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# ARTIFICIAL INTELLIGENCE IN DIAGNOSTIC MEDICINE: LITERATURE REVIEW CONTRASTING DIFFERENTIAL ACCURACY FROM TEST REPORTS VERSUS SELF- REPORTED SYMPTOMS AND IMPLICATIONS ON MEDICAL SPECIALTIES

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## Abstract

*Recent advances in large language models (LLMs) have shown that when fed with structured, tangible data - such as X-ray images, CT scans, bloodwork, and other machine-generated test reports - LLMs can achieve significantly higher diagnostic accuracy compared with when they rely on unstructured, self-reported patient symptoms. This paper reviews recent literature on AI applications in diagnostic reasoning, compares the performance of LLMs across different data modalities, and discusses which medical specialties are most vulnerable to future AI replacement. We present an index of 15 doctor specialties, highlighting the extent to which their diagnostic workflows (and thus their professional roles) rely on machine-generated data. We conclude that specialties dominated by image and laboratory report interpretation (e.g., radiology, pathology) are at higher risk, while those that require a more nuanced, context-rich synthesis of subjective data (e.g., internal medicine) are comparatively less vulnerable.*

## Author Keywords

LLM, Medical Diagnosis, Artificial Intelligence.

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