

Health

*The power of one: Aligning clinical  
and medication decisions*

A close-up photograph of a hand holding a white pill bottle filled with yellow capsules. The bottle has a white cap and a label with a barcode. In the background, a person in a white lab coat is visible, with their hands on a laptop keyboard. The scene is brightly lit, suggesting a clinical or hospital environment.



Unwarranted care variation exists within most provider organizations, and represents a \$20M–\$30M (per \$1B in revenue) actionable savings opportunity for a typical organization.<sup>1</sup>

When members of your care teams — physicians, physician assistants, nurse practitioners, nurses, and pharmacists — look up clinical information on disparate and unconnected resources, care suffers. The result? Unwanted variability in care, costly disconnects between team members, and confused or even dissatisfied patients.

To truly improve quality of care and reduce costs, you need to empower all healthcare providers and patients with trusted and consistent information. This means having actionable evidence-based content from one trusted source that works across the continuum of care and aligns with best practice.



*“As medical doctors, we can all agree that no matter where patients live or who they entrust with their health, they should always have access to the best possible care. But unwarranted care variation can happen at every decision point for every patient. That’s why, today more than ever, we need expert, reliable, clinical decision support.”*

Ted Post, MD, Editor-in-Chief, Clinical Effectiveness, Wolters Kluwer, Health

## Effective care requires trusted clinical content for caregivers and patients

Caregivers need the best clinical information that covers adult and pediatric dosing, IV compatibility, and renal dosing for appropriate therapy decisions. They also look up alternative agents for when a patient is allergic to a drug and for uses considered unsupported based on available data indicating that the drug is either ineffective or unsafe. Physicians also search for adverse event information. But hospital and health-system-based pharmacists have a broader range of drug information needs.

**Drug information needs vary based on the patient population.** The sickest patients require much more communication between providers and ongoing review of their medication. They often have multiple complicated comorbidities, see many clinicians, and have a long list of medications that change and may interact. Meanwhile, even people with few and well-controlled chronic conditions are at risk of worsening if their doctors and nurses are not watching closely. You can leverage Lexicomp® to integrate your pharmacists more deeply into the care team while meeting the broad information needs of your clinicians as well as your patients.

**We know from usage data that pharmacists typically view about 20 different fields in Lexicomp.** And when they have access to Lexicomp instead of other pharmacology references, the in-depth information they find complements what prescribers are seeing in UpToDate — saving time and reducing confusion, potentially helping prevent dangerous medication errors. When treating patients with difficult conditions in situations outside typical clinical scenarios, this can be a life-saving difference!

**Upon discharge, care teams need to provide patients with the right medication information to take home, so they know what to expect and how to manage their condition.** The education leaflets found in Lexicomp come from the same source that pharmacists refer to on a daily basis.



## Clinical scenarios that care teams encounter all the time

These are the kinds of common scenarios that require a deep medication information resource that complements a trusted evidence-based clinical decision solution, like the combination of the complete Lexicomp with UpToDate.

