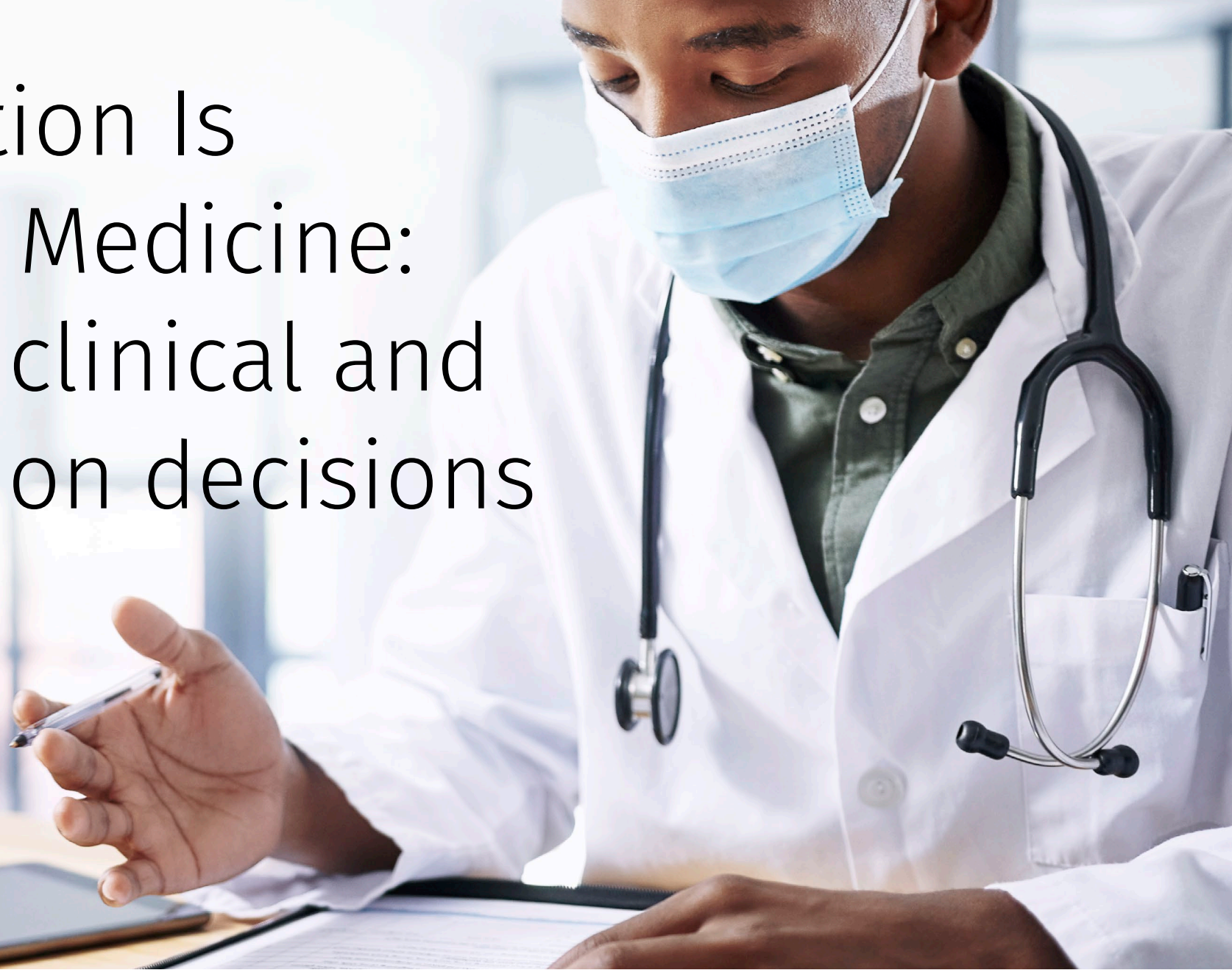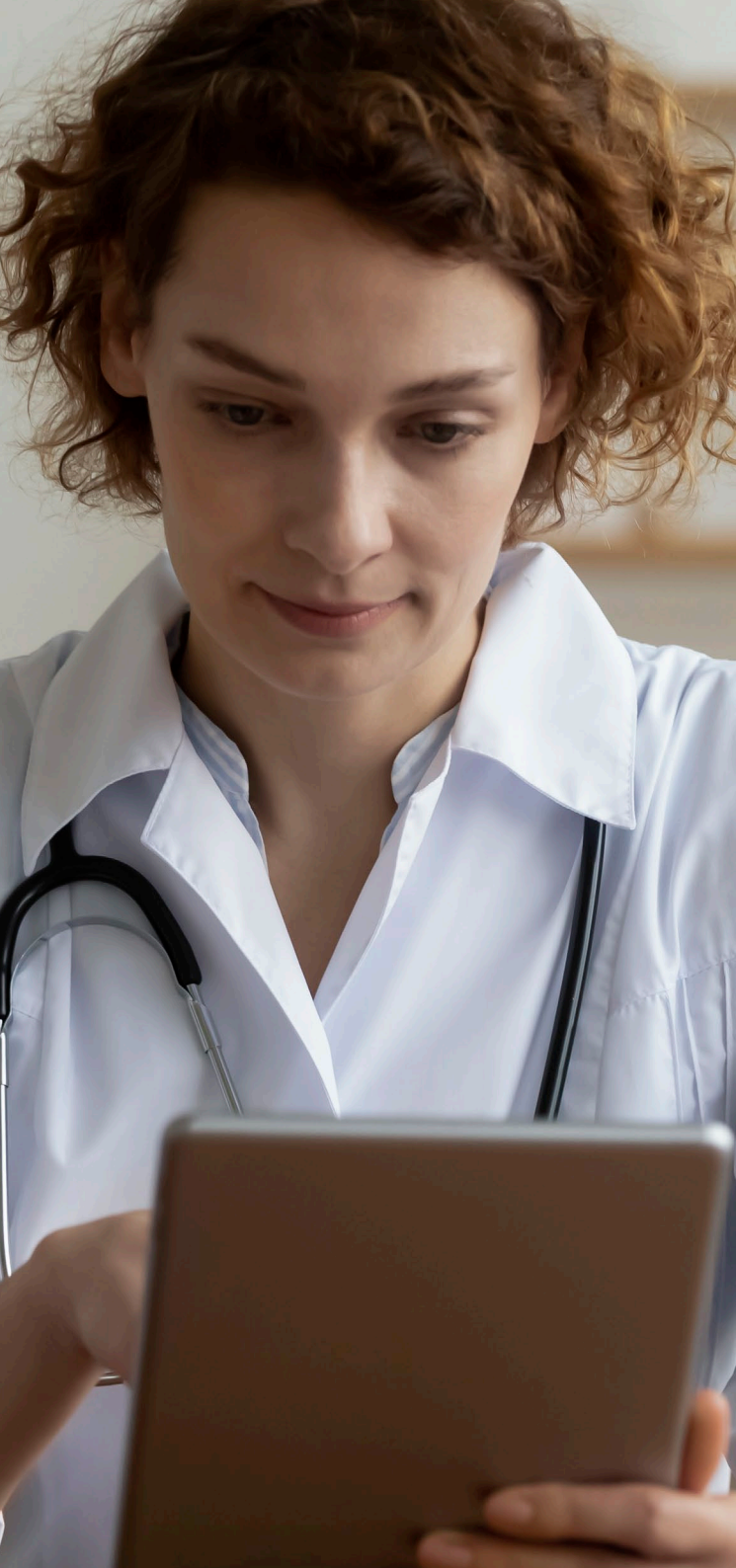# Information Is the Best Medicine: Aligning clinical and medication decisions

