Gynaia

INSTRUCTIONS FOR USE IETA

IETA model V1.0.1

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Label

Device Name	IETA
UDI	(01) 05430004729013 (8012) v1.0.1
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Contents	Instructions for use of IETA release v1.0.1
eIFU indicator	Hyperlink to the electronic instructions for use

Symbols

MD CE 2797 UK CA

Explanation of symbols

UDI	Unique Device Identifier = UDI-DI +UDI PI
	UDI-PI = Software version
	Date of manufacture / release date
	Manufacturer
	Consult instructions for use
MD	Medical Device

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WARNING — Decision-support only, not stand-alone.
IETA provides probabilistic risk estimates intended to support clinical assessment. The device is intended to be used as one component within a multi-step clinical assessment pathway and is not intended to be used in isolation

Device description

Intended Purpose	IETA is intended for use by IETA-trained specialist healthcare professionals as an aid providing a probabilistic risk estimate that informs clinical decision-making in the assessment of women with endometrial pathology. Based on selected clinical and ultrasound parameters, it provides probability estimates for potential endometrial pathology in women, including endometrial cancer, endometrial atrophy, focal pathology, or diffuse endometrial conditions. The outputs are intended to support, but not replace, established clinical management protocols and professional judgment. The device does not provide a diagnosis, does not prescribe or select a treatment, and does not recommend a management action.
Intended user	IETA-trained specialist health care professionals holding current Gynaia "IETA uterine training and certification" certificate
Patient target group	Non-pregnant women aged 18 years and older presenting with Abnormal uterine bleeding or presenting for ultrasonography for other indications
Contra indications	IETA has not been validated in, and must not be used in, the following conditions : Pregnancy, during post partum phase (<3 months after delivery or miscarriage), age < 18 years, pre-existing intrauterine (intracavitary) fluid seen on ultrasonographic assessment
Use in combination with other devices and software	N/A

Limitations of use	IETA is designed for clinical decision-support and is not intended for diagnostic purposes. It must not be used as a stand-alone basis for clinical decisions

Operating instructions
Minimum System Requirements

Supported Browsers and System Requirements

Our medical device is accessed through a web application (the platform) that is compatible with a range of modern browsers on both desktop and mobile devices. This web application can also be installed on a personal device for a native-app-like experience. To ensure proper functionality, security, and the best user experience, it is essential to use a supported browser with the minimum required version. The platform will check to ensure it only works on supported devices.

Supported Browsers

The following browsers are supported for use with our medical device. Older versions of these browsers are not supported, and you must update to the specified version or higher.

- Chrome (Desktop & Mobile): Version 82 or higher.
- Edge (Desktop & Mobile): Version 82 or higher.
- Firefox (Desktop & Mobile): Version 77 or higher.
- Safari (Desktop & Mobile): Version 12 or higher.
- Chromium-based browsers: Any browser built on the Chromium engine (e.g., Brave, Opera) that is based on Chromium version 82 or higher should be supported, though official testing is limited to Chrome and Edge.

Browsers that have reached their "end-of-life" and are no longer receiving security updates, such as Internet Explorer, are not supported.

Hardware Requirements

The performance of the application is dependent on the hardware of your device. The following are general minimum system requirements to run the supported browsers and our application correctly on a desktop/laptop or a mobile phone.

Desktop/Laptop:

- Processor: A processor with support for SSE3 instructions (e.g., Intel Pentium 4 or newer) is a general requirement for modern browsers.
- RAM: 2GB for 64-bit browsers is the minimum, but 4GB or more is recommended for optimal performance.
- Operating System: An actively supported operating system such as Windows 10 or higher, macOS 12 (Monterey) or higher, or a recent version of a Linux distribution.
- Screen Resolution: A minimum resolution of 1024 x 768 is required.

Mobile Devices:

- Operating System: A modern mobile operating system that supports the latest versions of the browsers listed above (e.g., Android 10 or later, iOS 12 or later).
- RAM: 3GB RAM is recommended for optimal performance.

Installation

The application can be installed on a mobile device as a PWA (progressive web app) for quick access from the home screen, similar to a native app. The installation process varies slightly between operating systems.

On iPhone (iOS) using Safari:

1. Open the web application in the Safari browser.
2. Tap the Share button (a square with an arrow pointing upwards) at the bottom of the screen.
3. Scroll down and select Add to Home Screen.
4. You will be prompted to customize the name of the application. Tap Add in the top right corner to confirm.
5. The application icon will now appear on your home screen.

On Android using Chrome:

1. Open the web application in the Chrome browser.
2. An "Install app" prompt may appear automatically. If it does, follow the on-screen instructions.
3. If no prompt appears, tap the three-dot menu in the top-right corner of the browser.
4. Select Add to Home screen from the menu.
5. A pop-up will appear where you can customize the app's name. Tap Add to confirm.
6. The application icon will now be on your home screen and in your app drawer.

