



astraia

software for women's health



Dr. Uwe Hannemann, CEO

For two decades, astraia has not only been the cutting-edge documentation software in prenatal diagnostics for many customers all over the world. It also has been used as a scientific database system, supporting many medical studies since its early beginnings. To this date, astraia software has been mentioned in more than 400 scientific publications.

This very close and trustful cooperation with our scientific audience creates real synergies. New findings are implemented into astraia software quickly and customer requests are processed easily. Our focus is always on guidelines for calculating the risk of trisomy and preeclampsia. Along with this goes the continuous and innovative further development of features for your daily documentation of images, diagnosis and data findings.

In 2018 astraia software gmbh has joined NEXUS AG. The vision of this acquisition is to offer integrated and extensive solutions in the field of gynaecology and obstetrics. Of the wide range of software solutions, the product family NEXUS/OBSTETRICS & GYNAECOLOGY with its integrated CTG monitoring, a delivery module, partogram and neonatology will be of special interest to astraia customers. Furthermore, PACS and integration server solutions will also meet existing expectations of our customers.

astraia and NEXUS now market their products together and integrate them technically. This strong combination will make the product range even more attractive and lead to an innovation boost in the market of gynaecological and obstetric software.

The ongoing pandemic presented the world with new challenges and is leading to many new ideas and new ways of communication. In this regards, please feel invited to join us on Facebook, Twitter, Instagram and LinkedIn, to stay connected until we can meet in person again.

Yours,
Uwe Hannemann and the astraia team

Get free consultation

- + Live demo (online)
- + Individual consultation
- + Price quotation

Send an email to sales@astraia.com





astraia - software for women's health

From science to clinical practice

With astraia - software for women's health we have been offering our international customers a cutting-edge OB/ GYN software for more than 20 years. We are supported by leading experts from all over the world to guarantee a comprehensive, practical and efficient documentation of the examinations based on the latest knowledge and standardized terminology in around 20 languages.

astraia - software for women's health consists of multiple clinical modules for different areas. Due to the modular structure, you can combine the modules according to your individual requirements and extend them with useful add-ons such as image and measurement data transfer. Every solution, no matter in which combination, contains helpful tools, functions and features. Our support team offers you fast assistance via a hotline or remote support.

astraia - software for women's health is certified as medical device (class IIa and IVD). We participate in an annual audit and are certified according to ISO 13485.

Our clinical modules astraia Obstetrics and astraia Gynaecology offer comprehensive solutions for routine examinations, while astraia Fetal Echocardiography, astraia Neurosonography, astraia Delivery, astraia Colposcopy, and astraia Breast Clinic cover specialized areas.

astraia Obstetrics

astraia Obstetrics has been developed in close cooperation with leading clinicians and scientists to provide obstetricians the best possible tool for prenatal diagnostics.

This module allows you to precisely monitor the fetal and maternal health from early pregnancy assessment through to delivery and birth outcome. The well-structured and intuitive screens facilitate an efficient documentation of different examination types such as sonography of fetal and maternal structures, doppler ultrasound, invasive and non-invasive procedures, as well as laboratory and genetic tests. Choose which formulas and populations-specific charts from numerous up-to-date peer-reviewed articles you want to use calculate and visualize your measurement results. Extensive help files can be called up directly in the context of the examination.

astraia Obstetrics contains the latest FMF risk algorithm (FMF 2018) that was developed in close collaboration with the Fetal Medicine Foundation (FMF) London. It calculates risks for Trisomy 21, 18 and 13, intrauterine growth restriction, and preterm delivery in the first trimester, as well as the risk for pre-eclampsia in all three trimesters.

Your benefits at a glance

- + Monitor and document the whole pregnancy from early assessment through to birth outcome
- + Benefit from comprehensive screens with an intuitive workflow that allow to efficiently perform complete ultrasound examinations of fetal and maternal structures, growth scans, doppler ultrasound, placenta evaluation, cervical assessments and other examinations
- + Assess the fetal risks for trisomy 21, 18 and 13, pre-eclampsia, intrauterine growth restriction, and preterm delivery with the latest FMF risk algorithm
- + Report results from invasive and non-invasive (i.e. cf DNA testing / NIPT) procedures, laboratory tests and genetic analyses
- + Make use of numerous up-to-date population specific charts and formulas from peer-reviewed articles to track the fetal development
- + Generate well-structured reports with a few clicks using predefined templates for all major exam types

