Zinc Oxide Paste 125gm Euginol Paste 85gms Mixing Pad 1. ISI.	Paste	1
75.	Intra Dental Wire Soft 16	Wire	1
76.	Zinc Oxiphosphate Cement ISI/ADAS	Cement	1
77.	Dextrose Anhydrous (injectable Grade) IP/BP free from physical impurities. (PKD. in Double Poly B AG in KEG with Painted Label on KEG.	Powder	1, 2
78.	Mannitol Powder for Injection in Airtight Polybag IP/USP/BP Double Polybag 0.2mm thickness, sealed, painted label to be affixed with batch No.	Powder	1, 2



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
79.	Sodium chloride (INJ Grade) IP free from physical impurities PKD in airtight 0.2mm Polybag sealed in carton.	Powder	1, 2
80.	Sodium Citrate IP. (INJ Grade) PKD in Ploybag in Plastic Bottles.	Powder	1, 2,
81.	Bottle-Approx 72 mm Dia 165mm HT. 38.5mm Screw neck USP Type 1.	Glass Bottle	1, 2
82.	Bottle-Approx 79.5mm Dia 210mm HT 38.5mm screw neck USP Type1.25 Bottle in CBB with HCP. Overflow capacity 665ml USP.	Glass Bottle	1, 2
83.	Cap Screw Aluminium with Centre open for manual srew sealing screw (Neck Bottles to fixing the rubber plugs USP (Packing in CBB)	Closure Screw	1, 2
84.	Foil Seals Aluminium Assorted colours for fixing and sealing over both screw type and sealing Type Aluminium Caps (Packing in CBB with Embosemen T "Government of Karnataka".	Closure	1, 2
85.	Rubber Plugs for 540ml USP Type-1 Bottles of smooth surface alround with one hole for infusion needle and other for air inlet on top ISI packing in polybag in corrugated CBB.	Closure	1, 2
86.	Sodium Iodide 1% Solution W/V (Disinfectant and Bactericidal Packed in CBB)	Liquid	
	IV Cannula Set (made of Teflon) Hinge Type biway connection at the top. Sizes 14, 16, 18, 20, 22 Gammairradiation certificate from B.A.R.C./K.M.I.O. Packing in CBB.	Appliance	
88.	Autoclave Indicator Labels 2.5cms X 5cms	Labels	



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
89.	Skin Contact Jelly Ultra Sound	Jelly	1, 2
90.	Sterilised Surgical Suture Plain Catgut 2/0 USP.	Suture	1, 2
91.	Sterilised Surgical Suture Plain Catgut 1/0 USP.	Suture	1, 2
92.	Sterilised Surgical Suture Plain Catgut 1 USP.	Suture	1, 2
93.	Sterilised Surgical Suture Plain Catgut 2 USP.	Suture	1, 2
94.	Sterilised Surgical Suture Plain Catgut 3 USP.	Suture	1, 2
95.	Sterilised Surgical Suture Chromic Catgut 3/0 USP.	Suture	1, 2
96.	Sterilised Surgical Suture Chromic Catgut 2/0 USP.	Suture	1, 2
97.	Sterilised Surgical Suture Chromic Catgut 1/0 USP.	Suture	1, 2
98.	Sterilised Surgical Suture Chromic Catgut 1 USP.	Suture	1, 2
99.	Sterilised Surgical Suture Chromic Catgut 2 USP.	Suture	1, 2
100.	Sterilised Surgical Suture Straight Needle Chromic 2/0 USP. Round Body 60mm.	Suture + Needle	1, 2
101.	Sterilised Surgical Suture Straight Needle Chromic 2/0 Round Body 45mm USP.	Suture + Needle	1, 2
102.	Sterilised Surgical Suture Straight Needle Chromic 2/0 Round Body 60mm USP.	Suture + Needle	1, 2
103.	Sterilised Surgical Suture Straight Needle Chromic 1/0 Round Body 45mm USP.	Suture + Needle	1, 2



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
104.	Sterilised Surgical Suture Curved Needle Chromic 4/0 Round Body 16mm USP.	Suture + Needle	1, 2
105.	Sterilised Surgical Suture Curved Needle Chromic 3/0 Round Body 22mm USP.	Suture + Needle	1, 2
106.	Sterilised Surgical Suture Curved Needle Chromic 2/0 Round Body 65mm USP.	Suture + Needle	1, 2
107.	Sterilised Surgical Suture Curved Needle Chromic 2/0 Round Body 45mm USP.	Suture + Needle	1, 2
108.	Sterilised Surgical Suture Curved Needle Chromic 2/0 Round Body 30mm USP.	Suture + Needle	1, 2
109.	Sterilised Surgical Suture Curved Needle Chromic 1/0 Round Body 45mm USP.	Suture + Needle	1, 2
110.	Sterilised Surgical Suture Curved Needle Chromic 1/0 Round Body 30mm USP.	Suture + Needle	1, 2
111.	Sterilised Surgical Suture Curved Needle Chromic 1 Round Body 45mm USP.	Suture + Needle	1, 2
112.	Sterilised Surgical Suture Curved Cutting Needle Chromic 1 60mm USP.	Suture + Needle	1, 2
113.	Sterilised Surgical Suture Curved Cutting Needle Plain 4/0 16mm USP.	Suture + Needle	1, 2
114.	Sterilised Surgical Suture Curved Cutting Needle Plain 3/0 16mm USP.	Suture + Needle	1, 2
115.	Sterilised Surgical Suture Curved Rev. Cutting Needle Chromic 6/0 Round Body 8mm USP.	Suture + Needle	1, 2



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
116.	Sterilised Surgical Suture Curved Blunt Needle Chromic 1 Round Body 63mm USP.	Suture + Needle	1
117.	Sterilised Surgical Suture 1/2 Circle Chromic 1 Heavy 45mm Needle USP.	Suture + Needle	1, 2
118.	Sterilised Surgical Suture 1/2 Circle Trocar Point 1 40mm Needle USP.	Suture + Needle	1, 2
119.	Sterilised Surgical Suture 1/2 Circle Trocar Point Cutting 2 Chromic 40mm Heavy Needle USP.	Suture + Needle	1, 2
120.	Sterilised Surgical Suture 1/2 Circle Round Body 1/0 Chromic 40mm Heavy Needle USP.	Suture + Needle	1, 2
121.	Sterilised Surgical Suture 1/2 Circle Round Body 3/0 Chromic 25mm Needle USP.	Suture + Needle	1, 2
122.	Sterilised Surgical Suture 1/2 Circle Round Body 2/0 Chromic 45mm Needle USP.	Suture + Needle	1, 2
123.	Sterilised Surgical Suture 1/2 Circle Round Body 1/0 Chromic 45mm Needle USP.	Suture + Needle	1, 2
124.	Sterilised Surgical Suture, 1/2 Circle Round Body 1/0 Chromic 30mm USP.	Suture + Needle	1, 2
125.	Sterilised Surgical Suture 1/2 Circle Mayo's Chromic 1/0 45mm Heavy Needle USP.	Suture + Needle	1, 2
126.	Sterilised Surgical Suture 1/2 Circle Reverse Cutting Chromic / 50mm Needle USP.	Suture + Needle	1, 2
127.	Sterilised Surgical Suture 1/2 Circle Reverse Cutting and Round Body 2/0 Chromic 36mm Needle USP.	Suture + Needle	1, 2



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
128.	Sterilised Surgical Suture 5/8 Circle Round Body Chromic 1/0 55mm Needle USP.	Suture + Needle	1, 2
129.	Sterilised Surgical Suture 3/8 Circle Round Body Chromic 1/0 45mm Needle USP.	Suture + Needle	1, 2
X 130.	Sterilised Surgical Suture 8/0 60mm Curved Micro Point USP. Round Body 45mm USP.	Suture + Needle	1
131.	Black Virgin Silk, Spatulated 8/0 60mm Curved Micro Point Double Needle USP.	Suture + Needle	1
132.	Black Virgin Silk, Spatulated 8/0 60mm Curved Micro Point Double Needle USP.	Suture + Needle	1
133.	Mersilk Black Braided Silk 4/0 16mm Curved Round Body Needle USP.	Suture + Needle	1, 2
134.	Virgin Black Braided Silk 8/0 8mm 1/2 Circle Reverse Cutting Micro Point Needle USP.	Suture + Needle	1, 2
135.	Mersilk Black Braided Silk 6/0 8mm 1/4 Circle Spatulated Micro Point Needle USP.	Suture + Needle	1, 2
136.	Mersilk Black Braided Silk 4/0 20mm 1/2 Circle Round Body Needle USP.	Suture + Needle	1, 2
137.	Mersilk Black Braided Silk 3/0 25mm 1/2 Circle Round Body Needle USP.	Suture + Needle	1, 2
138.	Mersilk Black Braided Silk 2/0 30mm 1/2 Circle Round Body Needle USP.	Suture + Needle	1, 2
139.	Mersilk Black Braided Silk 1/0 30mm 1/2 Circle Round Body Needle USP.	Suture + Needle	1, 2
140.	Mersilk Black Braided Silk 2/0 50mm 1/2 Straight Round Body Needle USP.	Suture + Needle	1, 2



SI. No.	Item Name	Formulation	Levels
141.	Green Size 2, Coated Braided Polyester with 45mm Heavy Tapercut Needle USP.	Suture + Needle	1, 2
142.	Sutupak Pre Cut Suture in Sterile over wrap packs 2/0 X 2 X 75cms USP.	Suture + Needle	1, 2
143.	Sutupak Pre Cut Suture in Sterile over wrap packs 1 X 2 X 75cms USP.	Suture + Needle	1, 2
144.	Sutupak Pre Cut Suture in Sterile over wrap packs 3/0 10 X 75cms USP.	Suture + Needle	1, 2
145.	Braided Mersiline Suture 5/0 8mm 1/4 Circle Micro Point Spatulated Double Needle USP.	Suture + Needle	1, 2
146.	Braided Coated Mersiline Suture 4/0 8mm 1/4 Circle Micro Point Spatulated Needle USP.	Suture + Needle	1, 2
147.	Braided mersiline Suture 2/0 30mm 1/2 Circle Round Body Needle USP.	Suture + Needle	1, 2
148.	Synthetic Absorbable Suture 4/0 16mm 1/2 Circle Tapercut Heavy Needle USP.	Suture + Needle	1, 2
149.	Synthetic Absorbable Suture 2/0 40mm 1/2 Circle Round Body Needle USP.	Suture + Needle	1, 2
150.	Synthetic Absorbable Suture 1/0 40mm 1/2 Circle Round Body Needle USP.	Suture + Needle	1, 2
151.	Synthetic Absorbable Suture 1 40mm 1/2 Circle Round Body Heavy Needle USP.	Suture + Needle	1, 2
152.	Synthetic Absorbable Suture 3/0 36mm 1/2 Circle Taper Cut Needle USP.	Suture + Needle	1, 2
153.	Synthetic Absorbable Suture 3/0 17mm 1/2 Circle Taper Cut Needle USP.	Suture + Needle	1, 2



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
154.	Synthetic Absorbable Suture 1/0 40mm 1/2 Circle Taper Cut Needle USP.	Suture + Needle	1, 2
155.	Synthetic Absorbable Suture Violet Size 1 90cms 1/2 Circle, 40mm Tapercut Heavy Needle USP.	Suture + Needle	1, 2
156.	Synthetic Absorbable Suture Violet Size 1 90 cms 1/2 Circle, Reverse Cutting 45mm Heavy Needle USP.	Suture + Needle	1, 2
157.	Synthetic Absorbable Suture Violet Size 4/0 70cms 1/2 Circle Round Body 16mm Needle USP.	Suture + Needle	1, 2
3.	Synthetic Absorbable Suture Violet Size 5/0 45cms 1/2 Circle Round Body 16mm Double Needle USP.	Suture + Needle	1, 2
159.	Synthetic Absorbable Suture Undyed Braided Size 2/0 76cms Straight Cutting 60mm Needle USP.	Suture + Needle	1, 2
160.	Monofilament Nylon Suture 10/0 6mm curved Spatulated Micro Point Needle USP.	Suture + Needle	1
161.	Monofilament Nylon Suture 10/0 6mm 3/8 Circle Spatulated Micro Point Double Needle USP.	Suture + Needle	1
162.	Monofilament Nylon Suture 8/0 8mm Curved Reverse cutting Micro Point Needle USP.	Suture + Needle	1
.	Monofilament Polymade Suture 5/0 12mm Curved Reverse Cutting Needle USP.	Suture + Needle	1, 2
164.	Monofilament Polymade Suture 2/0 45mm Curved Reverse Cutting Needle USP.	Suture + Needle	1, 2
165.	Monofilament Polymade Suture 3/0 26mm Curved Cutting USP.	Suture + Needle	1, 2
166.	Monofilament Polymade Suture 1/0 40mm 1/2 Circle Round Body (Loop Suture) Needle USP.	Suture + Needle	1, 2



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
167.	Monofilament Polymade Suture 1 50mm 1/2 Circle Round Body Heavy (Loop Suture) Needle USP.	Suture + Needle	1, 2
168.	Monofilament Polymade Suture 1/0 40mm 1/2 Circle Heavy Needle USP.	Suture + Needle	1, 2
169.	Monofilament Polymade Suture 1 40mm 1/2 Circle Heavy Needle USP.	Suture + Needle	1, 2
170.	Monofilament Polymade Black Size 1, 100cms 1/2 Circle Reverse, Cutting, 500mm Heavy Needle USP.	Suture + Needle	1, 2
171.	Polypropylene Mesh Size 6cm * 11cm	Mesh	1,
172.	Polypropylene Mesh Size 15cm * 15cm	Mesh	1, 2
173.	Polypropylene Mesh Size 30cm * 30cm	Mesh	1
174.	Monofilament Prolene Suture 6/0 13mm Curved Round Body Double Needle USP.	Suture + Needle	1, 2
175.	Monofilament Prolene Suture 3/0 22mm curved Cutting Needle USP.	Suture + Needle	1, 2
176.	Monofilament Prolene Suture 2/0 .25mm Taper Cut Needle (90cms Suture) USP.	Suture + Needle	1, 2
177.	Monofilament Prolene Mesh 17cms X 11cms USP.	Mesh	1,
178.	Monofilament Prolene Mesh 8.5cms X 11 cms USP.	Mesh	1, 2
179.	Monofilament Prolene Suture 2/0 17mm 1/2 Circle Taper Cut Needle USP.	Suture + Needle	1, 2
180.	Monofilament Prolene Suture 1/0 25mm 1/2 Circle Taper Cut Needle USP.	Suture + Needle	1, 2



Sl. No.	Item Name (1)	Formulation (2)	Levels (3)
<u>X-RAY</u>			
181.	Barium Sulphate - Compound IP.	Powder	1, 2
182.	Barium Sulphate Suspension 95% W/V (Micropaque Suspension for Double Contrast for Gastro Intestinal Tract) IP/BP.	Suspension	1, 2
183.	Sodium Meglumine Amidotrizoate (Iodine Content 60% USP) (10 AMPS IN CBB)	Injection	1, 2
184.	Sodium meglumine Amidotrizoate (Iodine Content 76% USP) (10 AMPS IN CBB)	Injection	1, 2
185.	Iohexol 10ml 180mg/ml (25 AMPS IN CBB WITH HCP)	Injection	1, 2
186.	Iohexol 10ml 240mg/ml (25 AMPS IN CBB WITH HCP)	Injection	1, 2
187.	Iohexol 10ml 300mg/ml (25 AMPS IN CBB WITH HCP)	Injection	1, 2

NOTE :

- Items No. 52 to 76 will be in use where Dental Surgeon is available.
- Items No. 77 to 87 will be in use where Intravenous fluid preparation facility is available.
- Items No. 130 to 140 will be in use where Eye/ENT/Plastic Surgery facilities are available.
- All suture material have expiry dates. Check for some on indenting and on regular basis.
- Needles and suture material when bought separately are more economical and useful to the surgeons who can use without wasting.
- All synthetic suture material are rarely used and very expensive and need to be given to individual surgeon who use them for accounting. They are not economical to be purchased and stored.

-0-0-0-0-0-0-



### III. LABORATORY CHEMICALS

01. Acetic Acid 1% IP
02. Benedict's qualitative reagent  
(20 Bots. in a CB box with Honeycomb partition NFI)
03. Benedict's quantitative solution reagent
04. Xylene - pure.
05. Chloroform A.R.
06. Acetone Extra Pure
07. Paraffin Wax MP 58 degree C to 60 degree C
08. Potassium Aluminium Sulphate purified
09. Haematoxyllin
10. Mercuric Chloride purified
11. Eosin
12. Bismack Brown
13. Light Green
14. Potassium Iodine IP.
15. Formaldehyde
16. Gold Chloride 1gm
17. Activated Charcoal
18. Sodium Bicarbonate
19. Glacial Acetic Acid
20. Methylene Blue .
21. Gentian Violet
22. Sodium Chloride
23. Carbol-Fuschin
24. Glycerine
25. Sodium Meta-Bisulphate



26. Potassium Hydrogen Ortho Phosphate
27. Sodium Hydrogen Ortho Phosphate
28. Potassium Di-chromate
29. Concentrated Sulphuric Acid
30. Concentrated Nitric Acid
31. Tri-Sodium Citrate
32. Orange-G
33. Schiff Reagent
34. Neutral Red
35. Sudan III
36. Mercuric Oxide
37. Sodium Thiosulphate
38. Iodine
39. Alcian Blue
40. Phospho-tungstic Acid
41. Liquid Paraffin
42. DPX Mountant
43. Liquid Ammonia
44. Concentrated Hydrochloric Acid
45. Sulpho Salicylic Acid
46. Sodium Nitro Prusside
47. Thrombokinase 10 mg Tablet
48. Silver Nitrate
49. Egg Albumin Flakes
50. Potassium Hydroxide



(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>ANTI-DOTES</u>						
1.	Atropine sulphate			0.6mg/ml		
2.	Magnesium Sulphate					4g/10ml (powder)
3.	Pralidoxime			0.5g powd. in vial		
<u>ANTI-INFECTIVES</u>						
Anti-helminthic						
1.	Mebendazole	100mg			100mg/5ml	
Anti-amoebic						
1.	Metronidazole	200mg 400mg			100mg/5ml	
Anti bacterial						
1.	Benzyl Pencillin			5000000U/vial 10000000U/vial		
2.	Procaine Pencillin			4000000U/vial 20000000U/vial		
3.	Benzathine Pencillin			6000000U/vial 12000000U/vial 24000000U/vial		
4.	Tetracycline		250mg			
5.	Doxycycline		100mg			
6.	Chloramphenicol		250mg	1g/vial	150mg/5ml	
7.	Co-trimoxazole		T.80mg+S.400mg		T.40mg+S.200mg/5ml	
8.	Erythromycin		250mg		125mg/5ml	
9.	Amoxicillin		250mg	100mg/vial	125mg/5ml	
10.	Ampicillin		250mg	250mg/vial	125mg/5ml	
<u>ANTI-LEPROSY</u>						
1.	Dapsone	25mg 50mg 100mg				
2.	Rifampicin		150mg 300mg			
3.	Clofazimine		50mg 100mg			

ESSENTIAL DRUGS LIST : Prepared by Community Health Cell for Govt. of Karnataka.

