

Artificial Intelligence (AI) continues to revolutionize the way we live our lives, and the healthcare sector is no exception. Dermatology, specifically, poses a unique opportunity for the incorporation of AI due to the specialty's reliance on image analyses for diagnosis. Read on for an overview of current AI interventions that could benefit your practice and help save patient lives, as well as a glance at what you can expect from the future of AI and Dermatology.

Al Interventions for Dermatologists

Al-Powered Dermatological EHRs can offer practitioners enhanced research, differential diagnosis support, tele-dermatology efficiency, optimized workflow, and personalized treatment recommendations for patients. Text data, such as clinical notes or patient databases, are analyzed by Large Language Al Models (LLM). Computer vision models interpret medical images and multi-modal models use both images and text as input.

3D Imaging Systems help to quickly spot and label skin pigmented lesions and other issues, providing an objective assessment and documentation of the problem site. Combining Al with dermatoscopes helps quickly correlate each close-up image with the corresponding marked lesion in a 3D body map.



Al in Dermatology can improve patient care, diagnosis and medical imaging interpretation, and it can screen for diseases more effectively. So, what can we expect for the future of Al and dermatology?

Future Trends for AI in Dermatology

- Al consultations are becoming more common in dermatology. Al-powered apps and websites can conduct initial patient consultations, answering questions and improving service efficiency, especially for those in remote areas or with limited healthcare access.
- The intelligent cloud healthcare model, powered by IoT, is gaining traction. This model connects smart devices to cloud platforms, benefiting healthcare providers, patients, and research institutions by enabling remote monitoring and data analysis for chronic skin diseases.



A new wave of smart medical devices is emerging, transforming both software and hardware in healthcare. Devices like FotoFinder and Canfield Vectra WBS360 have shown their worth in hospitals, providing more intuitive examinations and higher diagnostic success rates.

Challenges posed by AI

Al provides clear benefits to healthcare providers. What challenges may it pose?

Al uses historical data for decision-making, unlike humans who use common sense, preferences, and emotions. Deep learning enables Al to mimic human thought processes and learn faster, which could lead to a dependency on Al among doctors. Al has the potential to replace not just physical labor, but also mental tasks performed by medical staff.

Safety and security are paramount for Al's application in healthcare; Al's reliance on big data poses both advantages and risks and emphasizes the need for vigilance against uncontrollable outcomes.

Practitioners should also consider the new ethical and moral dilemmas that AI introduces in dermatology healthcare that could affect diagnosis and treatment paradigms.

Next Steps

If you're interested in reading more about AI and Dermatology, check out this study from the Journal of Clinical Medicine: Artificial Intelligence in Dermatology Image Analysis: Current Developments and Future Trends

And if you're a practitioner interested in cutting-edge dermatology EHR, check out CureMD's dermatology EMR, a system designed in collaboration with dermatologists: Best Dermatology EMR