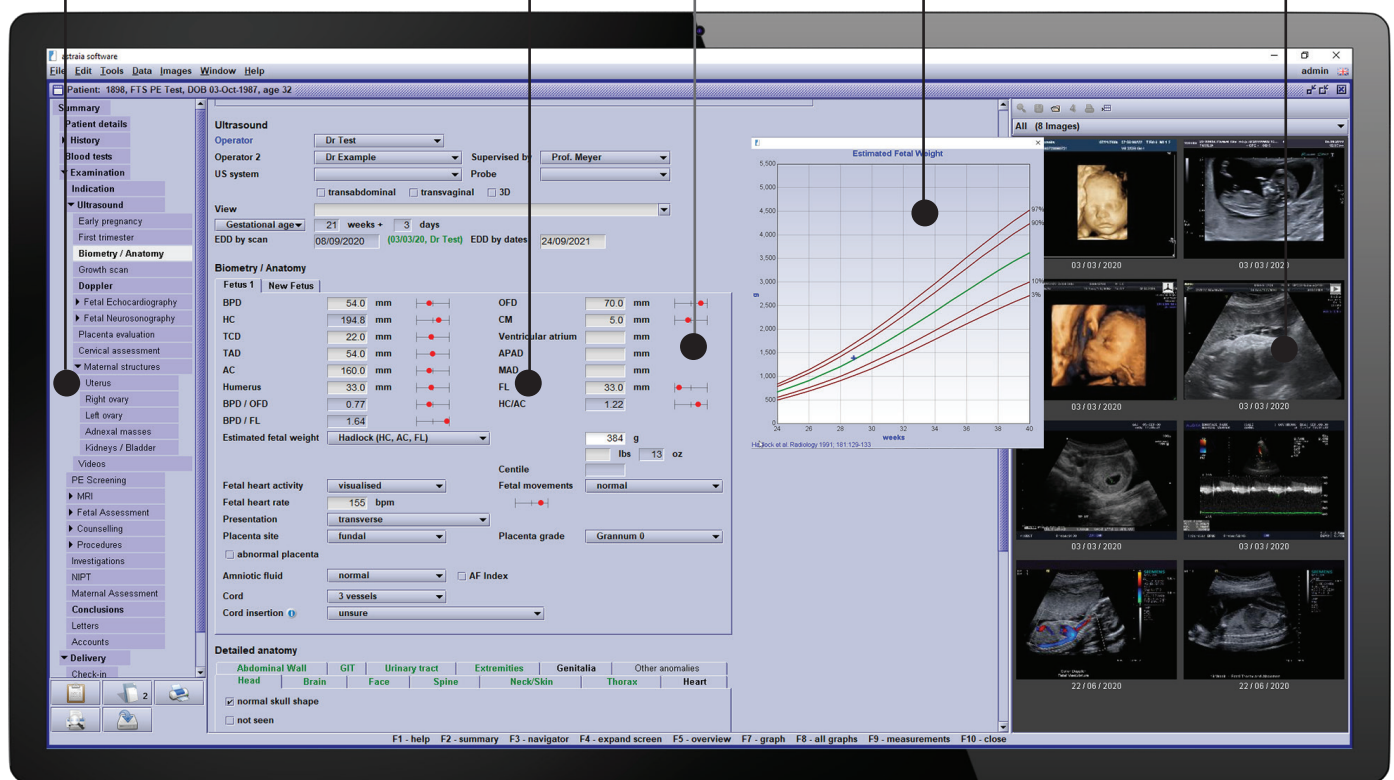
US images, clips and 3D-volumes

Structured and comprehensive workflow

Reference charts

Intuitive menu navigator

Growth bars



astraia

Fetal Echocardiography

The astraia Fetal Echocardiography module has been designed by and for specialists in this area in order to provide an expert tool to systematically assess the fetal heart.

A clear menu navigation assists you in the step-by-step examination and documentation of the cardiac morphology, biometry and doppler. Based on the entered structural findings, the software provides suggestions for further biometric measurements and doppler examinations. As for other astraia modules, integrated help files give access to measurement instructions. Your measurement results and deviation from reference data can be displayed graphically as charts and integrated with a few clicks in well-structured patient reports.