Sl. No. (1)	Name of Drug (2)	Tablets (3)	Capsule (4)	Injections (5)	Syrus (6)	Others (7)
<u>ANAESTHETICS</u>						
1.	Ether, Anaesthetic					Inhalation
2.	Halothane					Inhalation
3.	Thiopental			0.5g amp		
4.	Nitrous Oxide					Inhalation
5.	Oxygen					(Refer Emergency Drugs)
<u>ANALGESIC/ANTIPYRETICS</u>						
1.	Paracetamol	500mg.		300mg./2ml.amp	125mg/5ml	
2.	Aspirin	300mg				
3.	Ibuprofen	200mg 400mg				
4.	Indomethacin		25mg			
5.	Pentazocine Lactate	25mg		30mg/ml		
6.	Pethidine			50mg/ml		
<u>ANTI-ALLERGICS</u>						
1.	Chlorpheniramine maleate	4mg				
2.	Fenethazine	10mg 25mg		25mg/ml	5mg/5ml	
3.	Adrenaline			1 in 1000, 1ml amp		
4.	Dexamethasone	0.5mg		4mg/ml, 2ml vial		
<u>ANTI-EPILEPTICS</u>						
1.	Phenobarbitone	30mg 60mg		200mg/ml		
2.	Diazepam	5mg 10mg		5mg/ml	2mg/5ml	
3.	Phenyl Sodium	100mg		50mg/ml	100mg/4ml	
4.	Carbamazepine	100mg 200mg				

(1) (2) (3) (4) (5) (6) (7)

ANTI-TUBERCULAR

- 1. INH 100mg
- 2. Streptomycin 1g/vial
- 3. Thioacetazone 150mg
- 4. Rifampicin (Refer Anti-Leprosy)
- 5. Ethambutol 200mg  
400mg

(Please see National Tuberculosis Control Programme & banned combinations in the treatment of Tuberculosis)

ANTI-FILARIAL

- 1. Di-ethyl carbasazine 5mg 120mg/5ml

ANTI-FUNGAL

- 1. Griseofulvin 125mg
- 2. Amphotericin B 50mg/vial

ANTI-MALARIAL

- 1. Chloroquin 100mg base 40mg/ml
- 2. Primaquin 2.5mg
- 3. Sulfadoxin+Pyrethamine 5.500mg+P.25mg
- 4. Quinine Sulphate 300mg 300mg/amp

HAEMOPOIETIC

- 1. Ferrous Sulphate+Folic Acid 200mg+0.5mg
- 2. Ferrous fumarate+Folic Acid 150mg+2.5mg
- 3. Folic Acid 5mg

CARDIOVASCULAR

Anti-anginal

- 1. Isosorbide Nitrate 10mg
- 2. Propranolol 10mg  
40mg

(1) (2) (3) (4) (5) (6) (7)

Anti-hypertensive

- 1. Hydrochlorothiazide 50mg
- 2. Reserpine 0.1mg
- 3. Hydralazine 25mg
- 4. Atenolol 50mg  
100mg

Cardiac glycoside

- 1. Digoxin 0.25mg 0.25mg/ml

DIURETICS

- 1. Furoseide 40mg 10mg/ml
- 2. Seironolactone 25mg
- 3. Mannitol 20% infusion

GASTRO INTESTINAL

Antacids

- 1. Aluminium Hydroxide 250mg
- 2. Magnesium Trisilicate 500mg
- 3. Ranitidine 150mg 25mg/ml

Anti-emetics

- 1. Metoclopramide 10mg 5mg/ml 5mg/5ml
- 2. Domethazine (Refer Anti-Allergics)

Anti-spasmodic

- 1. Atropine sulphate (Refer Antidotes) 0.5mg 0.6mg/ml
- 2. Dicycloain 10mg
- 3. Fenethazine (Refer Anti-Allergics)

ANTI-DIARRHOEA'S

- 1. OPS Packets (NND Formula)
- 2. Loperamide Hydrochloride 2mg (not for children)

LAXATIVES

- 1. Ispaghula husk Granules
- 2. Paraffin, liquid Liquid 5ml
- 3. Glycerine Suppositories



	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>HYPOURIC</b>							
1. Prednisolone	5mg 10mg						
2. Hydrocortisone sodium succinate		25mg/ml					
3. Dexamethasone (Refer Anti-Allergics)	6mg	5mg/ml					
<b>ANTI-BIARRHIC</b>							
1. Insulin (Plain) Insulin (Levole)		40U/ml 40U/ml					
<b>GLIBENCLAMIDE</b>							
	5mg						
<b>PERCUTAN (PERCUTANOLIC)</b>							
1. Isopropaline	2mg						
2. Chlorpropazine	10mg 25mg	25mg/ml					
<b>3. Phenytoin (Refer Anti-Epileptics)</b>							
<b>RESPIRATORY</b>							
<b>Anti-Asthmatic</b>							
1. Berlicholine	100mg	110mg/ml	60mg/5ml				
2. Salinophylline	100mg	25mg/ml					
3. Salbutamol	2mg 4mg		2mg/5ml				
4. Terbutaline	2.5mg 5mg	0.5mg/ml					
<b>Oxygen</b>							
<b>Anti-Bronchial</b>							
1. Codeine Phosphate	30mg						
<b>0991E16.005</b>							
1. Mellarin	0.25mg	0.2mg/ml					
2. Oxyloctin		5 IU/ml 10 IU/ml					

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>REHYDRATION ACID BASE ELECTROLYTE balance</b>							
1. I.V. Dextrose					5% 10% in 500ml 25% 50% in 25ml		
2. I.V. Sodium Chloride					0.9% in 500ml		
3. I.V. Dextrose/Saline					D-5% 5.0.9% in 500ml		
4. I.V. Molar Lactate					500ml		
5. I.V. Sodium Bicarbonate					7.5% in 100ml/25ml amp		
<b>6. Potassium Chloride</b>							
<b>VITAMINS/MINERALS</b>							
1. Ascorbic Acid	100mg						
2. Vitamin A	5000 IU	50000 IU	50000 IU	50000 IU/ml			
3. Vitamin B complex	Yes	Yes	Yes	Yes		Yes	
<b>SKIN &amp; STD</b>							
1. Zinc Oxide (ointment)							2% ointment
2. Whitfield (ointment)							2% ointment
3. Benzyl Benzoate (emulsion)							25% (emulsi)
4. Neosporin-Bactericidin							Powder, Oin
5. Gentian Violet							1% solution
6. Klenzorel (ointment)							2% ointment
7. Penicillins							(Refer Anti-Bacterials above)
8. Oxytetracycline							(Refer Anti-Bacterials above)
9. Norfloxacin	400mg						
<b>CHEMISTS</b>							
1. Tetracycline							1% ointment
2. Fluocortone							1% (drops)
3. Kinastropine							1% (drops)
4. Chloramphenicol							1% ointment 0.4% (drops)

(1) (2) (3) (4) (5) (6) (7)

EMERGENCY DRUGS

1. Oxygen cylinders on trolleys, with flow meters and mask

2. Dopamine 200ug/5ml

3. Hydrocortisone (Refer Hormones)

4. Lignocaine 1% , 2%

5. Atropine (Refer in Antispasmodics)

6. Sodium Bicarbonate (Refer Rehydration)

7. Fralidoxime (Refer Antidotes) 0.5g powder/vial

8. Adrenaline (Refer Anti-Allergics) 1 in 1000/ml amp

9. Nephthalerine 15mg/ml amp

10. Mannitol (Refer Diuretics) 20% in 350ml

11. Nimesina sulphate (Refer Antidotes) 50% in amp

ACCESSORIES

1. Water for injection Ampules

2. Hydrogen peroxide 6% solution

3. Chloroform 4% W/V Liquid

4. Absorbent Cotton

5. Gauze, small & large

6. Bandage

Butterfly (scalp) veneseals, 18, 21, 24

8. Sutures

- Black braided silk - 1, 1.0, 2, 2.0, 3, 3.0
- Nersilk - 1.0, 2.0, 4.0
- Calgut, plain - 1, 1.0, 2, 2.0, 3, 3.0
- Calgut, chromic - 1, 1.0, 2, 2.0, 3.0
- Prolene, atraumatic - 1, 1.0, 2.0, 3.0
- Vicryl - 3.0, 4.0, 5.0
- Cotton thread

9. Suture Needles

10. Hypodermic Needles

11. Wires, surgical, 6, 6&1/2, 7

12. Ryles Tubes

(1) (2) (3) (4) (5) (6) (7)

13. Adhesive Plaster, 1", 2", 4" width

14. Elastocrepe bandage, 2", 4" rolls

15. Plaster of Paris

16. Surgical Spirit

17. Drip set : administration; fluid, blood

18. Cannula, IV for venesection, 16, 19, 22 and paediatric sizes

19. Syringes

20. Catheters, plain, 3, 6, 9

Catheters, Foley's, 8, 12, 16, 20

21. Bleaching powder

VACCINES & SERA

1. All Vaccines as per National Universal Immunization Programme

2. Anti Rabies Serum Sal, 10ml amps

3. Anti Snake Venom Serum 10ml

DIAGNOSTIC AGENTS

As needed

This list has been prepared using the following lists for reference

- M.M.O. model list of essential list.
- Essential drugs in Primary Health Care in India, Southern region list, prepared at National Seminar conducted by NIPCCO.
- Lists of drugs received from Government and other sources.
- CHI-CHI formulary.



## 25.2 ANTITUSSIVES

<sup>o</sup>dextromethorphan oral solution,  
3.5 mg (bromide)/5 ml

## Section 26: Solutions correcting Water, Electro- lyte and Acid-base Disturbances

## 26.1 ORAL

oral rehydration salts (for glucose-  
electrolyte solution) for composition  
see section 17.7.1

potassium chloride powder for solution

## 26.2 PARENTERAL

glucose injectable solution,  
5% isotonic, 10% isotonic,  
50% hypertonic

glucose with sodium chloride injectable solution, 4%  
glucose, 0.18% sodium chloride  
(equivalent to Na<sup>+</sup> 30 mmol/l  
Cl<sup>-</sup> 30 mmol/l)

potassium chloride (2) 11.2% solution in  
20-ml ampoule, (equivalent to  
K<sup>+</sup> 1.5 mmol/ml, Cl<sup>-</sup> 1.5 mmol/ml)

sodium chloride injectable solution, 0.9%  
isotonic (equivalent to Na<sup>+</sup> 154  
mmol/l, Cl<sup>-</sup> 154 mmol/l)

sodium hydrogen carbonate injectable solution, 1.4%  
isotonic (equivalent to Na<sup>+</sup> 167  
mmol/l, HCO<sub>3</sub><sup>-</sup> 167 mmol/l)  
8.4% solution in 10-ml ampoule  
(equivalent to Na<sup>+</sup> 1000 mmol/l,  
HCO<sub>3</sub><sup>-</sup> 1000 mmol/l)

<sup>o</sup> compound solution of sodium lactate injectable solution

## 26.3 MISCELLANEOUS

water for injection 2-ml, 5-ml, 10-ml ampoules

## Section 27: Vitamins and Minerals

ascorbic acid tablet, 50 mg

<sup>o</sup>ergocalciferol capsule or tablet, 1.25 mg  
(50 000 IU)

oral solution,  
250 µg/ml (10 000 IU/ml)

iodine (8) iodized oil, 1 ml (480 mg iodine),  
0.5 ml (240 mg iodine) in  
ampoule (oral or injectable)

solution, 0.57 ml, (308 mg iodine)  
in dispenser bottle  
capsule, 200 mg

<sup>o</sup>nicotinamide tablet, 50 mg

pyridoxine tablet, 25 mg (hydrochloride)

<sup>o</sup>retinol sugar-coated tablet, 10 000 IU  
(as palmitate) (5.5 mg)

capsule, 200 000 IU (as  
palmitate) (110 mg)

oral oily solution,  
100 000 IU/ml in multidose  
dispenser (as palmitate)

water-miscible injection,  
100 000 IU (as palmitate)  
(55 mg) in 2-ml ampoule

riboflavin tablet, 5 mg

<sup>o</sup>sodium fluoride in any appropriate formulation

thiamine tablet, 50 mg (hydrochloride)

*Complementary drug*

calcium gluconate (C) (2, 8) injection, 100 mg/ml  
in 10-ml ampoule

<sup>o</sup> Example of a therapeutic group. *Various drugs can serve as alternatives.*

The following changes in the WHO Model List were approved by the WHO Expert Committee on the Use of Essential Drugs which met in December 1999. The report of the meeting will be published in the WHO Technical Report Series.

**Deletions:** albumin (human); antiscorpion sera.

**Additions:** acetylcysteine; rifampicin + isoniazid + pyrazinamide + ethambutol; nevirapine; artesunate; chlorambucil; daunorubicin; ethanol; iohexol.

**Replacements:** fluconazole to replace ketoconazole; prazosin to replace doxazosin.

DR 14:8

# WHO Drug Information

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### ATC/DDD Classification

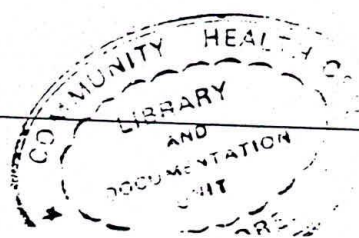
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# Essential Drugs

## WHO Model List (revised December 1999)

### Section 1: Anaesthetics

#### 1.1 GENERAL ANAESTHETICS AND OXYGEN

ether, anaesthetic (1c) (2)	inhalation	*lidocaine	injection for spinal anaesthesia, 0.5% (hydrochloride) in 4-ml ampoule to be mixed with 7.5% glucose solution
halothane (2)	inhalation		injection, 1%, 2% (hydrochloride) in vial
ketamine (2)	injection, 50 mg (as hydrochloride)/ml in 10-ml vial		injection, 1%, 2% (hydrochloride) + epinephrine 1:200 000 in vial
nitrous oxide (2)	inhalation		injection for spinal anaesthesia, 5% (hydrochloride) in 2-ml ampoule to be mixed with 7.5% glucose solution
oxygen	inhalation (medicinal gas)		topical forms, 2-4% (hydrochloride)
*thiopental (2)	powder for injection, 0.5 g, 1.0 g (sodium salt) in ampoule		dental cartridge, 2% (hydrochloride) + epinephrine 1:80 000

#### 1.2 LOCAL ANAESTHETICS

*bupivacaine (2, 9)	injection, 0.25%, 0.5% (hydrochloride) in vial
---------------------	--

#### Complementary drug

ephedrine (C)	injection, 30 mg (hydrochloride)/ml in 1-ml ampoule
<i>(For use in spinal anaesthesia during delivery to prevent hypotension)</i>	

° Example of a therapeutic group. Various drugs can serve as alternatives.

#### Explanatory Notes

When the strength of a drug is specified in terms of a selected salt or ester, this is mentioned in brackets; when it refers to the active moiety, the name of the salt or ester in brackets is preceded by the word "as".

Many drugs included in the list are preceded by a box (°) to indicate that they represent an example of a therapeutic group and that various drugs could serve as alternatives. It is imperative that this is understood when drugs are selected at national level, since choice is then influenced by the comparative cost and availability of equivalent products. Examples of acceptable substitutions include:

- ° Hydrochlorothiazide: any other thiazide-type diuretic currently in broad clinical use.
- ° Hydralazine: any other peripheral vasodilator having an antihypertensive effect.
- ° Senna: any stimulant laxative (either synthetic or of plant origin).
- ° Sulfadiazine: any other short-acting, systemically active sulfonamide unlikely to cause crystalluria.

Numbers in parentheses following drug names indicate: (1) Drugs subject to international control under: (a) the Single Convention on Narcotic Drugs (1961); (b) the Convention on Psychotropic Substances (1971); or (c) the

United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988).

- (2) Specific expertise, diagnostic precision, individualization of dosage or special equipment required for proper use.
- (3) Greater potency or efficacy.
- (4) In renal insufficiency, contraindicated or dosage adjustments necessary.
- (5) To improve compliance.
- (6) Special pharmacokinetic properties.
- (7) Adverse effects diminish benefit/risk ratio.
- (8) Limited indications or narrow spectrum of activity.
- (9) For epidural anaesthesia.
- (10) Sustained-release preparations are available. A proposal to include such a product in a national list of essential drugs should be supported by adequate documentation.
- (11) Monitoring of therapeutic concentrations in plasma can improve safety and efficacy.

