Post-marketing studies have evolved significantly in the last few years, growing faster than other forms of research. Within this class, there has been a significant increase in the number of patient registries conducted.

Traditionally, all post-marketing research was broadly referred to as Phase IV research. In the strictest sense, Phase IV research involves studying a marketed product for a non-licensed and/or unapproved indication. Similar to Phase I, II and III studies, Phase IV research requires strict controls and processes to ensure the safety of subjects and quality of data.

Because both payers and regulators demand more from biopharma manufacturers with respect to their products, today’s post-marketing research environment is focused more on collecting other information, such as:

- health economic data,
- naturalistic/experience data,
- patient-reported outcomes,
- reimbursement data and
- safety surveillance data.

Research driven by marketing and commercial objectives has forced us to re-evaluate what we have traditionally classified as Phase IV research. Currently, the definition of a Phase IV study will vary, depending on who is asked.

The use of the term ‘patient registry’ has further muddied the waters. The majority of the post-marketing research conducted today is more registry-like than Phase IV-like; referring to all studies as Phase IV trials elicits certain preconceived expectations of how these studies should be developed and executed.

**Properly managed patient registries can produce a wealth of valuable data.**

Real-world results

Registries are conducted in a real-world setting in order to measure a product’s effectiveness, and are useful tools that can help us validate whether the safety and efficacy of interventions seen in controlled clinical trials translate to everyday practice. Some critics argue that patient registries are not adequately controlled to offer useful information. While it is true that the real world is often uncontrolled, properly managed patient registries can produce a wealth of valuable data. One of the main advantages of patient registries over Phase IV trials is that registries allow...
large-scale/long-term data collection at a fraction of the cost of traditional studies. In addition, patient registries allow the opportunity to collect relevant information relating to interventions, such as:

- reimbursement and impact of reimbursement policy,
- health-care system access and utilization,
- physician experience,
- patient-reported outcomes,
- satisfaction,
- compliance and
- burden of illness.

**Understanding the changing regulatory environment**

Federal regulatory guidance on conducting patient registries is evolving. In order to fulfill safety and regulatory requirements, biopharmaceutical companies must be able to develop, implement and maintain patient registries within the content of this evolving environment.

**Balancing marketing objectives and scientific value**

Do not feel ashamed of disclosing the fact that the research has commercial objectives. It’s time to dispel the myth that there is a disconnect between scientific and commercial objectives. Similarly, it’s time for us to appreciate that post-marketing research (i.e., patient registries) is scientific but cannot be executed in a manner similar to Phase I, II, III or IV research. One should not assume that Phase IV studies are any more or less robust than patient registries. Both methods should strive for the same high level of science, and both can have scientific and commercial objectives.

Make it transparent to ethics boards that you are undertaking a patient registry and ensure that the statistical/data analysis plan is consistent with the limitations of research in a naturalistic setting. If this fact is not transparent, research ethics boards may attempt to assess scientific validity in a manner similar to registration studies. A defined sample size calculation may not be possible in the context of an observational/experience study.

**Ensuring you have a strong scientific methodology**

Researchers sometimes assume that patient registries do not require a formal scientific methodology. While less complex, the methodology must still have a strong scientific basis (i.e., statistical analysis plan, communications/dissemination strategy). Regulatory and ethical scrutiny of post-marketing research is increasing—especially with studies involving a large number of patients and physicians. Scientific journals require that studies targeted for publication be appropriately designed and monitored. Clinical researchers and marketers should always keep in mind scientific design, honoraria and protection of personal information and confidentiality.

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**Key considerations in successfully managing a patient registry:**

- Meet TPD/FDA/EU regulatory mandates and conditions
- Collect/generate product experience in a real-world setting
- Collect patient-reported outcomes
- Post-marketing pharmacovigilance and/or safety monitoring
- Collect health economic endpoints
- Collect epidemiological and burden of illness data
- Assess access and reimbursement issues
- Collect product usage statistics and competitive intelligence
- Profiling of patients and/or prescribers
- Comparative analyses
- Assess clinical practice/prescribing patterns and continuous quality improvement initiatives
- Address post-marketing reimbursement/payer requests

**Post-Marketing Research**

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- Address post-marketing reimbursement/payer requests
Patient registries will play an increasing role in providing payers and decision-makers with information that will validate the safety and efficacy of interventions reported in Phase III clinical trials. At the same time, it is important that we begin to differentiate registries from traditional Phase IV studies. Registries, while respecting the principles of Phase IV research, cannot be run like a Phase IV study, the same way that Phase IV studies cannot be run like patient registries. Each has its unique role in the evaluation of interventions—both should strive for research excellence.

For more information about patient registries, please contact Dimitris Polygenis at 1-800-811-9880, ext 121, or dpolygenis@phase4health.com.

McKesson Phase 4 Solutions is a division of McKesson Canada that offers strategic consulting; clinical trial services, including late phase clinical trials, health economics and outcomes research; product development and marketing; reimbursement management and payer relations to the pharmaceutical industry.