

RI Witness™

Confidence, Efficiency and Trust



CooperSurgical®
Fertility Solutions

Pioneers in Electronic Witnessing

More clinical installations than any other IVF electronic witnessing system

Electronic witnessing is now an established and proven methodology that has led it to become the global gold standard for mismatch avoidance.

Since 2007, at the forefront of the industry movement towards increased visibility and accountability, we designed, alongside embryologists, a system that gives you increased confidence in your everyday practises. RI Witness is now the world's most established and trusted ART electronic witnessing system, installed in over 40 countries across six continents.

In addition to the core undertaking of mismatch avoidance, RI Witness offers benefits in quality control, traceability, workflow efficiency and reduced administration. Having RI Witness in your clinic builds on the trust your patients have in you. It helps you and your team have confidence that everything is as secure and efficient as possible.



What RI Witness is designed to do

Electronic Witnessing was primarily designed for risk reduction

Continual automatic witnessing

- Locks patient identity to every gamete, oocyte, embryo, biopsy and cryo sample for continuous monitoring
- Accelerates ID witnessing throughout the patient cycle
- Active all day, every day: No process goes unchecked

RI Witness offers additional values including workflow management for efficiency, time saving and simpler audits

Reduce administration

- Supports audit activity and changes to documentation
- Records and organizes consumables cross-referencing patient cycles and material batches for traceability

Time saving per procedure without a double witness

- Potentially reduces each embryo's time outside the incubator by decreasing the time spent waiting for a manual witness¹
- Supports and guides staff through clinic SOPs, and accelerates staff training

Manage and analyze your workflow

- Oversees lab activity in real time
- Allows comparison of lab efficiencies and performance data from multiple labs
- Assigns accountability
- Identifies your training requirements
- Standardizes your procedures across workstations or multiple labs
- Reports workflow bottlenecks so you can increase efficiency

Keep everyone informed

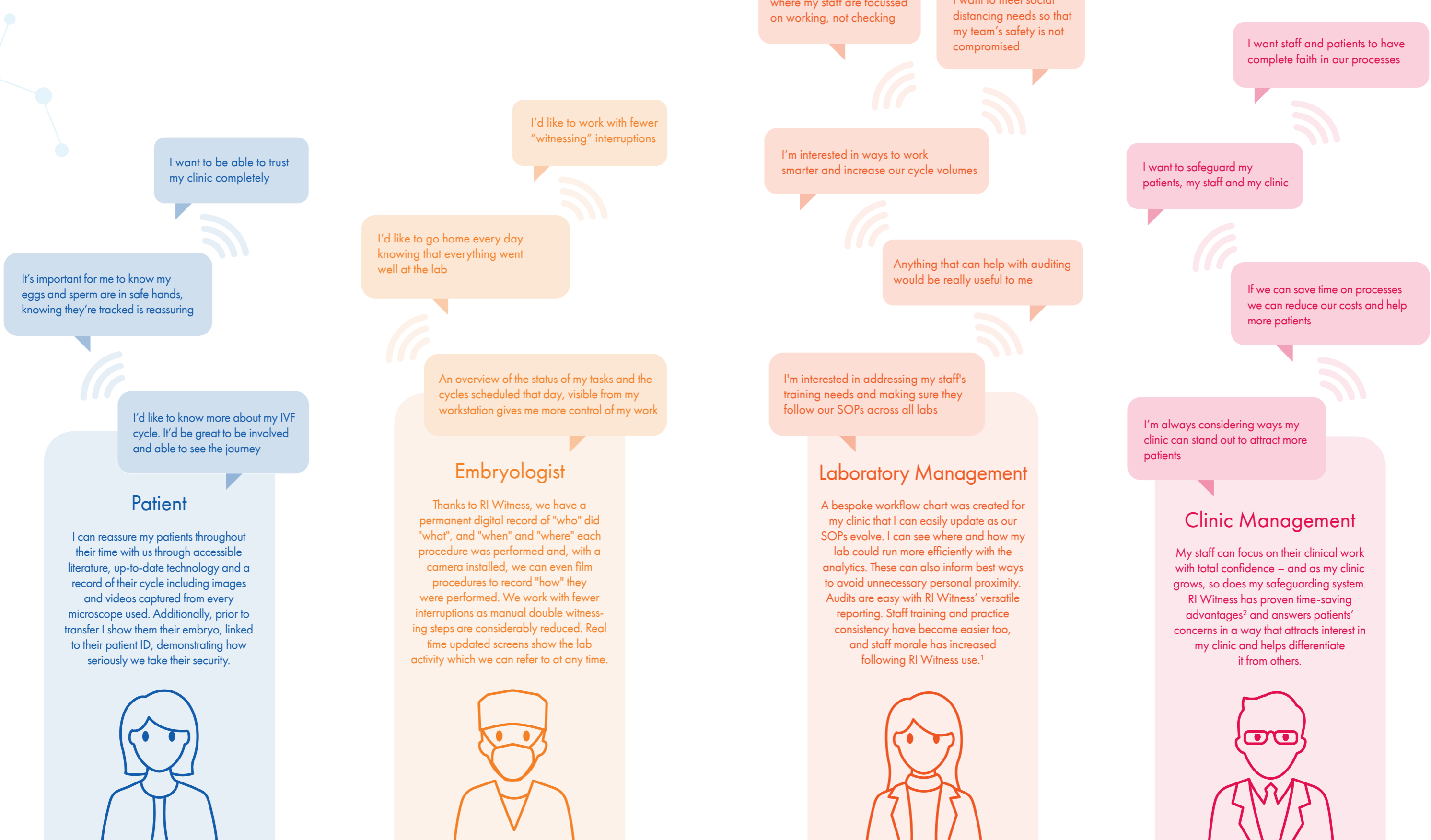
- Easily accessible data displayed in the lab show every cycle's progress at a glance
- Uninterrupted workflow and communication for the team

Collects patient cycle information

- Paperless data capture via a tablet touchscreen saves time¹
- Direct data input minimises transcription errors by connecting to your patient database

1. Patel B, Schnauffer K, Gregoire, Kingsland CR, Troup S, (2013). An investigation into the efficiency of RFID electronic witnessing compared to manual witnessing

What defines a gold standard clinic?