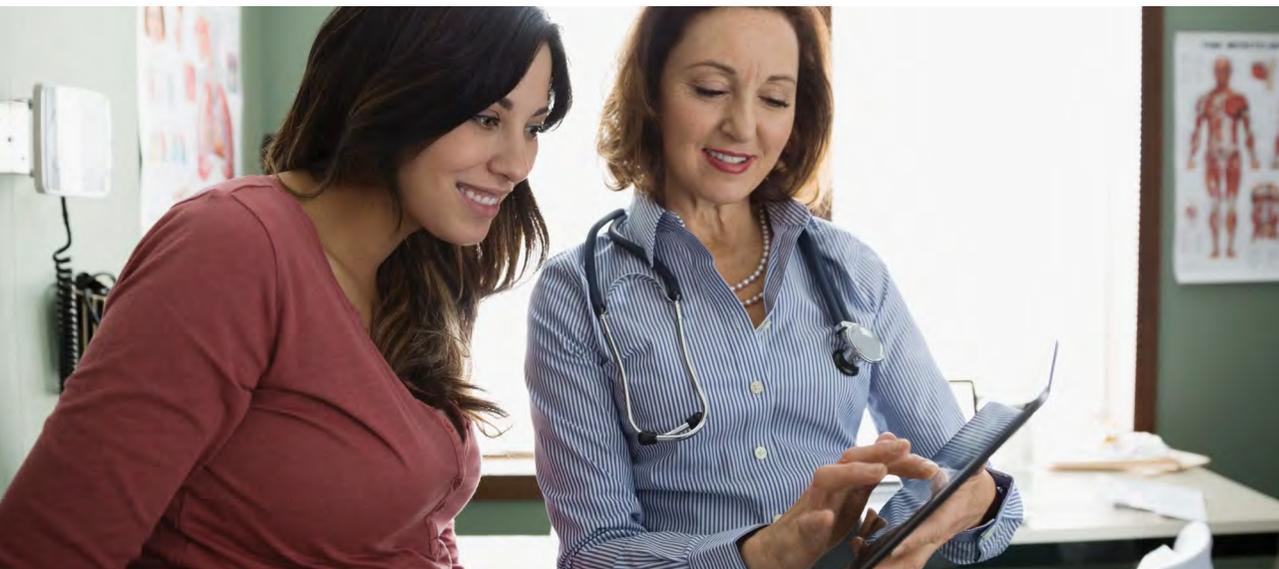


### SCENARIO 1: Nursing mothers

A new mother with Type II diabetes comes in for a postpartum visit after a cesarean section two weeks ago. This morning she took her diabetes medication and also acetaminophen with codeine for postpartum pain. Her infant is sleeping for more hours during the day than she expected at this point. Are the medications causing this? Are they safe alone or in combination? She's been looking this up and reading online. Now she's panicked. What should she do?

In the lactation section of Lexicomp, her physician finds a thorough review of the studies relevant to safety of these drugs in breastfeeding mothers. In addition, with access through Lexicomp to content from Gerald G. Briggs' authoritative guide to drugs in pregnancy and lactation, the physician is able to adjust the medications and answer all of the patient's questions.

With easy access to Briggs content via Lexicomp and the EHR, your providers won't need to purchase a separate book or a Briggs-only online resource. This will save them time and ensure they are consulting the best resource to care for new mothers and infants.