Letters in parentheses following the drug names indicate the reasons for the inclusion of *complementary drugs*:

- (A) When drugs in the main list cannot be made available.
- (B) When drugs in the main list are known to be ineffective or inappropriate for a given individual.
- (C) For use in rare disorders or in exceptional circumstances.
- (D) Reserve antimicrobials to be used only when there is significant resistance to other drugs on the list.

Drugs are listed in alphabetical order.

**1.3 PREOPERATIVE MEDICATION & SEDATION FOR SHORT-TERM PROCEDURES**

atropine	injection, 1 mg (sulfate) in 1-ml ampoule
chloral hydrate	syrup, 200 mg/5 ml
<sup>o</sup> diazepam (1b)	injection, 5 mg/ml in 2-ml ampoule tablet, 5 mg
<sup>o</sup> morphine (1a)	injection, 10 mg (sulfate or hydrochloride) in 1-ml ampoule
<sup>o</sup> promethazine	elixir or syrup, 5 mg (hydrochloride)/5 ml

**Section 2: Analgesics, Antipyretics, Nonsteroidal Anti-Inflammatory Drugs (NSAIDs), Drugs Used to Treat Gout and Disease-Modifying Agents used in Rheumatic Disorders (DMARDs)****2.1 NON-OPIOID ANALGESICS & NSAIDs**

acetylsalicylic acid	tablet, 100–500 mg suppository, 50–150 mg
<sup>o</sup> ibuprofen	tablet, 200 mg, 400 mg
paracetamol	tablet, 100–500 mg suppository, 100 mg syrup, 125 mg/5 ml

**2.2 OPIOID ANALGESICS**

<sup>o</sup> codeine (1a)	tablet, 30 mg (phosphate)
<sup>o</sup> morphine (1a)	injection, 10 mg (sulfate or hydrochloride) in 1-ml ampoule oral solution, 10 mg (hydrochloride or sulfate)/5 ml tablet, 10 mg (sulfate)

**Complementary drug**

<sup>o</sup> pethidine (A) (1a, 4)	injection, 50 mg (hydrochloride) in 1-ml ampoule tablet, 50 mg, 100 mg (hydrochloride)
------------------------------------	--

**2.3 DRUGS USED TO TREAT GOUT**

allopurinol (4)	tablet, 100 mg
colchicine (7)	tablet, 500 µg

**2.4 DISEASE-MODIFYING AGENTS USED IN RHEUMATIC DISORDERS**

azathioprine (2)	tablet, 50 mg
chloroquine (2)	tablet, 100 mg, 150 mg (as phosphate or sulfate)
cyclophosphamide (2)	tablet, 25 mg
methotrexate (2)	tablet, 2.5 mg (as sodium salt)
penicillamine (2)	capsule or tablet, 250 mg
sulfasalazine (2)	tablet, 500 mg

**Section 3: Antiallergics and Drugs Used in Anaphylaxis**

<sup>o</sup> chlorphenamine	tablet, 4 mg (hydrogen maleate) injection, 10 mg (hydrogen maleate) in 1-ml ampoule
<sup>o</sup> dexamethasone	tablet, 500 µg, 4 mg injection, 4 mg dexamethasone phosphate (as disodium salt) in 1-ml ampoule
epinephrine	injection, 1 mg (as hydro- chloride or hydrogen tartrate) in 1-ml ampoule
hydrocortisone	powder for injection, 100 mg (as sodium succinate) in vial
<sup>o</sup> prednisolone	tablet, 5 mg

**Section 4: Antidotes and Other Substances Used in Poisonings****4.1 NON-SPECIFIC**

<sup>o</sup> charcoal, activated	powder
ipecacuanha	syrup, containing 0.14% ipecacuanha alkaloids calculated as emetine

**4.2 SPECIFIC**

acetylcysteine	injection, 200 mg/ml in 10-ml vial
atropine	injection, 1 mg (sulfate) in 1-ml ampoule
calcium gluconate (2, 8)	injection, 100 mg/ml in 10-ml ampoule
deferoxamine	powder for injection, 500 mg (mesilate) in vial

<sup>o</sup> Example of a therapeutic group. Various drugs can serve as alternatives.



dimercaprol (2)	injection in oil, 50 mg/ml in 2-ml ampoule
<sup>o</sup> DL-methionine	tablet, 250 mg
methylthioninium chloride (methylene blue)	injection, 10 mg/ml in 10-ml ampoule
naloxone	injection, 400 µg (hydrochloride) in 1-ml ampoule
penicillamine (2)	capsule or tablet, 250 mg
potassium ferric hexacyano- ferrate(II) ·2H <sub>2</sub> O (Prussian blue)	powder for oral administration
sodium calcium edetate (2)	injection, 200 mg/ml in 5-ml ampoule
sodium nitrite	injection, 30 mg/ml in 10-ml ampoule
sodium thiosulfate	injection, 250 mg/ml in 50-ml ampoule

### Section 5: Anticonvulsants/ Antiepileptics

carbamazepine (10, 11)	scored tablet, 100 mg, 200 mg
<sup>o</sup> diazepam (1b)	injection, 5 mg/ml in 2-ml ampoule (intravenous or rectal)
ethosuximide	capsule, 250 mg syrup, 250 mg/5 ml
magnesium sulfate	injection, 500 mg/ml in 2-ml ampoule and 10-ml ampoule
phenobarbital (1b, 11)	tablet, 15–100 mg elixir, 15 mg/5 ml
phenytoin (7, 11)	capsule or tablet, 25 mg, 50 mg, 100 mg (sodium salt) injection, 50 mg (sodium salt)/ml in 5-ml vial
valproic acid (7, 11)	enteric coated tablet, 200 mg, 500 mg (sodium salt)
<i>Complementary drug</i>	
<sup>o</sup> clonazepam (B) (1b)	scored tablet, 500 µg

### Section 6: Anti-infective Drugs

#### 6.1 ANTHELMINTHICS

##### 6.1.1 INTESTINAL ANTHELMINTHICS

albendazole	chewable tablet, 400 mg
levamisole	tablet, 50 mg, 150 mg (as hydrochloride)
<sup>o</sup> mebendazole	chewable tablet, 100 mg, 500 mg
niclosamide	chewable tablet, 500 mg
praziquantel	tablet, 150 mg, 600 mg
pyrantel	chewable tablet, 250 mg (as embonate) oral suspension, 50 mg (as embonate)/ml

##### 6.1.2 ANTIFILARIALS

diethylcarbamazine	tablet, 50 mg, 100 mg (dihydrogen citrate)
ivermectin	scored tablet, 3 mg, 6 mg

#### *Complementary drug*

suramin sodium (B) (2, 7)	powder for injection, 1 g in vial
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##### 6.1.3 ANTISCHISTOSOMALS AND OTHER ANTITREMATODE DRUGS

praziquantel	tablet, 600 mg
triclabendazole	tablet, 250 mg
<i>Complementary drug</i>	
oxamniquine (C) (8)	capsule, 250 mg syrup, 250 mg/5 ml

#### 6.2 ANTIBACTERIALS

##### 6.2.1 BETA LACTAM DRUGS

<sup>o</sup> amoxicillin	capsule or tablet, 250 mg, 500 mg (anhydrous) powder for oral suspension, 125 mg (anhydrous)/5 ml
ampicillin	powder for injection, 500 mg, 1 g (as sodium salt) in vial
benzathine benzylpenicillin	powder for injection, 1.44 g benzylpenicillin (= 2.4 million IU) in 5-ml vial
benzylpenicillin	powder for injection, 600 mg (= 1 million IU), 3 g (= 5 million IU) (sodium or potassium salt) in vial

<sup>o</sup> Example of a therapeutic group. *Various drugs can serve as alternatives.*

<sup>o</sup> cloxacillin	capsule, 500 mg, 1 g (as sodium salt) powder for oral solution, 125 mg (as sodium salt)/5 ml powder for injection, 500 mg (as sodium salt) in vial	<sup>o</sup> metronidazole	tablet, 200–500 mg injection, 500 mg in 100-ml vial suppository, 500 mg, 1 g oral suspension, 200 mg (as benzoate)/5 ml
phenoxymethylpenicillin	tablet, 250 mg (as potassium salt) powder for oral suspension, 250 mg (as potassium salt)/5 ml	nalidixic acid (8)	tablet, 250 mg, 500 mg tablet, 100 mg
procaine benzylpenicillin	powder for injection, 1 g (= 1 million IU), 3 g (= 3 million IU) in vial	nitrofurantoin (4, 8)	powder for injection, 2 g (as hydrochloride) in vial
<i>Restricted indications</i>		spectinomycin (8)	powder for injection, 2 g (as hydrochloride) in vial
<sup>o</sup> amoxicillin + <sup>o</sup> clavulanic acid (D)	tablet, 500 mg + 125 mg	<sup>o</sup> sulfadiazine (4)	tablet, 500 mg injection, 250 mg (sodium salt) in 4-ml ampoule
ceftazidime (D)	powder for injection, 250 mg (as pentahydrate) in vial	<sup>o</sup> sulfamethoxazole + trimethoprim (4)	tablet, 100 mg + 20 mg, 400 mg + 80 mg oral suspension, 200 mg + 40 mg/5 ml injection, 80 mg + 16 mg/ml in 5-ml and 10-ml ampoule
<sup>o</sup> ceftriaxone (D)	powder for injection, 250 mg (as sodium salt) in vial	trimethoprim (8)	tablet, 100 mg, 200 mg injection, 20 mg/ml in 5-ml ampoule
imipenem + cilastatin (D)	powder for injection, 250 mg (as monohydrate) + 250 mg, (as sodium salt) 500 mg (as monohydrate) + 500 mg in vial (as sodium salt)	<i>Complementary drugs</i>	
<b>6.2.2 OTHER ANTIBACTERIALS</b>		chloramphenicol (C)	oily suspension for injection, 0.5 g (as sodium succinate)/ml in 2-ml ampoule
<sup>o</sup> chloramphenicol (7)	capsule, 250 mg oral suspension, 150 mg (as palmitate)/5 ml powder for injection, 1 g (sodium succinate) in vial	clindamycin (B) (8)	capsule, 150 mg injection, 150 mg (as phosphate)/ml
<sup>o</sup> ciprofloxacin	tablet, 250 mg (as hydrochloride)	<i>Restricted indications</i>	
<sup>o</sup> doxycycline (5, 6)	capsule or tablet, 100 mg (hydrochloride)	vancomycin (D)	powder for injection 250 mg (as hydrochloride) in vial
<sup>o</sup> erythromycin	capsule or tablet, 250 mg (as stearate or ethyl succinate) powder for oral suspension, 125 mg (as stearate or ethyl succinate) powder for injection, 500 mg (as lactobionate) in vial	<b>6.2.3 ANTILEPROSY DRUGS</b>	
<sup>o</sup> gentamicin (2, 4, 7, 11)	injection, 10 mg, 40 mg (as sulfate)/ml in 2-ml vial	clofazimine	capsule, 50 mg, 100 mg
		dapsone	tablet, 25 mg, 50 mg, 100 mg
		rifampicin	capsule or tablet, 150 mg, 300 mg
		<b>6.2.4 ANTITUBERCULOSIS DRUGS</b>	
		ethambutol (4)	tablet, 100–400 mg (hydrochloride)
		isoniazid	tablet, 100–300 mg
		isoniazid + ethambutol (5)	tablet, 150 mg + 400 mg

<sup>o</sup> Example of a therapeutic group. Various drugs can serve as alternatives.



pyrazinamide	tablet, 400 mg
rifampicin	capsule or tablet, 150 mg, 300 mg
rifampicin + isoniazid (5)	tablet, 60 mg + 30 mg, 150 mg + 75 mg, 300 mg + 150 mg tablet, 60 mg + 60 mg, 150 mg + 150 mg (for intermittent use 3 times weekly)
rifampicin + isoniazid + pyrazinamide (5)	tablet, 60 mg + 30 mg + 150 mg, 150 mg + 75 mg + 400 mg tablet, 150 mg + 150 mg + 500 mg (for intermittent use 3 times weekly)
rifampicin + isoniazid + pyrazinamide + ethambutol	tablet, 150 mg + 75 mg + 400 mg + 275 mg
streptomycin (4)	powder for injection, 1 g (as sulfate) in vial

*Complementary drug*

thioacetazone + isoniazid (A) (5, 7)	tablet, 50 mg + 100 mg, 150 mg + 300 mg
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Additional reserve antituberculosis drugs for the treatment of drug-resistant tuberculosis should be used in specialized centres only with WHO-recommended TB control strategy, DOTS, and treatment programmes.

**6.3 ANTIFUNGAL DRUGS**

amphotericin B (4)	powder for injection, 50 mg in vial
<sup>a</sup> fluconazole	capsule, 50 mg injection, 2 mg/ml in vial oral suspension, 50 mg/5-ml
griseofulvin (7)	capsule or tablet, 125 mg, 250 mg
nystatin	tablet, 100 000, 500 000 IU lozenge, 100 000 IU pessary, 100 000 IU

*Complementary drugs*

flucytosine (B) (4, 8)	capsule, 250 mg infusion, 2.5 g in 250 ml
potassium iodide (A)	saturated solution

**6.4 ANTIVIRAL DRUGS****6.4.1 ANTIHERPES DRUGS**

aciclovir (8)	tablet, 200 mg powder for injection, 250 mg (as sodium salt) in vial
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**6.4.2 ANTIRETROVIRAL DRUGS**

*Adequate resources and specialist oversight are a prerequisite for the introduction of this class of drugs.*

nevirapine (8)	tablet, 200 mg oral solution, 50 mg/5 ml
zidovudine (8)	capsule, 100 mg, 250 mg injection, 10 mg/ml in 20-ml vial oral solution, 50 mg/5 ml

Drugs for treatment of HIV/AIDS include nucleoside reverse transcriptase inhibitors (NRTIs), non-nucleoside reverse transcriptase inhibitors (NNRTIs) and protease inhibitors (PIs). Zidovudine and nevirapine have been shown to reduce or prevent mother-to-child transmission of HIV infection. **This is the only indication for which they are included here.** Single drug use with zidovudine, except in pregnancy, is now regarded as obsolete because of the development of resistance. Triple therapy is beyond the budgets of most national drug programmes and therefore HIV/AIDS treatment policies must be decided at country or institutional level.

**6.5 ANTIPROTOZOAL DRUGS****6.5.1 ANTIAMOEBIAC AND ANTIGIARDIASIS DRUGS**

<sup>a</sup> diloxanide	tablet, 500 mg (furoate)
<sup>a</sup> metronidazole	tablet, 200–500 mg injection, 500 mg in 100-ml vial oral suspension, 200 mg (as benzoate)/5 ml

**6.5.2 ANTILEISHMANIASIS DRUGS**

<sup>a</sup> meglumine antimoniate	injection, 30%, equivalent to approx. 8.5% antimony, in 5-ml ampoule
pentamidine (5)	powder for injection, 200 mg, 300 mg (isetionate) in vial

*Complementary drug*

amphotericin B (B) (4)	powder for injection, 50 mg in vial
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**6.5.3 ANTIMALARIAL DRUGS****(a) FOR CURATIVE TREATMENT**

<sup>a</sup> chloroquine	tablet, 100 mg, 150 mg (as phosphate or sulfate) syrup, 50 mg (as phosphate or sulfate)/5 ml injection, 40 mg (as hydrochloride, phosphate or sulfate)/ml in 5-ml ampoule
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<sup>a</sup> Example of a therapeutic group. Various drugs can serve as alternatives.

primaquine	tablet, 7.5 mg, 15 mg (as diphosphate)
°quinine	tablet, 300 mg (as bisulfate or sulfate) injection, 300 mg (as dihydrochloride)/ml in 2-ml ampoule

*Complementary drugs*

°doxycycline (B) ( <i>for use only in combination with quinine</i> )	capsule or tablet, 100 mg (hydrochloride)
mefloquine (B)	tablet, 250 mg (as hydrochloride)
°sulfadoxine + pyrimethamine (B)	tablet, 500 mg + 25 mg

*Restricted indications*

artemether (D)	injection, 80 mg/ml in 1-ml ampoule
artesunate (D)	tablet, 50 mg

## (b) FOR PROPHYLAXIS

chloroquine	tablet, 150 mg (as phosphate or sulfate) syrup, 50 mg (as phosphate or sulfate)/5 ml
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doxycycline	capsule or tablet, 100 mg (hydrochloride)
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mefloquine	tablet, 250 mg (as hydrochloride)
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proguanil ( <i>for use only in combination with chloroquine</i> )	tablet, 100 mg (hydrochloride)
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## 6.5.4 ANTIPNEUMOCYSTOSIS AND ANTITOXOPLASMOSIS DRUGS

pentamidine (2)	tablet, 200 mg, 300 mg
pyrimethamine	tablet, 25 mg
sulfamethoxazole + trimethoprim	injection, 80 mg + 16 mg/ml in 5-ml and 10-ml ampoule

## 6.5.5 ANTITRYPANOSOMAL DRUGS

## (a) AFRICAN TRYPANOSOMIASIS

melarsoprol (2)	injection, 3.6% solution
pentamidine (2)	powder for injection, 200 mg, 300 mg (isetionate) in vial
suramin sodium	powder for injection, 1 g in vial

*Complementary drug*

eflornithine (C)	injection, 200 mg (hydrochloride)/ml in 100-ml bottles
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## (b) AMERICAN TRYPANOSOMIASIS

benznidazole (7)	tablet, 100 mg
nifurtimox (2, 8)	tablet, 30 mg, 120 mg, 250 mg

## 6.6 INSECT REPELLENTS

diethyltoluamide	topical solution, 50%, 75%
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## Section 7: Antimigraine Drugs

## 7.1 FOR TREATMENT OF ACUTE ATTACK

acetylsalicylic acid	tablet, 300–500 mg
ergotamine (1c) (7)	tablet, 1 mg (tartrate)
paracetamol	tablet, 300–500 mg

## 7.2 FOR PROPHYLAXIS

°propranolol	tablet, 20 mg, 40 mg (hydrochloride)
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## Section 8: Antineoplastic and Immunosuppressive Drugs and Drugs Used in Palliative Care

