

2017 | **SPERM QUALITY ANALYSIS**
MES | CATALOGUE



CONTENTS

Page	Section
4-7	Sperm quality analyzers
8-9	Digital systems for sperm analysis
15-19	Additional information

SQA-Vision
Sperm quality analyzer



SQA-V™
Sperm quality analyzer



QwikCheck™ Gold
Sperm quality analyzer



SQA IIC-P
Sperm quality analyzer



Vision Sperm® Basic
System for microscopy examination of semen



Vision Sperm® Integro
System for sperm quality analysis
and microscopy examination of semen



SQA-Vision

Sperm Quality Analyzer



- Automatic results in 75 seconds
- 24" HD touch screen interface: convenient test control and sperm microscopy in HD-quality
- High resolution digital CCD (1280x1024 pixels) captures a high numbers of frames per second for "live" and "frozen" images
- WHO 5th edition testing criteria (option to select WHO 3rd or 4th versions)
- Automatically reads fresh, post vasectomy, washed, swim-up, density gradient and frozen semen samples as well as longevity and vitality testing
- Captures both static and dynamic images for sperm counting, debris scanning, vitality and differential morphology assessment
- High resolution visualization system
- Record video clips and capture images
- Zoom for smooth magnification transition from x1188 to x1725
- Barcode scanner
- Built in LIS interface
- Automatic backup and restore
- Integrated maintenance checklists and alerts
- Disposable testing capillary is biologically safe and can be conveniently used in virtually any testing environment
- Recommended for IVF clinic
- QC: Self-testing, self-calibrating

Parameters tested (WHO 5th edition)

- Total sperm concentration (TSC)
- Motility (PR+NP)
- Progressive motility (PR)
- Non-progressive motility (NP)
- Immotility (IM)
- Calculated normal morphology
- Motile sperm concentration (MSC)
- Progressively motile sperm concentration (PMSC)
- Functional sperm concentration (FSC)
- Sperm motility index (SMI)
- Average velocity
- Total sperm
- Total motile sperm
- Total progressive motile sperm
- Total functional motile sperm
- Total morphologically normal sperm
- Postvasectomy: Motile, Immotile, Total sperm

Ordering Information

Description	Code
SQA-Vision sperm quality analyzer	4050
Marketing products	
SQA-Vision Virtual effective presentation of SQA-Vision	4060
Accessories and disposables	
Capillaries for SQA-Vision. Pack of 50	4021
Cleaning kit for SQA-Vision	0115
Pre-stained slides. Pack of 50	80.4900.01
Standard cover slips. Pack of 50	4602
Standard slides. Pack of 50	4601
Fixed cover slip slides (for vitality and morphology testing). Pack of 24	01082
QwikCheck™ Beads control material (3x5 ml)	0200
QwikCheck™ Test-Strips. Pack of 100	0700
QwikCheck™ Dilution Kit. Sperm diluting reagent (50 ml)	0800
QwikCheck™ Liquefaction Kit. Kit for sperm liquefaction (20 packs x 0.5 mg)	0900
QwikCheck™ Vitality kit	01057
SQA-Vision validation kit	00691



SQA-V™

Sperm Quality Analyzer



- Automatic results in 75 seconds
- WHO 4th or WHO 5th semen parameters are reported in addition to derived and total/ ejaculate parameters — all these SQA-V reported parameters result in a comprehensive semen analysis assessment
- Automatically reads fresh, frozen, washed and post-vasectomy samples
- On-screen visualization of the semen sample on the video screen of the SQA-V or on a PC display (with counting grid and image freezing) using a standard laboratory slide or a SQA-V capillary
- Variable optical magnification from x300 to x500
- Video clips can be recorded using V-Sperm III software
- A complete semen analysis report can be automatically printed out
- “High Sensitivity” test mode
- Disposable testing capillary is biologically safe and can be conveniently used in virtually any testing environment
- PC-compatible
- Patient test results, images and clips can be downloaded to a PC using V-Sperm III software
- QC: Self-testing, self-calibrating

Parameters tested (WHO 5th edition)