Patient

I can reassure my patients throughout their time with us through accessible literature, up-to-date technology and a record of their cycle including images and videos captured from every microscope used. Additionally, prior to transfer I show them their embryo, linked to their patient ID, demonstrating how seriously we take their security.



I want to be able to trust my clinic completely

It's important for me to know my eggs and sperm are in safe hands, knowing they're tracked is reassuring

I'd like to know more about my IVF cycle. It'd be great to be involved and able to see the journey

Embryologist

Thanks to RI Witness, we have a permanent digital record of "who" did "what", and "when" and "where" each procedure was performed and, with a camera installed, we can even film procedures to record "how" they were performed. We work with fewer interruptions as manual double witnessing steps are considerably reduced. Real time updated screens show the lab activity which we can refer to at any time.



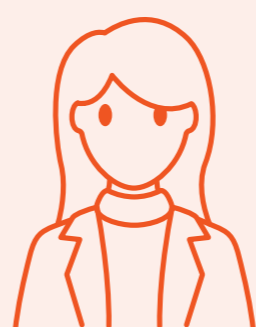
I'd like to work with fewer "witnessing" interruptions

I'd like to go home every day knowing that everything went well at the lab

An overview of the status of my tasks and the cycles scheduled that day, visible from my workstation gives me more control of my work

Laboratory Management

A bespoke workflow chart was created for my clinic that I can easily update as our SOPs evolve. I can see where and how my lab could run more efficiently with the analytics. These can also inform best ways to avoid unnecessary personal proximity. Audits are easy with RI Witness' versatile reporting. Staff training and practice consistency have become easier too, and staff morale has increased following RI Witness use.¹



I'm keen to create a lab where my staff are focussed on working, not checking

I want to meet social distancing needs so that my team's safety is not compromised

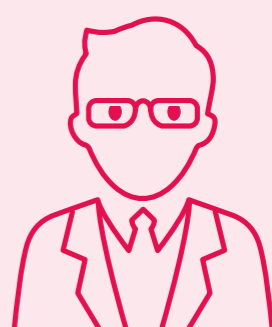
I'm interested in ways to work smarter and increase our cycle volumes

Anything that can help with auditing would be really useful to me

I'm interested in addressing my staff's training needs and making sure they follow our SOPs across all labs

Clinic Management

My staff can focus on their clinical work with total confidence – and as my clinic grows, so does my safeguarding system. RI Witness has proven time-saving advantages² and answers patients' concerns in a way that attracts interest in my clinic and helps differentiate it from others.



I want staff and patients to have complete faith in our processes

I want to safeguard my patients, my staff and my clinic

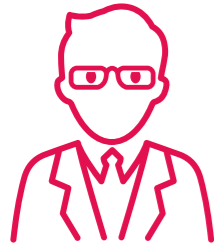
If we can save time on processes we can reduce our costs and help more patients

I'm always considering ways my clinic can stand out to attract more patients

1. Sanges F, Maggiulli R, Albricci L, Romano S, Scarica C, Schimberni M, Giallonardo A, Vatrano G, Ubaldo F, Rienzi L, (2013). Implementing an electronic witnessing system into a busy IVF clinic- one clinic's experience.

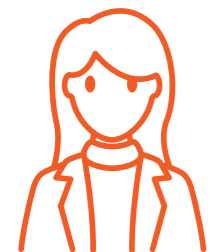
2. Cooke, S. Low-risk laboratory management. In: Organization and Management of IVF Units: A Practical Guide for the Clinician. Eds: SD Fleming & AC Varghese. New York. Springer. 2016; Chapter 7: pp115-152

What Clinics with RI Witness say



“ Since I started using RI Witness in my laboratory the embryologists sleep better and so do the patients. ”

Jean-Claude Jacquet, Medical Biologist in Reproduction, Oriade PMA Grenoble, France¹



“ Numerous patients have informed us that they feel better knowing that this safeguard, RI Witness, is in place. ”

Shaun Kelly, Laboratory Director, Overlake Reproductive Health, USA²



“ Knowing that RI Witness is always in the background monitoring the Patient ID, means I can focus on the embryology. It's always reassuring and it makes my work easier and safer. ”

