

## Pharmaceuticals

BSE Sensex: 10,678

S&P CNX: 3,123

14 July 2006

We interacted with various sources in the pharmaceutical industry to understand the possible repercussions of the proposed New Drug Policy. Based on these interactions, we conclude that the implementation of the policy in its current form could have a significant adverse impact on the industry. However, all the pharmaceutical industry associations have vigorously opposed the proposed policy and we believe that it is unlikely to be implemented in its current form. We present below our analysis:

### Key implications

- ✍ Proposed policy intends to bring an additional 354 drugs under price control resulting in a significant increase in span of control to 50-60% from the current 25%.
- ✍ Despite the proposed increase in MAPE from 100% to 150%, we believe that the gross margins for products under price control will be capped at 60%. This is likely to force the pharmaceutical industry to take significant price cuts of 20-25%.
- ✍ MNCs will be more adversely impacted as compared to their domestic counterparts due to their large domestic presence and premium pricing strategy. Indian companies having a significant portion of revenues from domestic market (like Nicholas Piramal, Sun Pharma, Cipla, Lupin) may also be adversely impacted. Ranbaxy and Dr Reddy's Labs may be relatively less impacted due to the lower contribution of domestic operations to overall revenues (20-22%). Higher contribution from the life-style segment (about 70%) is likely to temper down the adverse impact on Sun Pharma.
- ✍ The proposal to exempt drugs costing less than Re1/pill will result in products with strong brand equity like Combiflam and Avil (Aventis), Zinetac (GSK), Asthalin (Cipla), etc. to come out of price control and gain pricing power. However, these gains are unlikely to offset the impact of the increase in the span of control.
- ✍ The proposed policy has been opposed vigorously by the pharmaceutical industry. All the three industry associations (OPPI, IPA and IDMA) have come together and objected strongly to the government's proposals.



CONTRIBUTION OF DOMESTIC REVENUE (RS M)

| FY06CY05               | DOM FORMULATION SALES | TOTAL SALES | % OF TOTAL SALES |
|------------------------|-----------------------|-------------|------------------|
| <b>MNC Pharma</b>      |                       |             |                  |
| Pfizer                 | 5,891                 | 6,161       | 95.6             |
| GlaxoSmithKline Pharma | 12,570                | 14,850      | 84.6             |
| Aventis Pharma         | 6,358                 | 8,022       | 79.3             |
| <b>Domestic Pharma</b> |                       |             |                  |
| Nicholas Piramal       | 10,332                | 15,825      | 65.3             |
| Sun Pharma             | 9,596                 | 15,931      | 60.2             |
| Cipla                  | 15,027                | 30,209      | 49.7             |
| Lupin                  | 8,354                 | 16,954      | 49.3             |
| Wockhardt              | 5,083                 | 14,121      | 36.0             |
| Dr Reddy's Labs        | 5,526                 | 24,266      | 22.8             |
| Ranbaxy Labs           | 10,496                | 51,950      | 20.2             |

*Source: Company/Motilal Oswal Securities*

### Proposed New Drug Policy: what's in store?

The government has made the following recommendations in the policy for the domestic pharmaceutical industry:

**Proposal (1):** The government's Essential Drugs' List consisting of 354 drugs (see annexure for detailed list) will form the universe of drugs attracting price controls. The 74 drugs that are currently under the DPCO will continue to attract price controls.

**Impact:** Expect a significant adverse impact on the profitability of the domestic pharmaceutical industry since it amounts to bringing about 50-60% of the industry under price control as compared to the current 25%.

**Proposal (2):** Increase the maximum allowable post-manufacturing expenses (MAPE) from 100% to 150% of its ex-factory cost. All imported medicines under price control will be eligible for only 50% MAPE.

**Impact:** A 150% MAPE will cap the gross margins (GPM) at 60% for drugs under price control. For companies eligible for 200% MAPE, the gross margins will be capped at 66%. Domestic portfolios of most of the companies have a mix of high-margin products (GPM above 60%) and price controlled products. These companies would be enjoying about 60% GPM (overall) on their domestic portfolios. Bringing more products under price control and capping their GPM to 60% will imply price cuts on a much larger portion of the product portfolios. This is likely to reduce the overall GPM for the domestic operations to below the current 60%. Industry sources have indicated price reductions of 20-25% if the new policy is implemented in the current form.