- Total sperm concentration (TSC)
- Motility (PR+NP)
- Progressive motility (PR)
- Non-progressive motility (NP)
- Immotility (IM)
- Calculated normal morphology
- Motile sperm concentration (MSC)
- Progressively motile sperm concentration (PMSC)
- Functional sperm concentration (FSC)
- Sperm motility index (SMI)
- Average velocity
- Total sperm
- Total motile sperm
- Total progressive motile sperm
- Total functional motile sperm
- Total morphologically normal sperm
- Postvasectomy: Motile, Immotile, Total sperm

Ordering Information

Description	Code
SQA-V™ sperm quality analyzer (WHO 4 th)	4039
SQA-V™ sperm quality analyzer (WHO 5 th)	00740

Accessories and disposables

Capillaries for SQA-V™ . Pack of 50	4021
Cleaning kit for SQA-V™	0115
Printer paper. Pack of 10 rolls.	0314
Printer ribbon. Pack of 10	0312
Pre-stained slides. Pack of 50	80.4900.01
Standard cover slips. Pack of 100	4602
Standard slides. Pack of 50	4601
QwikCheck™ Beads control material (3x5 ml)	0200
QwikCheck™ Test-Strips. Pack of 100	0700
QwikCheck™ Dilution Kit. Sperm diluting reagent (50 ml)	0800
QwikCheck™ Liquefaction Kit. Kit for sperm liquefaction (20 packs x 0.5 mg)	0900
SQA-V™ validation kit	00691



QwikCheck™ Gold

Sperm Quality Analyzer



- Fast, simple and accurate semen testing in less than two minutes
- WHO 4th or WHO 5th semen parameters are reported in addition to derived and total/ejaculate parameters — all these QwikCheck™ Gold reported parameters result in a comprehensive semen analysis assessment
- Automatically reads fresh, frozen and washed samples
- A complete semen analysis report can be automatically printed out on a external label maker
- “High Sensitivity” test mode
- Disposable testing capillary is biologically safe and can be conveniently used in virtually any testing environment
- QC: Self-testing, self-calibrating
- Connection to PC by software Vision SQA

Parameters tested (WHO 5th edition)

- Total sperm concentration (TSC)
- Motility (PR+NP)
- Progressive motility (PR)
- Non-progressive motility (NP)
- Immotility (IM)
- Calculated normal morphology
- Motile sperm concentration (MSC)
- Progressively motile sperm concentration (PMSC)
- Functional sperm concentration (FSC)
- Average velocity
- Total sperm
- Total motile sperm
- Total progressive motile sperm
- Total functional motile sperm
- Total morphologically normal sperm

Ordering Information

Description	Code
QwikCheck™ Gold sperm quality analyzer (WHO 4 th)	00455
QwikCheck™ Gold sperm quality analyzer (WHO 5 th)	00766
Software	
Vision SQA® software	20.0020.01
Accessories and disposables	
Capillaries for QwikCheck™ Gold. Pack of 50	4021
Cleaning kit for QwikCheck™ Gold	0115
QwikCheck™ Beads control material (3x5 ml)	0200
QwikCheck™ Test-Strips. Pack of 100	0700
QwikCheck™ Dilution Kit. Sperm diluting reagent (50 ml)	0800
QwikCheck™ Liquefaction Kit. Kit for sperm liquefaction (20 packs x 0.5 mg)	0900
External label printer for QwikCheck™ Gold analyzer	PRN
Paper for external label printer (1 roll)	PAP
QwikCheck™ validation kit	00691



SQA IIC-P

Sperm Quality Analyzer



- Automatic assessment of semen parameters (WHO 3th edition)
- Useful as a quick, reliable, qualitative fertility screening device
- Samples are analyzed, calculated and reported in 45 seconds
- Integrated self-testing and self-calibrating features
- Built-in printer provides a paper copy semen analysis report
- Application: small and medium-sized clinics, labs and physicians

Parameters tested

- Total sperm concentration (TSC)
- Progressive motility (PR)
- Normal morphology (MORPH. NORM. FORMS)
- Motile sperm concentration (MSC)
- Functional sperm concentration (FSC)
- Sperm motility index (SMI)
- Total sperm (SPERM #)
- Total motile sperm (MOT. SPERM)
- Total functional sperm

