

Malta Midwives' Journal

The Stork



Malta Midwives Association

Issue 11 February 2018

Website: www.maltamidwivesassoc.wix.com/mma1974

e-mail: maltamidwivesassociation1974@gmail.com

facebook: [maltamidwivesassociation](https://www.facebook.com/maltamidwivesassociation).parent's corner

tel: 77237117





URIAGE
EAU THERMALE



1st Baby's Care

An adapted skin care product
for every moment of
your baby's life

L'eau
de la peau



Multi-Gyn



Multi-Gyn®

Natural bio-active products for the relief of vaginal discomforts



AVAILABLE FROM PHARMACIES

SVEA

Svea Distributors Co. Ltd. 33 Idmejda Str, Balzan
info@svea.com.mt | www.multi-gyn-malta.com | www.svea.com.mt

Multi-Gyn Malta

Multi-Mam



Multi-Mam Breastfeeding products and more...



*Direct effect!
Soothe your teething baby*

Multi-Mam BabyDent is available in a 15ml tube.



SVEA

Svea Distributors Co. Ltd | 33 Idmejda Str, Balzan | +356 2149 0162
info@svea.com.mt | www.svea.com.mt

NEW ELECTRIC BREAST PUMP

Link™

I enjoy my life.
I enjoy breastfeeding.



THE ONLY PUMP ON THE MARKET WITH THE LINK™ DOUBLE REGULATION SYSTEM

- ➔ Regulates suction strength
- ➔ Regulates speed

BY REAL TESTED MOTHERS*

OUTSTANDING

- ✓ Power Suction
- ✓ Stability & Robustness
- ✓ Easy to Clean



suavinex®

little luxuries

Available in all leading baby stores
The happy mothers club - Suavinex Malta



Contents

Editorial.....	5
Upcoming International Conferences	5
Message from the President.....	6
Treasurer's Message	7
Voices of the Region.....	8
My Personal Experiences of Pregnancy & Birth	10
KNOV Midwifery Summer School	11
Determining Breastfeeding Compatibility in Mothers on Medications	16
The International Midwives and Nurses Day	18
High Risk Obstetric Anaesthesia	20
The ART of Preserving Ovarian Reserve in Securing Reproductive Certainty.....	21
B.Sc Midwifery Abstracts	27



**62, Office 1, Triq il-Kuncizzjoni,
Msida MSD 1839**

**Editorial Board
Pauline Fenech • Rebecca Mizzi**

Correspondence should be addressed to
the editor:
pauline.a.fenech@hotmail.com

The views expressed
in the Journal are those of individual
contributors and are not necessarily those
of the Midwives' Association.

Front cover:

With courtesy of Ms Rebecca Zammit
photographed by Francesca Attard
of iCreatemotion Photography

Editorial

Dear Readers,

The New Year has got off to a very educational start for the Malta Midwives Association, with the conference 'Championing Maternal and Child Healthcare: Quality, Equity & Dignity'. The conference was a great success with attendees commenting that the conference was **'very motivating'** and had **'very good organisation & choice of speakers, such conferences make me feel more empowered & enthusiastic to give more in our care!'** The keynote speaker Prof. Lesley Page emphasised the importance of continuity of care and carer. Prof. Lesley Page also spoke about her experience of maternity care in different countries around the world. Different models of care from New Zealand and the Netherlands are featured in this issue. The KNOV midwifery summer school, which for 2 midwives was sponsored by the MMA was an exceptional midwifery experience with hands on learning. Such educational experiences provide a platform for learning and the sharing of ideas, which is very important in a dynamic profession such as ours. Journals like this and events like the Virtual International Day of the Midwife, a 24hr online conference, held on midwives day, do not even require midwives to move out of the comfort of their own homes to learn and engage with other professionals.