## 8.1 IMMUNOSUPPRESSIVE DRUGS

*Adequate resources and specialist oversight are a prerequisite for the introduction of this class of drugs.*

°azathioprine (2)	tablet, 50 mg powder for injection, 100 mg (as sodium salt) in vial
°ciclosporin (2) ( <i>for organ transplantation</i> )	capsule, 25 mg concentrate for injection, 50 mg/ml in 1-ml ampoule

## 8.2 CYTOTOXIC DRUGS

*Adequate resources and specialist oversight are a prerequisite for the introduction of this class of drugs.*

asparaginase (2)	powder for injection, 10 000 IU in vial
bleomycin (2)	powder for injection, 15 mg (as sulfate) in vial
calcium folinate (2)	tablet, 15 mg injection, 3 mg/ml in 10-ml ampoule
chlorambucil (2)	tablet, 2 mg
chlormethine (2)	powder for injection, 10 mg (hydrochloride) in vial

° Example of a therapeutic group. *Various drugs can serve as alternatives.*



cisplatin (2)	powder for injection, 10 mg, 50 mg in vial
cyclophosphamide (2)	tablet, 25 mg powder for injection, 500 mg in vial
cytarabine (2)	powder for injection, 100 mg in vial
dacarbazine (2)	powder for injection, 100 mg in vial
daunorubicin (2)	powder for injection, 50 mg (as hydrochloride) in vial
dactinomycin (2)	powder for injection 500 µg in vial
<sup>o</sup> doxorubicin (2)	powder for injection, 10 mg, 50 mg (hydrochloride) in vial
etoposide (2)	capsule, 100 mg injection, 20 mg/ml in 5-ml ampoule
fluorouracil (2)	injection, 50 mg/ml in 5-ml ampoule
levamisole (2)	tablet, 50 mg (as hydrochloride)
mercaptopurine (2)	tablet, 50 mg
methotrexate (2)	tablet, 2.5 mg (as sodium salt) powder for injection, 50 mg (as sodium salt) in vial
procarbazine	capsule, 50 mg (as hydrochloride)
vinblastine (2)	powder for injection, 10 mg (sulfate) in vial
vincristine (2)	powder for injection, 1 mg, 5 mg (sulfate) in vial

### 8.3 HORMONES AND ANTIHORMONES

<sup>o</sup> prednisolone	tablet, 5 mg powder for injection, 20 mg, 25 mg (as sodium phosphate or sodium succinate) in vial
tamoxifen	tablet, 10 mg, 20 mg (as citrate)

### 8.4 DRUGS USED IN PALLIATIVE CARE

The WHO Expert Committee on Essential Drugs recommended that all the drugs mentioned in the WHO publication *Cancer Pain Relief: with a Guide to Opioid Availability, 2nd edition*, be considered essential. The drugs are included in the relevant sections of the model list according to their therapeutic use, e.g. analgesics.

## Section 9: Antiparkinsonism Drugs

<sup>a</sup> biperiden	tablet, 2 mg (hydrochloride) injection, 5 mg (lactate) in 1-ml ampoule
levodopa + <sup>a</sup> carbidopa (5, 6)	tablet, 100 mg + 10 mg, 250 mg + 25 mg

## Section 10: Drugs affecting the Blood

### 10.1 ANTIANAEMIA DRUGS

ferrous salt	tablet, equivalent to 60 mg iron oral solution, equivalent to 25 mg iron (as sulfate)/ml
ferrous salt + folic acid ( <i>nutritional supplement for use during pregnancy</i> )	tablet, equivalent to 60 mg iron + 400 µg folic acid
folic acid (2)	tablet, 1 mg, 5 mg injection, 1 mg (as sodium salt) in 1-ml ampoule
hydroxocobalamin (2)	injection, 1 mg in 1-ml ampoule

### Complementary drug

<sup>a</sup> Iron dextran (B) (5)	injection, equivalent to 50 mg iron/ ml in 2-ml ampoule
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### 10.2 DRUGS AFFECTING COAGULATION

desmopressin (8)	injection, 4 µg (acetate)/ml in 1-ml ampoule nasal spray, 10 µg (acetate)/ metered dose
heparin sodium	injection, 1000 IU/ml, 5000 IU/ml, 20 000 IU/ml in 1-ml ampoule
phytomenadione	injection, 10 mg/ml in 5-ml ampoule tablet, 10 mg
protamine sulfate	injection, 10 mg/ml in 5-ml ampoule
<sup>a</sup> warfarin (2, 6)	tablet, 1 mg, 2 mg and 5 mg (sodium salt)

<sup>o</sup> Example of a therapeutic group. Various drugs can serve as alternatives.

## Section 11: Blood Products and Plasma Substitutes

### 11.1 PLASMA SUBSTITUTES

<sup>a</sup> dextran 70	injectable solution, 6%
<sup>a</sup> polygeline	injectable solution, 3.5%

### 11.2 PLASMA FRACTIONS FOR SPECIFIC USE<sup>1</sup>

#### Complementary drugs

<sup>a</sup> factor VIII concentrate (C) (2, 8)	dried
<sup>a</sup> factor IX complex (coagulation factors II, VII, IX, X) concentrate (C) (2, 8)	dried

## Section 12: Cardiovascular Drugs

### 12.1 ANTIANGINAL DRUGS

<sup>a</sup> atenolol	tablet, 50 mg, 100 mg
glyceryl trinitrate	tablet (sublingual), 500 µg
<sup>a</sup> isosorbide dinitrate	tablet (sublingual), 5 mg
<sup>a</sup> verapamil (10)	tablet, 40 mg, 80 mg (hydrochloride)

### 12.2 ANTIARRHYTHMIC DRUGS

<sup>a</sup> atenolol	tablet, 50 mg, 100 mg
digoxin (4, 11)	tablet, 62.5 µg, 250 µg oral solution, 50 µg/ml injection, 250 µg/ml in 2-ml ampoule
lidocaine	injection, 20 mg (hydrochloride)/ml in 5-ml ampoule
verapamil (8, 10)	tablet, 40 mg, 80 mg (hydrochloride) injection, 2.5 mg (hydrochloride)/ml in 2-ml ampoule

#### Complementary drugs

epinephrine (C)	injection, 1 mg (as hydrochloride)/ml
isoprenaline (C)	injection, 20 µg (hydrochloride)/ml

<sup>a</sup> procainamide (B)	tablet, 250 mg, 500 mg (hydrochloride) injection, 100 mg (hydrochloride)/ml in 10-ml ampoule
<sup>a</sup> quinidine (A) (7)	tablet, 200 mg (sulfate)

### 12.3 ANTIHYPERTENSIVE DRUGS

<sup>a</sup> atenolol	tablet, 50 mg, 100 mg
<sup>a</sup> captopril	scored tablet, 25 mg
<sup>a</sup> hydralazine	tablet, 25 mg, 50 mg (hydrochloride) powder for injection, 20 mg (hydrochloride) in ampoule
<sup>a</sup> hydrochlorothiazide	scored tablet, 25 mg
methyldopa (7)	tablet, 250 mg
<sup>a</sup> nifedipine (10)	sustained-release formulations tablet, 10 mg
<sup>a</sup> reserpine	tablet, 100 µg, 250 µg injection, 1 mg in 1-ml ampoule

#### Complementary drugs

prazosin	tablet, 500 µg, 1 mg (mesilate)
<sup>a</sup> sodium nitroprusside (C) (2, 8)	powder for infusion, 50 mg in ampoule

### 12.4 DRUGS USED IN HEART FAILURE

<sup>a</sup> captopril	scored tablet, 25 mg
digoxin (4, 11)	tablet, 62.5 µg, 250 µg oral solution, 50 µg/ml injection, 250 µg/ml in 2-ml ampoule
dopamine	injection, 40 mg (hydrochloride)/ml in 5-ml vial
<sup>a</sup> hydrochlorothiazide	tablet, 25 mg, 50 mg

### 12.5 ANTITHROMBOTIC DRUGS

acetylsalicylic acid	tablet, 100 mg
<i>Complementary drug</i>	
streptokinase (C)	powder for injection, 100 000 IU, 750 000 IU in vial

<sup>a</sup> Example of a therapeutic group. Various drugs can serve as alternatives.

<sup>1</sup> All plasma fractions should comply with the Requirements for the Collection, Processing and Quality Control of Blood, Blood Components and Plasma Derivatives (Revised 1992). WHO Technical Report Series, No. 840, 1994, Annex 2.



**12.6 LIPID-LOWERING AGENTS**

The WHO Expert Committee on Essential Drugs recognizes the value of lipid-lowering drugs in treating patients with hyperlipidaemia. Beta-hydroxy-beta-methylglutaryl-coenzyme A (HMG CoA) reductase inhibitors, often referred to as "statins", are potent and effective lipid-lowering drugs with a good tolerability profile. Several of these drugs have been shown to reduce the incidence of fatal and non-fatal myocardial infarction, stroke and mortality (all causes), as well as the need for coronary bypass surgery. All remain very costly but may be cost-effective for secondary prevention of cardiovascular disease as well as for primary prevention in some very high-risk patients. Since no single drug has been shown to be significantly more effective or less expensive than others in the group, none is included in the model list; the choice of drug for use in patients at highest risk should be decided at national level.

## Section 13: Dermatological Drugs (topical)

**13.1 ANTIFUNGAL DRUGS**

benzoic acid + salicylic acid	ointment or cream, 6% + 3%
<sup>o</sup> miconazole	ointment or cream, 2% (nitrate)
sodium thiosulfate	solution, 15%

*Complementary drug*

selenium sulfide (C)	detergent-based suspension, 2%
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**13.2 ANTI-INFECTIVE DRUGS**

<sup>o</sup> methylrosanilinium chloride (gentian violet)	aqueous solution, 0.5% tincture, 0.5%
neomycin + <sup>b</sup> acitracin (7)	ointment, 5 mg neomycin sulfate + 500 IU bacitracin zinc/g
potassium permanganate	aqueous solution, 1:10 000
silver sulfadiazine	cream, 1%, in 500-g container

**13.3 ANTI-INFLAMMATORY AND ANTIPRURITIC DRUGS**

<sup>o</sup> betamethasone (3)	ointment or cream, 0.1% (as valerate)
<sup>o</sup> calamine lotion	lotion
<sup>o</sup> hydrocortisone	ointment or cream, 1% (acetate)

**13.4 ASTRINGENT DRUGS**

aluminium diacetate	solution, 13% for dilution
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**13.5 DRUGS AFFECTING SKIN DIFFERENTIATION AND PROLIFERATION**

benzoyl peroxide	lotion or cream, 5%
coal tar	solution, 5%
dithranol	ointment, 0.1–2%
fluorouracil	ointment, 5%
<sup>o</sup> podophyllum resin (7)	solution, 10–25%
salicylic acid	solution 5%
urea	ointment or cream, 10%

**13.6 SCABICIDES AND PEDICULICIDES**

<sup>o</sup> benzyl benzoate	lotion, 25%
permethrin	cream, 5% lotion, 1%

**13.7 ULTRAVIOLET-BLOCKING AGENTS***Complementary drugs*

topical sun protection agent with activity against UVA and UVB (C)	cream, lotion or gel
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**Section 14: Diagnostic Agents****14.1 OPHTHALMIC DRUGS**

fluorescein	eye drops, 1% (sodium salt)
<sup>o</sup> tropicamide	eye drops, 0.5%

**14.2 RADIOCONTRAST MEDIA**

<sup>o</sup> amidotrizoate	injection, 140–420 mg iodine (as sodium or meglumine salt)/ml in 20-ml ampoule
barium sulfate	aqueous suspension
<sup>o</sup> iohexol	injection, 140–350 mg iodine/ml in 5-ml, 10-ml and 20-ml ampoule
<sup>o</sup> iopanoic acid	tablet, 500 mg
<sup>o</sup> propyliodone (For administration only into the bronchial tree).	oily suspension, 500–600 mg/ml in 20-ml ampoule

*Complementary drug*

<sup>o</sup> meglumine iotroxate (C)	solution, 5 – 8 g iodine in 100–250 ml
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<sup>o</sup> Example of a therapeutic group. Various drugs can serve as alternatives.

## Section 15: Disinfectants and Antiseptics

### 15.1 ANTISEPTICS

°chlorhexidine	solution, 5% (digluconate) for dilution
°ethanol	solution, 70% (denatured)
°polyvidone iodine	solution, 10%

### 15.2 DISINFECTANTS

°chlorine base compound	powder (0.1% available chlorine) for solution
°chloroxylenol	solution, 4.8%
glutaral	solution, 2%

## Section 16: Diuretics

°amiloride (4, 7, 8)	tablet, 5 mg (hydrochloride)
°furosemide	tablet, 40 mg injection, 10 mg/ml in 2-ml ampoule
°hydrochlorothiazide	tablet, 25 mg, 50 mg
spironolactone (8)	tablet, 25 mg

#### Complementary drug

°mannitol (C)	injectable solution, 10%, 20%
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## Section 17: Gastrointestinal Drugs

### 17.1 ANTACIDS AND OTHER ANTIULCER DRUGS

aluminium hydroxide	tablet, 500 mg oral suspension, 320 mg/5 ml
°cimetidine	tablet, 200 mg injection, 200 mg in 2-ml ampoule
magnesium hydroxide	oral suspension, equivalent to 550 mg magnesium oxide/10 ml

### 17.2 ANTIEMETIC DRUGS

metoclopramide	tablet, 10 mg (hydrochloride) injection, 5 mg (hydrochloride)/ml in 2-ml ampoule
°promethazine	tablet, 10 mg, 25 mg (hydrochloride) elixir or syrup, 5 mg (hydrochloride)/5 ml injection, 25 mg (hydrochloride)/ml in 2-ml ampoule

### 17.3 ANTIHAEMORRHOIDAL DRUGS

°local anaesthetic, astringent and anti-inflammatory drug	ointment or suppository
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### 17.4 ANTI-INFLAMMATORY DRUGS

hydrocortisone	suppository, 25 mg (acetate) ° retention enema
°sulfasalazine (2)	tablet, 500 mg suppository, 500 mg retention enema

### 17.5 ANTISPASMODIC DRUGS

°atropine	tablet, 0.6 mg (sulfate) injection, 1 mg (sulfate) in 1-ml ampoule
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### 17.6 LAXATIVES

°senna	tablet, 7.5 mg (sennosides) (or traditional dosage forms)
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### 17.7 DRUGS USED IN DIARRHOEA

#### 17.7.1 ORAL REHYDRATION

oral rehydration salts (for glucose- electrolyte solution)	powder, 27.9 g/l
---	------------------

Components	g/l
sodium chloride	3.5
trisodium citrate dihydrate <sup>2</sup>	2.9
potassium chloride	1.5
glucose	20.0

° Example of a therapeutic group. Various drugs can serve as alternatives.

<sup>2</sup> Trisodium citrate dihydrate may be replaced by sodium bicarbonate (sodium hydrogen carbonate) 2.5 g/l. However, as the stability of this latter formulation is very poor under tropical conditions, it is only recommended when manufactured for immediate use.



## 17.7.2 ANTIDIARRHOEAL (SYMPTOMATIC) DRUGS

°codeine (1a) tablet, 30 mg (phosphate)

**Section 18: Hormones, other Endocrine Drugs and Contraceptives**

## 18.1 ADRENAL HORMONES AND SYNTHETIC SUBSTITUTES

°dexamethasone tablet, 500 µg, 4 mg  
injection, 4 mg dexamethasone phosphate (as disodium salt) in 1-ml ampoule

hydrocortisone powder for injection, 100 mg (as sodium succinate) in vial

°prednisolone tablet, 1 mg, 5 mg

*Complementary drug*

fludrocortisone (C) tablet, 100 µg (acetate)

## 18.2 ANDROGENS

*Complementary drug*

testosterone (C) (2) injection, 200 mg (enantate) in 1-ml ampoule

## 18.3 CONTRACEPTIVES

## 18.3.1 HORMONAL CONTRACEPTIVES

°ethinylestradiol + °levonorgestrel tablet, 30 µg + 150 µg,

°ethinylestradiol + °levonorgestrel tablet, 50 µg + 250 µg (pack of four)

°ethinylestradiol + °norethisterone tablet, 35 µg + 1.0 mg

levonorgestrel tablet, 0.75 mg (pack of two)

*Complementary drugs*

°levonorgestrel (B) tablet, 30 µg

medroxyprogesterone acetate (B) (7, 8) depot injection, 150 mg in 1-ml vial

norethisterone oily solution, 200 mg/ml in enantate (B) (7, 8) 1-ml ampoule

## 18.3.2 INTRAUTERINE DEVICES

copper-containing device

## 18.3.3 BARRIER METHODS

condoms with or without spermicide (nonoxinol)

diaphragms with spermicide (nonoxinol)

## 18.4 ESTROGENS

°ethinylestradiol tablet, 10 µg, 50 µg

## 18.5 INSULINS AND OTHER ANTIDIABETIC AGENTS

°glibenclamide tablet, 2.5 mg, 5 mg

insulin injection (soluble) injection, 40 IU/ml in 10-ml vial, 100 IU/ml in 10-ml vial

intermediate-acting insulin injection, 40 IU/ml in 10-ml vial, 100 IU/ml in 10-ml vial (as compound insulin zinc suspension or isophane insulin)

metformin tablet, 500 m (hydrochloride)

## 18.6 OVULATION INDUCERS

°clomifene (2, 8) tablet, 50 mg (citrate)

## 18.7 PROGESTOGENS

norethisterone tablet, 5 mg

*Complementary drug*

medroxyprogesterone acetate (B) tablet, 5 mg

## 18.8 THYROID HORMONES AND ANTITHYROID DRUGS

levothyroxine tablet, 50 µg, 100 µg (sodium salt)

potassium iodide tablet, 60 mg

°propylthiouracil tablet, 50 mg

**Section 19: Immunologicals**

## 19.1 DIAGNOSTIC AGENTS

tuberculin,<sup>3</sup> injection  
purified protein derivative (PPD)° Example of a therapeutic group. *Various drugs can serve as alternatives.*<sup>3</sup> All tuberculins should comply with the Requirements for Tuberculins (Revised 1985). WHO Technical Report Series, No. 745, 1987, Annex 1.