Ordering Information

Description	Code
SQA IIC-P sperm quality analyzer	0303
Accessories and disposables	
Capillaries for SQA IIC-P. Pack of 50	0112
Cleaning kit for SQA IIC-P	0113
Printer paper. Pack of 10 rolls	0314
Printer ribbon. Pack of 10	0312
QwikCheck™ Test-Strips. Pack of 100	0700
QwikCheck™ Liquefaction Kit. Kit for sperm liquefaction (20 packs x 0.5 mg)	0900



Vision Sperm® Basic

Systems for microscopy examination of semen



- Sperm microscopy and capture of a superior quality digital sample
- Preset algorithm of sperm analysis by WHO
- Analysis, measurement and classification of semen samples microscopy images
- Convenient organization and professional tools
- Creating reports according to the modern requirements
- Marks and comments
- Remote access to share data with colleagues
- Improved quality of work
- Ergonomically correct workstation

Ordering Information

Description	Code
Vision Sperm® Basic / Primary set Consist of: MX 300 (T) microscope, Vision CAM® V1200S (C) digital camera, Vision Sperm® Basic software <i>Use your personal computer*</i>	60.0009.01
Vision Sperm® Basic / Initial set Consist of: Vision CAM® V1200S (C) digital camera, Vision Sperm® Basic software <i>Use your personal computer* and microscope**</i>	60.0009.02

Vision Sperm® Integro

Systems for sperm quality analysis and microscopy examination of semen



- Automatic sperm quality analysis and sperm microscopy in one system
- Results are automatically transferred from the analyzer to your PC and integrated in a report (for QwikCheck™ Gold)
- Sperm microscopy and capture of a superior quality digital sample
- Analysis, measurement and classification of semen samples microscopy images
- Customized report can be printed out and/or saved on your PC
- Managing database
- Marks and comments
- Remote access to share data with colleagues
- Improved quality of work
- Ergonomically correct workstation

Ordering Information

Description	Code
Vision Sperm® Integro / Primary set Consists of: Vision Sperm® Basic (MX 300 (T) microscope, Vision CAM® V1200S (C) digital camera, Vision Sperm® Basic software), QwikCheck Gold Sperm quality analyzer <i>Use your personal computer*</i>	60.0309.01
Vision Sperm® Integro / Initial set Consists of: Vision Sperm® Basic (Vision CAM® V1200S (C) digital camera, Vision Sperm® Basic software), QwikCheck Gold Sperm quality analyzer <i>Use your personal computer* and microscope**</i>	60.0309.02

Comparison of sperm quality analyzers

SQA-Vision, SQA-V™, QwikCheck™ Gold, SQA IIC-P and Vision Sperm® Integro


Features	SQA-Vision	SQA-V™	Vision Sperm® Integro	QwikCheck™ Gold	SQA IIC-P
5 th Edition of WHO Parameters*	•	•	•	•	
4 th Edition of WHO Parameters*	•	•	•	•	
3 rd Edition of WHO Parameters	•	•	•	•	•
Total Sperm Concentration (TSC)	•	•	•	•	•
Motility (PR+NP)	•	•	•	•	
Progressive Motility (PR)	•	•	•	•	•
Non-progressive Motility (NP)	•	•	•	•	
Immotility (IM)	•	•	•	•	
Calculated Normal Morphology	•	•	•	•	•
Progressive Motile Sperm Concentration (PMSC)	•	•	•	•	
Functional Sperm Concentration (FSC)	•	•	•	•	•
Sperm Motility Index (SMI)	•	•			•
Average Velocity	•	•	•	•	
Total Sperm	•	•	•	•	•
Total Motile Sperm	•	•	•	•	•
Total Progressive Motile Sperm	•	•	•	•	
Total Functional Sperm	•	•	•	•	•
Auto-calibration/self-test	•	•	•	•	•
Built-in printer	•	•			•
Video microscope Visualization	•	•	•		
Touch-screen interface	•				
Option to print visual images in test report	•	•	•		
Patient archive	•	•	•		
All-in-one computer with SQA-Vision software	•				
PC compatibility with V-Sperm III software		•			
PC compatibility with Vision SQA® and Vision Sperm® software			•	•	
Manual data entry in the PC	•	•			•
PC compatibility with Excel	•	•	•	•	
Fresh semen sample	•	•	•	•	•
Option to select specimen type: frozen, washed	•	•	•	•	
Option to select specimen type post-vasectomy	•	•			
Swim-up, density gradient semen samples	•				
Longevity and vitality testing	•				

* **Note:** Please, indicate which type of analyzer is required when placing your order. As default analyzer with WHO 5th edition parameters will be delivered.