MNCs will be significantly impacted given their large domestic presence and premium pricing policy. Indian companies having a significant portion of domestic revenues (like Nicholas Piramal, Sun Pharma, Cipla, Lupin) may also be adversely impacted. Ranbaxy and Dr Reddy's Labs may be relatively less impacted due to lower contribution of domestic operations to overall revenues (20-22%). Higher contribution from the life-style segment (about 70%) is likely to temper down the adverse impact on Sun Pharma. Many of these life-style products are currently not included in the government's Essential Drug's List.

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Source: Company/Motilal Oswal Securities

**Proposal (3):** Companies investing heavily in R&D (minimum Rs500m per year), employing at least 200 scientists, having filed at least 10 patents in India and having facilities approved by certain international regulatory authorities (all inclusive) will be eligible for 200% MAPE as well as 200% weighted deduction under section 35(2AB) for R&D expenditure.

**Impact:** We do not expect any significant pricing power for the larger domestic companies despite their eligibility for higher MAPE (200%). We believe that most of their competitors will be launching the same product at lower prices (due to 150% MAPE) as they may not be able to fulfill the criteria for 200% MAPE. Hence competitive forces will force companies to price their products near to the competitor's price.

**Proposal (4):** Increased MAPE will apply only to the 354 drugs included in the government's Essential Drugs' List. MAPE on the existing 74 drugs (currently under price control) will be frozen at 100% for 12 months post announcement of the policy.

**Impact:** This implies that products currently under price control will not enjoy the increased profitability for 12 months post the announcement of the policy.

**Proposal (5):** MRP printed on medicine packs to include all indirect taxes. Currently MRP excludes these taxes.

**Impact:** The mandate to have MRP inclusive of indirect taxes (to come into effect from October 2006) may adversely impact the pharmaceutical industry, unless the government allows a compensatory increase in the MRP of the drug, or alternatively, raises the abatement. The industry has proposed raising of the abatement to about 55% from the current 40% to neutralize the impact of new MRP norms. We expect some disruption in sales in the domestic market just before the implementation deadline of October 2006 (i.e. in September 2006) as the indirect tax regime is not uniform across states. Distributors and chemists may resort to reducing their stocks since the government is yet to clarify on the pricing of products under the new MRP norms.

**Proposal (6):** Drugs costing less than Re1/pill may not attract price controls.

**Impact:** Products falling outside the purview of price control (due to the Re1/pill norm) and having strong brand-equity will gain due to more pricing power. We expect some of the key products, like Combiflam and Avil (Aventis), Zinetac (GSK), Asthalin (Cipla), etc., to come out of price control and gain pricing power. However, these gains are unlikely to fully compensate for the significant increase in the span of control.

**Proposal (7):** Devise a negotiated pricing mechanism for patented products. It has been proposed to use generic prices as a reference for pricing patented products.

**Impact:** The pharmaceutical industry has strongly objected to using generic prices as a reference pricing for patented products as is likely to severely limit the flexibility for pricing of patented products. It has requested the government to use the reference pricing formulae used internationally as an acceptable pricing mechanism. It should be noted that most of the developed markets (except the US) follow a negotiated pricing mechanism for patented

products. Hence, the formula to arrive at the negotiated price will be more critical to the fortunes of the patent holder rather than the government's intent to have negotiated prices for patented products.

**Proposal (8):** It has been proposed to reduce the excise duty on pharmaceutical products from the existing 16% to 8%. The Finance Ministry is yet to comment on this change.

**Impact:** Reduction in excise duty to 8% is likely to benefit the MNCs as they have been adversely impacted by the introduction of MRP-based excise (as they do not have manufacturing facilities in excise-exempt zones). Most of the domestic pharmaceutical companies have already commissioned facilities in excise-exempt zones. We believe that the incremental benefits available to companies which have recently commissioned such facilities will be reduced. This could adversely impact the incremental excise duty savings for companies like Nicholas Piramal.

**Proposal (9):** Price controls to be mandated only on single ingredient drugs. However, the National Pharmaceutical Pricing Authority (NPPA) has recommended that combination products should also attract price controls.

**Impact:** Bringing combination products (as proposed by the NPPA) under price control will further aggravate matters, as it is likely to result in increasing the span of control to 70-80% of the market.