The International Day of the Midwife, as always, is celebrated by the MMA, and we look forward to sharing details of these events in the very near future. This year the International Confederation of Midwives have set the title 'Midwives Leading the way with Quality Care'. Providing midwives with the appropriate knowledge and empowering midwives to provide quality care has always been a priority for the association.

I would like to take this opportunity to ask all midwives with any material they wish to publish to come forward and share their ideas and knowledge with their colleagues through this bi-annual journal. We are as always grateful to all those who contributed to this issue of the Malta Midwives Journal. I hope you enjoy reading this issue as much as we've enjoyed putting it together.

Rebecca Mizzi
Co-Editor

Upcoming International Conferences

**10th Elacta Conference on Breastfeeding:
Breastfeeding Without Borders**

17th - 19th May 2018, Rotterdam, Netherlands
www.elacta.eu/conference

World Summit on Paediatrics. 4th Edition.

21 – 24th June, 2018. Madrid
<http://www.wsp-congress.com/>

5th World Congress on Midwifery & Womens Health

September 13-14, 2018 Frankfurt, Germany

Theme: Excelling Innovations in Midwifery
and Nursing for Women's Health

<https://midwifery.conferenceseries.com/europe/>

Midwifery Today Conference

Bad Wildbad, Germany — "Birthing in Love Changes the World" —
October 17–21, 2018

Birth Congress - Clinical Challenges in Labour and Delivery

14th - 17th November 2018, Venice. Italy

Unicef UK's Baby Friendly Initiative conferences

15 – 16th November 2018, Liverpool, UK

Annual congress on Women's Health & Reproductive Medicine

Dec 04-05, 2018 | Lisbon, Portugal

Theme: Euro Womens Health: Revolutionizing
the Future Strategies for Womens Health Research



Message from the President

Dear Members,

It is the time to communicate with you once again and to share the Association's vision for the coming months. We have just started a new year and it is beneficial to reflect on the things that we did in order to move forward.

The Association is offering an array of services to which women and their families are eagerly attending. More midwives should take the opportunity to get involved in these activities as midwives are making a difference in the lives of these women. Nowadays, women have access to a lot of information, they are more than ever, better equipped with digital knowledge. These are considered as hard skills, and are task-specific skills, skills that one needs to acquire in order to be able to perform the particular task at hand. One can often gain hard skills through education, training programs, certifications, and on-the-job training. These are typically quantifiable skills that can be easily defined and evaluated.

However, many 'women do not care how much you know unless they know how much you care'. Women look out for the soft skills during their maternity care, interpersonal skills. Soft skills that include communication skills, listening skills and empathy among others. Many organisations do not only look for competencies and skills when engaging new recruits but focus on the core values of the individual which can add value to their team. In fact, clear values, principles and beliefs are shown to have a strong developmental effect that will hold the organisation together and improve communication and retention.

Our Association upholds the value of care, empowerment, collaboration and excellence. These are in line with ICM values. The acceptable standards provide and guide the behaviour of midwives towards the purpose, mission and the vision of the Association. Without clear values, there are no clear guiding principles as to how individual midwives factor in their care and decisions.

The principles we adhere to are:

Care: women and their families are provided with optimum care with dignity and respect. The care that midwives give is valued and supported.

Empowerment: women and their families are empowered to be active participants in their care. Midwives assist these persons to gain more control and self-efficacy. On the other hand, midwives are given every opportunity to develop themselves to become autonomous and acknowledged practitioners.

Collaboration: work in partnership with women and their families and other health care providers to

enhance teamwork, continuity of care whilst providing individualised care. Midwives are encouraged to participate in team building and communication skills programmes to help foster teamwork and collaboration whilst reducing the 'silo mentality'.

Excellence: providing high quality care driven by evidence-based practice. Midwives are encouraged to act ethically and with integrity, honesty and trustworthiness. The Association promotes a learning environment by investing in professional development through the provision of learning opportunities both locally and abroad. The Association aims to be accountable for its actions using the available resources effectively and efficiently. The mission and vision of the Association is to be proactive and innovative in everything that it does. The midwife is the heart of midwifery care.