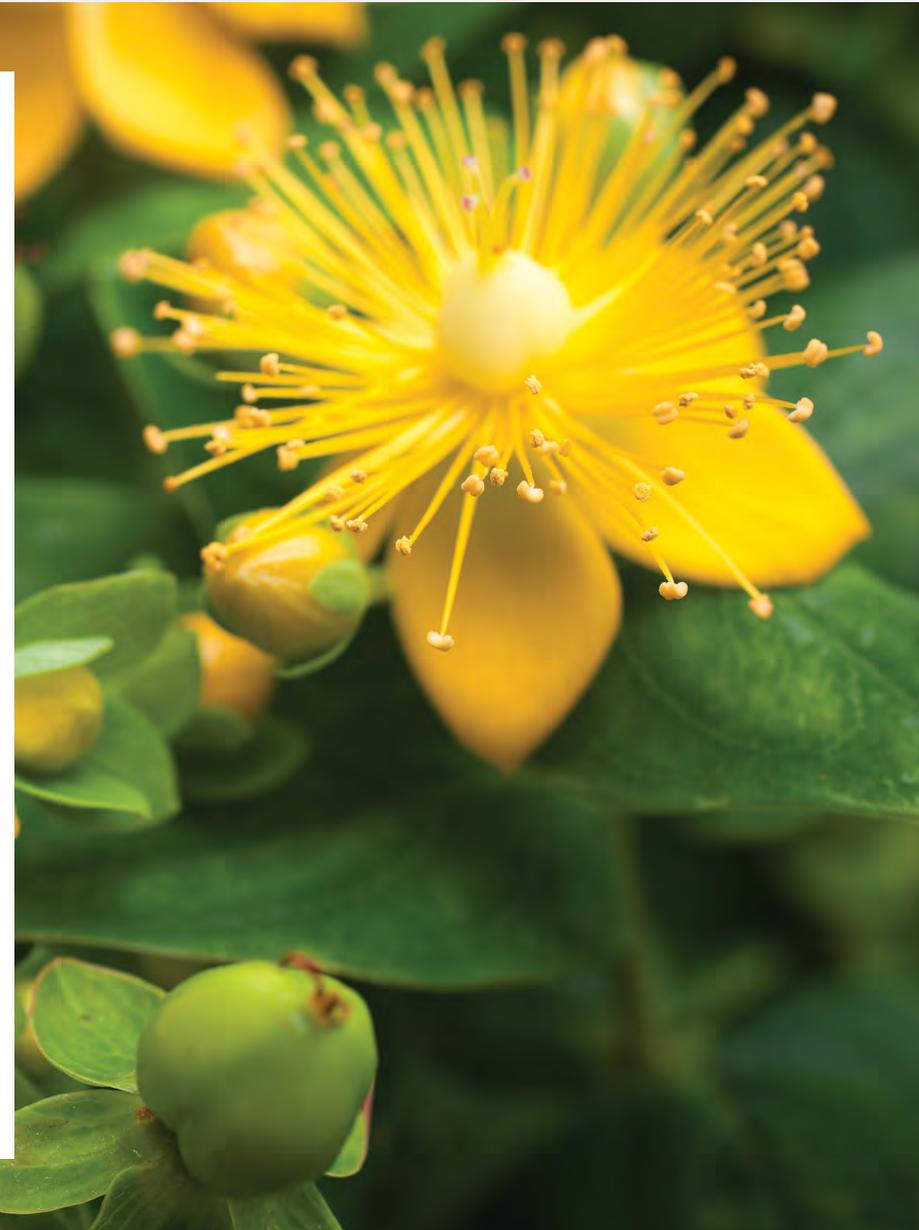


## Scenario 2: Alternative medications

A patient with unipolar major depression heard that St. John's Wort, a complementary and alternative medicine that comes from a flower and is sold over the counter, may help symptoms of depression. During a visit with her primary-care clinician, she asks about taking St. John's Wort in addition to her current antidepressant, citalopram, a selective serotonin reuptake inhibitor.

Her doctor reads about St. John's Wort in UpToDate and learns that it has some efficacy in the treatment of depression. The doctor then goes to Lexicomp, and finds out that St. John's Wort should not be used with citalopram. The combination can result in a serotonin syndrome, which is a potentially life-threatening condition. The doctor informs the patient of the interaction. She is relieved that she inquired about this before taking the alternative medication.

Lexicomp's extensive natural products database of unbiased, referenced reviews with history, chemistry, pharmacology, uses, abuses, and toxicities information helps providers make the right decisions.



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Interactions Drug I.D. Calculators Drug Comparisons Trisess's IV Compatibility Drug Reports Patient Education Formulary Monograph Services Toxicology UpToDate® More Clinical Tools

## Drug Reports

Selected Items

Adverse Reactions  
 X May cause Bone Pain

Indications  
 None

Contraindications  
 None

Search Results Pegfilgrastim in Lexi-Drugs

Find in document Enter text to find... < Find > Clear Jump to Section Print Help

### Adverse Reactions

Neuromuscular & skeletal: Ostealgia (31%), limb pain (9%)

<1%, postmarketing, and/or case reports: Acute respiratory distress syndrome (ARDS), alopecia, anaphylaxis, antibody development, arthralgia, back pain, bruising at injection site, capillary leak syndrome, chest pain, constipation, diarrhea, erythema, fatigue, fever, flushing, glomerulonephritis, headache, hypersensitivity angitis, hypertension, increased serum alkaline phosphatase, increased uric acid, influenza, injection site reaction, leukocytosis, musculoskeletal pain, myalgia, neck pain, pain, pain at injection site, periorbital edema, peripheral edema, polyarthralgia, polymyalgia rheumatica, rhinitis, severe sickle cell crisis, skeletal pain, splenic rupture, splenomegaly, Sweet syndrome, urticaria, vomiting, weakness

### Allergy and Idiosyncratic Reactions

- Granulocyte Stimulating Factor Allergy

### Metabolism/Transport Effects

None known.