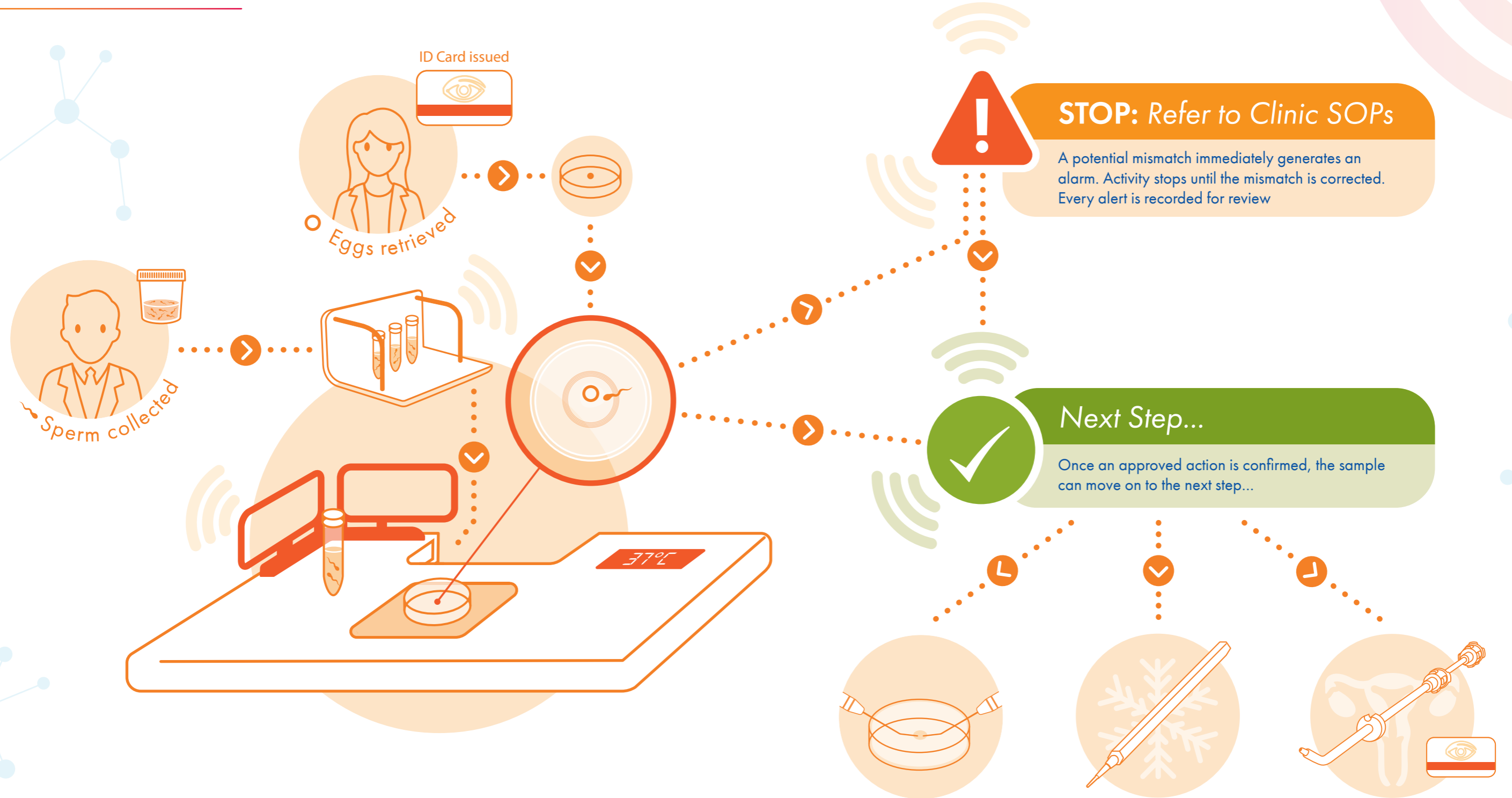
Megan Inge, Scientific Director, Family Fertility Centre, Australia³

1. Jean-Claude Jacquet, Medical Biologist in Reproduction, Oriade PMA Grenoble, France, March 2015
2. Shaun Kelly, Laboratory Director, Overlake Reproductive Health, USA, May 2011
3. Megan Inge, Scientific Director, Family Fertility Centre, Australia, June 2020

Building your confidence: Electronic Witnessing in the Laboratory



RI Witness in the laboratory



How RI Witness safeguards your clinic and your patients

Every workstation where a patient or sample will be treated is installed with an RI Witness reader. Radio Frequency ID (RFID) 'tags' are fixed to all plasticware involved in the patient cycle. As they are used, these tags are registered with each couple's unique code to identify their gametes, embryos and samples throughout the cycle. Whenever plasticware is brought onto a workstation, the tags are automatically read, identified and logged. If two incompatible codes are present on a workstation, the system immediately sounds an alert. The embryologist can only continue once a match and an action is confirmed. Personalized ID cards or fingerprint readers also capture the patient interactions at entry and exit points.

Biopsy

Individual biopsied embryos can be tracked and their results logged into RI Witness ensuring only the approved embryo can be transferred

Cryopreservation

Brady labels with unique IDs track embryos (or gametes) throughout cryopreservation linking automatically through to thaw with the patient's identity

Transfer

Prior to the transfer, the patient's ID card or fingerprint is checked against the patient's tagged embryo

RFID technology

- Self-adhesive RFID tags are attached to all laboratory plasticware
- RFID Readers are situated wherever samples are handled:
 - Embryology lab - associated with each stereo microscope
 - Andrology - associated with each work area for semen processing
 - Reception or egg pick-up and embryo transfer rooms, where patients will be treated
- Each RI Witness work area has a networked tablet or PC:
 - User can simply and quickly log into the system using personalized key fob without having to enter a passcode
 - Software integrated with your patient database*
- Tags are passive and have no energy source:
 - Readers only identify tagged plasticware placed within the work area

RI Witness RFID tags and readers are proven safe for IVF applications and have been used clinically since 2007.¹ More information on RFID safety is available on our website.²

* Subject to compatibility, some programming may be required.

1. Research Instruments Ltd. (2005). Test Report on Mouse testing of RFID Tagging System "IVF Witness". Certificate of Analysis (Ectors, FJ, August 2005, GIGA Université de Liège, Belgium) Certificate of Calibration (Wragge-Morley, B. ETC, UK, May 2005) Certificate of Analysis (Pearce, J, May 2007, Embryotech, Wilmington USA)

2. coopersurgical.com

Why choose RFID?

Simply put, RFID technology confers seamless continual monitoring with no interruptions.

It is a proactive system. Double witnessing, reactive systems and hand-held devices all require your embryologists to remember to stop and check. If a single error occurs then the whole process has been compromised - the chain of custody is broken.

Only proactive, continual monitoring will detect all instances, where two, unrelated samples are brought into the work area at the same time, in order to prevent mismatches from happening.

Ask your account manager for our comparison booklet.

