







Executive summary:

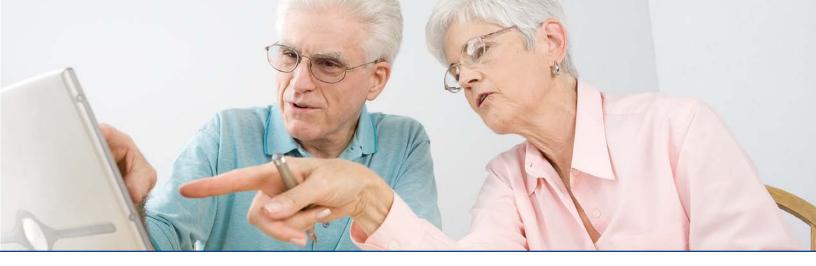
Rising healthcare costs and greater access to medical information drive patients to seek options for their drug therapy. The MedAlternatives database by Gold Standard/Elsevier empowers consumers with therapeutic alternatives to consider with their health care provider to save money on their medications, improve medication compliance, and optimize health outcomes.

Safe, effective, affordable drug choices: online tool for payers and patients.

- Mary T., a 59 year old, takes one Boniva® 2.5 mg tablet daily for the treatment of postmenopausal osteoporosis. She knows the importance of taking an osteoporosis medication, but she is also an active, busy woman. Her health plan provides drug benefit information online, so today she has logged on to see if she can find a cheaper and equally effective medication that she doesn't have to remember to take every day.
- ➤ Darrell F. works for a pharmacy benefit manager. Today he takes a call from an elderly customer who has recently been prescribed Enablex® 7.5 mg for overactive bladder. Darrell's customer like many he speaks to is on a fixed income and worries about the cost of his medications. He asks about less expensive drug options.
- Howard S. is a formulary manager for a health plan that insures a large number of Medicare patients. The plan he works for has asked him to identify and validate low-cost drugs for treating heart failure. Ultimately, the plan intends to direct prescribers and patients to these "preferred" options via the company's website.
- > Dr. Smith, a primary care physician, sees a new Alzheimer's Disease patient who is taking Cognex® 10 mg four times a day. Because of the frequent dosing and risk of liver toxicity with this medication, Dr. Smith would like to switch the patient to an alternative drug. She is unsure if generic alternatives are available and which cholinesterase inhibitors are on the patient's formulary plan.

See inside to learn how these individuals benefitted from MedAlternatives.





Why Provide Medication Alternatives?

Due to rising drug prices and challenging economic times, medication costs are a major concern for consumers; particularly for senior citizens on fixed incomes. Consumers who skip their medications to save money increase their risk for worsened health outcomes and preventable healthcare costs later.

With these economic and health concerns in mind, today's consumers are more likely to educate themselves with medical information such as through the Internet and news outlets. Pharmacy benefit managers (PBMs), health plans, and employers need online tools to help consumers identify therapeutically appropriate and cost-effective medications. With billions in potential savings across major drug classes (e.g., cardiovascular agents), the stakes are high. A lower-cost drug regimen also facilitates better medication compliance, leading to healthier patients and reduced total healthcare costs.

...But Not Just Any Alternatives

First and foremost, an effective medication alternatives program should ensure comparable safety and efficacy for the drug options it offers. The program should also provide generic and brand name drug choices, comparative costs for in-store and mail-order purchases, and formulary-specific preferences, individualized for each patient. The application should mesh seamlessly with the health plan's interface.

Consumers find value in health plans offering medication alternatives. Through access to personalized drug information, consumers enjoy "ownership" of decisions that impact their health, finances, and lifestyle. With this value-added tool, health plans can reach out to their members, encouraging active participation in their healthcare while enhancing customer service and loyalty. The time to engage plan members with consumer-driven health care tools is now.

The consumer and payer achieve health cost savings only if the new drug regimen has comparable or greater effectiveness, so the quality of the database is essential.

Reap the Economic Benefits

• Medication alternative databases provide options that consumers, health plans and employers embrace for significant savings. Payers can maximize the benefit by integrating their formulary structure and pricing. (For example, integration allows the database to display their lowest cost and/or formulary plan options first.) Savings multiply substantially when applied to commonly-used drug classes and large insured groups.

