Healthcare Library
Current Awareness Bulletin – Fertility
April and May 2015

This monthly Current Awareness Bulletin is produced by the Healthcare Library to provide Salisbury NHS Foundation Trust staff working in Fertility Services with a range of resources to support practice. It includes recently published guidelines and research articles, news and policy items, and details of forthcoming events and conferences.

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Cochrane Systematic Reviews

Updated Reviews – May 2015
Tubal flushing for subfertility

Updated Reviews – April 2015
Barrier agents for adhesion prevention after gynaecological surgery

New Reviews – March 2015
Timed intercourse for couples trying to conceive

Updated Reviews – March 2015
Endometrial injury in women undergoing assisted reproductive techniques

New from Up To Date

UpToDate is accessible by clicking on the blue link here, or via the staff intranet home page (midway down on the right hand side). It can also be accessed via the internet at www.uptodate.com/login with an OpenAthens username and password. To register for an OpenAthens account click here.

A selection of fertility related topics:
Topic areas are updated monthly as new research is published. Please click on the blue link to open up a topic.

Causes of female infertility
Causes of male infertility

Evaluation of female infertility

Evaluation of male infertility

Intracytoplasmic sperm injection

In vitro fertilization

Optimizing natural fertility in couples planning pregnancy

Overview of infertility

Overview of treatment of female infertility

Ovulation induction with clomiphene citrate

Pathogenesis and treatment of infertility in women with endometriosis

Treatment of male infertility

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**Journal Articles**

Please click on the blue link at the end of the abstract (where available) to access full text. You may need an Athens username and password. To register for an Athens account click [here](#). If you have any difficulty accessing the full text articles, or if you would like us to obtain any of the articles for you, please contact the Healthcare Library.

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**Journal Article Abstracts:**

1. **Age-related infertility**

   **Citation:** Obstetrics and Gynecology Clinics of North America, March 2015, vol./is. 42/1(15-25), 0889-8545;1558-0474 (01 Mar 2015)

   **Author(s):** Crawford N.M., Steiner A.Z.

   **Language:** English

   **Abstract:** Oocyte number and quality decrease with advancing age. Thus, fecundity decreases as age increases, with a more rapid decline after the mid-30s. Patients more than 35 years old should receive prompt evaluation for causes of infertility after no more than 6 months of attempted conception. Patients with abnormal tests of ovarian reserve have a poorer prognosis and may need more expedited and aggressive treatment. Although oocyte donation is the best method to overcome age-related infertility, other treatment options may help women proceed quicker toward pregnancy. Patients at an advanced age should be counseled and evaluated before undergoing infertility treatments.

   **Publication type:** Journal: Review

   **Source:** EMBASE

2. **An odyssey through salpingitis isthmica nodosa**

   **Citation:** European Journal of Obstetrics Gynecology and Reproductive Biology, January 2015, vol./is. 184/(73-79), 0301-2115;1872-7654 (01 Jan 2015)

   **Author(s):** Bolaji I.I., Oktaba M., Mohee K., Sze K.Y.S.

   **Language:** English

   **Abstract:** Salpingitis isthmica nodosa (SIN) is a nodular swelling of the isthmic segment of the fallopian tube. It is of unknown aetiology and is usually an acquired pathologic condition resulting from direct invasion of the muscularis layer by the endosalpinx in the isthmic portion of the fallopian tube between the lumen and the serosa. The clinical significance of SIN rests on its strong association with tubal ectopic pregnancy and subfertility. Assisted reproductive technology (ART) has improved the reproductive capability of SIN patients. Unlike ART, which bypasses pelvic pathologies, tubal surgical approaches improve fertility by correcting the pathology and can improve a patient’s related symptoms of pelvic pain and abnormal menstruation, and provide a permanent cure. This paper gives an update on the epidemiology, aetiology, diagnosis and management of SIN and concludes that despite the reported successes with tubal surgery, the mainstay of treatment remains ART in (in the UK) centres recognised by the Human Fertilization and Embryology Authority (HFEA). The success of surgical infertility therapy depends on careful selection of cases using appropriate investigative techniques, with the procedures carried out in centres with sufficient expertise.

   **Publication type:** Journal: Review

   **Source:** EMBASE

3. **An online survey of specialists’ opinion on first line management options for unexplained subfertility**

   **Citation:** Human Fertility, March 2015, vol./is. 18/1(48-53), 1464-7273;1742-8149 (01 Mar 2015)

   **Author(s):** Nandi A., Gudi A., Shah A., Homburg R.

   **Language:** English

   **Abstract:** The recent National Institute for Health and Care Excellence (NICE) guideline on Fertility (2012) suggests that
IVF should be offered to couples with unexplained subfertility after 2 years of expectant management. The evidence on which these recommendations are based is not robust and there is a lack of agreement among specialists regarding the management of unexplained subfertility. We conducted an online survey among fertility specialists to find out the general consensus regarding the management of these couples. An e-mail questionnaire was sent to 420 reproductive medicine clinicians and 136 (32.38%) replied. Only 16% said they would always recommend IVF as the first line management for these couples, irrespective of age and duration of infertility. Of those surveyed, 39% agreed to the new NICE proposal, 33% agreed partly and 25% did not agree at all. A total of 27% of the respondents said they would definitely change their practice according to the NICE proposal but 30% said they would not; 29% said they might change their policy while the rest were unsure. This survey confirms the ongoing clinical uncertainty among fertility specialists in managing couples with unexplained subfertility.

**Publication type:** Journal: Review  
**Source:** EMBASE

### 4. Charting new frontiers in in Vitro fertilization (IVF): The role of bioengineering

**Citation:** Jornal Brasileiro de Reproducao Assistida, 2015, vol./is. 19/1(24-28), 1517-5693;1518-0557 (2015)  
**Author(s):** Carneiro M.M., Lamaita R.M., Barbosa M.P., Silva-Filho A.L.  
**Language:** English  
**Abstract:** Since the beginning of in vitro fertilization (IVF) 36 years ago, scientists have studied and critically analyzed the techniques in order to find ways to improve outcomes. However, success rates vary significantly among clinics due to poor reproducibility and inconsistency across operators. Much research has been conducted on the chemical environment, or culture medium, surrounding the oocyte/embryo, but little attention has been given to the actual equipment and physical culture environment, which has changed very little over the years. The aim of this paper was to evaluate how the physical factors are important regulators of oocyte and embryo function and to improve understanding of the physical forces involved in the processes in human reproduction. A review the available literature was conducted using PubMed from 1966 through July 2014 in an attempt to help integrate mechanics into our understanding of the molecular basis of IVF. Keywords included in vitro fertilization, biomechanics, bioengineering, oocyte and embryo. The mechanical characterization of oocytes and embryos represents an opportunity to detect cellular defects, assess quality and bio-viability of processes such as cryopreservation as well as select the best embryo for transfer. Defining the mechanical forces at play during embryo transfer is also an important step towards improving results in in vitro fertilization. The further analysis of these phenomena needs a detailed monitoring of the mechanical conditions and more extensive studies of events on the cellular and molecular levels.  
**Publication type:** Journal: Review  
**Source:** EMBASE

