Contribution ID: **14**   Type: **Poster**

Digital Diagnostik Copilot: Rethinking Diagnostic Decision Support Systems

The current diagnostic decision support systems approach falls into two categories: protocol compliance and disease-specific diagnostic models. Protocol compliance is designed to convert state-of-the-art diagnostic medicine into a procedural checklist, ensuring the diagnosing physician remembers all critical steps. In contrast, diagnostic models are designed to provide the likelihood of a diagnostic outcome based on the patients, exploratory evaluation and electronic health record. These approaches leave a diagnostic gap through which patients find themselves in long remission cycles. Patients with odd symptomatic presentations or who are unaware of their risk of having a rare disease are the patients who fall through the gaps.

In this work, we analyse the limitations of the current diagnostic decision support system and create a preliminary physician needs assessment to overcome the diagnostic gap. Based on this need analysis and inspired by code copilots, we propose a new paradigm in decision support systems that takes advantage of the capabilities of a general health foundational model and combines them with procedural protocol checkers and specialised diagnostic systems to provide seamless integration of decision support and the efficient practice of medicine. We evaluate feasibility by testing core ideas with publicly available LLMs and present an estimation of the reduction in patient remissions and time to correct diagnosis using historical error cases.

Primary author: LOPERA GONZALEZ, Luis Ignacio

Session Classification: Break + Posters session

Track Classification: Poster