The Association will be holding its Annual General Meeting (AGM) on the 28th of February at the Association's premises in Msida. I would like to take the opportunity to thank the committee for its dedication and commitment towards the Association's mission to provide midwifery education and care to women and their families. I urge those midwives who have midwifery at heart and who would like to participate in a voluntary organisation and are committed individuals, not to hesitate to be part of the organising committee. We will be sending nomination forms for those who would like to form part of the committee. These forms are to be filled and handed to a committee member. An election will take place if there are more candidates to vacant places to be filled. We look forward to seeing many members for the AGM.

One final note: I am writing this message a few days prior the conference "Championing Maternal and Child Healthcare: Quality, Dignity and Equity". The Association invested a lot of energy and funds to hold this conference with the participation of Professor Lesley Page. Professor Page is a renowned international academic, advocate and activist for midwives, mothers and babies and has more than 40 years of midwifery experience. Professor Page played a role in developing regulated midwifery and integrating midwifery into maternity care in UK. The aim for this conference is to enable participants to update themselves with midwifery knowledge, to provide local midwives the opportunity to share their research as well as to collaborate with other health professionals on how to improve the current maternal and child healthcare.

Pauline Fenech
President

Annual General Meeting

28th February 2018 @ 18:00

Refreshments

Treasurer's Message

I wish to start off this contribution by thanking all those colleagues who, year in year out, support the Association by renewing their membership. At the same time allow me, to once again, appeal to the handful of midwives who did not pay their membership renewal, to resolve to do so next year. I am confident that when one sees the good work carried out by the Association, one realises that the membership payment was for a good cause. Moreover, the greater the number of persons affiliated with the Association, the more will this organisation become relevant and a voice to be reckoned with; always to the benefit of it's members.

By now you are all aware of activities carried out by the MMA. However this year we broke into new territory. As from this year three midwives are going to offer a short course in Italian, targetting Italians residing in Malta. The Association has already made contact with the Italian Embassy in Malta. We are thankful for a positive response as the Italian language courses are now also being advertised on the Embassy's site. These courses are to start this February.

As for the English language courses which are quite established, the Committee decided not to stand on it's laurels but to upgrade the course. We are therefore going to pilot a change by trying to have courses for small groups, thus providing more time for the participants to engage in discussion, rather than just hearing a talk. But in order to move forward on this one, we need more

midwives if the courses are going to be split up.

From an administrative point of view, we are in the process of upgrading the MMA website. This is a major challenge but one that needs to be taken up.

On the educational and social activities fronts, basically all the activities on offer are provided free of charge or are, at least, heavily sponsored. This is only possible if enough funds are generated from the courses, since, as you are aware, attendees pay a small donation for the courses. After the administrative expenses – not least the rent for the two offices – are duly deducted, any surplus is directed towards sustaining the educational and social activities.

It is thus truly heart-breaking that you still encounter midwives who are totally unaware of all that is going on. Indeed, some have never set foot in, or are not even aware that the Association has two well-equipped premises which it rents out and maintains at some cost. True some of these do pay their membership but our appeal is that all midwives do their utmost to take an active interest in what the Association is doing.

But, basing myself on an ever-increasing interest that is being shown by colleagues, I am confident that as time moves on, more and more midwives will join the ranks of those who are already providing active input.

Doris Grima
Treasurer

The Malta Midwives Association would like to pay tribute in loving memory of two midwives who have passed to eternal life, **Doreen Cassar** and **Carmen Saliba**. May you rest in peace.
Your memories live on forever in our hearts.