QwikCheck™

Control Material and accessories for SQA-Vision, SQA-V™ and QwikCheck™ Gold

CE certified QC, test and treatment kits can be used to liquefy and dilute semen samples, test for pH and leucocytes and provide a known target value for sperm concentration against which laboratories can test the calibration, the proficiency of manual sperm counting procedures and the calibration of sperm counting chambers.

QwikCheck™ Beads



Quality control latex beads for testing sperm concentration. For use on both manual and automated systems:

- SQA-Vision, SQA-V™ and QwikCheck™ Gold
- Neubauer hemacytometers
- Makler counting chambers
- Fixed cover slip chambers (like MicroCell)

Each kit contains:

- 3 Levels of QC material: High, Low and Negative
- 5 ml of each level of QC material
- Instructions for use on all types of chambers and automated systems

QwikCheck™ Liquefaction



Used to liquefy viscous semen samples.

Each QwikCheck™ Liquefaction kit contains:

- 20 single dose, 5 mg vials of lyophilized α -Chymotrypsin
- Instructions for use

QwikCheck™ Dilution



Used to dilute semen samples without impacting motility.

Each QwikCheck™ Dilution kit contains:

- 50 ml of sterile Earl's Balanced Salt solution
- Instructions for use

QwikCheck™ Test Strips



Semen WBC and pH reagent test strips.

Each QwikCheck™ Test Strip kit contains:

- 100 test strips
- Product insert

V-Chromer® Mini I

Additional Equipment



- Manual stainer with 4 staining containers
- Use reagents of various manufacturers
- Autoclavable
- Resistant to chemical substances and stains
- Only 80 ml of reagent is used per container
- Reagents are protected from evaporation due to caps on containers and sample holders

Vision Sperm[®] Integro

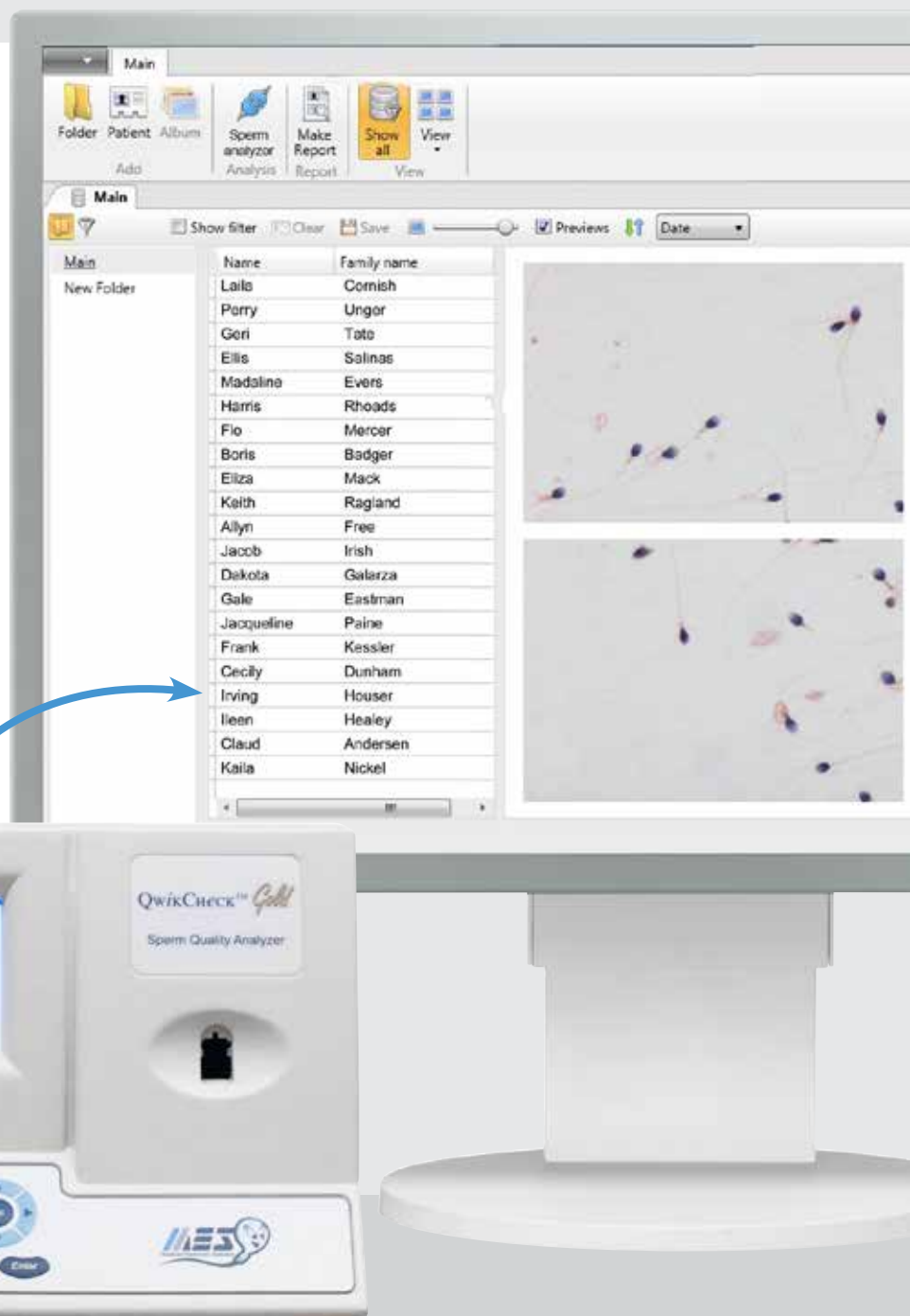
Automatic sperm quality analysis
and sperm microscopy in one system