### 5. Chronic consumption of alcohol and sperm parameters: Our experience and the main evidences

**Citation:** Andrologia, May 2015, vol./is. 47/4(368-379), 0303-4569;1439-0272 (01 May 2015)  
**Author(s):** Condorelli R.A., Calogero A.E., Vicari E., La Vignera S.  
**Language:** English  
**Abstract:** The present article describes the recent clinical experience and the main clinical and experimental evidences on this topic. In the first part, we present retrospective data collected over the last year on the semen quality and hormonal characteristics of the alcohol consumers evaluated in our centre. In the second part, we describe the mechanisms by which chronic alcohol intoxication impairs the testicular function (evidences for an ethanol-mediated effect at pre-testicular/testicular and post-testicular level). In the third part, we present data on ethanol taken a male risk factor of infertility, being present as one among other recreational drugs (also called lifestyle). Finally, is discussed the role of individual susceptibility factors and other variables.  
**Publication type:** Journal: Review  
**Source:** EMBASE

### 6. Comparison of live-birth defects after luteal-phase ovarian stimulation vs. conventional ovarian stimulation for in vitro fertilization and vitrified embryo transfer cycles.

**Citation:** Fertility and sterility, May 2015, vol. 103, no. 5, p. 1194 (May 2015)  
**Author(s):** Chen, Hong, Wang, Yun, Lyu, Qifeng, Ai, Ai, Fu, Yonglun, Tian, Hui, Cai, Renfei, Hong, Qingqing, Chen, Qiuju, Shoham, Zeev, Kuang, Yanping  
**Abstract:** To assess live-birth defects after a luteal-phase ovarian-stimulation regimen (LPS) for in vitro fertilization (IVF) and vitrified embryo transfer (ET) cycles. Retrospective cohort study. Tertiary-care academic medical center. Infants
who were born between January 1, 2013 and May 1, 2014 from IVF with intracytoplasmic sperm injection (ICSI) treatments (n = 2,060) after either LPS (n = 587), the standard gonadotropin-releasing hormone-agonist (GnRH-a) short protocol (n = 1,257), or mild ovarian stimulation (n = 216). The three ovarian-stimulation protocols described and assisted reproductive technology (ART) treatment (IVF or ICSI, and vitrified ET) in ordinary practice. The main measures were: gestational age, birth weight and length, multiple delivery, early neonatal mortality, and birth defects. Associations were assessed using logistic regression by adjusting for confounding factors. The final sample included 2,060 live-born infants, corresponding to 1,622 frozen-thawed (FET) cycles, which led to: 587 live-born infants from LPS (458 FET cycles); 1,257 live-born infants from the short protocol (984 FET cycles); and 216 live-born infants from mild ovarian stimulation (180 FET cycles). Birth characteristics regarding gestational age, birth weight and length, multiple delivery, and early neonatal death were comparable in all groups. The incidence of live-birth defects among the LPS group (1.02%) and the short GnRH-a protocol group (0.64%) was slightly higher than in the mild ovarian-stimulation group (0.46%). However, none of these differences reached statistical significance. For congenital malformations, the risk significantly increased for the infertility-duration factor and multiple births; the adjusted odds ratios were 1.161 (95% confidence interval [CI]: 1.009-1.335) and 3.899 (95% CI: 1.179-12.896), respectively. No associations were found between congenital birth defects and various ovarian-stimulation regimens, maternal age, body mass index, parity, insemination method, or infant gender. To date, the data do not indicate an elevated rate of abnormality at birth after LPS, but further study with larger populations is needed to confirm these results. However, infertility itself poses a risk factor for congenital malformation. A higher likelihood of birth defects in multiple births may lead couples to favor elective, single ET; couples undertaking ART should be made aware of the known increased birth defects associated with a twin birth. Copyright © 2015 American Society for Reproductive Medicine. Published by Elsevier Inc. All rights reserved.

Source: Medline

7. Comparison of the perinatal outcome of twins conceived after assisted reproductive technologies versus those conceived naturally.

Citation: The Journal of reproductive medicine, Jan 2015, vol. 60, no. 1-2, p. 37-42, 0024-7758 (2015 Jan-Feb)

Author(s): Li, Jie, Yang, Jing, Xu, Wang-ming, Cheng, Dan, Zou, Yu-Jie

Abstract: To analyze whether twin pregnancies resulting from assisted reproductive technologies (ARTs) had an increased risk of obstetric complications or adverse neonatal outcomes. The obstetric and neonatal outcomes of 252 cases of twin pregnancies, including 108 cases conceived by ART and 144 cases of natural conception, delivered at our hospital between January 1, 2009, and December 31, 2011, were compared retrospectively. Mean maternal age in the ART group was significantly older than that of the control group (31.04 ± 3.63 vs. 28.81 ± 4.75, t = 2.88, p

Source: Medline

8. Counseling and Diagnostic Evaluation for the Infertile Couple

Citation: Obstetrics and Gynecology Clinics of North America, March 2015, vol./is. 42/1(1-14), 0889-8545;1558-0474 (01 Mar 2015)

Author(s): Marshburn P.B.

Language: English

Abstract: Educating couples about natural means to improve fertility should include a discussion about appropriate timing to initiate a diagnostic evaluation for infertility. Complete infertility testing for both male and female factors allows directed care for all abnormalities to optimize chances for conception.

Publication type: Journal: Review

Source: EMBASE

9. Diagnostic evaluation of the infertile male: A committee opinion

Citation: Fertility and Sterility, March 2015, vol./is. 103/3(e18-e25), 0015-0282;1556-5653 (01 Mar 2015)


Language: English

Abstract: The purpose of this ASRM Practice Committee report is to provide clinicians with principles and strategies for the evaluation of couples with male infertility problems. This revised document replaces the document of the same name, last published in 2012 (Fertil Steril 2012;98:294-301).

Publication type: Journal: Review
10. Duration of luteal support after IVF is important, so why is there no consistency in practice? The results of a dynamic survey of practice in the United Kingdom

Citation: Human Fertility, March 2015, vol./is. 18/1(43-47), 1464-7273;1742-8149 (01 Mar 2015)

Author(s): Russell R., Kingsland C., Alfirevic Z., Gazvani R.

