ARTICLE **LETTER TO EDITORS**

Clinical Informatics; a Jordanian Physician's Perspective

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I CURRENTLY FILL THE POSITION OF A CLINICAL INFORMATICS FELLOW AT MAYO CLINIC, ROCHESTER, MN. IN THIS LETTER, I SHARE A PART OF MY BACKGROUND AND WHY I CHOSE TO TRAIN IN SUCH A SPECIALTY.

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I started my Internal Medicine training in 2014 after coming to the United States from Jordan. It was my first time to use an electronic medical record and I still remember ordering my first brain MRI. The process was seamless. A few minutes later, the patient was scheduled for the MRI and the necessary steps were already in place. Combining technology, processes, and people lead to that magical moment.

A simple way to define Clinical Informatics is: how to use technology to deliver a clinical service. For example, can we use a new software or an AI algorithm to improve the healing process in a certain setting? Absolutely! Examples of clinical informatics uses are many. One of its pearls, and maybe its cornerstone, is the transformation of paper medical records into electronic medical records. Institutions needed a new tool to lead and bridge the gap between information technology, medicine, and business operations. This is how this specialty formally came to life.

WHY?

The study of Clinical Informatics is unique. It is concerned with looking at the big picture (hospitals, clinics, supply chains, etc.) while solving small problems (where should I locate new features in a new software). in my perspective, the unique aspect of Clinical Informatics is how you position yourself as a transformational piece in the big healthcare equation. Let us say a new practice needs to improve its patient care using new technology. The practice leadership may rush into investment and buy a technology that does not necessarily solve the problem. A lot of my time in clinical

informatics is to redefine the problem and make sure the solution aligns with other components of the health system and the patient's ecosystem. I describe this as mindful problem-solving.

WHY AGAIN?

Let us assume that there is no need for clinical informatics, what is the worst that can happen? The cost of using technology did not pay off as expected on many occasions. therefore, a true need of a role to redesign and reconnect the system. Individuals who have a background in medicine, business, and technology (mainly computer science) will fill such roles. Instead of thinking of transactional relationships between physicians and patients, clinical informatics physicians -along with other community members-, should help make such relationships more sustainable and rewarding.

Personally, what attracts me to clinical informatics is the variety and broadness of its topics: starting from software development, understanding data, knowledge systems and management, and moving to cybersecurity and data analytics. On top of all that, my favorite aspect is entrepreneurship and global innovations.

It is a challenging and intellectually stimulating field. You can one day read about how certain regulations came to life and understand more the historical context of such changes. Another day you will be helping a startup come up with a bitter digital transformation of their process. You can work with data scientists closely and understand how a certain machine learning model works. It is a futuristic practice of medicine.

In addition to all of this, I enjoy the networking power embedded in this specialty. You get to meet very interesting people from different perspectives and backgrounds. You need to be ready to learn how to open up, communicate, and look for shared interests and a common purpose. Every person you meet is a library full of life experiences. It is up to you to learn and explore.

WHAT TO DO?

This is a growing and promising field with a wide set of applications and uses. Competitive health organizations try to differentiate with. After proper training and experience in clinical informatics, you can be leading a team that runs data analytics on billions of data points and come with precious insights for your patients.

You can help suggest to your health system which new technology is a better fit for their workflows and patients. I invite you to start reading and exploring this interesting field and be part of the future.