### Drug Interactions

Belotecan: Granulocyte Colony-Stimulating Factors may enhance the neutropenic effect of Belotecan. *Risk D: Consider therapy modification*

Pegloticase: May diminish the therapeutic effect of Pegfilgrastim. *Risk C: Monitor therapy*

Pegvaliase-pqpz: PEGylated Drug Products may enhance the adverse/toxic effect of Pegvaliase-pqpz. Specifically, the risk of anaphylaxis or hypersensitivity reactions may be increased. *Risk C: Monitor therapy*

Tisagenlecleucel: Granulocyte Colony-Stimulating Factors may enhance the adverse/toxic effect of Tisagenlecleucel. *Risk X: Avoid combination*

Topotecan: Granulocyte Colony-Stimulating Factors may enhance the myelosuppressive effect of Topotecan. *Risk D: Consider therapy modification*

### Test Interactions

May interfere with bone imaging studies; increased hematopoietic activity of the bone marrow may appear as transient positive bone imaging changes

### Monitoring Parameters

Chemotherapy-induced neutropenia: Complete blood count (with differential) and platelet count should be obtained prior to chemotherapy and as clinically necessary.

## Scenario 3: Side effects and adverse drug events

A patient with a recent cancer diagnosis presents with bone pain. He is on multiple medications, many of which he is taking for the first time. The initial evaluation found no bone metastases or any other etiology of the pain.

Using the Adverse Drug Report only available in Lexicomp, the physician is able to quickly generate a list of medications known to cause bone pain. He determines that pegfilgrastim, a granulocyte colony stimulating factor, is a potential cause. He then searches UpToDate and finds information on management of pegfilgrastim-related bone pain.

## Scenario 4: Drug interactions

A woman has chronic pain unresponsive to non-opiate medications. Her primary-care physician is managing her case well with an opiate. The patient has no red-flags for misuse. As part of her routine management, a random drug screen is done and comes up positive for amphetamine.