The astraia Fetal Echocardiography module can be integrated into astraia Obstetrics or chosen as a separate standalone entity.

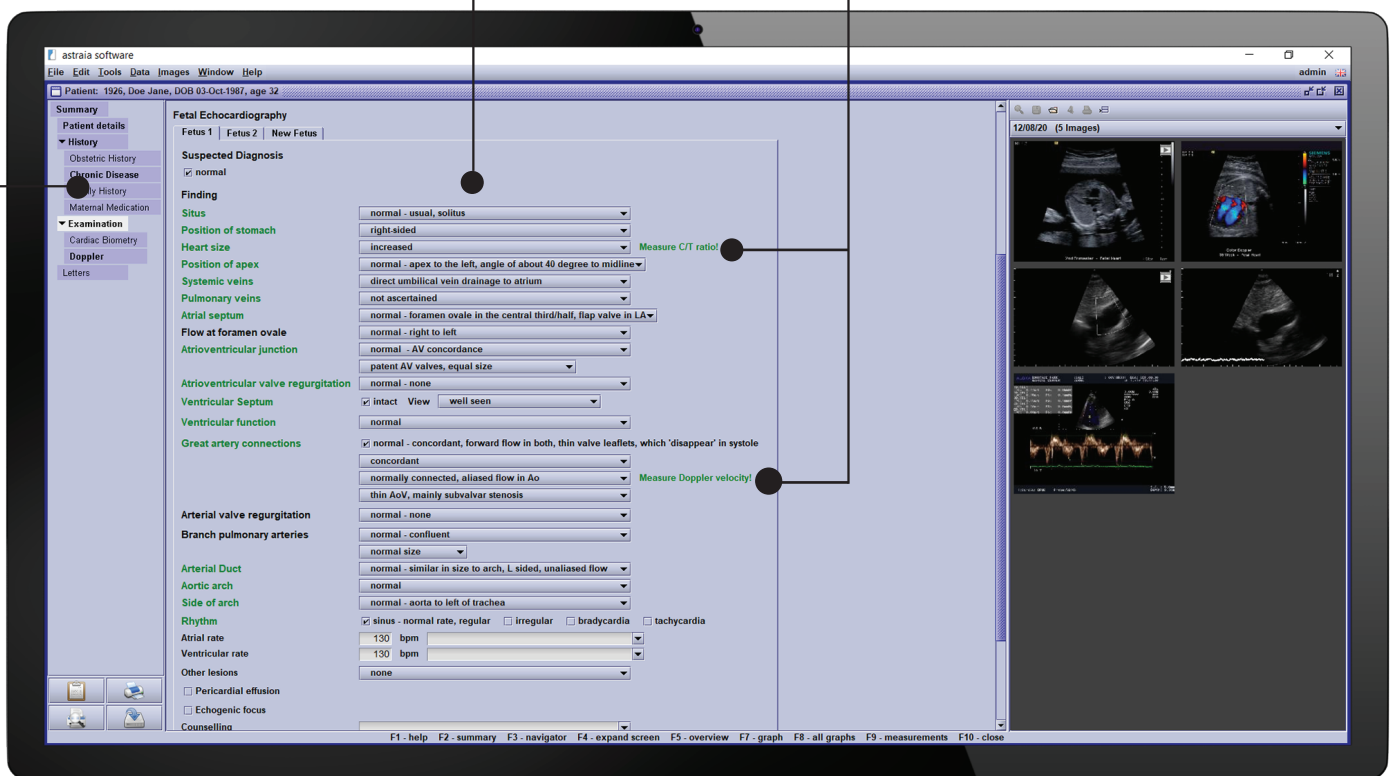
Your benefits at a glance

- + Use this expert module to systematically document in detail cardiac morphology, biometry and doppler
- + Based on the entered structural findings, the software supports you with suggestions for further biometric and doppler examinations
- + Graphically represent your measurements with up-to-date reference charts from peer-reviewed articles
- + Generate a well-structured report with a few clicks

Morphology, biometry and doppler screens

Structured documentation

Suggestions for further examinations



astraia Fetal Neurosonography

The astraia Fetal Neurosonography was developed in close collaboration with specialists in fetal neurosonography to provide an expert tool for a detailed assessment of the fetal brain.