An integrated system for conducting sperm quality analysis, managing
microscopy samples, patient data and analysis results

Sperm quality analysis

Use automatic sperm quality analyzer
for analysis.

- Fast, simple and accurate semen testing
in less than two minutes
- WHO 4th or WHO 5th semen
parameters are reported in addition
to derived and total/ejaculate parameters
- Automatically reads fresh, frozen
and washed samples
- Transfer received results into PC
and integrate it in the sperm analysis
report



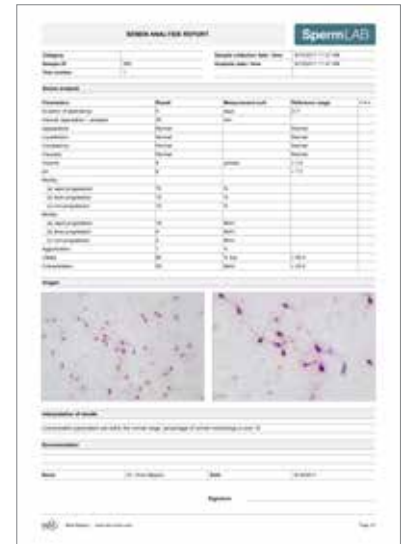
Sperm microscopy

Microscopy is a best way to evaluate sperm morphology.

- Capture of a superior quality digital sample
- Analysis, measurement and classification of semen samples microscopy images
- Sperm images are added to analysis results and form a final picture of the analysis



