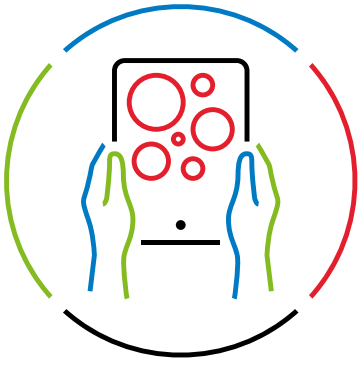# To deliver highly reliable healthcare, investing in clinical-centric IT approaches can make all the difference

While most clinicians practicing today are experienced users of digital technology thanks to widespread adoption by hospitals and school curriculums, they can be overwhelmed by the volume of information, and new evidence and guidelines being constantly published.

Big Tech and Venture Capitalists often switch bets and go after newer technology. But more important is the collaboration between engineers and clinicians to ensure their approach is relevant and applicable to the care workflow. Unfortunately, some developers do not prioritize this.

For healthcare leaders, information technology (IT) can be very expensive. But not getting the right information at the point of care is a major safety risk and can mean life or death for patients. Investing in clinical-centric IT approaches that rely on stakeholders with a proven commitment to better care decisions can make all the difference.

When it comes to drug reference and clinical decision support (CDS) technology, clinicians should be able to trust the solutions they refer to every day and see the value they're getting right away, without further burdening their workflow.

"I know the detail that goes into publishing a [drug] monograph. I know the rigor that's behind the content. There are always several internal pharmacy specialists and external consultants reviewing my input, and other specialists focusing on sections like adverse drug events (ADEs) or dosing fields. For us, we're fighting for UpToDate® Lexidrug™."

Nada Al-Qadheeb,
PharmD, BCCCP, FCCP, FCCM, Chief of Pharmaceutical Care and Formulary Management Affairs for the Eastern Health Cluster, Kingdom of Saudi Arabia, and Clinical Pharmacy Consultant in Critical Care for the UpToDate Lexidrug editorial team.
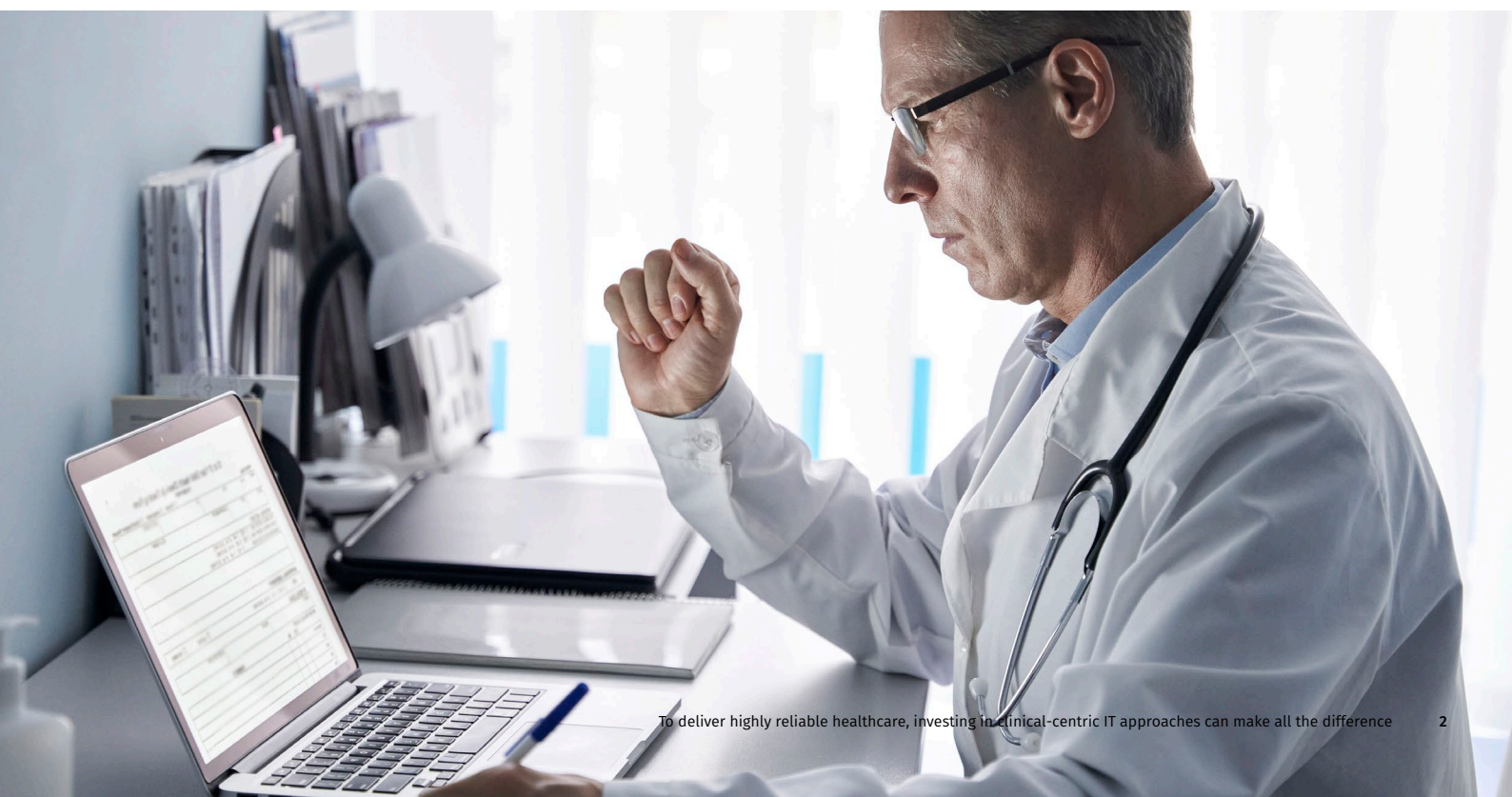
The four principles of clinical-centric IT