RFID

- Unrelated samples cannot sit together
- Samples are automatically scanned in the work area
- No need to remember to check
- Uninterrupted working

Vs

Barcode

- Nothing to prevent unrelated samples from sitting together
- Samples must be manually presented to a scanner beside the work area
- Responsibility of the embryologist to check
- Work is interrupted



How PGT cycles are managed in RI Witness

Each year, an increasing number of preimplantation genetic testing (PGT) cycles are performed all over the world, which places a greater and more complex burden on the laboratory workload. Therefore, the accommodation of these additional steps in laboratory security protocols is imperative.

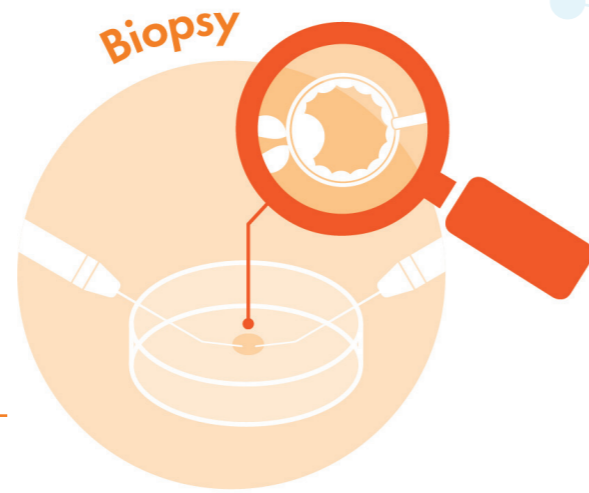
With RI Witness, whether biopsying for preimplantation genetic testing (PGT) is carried out, and/or cryopreservation and transfer - your patients are always safeguarded from misidentification.

Every One Is Unique

By generating a unique identity, every embryo is visible throughout cryopreservation and transfer, tracked separately yet alongside any others from the same patients.

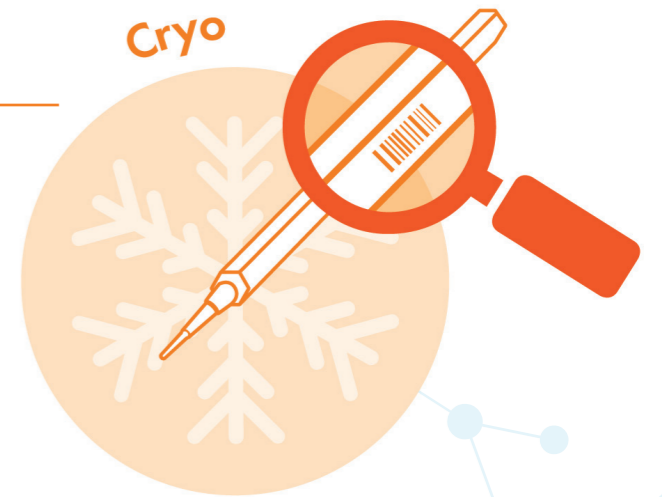
Tracking throughout sampling, testing and results

Biopsy samples for PGT are associated with its cryopreserved embryo throughout. The RI Witness system labels and tracks samples prior to scanning for aneuploidy, triploidy and other abnormalities - including inherited disease. Once the results are analyzed, RI Witness records which individual embryos are approved for transfer (or ongoing storage), highlighting at the workstation those that are not approved.



Thawing and transfer

When an embryo is selected for thawing, RI Witness will validate it by checking its approval flag, if biopsied. If an embryo is not approved for transfer, an alert is raised. This reinforces the checks undertaken by your lab staff, reducing the potential for misidentification by misreading notes and labels, avoiding tragic consequences for your patients and staff.



Items

Embryo Cryo Carrier [5]
12345



Mrs Anne Fields

Approved for transfer (5)

Embryo Cryo Carrier [6]
12345



Mrs Anne Fields

Not approved for transfer (6)

Embryo Cryo Carrier [2]
12345



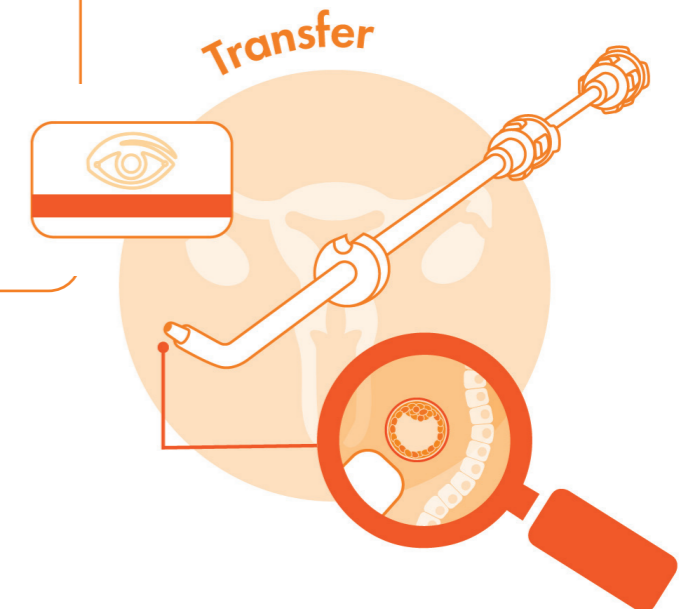
Mrs Anne Fields

Not reviewed (2)

⬆ A barcode label with a unique ID attached to each cryopreservation carrier links every single embryo back to its unique patient ID.

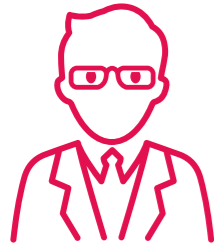
Trusting the transfer process

In the transfer room, the RI Witness system reassures your patient - the patient display screen shows their embryo pre-transfer, identified by and checked as matching with their patient ID or fingerprint.