Half Day With A Difference

Date: 20th March 2018

Time: 8.45am - 1.00pm

**St. Peter's Monastery
St. Benedict Sisters,
Mdina**

**Service conducted by:
Fr Franco Fenech OFM**



Refreshments available

Donation of € 5.00

Malta Midwives Association



Voices of the Region

Voices of the Region is the title of a series of films produced by the World Health Organisation Regional Office for Europe, as part of a media campaign launched at the 67th Regional Committee for Europe in Budapest, Hungary. These short films incorporate six individuals from the WHO European region who share their personal insights about current health issues. These all serve as an evidence base for the development and implementation of health and other policies in light of achieving the 2030 agenda for Sustainable Development. This series of films further highlights that this goal not only depends on contribution of healthcare professionals but also on collaboration with professionals across different sectors and with the public. One of these voices was me; Lauren Marie Grech, a midwifery student from the University of Malta.

I was chosen to represent midwifery and the University by Prof. Maria Cordina from the Department of Clinical Pharmacology & Therapeutics, who was entrusted with the local coordination of this project. As a student I was chosen to be the 'face' of the human resources for health of the future. One of the main aims of this media campaign was to share personal reflections about health, the quality of care provided and the impact

of health bureaucracy. Given I would be representing not only the University and my country but also midwifery, I proudly agreed to contribute to this campaign.

When asked why I wanted to study midwifery, I could not cease to highlight the beauty and uniqueness of the midwifery and how it sets aside from other health care professions. The midwifery profession is a specialisation in itself. The International Confederation of Midwives (2017) describes the midwife as the accountable professional who is able to deliver primary care during the progress of a normal pregnancy and to conduct normal vaginal births. Routine abdominal examinations to measure foetal wellbeing and uterine activity are being surpassed by ultrasound scans and cardiotocography in the obstetric sector; medicalising pregnancy and reducing midwifery skills more and more in the process. We are living in the 21st century and technology has made immense advances, becoming a great aid in medical science. I believe we should make use of the benefits technology has to offer but only as a tool when necessary and not routinely. Balancing between using technology and practising with our hands, helps midwifery students and experienced midwives keep in touch with the roots of their profession and aids to keep up the recognition the profession has.

It is not only vital to respect peer midwives, but it is of great significance to fundamentally acknowledge and respect the importance and beneficence of working with

other professions. In practice as midwives, collaborating as a team is a strength in itself but when necessary, establishing interdisciplinary relationships with different health care professionals is also significant in the interest of the mother and baby's welfare. This emphasis applies not only to obstetricians or anaesthetists, as most commonly perceived, but also to pharmacists, physicians and other allied health professionals. The importance of respecting collaborative practice with multidisciplinary teams should not only be highlighted during education and training of the student, but also maintained in practice as a clinician.

The midwifery profession paves way to a lot of

opportunities in the career lifespan; from carrying out extensive research to even practising autonomously in the community or primary health clinics. I highlighted this issue in the video among other points, as I believe it is an honour, not only that such a precious profession has the privilege of advancing further but also because this same privilege is there for women following this course, empowering them to advance in their careers and to contribute to a better health system. I felt honoured to be one of two women, among all six voices from different regions



in this campaign, to represent my profession on such a global level and to speak on behalf of career women of the future. Whilst I acknowledge that the midwifery course is also available to male applicants, midwifery is still currently dominated by female beings locally; and I believe as women and future practitioners, we should feel empowered to find the courage and strength whilst using our knowledge, expertise and resources available to strive to maintain the integrity and dignity the midwifery profession holds.

It was a great honour and privilege for me to be a part of this remarkable project by WHO Regional Office for Europe. I trust that the right message was delivered and that an impact was left on target audiences in view of making a positive difference in healthcare.