Language: English

Abstract: Luteal support is considered as an essential component of IVF treatment following ovarian stimulation and embryo transfer. Several studies have consistently demonstrated a benefit of luteal support compared with no treatment and whilst a number of preparations are available, no product has been demonstrated as superior. There is an emerging body of evidence which suggests that extension of luteal support beyond biochemical pregnancy does not confer a benefit in terms of successful pregnancy outcome. We performed two surveys separated by 5 years of practice evolution, with the latter reporting on the use of luteal support in all IVF clinics in the UK. All clinics reported utilising luteal support with the majority favouring the use of Cyclogest 400 mg twice daily. In contrast, there was no consensus on the optimal duration of luteal support. Whilst 24% of clinics withdrew luteal support at biochemical confirmation of pregnancy, 40% continued treatment until 12 weeks gestation. Several clinics even extended luteal support beyond 12 weeks gestation. We observed no difference in practice based on the size of the IVF unit or treatment funding source. Although there was some change in practice between surveys in many clinics, there was no uniformity in the direction of change.

Publication type: Journal: Review

Source: EMBASE

11. Effect of sperm DNA fragmentation on the clinical outcomes for in vitro fertilization and intracytoplasmic sperm injection in women with different ovarian reserves.

Citation: Fertility and sterility, Apr 2015, vol. 103, no. 4, p. 910-916 (April 2015)

Author(s): Jin, Jianyuan, Pan, Chengshuang, Fei, Qianjin, Ni, Wuhua, Yang, Xu, Zhang, Liya, Huang, Xuefeng

Abstract: To investigate effect of sperm DNA fragmentation (SDF) on clinical outcomes of assisted reproductive technology in women with normal ovarian reserve (NOR) versus reduced ovarian reserve (ROR). Retrospective clinical study. University-affiliated tertiary teaching hospital. A total of 2,865 consecutive couples undergoing their first in vitro fertilization (IVF) or intracytoplasmic sperm injection (ICSI) cycle. SDF assessed using sperm chromatin dispersion in sperm samples 1-2 months before treatment. SDF, IVF, and ICSI outcomes. The grouping criteria were [1] basal follicle stimulating hormone >10 IU/L, [2] antral follicle count

Source: Medline

12. Exploring the human seminal plasma proteome: An unexplored gold mine of biomarker for male infertility and male reproduction disorder

Citation: Journal of Reproduction and Infertility, April 2015, vol./is. 16/2(61-71), 2228-5482;2251-676X (01 Apr 2015)

Author(s): Gilany K., Minai-Tehrani A., Savadi-Shiraz E., Rezadoost H., Lakpour N.

Language: English

Abstract: Background: The human seminal fluid is a complex body fluid. It is not known how many proteins are expressed in the seminal plasma; however in analog with the blood it is possible up to 10,000 proteins are expressed in the seminal plasma. The human seminal fluid is a rich source of potential biomarkers for male infertility and reproduction disorder. Methods: In this review, the ongoing list of proteins identified from the human seminal fluid was collected. To date, 4188 redundant proteins of the seminal fluid are identified using different proteomics technology, including 2-DE, SDS-PAGE-LCMS/ MS, MudPIT. However, this was reduced to a database of 2168 non-redundant protein using UniProtKB/Swiss-Prot reviewed database. Results: The core concept of proteome were analyzed including pi, MW, Amino Acids, Chromosome and PTM distribution in the human seminal plasma proteome. Additionally, the biological process, molecular function and KEGG pathway were investigated using DAVID software. Finally, the biomarker identified in different male reproductive system disorder was investigated using proteomics platforms so far. Conclusion: In this study, an attempt was made to update the human seminal plasma proteome database. Our finding showed that human seminal plasma studies used to date seem to have converged on a set of proteins that are repeatedly identified in many studies and that represent only a small fraction of the entire human seminal plasma proteome.

Publication type: Journal: Review

Source: EMBASE
13. Exploring the relationship between endometriomas and infertility

Citation: Women's Health, March 2015, vol./is. 11/2(127-135), 1745-5057;1745-5065 (01 Mar 2015)

Author(s): Berlanda N., Alberico D., Barbara G., Frattaruolo M.P., Vercellini P.

Language: English

Abstract: Several clinical and epidemiological studies demonstrated an association between endometriosis and infertility. A role in the genesis of infertility may be played by endometriomas, which may interfere with ovulation or damage ovarian tissue. Unlike peritoneal implants, the availability of an accurate noninvasive sonographic diagnosis facilitates the investigation of endometrioma associated infertility. The laparoscopic excision of an endometrioma relieves the ovary from the damage caused by the cyst itself, which may be progressive over time, but at the same time is associated with a detrimental effect on ovarian reserve and with high rates of postoperative endometrioma recurrence. Therefore, the management of endometrioma-related infertility should not be based upon surgery alone, but upon a combination of surgery, with a refinement of the operating technique, long-term oral contraceptive, in vitro fertilization and oocyte cryopreservation.

Publication type: Journal: Review

Source: EMBASE

14. Fertility preservation in the age of assisted reproductive technologies

Citation: Obstetrics and Gynecology Clinics of North America, March 2015, vol./is. 42/1(39-54), 0889-8545;1558-0474 (01 Mar 2015)

Author(s): Brezina P.R., Kutteh W.H., Bailey A.P., Ding J., Ke R.W., Klosky J.L.

Language: English

Abstract: The desire to reproduce is one of the strongest human instincts. Many men and women in our society may experience situations that compromise their future fertility. The past several decades have seen an explosion of technologies that have changed the historical limitations regarding fertility preservation. This review offers an overview of the state of the art within fertility preservation including surgical and medical interventions and therapies that necessitate the need for cryopreservation of eggs, sperm, and embryos. The review also addresses the psychological consequences of banking/not banking materials among patients in need of fertility preservation, particularly in the oncofertility context.

Publication type: Journal: Review

Source: EMBASE

15. Heparin for assisted reproduction: Summary of a Cochrane review

Citation: Fertility and Sterility, 2015, vol./is. 103/1(33-34), 0015-0282;1556-5653 (2015)

Author(s): Akhtar M.A., Sur S., Raine-Fenning N., Jayaprakasan K., Thornton J., Quenby S., Marjoribanks J.

Language: English

Abstract: It is suggested that heparin given in the peri-implantation period may improve clinical outcomes in women undergoing assisted reproduction techniques (ART). This systematic review evaluates the use of heparin in subfertile women undergoing ART.

Publication type: Journal: Review

Source: EMBASE

16. High incidence of monozygotic twinning after assisted reproduction is related to genetic information, but not to assisted reproduction technology itself.

