

## The Increasing Costs of Post Marketing Research and Meeting the Objectives of Multiple Stakeholders

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**Post Marketing Research (PMR) has been described as the fastest growing area of clinical research. Partly, I believe, this growth can be attributed to the fact that regulatory agencies are increasingly requiring additional safety and efficacy data from the PMR environment. However, partly, as discussed in greater detail later in this article, there are also other factors which are contributing to the growth; like marketing departments requiring additional data to help them understand an increasingly complex marketplace. This increased demand, from various stakeholders, for data means that PMR costs are increasing dramatically.**

*Post Marketing Research (PMR)* refers to several types of studies that are conducted after a drug or biologic has been registered and marketed. There are also *Post Registration Studies* which are studies that are conducted after a product is registered, but before a product is marketed. *Post Submission Studies*, on the other hand, refer to studies that are conducted after submitting a regulatory application but before the product is registered (or approved) and before the product is marketed.

For the sake of this article, I am only concentrating on Post Marketing Research (PMR) and the several types of studies that fall within this category. To a large extent, the terminology, which refers to these types of studies, is misunderstood and misused. For example, I have sat in marketing meetings where the terms “Phase IV” and “Post Marketing Surveillance” study are used interchangeably. However, the Association of the British Pharmaceutical Industry (ABPI) clearly differentiates between these two types of studies. The ABPI defines them as:

A *Phase IV trial* is interventional and is carried out using a licensed formulation within the terms of its product license. It is conducted either in general practice or hospital, primarily to extend the efficacy database, although collection of safety data will form an essential part of such a study. In most instances an active comparator will be employed, and all clinical trial materials are supplied by the sponsor (1).

A Post Marketing Surveillance study (similar to a post marketing registry) is observational and non-interventional, and is conducted primarily to monitor safety when a medicine (which is generally newly introduced) is prescribed in everyday clinical practice. Simple measures of efficacy may be included in order that risk/benefit judgments may be made. Observation on a comparator drug may also be incorporated into the design of a Post Marketing Surveillance study (1).

You can see from the above two ABPI definitions that the differences between a Phase IV trial and a Post Marketing Surveillance study are significant. Yet, both of these study types, one interventional and the other observational, fall within the umbrella category of Post Marketing Research. Later, in this article, I will also briefly talk about Real World Research which also falls within the category of Post Marketing Research.

The face of Post Marketing Research (PMR) has changed dramatically in recent years (5). PMR has also been described as the fastest growing area of clinical research. This change and growth is driven, I believe, by the following interrelated factors:

- The arthritis medication rofecoxib (marketed as Vioxx) was on the market for over five years before Merck voluntarily withdrew the product due to safety concerns. An estimated 88,000 Americans had heart attacks while taking Vioxx; 38,000 of whom died. The drug was withdrawn in 2004, by 2006 over 13,000 lawsuits involving Vioxx had been filed against Merck (2). The Vioxx debacle (and this is just one example of a number of high profile drug withdrawals) triggered a Congressional inquiry into drug safety and the structure of the FDA. In 2007, Congress passed the *FDA Administrative Amendments* (FDAAA), giving the FDA broad powers to require post marketing studies for any drug or biologic for which “new safety information” becomes available (3). Increasingly, other regulatory agencies are requiring additional safety and efficacy data from the “real world” environment of PMR.
- Biopharmaceutical marketing departments have always had an interest in using PMR data to support their promotional and marketing needs. However, in the last 10 years, the landscape has changed significantly for marketing departments. The costs of building a brand among increasingly demanding consumers (who have multiple purchasing options) has rocketed. Marketing departments, consequently, are increasingly interested in *product marketplace* data, like: reimbursement data, health care system access data, health care system utilization data, physician experience,

patient reported outcomes, patient satisfaction, compliance and burden of illness data (4). This product marketplace data helps marketers to understand the marketplace and make important decisions.