**19.2 SERA AND IMMUNOGLOBULINS<sup>4</sup>**

anti-D immunoglobulin (human)	injection, 250 µg in single-dose vial
<sup>a</sup> antitetanus immunoglobulin (human)	injection, 500 IU in vial
antivenom serum	injection
diphtheria antitoxin	injection, 10 000 IU, 20 000 IU in vial
immunoglobulin, human normal (2)	injection (intramuscular)
immunoglobulin, human normal (2, 8)	injection (intravenous)
<sup>a</sup> rabies immunoglobulin	injection, 150 IU/ml

**19.3 VACCINES<sup>5</sup>****19.3.1 FOR UNIVERSAL IMMUNIZATION**

BCG  
diphtheria  
pertussis  
tetanus  
hepatitis B  
measles  
poliomyelitis

**19.3.2 FOR SPECIFIC GROUPS OF INDIVIDUALS**

influenza  
meningitis  
mumps  
rabies  
rubella  
typhoid  
yellow fever

**Section 20:****Muscle Relaxants (peripherally acting) and Cholinesterase Inhibitors**

<sup>a</sup> alcuronium chloride (2)	injection, 5 mg/ml in 2-ml ampoule
<sup>a</sup> neostigmine	tablet, 15 mg (bromide) injection, 500 µg, 2.5 mg (metilsulfate) in 1-ml ampoule
pyridostigmine bromide (2, 8)	tablet, 60 mg injection, 1 mg in 1-ml ampoule
suxamethonium chloride (2)	injection, 50 mg/ml in 2-ml ampoule powder for injection
<i>Complementary drug</i>	
vecuronium bromide (C)	powder for injection, 10 mg in vial

**Section 21:****Ophthalmological Preparations****21.1 ANTI-INFECTIVE AGENTS**

<sup>a</sup> gentamicin	solution (eye drops), 0.3% (as sulfate)
<sup>a</sup> idoxuridine	solution (eye drops), 0.1% eye ointment, 0.2%
silver nitrate	solution (eye drops), 1%
<sup>a</sup> tetracycline	eye ointment, 1% (hydrochloride)

**21.2 ANTI-INFLAMMATORY AGENTS**

<sup>a</sup> prednisolone	solution (eye drops), 0.5% (sodium phosphate)
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**21.3 LOCAL ANAESTHETICS**

<sup>a</sup> tetracaine	solution (eye drops), 0.5% (hydrochloride)
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**21.4 MIOTICS AND ANTIGLAUCOMA DRUGS**

acetazolamide	tablet, 250 mg
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<sup>a</sup> Example of a therapeutic group. Various drugs can serve as alternatives.

<sup>4</sup> All plasma fractions should comply with the Requirements for the Collection, Processing and Quality Control of Blood, Blood components and Plasma Derivatives (Revised 1992). WHO Technical Report Series, No. 840, 1994, Annex 2.

<sup>5</sup> All vaccines should comply with current WHO recommendations for biological substances.



<sup>o</sup>pilocarpine solution (eye drops), 2%, 4%  
(hydrochloride or nitrate)

<sup>o</sup>timolol solution (eye drops), 0.25%, 0.5%  
(as maleate)

### 21.5 MYDRIATICS

atropine solution (eye drops),  
0.1%, 0.5%, 1% (sulfate)

#### Complementary drug

epinephrine (A) solution (eye drops), 2%  
(as hydrochloride)

## Section 22: Oxytocics and Antioxytocics

### 22.1 OXYTOCICS

<sup>o</sup>ergometrine (1c) tablet, 200 µg (hydrogen maleate)  
injection, 200 µg (hydrogen maleate)  
in 1-ml ampoule

oxytocin injection, 10 IU in 1-ml ampoule

### 22.2 ANTIOXYTOCICS

<sup>o</sup>salbutamol (2) tablet, 4 mg (as sulfate)  
injection, 50 µg (as sulfate)/ml  
in 5-ml ampoule

## Section 23: Peritoneal Dialysis Solution

intrapertoneal dialysis solution parenteral solution  
(of appropriate composition)

## Section 24: Psychotherapeutic Drugs

### 24.1 DRUGS USED IN PSYCHOTIC DISORDERS

<sup>o</sup>chlorpromazine tablet, 100 mg (hydrochloride)  
syrup, 25 mg  
(hydrochloride)/5 ml  
injection, 25 mg  
(hydrochloride)/ml in 2-ml ampoule

<sup>o</sup>fluphenazine (5) injection, 25 mg  
(decanoate or enantate)  
in 1-ml ampoule

<sup>o</sup>haloperidol tablet, 2 mg, 5 mg  
injection, 5 mg in  
1-ml ampoule

### 24.2 DRUGS USED IN MOOD DISORDERS

#### 24.2.1 DRUGS USED IN DEPRESSIVE DISORDERS

<sup>o</sup>amitriptyline tablet, 25 mg (hydrochloride)

#### 24.2.2 DRUGS USED IN BIPOLAR DISORDERS

carbamazepine (10, 11) scored tablet, 100 mg, 200 mg

lithium carbonate (2, 4) capsule or tablet, 300 mg

valproic acid (7, 11) enteric coated tablet,  
200 mg, 500 mg (sodium salt)

#### 24.3 DRUGS USED IN GENERALIZED ANXIETY AND SLEEP DISORDERS

<sup>o</sup>diazepam (1b) scored tablet, 2 mg, 5 mg

#### 24.4 DRUGS USED IN OBSESSIVE COMPULSIVE DISORDERS AND PANIC ATTACKS

clomipramine capsules, 10 mg, 25 mg  
(hydrochloride)

## Section 25: Drugs Acting on the Respiratory Tract

### 25.1 ANTI-ASTHMATIC DRUGS

<sup>o</sup>aminophylline (2) injection, 25 mg/ml  
in 10-ml ampoule

<sup>o</sup>beclometasone inhalation (aerosol), 50 µg, 250 µg,  
(dipropionate) per dose

<sup>o</sup>epinephrine injection, 1 mg (as hydrochloride  
or hydrogen tartrate) in 1-ml ampoule

ipratropium bromide inhalation (aerosol), 20 µg/dose

<sup>o</sup>salbutamol tablet, 2 mg, 4 mg (as sulfate)

inhalation (aerosol), 100 µg  
(as sulfate) per dose

syrup, 2 mg (as sulfate)/5 ml

injection, 50 µg (as sulfate)/ml  
in 5-ml ampoule

respirator solution for use in nebulizers,  
5 mg (as sulfate)/ml

theophylline (10, 11) tablet, 100 mg, 200 mg, 300 mg

#### Complementary drug

<sup>o</sup>cromoglicic acid (B) inhalation (aerosol),  
20 mg (sodium salt) per dose

<sup>o</sup> Example of a therapeutic group. Various drugs can serve as alternatives.

# ESSENTIAL DRUG LIST

(PREPARED BY COMMUNITY HEALTH CELL)

Sl. No.	Name of Drug	Sl. No.	Name of Drug
	<u>ANAESTHETICS</u>		<u>ANALGESIC/ANTIPYRETICS</u>
1.	Ether	1.	Paracetamol
2.	Halothene	2.	Aspirin
3.	Thiopental	3.	Ibuprofen
4.	Nitrous Oxide	4.	Indomethacin
5.	Oxygen	5.	Pentazocine Lactate
		6.	Pethidine
	<u>ANTI - ALLERGICS</u>		<u>ANTI - EPILEPTICS</u>
1.	Chlorpheniramine maleate	1.	Phenobarbitone
2.	Promethazine	2.	Diazepam
3.	Adrenaline	3.	Phenytoin Sodium
4.	Dexamethasone	4.	Carbamazepine
	<u>ANTIBODIES</u>		<u>ANTI - INFECTIVES</u>
1.	Atropine sulphate	1.	Mebendazole
2.	Magnesium Sulphate	2.	Metronidazole
3.	Pralidoxime	3.	Benzyl Pencillin
		4.	Procaine Pencillin
		5.	Benzathine Pencillin
		6.	Tetracycline
		7.	Doxycycline
		8.	Chloramphenicol
		9.	Co-trimoxazole
		10.	Erythromycin
		11.	Amoxicillin
		12.	Ampicillin
	<u>ANTI - LEPROSY</u>		<u>ANTI - TUBERCULAR</u>
1.	Dapsone	1.	INH
2.	Rifampicin	2.	Streptomycin
3.	Clofazimine	3.	Thioacetazone
		4.	Rifampicin
		5.	Ethambutol



ANTI - FILARIAL

1. Di-ethyl carbamazine

ANTI - MALARIAL

1. Chloroquin
2. Primaquin
3. Sulfadoxin Pyremethamine
4. Quinine Sulphate

CARDIOVASCULAR

1. Isosorbide Nitrate
2. Propranolol

CARDIAC GLYCOSIDE

1. Digoxin

GASTRO INTESTINAL

Antacids

1. Aluminium Hydroxide
2. Magnesium Trisilicate
3. Ranitidine

Anti-emetics

1. Metoclopramide
2. Promethazine

Anti spasmodic

1. Atropine sulphate
2. Dicyclomin
3. Promethazine

Anti -Diarrhoeals

- ORS packets  
Loperamide Hydrochloride  
(not for children)

ANTI - FUNGAL

- Griseofulvin  
Amphotericin B

HAEMOPOIETIC

1. Ferrous Sulphate + folic Acid
2. Ferrous Fumarate + folic Acid
3. Folic Acid

ANTI - HYPERTENSIVE

1. Hydrochlorothiazide
2. Reserpine
3. Hydralazine
4. Atenlol

DIURETICS

1. Frusemide
2. Spiranolactone
3. Mannitol

LAXATIVES

1. Isapaghula husk
2. Paraffin, liquid
3. Glycerine

HARMONES

1. Prednisolone
2. Hydrocortisone sodium succinate

PSYCHO THERAPEUTIC

1. Imipramine
2. Chlorpromazine
3. Diazepam

OBSTETRICS

1. Methergin
2. Oxytocin

VITAMINS / MINERALS

1. Ascorbic Acid
2. Vitamin A
3. Vitamin B complex

ANTI DIABETIC

1. Insulin (plain)
2. Insulin (Lente)
3. Glibenclamide

RESPIRATORY

Anti asthmatic

1. Deriphylline
2. Aminophylline
3. Salbutamol
4. Terbutaline
5. Oxygen

Anti-tussive

1. Codeine Phosphate

REHYDRATION ACID BASE

ELECTROLYTE balance

1. I.V. Dextrose
2. I.V. Sodium Chloride
3. I.V. Dextrose + Saline
4. I.V. Molar Lactate
5. I.V. Sodium Bicarbonate
6. Potassium Chloride

SKIN & STD

1. Zinc Oxide Ointment
2. Whitfield ointment
3. Benzyl benzate
4. Neomycin+bacitracin
5. Gention violet
6. Miconazole ointment
7. Pencillin
8. Doxycyclin
9. Norfloxacin



### EYE DROPS

1. Tetracycline
2. Pilocarpine
3. Humatropine
4. Chloramphenical

### ACCESSORIES

1. Water for injection
2. Hydrogen peroxide
3. Chlorhexidine
4. Absorbent Cotton
5. Gauze, small & large
6. Bandage
7. Butterfly (scalp) venesets 18,21,24
8. Sutures
  - Black braided silk
  - Mersilk
  - Catgut, plain
  - Catgut Chromic
  - Prolene, atraumatic
  - Vicryl
  - Cotton thread
9. Suture Needles
10. Hypodermic Needles
11. Gloves, surgical
12. Ryles Tubes
13. Adhesive Plaster
14. Elastocrepe bandage
15. Plaster of Paris
16. Surgical Spirit
17. Drip set : administration; fluid, blood  
Cannula, IV for venesection
18. Syringes
19. Catheters, plain
20. Catheters, Foley's
21. Bleaching powder

### EMERGENCY DRUGS

1. Oxygen cylinders on trolleys, with  
flow meters and mask
2. Dopamine
3. Hydro cortisone
4. Lignocaine
5. Atropine
6. Sodium Bicarbonate
7. Pralidoxime
8. Adrenaline
9. Mephentermine
10. Mannitol
11. Magnesium sulphate
12. Trachestomy set, 24,27,30,36

### VACCINES & SERA

1. All vaccines as per National
2. Universal Immunization Programme
3. Anti Rabies serum
4. Anti Snake Venom Serum

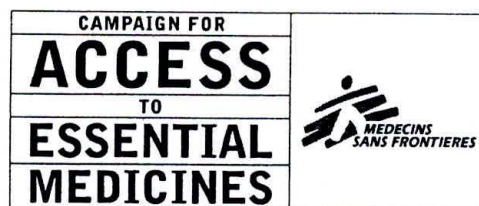
## DIAGNOSTIC AGENTS

As needed

**This list has been prepared using the following lists for reference:**

1. model list of essential list
2. Essential drugs in Primary Health Care in India, Southern region list, prepared at National Seminar conducted by NIPCCD.
3. Lists of drugs received from Government and other sources
4. CHAI-UMAI formulary.





## EXAMPLES OF THE IMPORTANCE OF INDIA AS THE “PHARMACY FOR THE DEVELOPING WORLD”

### QUICK OVERVIEW:

- India is the **main supplier** of essential medicines for developing countries.
- **67 % of medicines produced in India are exported to developing countries.**
- Main procurement agencies for developing countries’ health programmes purchase their medicines in India, where there are quality products and low prices.
- Approx. **50%** of the essential medicines that **UNICEF** distributes in developing countries come from India
- **75-80%** of all medicines distributed by the **International Dispensary Association (IDA)** to developing countries are manufactured in India. (IDA is a medical supplier operating on a not-for-profit basis for distribution of essential medicines to developing countries.)
- In **Zimbabwe**, **75%** of tenders for medicines for all public sector health facilities come from Indian manufacturers
- The state procurement agency in **Lesotho**, NDSO, states it buys nearly **95%** of all ARVs from India.

### Antiretroviral medicines (ARVs) for AIDS treatment:

India is the world’s primary source of affordable ARVs, as it is one of the few countries with the capacity to produce these newer medicines as generics. Therefore, all AIDS programmes use India as their main source of products.

- **80%** of ARVs **MSF** uses are purchased in India and are distributed in treatment projects in over 30 countries.
- Globally, **70%** of the treatment for patients in 87 developing countries, purchased by **UNICEF**, **IDA**, the **Global Fund (GFATM)** and the **Clinton Foundation** since July 2005 has come from Indian suppliers.
- **PEPFAR**, the US President’s AIDS initiative also purchases ARVs from India for distribution in developing countries, thus resulting in cost-savings of up to 90%. 89% of the generic ARVs approved by the US Food and Drug Administration for PEPFAR are from India.<sup>1</sup>
- **90%** of the ARVs used in **Zimbabwe’s** national treatment programme come from India.

### Raw materials:

In addition, raw materials are exported from India to other countries, such as Brazil, for local production of affordable medicines. This has been crucial to enabling national AIDS programmes to provide universal free access to ARVs.

### IN DETAIL:

India is the main supplier of essential medicines for developing countries. This applies not only to AIDS medicines, but to medicines to treat other diseases, as well. India is the world’s leading supplier of inexpensive generic medicines, with approximately 67% of them being exported to developing countries.<sup>2</sup>

<sup>1</sup> with partial data available for fiscal year 2006

<sup>2</sup> Oxfam

### 1) International procurement agencies

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The main procurement agencies for health programmes in developing countries purchase their medicines in India, where quality products can be purchased at low prices.

#### MSF:

- 40% of the money MSF spends on oral medicines is used to buy drugs from India (if injectables are included, the average lies at 26,5%).

#### UNICEF:

- India ranks second on the list of countries from which UNICEF purchases medical supplies. India has a considerable lead over all countries below it on the list, and Belgium only ranks first because of vaccines (e.g. combination vaccines are not yet being produced in India)<sup>3</sup>.
- If vaccines are excluded, India is the source of approx. 50% of the essential medicines UNICEF distributes in developing countries (see figure 1).

### ... AND WHERE WE BUY IT

TOP 20 SUPPLIER COUNTRIES 2005 (millions of United States Dollars)			
Belgium .....	222	Pakistan .....	29
India .....	205	China .....	26
France .....	82	Kenya .....	21
Japan .....	54	Indonesia .....	20
Switzerland .....	43	Thailand .....	14
Denmark .....	40	Sudan .....	11
United States .....	33	South Africa .....	11
Italy .....	33	Sweden .....	10
Germany .....	31	United Arab Emirates .....	9
United Kingdom .....	31	Republic of Korea .....	9

Figure 1: Top 20 supplier countries for UNICEF<sup>4</sup>

### IDA (International Dispensary Association)

- 75-80% of all medicines distributed by IDA to developing countries are manufactured in India. (IDA is a medical supplier operating on a not-for-profit basis for distribution of essential medicines to developing countries.)

### 2) National supply stores for public/non profit sector:

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#### Zimbabwe

- The National Pharmaceutical Company, Natpharm, (formerly Governmental Central Stores), states 75% of tenders for supply to national health facilities are won by Indian manufacturers.

### 3) Antiretrovirals – ARVs

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India is the world's primary source of affordable ARVs, as it is one of the few countries with the capacity to produce these newer medicines as generics. Therefore, all AIDS programmes use India as their main source of products.

- 80% of ARVs MSF uses are purchased in India and are distributed in treatment projects in more than 30 countries.