Citation: Fertility and Sterility, Mar 2015, vol. 103, no. 3, p. 756-760 (March 2015)

Author(s): Sobek, Aleš, Zbořilová, Blažena, Procházka, Martin, Šilhánová, Eva, Koutná, Olga, Klásková, Eva, Tkadlec, Emil

Abstract: To study the incidence of monozygotic twinning (MZT) in patients using in vitro fertilization, relative to their age, genetic background, ovarian function, and assisted reproductive techniques used. Analysis of a collected database. Infertility treatment center. A total of 1,876 patients receiving infertility treatment between 2000 and 2012. Pregnancies with monozygotic twins (A: 23) were compared with deliveries of dizygotic twins (B: 423), singleton pregnancies (C: 880), and aborted pregnancies (D: 389). None. A genetic survey on multiple pregnancies in the extended family. Measures were micromanipulation technique, the length of embryo cultivation, type of cultivation
media, basal follicle-stimulating hormone level, estradiol level on the day of human chorionic gonadotropin administration, number of oocytes, total consumption of gonadotropins, and consumption of gonadotropins needed for recovery of 1 oocyte. No differences were found between the incidence of MZT in cycles that did vs. did not use micromanipulation techniques. In addition, the length of embryo cultivation or type of cultivation media used did not affect the results. Estradiol levels and implantation rates were significantly higher in group A. The incidence of MZT in families in group A was significantly higher than that in groups B and C. We propose that the high incidence of MZT in infertility-clinic patients is conditioned by hereditary factors, and good ovarian function only facilitates the expression. The resulting recommendation is that young women with a positive family history and good ovarian function undergo elective single-embryo transfer, and proper counseling is advisable.

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Source: Medline

17. Hysteroscopy for Infertile Women: A Review
Citation: Journal of Minimally Invasive Gynecology, March 2015, vol./is. 22/3(353-362), 1553-4650;1553-4669 (01 Mar 2015)
Author(s): Cholkeri-Singh A., Sasaki K.J.
Language: English
Abstract: Hysteroscopy is widely performed in infertile women. A review of peer-reviewed, published literature from the PubMed database on uterine intracavitary pathology, proximal tubal occlusion, failed invitro fertilization procedures, and first trimester miscarriages of infertile women was performed to examine the importance, feasibility, and success rates of diagnostic and operative hysteroscopy when evaluating and treating these conditions.
Publication type: Journal: Review
Source: EMBASE

18. In vitro maturation and its role in clinical assisted reproductive technology
Citation: Obstetrical and Gynecologocal Survey, 2015, vol./is. 70/1(45-57), 0029-7828;1533-9866 (2015)
Author(s): Sauerbrun-Cutler M.-T., Vega M., Keltz M., McGovern P.G.
Language: English
Abstract: Importance: In vitro maturation (IVM) refers to maturation in culture of immature oocytes that may or may not have been exposed to short courses of gonadotropins. Approximately 5000 live births have occurred as a result of IVM since the 1970s. Currently, IVM is reserved for carefully selected patients at risk for ovarian hyperstimulation syndrome and for those with contraindications to hormone administration. The technology is still considered experimental. Objective: The objective of this study was to identify a role for IVM and discuss clinical practices based on the current literature. Evidence Acquisition: We conducted a literature review of all available and published data. Relevant studies were identified using PubMed and MEDLINE. Search parameters included "in vitro maturation or IVM" and "oocyte maturation." Multiple case-control studies were identified comparing reproductive outcomes between conventional in vitro fertilization (IVF) and IVM, but no randomized controlled trials have been reported to date comparing IVF and IVM. Results: Results from retrospective and prospective observational studies have shown decreased live birth and implantation rates in comparison to conventional IVF/intracytoplasmic sperm injection for patients with various indications for IVM. However, rates of ovarian hyperstimulation syndrome were significantly reduced in studies with patients with polycystic ovary syndrome. Conclusions: Although the pregnancy rate is lower than conventional IVF, IVM is a safer and simpler alternative to conventional IVF. Future research needs to focus on improving implantation and live birth rates before universal implementation. Target Audience: Obstetricians and gynecologists, family physicians Learning Objectives: After completing this CME activity, physicians should be better able to describe IVM in clinical practice and how it differs from conventional assisted reproductive technology, analyze the clinical application of IVM in specific populations such as patients with polycystic ovary syndrome and those with malignancy and contraindications to estrogen, and discuss the developmental outcomes of IVM births.
Publication type: Journal: Review
Source: EMBASE
Full text: Available Obstetrical & gynecological survey at Obstetrical and Gynecological Survey

19. Individual fertility assessment and pro-fertility counselling; Should this be offered to women and men of reproductive age?
Citation: Human Reproduction, January 2015, vol./is. 30/1(9-15), 0268-1161;1460-2350 (01 Jan 2015)
Author(s): Hvidman H.W., Petersen K.B., Larsen E.C., Macklon K.T., Pinborg A., Andersen A.N.
Source: group

The massage therapy prior to ET, significantly higher PRs, oPRs, and BRs were observed compared with the control

Types of infertility as well as the quality of the embryo transfers (ETs) were evaluated. Results • In patients receiving

Bregenz, Austria. Participants • A total of 267 IVF patients, with a mean age of 36.3 y, participated in this single-center

Study. Intervention • All patients receiving a transfer of vitrified and warmed blastocysts between January and

December 2012 were included in the evaluation. Prior to ET, the andullation group received a standardized program of

therapy-a 30-min, deep relaxation massage on an oscillating (vibrating) device, whereas the control group did not.

Outcome Measures • To determine efficacy, the primary outcomes that the study measured were (1) pregnancy rates

(PRs), by testing urine and obtaining a positive B-human chorionic gonadotropin (B-hCG); and (2) ongoing, pregnancies

(oPR), by observation of fetal heartbeat and birth rates (BR) as well as miscarriage rates. The patients’ medical histories

and types of infertility as well as the quality of the embryo transfers (ETs) were evaluated. Results • In patients using

the massage therapy prior to ET, significantly higher PRs, oPRs, and BRs were observed compared with the control

group-PR: 58.9% vs 41.7%, P

Source: Medline

Full text: Available ProQuest at Alternative Therapies in Health and Medicine

Language: English

Abstract: During the 1970s new contraceptive options developed and legal abortions became accessible. Family

planning clinics targeting young women and men provided advice and assistance on contraception. Today, delayed

childbearing, low total fertility rates and increasing use of social oocyte freezing create a need for pro-fertility

initiatives. Three years ago we established a new separate unit: The Fertility Assessment and Counselling (FAC) clinic.
The FAC clinic offers free individual counselling based on a clinical assessment including measurement of serum anti-