Wolters Kluwer

Healthcare providers need seamless access to trusted, current clinical and medication information to deliver high-quality care throughout the patient journey. IT teams can help by implementing evidence-based information solutions that automatically update and integrate easily with electronic health records (EHR) systems. Deploying unified information resource solutions not only reduces unwarranted care variation, which can translate to savings of $20M–$30M (per $1B in revenue) for a typical organization,[1] it enables care team members to achieve greater alignment and efficiency.

Better patient outcomes require effective, efficient decision-making across the continuum of care, from patient intake and initial evaluation, to diagnosis, treatment planning and post-discharge patient engagement. Members of care teams know that information is crucial to delivering the best care. Physicians, physician assistants, nurse practitioners, nurses, and pharmacists need to trust each other and the information on which care decisions are based. Using disparate or multiple resources from different platforms and solutions providers can increase the time spent to access the right information, it increases the likelihood that team members may not be working from the same sources of information. The result: information gaps occur, miscommunication among team members is inevitable, and quality of care suffers, along with patient and clinician satisfaction.

*"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**

These negative outcomes can be averted if healthcare technology leaders empower caregivers and patients with comprehensive, trusted, and aligned information resources that are easily accessed and support the right decisions at the right time. Ideally, these information solutions are on the same technology backbone and integrated into EHR systems to generate clinical, operational, and organizational benefits:

- Aligning care decisions across the clinical team so that members can retrieve actionable, accurate information the first time they search and discuss it with patients.

- Streamlining care team workflow, informing care decisions across the continuum and improving work efficiency.

- Improving patient and clinician experience and satisfaction, as both benefit from quick access to harmonized, consistent information.

- Reducing the cost of ownership of technology by eliminating the need to acquire, integrate, and maintain multiple solutions built on diverse platforms.

- Allowing IT to build organizational capability with low intervention with advanced, easily integrated information solutions such as UpToDate, Medi-Span and UpToDate® Lexidrug™.

- Eliminating communication disconnects among team members resulting from unintegrated information sources.

The scenarios here show the power of using a unified suite of clinical and medication information resources across the care continuum. Aligned, complementary solutions from Wolters Kluwer's UpToDate® and Medi-span® solution suites offer a consistent voice that supports each phase of the care continuum. By selecting and implementing these solutions, IT leaders can help clinicians align their decisions and enhance workflow, both of which improve clinician satisfaction and patient outcomes.

# Quality care requires reliable clinical content easily accessible to caregivers and patients

While providers, pharmacists, and patients have different but related needs for clinical and medication information, each of these needs and perspectives can be satisfied with complementary, comprehensive solutions grounded in a unified editorial source.

**Physicians need quick access to the latest clinical information.** Standards of care and protocols are always evolving. With UpToDate, clinicians gain access to current evaluation and diagnostic information, as well as data about adult and pediatric dosing, IV compatibility, and renal dosing to make informed diagnostic and therapy decisions. UpToDate® Lexidrug™ provides complementary information on adverse events, alternative agents for when a patient is allergic to a drug, and alternative use profiles to consider or avoid.

**Pharmacists require easy access to in-depth, current medication information.** Pharmacists must consult and synthesize drug data quickly. Medi-Span provides comprehensive drug descriptive data, including therapeutic classification and pricing information. Pharmacists can then turn to Lexidrug to find answers to complex patient questions. Unlike other pharmacology references, the in-depth information in Lexidrug is aligned with what physicians see in UpToDate clinical decision support — saving time, reducing confusion, and potentially preventing dangerous medication errors. Using Medi-Span and UpToDate Lexidrug allows providers to integrate pharmacists more deeply into the care team while meeting the broad information needs of clinicians and patients.

**Patients' varying needs dictate different information requirements.** The sickest patients require that physicians and pharmacists communicate more information about their conditions and care decisions, and medication, particularly if they have complicated comorbidities, see many clinicians, and take medications that may interact. Even people with few and well-controlled conditions benefit from coordinated communication among doctors, nurses, and pharmacists. Using UpToDate clinical information, Medi-Span medication information with drug reference data in UpToDate Lexidrug ensures that patients have the information they need. The education leaflets in Lexidrug come from the same source that pharmacists refer to daily, while information in UpToDate® Patient Engagement education resources explains diagnoses and treatments in understandable terms.