**Proposal (10):** Vaccines, biologicals and generic-generics products will not attract price controls. However, generic-generic drugs will be kept under price monitoring. Products directly supplied to hospitals will also not attract price controls.

**Impact:** These products are currently outside price control (except Insulin) and hence we do not expect any further benefits to the manufacturers of these products. Insulin is likely to remain under price control as the government has proposed continuation of price controls on the existing 74 DPCO drugs.

**Proposal (11):** Anti-AIDS and anti-cancer products to be made more affordable by exempting them from government levies. The pharmaceutical industry will be mandated to reduce the profitability on these drugs to make them more affordable. The government has proposed a public-private partnership program with the concerned manufacturers and cancer hospitals in the country. A subsidy scheme for making anti-cancer drugs more affordable to the common man has been proposed.

**Impact:** While a significant reduction in the profitability of anti-cancer products could adversely impact the leading players (like Dabur Pharma, Sun Pharma and Cadila Healthcare), we believe that volume growth could be a positive surprise. As per government's estimates, affordability is a key impediment for cancer treatment in India. The government has estimated that India currently has about 2-2.5m cancer patients while it estimates the cancer medicines' sales at only Rs1.5b. Similar arguments hold true for the anti-AIDS segment, with India estimated to have about 5m AIDS patients. More

clarity is awaited on the structure and implementation of the government's public-private partnership programme as well as on the government's subsidy scheme.

**Proposal (12):** New drugs developed in India through product patent, process patent and new drug delivery systems would be exempt from price control for five years.

**Impact:** This could bring in incremental benefits for some of the larger Indian pharmaceutical companies like Ranbaxy, Sun Pharma, Lupin, who are putting in efforts to develop NDDS based drugs. However, it may not bring in any significant upsides in the short-to-medium term.

**Proposal (13):** Trade margins for price controlled drugs capped at 8% for wholesalers and 16% for retailers. Trade margins on generic-generic drugs capped at 15% for wholesalers and 35% for retailers.

**Impact:** This measure is likely to severely impact the generic-generics segment of the pharmaceutical industry. Most of the larger domestic companies (like Ranbaxy, Cipla, Nicholas Piramal) have consciously reduced the size of their generic-generic portfolios. However, we expect a significant adverse impact on the smaller and mid-size players. In fact, in the long-term, this measure could bring in the much-needed consolidation in the domestic pharmaceutical industry with larger players gaining scale and market share.

**Proposal (14):** It has been proposed that the benefit of 150% weighted exemption under section 35(2AB) of Income Tax Act for R&D be continued till 31st March 2015. The policy also proposes that the benefits of section 35(2AB) be extended to depreciation on investment made in land and building for dedicated research facilities, expenditure incurred for obtaining regulatory approvals and filling of patents abroad and expenditure incurred on clinical trials in India. The Finance Ministry is yet to comment on this.

**Impact:** Although, the pharmaceutical industry currently enjoys 150% weighted deduction, making more items eligible for this benefit may bring in incremental benefits.

**Proposal (15):** No clarity as of now on patentability criteria and data exclusivity – separate committees appointed to look into these issues are expected to give their recommendations shortly.

**Impact:** We expect the MNCs to benefit if the government allows patents on even incremental improvements over existing therapies. On the other hand, a stringent stand by the government could result in only New Chemical Entities (NCEs) being eligible for IPR in India thus limiting the upside.

Grant of data exclusivity is likely to give additional comfort to MNCs to launch their patented products in India. However, this could constrain the ability of the Indian companies to export drugs to the Least Developed Countries (LDCs).

**Proposal (16):** Bulk purchases made by the government for public health requirements (government hospitals/programs, health insurance, etc.) will be made at prices that are 35% lower than the price fixed by the NPPA for drugs under price control. For drugs outside price control, the government procurement price will be set at 50% of the MRP. Government purchases will give preference to pharmaceutical PSUs for supply of drugs.

