

## PREFACE

Dear Friends,

After great summer holidays, Gynemed team is back with the new Gynemedia.

After the new WHO 6<sup>th</sup> edition published in July, we prepared a summary of the new cut-off regarding sperm analysis. You will also see the presentation of our sperm preparation media (gradient, washing media, unique media...).

We also wanted to share with you our international team, always available for you.

Last but not least update, to inform you about the new company who joined our Hamilton Throne Ltd. Group in July: IVFTech is now part of the family!

GYNEMED team.

## GYNEMED SPERM PREPARATION MEDIA



**Gynemed Gradient** is a gradient system for semen preparation; it can be used in combination with IUI, IVF and ICSI. The gradient consists of silane-coated colloidal silica particles suspended in HEPES-buffered medium.

All raw materials are of highest available purity (European Pharmacopoeia and/or USP standard).

Several techniques for preparation of spermatozoa are available. The most commonly used techniques are simple washing, swim up and density gradient (DG) centrifugation. The technique chosen greatly depends on the nature of the semen sample. The simple Washing method is often used for normozoospermic semen samples. It is quick, easy and yields high quantities of spermatozoa. The Direct Swim up is also a quick and easy technique using the unique ability of spermatozoa

to move forward. The procedure is layering the media over the sample, the motile spermatozoa then swim into to medium. Although the final number might not be high, it is compensated by the enrichment of the number with the highest forward progression. If a sample is low of concentration the method of Density Gradient (DG) will be used for IVF and ICSI. It is the optimal selection of good spermatozoa while simultaneously reducing debris, leucocytes, and other cells present in the ejaculate. You need two densities, an upper gradient 40%-45% (v/v) and a lower gradient with 80%-90%(v/v), place the semen on top and centrifuge. The enriched fraction of spermatozoa is retrieved from the loose pellet at the bottom of the tube. While comparing different methods of sperm preparations techniques (Washing, Swim-up and Gradient) gradient has the advantage to have a very high output of motile spermatozoa.

We are offering you three different concentrations. Two ready-to-use solutions (GM501 Gradient 45% and GM501 Gradient 90%) and

a stock solution (GM501 Gradient 100%) which allows you to produce another individual mixing ratio. For each batch you will

find a certificate of analysis on our website with respective lot number and of course the MSDS for our gradients.

### Washing, swim-up and testicular biopsy:

**S**permAir, is our HEPES medium, which allows you to process your samples in ambient air. It is used for the preparation and transport of testicular biopsy, for washing or during the thawing of sperm as well as for swim-ups.

SpermActive, our HEPES and bicarbonate media for preparing your samples for IVF / ICSI. It requires pre-incubation under CO<sub>2</sub>.

Do not forget our unique media, referenced in the WHO manual 6th edition:

- Bromelain for the treatment of hyperviscosity of seminal fluid
- Collagenase for the enzymatic digestion of testicular biopsies



## WHO 6<sup>th</sup> Edition

**T**he long-awaited 6th edition of WHO presented last July has become over the editions the essential reference manual for analyzes, interpretations and standardization of protocols for the examination of seminal fluid. This latest edition contains procedures in line with overall quality management but also updated recommendations for human clinical, andrologists and research.

We want to summarize the innovations and adaptations:

For the spermogram, the determination of the sperm concentration has become more precise. Until now, the emphasis was on the concentration per ml for the interpretation, now the concentration must be considered in millions of spermatozoa per ejaculate, taking

into account the overall volume of the ejaculated sperm with the condition that the volume is correctly determined. A validated dilution table has been included for simplification of enumeration. There is also a separate chapter dealing with oligozoospermia and methods for improving accuracy with low sperm counts. A better evaluation of azoospermia by centrifugation is also considered.

Regarding the determination of the motility, we are "back to the WHO 4th Edition". The rapid moveable sperms will be distinguished to the moveable sperms. Therefore, there will be four mobility categories.

- **a** Rapid progressive (> 25 µm/s)
- **b** Slow progressive (>5- 25< µm/s)

- **c** non progressive (under 5 m/s)
- **d** Immotile

Conclusion will be the 6th and future edition, the focused will be the complete male and female reproduction instead of only sperm investigation. Also the importance of quality control and quality management for establishment of the process in the laboratory.

The republication of the WHO handout leads to adjustments of the standard process and establishments in the laboratories.

Please let us know, if you will need any further information of our products for sperm preparations, diagnostic or consumables. Please note that the CASA systems from Hamilton Thorne, will be adjusted to new WHO standards.

**[Link to WHO 6<sup>th</sup> Edition](#)**

# The International Gynemed Team, always available for your requests



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The Hamilton Thorne Ltd. family has grown with the acquisition of IVFtech this summer, below are the different companies in our family!

**IVFtech**  
for the next generation



**PLANER**



**TEK EVENT**

## LEGAL NOTE

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