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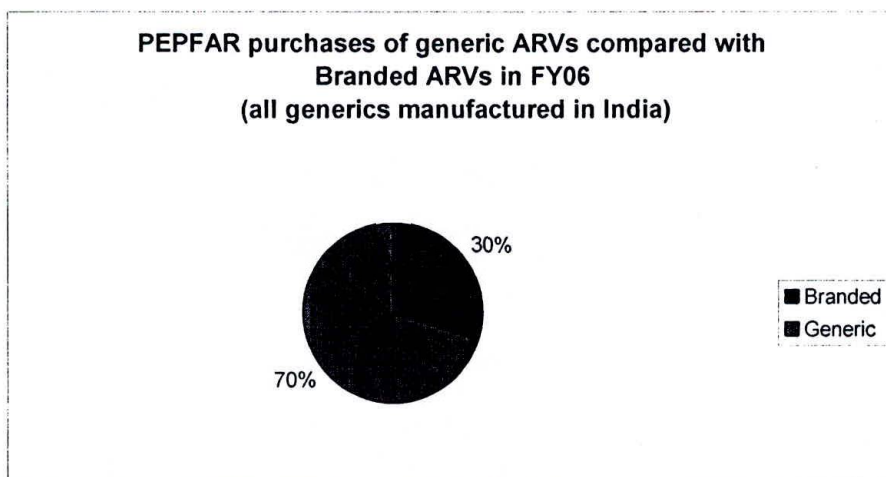
<sup>3</sup> [http://www.unicef.org/supply/files/SD\\_AnnualReport\\_2005.pdf](http://www.unicef.org/supply/files/SD_AnnualReport_2005.pdf)

<sup>4</sup> *ibid*



- Globally, **70%** of the treatment for 900,000 patients in 87 developing countries, purchased by **UNICEF, IDA** and the **Global Fund (GFATM)** since July 2005 has come from Indian suppliers.
- **PEPFAR**, the US President's AIDS initiative also purchases ARVs from India for distribution in developing countries, thus resulting in cost-savings of up to 90%. 89% of the generic ARVs approved by the US Food and Drug Administration for PEPFAR are from India.<sup>5</sup>
- **90%** of the ARVs used in **Zimbabwe's** national treatment programme come from India.
- The state procurement agency in **Lesotho**, NDSO, states it buys nearly 95% of all ARVs from India.

**PEPFAR:** The vast majority of ARVs used by PEPFAR come from India. *"In every case generic prices present an opportunity for cost savings; in some cases, the branded price per pack of a drug is up to 11 times the cost of the approved generic version."*<sup>6</sup>



**Figure 2:** Bringing Hope: Supplying ARVs for HIV/AIDS treatment, PEPFAR, May 2006<sup>7</sup>

#### 4) Active Pharmaceutical Ingredients (APIs)

Raw materials from India are also exported to other countries for production of affordable medicines. This has been key in the success of national AIDS programmes' ability to provide universal free access to ARVs.

As an example, generic production of medicines in Brazil is heavily dependent on APIs purchased from India. At the third meeting of the Commission on Intellectual Property Rights, Innovation and Public Health (CIPIH)<sup>8</sup>, Brazil stated: *"Brazil is concerned whether the application of TRIPS in India and China may affect access to APIs, and thus their treatment programme."*

<sup>5</sup> with partial data available for fiscal year 2006

<sup>6</sup> Bringing Hope: Supplying ARVs for HIV/AIDS treatment, PEPFAR, May 2006

<sup>7</sup> Note only several months of 2006 are included

<sup>8</sup> Third meeting of the Commission on Intellectual Property Rights, Innovation and Public Health (CIPIH), 31 Jan. - 4 Feb. 2005

## Campaigns for Essential Medicines

- For Batch 4 CHFS Orientation (August 14, 2006). Facilitated by NT

## Quiz on pharma development

- When was the first synthetic pharmaceutical introduced?
- When was the first modern antibiotic introduced?
- When was the first commercially formulated antimalarial?
- When was the first antitubercular produced?
- What about the first clinical use of oral contraceptives, of drugs for diabetes and of drugs for mental illness.
- And when was drugs for other infectious diseases, for cardiovascular diseases and for a wide range of other conditions developed?

## Answers

- When was the first synthetic pharmaceutical introduced? (1897)
- When was the first modern antibiotic introduced? (1941)
- When was the first commercially formulated anti-malarial? (1943)
- When was the first anti-tubercular produced? (1944)
- What about the first clinical use of oral contraceptives, of drugs for diabetes and of drugs for mental illness (1950s)
- And when was drugs for other infectious diseases, for cardiovascular diseases and for a wide range of other conditions developed? (50s onwards, in 60s and 70s)

## Model List of Essential Drugs

- WHO published the first Model List of Essential Drugs in 1977, it identified 208 individual medicines.
- The current Model List of Essential Medicines, prepared by the WHO in March 2005 is the 14<sup>th</sup> ed. It contains 312 individual medicines, including antiretroviral medicines.



## Essential medicines

Those that satisfy the:

- priority health care needs of the population

Selected with due regard to:

- disease prevalence
- evidence on efficacy and safety &
- comparative cost-effectiveness

## Essential medicines

Are intended to be available:

- within the context of functioning health systems
- at all times
- in adequate amounts
- in the appropriate dosage forms
- with assured quality
- at a price the individual and the community can afford.

This year

**>40 million  
people will  
die**  
in developing countries.

Of the over 40 million deaths

**one-third will be  
children under  
age five.**

Of the over 40 million deaths

10 million will be due to acute respiratory infections, diarrhoeal diseases, tuberculosis, and malaria

10 million avoidable deaths

due to conditions for which  
**safe, inexpensive, essential drugs**  
can be  
**life-saving.**

WHO estimates

- more than half of all medicines are
  - prescribed,
  - dispensed or
  - sold inappropriately,
- half of all patients fail to take them correctly.

Irrational use of medicines

- overuse,
- underuse or
- misuse of medicines
- It results in
  - wastage of scarce resources and
  - widespread health hazards



### Examples - irrational use of medicines

- use of too many medicines per patient ("poly-pharmacy");
- inappropriate use of antimicrobials,
  - often in inadequate dosage,
  - for non-bacterial infections;
- over-use of injections when oral formulations would be more appropriate;
- failure to prescribe in accordance with clinical guidelines;
- inappropriate self-medication, often of prescription-only medicines;
- non-adherence to dosing regimes.

### Neglected diseases

- Over the past 30 years, the number of drugs targeting neglected diseases is ten if we consider the most neglected diseases,
- 18 if we add malaria,
- and 21 if we add tuberculosis.
- These totals still represent only around 1% of all new drugs (1,556)

### What are neglected diseases?

- Neglected diseases, such as malaria and tuberculosis, mainly affect people in poor countries.
- *Most neglected diseases*, such as sleeping sickness, Chagas disease, visceral leishmaniasis (Kala azar), Buruli ulcer etc. almost exclusively affect people in developing countries who are too poor to pay for any kind of treatment. These patients are too deeply impoverished to constitute a market that can attract investment in drug R&D.

### India response

- All India Drug Action Network
- medico friends circle
- Drug Action Forum
- Jan Swasthya Abhiyan
- National Working Group on Patent Laws
- WTO Wirodhi Bharatiya Jan Abhiyan (Indian People's Campaign against WTO) etc, etc.....

**Community Health Cell**

From: [cehatpun@vsnl.com](mailto:cehatpun@vsnl.com) on behalf of SATHI [[cehatpun@vsnl.com](mailto:cehatpun@vsnl.com)]  
 Sent: Wednesday, December 06, 2006 2:59 PM  
 To: Vandana Prasad; Amit Sen Gupta; Ekbal; Amitava Guha; N. B. Sarojini; Sundar gmail; Thelmanarayan  
 Cc: jsa delhi  
 Subject: Rabies vaccine - Letter to . A.S.Anand, Chairperson, NHRC

Dear All,

I am forwarding herewith the letter which we faxed today to NHRC with copy to Mrs. Aruna Sharma. Abhay was to meet Mrs. Aruna Sharma today and would hopefully be able to push this matter about Intra dermal Rabies Vaccine because she had specifically shown interest in taking up this issue when Dhananjay met her a few days back.

Sincerely yours,

Anant

— Original Message —

From: SATHI  
 To: ABHAY TRAVELLING  
 Sent: Wednesday, December 06, 2006 2:34 PM  
 Subject: Letter to . A.S.Anand, Chairperson, NHRC

Please find attached herewith letter to Justice Dr. A.S.Anand, Chairperson, NHRC

SATHI-CEHAT  
 3 & 4, Aman E Terrace,  
 Dahanukar Colony, Kothrud,  
 Pune -411029  
 Phone: 020-25451413, 25452325

*7/12/06*  
*Dear Anant, Abhay & friends,*  
*Thanks for actively pursuing the important issue of the rabies vaccine. All State JSA groups & there should take it up. I will take it up with JAA-K.*  
*Do write to all the units & allied groups*  
*Thelma*  
*7/12*



# **Jan Swasthya Abhiyan**

**(People's Health Movement – India)**

**Health for All - Now!**

**Health is a Basic Human Right!**

---

It is the duty of the State to protect all citizens against this invariably fatal disease. But this fundamental right to life is being violated by not sufficiently increasing the budget to provide this 'new' vaccine and by not continuing the earlier policy of providing free Anti Rabies Vaccine to all cases of dog bite who report to Public Health facilities.

We urge you to urgently intervene in this matter so that the direct threat to the lives of so many poor people in India due to Rabies is annulled.

Attached herewith is our letter to Mr. P. Hota, Health Secretary, in which we have suggested two specific measures to overcome this problem. *This letter has been handed over on 17th October 05 in a meeting to Ms. Rita Teotia, Joint Secretary, Health and Family Welfare, with a plea for urgent action.* We trust that in this instance too, you would take necessary steps to help protect the lives of a large number of needy people in the country, by asking the Health ministry to institute the necessary measures urgently.

Awaiting your positive response.

Sincerely yours,



Dr. B. Ekbal.

National Convenor, JSA



Dr. Abhay Shukla

National Joint Convenor, JSA

PS. Attachment: - Letter to Mr. P. Hota, Secretary, Ministry of Health and Family Welfare

---

**Addresses for Correspondence:**

**National Secretariat c/o SATHI- CEHAT**, 3&4, Aman Terrace, Plot No. 140, Dahanukar Colony, Kothrud, Pune 411029 Ph: (020) 25451413 / 25452325 Email: [cehatpun@vsnl.com](mailto:cehatpun@vsnl.com)

**c/o Delhi Science Forum**, D-158, Lower Ground Floor, Saket, New Delhi -110017.

Ph: (011) 26524324 , 26862716 (Telfax). Email: [ctddsf@vsnl.com](mailto:ctddsf@vsnl.com)

**c/o Sama Resource Group for Women and Health** ,G-19, 2<sup>nd</sup> Floor, Marg no.24, Saket, New Delhi 17. Phone 011- 26562404, 26968972 Email- [sama\\_womenshealth@vsnl.net](mailto:sama_womenshealth@vsnl.net)

# Jan Swasthya Abhiyan

(People's Health Movement – India)

**Health for All - Now!**

**Health is a Basic Human Right!**

6<sup>th</sup> December 2006

*Chairperson:*

**N.H. Antia**

*Convenor:*

**B. Ekbal**

*Jt. Convenors:*

**Abhay Shukla**

**Amit Sen Gupta**

**Amitava Guha**

**T. Sundararaman**

**Thelma Narayan**

*National secretariat members:*

**Vandana Prasad**

**N.B. Sarojini**

*National Co-ordination Committee:*

All India People's Science Network (AIPSN)  
All India Drug Action Network (AIDAN)  
Asian Community Health Action Network (ACHAN)  
All India Democratic Women's Association (AIDWA)  
Association for India's Development (AID)  
Bharat Gyan Vigyan Samiti (BGVS)  
Breastfeeding Promotion Network of India (BPNI)  
Catholic Health Association of India (CHAI)  
Centre for Community Health and Soc. Medicine, JNU  
Christian Medical Association of India (CMAI)  
Community Health Cell (CHC)  
Forum for Creche and Child Care Services (FORCES)  
Fed. of Medical Representative Assns. of India (FMRAI)  
Health Watch- UP- Bihar  
Joint Women's Programme (JWP)  
Medico Friends Circle (MFC)  
National Alliance of People's Movements (NAPM)  
National Federation of Indian Women (NFIW)  
National Association of Women's Organisations (NAWO)  
Sama- Resource Group for Women and Health  
SATHI-CEHAT  
Voluntary Health Association of India (VHAI)

*Participating Organisations:*

Over 1000 organisations concerned with health care and health policy from both within and outside the above networks.

To,

Justice Dr. A.S. Anand,

Chairperson,

National Human Rights Commission,

New Delhi

**Subject:** - Unavailability since June 05 in Public Health Facilities throughout India, of free vaccine against the invariably fatal Rabies, leading to serious human rights violation

Respected Justice Anand,

This is in continuation with the complaint that we have launched on 31<sup>st</sup> October, 2005 about the subject mentioned above. Copy of this letter is enclosed herewith for your ready reference.

In February 06, Drugs Controller of India sent a circular to the manufacturers of Rabies Vaccine in India giving them permission to use the Intra Dermal Route of this vaccine. This was probably because of the action initiated by your office in response to our complaint. However, there is a crucial rider in the letter issued by the Drugs Controller of India, which says that the Intra Dermal Route can be used only if there are more than fifty patients of dog bite report to the Health Centre in a day.

Barring one or two exceptions in all other public hospitals in any state and certainly in Primary Health centres, there is certainly no possibility of having the fifty cases of dog bite in a day. This strange condition has no medical or any other logic whatsoever. The effect of this circular is that the cheaper Intra Dermal Route is not being used in any of the Primary Health Centres or in Rural Hospitals in India. Only those patients with dog bite who possess yellow card (BPL card) are given the conventional Intra Muscular Regimen, which consumes four to five times the volume of vaccine that is used in Intra Dermal Regimen. Given the very limited budget being made available for purchase of rabies vaccine, the continued use of Intra Dermal Regimen means in effect denial of vaccine protection to large number of people who have been afflicted by dog bite. As is well known, rabies caused by rabid dog bite is invariably fatal and hence *this denial of vaccine protection effectively means denial of right to life*. It is necessary that Drugs Controller of India and the Health Secretary give a very clear instruction in favour of use of Intra Dermal Regimen without putting the condition of at least fifty cases of dog bite a day.

*Addresses for Correspondence:*

**National Secretariat c/o SATHI-CEHAT, 3&4, Aman Terrace, Plot No. 140, Dahanukar Colony, Kothrud, Pune 411029**

Ph: (020) 25451413 / 25452325 Email: cehatpun@vsnl.com

**c/o Delhi Science Forum, D-158, Lower Ground Floor, Saket, New Delhi -110017.**

Ph: (011) 26524324 , 26862716 (Telfax). Email: ctdds@vsnl.com

**C/o Sama Resource Group for Women and Health ,G-19, 2<sup>nd</sup> Floor, Marg no.24, Saket**

New Delhi 17. Phone 011- 55637632/3, 26968972 Email- sama\_womenshealth@vsnl.net



# **Jan Swasthya Abhiyan**

**(People's Health Movement – India)**

**Health for All - Now!**

**Health is a Basic Human Right!**


---

We request you to personally intervene in this matter and see to it that this absurd condition is withdrawn and Drugs Controller, India is questioned for jeopardizing the lives of thousands of cases of dog bite that are being denied vaccine protection because of this absurd condition.

Looking forward to a positive response and an early action.

Thanking you,

Sincerely yours,



Dr. B. Ekbal  
National Convenor, JSA



Dr. Abhay Shukla  
National Joint Convenor, JSA

Dr. Anant Phadke  
Co-Convenor – Maharashtra JSA-

---

**Addresses for Correspondence:**

**National Secretariat c/o SATHI- CEHAT**, 3&4, Aman Terrace, Plot No. 140, Dahanukar Colony, Kothrud, Pune 411029 Ph: (020) 25451413 / 25452325 Email: [cehatpun@vsnl.com](mailto:cehatpun@vsnl.com)

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**c/o Sama Resource Group for Women and Health** ,G-19, 2<sup>nd</sup> Floor, Marg no.24,Saket New Delhi 17. Phone 011- 26562404, 26968972 Email- [sama\\_womenshealth@vsnl.net](mailto:sama_womenshealth@vsnl.net)

# Jan Swasthya Abhiyan

(People's Health Movement - India)

**Health for All - Now!**

**Health is a Basic Human Right!**

31st October 2005

*Chairperson:*

**N.H. Antia**

*Vice-Chairperson:*

**D. Banerjee**

*Convenor:*

**B. Ekbal**

*Jt. Convenors:*

**Abhay Shukla**

**Amit Sen Gupta**

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National Association of Women's Organisations (NAWO)  
Ramakrishna Mission (RK)  
SATHI-CEHAT  
Voluntary Health Association of India (VHAI)

*Participating Organisations:*

Over 1000 organisations concerned with health care and health policy from both within and outside the above networks.

To,

Justice Dr. A.S. Anand,

Chairperson,

National Human Rights Commission,

New Delhi

**Subject:** - National unavailability in Public Health Facilities of free vaccine against the invariably fatal Rabies from June 05, leading to serious human rights violation

Respected Justice Anand,

As you would be aware, rabies caused by the bite of rabid dog is a 100% fatal disease. Hence as a national policy, the Anti Rabies Vaccine was made available free of charge in Public Health facilities from Primary Health Centres upwards. In India, due to paucity of funds, the obsolete sheep brain vaccine, the 'Simple Vaccine' was being used till May 05. Now from June 05 this vaccine has been withdrawn from the Indian market, a welcome step. However the alternative to it, the new and safer vaccine (the 'cell-culture vaccine') is generally not available free of cost in public health facilities. This new vaccine (marketed under the brand names Rabipur, Verorab etc) costs about Rs. 300 per injection, or nearly Rs. 1500 for the full course of five injections. In principle, those who possess the Below Poverty Level (BPL) card are supposed to get this vaccine free, however this system does not always work; in addition many genuinely poor people do not possess the BPL card; and even lower middle class people cannot afford the cost of Rs. 1500; hence now a very large number of people in India are left with no protection from the fatal disease rabies after rabid dog bite.