- Consumers of biopharmaceutical products have become more discerning. As mentioned in the previous bullet point, consumers increasingly have multiple purchasing options which allow them to choose between competing products (5). The Vioxx debacle together with some of the other high profile drug withdrawals had the added effect of sensitizing consumers to the fact that registered and marketed products are not always as effective and safe as they would like to believe.

In short, Regulatory Agencies are being legally empowered to require additional safety and efficacy data from the PMR environment. Marketing departments also require additional data to help them understand an increasingly complex market place and to help them understand and reassure increasingly discerning consumers. This increased demand for data, of course, means that PMR costs are increasing dramatically.

The ABPI definitions of a Phase IV trial and a Post Marketing Surveillance study, you will notice, include the scientific objectives of PMR, but do not include the marketing objectives. As mentioned in a previous paragraph, biopharmaceutical marketing departments increasingly are interested in *product marketplace* data (4), like:

- Medical Aid reimbursement data
- Health care system access and utilization data
- Physician experience data
- Patient reported outcomes
- Patient satisfaction data
- Compliance data
- Burden of illness data

Real World Research (RWR) is a fairly new term which refers to Post Marketing Observational studies which are conducted in real world settings in order to measure a product's effectiveness and to help us validate whether the safety and efficacy results, as originally seen in the clinical trial setting, translate into everyday 'real world' practice. However, RWR also refers to research that not only meets scientific objectives, but also meets marketing objectives. Marketing departments need to answer questions, make decisions and understand an increasingly complex marketplace. RWR recognizes that the success of a Post Marketing Observational

study is not only determined by the quality of the scientific methodology employed, but also by its ability to meet the needs of the patients, the payers, the prescribers, the marketers and the regulators (4). RWR is not ashamed of the fact that research also has commercial objectives. Instead it balances the needs of the scientists with those of the marketers to ensure that both scientific and marketing objectives are met.

RWR often takes the form of Patient Registries, and has been criticized for not being adequately controlled to offer useful information. It is true that the 'real world' environment is often uncontrolled, but if these studies are properly managed, following a scientific methodology, then they can produce a wealth of valuable data. While following scientific methodology, RWR should not try to mirror the controls and rigors of Phase I, II, III and IV research. For one thing RWR needs to be more cost effective than traditional clinical trials, and secondly, recent drug recalls have made it clear that the rigorous scientific and epidemiological methods utilized by traditional drug trials are no guarantee of safety and effectiveness (4).

In summary, the face of PMR is changing. There are now multiple stakeholders, like regulatory agencies and marketing departments, who demand more data (and different types of data) from the PMR environment. This increasing demand for data means that the costs of PMR are also dramatically increasing.

## **ACRO**

*The African Clinical Research Organisation (ACRO) helps local and international companies develop their healthcare products in order to bring them to market as economically and as quickly as possible. Based in South Africa, the company's multi-skilled and experienced team offers clinical trial services tailored to client needs across the African continent.*

*The company recognizes the importance of Real World Research (RWR). In a Post Marketing Research climate where costs are increasing, ACRO recognizes the need to design Real World Studies that simultaneously meet the needs of the regulators, the marketers, the patients, the payers and the prescribers.*

*Using its experience and expertise, ACRO has carefully designed Real World Standard Operating Procedures (SOPs) that allow better and more effective planning, implementation and*

*manage Real World Studies according to sound scientific methodology, but at the same time, achieving cost effectiveness compared to traditional clinical trials.*

*We meet the needs of the multiple stakeholders and help in achieving cost effectiveness by using affordable technological solutions which, to some extent, lack the bells and whistles of vendor supplied technology, but also does not have to bear the burden of expensive annual license costs. Our technology and procedures have all been designed to incorporate Quality Management practices and have multiple Quality Control points and multiple layers of Quality Assurance. All of this allows us to produce quality and timely data that meet the needs of the client.*

## **References**

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