

NEWSLETTER OCTOBER 2024

Message from CEO Scope and benefits of Digital Otoscopy in Patient care



Use of Oscopes has been part of regular practice for general physicians, pediatricians, and especially Ear, Nose and Throat (ENT) specialists for decades. Traditional otoscopes have been used not only to manage regular ear health, but also to diagnose a large number of ear and systemic health problems. Advances in medical technology over the years have led to significant changes in the functionality and design of otoscopes.

In the last decade, modern digital otoscopes (also called video otoscopes) offer many benefits to health providers over the traditional otoscopes. These digital otoscopes connect to the smartphones, computers, tablets and video-screens using wired and wireless technologies. These benefits have increased satisfaction of both the health providers and the patients. Some of these benefits are as follows:

1. High quality and larger images for better diagnosis
2. Engaging patients and families in Ear health
3. Improved continuum of care
4. Telemedicine use in patient care

1. High quality and larger images for better diagnosis:

Traditional otoscopes have limitations of seeing through a small lens and a limited size of the image to make the diagnosis. Since ear is a complex structure and presents a variety of external, middle and ear health problems, it is useful to have the images presented on a large screen with options to adjust zooming, lighting and focus using a larger screen.

2. Engaging patients and families in Ear health:

Digital otoscopes allow you to show the images and videos of the patients' ear to themselves and the families, which engages them directly in the health of their own body. With digital otoscope, patients can not only see the anatomy of their own ears, but also visualize their own condition. This can involve them more in their own care and improve chances of better results.

3. Improved continuum of care:

Digital otoscope allows you to save pictures and videos to patient files in their health records, which can be an invaluable tool for your office and treatment plan. This feature allows the health providers to adjust treatments as needed based on chronological results, and demonstrate improvement or degradation over time.

4. Telemedicine use in patient care:

Latest digital otoscopes, like the Sojro Oto-dermascope from Tech4Life Enterprises, not only provide all the above benefits, but also enable you to connect the otoscope with telemedicine software. This enables both live and store-and-forward modes of telemedicine, where patients can benefit from the expertise of other health providers for better diagnosis and treatment.

- By Dr. Shariq Khoja, CEO - Tech4Life Enterprises.

Does Smartphone-based Digital Otoscopy offer a better diagnosis?



Use of Smartphones is becoming ubiquitous in modern society. These phones and similar gadgets, like tablets and mini-computers, offer advantages in clinical care as well, allowing health providers to easily access patients' health information, search for medical knowledge and databases, view and store high quality images, and engage in telemedicine for better care.

Smartphones are also being used in improving otoscopy by connecting digital otoscopes using wired or wireless technologies. The characteristics of smartphone-enabled otoscopy make it relatively easy to use remotely, allowing patients and physicians to discuss medical concerns digitally and to further assist in the diagnosis and management of diseases. Under these circumstances, the cost-effectiveness of smartphone-enabled otoscopy and the inherent advantage of telemedicine greatly potentializes smartphone-enabled otoscopy as a modern first-line tool for the diagnosis of a variety of ear diseases.

Recently, several studies have verified the efficacy and benefit of smartphone-enabled otoscopy. These studies have suggested that diagnostic confidence is favorable for examiners when using smartphone-enabled otoscopy.

Smartphones and computer-based imaging have provided more options for health providers to confidently diagnose health problems and better follow their patients over time to ensure improvement in their health.

Recent studies also suggest that smartphone-enabled otoscopy is associated with a higher rate of correctness in various clinical settings. Further sensitivity analysis confirmed that smartphone-enabled otoscopy was consistently associated with a higher correctness rate in detecting abnormal tympanic lesions, and when performed in pediatric patients with AOM (acute otitis media). These findings are confirmed by meta-analysis of the data from different studies, which provides direct evidence of the superiority of smartphone-enabled otoscopy compared to traditional otoscopy.

Tech4Life Enterprises has taken the lead in providing high quality digital and smartphone-enabled otoscopes for better diagnosis. Sojro Oto-dermascope is a high quality and affordable product to help health providers provide better care in their clinics and also use the devices for live and store-and-forward telemedicine services.