*Note: These are only recommendations, pending the announcement of the final new drug policy. These may or may not undergo a change in the final policy.*

## MOST PHARMA UNIVERSE: COMPARATIVE VALUATIONS

|                  |         | CMP<br>(RS) | MKT. CAP<br>(US\$M) | SALES<br>(RS M) | SALES<br>GR (%) | OPM<br>(%) | EPS<br>(RS) | EPS<br>GR. (%) | P/E<br>(X) | EV/EBITDA<br>(X) | EV/SALES<br>(X) | ROE<br>(%) |
|------------------|---------|-------------|---------------------|-----------------|-----------------|------------|-------------|----------------|------------|------------------|-----------------|------------|
|                  | 2005A   |             |                     | 8,019           | 9.8             | 28.4       | 69.6        | 11.2           | 20.3       | 13.0             | 3.7             | 31.6       |
| Aventis Pharma * | 2006E   | 1,410       | 707                 | 9,010           | 12.3            | 28.5       | 78.5        | 12.9           | 18.0       | 11.0             | 3.1             | 28.8       |
|                  | 2007E   |             |                     | 9,975           | 10.7            | 28.1       | 86.1        | 9.6            | 16.4       | 9.5              | 2.7             | 26.0       |
|                  | 2005A   |             |                     | 14,704          | 7.8             | 29.2       | 36.2        | 15.1           | 27.9       | 17.7             | 5.2             | 32.3       |
| GSK Pharma *     | 2006E   | 1,010       | 1,863               | 16,762          | 14.0            | 31.2       | 45.4        | 25.6           | 22.3       | 14.4             | 4.5             | 32.7       |
|                  | 2007E   |             |                     | 17,151          | 2.3             | 30.1       | 46.4        | 2.2            | 21.8       | 14.0             | 4.2             | 27.8       |
|                  | 2005A   |             |                     | 6,161           | 5.8             | 21.5       | 27.7        | 44.5           | 26.6       | 15.1             | 3.2             | 22.0       |
| Pfizer #         | 2006E   | 738         | 479                 | 7,017           | 13.9            | 23.6       | 36.0        | 29.8           | 20.5       | 12.1             | 2.9             | 25.0       |
|                  | 2007E   |             |                     | 6,266           | -10.7           | 24.9       | 34.6        | -3.9           | 21.4       | 12.3             | 3.1             | 21.7       |
|                  | 2006A   |             |                     | 29,857          | 32.4            | 22.3       | 8.0         | 46.6           | 27.8       | 26.0             | 5.8             | 29.9       |
| Cipla            | 2007E   | 222         | 3,762               | 36,696          | 22.9            | 24.9       | 9.4         | 21.2           | 23.8       | 17.8             | 4.4             | 21.8       |
|                  | 2008E   |             |                     | 43,540          | 18.6            | 25.4       | 11.2        | 19.7           | 19.8       | 14.6             | 3.7             | 21.6       |
|                  | 2006A   |             |                     | 24,266          | 26.5            | 6.9        | 17.9        | 621.0          | 72.8       | 62.5             | 4.3             | 6.2        |
| Dr Reddy's Labs  | 2007E   | 1,305       | 2,174               | 38,577          | 59.0            | 11.1       | 38.6        | 115.6          | 33.8       | 24.3             | 2.7             | 12.3       |
