

3. METHODOLOGY

It was clear from published literature and local experience that BPH patients were being treated both by Specialists (> 40 nationwide) and General Physicians (> 3000 nationwide). However, information on the number of patients treated by both groups, rate of increase in new cases, pattern of referrals between these groups of physicians, the severity of the cases being handled by each group, and the population of patients on the various available treatment options were not known. Hence, this study was designed to include both these populations in order to understand and characterize the contributions by both groups in BPH management and the overall BPH market.

Further, factors that may influence the option for drug therapy and the reasons for any preference in the choice of available drugs in the market would in addition provide information indicative of the potential BPH market and probable strengths and weaknesses of the respective products. Characteristics such as better safety profile, better efficacy, earlier onset of action and tolerability could serve as unique beneficial characteristics that add 'quality' to the product.

The preference of certain physicians to prescribe a particular drug or their perceptions that one drug was more appropriate than the other maybe influenced not only by factors such as efficacy, safety, less side effects and convenient dosage, but also social and economic considerations. This study attempts to qualify some of these reasons for any preference within these groups, and assess the need for more specific programs to create greater awareness on product profile.

In summary, the information sought involved questions seeking to: understand the nature, extent and pattern of drug therapy; evaluate factors influencing decisions on choice of treatment options; identify improvements to product profile that could increase future usage; determine expected future usage of the products; and forecast optimum price for a competitive new product.

The format of the survey was a modified version previously used in a related study (Appendix 1). The survey questionnaire was initially used in a face to face interview on 2 consultant urologists (not included in the study) as a test to verify the appropriateness of the survey questions.

There are several approaches in the literature with respect to methodology on sampling of populations and survey formats appropriate for an in-depth customer and market evaluation for a new product (Levy and Lemeshow, 1999; Zikmund, 2000).

Potential respondents for the survey were identified using available database of Company A. The survey was conducted via telephone. Respondents were first approached at a local congress (Nov 2001) for consent of participation in a study. They were then followed-up with the telephone interview. The sample consisted of 45 respondents involving 15 Specialists and 30 General Practitioners (GPs). Only GPs who managed at least 5 BPH patients per month were included in this study. This screening criterion was necessary to qualify GPs for inclusion in the study. The Specialists generally treat many more BPH patients than GPs. Telephone interviews were conducted from Dec 2001–Feb 2002. Each telephone interview lasted approximately 10-15 minutes.

The questionnaire (Appendix 1) comprised of 4 sections, with a total of 18 questions:-

- i) Number of BPH patients and referral patterns (Q1-Q6)
- ii) Classification of BPH patients (Q7)
- iii) Treatment options and customer preferences (Q8-Q17)
- iv) Pricing (Q18)

Pricing methods based on economic theories and factors affecting the choice of pricing method are extensively covered in the literature (Sheshinski and Weiss, 1993; Diamantopoulos and Mathews, 1995; Kolassa, 1997; Folland *et al.*, 2001).

However, consumer pricing research techniques are becoming increasingly important in the pricing of drugs (Gabor and Grainger, 1966; Bowdith and Fitall, 1995; Bowdith, 1996; Proctor, 2000). Market research is also needed to determine the price/volume ratio required to focus as much if not more on the patient's ability or willingness to pay as the physician's willingness to prescribe.

For the purposes of this study, the Van Westendorp Pricing Technique was used to estimate the optimum pricing point (Hatry *et al.*, 1998; Curtis, 1998; SDR, 2001). Customer response on estimates of reasonable or affordable price of a product were computed with data based on questions on the price that was considered: too cheap, becoming reasonable, becoming too expensive but will still use the product, and too expensive to use. The perceived normal price, the penetration price and acceptable price range were derived graphically.

The penetration price point is where the 'least number of respondents reject the product because it was too cheap or too expensive', and this point is reflected by the intersection of the respondents 'too cheap' and 'too expensive' response curves. The perceived normal price at which equal numbers of people consider the product inexpensive and expensive (i.e. intersection of the

'becoming reasonable' and 'becoming too expensive' response curves) gives an indication of the perceived value of the product, based on the physicians knowledge of current prices of the various products in the market.

In pricing research, response curves derived from consumer surveys are often considered less reliable (Proctor, 2000). The major problem with the method is that buyers will tend to understate their purchase intentions at higher prices to discourage the company from setting higher prices (Nevin, 1974; Weiner, 1994).

However, sample populations differ in their price sensitivities and there are several factors that affect buyers' price sensitivity. Nagle and Holden (1995) have identified nine factors or product related 'effects' where buyers' are less price-sensitive, including 'unique-value effect' (*ie.* product is distinctive), and 'price-quality effect' (*ie.* product of known quality or performance). In the case of the 'product' being evaluated the customers were experts, knowledgeable in the proposed 'product', have used the product(s) for many years, and are familiar with the market price of available products. The responses in this case would have a higher degree of reliability compared to surveys involving a highly variable sample. However, a slight underestimation of the optimum price point is envisaged.

All data was subjected to statistical analysis for means comparison using the statistical software program of SAS Institute Incorporated, USA (SAS, 1990). Frequency and variance analysis of data was performed to determine influence of class variables including physician type (GPs vs. Specialists), percentage or categories of patients treated and factors that influence choice of treatment options and future usage of the drugs. Mean scores and standard errors were derived by variance analysis using standard analytical procedures depending on the data sets analysed (Levy and Lemeshow, 1999; SAS, 1990).