eMurmur

CASE STUDY

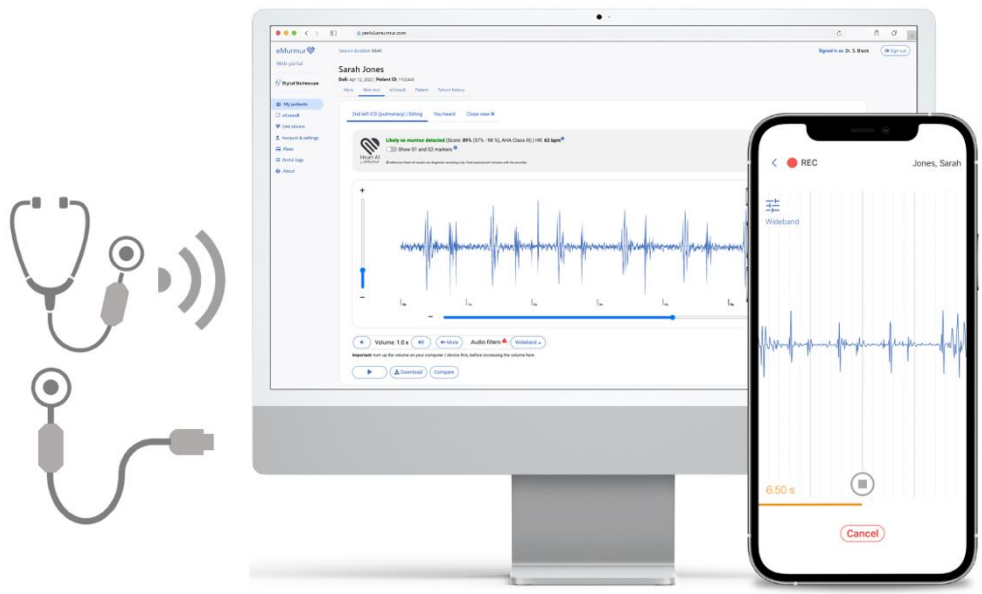
eMurmur Auscultation Software Enhances Clinical Confidence and Diagnostic Accuracy for Telehealth Providers

Overview

The M-PACT Clinic at Duke University School of Nursing provides high-quality, accessible healthcare through a telehealth model designed for resource-limited and distributed patient populations.

Using the eMurmur digital auscultation software, clinicians can remotely conduct comprehensive physical exams - including cardiac, respiratory, and abdominal assessments - with confidence and precision.

This digital innovation enables nurse practitioners to deliver high-quality patient care during virtual visits while maintaining strong diagnostic accuracy, clinical confidence, and patient engagement.



The Challenge

Delivering High-Quality Physical Exams in Resource-Limited Settings

Telehealth has become a vital means of delivering care to patients who face geographic or resource barriers. However, the inability to perform reliable auscultation during remote visits has traditionally limited diagnostic accuracy, particularly for cardiopulmonary evaluations.

Clinicians must often rely on subjective descriptions from patients or incomplete symptom reporting—creating uncertainty when evaluating conditions such as chest pain, fatigue, or dyspnea.

Ensuring accurate, confident clinical decision-making without in-person examination tools remained a major challenge for many providers.

The Solution

eMurmur Digital Auscultation Software

The eMurmur software transforms remote patient assessment by enabling real-time, high-fidelity auscultation sounds that includes audio visualization. Using a digital stethoscope integrated with eMurmur software, telehealth practitioners can:

- Conduct heart, lung, and abdominal exams remotely with clinical precision.
- Record and replay sounds for longitudinal monitoring or second opinions.
- Integrate recordings into electronic health records (EHR).
- Provide visual and auditory feedback to enhance patient understanding and shared decision-making.

eMurmur integrates seamlessly with other telehealth tools, creating a complete remote examination ecosystem that supports comprehensive virtual care delivery.

Clinical Outcomes and Impact

Dr. Harwick and her team have found that eMurmur improves both diagnostic confidence and patient engagement during telehealth sessions.

She reports that the software has been particularly valuable in assessing symptomatic patients presenting with chest pain, shortness of breath, or fatigue, and has even enabled correction of an inaccurate prior diagnosis of "murmur with heart failure."

The ability to visualize and replay heart sounds has proven invaluable for patient education and collaborative care planning, while the recording and storage capabilities allow for tracking disease progression and obtaining specialist input when needed.

"eMurmureMurmur has afforded me more confident clinical decision-making during telehealth visits. The visual and auditory playback allows for clear patient education and shared decision-making—especially in cases requiring referral or further testing."

Dr. Michelle Harwick, FNP, PMHNP, ACNP, DNP
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