Integrated information resources benefit all stakeholders in the continuum of care by improving decision-making and workflow, and with them clinician and patient experiences. Information in complementary solutions such as UpToDate, Medi-Span and Lexidrug is updated automatically without requiring IT action. This support delivers accuracy, reliability, and consistency, and increases efficient information retrieval.

# Simplified, coordinated information:
# The best medicine for common clinical scenarios

Medical science and clinical guidance change quickly, requiring recent medical school graduates as well as highly experienced medical professionals to consult external resources to develop and deliver high-quality care plans. Complementary, comprehensive clinical and medication information resources such as UpToDate, Medi-Span, and UpToDate Lexidrug put current information at clinicians' fingertips, supporting the best care decisions and patient outcomes. Information in UpToDate Patient Engagement solutions is updated continually, ensuring that the clinical team and patient remain aligned.

## Scenario 1:
### Nursing mothers

A new mother with Type II diabetes makes a postpartum visit after a cesarean section. She has been taking diabetes medication and acetaminophen with codeine for postpartum pain. Her infant sleeps for more hours during the day than she expected. Are the medications causing this? Are they safe alone or in combination? She's been looking this up online. Now she's panicked. What should she do?

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

With easy access to Briggs content via Lexidrug and the EHR, providers need not purchase a separate book or a Briggs-only online resource. This saves time and ensures 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, an alternative, over-the-counter medicine derived from a flower, may alleviate symptoms of depression. During a visit with her primary-care clinician, she asks about taking St. John's wort in addition to her antidepressant, citalopram, a selective serotonin reuptake inhibitor.

Her doctor reads about St. John's wort in UpToDate and learns it has some efficacy in treating depression. The doctor is prompted to access Lexidrug and finds that St. John's wort should not be used with citalopram. The combination can result in a serotonin syndrome, a potentially life-threatening condition. The doctor informs the patient of the interaction and possible side effects. She is relieved that she inquired before taking the alternative medication.

The extensive natural products database of unbiased, referenced reviews within UpToDate Lexidrug includes history, chemistry, pharmacology, uses, abuses, and toxicities information that providers need to make the right decisions.

## Scenario 3:
### Side effects and adverse drug events

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

Using the Adverse Drug Report available only in Lexidrug, the physician quickly generates 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 of drugs, yet as part of her routine management, a drug screen returns a positive reading for amphetamine.

The physician and patient discuss the fact that she started on bupropion since her last drug screen. It could be why her test came up positive. The monograph in Lexidrug confirms that bupropion is known to generate false positive results to amphetamine—critical information 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 potential side effect. The patient also complains of recurring severe tension headaches.

From the citalopram monograph in Lexidrug, the clinician locates an in-depth table comparing antidepressant adverse effects and finds that mirtazapine is not associated with sexual side effects. The clinician also learns that mirtazapine is used off-label to prevent 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.

→ **Learn more** about clinical decision support solutions from Wolters Kluwer Health and **contact us** if you'd like to align clinical decisions for better care.

# IT leaders are partners in delivering comprehensive, simplified clinical decision support

Healthcare is an information-rich environment, and IT teams play a critical role in helping clinical team members obtain and use information they need. Selecting which information and decision support resources to integrate has both clinical and financial implications. The best decisions are grounded in trusted, comprehensive clinical and medication information. The UpToDate and Medi-Span solution suites provide physicians, nurse practitioners, nurses, and pharmacists with quick access to current clinical and medication information from a single, trusted source. Especially now, as turnover and staffing shortages among healthcare employees grow, relying on effective, efficient, and easy-to-use technology solutions is more critical than ever. Trusted, coordinated information is the best medicine. IT teams can help ensure that the patient journey from diagnosis to treatment and recovery is supported at every phase.

*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*