Lauren Marie Grech

B.Sc. Midwifery (Hons) Student, University of Malta

References:

- Cordina, M. (2016). Guiseppina Sghendo - Il-Majjistra. *Malta Midwives' Journal The Stork*(7), 14-15.
- ICM. (2017). Retrieved from International Confederation of Midwives: http://internationalmidwives.org/assets/uploads/documents/CoreDocuments/ENG%20Definition_of_the_Midwife%202017.pdf
- WHO. (2017). *Voices of the Region*. Retrieved from WHO Regional Office for Europe: <http://www.euro.who.int/en/about-us/governance/regional-committee-for-europe/67th-session/multimedia/voices-of-the-region>

Gestarelle®

providing **the essential**
from pre-conception to lactation



Iron 14mg/day

- Reduces the risk of pre-maturity
- Allows the normal production of red blood cells and haemoglobin

In SYNERGY
With vitamins
C and B₁₂
increase in
iron
absorption

Omega 3 (DHA-EPA)

- Allows a normal visual and cognitive development**
- Reduces the risk of pre-term birth. Rebalances Omega 3/Omega 6.

Folic Acid (vit.B9) 400µg/day

- Prevents ANTC : anencephaly, spina-bifida
- Promotes a normal synthesis of amino acids

In SYNERGY
With vitamins
C, B₁₂ and B₆

Iodine 150µg/day

- Prevents hypothyroidism and brain development delay
- Prevents the development of goitre

Vit. C, B₁, B₂, B₃, B₆, B₉, B₁₂, E, Copper, Magnesium

Laboratoires
IPRAD

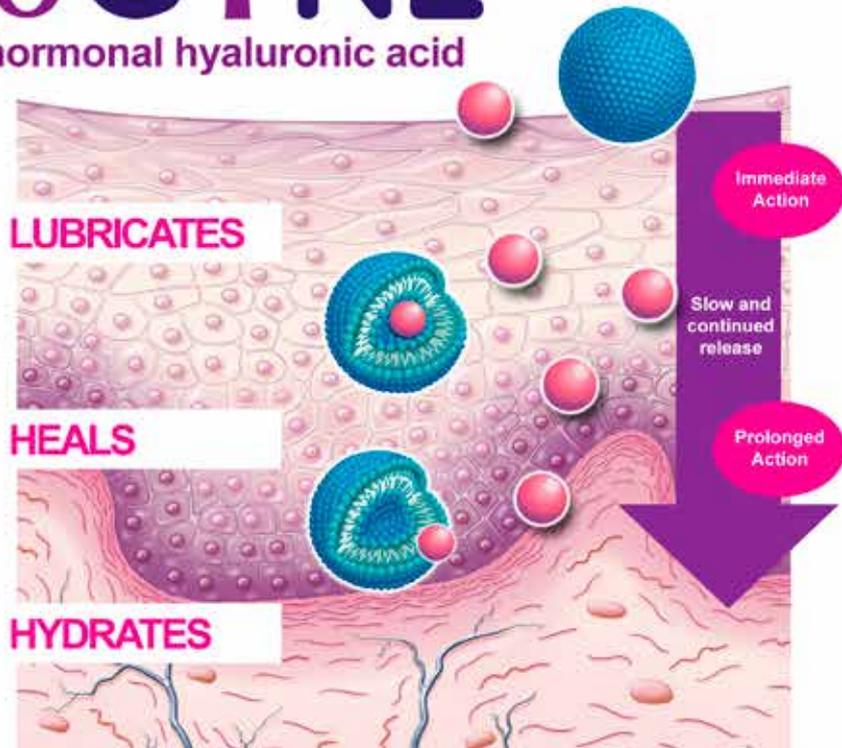
Distributed by Serolf Trading Agency Ltd. 21337231 info@serolf.com



mucoGYNE®

liposomal non-hormonal hyaluronic acid

- Vulvo-vaginal dryness
- Dyspareunia, Discomfort
- Post-partum, episiotomy, radiotherapy, local surgery



Laboratoires
IPRAD

Distributed by Serolf Trading Agency Ltd. 21337231

Restore your well-being



My Personal Experiences of Pregnancy & Birth

I am a mother of 2 little ones, my son turning 4 next week and my daughter turned two last May, now 38 weeks pregnant with my third baby, another boy soon to join the family.

