

APPENDIX 2

IDENTIFICATION OF BENCHMARKING CANDIDATES

The approach followed to identify companies to include in the benchmarking exercise was to:

- Firstly, assume that companies selected must have an existing position in identified commercially attractive therapeutic categories or main groups. In order to identify attractive main groups, information was obtained from International Marketing Services (IMS) regarding the top 200 molecules used in pharmaceutical products.
- Once this was done, there would be a listing of the companies with registrations in the categories represented by attractive molecules and selection of companies that represented a cross-section of the main therapeutic categories.

The identification of attractive molecules in the South African pharmaceutical market (public and private) is based on the relative position of molecules with regard to:

- Overall consumption rate in kg's.
- Overall growth over 5 years (in standard dosages)
- Relative fraction of sales represented by generic products compared to branded products.

Other factors such as relative value, position on the Essential Drugs List (EDL) or number of producers could not be utilised, as information was not yet available from IMS when this exercise was conducted. These factors were included in the later analysis regarding further manufacturing opportunities.

A rating scale was applied to the top 200 molecules in terms of total mass used. The scale used was as follows:

- (i) **Mass of Molecule**
More than 20 000 kg/annum = 2

Between 10 000 and 20 000 kg/annum	=	1
Between 4 000 and 10 000 kg/annum	=	0
Between 1 000 and 4 000 kg/annum	=	-1
Less than 1 000 kg/annum	=	-2

(ii) **Growth of Molecules**

More than 100% over 5 years	=	2
Between 30% and 100% over 5 years=	1	
Between 10% and 30% over 5 years	=	0
Between 0% and 10% over 5 years	=	-1
Less than 0% over 5 years	=	-2

(iii) **Percentage Non-Branded**

More than 80% non-branded	=	2
Between 60% and 80% non-branded	=	1
Between 40% and 60% non-branded	=	0
Between 20% and 40% non-branded	=	-1
Between 0% and 20% non-branded	=	-2

Based on these rating scales, the 20% most attractive molecules are shown in the next table:

TOP 20% ATTRACTIVE MOLECULES

Molecule	Main Group	Score			Total
		Mass	Growth	% Generic	
KAOLIN*	Gastro-Intestinal Tract	2	2	2	6
LACTULOSE	Gastro-Intestinal Tract	2	2	0	4
PECTIN	Anti-diarrhoeals	0	2	2	4
CAFFEINE	Vitamins, Tonics, Minerals	2	2	0	4
MEPROBAMATE	Analgesics	1	2	1	4
SULFAMETHOXAZOL E	Anti-Microbials	2	0	2	4
PARACETAMOL	Analgesics	2	1	0	3
AMOXICILLIN	Anti-Microbials	2	0	1	3
ALLOPURINOL	Musculo-Skeletal Agents	0	1	2	3

Molecule	Main Group	Score			Total
		Mass	Growth	% Generic	
THEOPHYLLINE	Respiratory System	1	0	2	3
PHOSPHORIC ACID	Central Nervous System	1	0	2	3
ACETYLSALICYLIC ACID	Analgesics	2	1	0	3
IBUPROFEN	Analgesics	2	0	1	3
ERYTHROMYCIN	Anti-Microbials	1	0	2	3
DOXYCYCLINE	Anti-Microbials	0	1	2	3
ETHAMBUTOL	Anti-Microbials	1	0	1	2
HYDROCHLOROTHIAZIDE	Urinary System	0	0	2	2
NAPROXEN	Musculo-Skeletal Agents	0	0	2	2
CARBOCISTEINE	Respiratory System	0	1	1	2
TRIMETHOPRIM	Anti-Microbials	0	0	2	2
AMMONIUM	Respiratory System	1	0	1	2
STERCULIA GUM	Gastro-Intestinal Tract	2	2	-2	2
MEFENAMIC ACID	Analgesics	0	1	1	2
PHENOBARBITAL	Gastro-Intestinal Tract	-1	1	2	2
OXYTETRACYCLINE	Anti-Microbials	0	0	2	2
EPHEDRINE	Respiratory System	-1	1	2	2
CIMETIDINE	Gastro-Intestinal Tract	0	0	2	2
PHENYL BUTAZONE	Musculo-Skeletal Agents	-1	1	2	2
ASCORBIC ACID	Respiratory System	2	1	-2	1
ZINC	Vitamins, Tonics, Minerals	-1	2	0	1
DOXYLAMINE	Analgesics	-1	2	0	1
PYRAZINAMIDE	Anti-Microbials	1	0	0	1
TARTARIC ACID		2	1	-2	1
CALCIUM	Vitamins, Tonics, Minerals	2	1	-2	1
AMINOPHYLLINE	Respiratory System	1	1	-1	1
METHYLCELLULOSE	Gastro-Intestinal Tract	-1	1	1	1
CITRIC ACID	Gastro-Intestinal Tract	2	1	-2	1
METFORMIN	Endocrine System	2	0	-1	1
CODEINE	Analgesics	0	1	0	1

Note about Kaolin!

APPLICATION TO SURVEY

The major groups of therapeutic categories which are mostly represented by the top 20% molecules are:

- Gastro-Intestinal Tract
- Antidiarrhoeals
- Vitamins, Tonics, Minerals
- Analgesics
- Anti-microbials
- Musculo-Skeletal Agents
- Urinary System
- Central Nervous System
- Endocrine System

The selection of companies for the benchmarking exercise was therefore based upon their relative representation across these categories.