Mullerian hormone and ovarian and pelvic sonography in women, sperm analysis in men, and a review of reproductive

risk factors in both sexes. The FAC clinic includes a research programme with the goal to improve prediction and

protection of fertility. Our first proposition is that clinics for individual assessment and counselling need to be

established, as there is a strong unmet demand among women and men to obtain: (i) knowledge of fertility status, (ii)

knowledge of reproductive lifespan (women) and (iii) pro-fertility advice. Addressing these issues is often more

challenging than treating infertile patients. Therefore, we propose that fertility assessment and counselling should be

developed by specialists in reproductive medicine. There are two main areas of concern: As our current knowledge on

reproductive risk factors is primarily based on data from infertile patients, the first concern is how precisely we are able

to forecast future reproductive problems. Predictive parameters from infertile couples, such as duration of infertility,

are not applicable, diagnostic factors like tubal patency are unavailable and other parameters may be unsuitable when

applied to the general population. Therefore, strict validation of reproductive forecasting in women and men from the

general population is crucial. The second main concern is that we may turn clients into patients. Screening including

reproductive forecasting may induce unnecessary anxiety through false positive predictions and may even result in

overtreatment in contrast to the intended preventive concept. False negative findings may create false reassurance

and result in postponement of conceptions.

Publication type: Journal: Review

Source: EMBASE

20. Liability for mismanagement of sperm specimens in fertility practices.

Citation: Fertility and sterility, Jan 2015, vol. 103, no. 1, p. 29-32 (January 2015)

Author(s): Vaughn, Micah, Hossain, Amjad, Phelps, John Y

Source: Medline

21. Massage therapy improves in vitro fertilization outcome in patients undergoing blastocyst transfer in a
cryo-cycle.

Citation: Alternative therapies in health and medicine, Mar 2015, vol. 21, no. 2, p. 16-22, 1078-6791 (March 2015)

Author(s): Okhowat, Jasmin, Murtinger, Maximilian, Schuff, Maximilian, Wogatzky, Johannes, Spitzer, Dietmar,

Vanderzwalmen, Pierre, Wirleitner, Barbara, Zech, Nicolas Herbert

Abstract: Context • Massage therapy is increasingly used to relieve physical and mental discomfort and is suggested as

a safe therapeutic modality, without any significant risks or any known side effects. Although a multitude of

complementary therapies, such as acupuncture, are applied in reproductive medicine, no information is available with

regard to the application of massage as an adjuvant therapy in assisted-reproduction techniques (ARTs). Objectives •

This study was intended to assess the effectiveness of a deep relaxation (andullation) therapy based on oscillating

vibrations when used prior to embryo transfer (ET) in in vitro fertilization (IVF) cryo-cycles. Design • The research team

designed a retrospective, observational study. Participants willing to undergo the massage treatment were allocated to

the intervention (andullation) group. Setting • The study was performed at the IVF Centers Prof. Zech-Bregenz in

Bregenz, Austria. Participants • A total of 267 IVF patients, with a mean age of 36.3 y, participated in this single-center

study. Intervention • All patients receiving a transfer of vitrified and warmed blastocysts between January and

December 2012 were included in the evaluation. Prior to ET, the andullation group received a standardized program of

therapy-a 30-min, deep relaxation massage on an oscillating (vibrating) device, whereas the control group did not.

Outcome Measures • To determine efficacy, the primary outcomes that the study measured were (1) pregnancy rates

(PRs), by testing urine and obtaining a positive B-human chorionic gonadotropin (B-hCG); and (2) ongoing, pregnancies

(oPR), by observation of fetal heartbeat and birth rates (BR) as well as miscarriage rates. The patients’ medical histories

and types of infertility as well as the quality of the embryo transfers (ETs) were evaluated. Results • In patients using

the massage therapy prior to ET, significantly higher PRs, oPRs, and BRs were observed compared with the control

group-PR: 58.9% vs 41.7%, P

Source: Medline

Full text: Available ProQuest at Alternative Therapies in Health and Medicine
22. Microfluidics for sperm research

Citation: Trends in Biotechnology, April 2015, vol./is. 33/4(221-229), 0167-7799;1879-3096 (01 Apr 2015)

Author(s): Knowlton S.M., Sadasivam M., Tasoglu S.

Language: English

Abstract: One in six couples of reproductive age worldwide are affected at least once by some form of infertility. In vitro fertilization (IVF) and intracytoplasmic sperm injection (ICSI) are widely-available assisted reproductive technologies (ART). The identification and isolation of the most-motile sperm with DNA integrity are essential to IVF and ICSI, ultimately affecting treatment consequences and the health of offspring. Recently, microfluidic technologies been developed to sort sperm according to sperm morphology, motility, DNA integrity, and functionality for IVF techniques. There have also been emerging applications in wildlife conservation, high-throughput single-sperm genomics, sperm-driven robotics, and in-home fertility testing. We review a broad range of studies applying the principles of microfluidics to sperm research.

Publication type: Journal: Review

Source: EMBASE

23. On-label and off-label drugs used in the treatment of male infertility

Citation: Fertility and Sterility, March 2015, vol./is. 103/3(595-604), 0015-0282;1556-5653 (01 Mar 2015)

Author(s): Chehab M., Madala A., Trussell J.C.

Language: English

Abstract: Infertility affects 6.1 million U.S. couples - representing 10% of reproductive-age adults and 15% of all couples trying to conceive. Half of the time, infertility is the result of an abnormal semen analysis or other male factors, with 40%-50% of these infertile men diagnosed with idiopathic or nonclassifiable infertility. While the role of hormone therapy for men with an identified abnormality is well defined, the literature remains inconclusive and controversial regarding hormone manipulation using empirical (off-label) medical therapies for men with idiopathic infertility. This manuscript reviews the commonly used off-label medications used to treat idiopathic male factor infertility: clomiphene citrate, letrozole/anastrozole, exogenous androgens, and pentoxifylline.

Publication type: Journal: Review

Source: EMBASE

24. Open versus closed systems for vitrification of human oocytes and embryos

Citation: Reproductive BioMedicine Online, April 2015, vol./is. 30/4(325-333), 1472-6483;1472-6491 (01 Apr 2015)

Author(s): Vajta G., Rienzi L., Ubaldi F.M.