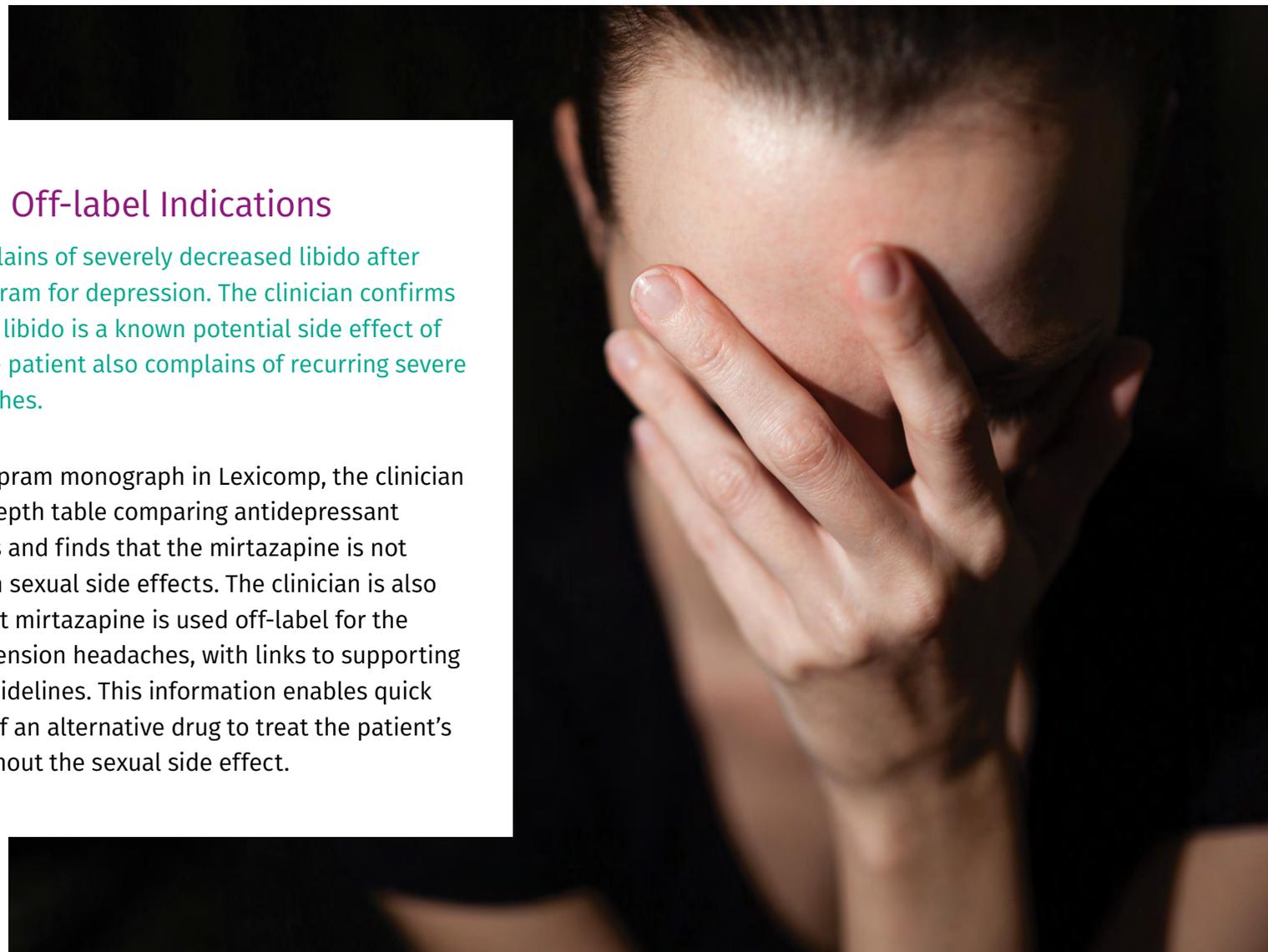
The physician and patient discuss the fact that she started on bupropion since her last drug screen. It could be the reason her test came up positive. The monograph in Lexicomp confirms that bupropion is known to cause false positive results to amphetamine — critical information that is not included in many other drug resources.



## Scenario 5: Off-label Indications

A patient complains of severely decreased libido after starting citalopram for depression. The clinician confirms that decreased libido is a known potential side effect of citalopram. The patient also complains of recurring severe tension headaches.

From the citalopram monograph in Lexicomp, the clinician locates an in-depth table comparing antidepressant adverse effects and finds that the mirtazapine is not associated with sexual side effects. The clinician is also able to find that mirtazapine is used off-label for the prevention of tension headaches, with links to supporting professional guidelines. This information enables quick identification of an alternative drug to treat the patient's depression without the sexual side effect.



## Trusted evidence-based content for your entire care team

In conclusion, physicians, nurse practitioners, nurses, and pharmacists need to make decisions based on advanced clinical and drug information solutions that are sourced with one trusted partner. Only in this setting can they truly deliver quality care with the best evidence supporting key decisions along a patient's journey.

**Learn more about Lexicomp and contact us if you'd like to align clinical decisions for better care.**

*The following experts from our editorial team contributed to this report: Sandy Falk, MD, Director, Editorial Relations; Steven P. Hart, MD, Director of Content, Clinical Informatics; Ted W. Post, MD, Editor-in-Chief, Clinical Effectiveness; Steve Stout, PharmD, MS, Director, Clinical Content; Elizabeth A. Tomsik, PharmD, BCPS, Senior Director, Reference Drug Content; David M. Weinstein, RPh, PhD, Senior Director, Clinical Content; Jennifer Mitty, MD, Deputy Editor, Infectious Diseases.*

1 Unwarranted Variations in Care: Origins and Approaches to Reduction, Advisory Board, May 2017