Performance characteristics

Clinical Benefits

EPC Clinical Benefit	Clinical Outcome Parameter
IETA provides clinical decision support by informing IETA-trained specialist healthcare professionals on the predicted probabilities of different endometrial pathologies, including malignancy. These probability estimates support the clinical assessment of the need for and appropriate pathway of further diagnostic investigations, taking into account the overall clinical context and professional judgment. This clinical benefit is measured as Net Benefit (NB). NB assesses the quality of clinical decisions made based on the model and the risk threshold.	The NB of an increased malignancy risk according to the IETA model to decide which patients should undergo office endometrial sampling was superior to office endometrial sampling in all women.

Clinical Performance

EPC Clinical Performance	Performance endpoint/measure
1. IETA is able to give probabilities to differentiate between benign and malignant endometrial lesions	The Area Under the Curve (AUC) for discrimination between benign and malignant endometrial lesions is 0.88 (95% CI: 0.85-0.91)

2. IETA is able to give probabilities to distinguish between: (1) endometrial atrophy, (2) endometrial polyp or intracavitary myoma, (3) endometrial malignancy or atypical hyperplasia, (4) proliferative/secretory changes, endometritis, or hyperplasia without atypia	The model discriminated well between all categories (polytomous discrimination index 0.67, 95% CI: 0.63–0.75) with AUCs ranging from 0.76 (95% CI: 0.74–0.79) for polyp or myoma versus proliferative or secretory endometrium to 0.94 (95% CI: 0.92–0.96) for atrophy versus malignancy.

Variable Influence – How the Output is Generated

IETA is based on the published IETA-1 multinomial model developed by Wynants et al. for estimating the probability that the endometrium of a woman presenting for transvaginal ultrasound is affected by (1) endometrial malignancy or atypical hyperplasia, (2) endometrial polyp or intracavitary myoma, (3) proliferative or secretory changes, endometritis or hyperplasia without atypia, or (4) endometrial atrophy (Wynants et al., Gynecologic and Obstetric Investigation, 2022; doi: https://doi.org/10.1159/000522524).

The model uses a multinomial logistic regression approach that combines two clinical variables — patient age and body mass index — with seven ultrasound variables recorded according to IETA consensus terminology: visibility of the endometrium, endometrial thickness, presence of a bright edge, IETA colour score, presence of a single dominant vessel, non-uniform endometrial echogenicity, and presence of endometrial cysts. Each variable contributes to the final result through predefined model coefficients (weights).

The output consists of a predicted probability for each of the four outcome categories, which together sum to 100%. The category with the highest predicted probability represents the most likely histology; a category whose predicted probability is elevated relative to its baseline prevalence should additionally be considered. Correct results require that the ultrasound predictors are acquired and recorded according to IETA terminology and measurement technique. Users should interpret the results together with the full clinical context.

Performance Metrics and Clinical Validation

The IETA device implements the published IETA-1 multinomial regression model, developed by the International Endometrial Tumor Analysis (IETA) consortium, an international academic collaboration coordinated at KU Leuven (Wynants et al., Gynecologic and Obstetric Investigation, 2022; doi: https://doi.org/10.1159/000522524). The model was derived from the prospective multicentre IETA-1 cohort of 2,417 consecutive women with abnormal uterine bleeding, recruited across specialised gynaecological ultrasound centres in nine European countries, of whom 155 had endometrial malignancy or atypical hyperplasia. All ultrasound examinations followed a standardised scanning protocol and were described using IETA consensus terminology, with histology as the reference standard.

Model performance was evaluated using an internal-external validation design (leave-centre-out cross-validation) with cluster bootstrapping, providing an approximately unbiased estimate of generalisability to a new centre. In this validation, the model showed an optimism-corrected AUC of 0.88 (95% CI: 0.85–0.91) for discrimination between malignant (endometrial cancer or atypical hyperplasia) and benign endometrial conditions. The model also discriminated well between all four outcome categories, with a polytomous discrimination index of 0.67 (95% CI: 0.63–0.75) and pairwise AUCs ranging from 0.76 (95% CI: 0.74–0.79) for polyp or intracavitary myoma versus proliferative or secretory endometrium, to 0.94 (95% CI: 0.92–0.96) for atrophy versus malignancy.

The IETA-1 model was subsequently externally validated in the independent, prospectively collected IETA-3 cohort of 1,745 women without abnormal uterine bleeding, examined in seven expert centres using the same standardised IETA examination technique and terminology (Heremans et al., Ultrasound in Obstetrics & Gynecology, 2024; doi: 10.1002/uog.27530). In this asymptomatic population, the model showed an AUC of 0.81 (95% CI: 0.73–0.89) for discrimination between malignant and benign endometrium, and discriminated between the four histological outcome categories with a polytomous discrimination index of 0.68 (95% CI: 0.62–0.73).

Maintenance

No maintenance is required.

For both security and technical performance reasons (including speed, user experience, and accurate risk visualization) it is strongly recommended to use the latest available version of the operating system and browser on the device running the IETA application.