|                  | 2008E   |             |                     | 44,462          | 15.3            | 13.9       | 60.9        | 57.5           | 21.4       | 16.5             | 2.3             | 16.5       |
|                  | ^ 2008E |             |                     | 45,455          | 17.8            |            | 63.9        |                | 20.4       |                  |                 |            |
|                  | 2005A   |             |                     | 50,974          | -2.6            | 6.1        | 5.8         | -70.3          | 57.7       | 45.8             | 2.8             | 8.9        |
| Ranbaxy Labs*    | 2006E   | 335         | 2,717               | 56,701          | 16.6            | 13.5       | 12.5        | 130.3          | 26.9       | 17.7             | 2.4             | 18.8       |
|                  | 2007E   |             |                     | 64,593          | 18.6            | 14.2       | 16.8        | 35.0           | 19.9       | 11.7             | 1.7             | 23.0       |
|                  | 2006A   |             |                     | 16,954          | 35.0            | 13.2       | 39.1        | 88.0           | 24.2       | 20.9             | 2.8             | 30.9       |
| Lupin            | 2007E   | 946         | 827                 | 20,066          | 18.4            | 15.1       | 57.4        | 46.3           | 16.5       | 14.7             | 2.2             | 34.8       |
|                  | 2008E   |             |                     | 22,557          | 12.4            | 16.2       | 70.6        | 22.9           | 13.4       | 12.0             | 1.9             | 33.0       |
|                  | 2006A   |             |                     | 15,825          | 21.0            | 12.5       | 6.1         | 889.3          | 34.2       | 23.1             | 2.9             | 17.5       |
| Nicholas Piramal | 2007E   | 209         | 952                 | 19,629          | 24.0            | 15.8       | 9.0         | 46.4           | 23.3       | 14.9             | 2.4             | 18.9       |
|                  | 2008E   |             |                     | 22,223          | 13.2            | 16.9       | 11.5        | 28.7           | 18.2       | 12.4             | 2.1             | 22.6       |
|                  | 2006E   |             |                     | 15,931          | 39.2            | 31.2       | 27.7        | 43.1           | 27.1       | 27.4             | 8.5             | 42.2       |
| Sun Pharma       | 2007E   | 748         | 3,024               | 18,891          | 18.6            | 31.5       | 31.6        | 13.1           | 23.7       | 22.6             | 7.1             | 37.9       |
|                  | 2008E   |             |                     | 22,731          | 20.3            | 33.5       | 38.1        | 21.2           | 19.6       | 16.9             | 5.7             | 36.1       |
|                  | 2005A   |             |                     | 13,660          | 12.4            | 20.7       | 17.7        | 18.9           | 20.9       | 16.3             | 3.4             | 29.5       |
| Wockhardt *      | 2006E   | 369         | 958                 | 16,296          | 19.3            | 23.9       | 24.7        | 39.5           | 15.0       | 12.7             | 3.0             | 32.5       |
|                  | 2007E   |             |                     | 18,819          | 15.5            | 25.1       | 30.7        | 24.4           | 12.0       | 9.7              | 2.4             | 32.3       |