Integration of the payer's data into the medication alternative database expands programs that increase the use of less costly generic products among members. For example:

• Changing from a 30-day supply of a common, brand name nasal steroid such as Rhinocort Aqua® to a 90-day supply of a generic product such as fluticasone propionate typically results in substantial cost savings, especially when electing mail order purchase. Alternatively, the consumer with allergic rhinitis (nasal allergies) may consider a cross-class option such as over-the-counter oral cetirizine tablets (the generic for Zyrtec®).



 Providing a generic statin such as simvastatin 40 mg tablets as an alternative to brand name medications, such as Lipitor® 20 mg tablets or Crestor® 10 mg tablets, often leads to cost savings.

Patients who must take their medications more often are less likely to comply successfully. Thus, providing drug choices with less frequent doses may enhance compliance, improve health outcomes and result in cost savings. For example:

- Switching from Effexor® 50 mg three times daily for the treatment of depression to Effexor® XR 150 mg
 once daily can save a patient hundreds of dollars per year, improve medication compliance, and enhance
 treatment results.
- Changing from Coreg® 25 mg tablets taken twice daily for high blood pressure to the once daily Coreg® CR 80 mg capsule can make the drug regimen more convenient and cheaper for the patient. This encourages compliance and helps to prevent more dangerous and costly health events, such as hospital admissions.

Ultimately, the consumer and payer will achieve optimal health cost savings only if the new drug regimen is of comparable (or greater) efficacy and safety. For this reason, the quality of the database – along with review and approval of any changes by the patient's physician – is essential.

Patient Safety Is Key

Lower cost drugs that lack clinical relevance are a major concern when offering medication alternatives. As with any aspect of healthcare, patient safety is the priority. To ensure patients are directed only to safe and effective medications, elements of a quality medication alternative program should include:

- Returns only alternatives of *comparable or enhanced efficacy and safety* outcomes (relative to the input medication); blocks therapeutically inappropriate alternatives.
- Subdivides classes to guard against therapeutically inappropriate medication choices. For example, the database should divide respiratory beta2 agonists into short-acting versus long-acting beta2 agonists, since the medications are used for different purposes when treating individuals with asthma.
- Allows subclass and cross-class drug choices. To illustrate, both cyclooxygenase-2 (COX-2) inhibitors and nonsteroidal anti-inflammatory drugs (NSAIDs) may be offered as cross-class alternatives for the treatment of osteoarthritis pain.
- Displays only alternative medications that have *FDA-approval* for the selected indication; off-label uses are excluded to avoid potential liability.

The MedAlternatives Difference: Evidence-Based Quality

Developed by Gold Standard/Elsevier, the MedAlternatives database benefits clients with its quality and scope of data content, ongoing maintenance and enhancements, individualized patient results and customizable features.



The MedAlternatives staff of highly trained healthcare professionals ensures *evidence-based quality* content developed through critical evaluation of existing medical literature, including clinical studies, practice guidelines, meta-analyses and FDA-approved prescribing information. Each medication class review is performed in a manner similar to a formulary review. The efficacy, safety (e.g. toxicity, precautions, adverse effects) and dosage of each drug within a selected class are evaluated and compared to identify any substantial differences between the agents, such as age-specific dosing (e.g., adults, elderly).

Upon completion of the medication class review, Gold Standard/Elsevier uses consensus review and approval of therapeutic classes and indications. Clinical review by professional pharmacy staff, including external validation by practitioners, has proven a key difference for MedAlternatives in assuring appropriate medication comparisons.

Checklist for evaluating medication alternative tools:

- ☑ evidence-based data for accurate comparative outcomes
- ☑ complete scope of drug classes and product formulations
- ☑ inclusive results (generics, brands, same-class and cross-class returns)
- ☑ individualization to each patient (indication, age, gender)
- ☑ complete dose-to-dose comparisons for accurate pricing
- ✓ ease of integration into client's web interface

The MedAlternatives Difference: Depth of Data

Gold Standard/Elsevier provides ongoing updates to the MedAlternatives database, which can be particularly important when new drugs or product formulations enter the market. Today, MedAlternatives offers approximately 50 drug classes within the database; clients may request additional drug class reviews as well.

MedAlternatives goes beyond generic substitutions and same-class options to offer the broadest set of medication comparisons. The database is unique in protecting users by ensuring accurate dosage comparisons and pricing. Safeguards include:

- only comparable dosages shown;
- complete dosage options presented;
- full scope for dosage input options;
- excludes doses based on tablet splitting;
- displays only FDA-approved dosages.