A well-defined workflow with prompts allows you to systematically document the fetal brain morphology and cephalic biometry in order create precise diagnoses. Get support from help files give that give immediate access to measurement instructions. Moreover, a variety of charts from peer-reviewed articles allows you to visualize cephalic biometry in the context of reference data. Well-structured patient reports containing all information including history, findings and diagnosis can be easily generated with a few clicks.

The astraia Fetal Neurosonography module is an extension of the astraia Obstetrics module.

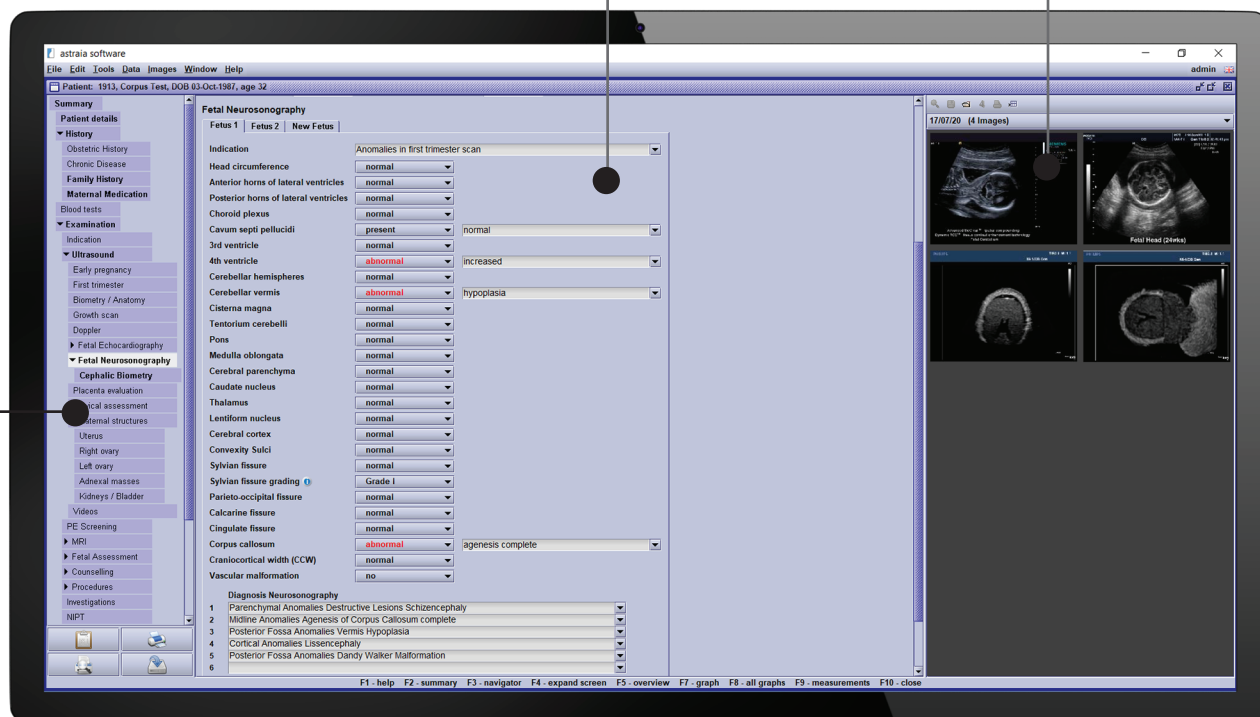
Your benefits at a glance

- + Use this expert module to document step-by-step brain morphology and cephalic biometry
- + Display your measurement results graphically with up-to-date charts from peer-reviewed articles
- + Generate easily a well-structured report containing all relevant data

Image gallery

Morphology and biometry screens

Interactive prompts



astraira Delivery

In close cooperation with experts in perinatal diagnosis and assistance, the astraira Delivery module has been designed to support medical personnel best through their work while keeping up with all necessary documentation and preparing a complete report without great effort.

The well-structured tabular presentation makes it easy to document and follow-up all essential phases, events and findings during delivery at any moment, such as labour induction, rupture of membranes, labour, delivery, caesarean, placenta delivery, perineum, medication and complications. In addition, a separate screen for postpartum events is available to record information about mother and child for discharge.