*Addresses for Correspondence:*

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Ph: (020) 25451413 / 25452325 Email: cehatpun@vsnl.com

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New Delhi 17. Phone 011- 26562404, 26968972 Email- sama\_womenshealth@vsnl.net



----- Original Message -----

From: subha & rakhal  
To: naveen@sochara.org  
Sent: Wednesday, December 13, 2006 6:50 AM  
Subject: Fwd: [reprohealth\_india] letter to communist leaders - last date 14th Dec

Dear Naveen ,

I think CHC should sign in on this.

rakhal

From: satinath sarangi [mailto:justiceinbhopal@yahoo.co.in]  
Sent: Saturday, December 09, 2006 7:27 PM  
To: icjb-planning@lists.studentsforbhopal.org; sfbplanning; aid\_bhopal@aidindia.org; remember-bhopal@lists.studentsforbhopal.org  
Subject: [Norton AntiSpam] [remember-bhopal] letter to communist leaders

dear all,

below is a letter we would like to send to the polit bureau of the communist party of india [marxist] or cpm. the letter asks the members of the top decision making body of the party to disallow dow chemical's proposed investment in west bengal - a state in which the cpm has been in power for more than 30 years.

the present "united progressive alliance" upa government at the centre is quite dependent on the support of cpm. 43 out of 543 members of the indian parliament are from the cpm.

currently the cpm government in west bengal and the polit bureau is siezed with the issue of establishment of an automobile factory by india's top capitalists - the Tatas - in the face of opposition by local farmers and others whose lands have been taken away by force by the state government. author arundhati roy and medha patkar are among those supporting the agitating farmers and fisherpeople who were shot at by the police during one of the recent demonstrations.

we aim to send this letter to the communist leaders and to the media on 15th morning while there is debate within the party and much pressure from without on the issue of industrial investments in west bengal. please try and get as many organizations signed on as possible and send us the names by 14th evening.

best wishes,

sathyu

Dear Eddie,  
I think we should  
sign up for this. Pls.  
see this. If it is ok,  
I can send our  
names to satinath.  
Last date is 14th.  
Naveen

Draft letter may be  
on behalf of PHM - Karnataka  
and send  
ave CHC  
14/12/06.

To:

**The Members of the Polit Bureau**  
Communist Party of India (Marxist)  
A.K. Gopalan Bhawan,  
27-29, Bhai Vir Singh Marg  
(Gole Market), New Delhi - 110001

Date: December 15, 2006

**Subject: Open letter for disallowing American multinational Dow Chemical, owner of Killer Union Carbide, to invest in West Bengal**

Dear Members of the Polit Bureau of the Communist Party of India (Marxist),

We, representatives of organizations of survivors of the Bhopal disaster and their supporters are writing to you to urge that you reject the proposed investment in West Bengal by the current owner of Union Carbide Corporation, American multinational The Dow Chemical Company.

As you must know Union Carbide has killed well over 20 thousand people in Bhopal and injured more than half a million by the leak of toxic gases in December 1984. You may also know that more than 25 thousand people living in the vicinity of the abandoned pesticide factory are being poisoned through contaminations in their ground water.

We are sure you are aware that Union Carbide Corporation is criminally charged with manslaughter, grievous assault and other serious offences and the company is absconding from the ongoing criminal case since 1992. Successive Indian Governments have failed to make any effort to enforce Carbide's appearance in Indian courts. We have recently presented evidence in the criminal court in Bhopal that the fugitive American corporation continues to sell its products, technologies and processes through Indian subsidiaries of The Dow Chemical Company with which it merged in 2001.

Like Union Carbide, Dow has left a trail of massacre and misery all over the world. It was the major supplier of Napalm and Dioxin-tainted Agent Orange used by the US military against communist Vietnam in the 1960s. Today more than 650,000 children suffer a range of physical and mental deformities as a result of Dow's poisons in Vietnam. In India Dow Chemical is producing Dursban, a pesticide that was withdrawn from the US market in 2000 because of its harmful effect on children's brains.

Rather than bring Union Carbide and Dow Chemical to own up to their responsibilities in Bhopal, the Indian Government has gone out of its way to facilitate Dow's business in India. Last year the Prime Minister directed the setting up of a Special Task Force in the Planning Commission to facilitate Dow Chemical's petrochemical investments in West Bengal and Andhra Pradesh.

Given the support by the Communist Party of India (Marxist) and its allied groups to the 22 year long campaign for justice in Bhopal it would be indeed ironic and unfortunate if Dow Chemical were allowed to invest in CPM ruled West Bengal. We are hopeful that the CPM leadership will issue an unequivocal statement clarifying that Dow Chemical or any of its subsidiaries will not be entertained in West Bengal.

As we send this letter to you we are also releasing it to the media so as to communicate to the public the issue which we believe is of critical national and international importance particularly to the progressive people in our country and the world.

Please let us know if you would like us to send more information regarding this matter. We will appreciate an early response from you.

Yours sincerely,

Representatives of organizations of survivors of the Union Carbide disaster in Bhopal and their supporters.



## Rational Drug Therapy principles, realities and the road ahead

Sujith J Chandy, Clinical Pharmacology Unit, CMC, Vellore

### Introduction

Ineffective, inappropriate and economically nonviable use of medicines is often observed in health care throughout the world. This is more so in the developing countries. The need for achieving quality use of medicines in the health care system is not only because of the financial reasons with which policy makers and administrators are usually most concerned. Appropriate use of drugs is also one essential element in achieving quality of health and medical care for patients and the community.

### Defining Rational Drug Use

What is rational use of drugs? The Conference of Experts on the Rational Use of Drugs, convened by the World Health Organization in Nairobi in 1985 defined it as:

"Rational use of drugs requires that patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements for an adequate period of time, and the lowest cost to them and their community."

These requirements will be fulfilled if the process of prescribing is appropriately followed. This will include steps in defining patient's problems (or diagnosis); in defining effective and safe treatments (drugs and non-drugs); in selecting appropriate drugs, dosage and duration; in writing a prescription; in giving patients adequate information; and in planning to evaluate treatment responses.

The definition implies that rational use of drugs, especially rational prescribing should meet certain criteria :

**Appropriate indication.** The decision to prescribe drug(s) is entirely based on medical rationale and that drug therapy is an effective and safe treatment

**Appropriate drug.** The selection of drugs is based on efficacy, safety, suitability and cost considerations.

**Appropriate patient.** No contra-indications exist and the likelihood of adverse reactions is minimal, and the drug is acceptable to the patient.

**Appropriate information.** Patients should be provided with relevant, accurate, important and clear information regarding his or her condition and the medication(s) that are prescribed.

**Appropriate monitoring.** The anticipated and unexpected effects of medications should be appropriately monitored.

Unfortunately, as all of us are well aware, reality as regards to rational prescribing is otherwise. Prescribing most often does not conform to these criteria and can be termed as inappropriate or irrational prescribing.

Common examples of irrational prescribing are:

*The use of drugs with doubtful/unproven efficacy, e.g., the use of antimotility agents in acute diarrhea*

*The use of unnecessarily expensive drugs, e.g. the use of a third generation cephalosprin, when a first line agent is indicated or a broad spectrum antimicrobial when a narrow spectrum drug would do*

*The use of drugs when no drug therapy is indicated, e.g., antibiotics for upper respiratory infections, diarrhoea and viral fevers*

*The use of drugs of uncertain safety status, e.g., use of dipyrone (Baralgan, etc.)*

*The use of the wrong drug for a specific condition requiring drug therapy, e.g., tetracycline in childhood diarrhea requiring ORS*

*Failure to provide available, safe, and effective drugs, e.g., failure to vaccinate against measles or tetanus, failure to prescribe ORS for acute diarrhea*

*The use of correct drugs with incorrect administration, dosages, and duration, e.g., the use of oral steroids in asthma when inhaled steroids would be much more efficient and safe*

Other common and widespread irrational prescribing practices include:

Overuse of antibiotics and antidiarrheals for non-specific childhood diarrhea,

Indiscriminate use of injections, e.g., in malaria treatment

Multiple drug prescriptions, fixed dose combinations

Use of antibiotics for treating minor ARI

Minerals and tonics for malnutrition

Of course, rational prescribing is not as easy as it sounds. The drug use system is complex and varies from countrywise. Drugs may be imported or manufactured locally. The drugs may be used in hospitals or health centers, by private practitioners and often in a pharmacy or drug shop where OTC preparations are sold. In some countries all drugs are available over the counter! In India, there are a lot of alternate systems of medicines and many practitioners prescribe allopathic medicines. There are a large number of quacks without any knowledge of rational prescribing. Last but definitely not the least the public includes a very wide range of people with differing knowledge, beliefs and attitudes about medicines. Many a time, the patient expects a particular drug and hints or directly asks for that to the doctor or pharmacist.

### **Factors Underlying Irrational Use of Drugs**

There are many different factors which affect the irrational use of drugs. In addition, different cultures view drugs in different ways, and this can affect the way drugs are used. In India, this can therefore be a complex maze with multiple cultures, religions, dialects and castes.

If one were to broadly classify the factors, they could be divided into: those deriving from patients, chemists shops, prescribers, the workplace, the supply system, industry influences, regulation, drug information and misinformation.

In each group, there can be various ways contributing to irrational use of drugs:

*Patients* - drug misinformation, misleading beliefs, patient demands/expectations

*Prescribers* - lack of education and training, inappropriate role models, patient pressures, lack of objective drug information, company incentives, limited experience, misleading beliefs about drug efficacy, competition

*Chemist shops* - patient pressures, profit motives, competition

*Workplace* - heavy patient load, pressure to prescribe, lack of adequate lab capacity, insufficient staffing

*Drug Supply System* - unreliable suppliers, drug shortages, limited budgets necessitating fixed choices, expired drugs supplied

*Drug Regulation* - non-essential drugs available, inefficient audit system, inadequate legal implementation, non-formal prescribers

*Industry* - promotional activities, misleading claims, incentives



## Impact of Irrational Drug Use

Irrational drug use can have various consequences, for the patient, the public, the health system and even the economy. A few important consequences are mentioned below:

- Reduction in the quality of drug therapy – This can lead to increased morbidity and mortality
- Waste of resources – This can lead to reduced availability of other vital drugs and increased costs
- Increased risk of unwanted effects - adverse drug reactions and the emergence of drug resistance
- Psychosocial impacts - patients may believe that there is "a pill for every ill"

### A focused case of irrational drug use and its consequence – the antimicrobial misuse problem

Irrational prescribing and dispensing issues come to the fore when it comes to antibiotic use. I would like to therefore focus on this issue and how it has impacted society.

The problem of antimicrobial resistance was one of the important issues brought up at the World Health Assembly (WHA) in 2005.

The WHO says that antimicrobial resistance is one of the world's most serious public health problems. A major reason is the irrational use of medicines.

According to WHO, worldwide, more than 50% of all medicines are prescribed, dispensed or sold inappropriately, and 50% of patients fail to take them correctly. The consequence of this is seen directly with the misuse of antibiotics

There is increasing antimicrobial resistance, with resistance of up to 70-90 percent to original first-line antibiotics for dysentery (shigella), pneumonia (pneumococcal), gonorrhoea, and hospital infections (staph. Aureus).

A WHO policy paper on "Containing antimicrobial resistance" says that many of the microbes that cause infectious disease no longer respond to common antimicrobial drugs such as antibiotics, antiviral and antiprotozoal drugs.

The problem has reached unprecedented proportions that unless concerted action is taken worldwide, we run the risk of returning to the pre-antibiotic era when many more children than now died of infectious diseases and major surgery was impossible due to the risk of infection. WHO's data show the following antimicrobial resistance global prevalence rates: malaria (chloroquine resistance in 81 out of 92 countries); tuberculosis (0-17% primary multi-drug resistance); HIV/AIDS (0-25% primary resistance to at least one antiretroviral drug); gonorrhoea (5-98% penicillin resistance); pneumonia and bacterial meningitis (0-70% penicillin resistance in streptococcus pneumoniae); diarrhoea: shigellosis (10-90% ampicillin resistance, 5-95% cotrimoxazole resistance); hospital infections (0-70% resistance of staphylococcus aureus to all penicillins and cephalosporins). Another WHO paper says that irrational medicines use includes use of more medicines than are clinically necessary, inappropriate use of antimicrobial agents for non-bacterial infections; inappropriate selection or dosing of antibiotics for bacterial infections; over-use of injections when oral formulations are more appropriate; failure to prescribe in accordance with clinical guidelines; and inappropriate self medication often of prescriptions-only medicines.

Referring to the HIV/AIDS, TB and malaria epidemics, the paper says "concerns are growing about accelerating rates of anti-microbial resistance and rising prices for alternative anti-microbial agents to treat infections due to resistant pathogens."



Antimicrobial resistance in the Indian context is also on an ever increasing rise. This is mainly attributed to antibiotic misuse at three levels, human misuse, animal misuse and environmental misuse. It remains to be seen how each is having an impact on resistance levels. Human misuse is the most widely documented of the three.

In a study done to measure the misuse of antimicrobials in predominantly viral conditions such as diarrhoea, URI and fever with myalgia, it was seen that a high percentage of patients received antibiotics. In Uttar Pradesh, it was as high as 80%, in Tamil Nadu, 70%, whereas in Kerala it was only 40%. This brings us to the fundamental question whether other factors besides drug promotions and profit such as socioeconomic conditions, literacy etc are factors which influence use of drugs. In another study supported by WHO in Vellore district, an attempt was made to establish a model to compare antimicrobial resistance and usage patterns. It was found that approximately 42% of all outpatients were being given antibiotics. It was also noticed that various stakeholders were responsible for overusing various types of antibiotics. Private practitioners preferred antibiotics such as ciprofloxacin, whereas pharmacists dispensed both amoxicillin and ciprofloxacin. Due to limited availability of antibiotics in government facilities, cotrimoxazole was highly used.

These observations hold valuable lessons in pointing to the factors that drive irrational drug use. Accessibility and availability were key issues in the governmental facilities whereas peer competition, pressure to cure and industry incentives contributed in the private health facilities. In both areas, patient expectations was a key contributing factor

### **What can be done?**

The WHO lists measures that governments can take. One of the interventions suggested relate to drug sales promotion. "Pharmaceutical promotion often has negative effects on prescribing and consumer choice, but regulation of promotional activities has been proven to be one of the few effective interventions,"

"Countries should therefore consider regulating and monitoring the quality of drug advertising and of the pharmaceutical industry's promotional practices, and enforcing sanctions for violations."

Strategies to target the stakeholders such as doctors and pharmacists need to be thought about. Proper training on the approach to therapeutics, minimizing the impact of industry incentives, a peer process to reduce irrational prescriptions are just some of the ways that can be adopted. Last but not the least, public awareness and health education are key issues to be dealt with. If a layman is made to understand the difference between viral and bacterial illness, it makes it easier to understand that antibiotics are not needed in viral conditions.

Although there have been previous WHA resolutions, and a WHO programme on rational drug use, not much has been done in countries. Very little is being spent to promote rational use of medicines. The global sales of prescription drugs in 2000 were \$282.5 billion and drug promotion costs in the US were \$15.7 billion the same year. In 2002-03, global WHO expenditure was \$2.3 billion, of which the WHO expenditure on promoting rational drug use was only 0.2%.

The WHO is tackling the issue through advocacy, the essential medicines list, training programmes and a WHO global strategy on anti-microbial resistance.

There was inadequate implementation of rational medicines use in countries, with only 26% of countries having a national strategy and only 50% of countries having public education in the past two years.

Irrational drug use is a very serious global public health problem and much more policy implementation is needed at national level. Rational use could be greatly improved if a fraction of the resources spent on medicines were spent on improving use.

Examples of successful national programmes for rational drug use are found in Indonesia, and the Swedish Strategic Programme for Rational Use of Anti-microbial Agents.



In conclusion, the need of the hour is to develop a coherent, comprehensive and integrated national approach to implement the strategy for irrational use of drugs; to enhance the quality use of medicines through using national standard-practice guidelines for common diseases; and to strengthen legislation; and to mobilize resources to promote sustainable, practical and cost – effective interventions for rational use of medicines by providers and consumers. The question is - do we have the courage and can we develop an optimal strategy to confront the factors promoting irrational use and move towards rational drug use?

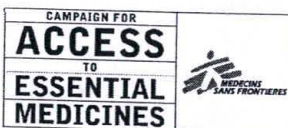


## WHAT YOU CAN DO

Get involved. Learn more about the issue. Write to your political leaders and tell them about your concerns. Ask them to guarantee sufficient research into neglected diseases by funding drug development based on the specific health needs of developing countries. Write to pharmaceutical companies urging them to make essential medicines available and affordable to people in poor countries. Ask the industry to invest in and cooperate with initiatives aiming to develop new cures for neglected diseases.

You will find more information about access problems and possible solutions on the MSF Access Campaign website [www.accessmed-msf.org](http://www.accessmed-msf.org).

If you are interested in volunteering for MSF, please visit [www.msf.org](http://www.msf.org).



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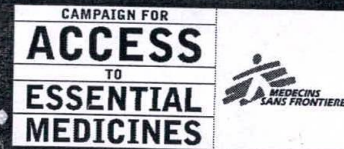
Médecins Sans Frontières (MSF) is an independent humanitarian medical relief organisation assisting victims of armed conflict, epidemics and natural or man-made disasters. Founded in 1971, with national branch offices in 18 countries, MSF delivers aid through over 500 medical programmes in nearly 80 countries around the world. MSF was awarded the Nobel Peace Prize in 1999.

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# MILLIONS HAVE A DRUG PROBLEM.