\* Y/E December; # Y/E November; ^ Incl sustainable upsides

Source: Motilal Oswal Securities

## ANNEXURE

## GOVERNMENT'S ESSENTIAL DRUG'S LIST

| SNO. | PRODUCT NAME                                 | SNO. | PRODUCT NAME   | SNO. | PRODUCT NAME  |
|------|--|------|--|------|---|
| 1    | Acenocoumarol                                | 46   | Bleomycin  | 91   | Dapsone   |
| 2    | Acetazolamide                                | 47   | Bretylum Tosylate                                    | 92   | Desferrioxamine Mesylate                                  |
| 3    | Acetyl Salicylic Acid                        | 48   | Bromocriptine Mesylate                               | 93   | Dexamethasone   |
| 4    | Acriflavin+Glycerin                          | 49   | Bupivacaine Hydrochloride                            | 94   | Dexchlorpheniramine Maleate                               |
| 5    | Actinomycin D                                | 50   | Busulphan  | 95   | Dextran-40  |
| 6    | Activated Charcoal                           | 51   | Calamine   | 96   | Dextran-70  |
| 7    | Acyclovir                                    | 52   | Calcium Gluconate                                    | 97   | Dextromethorphan  |
| 8    | Adenosine                                    | 53   | Calcium Iodate                                       | 98   | Diazepam  |
| 9    | Adrenaline Bitartrate                        | 54   | Calcium salts  | 99   | Diclofenac  |
| 10   | Albendazole                                  | 55   | Carbamazepine  | 100  | Dicyclomine Hydrochloride                                 |
| 11   | Albumin                                      | 56   | Carbimazole  | 101  | Didanosine  |
| 12   | Allopurinol                                  | 57   | Cefotaxime   | 102  | Diethylcarbamazine Citrate                                |
| 13   | Alpha Interferon                             | 58   | Ceftazidime  | 103  | Digoxin   |
| 14   | Alprazolam                                   | 59   | Ceftriaxone  | 104  | Dihydroergotamine   |
| 15   | Aluminium Hydroxide +<br>Magnesium Hydroxide | 60   | Cefuroxime   | 105  | Diloxanide Furoate  |
| 16   | Amikacin                                     | 61   | Centchroman  | 106  | Diltiazem   |
| 17   | Aminophylline                                | 62   | Cephalexin   | 107  | Dimercaprol   |
| 18   | Amiodarone                                   | 63   | Cetrimide  | 108  | Diphtheria Antitoxin                                      |
| 19   | Amitriptyline                                | 64   | Chloramphenicol                                      | 109  | Dithranol   |
| 20   | Amlodipine                                   | 65   | Chlorhexidine  | 110  | Dobutamine  |
| 21   | Amoxicillin                                  | 66   | Chloroquine Phosphate                                | 111  | Domperidone   |
| 22   | Amphotericin B                               | 67   | Chlorpheniramine Maleate                             | 112  | Dopamine Hydrochloride                                    |
| 23   | Ampicillin                                   | 68   | Chlorpromazine Hydrochloride                         | 113  | Doxapram  |
| 24   | Antisnake Venom                              | 69   | Chlorthalidone                                       | 114  | Doxorubicin   |
| 25   | Anti-D Immunoglobulin (Human)                | 70   | Ciprofloxacin Hydrochloride                          | 115  | Doxycycline   |
| 26   | Antitetanus Human Immunoglobulin             | 71   | Cisplatin  | 116  | Efavirenz   |
| 27   | Artesunate                                   | 72   | Clarithromycin                                       | 117  | Enalapril Maleate   |
| 28   | Ascorbic Acid                                | 73   | Clofazimine  | 118  | Erythromycin Estolate                                     |
| 29   | Atenolol                                     | 74   | Clomiphene Citrate                                   | 119  | Esmolol   |
| 30   | Atracurium Besylate                          | 75   | Clomipramine Hydrochloride                           | 120  | Ethambutol  |
| 31   | Atropine Sulphate                            | 76   | Clonidine Hydrochloride                              | 121  | Ether, Anaesthetic  |
| 32   | Azathioprine                                 | 77   | Clotrimazole   | 122  | Ethinylestradiol + Levonorgesterol                        |
| 33   | Azithromycin                                 | 78   | Cloxacillin  | 123  | Ethinylestradiol + Norethisterone                         |
| 34   | B.C.G Vaccine                                | 79   | Coal Tar   | 124  | Ethinylestradiol  |
| 35   | Barium Sulphate                              | 80   | Codeine Phosphate                                    | 125  | Ethyl Alcohol 70%   |
| 36   | Beclomethasone Dipropionate                  | 81   | Colchicine   | 126  | Ethyl Chloride  |
| 37   | Benzathine Benzylpenicillin                  | 82   | Condoms  | 127  | Etoposide   |
| 38   | Benzoic Acid + Salicylic Acid                | 83   | Co-Trimoxazole (Trimethoprim +<br>Sulphamethoxazole) | 128  | 5-Fluorouracil  |
| 39   | Benzoin Compound                             | 84   | Cryoprecipitate                                      | 129  | Factor IX Complex (Coagulation<br>Factors II,VII, IX, X)* |
| 40   | Benzyl Benzoate                              | 85   | Cyanocobalamin                                       | 130  | Factor VIII Concentrate                                   |
| 41   | Benzylpenicillin                             | 86   | Cyclophosphamide                                     | 131  | Ferrous Salt  |
| 42   | Betamethasone Dipropionate                   | 87   | Cyclosporine   | 132  | Fluconazole   |
| 43   | Betaxolol Hydrochloride                      | 88   | Cytosine Arabinoside                                 | 133  | Flucytosine   |
| 44   | Bisacodyl                                    | 89   | D.P.T Vaccine  | 134  | Flumazenil  |
| 45   | Bleaching Powder                             | 90   | Danazol  | 135  | Fluorescein   |