Warning and precautions

WARNING – Intended Use and Clinical Decision-Making	IETA provides probabilistic risk estimates intended to support clinical assessment of endometrial pathologies. The output is informative in nature and must be interpreted in the context of the full clinical picture, established guidelines, and clinician expertise. IETA does not recommend, determine, or automate clinical management actions, and does not replace clinical judgment. Clinical decisions remain the responsibility of the healthcare professional.
WARNING – Use Only Within Intended Population	Use outside the intended population may result in outputs that are not clinically reliable within the intended use.
WARNING – Use by Trained Users Only	IETA is intended for use only by IETA-trained specialist healthcare professionals who have completed appropriate training and hold a valid "IETA uterine training and certification" certificate. Access to the application is restricted by login and will not be granted to non-certified users. Incorrect interpretation by untrained or insufficiently trained users may result in misunderstanding of the model output and its clinical relevance .
CAUTION – Correct Data Entry Required	Incorrect, incomplete, or inconsistent data entry may result in inaccurate risk estimates, which may affect

	how the output is interpreted within the broader clinical assessment
CAUTION – Input Validity and Applicability	Users must not bypass or ignore system checks or warnings. Doing so may reduce the reliability of the output and its appropriate use within the clinical assessment.
CAUTION – Use in Case of System Unavailability	If IETA is unavailable due to technical issues, patient management must not be delayed. An alternative clinically accepted assessment approach should be used. In this case, expert evaluation could be considered to determine further management, potentially including tissue sampling or hysteroscopy, if indicated.
CAUTION – Calibration and Generalizability	Predicted risks may not fully reflect all local patient populations and should be interpreted in the context of local clinical practice and the full clinical picture.
NOTICE – Instructions for Use Availability	Instructions for Use are provided electronically (eIFU). Paper copies are available upon request and are considered uncontrolled documents. Users are responsible for ensuring they consult the most current version before use. Failure to consult the Instructions for Use may increase the risk of incorrect interpretation or use.

Residual Risks - Information for Safety

Despite implementation of risk control measures in accordance with ISO 14971, residual risks remain due to the inherent statistical nature of predictive models. These residual risks cannot be eliminated without adversely affecting the benefit–risk profile of the device:

1.Overestimation of probabilities

IETA may overestimate the probability of an endometrial malignancy.

Potential impact

If given disproportionate weight within the clinical assessment, this may contribute to unnecessary further diagnostic procedures, referral, or intervention.

Mitigation/Safe use:

- Interpret outputs within the full clinical context.
- Apply specialist clinical judgment and follow applicable clinical guidelines

2.Underestimation of probabilities

IETA may underestimate the probability of an endometrial malignancy

Potential impact

If given disproportionate weight, this may contribute to delayed further assessment or referral.

Mitigation / Safe use

- Do not rely on IETA as a stand-alone assessment
- Maintain appropriate follow-up and surveillance; following applicable clinical guidelines

3.Misinterpretation of probabilistic output

Probability outputs may be misunderstood.

Potential impact

Incorrect weighting within clinical decision-making

Mitigation/ Safe Use:

- Ensure appropriate training (IETA certification)
- Use IETA outputs as one component of the overall clinical assessment and ensure that all input parameters are correctly understood and entered.

4.Population variability

Model performance may vary across clinical settings.

Potential impact

Predicted risks may not fully reflect local populations

Mitigation/ Safe Use:

- Interpret results in context of local prevalence
- Combine with clinical expertise

Data Security – User Responsibilities

Area	Physician Responsibility (Duty of Care)
Active Use & Logout	NEVER leave the application logged in and unattended. After every consultation or period of use, you must securely log out (or rely on the system's immediate automatic log-off feature).
Screen Privacy (Public View)	ENSURE Visual Privacy while using the application. Position your screen (PC, smartphone, tablet) so that it cannot be viewed by unauthorized persons.
Device Security	Your device must be secured with a strong PIN, password, or biometrics (fingerprint/face ID). Ensure the device's operating system and the application are updated to the latest security versions.
Data Transmission	Only use the application over trusted, encrypted networks (e.g., your clinic's secured Wi-Fi or a trusted VPN).
Personal Data Export	Do not download or take screenshots of Protected Health Information (PHI) to your personal device's local storage unless absolutely necessary and immediately secure or delete the file after use.

DISCLAIMER

The manufacturer is not responsible for security breaches, data loss, or system compromise resulting from the user's failure to adhere to the security and data protection responsibilities outlined in this IFU, including but not limited to, the use of weak passwords, the use of unapproved operating environments, or failure to apply recommended software updates.

Manufacturer

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Incidents and Support

For technical support or questions contact Gynaia support team via support@gynaia.com.

Serious incidents should be reported immediately to Gynaia and to the competent authority of the Member State in which the user/patient is established or the incident took place.

Document Version

Version	Issue date	Description of modification
1.0	15 January 2026	New document
2.0	15 August 2026	Update Address UK Responsible Person Separate warning/Precautions from residual risk section with further clarification Added explanatory section on “Variable Influence – How the Output is Generated” and “Performance Metrics and clinical validation” Improved sections (clarifications): Intended Purpose and clinical benefit,
3.0	9 November 2026	Update Clinical Benefit, Change of manufacturer address,