# THEY CAN'T GET ANY.





**INFECTIOUS DISEASES KILL OVER 14 MILLION PEOPLE EVERY YEAR.**

**THAT'S OVER 38,000 DEATHS EACH DAY – NINE OUT OF TEN OCCURRING IN DEVELOPING COUNTRIES.**

**MANY OF THESE DEATHS COULD BE AVOIDED WITH THE HELP OF APPROPRIATE MEDICINES. BUT ESSENTIAL MEDICINES ARE A LUXURY: ONE THIRD OF THE WORLD'S POPULATION HAVE NO ACCESS TO THEM.**

### TOO POOR TO BE TREATED?

The extraordinary medical advances of the past decades currently benefit mankind unequally. While pharmacies in developed countries offer a huge choice of treatments for a variety of conditions, millions of the world's poorest and most vulnerable people have no access to medicines that could save or extend their lives.

### DOCTORS WITHOUT MEDICINES

Médecins Sans Frontières has been delivering medical care to populations in distress and victims of disasters and armed conflict "without discrimination and irrespective of race, religion, creed or political affiliation"(\*) for more than 30 years. Infectious diseases claim more lives than wars. As a medical humanitarian

organisation, MSF redresses both the open violence of conflicts and the hidden violence and discrimination brought about when people can't access life-saving medicines.

(\*) MSF's charter

MSF staff are increasingly finding that effective treatments are unaffordable or unavailable. Many life-saving drugs are priced out of reach of the majority of those who need them. Some drugs have been withdrawn from the market for lack of profitability. This was the case of efornithine, a medicine used to treat people with sleeping sickness, a fatal disease only found in Africa. For other diseases, there are simply no drugs. For instance, there is currently no cure for the chronic form of Chagas, a disease that kills 50,000 people in Latin America every year.

### FROM FRUSTRATION TO ACTION

In 1999, MSF launched a project specifically aimed at getting essential medicines to those who need them most. A logical extension of MSF's tradition of speaking out, the **Campaign for Access to Essential Medicines** combines the expertise of MSF medical staff, lawyers, pharmacists and laboratory technicians, as well as communications and advocacy professionals. The campaign is firmly rooted in MSF's field experience: the lack of access to life-saving medicines witnessed by our medical professionals at local level drives our advocacy at international level.

**The following pages describe the access crisis and what MSF is doing about it.**







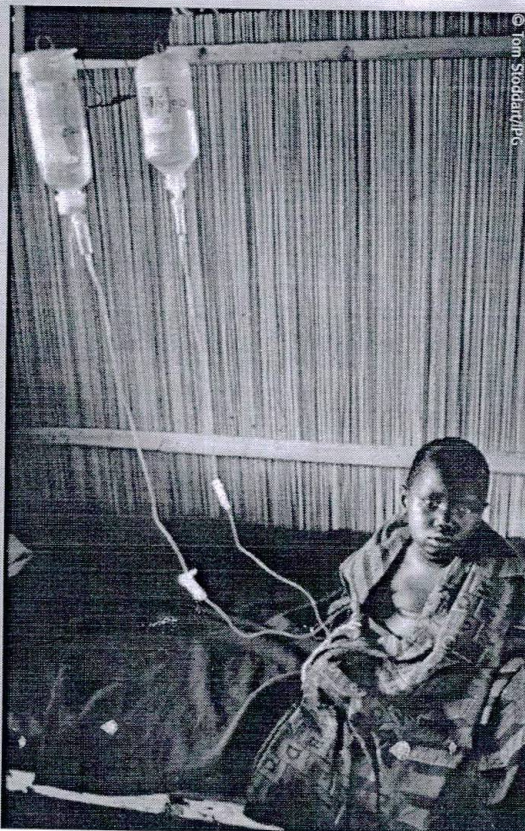
In 2002, 10 Thai people with HIV/AIDS won a court case against the pharmaceutical giant Bristol-Myers Squibb, thus overturning BMS's patent on ddI, an AIDS drug. This opens the way for generic production of the medicine. Generic drugs produced by the Thai government's pharmaceutical organisation are up to 25 times cheaper than equivalent originator products. The picture shows the activists filing their claim at the Thai Central Intellectual Property and International Trade Court in 2002.

## OVERCOMING ACCESS BARRIERS

### PRICE : life-saving drugs must be affordable

The single most important factor in forcing down the prices of medicines is generic competition. The lowest price of an AIDS drug combination plummeted from more than US\$10,000 per patient per year to less than US\$200 between 2000 and 2004. But many AIDS drugs, malaria treatments, antibiotics and other life-saving medicines are still unaffordable for people and governments in developing countries.

**MSF constantly analyses drug prices and makes updates available to national and international buyers. We also negotiate with generic and originator drug makers to lower their prices.**



### PATENTS : medicines aren't just any consumer goods

A drug patent holder can sell its medicine at any price for the duration of the patent, usually 20 years. But the high price of a medicine can be a matter of life and death for a patient, and amount to extraordinary health expenditures for governments of developing countries.

The rules governing pharmaceutical patents are enshrined in the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement of the World Trade Organization (WTO), signed in 1994. The agreement includes safeguards that

*A small boy with sleeping sickness, Uganda. 60 million Africans live in areas infested with tse tse flies that transmit sleeping sickness, a disease that kills if left untreated. The progression of the disease is determined with the help of a lumbar puncture, a painful and potentially dangerous procedure. While some of the current treatments are effective, they require hospitalisation, well-equipped clinics and specialised staff. Simpler drugs and diagnostics would greatly improve prospects of eliminating the disease. MSF has been treating people with sleeping sickness in sub-Saharan Africa since 1986.*



countries can use to ensure patents do not limit access to medicines. For instance, countries can allow the production or importation of generic medicines without the consent of the patent holder, or look for the cheapest available version of the brand-name drug on the global market.

**MSF is encouraging implementation of national regulations that will offer maximum flexibility to set patents aside in order to "promote access to medicines for all" (Declaration on the TRIPS Agreement and Public Health, adopted at the WTO Ministerial meeting in Doha, 2001).**

MSF is also calling on governments to keep intellectual property rights out of regional or bilateral trade agreements negotiated between countries. These agreements impose more stringent patent protection than required by the TRIPS Agreement and hamper the use of more affordable, generic medicines in other ways.

Continued on page 8



# THE ACCESS CRISIS ■ THE ACCESS CRISIS ■ THE ACCESS CRISIS

## AIDS

**40 million people infected, 90% of them in developing countries. Three million deaths in 2003.**

Around 50 companies produce antiretroviral (ARV) drugs worldwide, and new treatments and potential vaccines are being developed – because there is a Western market for them. But people living with HIV/AIDS in developing countries are still neglected: out of the six million people who need ARV treatment immediately, only 440,000 have access to it.

MSF is providing ARV treatment as part of a continuum of care for over 13,000 people in more than 20 countries, and expects to be treating many more in the years to come.

Our ability to increase the number of patients

**Wanted:** Simplified, affordable AIDS drugs and new monitoring tools to achieve access to ARVs for those who need it.

## Malaria

**500 million new infections and up to two million deaths every year.**

Malaria is caused by parasites transmitted by mosquitoes. It kills one child every 30 seconds, and children in rural Africa are particularly vulnerable to it.

Malaria parasites have become increasingly resistant to old drugs like chloroquine. Because easy-to-use diagnostic tests to confirm whether a person actually has malaria are not available in poor countries, many people who haven't got malaria end up being treated for it. This encourages drug resistance.

Effective drugs exist. Artemisinin, a potent drug extracted from a Chinese plant, has been used successfully in Asia since the early 1990s. Combinations of drugs containing artemisinin (so called ACTs) have now been internationally recommended as the best current treatment for malaria, and governments in many countries are switching to using them.

MSF treats over one million people for malaria in nearly 40 countries every year.

**Wanted:** Affordable rapid diagnostic tests for malaria adapted for use in resource-poor settings. Artemisinin-containing fixed-dose combinations. More R&D to discover new classes of malaria medicines.

on treatment has partly depended on the use of fixed-dose combinations (FDCs) of ARVs – that is, pills containing several AIDS drugs in one tablet, which makes them easy to use. The cheapest FDCs are now offered for less than US\$200 per person per year.

But there are still major challenges in accessing AIDS treatments. Pregnant women and children with HIV/AIDS have few choices of appropriate, affordable drugs. When peoples' first triple therapy fails and they need to switch to second-line treatment, prices shoot up. The least expensive second-line treatment recommended by WHO costs five to ten times more than the cheapest first-line therapy.

In addition, monitoring treatment failure and diagnosing common co-infections such as tuberculosis is very difficult with current means.

## TB

**One third of the world's population carries TB bacilli. Every year, eight million people develop active TB and two million die from it.**

Tuberculosis, or TB, is a bacterial infection best known for the form infecting the lungs. Fuelled by the HIV/AIDS pandemic, TB is on the rise, particularly in developing countries. An estimated 12 million people worldwide are infected with both TB and HIV, but the co-infection is hard to diagnose and treat.

Feeling better a few weeks into their long and arduous TB treatment, people often stop taking their drugs. Treatment interruption creates super-bugs that don't respond to any existing treatment and can spread to other people.

Despite these alarming facts, no new cure for TB has been introduced in the past 40 years.

In 2003, MSF treated over 20,000 people with TB in more than 20 countries worldwide.

**Wanted:** Diagnostic tests that detect all forms of TB in all patients, including children and HIV-positive people. Shorter treatments with smaller pill counts. Effective treatments for multi-drug resistant TB.

## Chagas

**100 million people at risk across Latin America. 50,000 deaths per year.**

Chagas is caused by a parasite transmitted by blood-sucking insects. People can be infected but show no symptoms for years. Developing over time, chronic Chagas causes irreversible damage to the heart, oesophagus and colon, and Chagas sufferers usually die of heart failure.

Existing Chagas treatments are toxic and take one to two months to complete. They are only effective in the acute and undetermined stage of the disease in children. There is no treatment for chronic Chagas.

MSF cares for Chagas patients in Bolivia, Guatemala and Nicaragua.

**Wanted:** New diagnostic tests and medicines for Chagas. Availability of existing drugs.

## Kala azar

**An estimated 60,000 deaths per year.**

Visceral leishmaniasis or kala azar, a parasitic disease transmitted by flies, causes fever, anaemia and an enlarged spleen. If left untreated, kala azar kills. Many infections and deaths may go unreported as people suffering from kala azar often live in remote areas and never make it to a clinic. Co-infection with HIV/AIDS is worsening the situation.

MSF has treated over 60,000 people with kala azar in Africa since 1988.

But our efforts continue to be dwarfed because drugs commonly given as first-line therapy are old, toxic, expensive and impractical for use in poor countries. Rapid diagnostic tests are also only just beginning to be introduced and their affordability needs to be ensured.

**Wanted:** New, easy-to-use and affordable drugs and diagnostic tests for kala azar.



# OVERCOMING ACCESS BARRIERS

Continued from page 5

## NEGLECTED DISEASES :

### MSF co-founded a new drug development organisation

Sleeping sickness, leishmaniasis and other diseases that afflict and kill millions of poor people every year have so far attracted little interest from profit-driven pharmaceutical companies. This is compounded by the fact that governments and the international community have failed to encourage research and development of new drugs for these neglected diseases.

Aspiring to compensate for this neglect by delivering new medicines within the shortest possible time frame, MSF has joined forces with five renowned public and private research institutes and the UN's health agency WHO to create the Drugs for Neglected Diseases initiative (DNDi). An independent not-for-profit organisation, DNDi was launched in July 2003. Its objective is to develop new drugs to fight neglected diseases, raise awareness of the need for this work, and use and strengthen existing R&D capacity in the countries hardest hit by these diseases. DNDi is working on nine projects addressing identified needs for the treatment of leishmaniasis, sleeping sickness, Chagas disease and malaria (see [www.dndi.org](http://www.dndi.org) for more information).

**“How much longer am I supposed to tell my patients with chronic Chagas they can't be treated because they are too poor? Governments need to take responsibility for public health – drug development must be driven by need, not profit.”**

Dr Wilma Chambi, MSF, Bolivia

**The work of initiatives such as DNDi can contribute to, but not replace, governments' efforts to address the unmet medical needs of people in developing countries. MSF will continue to play an active role in DNDi, advocate for more R&D into diseases that only afflict people in developing countries, support needs-driven drug development, and participate in defining the research needs for neglected diseases.**

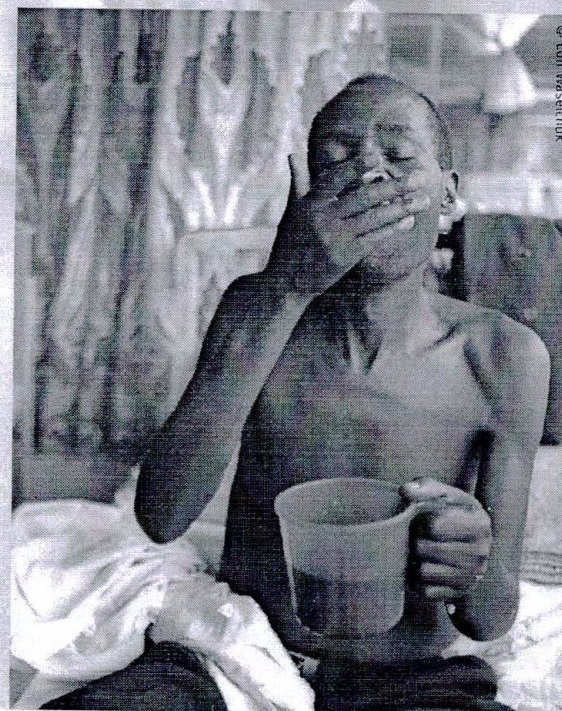
## DIAGNOSTIC TESTS : precision instead of guesswork

Many of the people MSF doctors see could be treated. But how do you prescribe a cure if you can't determine what ails the person to begin with? Most people coming to a clinic in developing countries are diagnosed on the basis of clinical symptoms and signs, such as fever. This may lead to incorrect diagnosis and growing drug resistance.

When there is a test, it is often poorly adapted to resource-poor settings. For instance, the most commonly used TB diagnostic test was developed in 1882 and detects only half of those with active TB – even when used by highly skilled staff.

The importance of easy-to-use diagnostic tests is growing. For instance, now that new, more potent malaria medicines are becoming available to many developing countries, reliable malaria tests are even more critical: they ensure that people are treated for the real cause of their fever, and that only those who actually have malaria are treated for it, so we don't create resistance to the new drugs within communities that badly need them.

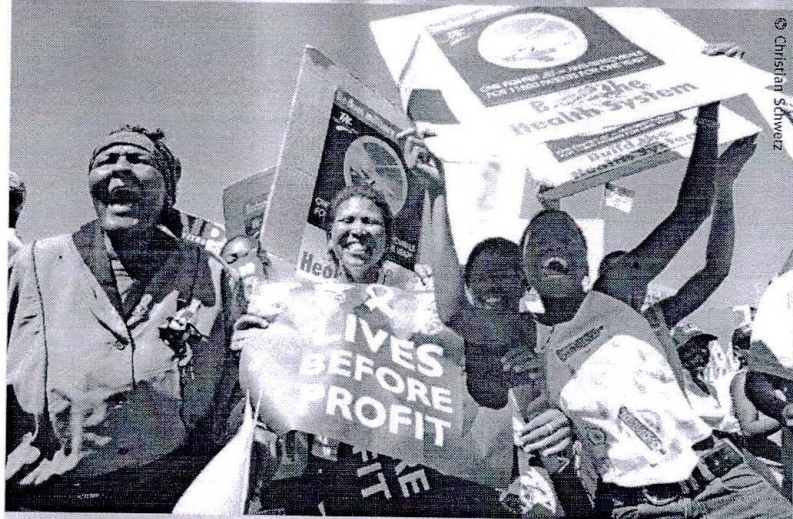
**MSF calls for rapid diagnostic tests that are easy to use, affordable and adapted to the needs of developing countries.**



*The most modern TB treatments are nearly half a century old. Like this man in Kenya, people need to take their drugs for several months under medical supervision. Diagnosing TB reliably in children, HIV positive people or people with extra-pulmonary forms of the disease is not possible with current diagnostic tests. TB is the number one killer of people with HIV/AIDS.*



## OVERCOMING ACCESS BARRIERS



Christian Schweizer

*In 2001, over 250,000 people worldwide signed a petition, joining a wave of public opinion that forced 39 pharmaceutical companies to drop their court case against the South African government over a law designed to make medicines more affordable.*

**“Millions of people worldwide are dying of treatable diseases like malaria while effective drugs exist. It’s simply unacceptable.”**

Dr Gabriel Mufuta, MSF, Guinea

### QUALITY of medicines :

It is critical that health providers worldwide are able to procure and use essential medicines that meet adequate quality standards.

**MSF supports the World Health Organization’s prequalification project that facilitates identification of quality essential medicines and has dramatically improved access to AIDS drugs in particular**

### WHAT HAS BEEN ACHIEVED?

MSF and others working to improve access to medicines have catalysed some change – because enough people have made enough noise. The UN is now putting more emphasis on addressing and funding the fight against HIV/AIDS, TB and malaria. Governments of developing countries are beginning to tackle the AIDS pandemic using cheaper, generic drugs, and these are being funded through various international initiatives and philanthropic organisations. ‘Neglected diseases’ are getting more attention and initiatives are being set up to develop new treatments for them. The UN’s health agency WHO is reclaiming leadership on some issues related to access to medicines, and is giving more progressive advice to countries on malaria treatment, for

example. Pharmaceutical companies have reduced the prices of some of their essential medicines.

But this is just a fraction of what is required. Governments, drug manufacturers and international organisations can, and must, do more.

### WE STILL NEED:

- More political will at national and international level to put lives before profits.
- Increased competition between drug producers in order to lower drug prices.
- A boost in resources for research and development into new medicines and diagnostic tests based on actual health needs in developing countries.



Dieter Lefebvre