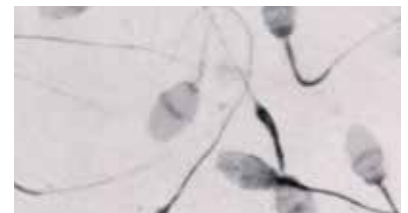
Report



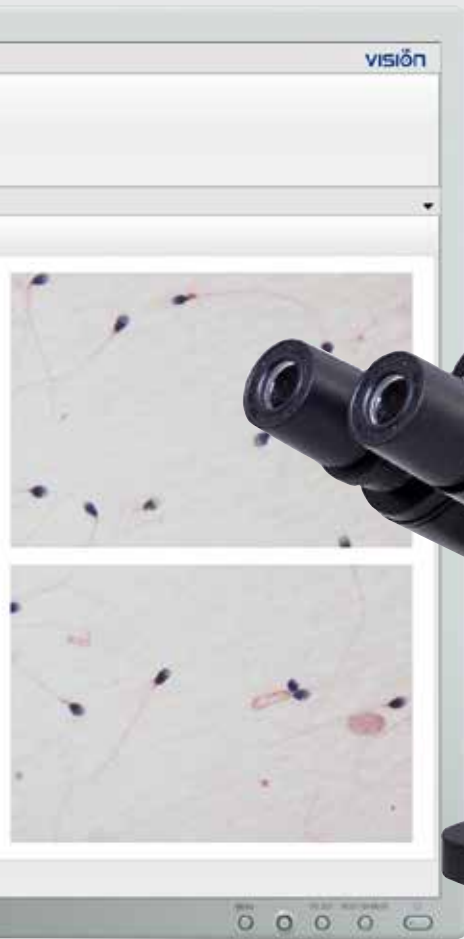
Parameter	Unit	Measured Value	Reference Range
Sperm Concentration	10 ⁶ /ml	150	150 - 200
Sperm Motility	%	45	40 - 60
Sperm Morphology	%	75	75 - 90
Sperm Viability	%	80	70 - 90
Sperm Count	10 ⁶ /ml	120	120 - 180
Sperm Velocity	µm/s	150	150 - 200
Sperm Tail Length	µm	50	50 - 60
Sperm Head Length	µm	5	5 - 6
Sperm Head Width	µm	3	3 - 4
Sperm Tail Width	µm	1	1 - 2
Sperm Head Area	µm ²	15	15 - 20
Sperm Tail Area	µm ²	1	1 - 2
Sperm Head Perimeter	µm	10	10 - 12
Sperm Tail Perimeter	µm	3	3 - 4
Sperm Head Volume	µm ³	100	100 - 150
Sperm Tail Volume	µm ³	1	1 - 2
Sperm Head Surface Area	µm ²	15	15 - 20
Sperm Tail Surface Area	µm ²	1	1 - 2
Sperm Head Circumference	µm	10	10 - 12
Sperm Tail Circumference	µm	3	3 - 4
Sperm Head Diameter	µm	5	5 - 6
Sperm Tail Diameter	µm	1	1 - 2
Sperm Head Radius	µm	2.5	2.5 - 3
Sperm Tail Radius	µm	0.5	0.5 - 1
Sperm Head Volume	µm ³	100	100 - 150
Sperm Tail Volume	µm ³	1	1 - 2
Sperm Head Surface Area	µm ²	15	15 - 20
Sperm Tail Surface Area	µm ²	1	1 - 2
Sperm Head Circumference	µm	10	10 - 12
Sperm Tail Circumference	µm	3	3 - 4
Sperm Head Diameter	µm	5	5 - 6
Sperm Tail Diameter	µm	1	1 - 2
Sperm Head Radius	µm	2.5	2.5 - 3
Sperm Tail Radius	µm	0.5	0.5 - 1

