

NTL strives for better future where every woman, irrespective of borders or cultures, can live without cervical cancer.



“Development and validation of artificial intelligence-based analysis software to support screening system of cervical intraepithelial neoplasia”

Scientific Reports (2024)14:1957

“CerviCARE® AI achieved a remarkable sensitivity of 98% for high-risk groups (P2, P3, HSIL or higher, CIN2 or higher) and a specificity of 95.5%.”

| | Software (CerviCARE® AI) | |
|---|--------------------------|----------|
| | Positive | Negative |
| Reference Standard (Independent Evaluation Committee Reading + Histology, Cytology) | | |
| Negative | 98 | 2 |
| Sensitivity (95% CI)* | 98.0% (0.953–1.000) | |
| Specificity (95% CI)* | 95.5% (0.926–0.984) | |

Table 4. The diagnostic performance for detecting high-risk groups (P2 or P3). *95% Wald confidence interval.

| Reference Standard (Independent Evaluation Committee Reading + Histology, Cytology) | Software (CerviCARE® AI) | | |
|---|--------------------------|----------|-------|
| | Positive | Negative | Total |
| Positive | 195 | 5 | 200 |
| Negative | 9 | 191 | 200 |
| Total | 204 | 196 | 400 |
| Sensitivity (95% CI)* | 97.5% (0.953–0.997) | | |
| Specificity (95% CI)* | 95.5% (0.926–0.983) | | |
| PPV † (95% CI)* | 95.6% (0.928–0.984) | | |
| NPV ‡ (95% CI)* | 97.4% (0.952–0.997) | | |

Table 5. The diagnostic accuracy for all lesions. *95% Wald confidence interval. † Positive predictive value. ‡ Negative predictive value.

Ongoing Global Research

“Digital cervicography: Analysis of non-inferiority to conventional colposcopy”

Neila M MD, PhD., Federal University Hospital of Sao Paulo, Brazil

“Application of Deep Learning Machine Assisted ‘CerviCARE® AI’ for Pre-cancerous Lesion of Cervix”

Komsun S MD, PhD., Thammasat University, Thailand

“Evaluation of Cervical Cancer Screening Results Using an Artificial Intelligence-Assisted Device at the National Hospital of Obstetrics and Gynecology in Vietnam”

Thien D MD, PhD., National Hospital of Obstetrics and Gynecology, Vietnam

“Validation of Artificial Intelligence-based Analysis Software for Cervical Screening in Mongolia: Preliminary Results”

Erdenetuya M MD, PhD., National Center for Maternal and Child Health, Mongolia

Testimonials

“I found the CerviCARE® AI is accurate and cost-effective... if we use VIA test, this matter is objective. If we use CerviCARE® AI, it is subjective and it is great”

Dr. Thien, National Hospital of Obstetrics and Gynecology, Vietnam

“I support CerviCARE® AI as a cervical cancer screening method. Based on AI results, physicians or even healthcare professionals can make immediate screening, triage, diagnosis, and treatment decisions for cervical cancer.”

Dr. Komsun Suwannarurk, Associate Professor, Thammasat University, Thailand

“CerviCARE® AI has been implemented in various hospitals across Mongolia over the past year... Important research conducted in collaboration with the National Center for Maternal and Child Health of Mongolia”

First Maternal Hospital of Mongolia, Mongolia






98% Sensitivity¹⁾
5 Seconds²⁾



AI Cervical Cancer Screening System

Ref) 1) Scientific reports, 2024
2) Test report, StandardBank, 2023

Limitation of current screening

| | | |
|---|--|---|
| <p>Infrastructure </p> <p>Need a diagnostic laboratory and infrastructure</p> | <p>Low sensitivity </p> <p>Pap smear and HPV test are not sufficient</p> | <p>It takes time </p> <p>Up to 7days to get a result it leads to miss follow-up</p> |
|---|--|---|

The traditional methods such as Cytology, HPV, and VIA tests have limitations in both screening and triage. Pap smear and HPV tests, despite its popularity, have shown drawbacks in reliability and accuracy. VIA test is highly dependent on skill and experience of the test provider.