At Reproductive Partners Medical Group (RPMG) in Redondo Beach, CA, USA, 800 cycles per year are supervised by RI Witness. When embryos are biopsied, they are given an individual number prior to cryopreservation and RI Witness uniquely identifies that embryo via a unique barcode. 80% of RPMG's cycles include biopsy with cryopreservation of embryos. Once test results return from the genetics lab, they can identify the embryo prior to warming and transfer with confidence and without the stress and anxiety seen in clinics who do not have RI Witness.

Testimonials

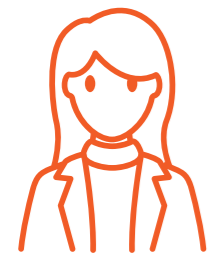


“

Since we started using RI witness, I can say without any doubt that it is one of the best investments we have made in the clinic. In the world of automation this is a perfect solution for creating digital signatures and running analytics reports.

”

**Dr Keshav Malhotra, Laboratory Director,
Rainbow IVF, India¹**



“

RI Witness has improved efficiency by streamlining our working practice – laboratory procedures are performed at the optimum time with a real-time witness. The ease of operation is great, and the system has proved to be a versatile audit tool.

”

**Sophie Jewitt, Laboratory Manager,
Gateshead Fertility Unit, England²**



“

The confidence of independent electronic witnessing provides all team members peace of mind. Additionally, the overview board is a quick view of what has been completed and what needs to be done.

”

**Carli Chapman, Laboratory Director,
Reproductive Medicine Institute (RMI), USA³**

Optimizing your Workflow: Reporting & Analytics



Analyse your workflow

RI Witness goes beyond electronic witnessing. It's about optimizing your practices.

Dynamic laboratory management

Our analytics data allows you to make informed decisions about best practice. By identifying where bottlenecks occur, you can determine staff training requirements, any equipment needs or laboratory reconfiguration and upgrades. You can use the reporting features to drill down into detail or stand back for a broader overview of your lab. For multi-site clinics, or clinics with multiple laboratories, having this information helps you standardize your protocols, and supports continual professional training as your clinic expands. Once your core Witness Point Diagram is established, keep it aligned with your lab SOP updates, using our straightforward user interface.

Remove administration redundancy

Stay on top of your regulatory requirements by making by simplifying audits. Real-time patient cycle data is entered directly into patient records using touchscreens installed at every workstation. Record which products are used for each cycle type for easy organization of your consumables batch data. Records can then be sorted, filtered, and cross-referenced with patient IDs.

Keep everyone informed

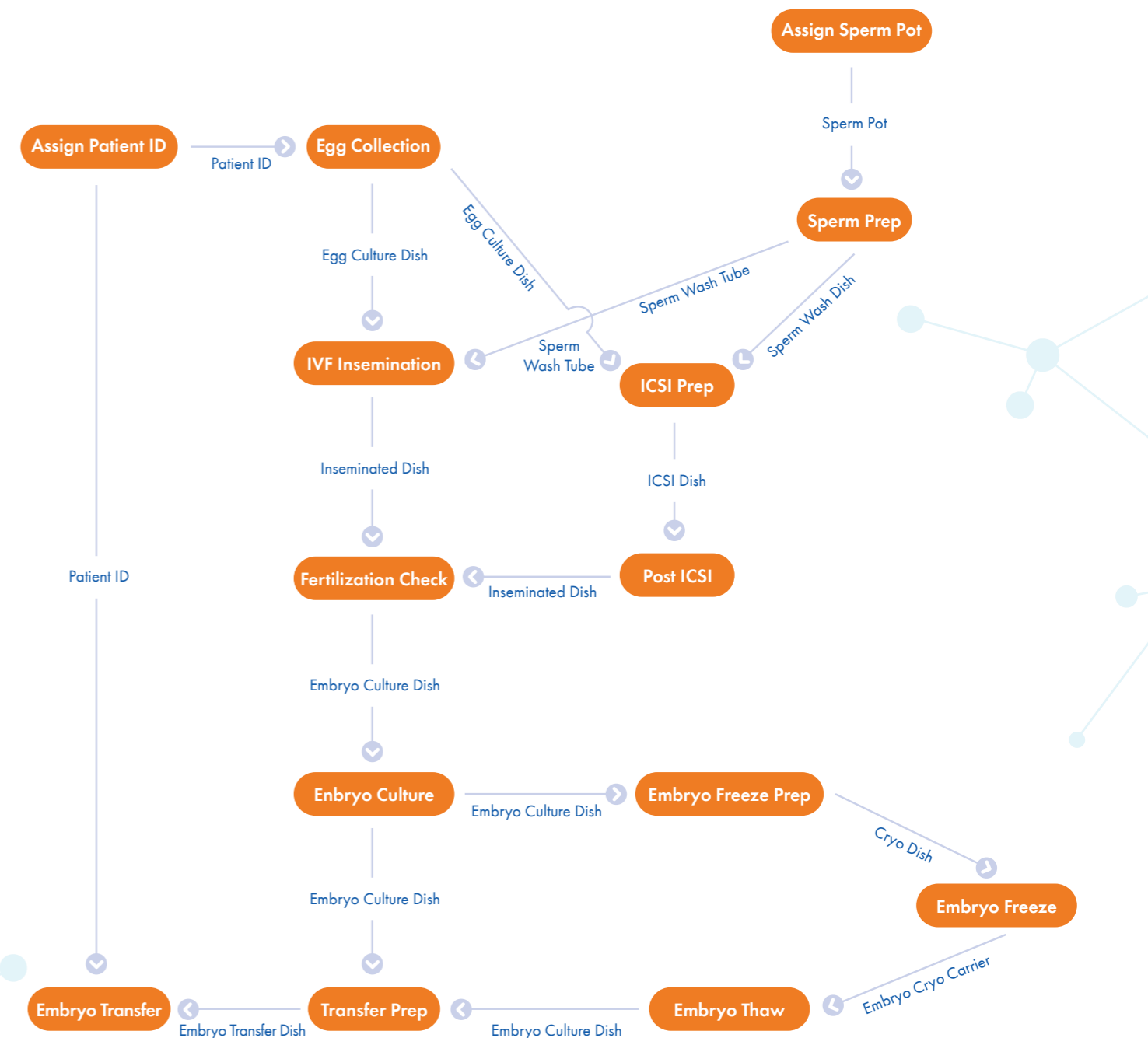
The RI Witness Cycle Overview Display in the laboratory shows your team's progress at a glance – with each cycle's current status and the last procedure undertaken updated in real time. The screen helps your embryologists to control and prioritize their own workflow. When everyone is literally on the same (screen) page, your team will stay on track.