Your benefits at a glance

- + Document in detail all phases of delivery from antenatal assessment through early signs of labour to delivery and outcome
- + Easily structure all information about the different events of the delivery
- + Include postpartum events of mother and child as part of the complete documentation
- + Generate without great effort a well-structured report containing all important information about labour, delivery and postpartum events

Elaborate screens for different phases and events

The screenshot displays the 'astraira software' interface for the 'Delivery' module. The top menu bar includes 'File', 'Edit', 'Tools', 'Data', 'Images', 'Window', and 'Help'. The patient information at the top reads 'Patient: 1947, Delivery Test, DOB 03-Oct-1987'. The left sidebar shows a 'Summary' section with a tree view containing 'Patient details', 'History', 'Obstetric History', 'Family History', 'Chronic Disease', 'Antenatal assessment', 'Blood tests', and 'Delivery' (which is expanded to show 'Check-in', 'Outcome', and 'Accounts').

The main content area is titled 'Delivery' and contains several sub-sections:

- Labour**: Includes fields for 'ROM', 'Active phase', 'Full dilatation', and 'Expulsion'.
- Delivered by**: A text field with 'dr. huber' and 'ann'.
- Assisted by**: A text field with 'Dr. meier' and 'hubert'.
- Followed by**: A text field.
- Non-medical individuals**: A text field.
- Parity**: A dropdown menu showing '1'.
- Number of fetuses**: A dropdown menu showing '1'.
- EFW Centiles**: A dropdown menu.
- Current GA (05/10/20)**: A text field.
- Comments**: A large text area.

Below these fields is a tabbed interface with the following tabs: 'Labour induction', 'Rupture of membranes', 'Labour', 'Delivery', 'Caesarean', 'Placenta delivery', 'Perineum', 'Medication', and 'Complications'. The 'Labour induction' tab is currently selected, showing a form with the following fields:

- Date**: 03/10/2020
- Time**: 10:45
- Presentation**: cephalic
- Position / lie**: left
- Indication**: a dropdown menu.
- Bishop score**: a dropdown menu.
- Cervical position**: posterior
- Cervical consistency**: medium
- Cervical effacement**: 40-50%
- Cervical dilatation**: 3-4cm
- Fetal station**: +1, +2
- Score**: 7

Below the 'Labour induction' tab is a section titled 'Situation before labour induction' with a table for recording induction events:

Type of induction	Date	Time
1 Oxytocine	03/10/2020	10:30
2		

Below this table is a section titled 'Follow up' with a table for recording follow-up events:

Date	Time	Survey	# contractions / 10 mins	Comment
1	05/10/2020	10:55	insufficient	2
2	05/10/2020	11:20	normal	4
3	05/10/2020	12:03	normal	more than 5
4				

The bottom of the screen shows a status bar with keyboard shortcuts: F1 - help, F2 - summary, F3 - navigator, F4 - expand screen, F5 - overview, F7 - graph, F8 - all graphs, F9 - measurements, F10 - close.

astraia Gynaecology

The astraia Gynaecology module was developed together with leading clinicians in order to cover all aspects of gynaecological health and to provide a comprehensive tool for the daily work in the clinic.

Benefit from comprehensive screens for the examination of early pregnancies, maternal structures including the uterus, ovaries, adnexae, bladder and kidneys as well as endoscopic procedures such as laparoscopy, laparotomy and hysteroscopy to gather all relevant information.

Moreover, you can report the results of gynaecological procedures including cervical smear, endometrial biopsy, implant, cyst aspiration, IUCD insertion, infections, ectopic injection, ERCP and follicle tracking.

The integrated risk calculation for malignancy of ovarian tumours is implemented according to the International Ovarian Tumour Analysis (IOTA) guidelines. astraia has supported the IOTA study screens for more than 10 years. Expert instructions and referral images help the decision for staging, but also can serve as training material for junior doctors and students.