“Screening for early detection is the solution, CerviCARE® AI brings the solution!!”





CerviCARE® AI provides an effective measure to screen cervical cancer. The Integrated deep learning artificial intelligence predicts findings from cervix just like how experienced gynecologic oncologists would determine.



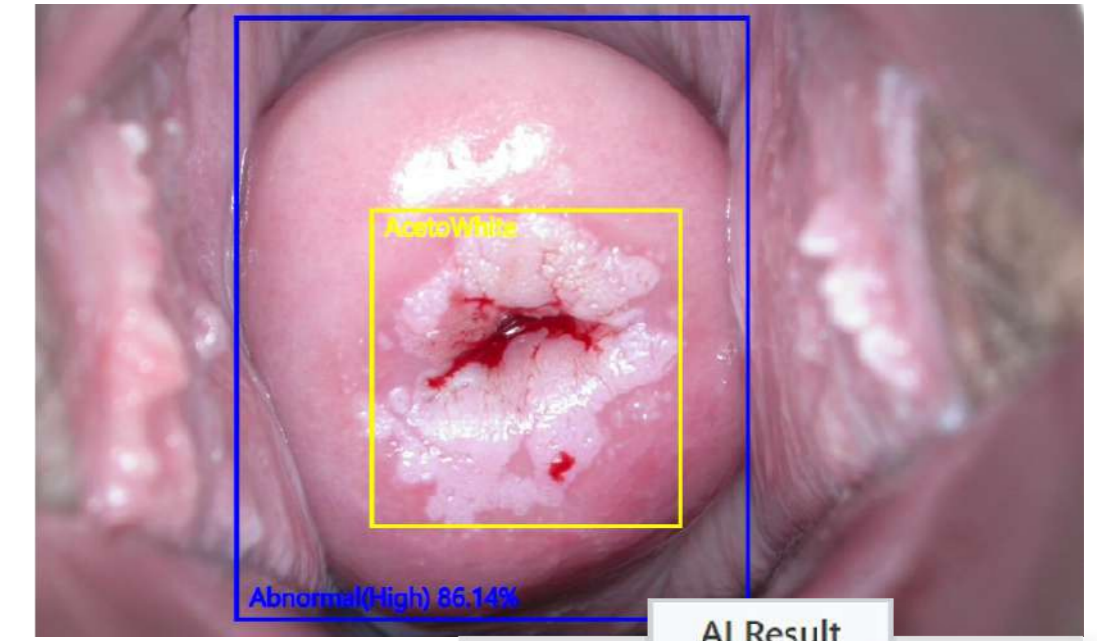
• Device _ Dr.CerviCARE™



• Work-flow

| | | | |
|---|--|---|--|
| <p>1. Capture _ Image Quality Guide</p>  <ul style="list-style-type: none"> Apply 5% acetic acid Direct to the cervix, outside the body Follow the guide, capture pictures | <p>2. Documentation</p>  <ul style="list-style-type: none"> Input patient information Integrate the patient's medical history to improve the precision of AI-driven analysis | <p>3. AI report</p>  <ul style="list-style-type: none"> AI result classification AI report for patient consultation | <p>4. Tele-health system</p>  <ul style="list-style-type: none"> Request for expert consultation Detailed result with morphological findings |
|---|--|---|--|

• Platform _ CerviCARE® AI



- AI Result**
- 98% Sensitivity¹⁾**
- 95.5% Specificity**

- 5 Seconds²⁾**
- POCT AI analysis

- AI result classification³⁾**
- Normal / Atypical / Abnormal(Low grade / High grade)

- Tele-health system**
- Expert remote support

- Documentation**
- Patient history

AI Result

| | | |
|--------|----------|------------------------------------|
| Normal | Atypical | Abnormal |
| | | Abnormal(CIN2/3, HSIL, High grade) |

As a result of AI analysis, **Abnormal(CIN2/3, HSIL, High grade)** is suspected.

Ref) 1) Scientific reports, 2024
2) Test report, StandardBank, 2023
3) Export ver 1.0.6 classification