Patient ID	Patient Name	Cycle Type	Collection Date	Current Day	Last Witness Point
12302	Miss Kerrie OTHER	FET	23/06/2020	D0	
12189	Mrs Paige ILLUSTRATION Rev Billy ILLUSTRATION	ICSI / IVF	23/06/2020	D0	
13510	Mrs Shelley PATTERN Mr Nick PATTERN	ICSI	22/06/2020	D1	Post ICSI Waiting for Test Check
13472	Mrs Rachel INDICATION Dr Trevor INDICATION	ICSI / IVF	22/06/2020	D1	Post ICSI Waiting for Test Check
14685	Mrs Kristen PROOF Mr Gavin PROOF	ICSI / IVF	22/06/2020	D1	Post ICSI Waiting for Test Check
13886	Ms Naomi EVALUATION Mr Robin EVALUATION	ICSI / IVF	22/06/2020	D1	Post ICSI Waiting for Test Check
14795	Mrs Lina CRITERION Mr Mohammed CRITERION	ICSI	21/06/2020	D2	Fertilization Check Test Check complete
14489	Dame Jodie TRIAL Mr Donald TRIAL	ICSI / IVF	20/06/2020	D3	Embryo Culture Waiting for Embryo Transfer
12648	Ms Lynne RANDOM Sir Neil RANDOM	IVF	20/06/2020	D3	Embryo Culture Waiting for Embryo Transfer
13424	Miss Tracey EXAMPLE	IVF	20/06/2020	D3	Embryo Culture Waiting for Embryo Transfer
14835	Mrs Carol FAKE Hon Fred FAKE				

Your Witness Point Diagram

Mirroring your existing SOPs the Witness Point Diagram (WPD), created by your clinic's laboratory management and our installation specialist, provides you with a comprehensive workflow overview. Each critical step carried out during every type of patient cycle is identified and captured in the WPD. Once tested and in place, the WPD allows the RI Witness system to record automatically real-time 'who, what, where, when and how long' data across all laboratory activity.

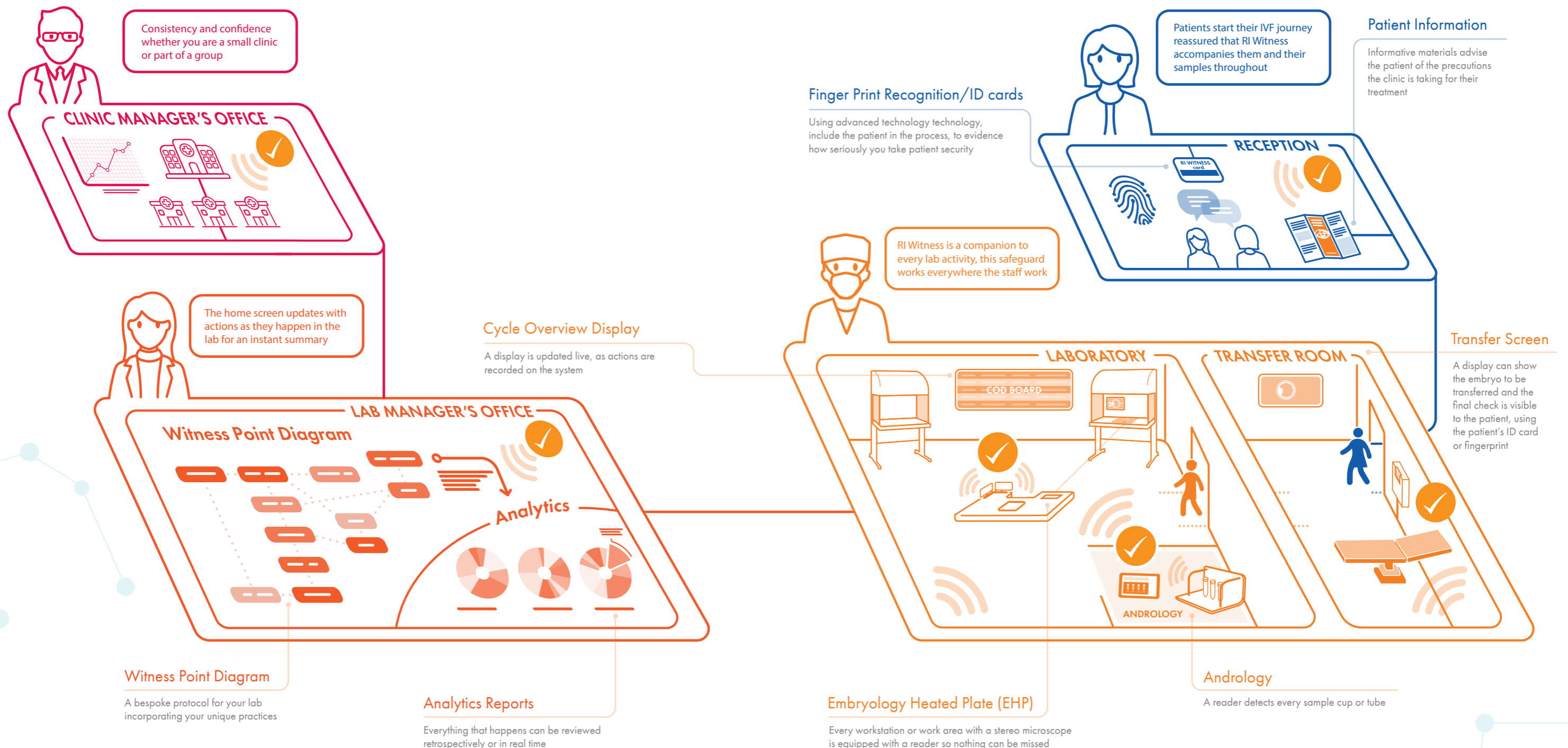
The WPD is flexible and future proof as you will be trained to be able to amend and evolve your protocols ongoing. Different types of cycles can be accommodated.