## GOVERNMENT'S ESSENTIAL DRUG'S LIST (CONTINUED)

| SNO. | PRODUCT NAME  | SNO. | PRODUCT NAME                                       | SNO. | PRODUCT NAME                                    |
|------|---|------|--|------|---|
| 136  | Fluoxetine Hydrochloride  | 184  | IUD containing Copper                              | 229  | N/2 Saline                                      |
| 137  | Flutamide   | 185  | Ketamine Hydrochloride                             | 230  | N/5 Saline                                      |
| 138  | Folic Acid  | 186  | Ketoconazole                                       | 231  | Nalidixic Acid                                  |
| 139  | Folinic Acid  | 187  | L- Asparaginase                                    | 232  | Naloxone  |
| 140  | Formaldehyde IP   | 188  | Lamivudine + Zidovudine                            | 233  | Nelfinavir                                      |
| 141  | Framycetin Sulphate   | 189  | Lamivudine +Nevirapine + Stavudine                 | 234  | Neomycin + Bacitracin                           |
| 142  | Fresh Frozen Plasma   | 190  | Lamivudine   | 235  | Neostigmine                                     |
| 143  | Furazolidone  | 191  | Levodopa+ Carbidopa                                | 236  | Nevirapine                                      |
| 144  | Furosemide  | 192  | Levothyroxine                                      | 237  | Niclosamide                                     |
| 145  | Gamma Benzene Hexachloride  | 193  | Lignocaine Hydrochloride +<br>Adrenaline           | 238  | Nicotinamide                                    |
| 146  | Gemcitabine Hydrochloride   | 194  | Lignocaine Hydrochloride                           | 239  | Nifedipine                                      |
| 147  | Gentamicin  | 195  | Lignocaine   | 240  | Nitrazepam                                      |
| 148  | Gentian Violet  | 196  | Lithium Carbonate                                  | 241  | Nitrofurantoin                                  |
| 149  | Glibenclamide   | 197  | Local Anaesthetic, Astringent and                  | 242  | Nitrous Oxide                                   |
| 150  | Glucagon  | 198  | Antiinflammatory Medicines                         | 243  | Norethisterone                                  |
| 151  | Glucose with Sodium Chloride                                      | 199  | Loperamide (Contraindicated for<br>paediatric use) | 244  | Norfloxacin                                     |
| 152  | Glucose   | 200  | Losartan Potassium                                 | 245  | Normal Saline                                   |
| 153  | Glutaraldehyde  | 201  | Magnesium Sulphate                                 | 246  | Nystatin  |
| 154  | Glycerin  | 202  | Mannitol   | 247  | Ofloxacin                                       |
| 155  | Glyceryl Trinitrate   | 203  | Measles Vaccine                                    | 248  | Omeprazole                                      |
| 156  | Griseofulvin  | 204  | Mebendazole  | 249  | Ondansetron                                     |
| 157  | Haloperidol   | 205  | Medroxy Progesterone Acetate                       | 250  | Oral Poliomyelitis Vaccine<br>(Live Attenuated) |
| 158  | Halothane   | 206  | Meglumine Iothalamate                              | 251  | Oral Rehydration Salts                          |
| 159  | Heparin Sodium  | 207  | Meglumine Iotroxate                                | 252  | Oxygen  |
| 160  | Hepatitis B Vaccine   | 208  | Melphalan  | 253  | Oxytocin  |
| 161  | Homatropine   | 209  | Menadione Sodium Sulphite                          | 254  | Paclitaxel                                      |
| 162  | Hormone Releasing IUD   | 210  | Mercaptopurine                                     | 255  | Pancuronium Bromide                             |
| 163  | Hydrochlorothiazide   | 211  | Metformin  | 256  | Paracetamol                                     |
| 164  | Hydrocortisone Sodium Succinate                                   | 212  | Methotrexate                                       | 257  | Penicillamine                                   |
| 165  | Hydrogen Peroxide   | 213  | Methyl Cellulose                                   | 258  | Pentamidine Isothionate                         |
| 166  | Hydroxyethyl Starch (Hetastarch)                                  | 214  | Methyl Ergometrine                                 | 259  | Pentazocine                                     |
| 167  | Hyoscine Butyl Bromide  | 215  | Methyldopa   | 260  | Pethidine Hydrochloride                         |
| 168  | Ibuprofen   | 216  | Methylprednisolone                                 | 261  | Pheniramine Maleate                             |
| 169  | Imipramine  | 217  | Methylrosanilinium Chloride<br>(Gentian Violet)    | 262  | Phenobarbitone                                  |
| 170  | Indinavir   | 218  | Methylthioninium Chloride<br>(Methylene blue)      | 263  | Phenylephrine                                   |
| 171  | Insulin Injection (Soluble)                                       | 219  | Metoclopramide                                     | 264  | Phenytoin Sodium                                |
| 172  | Intermediate Acting Insulin<br>(Lente/NPH Insulin)                | 220  | Metoprolol   | 265  | Physostigmine Salicylate                        |
| 173  | Intraperitoneal Dialysis Solution<br>(of approximate composition) | 221  | Metronidazole                                      | 266  | Phytomenadione                                  |
| 174  | Iodine  | 222  | Mexiletine Hydrochloride                           | 267  | Pilocarpine                                     |
| 175  | Iopanoic Acid   | 223  | Miconazole   | 268  | Platelet Rich Plasma                            |
| 176  | Isoniazid   | 224  | Midazolam  | 269  | Polygeline                                      |
| 177  | Iron Dextran  | 225  | Mifepristone                                       | 270  | Potassium Chloride                              |
| 178  | Isoflurane  | 226  | Mitomycin-C  | 271  | Potassium Permanganate                          |
| 179  | Isoniazid   | 227  | Morphine Sulphate                                  | 272  | Povidone Iodine                                 |
| 180  | Isoprenaline Hydrochloride  | 228  | Multivitamins                                      | 273  | Pralidoxime Chloride (2-PAM)                    |
| 181  | Isosorbide 5 Mononitrate/Dinitrate                                |      |  | 274  | Praziquantel                                    |
| 182  | Isoxsuprine Hydrochloride   |      |  | 275  | Prednisolone                                    |
| 183  | Isphaghula  |      |  | 276  | Prednisolone Acetate                            |