Your benefits at a glance

- + Systematically document the patient's medical history, examinations, diagnostic findings and outcome
- + Report the results of gynaecological procedures such as cervical smear, endometrial biopsy, implant, cyst aspiration, IUCD insertion, infections, ectopic injection, ERCP and follicle tracking
- + Make use of specialized screens for endoscopic procedures, such as laparoscopy, laparotomy, hysteroscopy
- + Assess the risk of malignancy for adnexal masses based on IOTA and RMI models
- + Create comprehensive and well-structured reports for referring doctors with a few clicks

IOTA risk algorithm

Comprehensive screens for different examinations

Structured workflow

The screenshot displays the astraira software interface for the IOTA risk algorithm. The main window is titled "Risks of malignancy for adnexal masses" and features a "Simple rules" tab with "IOTA LR2" and "RMI" options. The interface is divided into several sections:

- Examination Details:** Includes fields for Date (30/06/2020), Time (15:14), Department (Fetal Medicine), Referring Doctor(s) (Dr Sibellus Anthony), and Specialist (Specialist in Gynaecology).
- Ultrasound Section:** Contains fields for Operator (Dr Sibellus), Operator 2, US system (IUZZ Philips), and various checkboxes for examination type (transvaginal, transabdominal, transrectal) and contrast use.
- Adnexal Mass Section:** Includes fields for Mass 1, New Mass, Position (unilateral), Side (left), Origin (uncertain), Size of lesion (15 mm x 20 mm x 20 mm), Volume (3.1 cm³), and Largest diameter (20 mm).
- Simple Rules Section:** Lists B-rules (Unilocular, Presence of solid components, Presence of acoustic shadows, Smooth multilocular tumour, No blood flow) and M-rules (Irregular solid tumour, Presence of ascites, At least four papillary structures, Irregular multilocular solid tumour, Very strong blood flow).
- Classification:** A summary box states: "This mass is classified by Simple Rules as benign." and includes a reference: "Reference: Timmerman et al. Simple ultrasound rules to distinguish between benign and malignant adnexal masses before surgery: prospective validation by IOTA group. BMJ 2010; Dec 14; 341".

The bottom of the screen shows a navigation bar with function keys: F1 - help, F2 - summary, F3 - navigator, F4 - expand screen, F5 - overview, F7 - graph, F8 - all graphs, F9 - measurements, and F10 - close.

astraia Colposcopy

The astraia Colposcopy module was specifically designed for colposcopic examinations. The clear step-by-step menu navigation helps you to efficiently report and evaluate the results while performing the assessment. The comprehensive screens allow to systematically document all relevant data such as history, referral information, findings, treatments, results and outcome. The acquired images can be imported wirelessly and stored in astraia. Moreover, it is possible to illustrate the findings with the integrated drawing tool. All data including images can be easily presented in a structured report and send to the referring doctors.

Your benefits at a glance

- + Document in detail the patient's history, referral information, diagnostic findings, treatments, results and outcome of the colposcopic examination
- + transfer the images from the colposcopes wirelessly to astraia
- + Graphically represent your finding with the integrated drawing tool
- + Create a well-structured report for referring doctors containing all relevant data

astraia Breast Clinic

The astraia Breast Clinic module offers you a comprehensive tool for different types of breast examinations and their evaluations. A specific screen helps you to assess the medical history in detail with the possibility to even visualize the family's history in a pedigree. The findings of palpation, mamma sonography, X-Ray- and magnetic resonance mammography (MRM) as well as invasive procedures can be documented in specialized screens. Moreover, you have the possible to draw the clinical findings and include them in the well-structured examination report.

The terminology of astraia Breast Clinic is consistently based on the BI-RADS classification. MRM examinations include the Göttinger-Score-System.

Your benefits at a glance

- + Fully assess the medical history and family anamnesis (including pedigree-tool)
- + Systematically document different examination types including palpation, mamma sonography, X-ray- and magnetic resonance mammography as well as invasive techniques
- + Visualize clinical findings with the integrated drawing tool
- + Create structured and comprehensive reports for referring physicians

Useful add-ons

Seamless network and interface integration

Images, measurements and patient data are smoothly transferred between astraia workstations, ultrasound machines, PACS, and laboratory devices. Using DICOM, HL7 or other standards, astraia links all instruments and integrates seamlessly within the HIS, RIS and LIS.

astraia provides laboratory interfaces to PerkinElmer LifeCycle, DELFIA Xpress and AutoDelfia as well as Roche Cobas and Thermofisher Kryptor (Including MoM calculation for PIGF, sFlt-1, PAPP-A and free β -HCG).