RI Witness Integration

Constantly communicating with your patient management system, RI Witness, either visibly or invisibly, will have an impact at every level. Developed in response to industry voices, there are many features to choose from so you can select as many or as few as you require, leaving the option to expand at a later date. Each installation is tailored to your laboratory, and our installation team will manage your installation from start to finish.

RI Witness brings comfort to patients by constantly observing gametes/embryos at every process step of the IVF cycle, facilitating localization, and identification of all samples.



Return on investment with RI Witness

The value of RI Witness impacts many aspects of the clinic. RI Witness makes sense for your patients, your staff and is a financially-rational investment.

The cost of manual witnessing



RI Witness makes sound commercial sense. In the context of ART, the time spent by one embryologist leaving their cycle to complete the witnessing requirement for another cycle is a loss. RI Witness gives back much of that time cost by removing this witnessing step.^{1,2}

Thanks to implementing RI Witness, Nurture Fertility managed to simplify their workflow, relieving staff from supporting colleagues on numerous witnessing steps on a daily basis.

This has resulted in an increased efficiency, taking the clinic from 129 to 153 cycles per full time employee, within 2 years after implementing RI Witness.

Active Audits

In many countries, it is a regulatory requirement to track and document the consumables including batch number, used throughout every single ART cycle, a requirement which clinics are able to handle efficiently using the Traceability functionality in RI Witness.

The Anatolia clinic in Ankara, Turkey, documents the usage of 40 different types of consumables, linking them to every cycle by simply scanning consumable batches at receipt, when opened and when closed. This frees up hours of manpower on a monthly basis, avoids transcription errors plus facilitates accurate auditing.



Checks and measures, costs and benefits

On the other side of the balance sheet, having RI Witness can help you attract more patients and expert staff. Experienced staff are attracted to clinics that continually invest in technology. Potential patients aware of the possibility of a mismatch are reassured when they see the clinic is safeguarded by RI Witness and read our informative leaflet. We can also provide promotional materials you can customize to make your clinic stand out.

Provable error prevention rates

Since introducing RI Witness in 2011, The Brussels University Hospital has benefitted from a vast amount of data captured on lab performance.

Statistics show that RI Witness since installation has warned the lab staff on hundreds of instances, where samples from the previous cycle were left in the work area – and in 2019, when the lab ran 7,500 cycles, seven potential mismatches were avoided thanks to RI Witness.³



Stress reduction in these stressful times

Depression and anxiety disorders cost the global economy US\$1 trillion each year in lost productivity.⁴ Reducing work-related risk factors is the WHO's key recommendation for protecting your staff's mental wellbeing. Because they do not have to remember to stop and check for mismatches, RI Witness reduces your staff's worries about making mistakes. Users such as Laura Rienzi of Genera Clinic, Rome reported "a reduction of staff workload and distractions, thus increasing operator satisfaction."⁵ Peace of mind for your staff benefits them, your lab's efficiency and your bottom line.



RI Witness: Confidence, Efficiency and Trust

1. Patel B, Schnauffer K, Gregoire, Kingsland CR, Troup S, (2013). An investigation into the efficiency of RFID electronic witnessing compared to manual witnessing
2. Cooke, S. Low-risk laboratory management. In: Organization and Management of IVF Units: A Practical Guide for the Clinician. Eds: SD Fleming & AC Varghese. New York. Springer. 2016; Chapter 7: pp115-152.3. World Health Organization: https://www.who.int/mental_health/in_the_workplace/en/

3. Universitair Ziekenhuis Brussels. (2020). IVF Witness in 2019, Internal Universitair Ziekenhuis Brussels presentation: Unpublished.
4. Mental health in the workplace. (2017). World Health Organization. [online] Available at: https://www.who.int/mental_health/in_the_workplace/en/.
5. Sanges F, Maggiulli R, Albricci L, Romano S, Scarica C, Schimberni M, Giallonardo A, Vattraino G, Ubaldi F, Rienzi L, (2013). Implementing an electronic witnessing system into a busy IVF clinic- one clinic's experience.

Safety in the face of social distancing

One person, one workstation

By removing the need for manual double-checking, RI Witness will help you implement social distancing. No-one needs to be called over to another station. Social distancing protects your staff and RI Witness protects your compliance. If you are stretching lab time through shift-working, that time is used efficiently – the opportunity cost is minimized.



RI Witness allows reduced, or distanced staff to work independently whilst ensuring all witnessing requirements are met. Reduced embryologists required for witnessing means that smaller teams can work together. This allows theatre and procedure lists to be prolonged, shifts to be staggered and workload can be increased.

The RI Witness RFID technology within the workstation means login can be contactless and minimal touching of surfaces or hardware is required. Hardware is easily cleanable between uses, assisting in the protection of staff. Witnessing and traceability reports are available to view at remote work areas meaning staff are safe and patients can be reassured regarding the full witnessing of procedures.