I have always been a big fan of midwives. With my first pregnancy I attended the antenatal course at the Midwives Association. I just love the personal touch that midwives offer throughout the pregnancy. However, unfortunately here in Malta although we have a great system of free hospitals and doctors, the system does not give you the opportunity of getting to know your midwife during pregnancy and eventually to be with you during birth. I wish I had that option with my first born.

I would like to share with you my personal experience I had with my second baby. When I moved to New Zealand I was 20 weeks pregnant. As I did not know how the maternity system works there, I joined a Facebook mummy group. This group explained how the New Zealand system works and during pregnancy the mother is not seen by a gynaecologist or a doctor. They told me I needed to register with a midwife association, then from there you get a midwife that will guide you throughout your whole pregnancy, labour and up to 6 months after you give birth. I was very new to this whole system as in Malta with my first born I did not even use the public health system but I used to pay privately to be seen by a gynaecologist. I must say coming from a different background at first it was hard to trust this new system but I must say it was the most enjoyable journey ever.

To explain more in detail once you register with a midwife association you get two midwives that are available around your due date so if one happens to be in labour with a patient you will always have one available for you then you decide which midwife you would like to go for and she starts coming to see you at the comfort of your home. She will refer you to all the tests needed for your bloods, gestational diabetes, scans and everything needed, sometimes you go see her in hospital at the labour ward if she's got more patients on the same day but the last 2-3 months she comes to your house if all is well and you do not need any medical or hospital assistance, visits starting monthly then fortnightly to weekly for the last 4 weeks of your pregnancy. If the whole pregnancy going well and healthy you get 3 ultrasounds and the rest will be visits guided by your lovely midwife. She will check blood pressure, monitors baby's heart, checks your tummy by measuring it, checks your weight asks you questions and you can freely talk to her how you have been feeling, if you been having any difficulties with anything and so on.

What made this so special to me was the great connection I got from your midwife on a one to one level and I felt that I was being treated as an individual and not just a number.

In my case my daughter was 10 days late and if you are feeling good and healthy in New Zealand they leave you up to 42 weeks without doing any sweeps as they are very against messing up with nature, it's all about letting your body do its course. Our bodies are made to give birth so they believe not to mess up with nature but let nature do it naturally in its own time. I had my hospital bags packed for the past 4 weeks but my lovely daughter had other plans. Lots of mothers in New Zealand plan a home birth but I was never really keen on the idea but my daughter ended being a home birth. When you start feeling contractions, waters break or something that does not feel right, you call the midwife and the midwife will guide you through, she asks you to monitor contractions and if frequent and lasting a good 50-60sec each then she'll make her way quickly to your house and then she'll check you to see if you are dilated then normally you make your way to hospital. Now in my case when the midwife arrived I had no time to get to hospital as my body was already urging me to push, so midwife was like no worries find a position and a place in the house and get ready to push.

By this time I had two midwives in my house and a trainee midwife, they guided me through and my lovely daughter was born in no time xxxx.

I had my daughter on my chest for one to one bonding straight away while resting in my own bed. After the placenta came through, husband made me breakfast, we wrapped baby nice and cosy and laid her in her bed while I got up to have a shower. Midwives in the meantime stayed for the whole time to keep me and baby monitored. I asked the midwives if I need to go to hospital but they reassured me that everything is fine and we stayed comfortable at home.

After a few hours midwives left and we started our lives as a family of four. The midwife came to visit me and baby weekly for the first month, then every fortnight, then monthly to make sure we were doing well. After 6 months when the midwife's visit stops there is a community nursing service called Plunket they come home to check on you with everything emotionally, physically, post natal depression, do checks on the baby to make sure that he is growing nicely and healthy and guide you with everything up till the child is 5 years.

This was an amazing experience especially for me being a foreigner, living in a foreign country miles away from home without any family members.

Thank you for allowing me to share this experience with you and I truly hope that in the near future the maternity health system in Malta allows midwifery care to be delivered by midwives and amalgamate midwifery services in the community.

