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Policy Takeaways

GENERIC INTERCHANGEATIONSBILITY AND INHALED MEDICATIONS

Presented by:
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Policy Roundtable Takeaways

WHAT IS INTERCHANGEABILITY?

In Ontario, pharmacists have the ability to substitute generic products in place of brand name products that are listed in the province's Formulary. Though there are some exceptions, pharmacists are generally required to dispense the lowest cost product listed in the category of drugs. To be considered "interchangeable," the drug must have the same amount of the same (or similar) ingredients in the same (or similar) dosage form.[1]

WHAT'S AHEAD

A number of new branded inhaled drugs will become available in the coming years. At the same time, the market will be welcoming a new wave of generic inhalers of medicines with expired patents. How do we best navigate the issue of generic inhalers coming into Canada to ensure that patient outcomes are not negatively impacted?

OUR CONCERNS AND UNANSWERED QUESTIONS

Health Canada is moving ahead with the recommendations of the Scientific Advisory Committee on Respiratory and Allergy Therapies (SAC-RAT). However, panelists from the Lung Health Foundation's Generic Interchangeability Roundtable session (June 24, 2019) identified the following outstanding concerns with this direction:

- Is the use of pulmonary pharmacokinetic (PK) studies for establishing bioequivalence of subsequent market entry (generic) orally inhaled products (OIPs) sufficient? *If not, what would be acceptable?*
  - › Note that PK studies do not address differences in the device component of the medications
- Could unsupervised, unconsented or automatic switches impact patients living with chronic obstructive pulmonary disease (COPD) and other chronic lung diseases? How would we mitigate that risk?
- There is no clear definition of the "sameness" of a device. How do we arrive at one?
- Can we form a better understanding of how roles and responsibilities related to patient education could be better defined, prior to switching to generic OIPs?

OPPORTUNITY 1

REASSESS THE METHODS OF EVALUATION

1 Develop a new method of evaluating inhaled compounds that also considers both the technique and design of the device.

- The complexities of inhaled compounds cannot properly be evaluated using a PK test alone.
- A PK test does not address the device component of an inhaled compound, and therefore does not take into consideration issues with patients' user errors. One primary care study reported that of 3,811 patients, 76% reported making at least one error.[2]
- Currently, Health Canada recommends that applicants submit results of an analysis of the physical and operational attributes of the device. However, there is no criteria being enforced.[3]
- The United States Food and Drug Administration (FDA) mandates device equivalency testing and recognizes that the performance of orally inhaled drug products (OIDPs) requires interactions between device, the formulation process, as well as other patient factors.[4] The FDA's weight- of-evidence approach takes into consideration a combination of in vitro studies, PK studies, pharmacodynamics studies, and formulation and device similarities/differences.
- Australia also considers the device factor. Clinical efficacy, product performance testing, formulation and device factors are all considered.

With this, we recommend that a new framework for evaluation that considers the sameness of device factor is created. This is a critical component to minimizing patient use errors and bioequivalence considerations.

2 **Health Canada should engage in more comprehensive randomized controlled trials that include individuals with lung disease in order to make a clear determination on the best means of evaluating bioequivalence.**

- In their recommendations to Health Canada, SAC-RAT has outlined considerations for the design and standards of comparative PK studies. These studies typically utilize a study population of healthy adult volunteers.
  - › Utilizing a healthy population in these clinical trials is unrepresentative of patients who will use OIPs and does not allow for accurate data to be collected on the challenges patients may have with device switches.

More clinical data is needed on the impact of substituting OIPs before a determination can be made on bioequivalence designation and on a definition of sameness of device.

OPPORTUNITY 2

PLACE A GREATER EMPHASIS ON PATIENT INVOLVEMENT/EDUCATION

3 **Develop a patient-centered framework where a patient's choice in their orally inhaled treatment's device is taken into consideration.**

- To reduce the burden that could be placed on pharmacists/physicians, guidance needs to be provided by regulators on how and when substitutions should be made.
- Several studies among healthcare providers have demonstrated that patient involvement in deciding their treatment choice is critical for adherence and treatment success.[5]
- Treatment guidelines globally uphold that a patient's inhaler technique, as well as their level of adherence needs to be taken into consideration prior to making a change to their prescription.[6]
- Several countries have taken the lead in employing more patient-centric approaches:
  - › The Lung Alliance Netherlands has worked collaboratively with healthcare insurers to create guidelines surrounding when it is appropriate to switch a patient to a lower cost generic inhaler.[7]
  - › In Spain, regulation stipulates the safety of patients and ensuring their voice is heard when it comes to changing their treatment regimen.

In light of this, we recommend that if patients are already on a branded drug, and the generic version cannot demonstrate sameness of device, the patient should have the option of whether they would like to switch products. New patients can be put on generic inhalers complemented by appropriate education.

Insurers must also be involved in this conversation to ensure that patients can be easily prescribed brand name orally inhaled drugs, if appropriate. This will also serve to eliminate unnecessary administrative burden on the part of physicians and pharmacists.

4 Utilize the unique skills of certified respiratory educators (CREs) to educate individuals when switching products.

- The current system relies on pharmacists to provide education regarding product switches. The capacity of pharmacists to provide these consultations varies greatly by province and depending on workload.

As such, we recommend that a patient-centric framework – developed in collaboration with the provinces/territories – outline how the expertise of CREs in each respective jurisdiction can be utilized to educate patients.

Sources

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Helpful Definitions

Bioequivalence: The expected biological "sameness" of two proprietary preparations of a drug within a living organism.

Certified respiratory educators (CREs): Healthcare professionals who have been specially certified to provide comprehensive, evidence-informed respiratory education. Medical doctors, respiratory therapists, nurses, pharmacists, occupational therapists, kinesiologists, and physiotherapists can all complete courses and become CREs.

Pharmacokinetics (PK): A branch of pharmacology that studies the bodily absorption, distribution, metabolism, and excretion of pharmaceutical drugs, and other substances like pesticides, cosmetics, or food additives. PK studies assess the movement of drugs through the body.

Pharmacodynamics (PD): A branch of pharmacology that studies the reactions between drugs and living systems. PD studies assess the body's biological response to drugs.

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