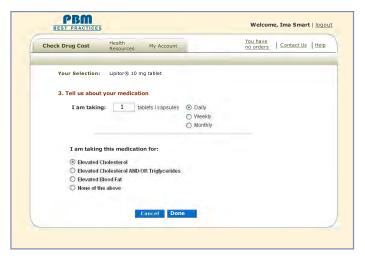
The MedAlternatives Difference: Individualized and Customized

MedAlternatives provides specificity for each medication search, including drug and dosage alternatives based on the user's pharmacy benefit plan, selected condition, age and gender. Without this feature, the results may not be in the patient's best interest (e.g., the alternatives may not be approved to treat the patient's health conditions and/or may pose safety risks based on patient demographics).

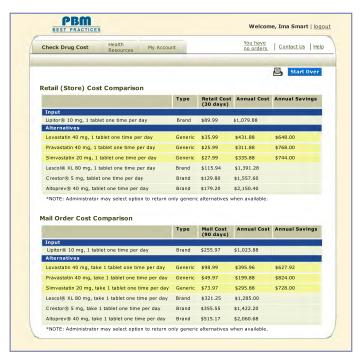
MedAlternatives makes available all comparable alternatives. However, clients have the ability to customize or filter results, such as:

- directing users to brand or formulary preferences;
- restricting returns to equal or less frequent dosing only;
- integrating results into existing drug dosing or adjudication-pricing guidelines or applications.

Clients may customize the MedAlternatives content formatting on their website or application, creating a familiar layout and intuitive navigation for their users. They may also explain how consumers can use the information MedAlternatives provides to talk with their healthcare providers about obtaining or switching to a preferred medication.



Clients determine how MedAlternatives content displays to their users by customizing to fit their own interface. (Sample interface and data shown)



With use of MedAlternatives data, potential cost savings can be presented on the client's website as easy-to-read, printable screens. (Sample interface and pricing shown)



MedAlternatives is integrated within Mary T.'s online drug benefit plan. Mary enters her information online, and the results include same class and cross-class alternatives to Boniva® for her osteoporosis. Mary discusses her options with her doctor; they agree Fosamax®, a once-weekly tablet containing alendronate, is the best treatment option. Mary likes the cost savings and convenience of taking her medication once a week. She knows she can adhere to this regimen more easily.



Darrell F. helps his elderly plan member, who is on a fixed income, use MedAlternatives to find a lower cost alternative to Enablex® for overactive bladder. Darrell is comfortable with the use of MedAlternatives because he knows it is evidence-based and excludes medications and doses inappropriate for elderly patients. Darrell's customer reviews the options shown by MedAlternatives. He notes that Ditropan® XL 10 mg once daily is a less expensive option, and he can save even more by placing his prescription through mail order. Darrell instructs his customer to discuss the alternatives with his physician.



As an experienced pharmacist, Howard S. is familiar with the prescriptions his health plan's heart-failure patients get from their doctors. Some of these agents have a significant marketing effort behind them; he knows which of the newer, more expensive agents to compare against more established and less costly alternatives. Among the aldosterone antagonists, for instance, he identifies spironolactone as a generic option with clinical data that shows it to be of comparable efficacy to a recently marketed brand name product. Validating this alternative is made easier by his plan's use of MedAlternatives, which agrees with his findings and shows that spironolactone is also available less expensively. Howard knows that making this information available online will improve his plan's ability to communicate with their members.



Dr. Smith is consulting with a new patient who is taking Cognex® for Alzheimer's Disease. The patient's caregiver explains how difficult it is to administer Cognex® four times a day. Before the doctor's visit, the caregiver used MedAlternatives to print a list of drugs for treating Alzheimer's Disease, and noticed that Cognex® was absent from the list. Dr. Smith explains that Cognex® has the potential for liver toxicity (therefore excluded from the options MedAlternatives provided). After reviewing the list of safe and effective alternatives, Dr. Smith prescribes Aricept® 5 mg once daily, which is administered less frequently, is less expensive, and has a better safety profile.

MedAlternatives delivers optimized results to payers and consumers with the goal of achieving medication savings, providing convenience, and assuring safety and efficacy.

To learn more, visit www.goldstandard.com or contact us at 800-375-0943 or info@goldstandard.com