Language: English

Abstract: Vitrification is now the dominant approach for cryopreservation of human oocytes and embryos; however, serious disagreement persists, particularly about biosafety issues. Techniques are categorized as either 'open' or 'closed' according to occurrence of direct contact between the medium and liquid nitrogen during cryopreservation. Advocates of closed systems emphasize the potential danger of disease transmission mediated through liquid nitrogen, and praise the safety of their approach; those who use the open systems refer to the lack of evidence of disease transmission and regard their systems as more consistent and efficient. The purpose of this review is to clarify whether open and closed systems are really open and closed; if closed systems are safe and free of any danger of contamination; if closed systems are equally efficient as open ones for cryopreservation of human embryos and oocytes by considering overall outcome; and finally, if ethical and legal concerns are sound when risks and benefits are considered in a broader sense. On the basis of these answers, implementation of rational measures to lower the theoretical danger of disease transmission are proposed while maintaining the achievements in cryopreservation that have contributed substantially to the advancement in assisted reproduction techniques during the past decade.

Publication type: Journal: Review

Source: EMBASE

25. Optimal oocyte retrieval and embryo transfer techniques: where we are and how we got here.

Citation: Seminars in Reproductive Medicine, Mar 2015, vol. 33, no. 2, p. 83-91 (March 2015)

Author(s): Healy, Mae Wu, Hill, Micah J, Levens, Eric D

Abstract: Oocyte retrieval is most safely accomplished with conscious sedation via a transvaginal approach under ultrasound guidance with low-pressure aspiration. Follicle flushing has not been shown to improve outcomes. The type of vaginal surgical preparation and the use of antibiotics have not been demonstrated to affect outcomes. As the final step in a rigorous assisted reproductive technology (ART) cycle, precise technique in embryo transfer is essential. Based
on current findings, the recommended embryo transfer technique includes the use of an ultrasound-guided transcervical approach with a full bladder using a soft catheter. The transfer depth of the embryo should be in the mid-portion of the uterus with a quick steady insertion followed by pressure on the syringe during withdrawal of the catheter. It is acceptable to encourage immediate ambulation after embryo transfer. Thieme Medical Publishers 333 Seventh Avenue, New York, NY 10001, USA.

Source: Medline

26. Ovarian hyperstimulation syndrome
Citation: Obstetrics, Gynaecology and Reproductive Medicine, February 2015, vol./is. 25/2(43-48), 1751-7214;1879-3622 (01 Feb 2015)
Author(s): O'Donovan O., Al Chami A., Davies M.
Language: English
Abstract: The Royal College of Obstetricians and Gynaecologists defines ovarian hyperstimulation syndrome (OHSS) as a "systemic disease resulting from vasoactive products released by hyperstimulated ovaries". It is usually the result of gonadotrophin stimulation for invitro fertilisation (IVF), with moderate and severe cases affecting about 3-8% of cycles. At the heart of OHSS is an increase in vascular permeability causing the movement of fluid out of the intravascular space, with resultant accumulation of fluid in the third space and intravascular depletion. The diagnosis is made according to recognised signs, symptoms and investigations on a background of ovarian stimulation. Prevention is better than cure in this iatrogenic disorder, but the aim of management is effective monitoring to confirm safe spontaneous improvement or alert the requirement for intervention in the event of deterioration; the crux of which concerns careful fluid management. This article reviews the pathogenesis, diagnosis, classification and management of OHSS.
Publication type: Journal: Review
Source: EMBASE

27. Ovulation Induction
Citation: Obstetrics and Gynecology Clinics of North America, March 2015, vol./is. 42/1(27-37), 0889-8545;1558-0474 (01 Mar 2015)
Author(s): Von Hofe J., Bates G.W.
Language: English
Abstract: Before initiating ovulation induction, it is important to evaluate the underlying cause of a patient's anovulation and to make lifestyle modifications or treat underlying medical conditions, as appropriate. Here, ovulation induction agents are discussed with attention to their pharmacology, indications for use, therapy regimens, and efficacy. Adjuvant therapies and appropriate monitoring are also reviewed.
Publication type: Journal: Review
Source: EMBASE

28. Revisiting ovarian hyperstimulation syndrome: Towards OHSS free clinic
Citation: Journal of Human Reproductive Sciences, January 2015, vol./is. 8/1(13-17), 0974-1208;1998-4766 (01 Jan 2015)
Author(s): Banker M., Garcia-Velasco J.
Language: English
Abstract: A rapid development and application of assisted reproductive technologies (ARTs) and ovulation-induction drugs may lead to ovarian hyper stimulation syndrome (OHSS). Young age, low body mass index (BMI), polycystic ovarian syndrome (PCOS), previous OHSS, high follicle count, and elevated serum estradiol (E2) are the certain factors that predispose women to OHSS. Many strategies have been used to reduce or avoid OHSS. Use of human chorionic gonadotropin (hCG) increases ovarian vascular permeability and is responsible for activating the vascular endothelial growth factors (VEGF) pathway and thus the entire cascade, leading to symptomatic OHSS. Gonadotropin-releasing hormone (GnRH) agonists are used as a replacement for hCG for final oocyte maturation in antagonist cycles. Reducing or eliminating the use of hCG and use of GnRH agonist triggered GnRH antagonist cycles and cryopreservation of oocytes or embryos is the most promising approach in making OHSS free clinic a reality.
Publication type: Journal: Review
Source: EMBASE
Full text: Available National Library of Medicine at Journal of Human Reproductive Sciences
29. Soy food intake and treatment outcomes of women undergoing assisted reproductive technology.

**Citation:** Fertility and sterility, Mar 2015, vol. 103, no. 3, p. 749 (March 2015)

**Author(s):** Vanegas, Jose C, Afeiche, Myriam C, Gaskins, Audrey J, Mínguez-Alarcón, Lidia, Williams, Paige L, Wright, Diane L, Toth, Thomas L, Hauser, Russ, Chavarro, Jorge E

**Abstract:** To study the relation of dietary phytoestrogens intake and clinical outcomes of women undergoing infertility treatment with the use of assisted reproductive technology (ART). Prospective cohort study. Fertility center. A total of 315 women who collectively underwent 520 ART cycles from 2007 to 2013. None. Implantation, clinical pregnancy, and live birth rates per initiated cycle. Soy isoflavones intake was positively related to live birth rates in ART. Compared with women who did not consume soy isoflavones, the multivariable-adjusted odds ratios of live birth (95% confidence interval) for women in increasing categories of soy isoflavones intake were 1.32 (0.76-2.27) for women consuming 0.54-2.63 mg/d, 1.87 (1.12-3.14) for women consuming 2.64-7.55 mg/d, and 1.77 (1.03-3.03) for women consuming 7.56-27.89 mg/d. Dietary soy intake was positively related to the probability of having a live birth during infertility treatment with ART. Copyright © 2015 American Society for Reproductive Medicine. Published by Elsevier Inc. All rights reserved.