## GOVERNMENT'S ESSENTIAL DRUG'S LIST(CONTINUED)

| SNO. | PRODUCT NAME                  | SNO. | PRODUCT NAME                 | SNO. | PRODUCT NAME                               |
|------|-------------------------------|------|------------------------------|------|--|
| 277  | Prednisolone Sodium Phosphate | 304  | Salbutamol Sulphate          | 331  | Tetracaine Hydrochloride                   |
| 278  | Primaquine                    | 305  | Salicylic Acid               | 332  | Tetracycline Hydrochloride                 |
| 279  | Procainamide Hydrochloride    | 306  | Saquinavir                   | 333  | Tetracycline                               |
| 280  | Procaine Benzylpenicillin     | 307  | Silver Nitrate               | 334  | Theophylline Compounds                     |
| 281  | Procarbazine                  | 308  | Silver Sulphadiazine         | 335  | Thiacetazone + Isoniazid                   |
| 282  | Prochlorperazine              | 309  | Sodium Meglumine Diatrizoate | 336  | Thiamine                                   |
| 283  | Promethazine                  | 310  | Sodium Bicarbonate           | 337  | Thiopentone Sodium                         |
| 284  | Propranolol Hydrochloride     | 311  | Sodium Iothalamate           | 338  | Timolol Maleate                            |
| 285  | Propranolol                   | 312  | Sodium Nitrite               | 339  | Tinidazole                                 |
| 286  | Propylidone                   | 313  | Sodium Nitroprusside         | 340  | Trifluoperazine                            |
| 287  | Protamine Sulphate            | 314  | Sodium Stibogluconate        | 341  | Trihexyphenidyl Hydrochloride              |
| 288  | Pyrantel Pamoate              | 315  | Sodium Thiosulphate          | 342  | Trimethoprim                               |
| 289  | Pyrazinamide                  | 316  | Sodium Valproate             | 343  | Tropicamide                                |
| 290  | Pyridostigmine Bromide        | 317  | Spironolactone               | 344  | Tuberculin, Purified Protein<br>Derivative |
| 291  | Pyridoxine                    | 318  | Stavudine                    | 345  | Urokinase                                  |
| 292  | Pyrimethamine                 | 319  | Streptokinase                | 346  | Vancomycin Hydrochloride                   |
| 293  | Quinidine                     | 320  | Streptomycin Sulphate        | 347  | Verapamil                                  |
| 294  | Quinine Sulphate              | 321  | Succinyl Choline Chloride    | 348  | Vinblastine Sulphate                       |
| 295  | Rabies Immunoglobulin         | 322  | Sulfadoxine +Pyrimethamine   | 349  | Vincristine                                |
| 296  | Rabies Vaccine                | 323  | Sulfasalazine                | 350  | Vitamin A                                  |
| 297  | Raloxifene                    | 324  | Sulphacetamide Sodium        | 351  | Vitamin D3 (Ergocalciferol)                |
| 298  | Ranitidine Hydrochloride      | 325  | Sulphadiazine                | 352  | Warfarin Sodium                            |
| 299  | Riboflavin                    | 326  | Tamoxifen Citrate            | 353  | Water for Injection                        |
| 300  | Rifampicin                    | 327  | Terazosin                    | 354  | Xylometazoline                             |
| 301  | Ringer Lactate                | 328  | Terbutaline Sulphate         | 355  | Zidovudine                                 |
| 302  | Ritonavir                     | 329  | Testosterone                 | 356  | Zinc Oxide                                 |
| 303  | Roxithromycin                 | 330  | Tetanus Toxoid               |      |  |



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