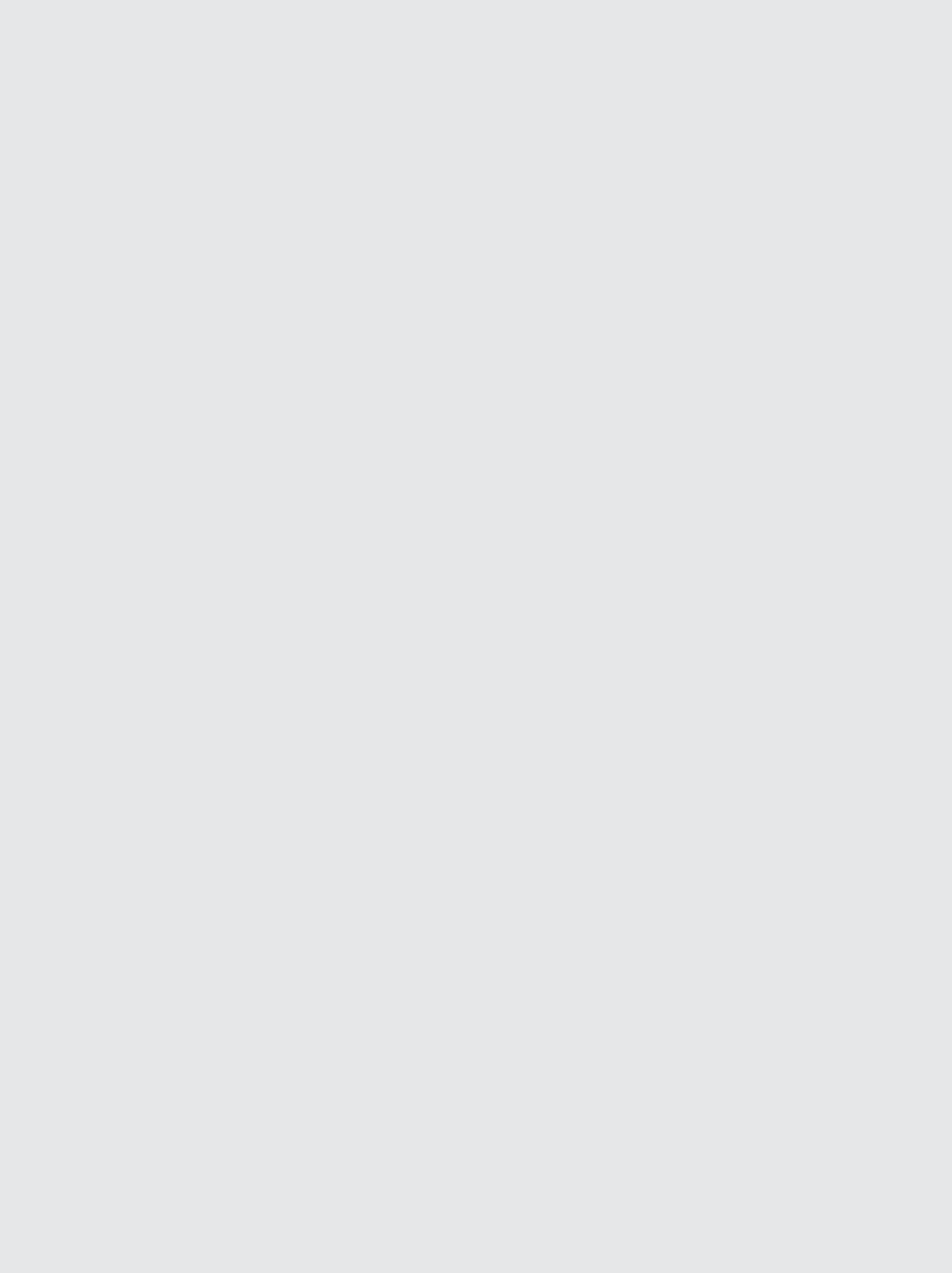
You decide how your report will look like. You can take into account template requirements (form and content).

Atlas

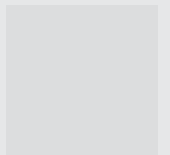


Develop your professional expertise by creating and maintaining an atlas. Add images, sections and text comments for later reference.

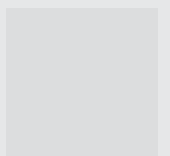




Features of WHO 5th and WHO 4th edition parameters



Where are Sperm Quality Analyzers used?



Features of WHO 5th and WHO 4th edition parameters
For SQA-V™ and QwikCheck™ Gold analyzers

Parameters	WHO 5 th recommendations	WHO 4 th recommendations	Conformity SQA-V™ and QwikCheck™ Gold analyzers to WHO recommendations
Categories of sperm movement	Progressive motility (PR) Non-progressive motility (NP) Immotility (IM)	a: Rapid progressive b: Slow progressive c: Non-progressive d: Immotile	The WHO 5 th software is compliant with WHO 5th (PR, NP and M for motility) The WHO 4 th software “grades” motility by a, b, c, d classifications
Percentage of motility grades	Rounded to the nearest whole number	—	For WHO 5 th labeling motility percentages are rounded to the nearest whole number
Total # of spermatozoa per ejaculate (term — “total sperm number”)	The biological significance, correlation to fertility and recommendation to report this parameter are emphasized (WHO 5 th , 2010)	—	Reported in both versions
Total # of progressively motile spermatozoa per ejaculate	Biological significance of this parameter is emphasized (WHO 5 th , 2010)	—	Reported in both versions
Total # of morphologically normal spermatozoa per ejaculate	Biological significance of this parameter is emphasized (WHO 5 th , 2010)	—	The WHO 5 th versions software reports Total # of morphologically normal spermatozoa per ejaculate
Morphology criteria	Strict (Kruger et al., 1986; Menkveld et al., 1990; Coetzee et al., 1998). All borderline forms should be considered abnormal	Strict (Menkveld et al., 1990). All borderline forms should be considered abnormal (Kruger et al., 1986; Menkveld et al., 1990)	The WHO 4 th criteria is reported in the older software. The new WHO 5 th criteria is used to determine % Normal Sperm in the WHO 5th software.