The following factors are deemed essential for clinical-centric technology solutions:

1. Accuracy

New evidence is continually being published and made available but not all of it is considered equal, meaningful, or applicable. Healthcare data, evidence and clinical guidelines change over time and after rigorous evaluation. What's more, recommendations often vary, and guidelines for the same conditions do not always align.

For these reasons, the content in these solutions should be subjected to a rigorous development and maintenance process for accuracy and reliability that can be best done by medical and pharmacy doctors who:

- Have firsthand clinical experience
- Understand the different types and quality of evidence
- Are trained to write clinical recommendations verifiable by independent experts
- Are supported by medical writers trained for digital publication

2. Applicability

The content in Health IT solutions should be contextualized and organized in ways that clinicians know and understand. The specific types of information clinicians look for include, but is not limited to, areas like:

- Dosing
- Renal insufficiency
- Pediatric dosing
- Off-label indications
- Cancer medications
- Antimicrobial stewardship
- IV compatibility
- Trauma care

3. Accessibility

Drug reference and clinical decision support solutions are most effective when used by clinicians as they make decisions at the point of care. Content should be responsive and written expressly for digital and from the clinician's perspective. It should be readily available and accessible to a wide range of users.

4. Interoperability

Interoperability is about using solutions that adhere to internationally and locally accepted standards for how systems connect, exchange data, and operate together, such as the Health Level Seven International (HL7) standards.

Solutions based on interoperability standards can help the entire health system streamline the technology burden imposed on clinicians. By making it possible to integrate decision support information in the electronic medical record workflow, interoperability makes it easy for clinicians to use and strengthens adoption. Clinicians can also more easily strengthen their knowledge and satisfy continuing education and licensure requirements, while improving best care practices.

"Having a trusted source for drug decisions is critical to delivering safe, high-quality healthcare."

**Colm Devine,
Chief Pharmacist, Pharmacy Department, Letterkenny University Hospital, Ireland**

For the past two years, accessibility has been essential. Teams had to adapt to new environments and take on new roles. Dr. Al-Qadheeb recalls,

"We had to shift a lot of pharmacists from hospital pharmacies to the COVID centers or to cover the primary health clinics where people with COVID symptoms would go to. We also had many pharmacy technicians help at the vaccination centers, and I worked with other hospital pharmacy directors to make sure we had coverage when staff was sick."

Top questions to ask when choosing a drug reference solution

- Who authors and edits the content?

- How frequently is the content in your drug reference solution updated?

- Does your solution provide actionable dosing recommendations that reflect current evidence-based practice, or does it rely primarily on information from drug manufacturer labels?

- Will your drug reference solution work with your other clinical decision support (CDS) solutions?

- Is your drug reference solution easy to use and relevant to a wide variety of clinicians?

- Can the drug reference solution connect with your formulary and improve medication selection?

Selecting drug reference and clinical decision support technology is a complex and multivariate process that organizations must weigh against budget constraints and available resources. Detailed, evidence-based solutions designed for and vetted by clinicians have proven essential for improving care quality. They also often prove essential in the expansion of clinical services, to meet quality initiatives, and to earn international accreditations.