Caroline Bond

KNOV

Midwifery Summer School

Introduction

Back in May, thanks to the Malta Midwives Association, Annalisa Abela and Jeannine Cassar embarked on a journey to the beautiful Netherlands, for the Dutch midwifery summer school hosted by KNOV (Koninklijke Nederlandse Organisatie Van Verloskundigen). The KNOV welcomes midwives from all over the world. During the opening meeting held at the KNOV headquarters they had the pleasure of meeting with midwives from Germany, Morocco, Australia and New Zealand. It was enlightening to see how each midwife practices in her country. The ultimate objective of all attendees was to reach the best care for women and their families.

Maternity Care Culture

Maternity care in the Netherlands is divided into primary or midwifery-led care for low risk women and secondary or obstetrician-led care for women with an increased risk of complications. Low risk women who start their labour in midwifery-led care will have: a term, singleton pregnancy; no (known) non-cephalic presentation; a spontaneous start of labour and no other obstetric risk factors for a normal physiologic birth. Medical interventions during labour such as medicinal pain relief, which also includes use of nitric oxide, electronic foetal monitoring and augmentation of labour, will only take place in obstetrician-led care in hospital. Around 80% of women start their prenatal care in midwifery-led care and around 55% of women start their labour in midwifery-led care (Mannien et al., 2012).

The Dutch maternity system is characterised by the concept that pregnancy and childbirth are mainly physiologic processes, in which women who experience natural birth can deal with labour pain. Most Dutch women and midwives believe in the working with pain approach, if labour proceeds well, rather than believing in the pain medication approach. Despite the Dutch-culture of natural childbirth the number of women having a vaginal birth with the use of pain medication in labour has risen from 5.4% in 2003 to 17.6% in 2012 (Mannien et al., 2012).

Differences between countries in the number of women who receive pain relief medication during labour, as well as the type of medication that is used by women illustrate differences in cultural views on management of labour pain. Culture plays a significant role in attitudes toward labour pain and coping mechanisms used to manage pain in childbirth. Historical documents demonstrate that some cultures accept pain as part of their life and consider it as a fundamental element for growth and spiritual promotion (Gibson, 2014). In several modern western societies, pain is not accepted anymore as something you can handle or work with but it is something, which can be suppressed with the help of modern pain relief techniques (Ayers, Eagle and Waring, 2006). Dutch midwives believe that if women

feel supported in dealing with labour pain, it will result in a positive effect on women's sense of internal control. Hodnett et al. (2012) also concluded that women who give birth in their own environment or in an environment, which looks like home are more satisfied, use less pain medication and experienced more normal vaginal births compared to women who give birth in hospital.

Personal Experience- Annalisa Abela

I spent two weeks shadowing midwives in a city in the centre of the Netherlands known as Veenendaal. The city is known for being one of the bigger cities within the Dutch Bible Belt, a strip of land with the highest concentration of conservative Protestants in the country. This usually means large families with an average of five or more children, making midwives in this area fairly busy.



Midwives have their own private practice named Verloskundigen Veenendaal, where they will meet women during the antenatal period. They are able to carry out ultrasounds, do external cephalic versions as well as inserting a mirena to women who wish to use this method for contraception. Personally, to me they seemed wonder midwives, capable of doing it all. The private practice is a business to them and they promote it often to encourage women to choose their practice.



mothercare

Journey

everything you need for life's
most exciting journey

new
arrival

only
€449



welcome to the club

Sliema T. 2131 5122 | B'Kara T. 2149 4555 | Valletta T. 2123 6717 | Fgura T. 2180 5944 | Gozo T. 2156 0021

✉ mothercare@camillergroup.com

🌐 www.mothercare.com.mt

📌 [mothercaremalt](#)

This also means that midwives have to keep up to date not only with research but also with practices so that they can offer a more comprehensive service making them more attractive to their prospective clients.