Ref: Chih-Hao Chen, Chih-Yuan Huang et al; Smartphone-Enabled versus Conventional Otoscopy in Detecting Middle Ear Disease: A Meta-Analysis. Diagnostics (Basel). 2022 Apr; 12(4): 972

- By Dr. Shariq Khoja, CEO - Tech4Life Enterprises.

New Improvements in Sojro Oto-Dermascope



The new Sojro Oto-dermascope incorporates several key improvements over its predecessor. It now features enhanced LED illumination to provide brighter and clearer images of the eardrum. The lens system is also upgraded to offer both high-resolution zoom and dermatoscopic capabilities, enabling a more comprehensive examination of the ear and surrounding skin. To eliminate image distortion caused by device movement, it now comes equipped with a vibration-resistant lens mechanism. Additionally, the nozzles are better refined to ensure a clearer and unobstructed view of the ear canal, facilitating accurate diagnosis and treatment. These enhancements collectively position the Sojro Oto-dermascope as a valuable tool for healthcare professionals seeking to improve the accuracy and efficiency of ear and skin examinations.

- By Mubashir Ahmed, Manager Innovations - Tech4Life Enterprises.

Tech4Life Regulatory Approvals Update: CE Approval for SmartHb



When it comes to regulatory activities, Tech4Life Enterprises tries its best to meet all regulations and stay up-to-date with new developments. Currently, we are in the process of getting CE approval for our upcoming revolutionary device called Smart-Hb which is a non-invasive hemoglobin monitor. We have incorporated all the critical information to meet the quality standards.

Along with that, we are also in the process of implementing newer and better ways to streamline our quality objectives. This includes time to time employee training programs and interactive discussions that motivate everyone to keep abiding by the rules of the organization.

- By Ariba Jamal, Quality & Regulatory Officer - Tech4Life Enterprises.

Collaboration for Better Rural Health



HANDS Pakistan and Tech4Life Enterprises are proud to extend their partnership for delivering accelerated Family Planning services in rural Pakistan. Building on the existing successful collaboration in delivering Telehealth services and Tele-maternal care to rural communities, this initiative aims to enhance family planning access across the country.

As part of this project, Tech4Life has provided 24 units of Maternal Kits to HANDS. These kits will empower healthcare workers to provide essential maternal health services, ensuring that women receive the care they need for safe and healthy pregnancies. By combining technology and community outreach, HANDS and Tech4Life are committed to improving healthcare outcomes and promoting informed family planning choices in underserved areas. Together, we are taking significant steps toward a healthier future for families in Pakistan.

- By Ahsan Abbas, Head of Global Sales - Tech4Life Enterprises.

Tech4Life Shines at SMEs International Expo in Zimbabwe



On October 3rd, Tech4Life's CEO, Dr. Shariq Khoja and Business Head, Mr. Ahsan Abbas were invited to virtually take the center stage at the SMEs International Expo Business Conference 2024 which took place in Harare, Zimbabwe. Tech4Life's Team delivered an insightful presentation focused on the transformative potential of low-cost, effective telemedicine devices in enhancing healthcare access, particularly in underserved parts of the world.

Highlighting the importance of telemedicine, the Tech4Life team showcased innovative solutions designed to bridge the healthcare gap and improve patient outcomes. Their emphasis on affordability and effectiveness resonated with attendees, inspiring discussions on how technology can revolutionize healthcare delivery.

This engagement not only highlights Tech4Life's commitment to advancing telemedicine but also reinforces the vital role of collaboration in achieving universal access to quality healthcare. Tech4Life continues to lead the way in making healthcare more accessible for communities in need.

- By Ahsan Abbas, Head of Global Sales - Tech4Life Enterprises.

Star of Tech4Life - Maheen Murad



Maheen Murad is a talented Biomedical Engineer at Tech4Life Enterprises, where she progressed from a graduate role in 2020 to Senior Biomedical Engineer. With a Bachelor's in Biomedical Engineering from Ziauddin University, she specializes in designing and troubleshooting innovative medical products like eSteth Pro, Sojro Telemedicine Kits and SmartHb.

Her previous research on non-invasive devices highlights her dedication to advancing healthcare technology. Currently, she is focused on completing a non-invasive hemoglobin monitor for commercialization by year-end. Maheen's significant contributions have earned her the title of "Star of Tech4Life".

- By Maheen Murad, Senior Biomedical Engineer - Tech4Life Enterprises.