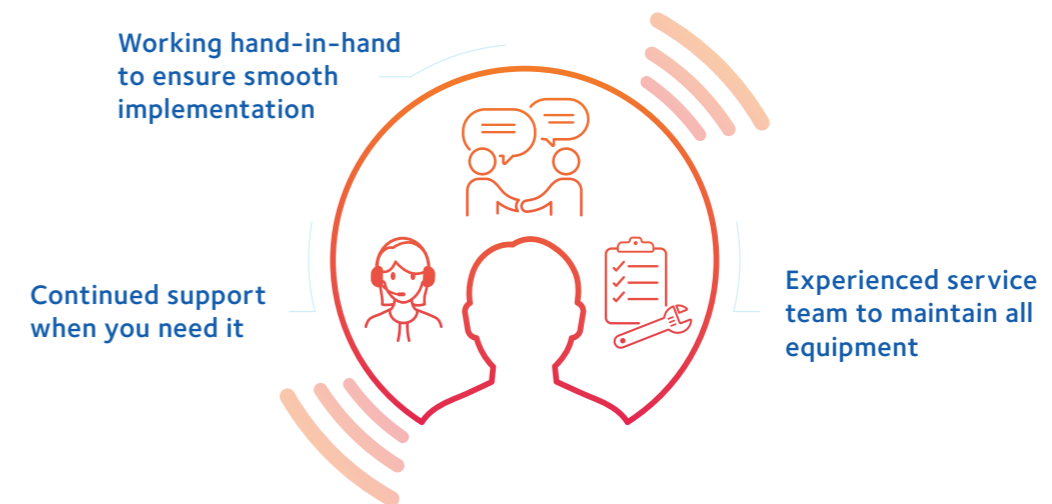
Louise Best,
Group Embryology Support and Improvement Lead, CARE Fertility, UK¹

1. Louise Best, Group Embryology Support and Improvement Lead, CARE Fertility, UK, July 2020



Implementation and Support

The logistics and practicalities of implementing a new system of any kind, can be extremely daunting for a busy IVF Clinic. However, our team of specialist installers will do everything possible to ensure a smooth transition.



They will work with you to communicate with clinic database providers to facilitate integration of data, if feasible.

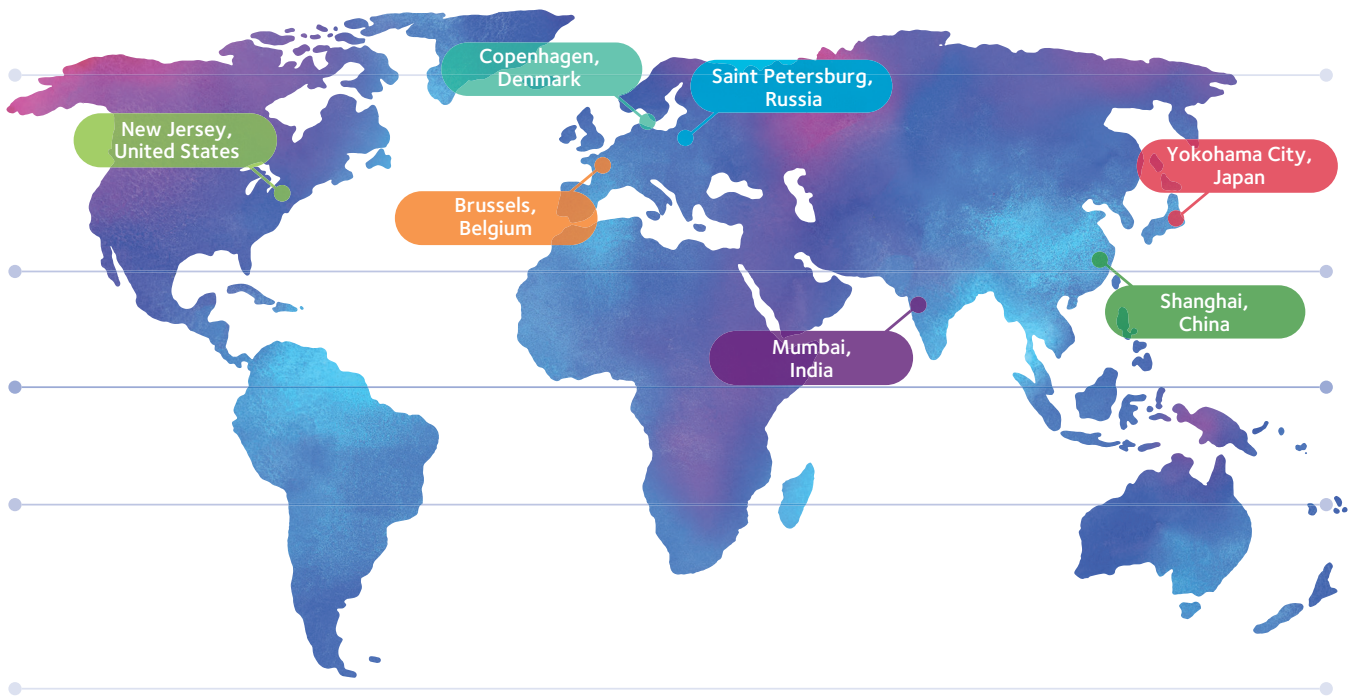
Our installation team will support and guide the Senior Embryologists during the configuration of the workflow ensuring it is precisely how you want it. RI Witness requires very little change in daily tasks, which means that most normal users will see little difference in how they work. However, the team will ensure users understand the principles of the system and are trained to confidently use it.



Train with CooperSurgical and optimize your performance, learn new skills and network with international peers

We invite customers and partners to learn new techniques and share best practices in our fully equipped laboratories.

We provide evidence-based training by skilled, experienced embryologists which includes demonstrations and hands-on training in a comprehensive range of ART techniques and procedures.



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