



Generic drugs can be manufactured after the periods of exclusivity on the brand-name versions have ended.

Generic and brand-name drugs have identical active ingredients, and generic drugs must meet Health Canada's standards for bioequivalence.

The process of bringing a generic prescription medicine to Canadians is complex, requires sophisticated scientific and advanced manufacturing technologies, and can take several years and millions of dollars to complete.

## **BRINGING HIGH-QUALITY COST-SAVING GENERIC MEDICINES TO CANADIANS**

**CGPA**

Making Patient Care Affordable



Canadian Generic Pharmaceutical Association | [candiagenerics.ca](http://candiagenerics.ca)

## BRINGING HIGH-QUALITY, COST-SAVING GENERIC MEDICINES TO CANADIANS

### RESEARCH AND DEVELOPMENT

01

#### SECURING ACTIVE PHARMACEUTICAL INGREDIENTS (API'S)

- › API are produced internally, or sourced from international suppliers.
- › Assess legal issues effecting availability and use of API in Canada.
- › API tested for quality and consistency prior to formulation.
- › Assess quality control and manufacturing practices of supplier.
- › Assess supplier ability to guarantee stable supply of API.

02

#### DEVELOPING FORMULAS

- › Originator product reverse engineered for composition of active and non-active ingredients.
- › Data collected, analysis of originator product monograph.
- › Various formulations of active and non-active ingredients.
- › Formulations are tested against brand-name product.
- › Develop quality control matrix for formulation integrated into manufacturing.

03

#### MANUFACTURING AND PRODUCTION TESTING

- › Formulations tested in manufacturing setting.
- › Analysis of manufacturing complexity and requirements.
- › Equipment designed and/or purchased for dedicated production line.
- › Quality control matrix developed, tested for full manufacturing.
- › Packaging designed, produced with dedicated quality control matrix for output.

## BRINGING HIGH-QUALITY, COST-SAVING GENERIC MEDICINES TO CANADIANS

CLINICAL TRIALS / FEDERAL APPROVALS / PROVINCIAL AND TERRITORIAL LISTINGS / PATIENT JOURNEY

04

### BIOEQUIVALENCE STUDIES AND CLINICAL TRIALS

- › Bioequivalency studies undertaken to measure the rate and the extent of absorption of generic drug. Results compared to originator drug.
- › Comparative study submitted to Health Canada.
- › Submissions include evidence of tests and clinical trials to measure potency, purity and stability of new drug.
- › Health Canada cannot approve a generic drug until all relevant intellectual property issues are addressed.

05

### REGULATORY AND LEGAL CHALLENGES

- › Under Patented Medicines (Notice of Compliance) Regulations a generic manufacturer is required to serve Notice of Allegation on the brand-name manufacturer, claiming generic drug will not infringe any relevant patents.
- › Brand-name manufacturer can apply for an order prohibiting Health Canada from approving generic drug. Using "automatic stay" brand-name manufacturer can prevent generic product from entering market for up to 24-months simply by alleging patent infringement.

06

### PROVINCIAL / TERRITORIAL DRUG PLAN LISTINGS

- › Once Health Canada has issued a Notice of Compliance (NOC) and approved the drug for sale, it can be sold anywhere in Canada.
- › To be reimbursed under provincial drug programs and obtain significant sales volumes, the generic drug must be listed on provincial drug benefit plans and be "interchangeable" with originator.
- › Manufacturer must submit an application to pan-Canadian Pharmaceutical Alliance (pCPA) and each province/territory. It can take up to a year to have the new generic drug listed in all provinces.

07

### PATIENT JOURNEY

- › Patient Support Programs
- › Access
- › Education