Moreover, astraia offers several solutions for image and measurement data transfer from the ultrasound device to the software.



astraia DICOM Image Server

The DICOM 3 standard-compatible astraia DICOM image server receives images, image sequences (clips) and 3D/4D volumes from DICOM-compatible ultrasound machines, which the astraia image viewer then displays as thumbnails in an image bar on your screen. It gives you the option of displaying images separately, in multiples, or as short clips, and allows you to make in-picture measurements and annotate the images with your comments.

astraia Image Viewer

The astraia image viewer is fully DICOM standard compatible and easily linked to existing RIS/PACS systems. With standard image processing functions (i.e. contrast, zoom, brightness, etc.), images can be enhanced and effectively displayed on the screen.

astraia Worklist Server

The astraia worklist server module enables seamless integration of your ultrasound hardware into the clinical work flow, for example by transferring existing patient data (name, date of birth, ID number, height and weight) directly to the ultrasound machine.

astraia Measurement Data Transfer

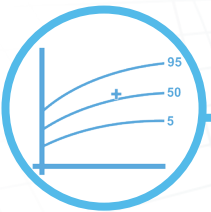
Astraia Measurement Transfer allows to export Biometric and Doppler data from your ultrasound machine to the examination files at the click of a button, using either the convenient astraia measurement data server or a direct connection to the astraia client software.



Languages

On the fly switch to more than 20 languages

With over 200 medical translators worldwide, we guarantee uniform and standardized terminology in around 20 languages. Importantly, astraia provides an on the fly switch during the examinations of languages to support multilingual environments. The selection of a country specific language is linked to localized versions that contain special screens in order to meet local requirements.



Charts

Up-to-date charts and formulas from peer-reviewed articles

Over 400 charts from peer-reviewed articles are currently integrated in astraia to graphically represent your measurements in the context of reference data. Moreover, you can decide which published formula you want to use for calculations such as the determination of the estimated fetal weight (EFW).



Reports

Well-structured patient reports

A set of templates are available for all major exams in order to generate structured and well-represented patient reports within a few clicks. The reports are customizable, allowing to add your personal letter header or images, charts, drawings and other data. They can be printed and shared with colleagues by e-mail, fax or internal network.



Help files

Immediate access to extensive help files

Sophisticated info buttons and help files give immediate access to medical information, measurement instructions and guidance through examinations. In the comprehensive manual you find all information about the product and how to use the software. Proposed by our medical advisors, they are a great source of medical expertise and learning tool for students and junior doctors.



Audit

Automated audit tool for internal and external quality control

astraira contains an automated build-in audit tool for first trimester audit, second trimester audit, as well as FMU- and EPU statistics. The audits can be run in defined time ranges for a whole centre or for each individual sonographer separately. Its primary purpose is the quality control of the most relevant measurement parameters, but can be also used to assess training efficiency or training need.



Data analysis

User-friendly query tool for deep analysis of your data

The integrated query tool offers a library of predefined queries for quality control and common tasks. In addition, a user-friendly interface allows you to create your own queries and organize them in categories in just a few steps even without special IT knowledge. Those custom queries can be easily exported and shared with your colleagues. The query tool is therefore also a convincing instrument for multi-centre studies and quality control.



Diary

Integrated diary and reminder tool

Patient appointments in different rooms and departments can be simply organized and coordinated with the sophisticated diary tool. Moreover, a reminder function helps you and your team to highlight tasks and memos.

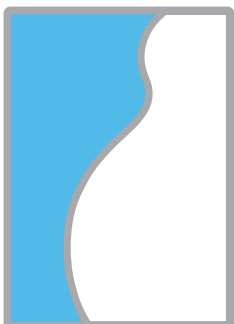


Customizable

Given that astraira is tailored for the daily use in the clinic, we designed our product to allow a great deal of screen customizability by the end-user without any IT knowledge. You have the possibility to easily configure lists directly in the main application by adding your own entries and defining if elements should be set as default, highlighted or hidden. Moreover, with the powerful screen configuration tool we provide a user-friendly interface to allow screen modification such as changing labels as well as adding new fields (text field, number field, checkbox, list, date field and comment) at a given position.

astraia software gmbh

astraia software gmbh provides high-end software solutions in obstetrics and gynaecology for structured documentation and reporting, for quality assurance as well as for scientific studies. A dedicated team of around 30 employees is taking care of more than 1,700 customers in over 70 countries. astraia cooperates closely with leading experts around the world and is supported by 50 independent medical advisors and more than 200 medical translators.



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