**Source:** Medline

30. Testing and interpreting measures of ovarian reserve: A committee opinion

**Citation:** Fertility and Sterility, March 2015, vol./is. 103/3(e9-e17), 0015-0282;1556-5653 (01 Mar 2015)


**Language:** English

**Abstract:** Currently there is no uniformly accepted definition of decreased ovarian reserve (DOR), as the term may refer to three related but distinctly different outcomes: oocyte quality, oocyte quantity, or reproductive potential. Available evidence concerning the performance of ovarian reserve tests is limited by small sample sizes, heterogeneity among study design, analyses and outcomes, and the lack of validated outcome measures.

**Publication type:** Journal: Review

**Source:** EMBASE

31. The evolving role of saline infusion sonography (SIS) in infertility

**Citation:** European Journal of Obstetrics Gynecology and Reproductive Biology, February 2015, vol./is. 185/(66-73), 0301-2115;1872-7654 (01 Feb 2015)

**Author(s):** Seshadri S., Khalil M., Osman A., Clough A., Jayaprakasan K., Khalaf Y.

**Language:** English

**Abstract:** Saline infusion sonography (SIS) has become a valuable diagnostic modality in gynaecology over the last three decades. SIS is now commonly employed for detailed evaluation of the uterine cavity as part of pre-treatment assessment in infertile women. The objective of this paper is review the scientific literature on SIS in infertility. Medline, Ovid and Cochrane databases were searched for relevant articles. The indications, technical aspects and the potential advantages of SIS are discussed. The efficacy and sensitivity of SIS are compared to hysteroscopy in the evaluation of uterine polyps, fibroids, intrauterine adhesions and uterine anomalies. Increasing evidence suggests the use of SIS prior to an in-vitro fertilization (IVF) cycle as it has increased sensitivity in the detection of intrauterine pathology. SIS is cost-effective and results in better patient satisfaction scores than hysteroscopy.

**Publication type:** Journal: Review

**Source:** EMBASE

32. The janus face of stress on reproduction: From health to disease

**Citation:** International Journal of Endocrinology, 2015, vol./is. 2015/, 1687-8337;1687-8345 (2015)

**Author(s):** Zelena D.

**Language:** English

**Abstract:** Parenthood is a fundamental feature of all known life. However, infertility has been recognized as a public health issue worldwide. But even when the offspring are conceived, in utero problems can lead to immediate (abortion), early (birth), and late (adulthood) consequences. One of the most studied factors is stress. However, stress response is, per se, of adaptive nature allowing the organism to cope with challenges. Stressors lead to deterioration if one is faced with too long lasting, too many, and seemingly unsolvable situations. In stress adaptation the hypothalamus-pituitary-adrenocortical axis and the resulting glucocorticoid elevation are one of the most important mechanisms. At cellular level stress can be defined as an unbalance between production of free radicals and
antioxidant defenses. Oxidative stress is widely accepted as an important pathogenic mechanism in different diseases including infertility. On the other hand, the goal of free radical production is to protect the cells from infectious entities. This review aims to summarize the negative and positive influence of stress on reproduction as a process leading to healthy progeny. Special emphasis was given to the balance at the level of the organism and cells.

**Publication type:** Journal: Review

**Source:** EMBASE

**Full text:** Available National Library of Medicine at International Journal of Endocrinology

### 33. The risk of birth defects after assisted reproduction.

**Citation:** Journal of assisted reproduction and genetics, Mar 2015, vol. 32, no. 3, p. 379-385 (March 2015)

**Author(s):** Parazzini, Fabio, Cipriani, Sonia, Bulfoni, Giuseppe, Bulfoni, Camilla, Frigerio, Ambrogio, Somigliana, Edgardo, Mosca, Fabio

**Abstract:** Aim of this study was to investigate the association between congenital malformations and type of conception (spontaneous or medically assisted). This is a population based study using data from the regional data base of Lombardy, a Northern Italian Region with a population of about 10 million inhabitants. Included in the study were 277,043 neonates born in Lombardy during the study period 2010-2012. Adjusted and unadjusted odds ratios (OR), and corresponding 95% confidence intervals (CI), of congenital abnormalities were calculated using unconditional multiple logistic regression. A total of 7057 births (2.5%) were reported after non spontaneous conception. Overall, the frequency of birth defects was 4.4% among births after spontaneous conception and 6.7% among births after non spontaneous ones (OR = 1.67, 95%CI = 1.5-1.9). The association disappeared after taking into account the confounding effect of maternal age and factors associated with non spontaneous conception. The crude OR of abnormalities was higher than unity for any defect (OR = 1.67, 95%CI = 1.5-1.9), multiple defects (OR = 1.76, 95%CI = 1.3-2.3), cardiovascular (OR = 2.05, 95%CI = 1.8-2.4), musculoskeletal (OR = 2.05, 95%CI = 1.7-2.5) and metabolic system abnormalities (OR = 1.97, 95%CI = 1.1-3.5). Almost all these associations, however, disappeared after taking into account potential confounding with the exception of musculoskeletal defects (adjusted OR = 1.31, 95%CI = 1.1-1.6). In this case also, if adjustment for multiple comparison is taking into account, results did not reach statistical significance. The results of this analysis confirm the recently emerging view that the increased frequency of birth defects observed after ART/medically induced ovulation only is largely due to confounders.

**Source:** Medline

### 34. Time-lapse in the IVF-lab: How should we assess potential benefit?

**Citation:** Human Reproduction, January 2015, vol./is. 30/1(3-8), 0268-1161;1460-2350 (01 Jan 2015)

**Author(s):** Armstrong S., Vail A., Mastenbroek S., Jordan V., Farquhar C.

**Language:** English

**Abstract:** Time-lapse imaging of embryos has been widely introduced to fertility laboratories worldwide with the aim of identifying the best quality embryos to transfer that will ultimately improve IVF success rates. In this opinion paper, we explore the lack of evidence of benefit of this novel intervention, analyse the methodological flaws of current studies, offer ideal study designs that assess the various features of time-lapse imaging, and discuss forthcoming studies. In particular, we emphasize the ethical aspects of hastily adopting a costly technology without current high level evidence of improved live birth rates, safety and cost effectiveness.