Features of WHO 5th and WHO 4th edition parameters
For SQA-V™ and QwikCheck™ Gold analyzers

Semen Parameters and Reference Values*			
Parameters	WHO 5 th recommendations	WHO 4 th recommendations	Conformity SQA-V™ and QwikCheck™ Gold analyzers to WHO recommendations
Semen volume (ml)	1.5 (1.4–1.7)	2.0	
Total sperm number (10 ⁶ per ejaculate)	39 (33–46)	40	Software compliant per WHO 4 th or 5 th versions
Sperm concentration (10 ⁶ per ml)	15 (12–16)	20	
Total motility (PR+NP%)	40 (38–42)	—	
Progressive motility (PR, %)	32 (31–34)	50	WHO 5 th reports Prog Motility by combining the WHO 4 th “a” and “b”
Vitality (live spermatozoa, %)	58 (55–63)	75	% Vitality and Total # of membrane-intact spermatozoa per ejaculate are not part of the SQA-V™ or QwikCheck™ software
Sperm morphology (normal forms, %)	4 (3.0–4.0)	15	Different reference thresholds
pH	≥7.2	≥7.2	
Peroxidase-positive leukocytes / White blood cells in WHO 4 th ed. (10 ⁶ per ml)	<1.0	<1.0	QwikCheck™ Test Strips labeling changed in the WHO 5 th version: WBC <1.0 and ≥1.0 M/ml.

*Note: Immunological and biochemical parameters are not included.

Where are Sperm Quality Analyzers used?

- Clinical laboratories
- Sperm analysis laboratories
- Urology Departments
- Andrology Departments
- Gynecology Departments
- Women and Children Care Hospital
- Physician offices: Gynecologists and urologists, etc.
- Offices of private practitioners dealing with fertility problems
- Sperm banks
- Fertility centers / IVF clinics
- Men's contraception centers
- Government agencies of Family Planning System
- Military hospitals

Where are Sperm Quality Analyzers used?

Laboratory

SQA analyzers provide an immediate semen analysis assessment of fresh, frozen, washed or enriched semen. The testing process is very easy and safe and requires very little experience and training. Additionally, because results are available so quickly and the device is so compact, a physician can provide the patient with information about his sperm quality, diagnosis and treatment (if required) promptly and confidentially.

Sperm quality analysis

The SQA analyzes all the common standard WHO approved parameters for basic semen analysis.

Physician follow-up

The SQA is an ideal system for evaluating the effectiveness of treatment (medical or surgical). Convenient to both the patient and the physician, the treatment can begin in the physician's office right away because of the SQA's immediate results. Because the SQA test results are objective, successive ejaculates, collected at different times can be measured and compared to each other.

Objective and standardized test results

Semen parameters measured by the SQA are objective and are standardized between facilities using the SQA. There is no subjectivity caused by operator errors or equipment failures that is common now when a physician receives results from several different laboratories or fertility centers.

Testing sperm quality before insemination

Washed sperm, enriched fractions and thawed sperm can be assessed prior to the insemination process.

Use in Sperm Banks

Donor screening

The quality of donor semen is extremely important and donor's semen is selected for high concentration and motility. Also, the semen motility is tested after thawing (before insemination) to determine post-thaw viability. It is necessary to selectively choose a donor for both genetic traits and semen quality.

For quality control

It is common to test one aliquot of frozen donor sperm after thawing and have the results of these "post thaw" tests available in order to assess the quality of the semen prior to insemination. Research has determined a high correlation between high SQA motility measurements and high quality pre-inseminated semen.

Use in Fertility Centers / IVF clinics

The SQA can measure the impact of sperm enrichment procedures such as washing, swim-up, centrifuging, etc. on the quality of the sperm sample.

Use in Male Contraception Centers

The SQA can measure the impact/efficacy of chemical (chemotherapeutics, radiation treatments) or surgical sterilization procedures such as a vasectomy.



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