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Why healthcare needs to adopt evidence-based drug referential solutions

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We witnessed how the year 2020 marked the beginning of a massive and permanent shift in the way patient care is delivered. From telemedicine to remote patient monitoring and booking COVID-19 vaccine slots digitally, technologies have redefined healthcare in India like never. The result of virtual care is that patients now consider and address diseases as a personal mission, rather than being solely dependent on doctors. Thinking about the post-pandemic era, healthcare will be more personalised and will focus on preventive care to give patients a better quality of life. Among several tools that help in enhancing clinical outcomes, clinical decision support systems (CDSS) have become an asset for doctors.

Need for clinical decision support system at hospitals

A major challenge during COVID-19 was the lack of any approved drug that could have a significant effect on the virus with minimal side effects. Based on the evidence, many antiviral and anti-inflammatory drugs were used to treat patients without having proper evidence on possible drug-to-drug interactions. Moreover, the patient's immune response played a pivotal role in the pathogenesis of COVID-19 hence, management of anxiety, delirium, and agitation became an added situation to deal with. Let's take another example, around 13.4 per cent of the world's population suffers from chronic kidney disease and acute kidney injuries occur in 23 per cent of hospitalised patients as per the global research report. Yet, renal dosing continues to be a challenge worldwide because there has not been a gold standard for those recommendations. Another alarming situation that takes a toll on efficient healthcare delivery is medical errors.

As per a study by Harvard, 5.2 million medical errors occur in India annually. Medical errors in hospitals kill more people yearly than motor vehicle wrecks, breast cancer, and AIDS. Deaths from medical errors are said to be equivalent to 10 huge jets crashing every week. There can be several factors that can contribute to medical errors, out of which the commonly identified ones are miscommunication and inadequate information flow. However, medical error stands as a preventable adverse effect of care.

Strategies to reduce medication errors commonly make use of CDSS. It has been successful in reducing prescribing and dosing errors, contraindications through automated warnings, drug-event monitoring and more. CDSS is intended to improve healthcare delivery by enhancing medical decisions with targeted clinical knowledge, patient information, and other health information. Today, it is primarily used at the point-of-care, for the clinician to combine their knowledge with information or suggestions provided by the CDSS.

Understanding the complications of drug-to-drug interaction

Anytime an individual takes more than one medication, or even mixes it with certain foods, beverages, or over-the-counter medicines, they are at risk of a drug interaction. The more medications one takes, the greater the chance for drug interaction with another medicine. Drug-drug interactions can decrease how well medications work, may increase minor or serious unpredicted side effects, or even increase the blood level and likely toxicity of a certain drug. For example, if a patient is given pain medication, like Vicodin, and a sedating antihistamine, such as Benadryl at the same time he/she will feel extremely drowsy as both medications cause this side effect. Not all drug interactions are bad. However, it can contribute to the cost of healthcare, as a serious drug interaction could result in injury, hospitalisation, or rarely, death.

To deal with these challenges at hand, hospitals across India progressively have turned towards technology and automation to reduce the strain of an already fragile system. If processes such as EHRs and Telemedicine took the centre stage in keeping the healthcare delivery intact, digital tools like CDSS were also effectively used by clinicians, pharmacologists, and nurses for improved patient outcomes. Every patient is unique! Clinicians and hospitals must start leveraging drug referential content solutions that empower them to make the best possible evidence-based decision for each patient. Drug referential solutions play a crucial role in providing the right information about an evidence-based drug. This includes the pharmacologic category, calculators, dosing, consistency, and drug-drug interaction.

Enabling a more patient-specific approach

Drug referral platforms like Lexicomp helps with evidence-based drug referential solutions, and clinicians are enabled with the right dosing as per the patient's weight, sex, age, and medical history. It enables doctors, pharmacists, and nurses to take a patient-specific approach when making drug decisions, beyond the standard drug information to include nuanced dosing considerations for obesity, pregnancy, renal impairment and more. Lexicomp has proven to help clinicians save time when looking up formulary information and prescribing medications, and ultimately, improving the quality of care provided for patients. They can do this by gathering world-renowned experts in nephrology and pharmacology to expand and advance renal dosing content and provide a clinical context for those recommendations. With access to best-practice drug administration content available on CDSS, doctors can prevent medication errors and reduce care variability. With the massive technological adoption across healthcare in India, care gets more personalized, while the focus on preventive care also takes charge of improving patients' quality of life.