**Publication type:** Journal: Review

**Source:** EMBASE

### 35. Timing luteal support in assisted reproductive technology: a systematic review.

**Citation:** Fertility and sterility, Apr 2015, vol. 103, no. 4, p. 939 (April 2015)

**Author(s):** Connell, Matthew T, Szatkowski, Jennifer M, Terry, Nancy, DeCherney, Alan H, Propst, Anthony M, Hill, Micah J

**Abstract:** To summarize the available published randomized controlled trial data regarding timing of P supplementation during the luteal phase of patients undergoing assisted reproductive technology (ART). A systematic review. Not applicable. Undergoing IVF. Different starting times of P for luteal support. Clinical pregnancy (PR) and live birth rates. Five randomized controlled trials were identified that met inclusion criteria with a total of 872 patients. A planned meta-analysis was not performed because of a high degree of clinical heterogeneity with regard to the timing, dose, and route of P. Two studies compared P initiated before oocyte retrieval versus the day of oocyte retrieval and PRs were 5%-12% higher when starting P on the day of oocyte retrieval. One study compared starting P on day 6 after retrieval versus day 3, reporting a 16% decrease in pregnancy in the day 6 group. Trials comparing P start times on the...
day of oocyte retrieval versus 2 or 3 days after retrieval showed no significant differences in pregnancy. There appears to be a window for P start time between the evening of oocyte retrieval and day 3 after oocyte retrieval. Although some studies have suggested a potential benefit in delaying vaginal P start time to 2 days after oocyte retrieval, this review could not find randomized controlled trials to adequately assess this. Further randomized clinical trials are needed to better define P start time for luteal support after ART. Published by Elsevier Inc.

Source: Medline

36. To ICSI or Not to ICSI.
Citation: Seminars in reproductive medicine, Mar 2015, vol. 33, no. 2, p. 92-102 (March 2015)
Author(s): Palermo, Gianpiero D, Neri, Queenie V, Rosenwaks, Zev
Abstract: Intracytoplasmic sperm injection (ICSI) is the most effective assisted reproductive procedure enabling fertilization in severe forms of male factor indications and male gamete dysfunction. Reliability of ICSI has allowed the expansion of its application to other forms of infertility rendering it the most popular assisted reproduction technology (ART) insemination method worldwide. The concern related to the invasiveness of ICSI together with the arbitrary selection of the inseminating spermatozoon has induced the execution of studies to compare the performance of ICSI in non-male factor infertility with standard in vitro insemination approach. Not surprisingly, the outcome has evidenced that ICSI does not yield higher pregnancy rates than in vitro fertilization but functions invariably as a normalizer of fertilization mollifying the absent or low fertilization. The follow-up studies on ICSI children have evidenced that the procedure is safe and the slightly higher incidences of neonatal malformations or de novo gonosomal abnormalities are related to the genetics of the infertile couples. Furthermore, ICSI is accepted for some specific indications such as low number and poor morphology oocytes, thicker zona, excess polyspermy, PGD/PGS/PGT (preimplantation genetic diagnosis/preimplantation genetic screening/preimplantation genetic testing), discordant HCV/HIV (hepatitis C virus/human immunodeficiency virus) couples, in vitro maturation (IVM), and oocyte cryopreservation. Only the advent of new biomarkers in combination with routine semen analysis capable of identifying the fertilization competence of the spermatozoon can guide the reproductive physician toward the proper insemination method. Thieme Medical Publishers 333 Seventh Avenue, New York, NY 10001, USA.

Source: Medline

37. To pill or not to pill in GnRH antagonist cycles: That is the question!
Citation: Reproductive BioMedicine Online, January 2015, vol./is. 30/1(39-42), 1472-6483;1472-6491 (01 Jan 2015)
Author(s): Garcia-Velasco J.A., Fatemi H.M.
Language: English
Abstract: Worldwide, gonadotrophin-releasing hormone (GnRH) antagonists are gaining ground, and the number of patients being treated for IVF with a GnRH antagonist is increasing. Cycle planning in GnRH antagonist IVF cycles has been a challenge. During the past 2 years, debate has been ongoing about the possible disadvantages of oral contraceptive pill (OCP) pre-treatment in GnRH antagonist IVF cycles. A recent meta-analysis clearly showed a significant decrease in ongoing pregnancy rates between patients who received OCP pre-treatment and those who did not. In this review, the published meta-analysis are is evaluated. It is argued that caution must be exercised in drawing conclusions too quickly on whether or not OCP pre-treatment might have a negative effect on outcome in GnRH antagonist IVF cycles.
Publication type: Journal: Review
Source: EMBASE

38. Understanding and improving endometrial receptivity.
Citation: Current opinion in obstetrics & gynecology, Jun 2015, vol. 27, no. 3, p. 187-192 (June 2015)
Author(s): Miravet-Valenciano, Jose A, Rincon-Bertolin, Alejandro, Vilella, Felipe, Simon, Carlos
Abstract: For a successful pregnancy, the syncronic coordination between the embryonic development and the endometrial status is crucial. The endometrium is a hormonally regulated organ that is nonadhesive to embryos throughout most of the menstrual cycle in humans. Endometrial receptivity refers to a hormone-limited period in which the endometrial tissue acquires a functional and transient ovarian steroid-dependent status allowing blastocyst implantation and therefore pregnancy initiation. Our group has developed the endometrial receptivity array (ERA), a customized array based on the expression of 238 genes coupled to a computational predictor capable of diagnosing a functionally receptive endometrium regardless of its histological appearance. Clinical results obtained in our laboratory demonstrate the diagnostic and therapeutic efficiency of the ERA test in patients with implantation failure, allowing the personalization of the optimal day for embryo transfer. To keep improving the global knowledge of endometrial
receptivity stage, new high-throughput techniques like RNA-seq or genome-wide association studies will be crucial in the near future. Also the identification of new biomarkers of endometrial receptivity that could be assessed by noninvasive methods has become a challenging goal to help diagnose the endometrial status to increase implantation rates and pregnancy outcomes in patients undergoing assisted reproductive treatments.

Source: Medline

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**News**

**Gene editing technique could prevent inherited diseases**

Friday 24th April 2015

“Researchers in the US have raised hopes for a simple genetic therapy that could prevent devastating diseases being passed on from mothers to their children” The Guardian reports. The diseases in question are caused by mutations in the small pieces of DNA found in the powerhouses of the cells – the mitochondria. This DNA is passed directly from mother to child.

**Sperm quality pesticides claim 'should be treated with caution'**

Tuesday 31st March 2015

"Pesticides on fruit and vegetables may be damaging sperm counts and men should consider going organic if they want to have children," The Daily Telegraph reports. A study found men who ate the highest amount of fruit and vegetables with high levels of pesticides had a 49% lower sperm count, as well as a 32% lower count of normally formed sperm, than men who consumed the least amount.

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Martin Johnson


ISBN: 978 1 444 3 35 75 0

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Shelfmark: tbc

**Oxford Handbook of Reproductive Medicine and Family Planning**

McVeigh E, Guillebaud J, and Homburg R


ISBN: 978 0 19 965 0682

Barcode: T026884

Shelfmark: tbc
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