The clinic has a welcoming environment that does not give you at all a sense of hospital or medicalization. Midwives meet with women here and give specific information and advice according to the progress of the pregnancy. All data is recorded on a programme on the computer which can be synced to a tablet that they use when doing home visits and can also be sent to other health care professionals or hospital if the need arises. There are two teams of midwives composed of five midwives each and each team has their own case load of mothers.

Home Environment

In this region, quite a number of women choose to have a home birth. The midwives usually do a home visit prior to assess the suitability of the house for a home birth. A midwife from each team is on call for 24 hours. Mothers have their teams' phone number and contact them accordingly. Witnessing a birth in a home setting is quite an experience. The thought of having a home birth is mostly associated with a mess left at home, however this proved to be the opposite. With the right planning it can be the most tranquil and hygienic birth you will ever witness.

It is also a family affair, with their loved ones present and supporting the couple. What was amazing to me was that whilst a family's life was changing in this house everything on the outside continued as normal. Children were playing on the swings, people were going round by bikes and no one was aware of what this amazing woman was going through inside her home. Everything was so calm and natural. Even when a woman had to be transferred to hospital because of failure to progress during the second stage, it was done very serenely and in an organized fashion, everyone knew exactly what to expect and what had to be done.

An essential component of the midwifery system is the kraamvogel. This is a health care professional who assists the midwife during labor and then stays with the mother for the following weeks to help her in day-to-day tasks, whilst she gets used to the new role as a mother as well.

The kraamvogel also assesses feeding and maternal recovery and will inform the midwife should she notice any unusual occurrences. The arrival of a baby is a big celebration and usually you would find the houses highly decorated to signify the new addition to the family.

Coming back from this experience, I felt more trusting. I believed in the ability of a woman to go through birth without medical pain relief and I wanted to believe that, even though we work in a highly medicalized environment we could still achieve the physiological birth, with proper education, and trying to meet women as much as we can during the antenatal period.

A few weeks after I arrived from this experience, during a night duty, an ambulance call resulted in a very quick home birth. What was surprising was that I did not feel scared, which was what I might have felt before

embarking on this journey. I merely felt the excitement of being able to put what I had learnt in practice.

And believe me, there was no mess at all!

Personal Experience - Jeannine Cassar

My placement took place in a midwifery practice in Lunteren which is a small, religious village in the centre of Holland. The practice was run by three midwives. Compared to other practices which are usually run by eight to ten midwives, this practice was very small. However the advantage of such a small practice is that it captures the wonderful ways of community midwifery. The midwives are well known and respected for their work, having helped birth two generations in this community.

These three midwives run their clinic based in the centre of Lunteren, accessible to the entire village and its outskirts. The clinic has a very homely environment displaying pregnancy related books, toys for children to play with as well as tea and coffee. This welcoming atmosphere immediately made me feel at ease when I stepped into the clinic. Thus, I think this atmosphere has the same influence on all pregnant women and their families attending the clinic.

Every Monday and Tuesday these three midwives take it in turn to open the clinic and see to the antenatal appointments. Moreover they alternate their twenty-four on call shift and do postnatal visits. Their aim in rotating the hours of the clinic is to have the opportunity to meet



with all antenatal mothers. In that way, when going into labour, mothers would have met with all three possible midwives who can be on call to assist them during their delivery. Although there was a language barrier and a short period of two weeks, I could instantly identify the close relationship these midwives built with their clients over the antenatal period. This was heart-warming to see. It would be encouraging to see us midwives work towards a potential form of antenatal care similar to the one in the Netherlands.

At each antenatal appointment midwives carry out full antenatal examinations at every gestation. During the initial booking appointment a photograph of the mother and her family is taken. This serves as a record for the midwives to remember their clients. Moreover a detailed discussion takes place similar to our antenatal booking assessment. At the eleventh week appointment the blood tests are taken by the midwife at the clinic. These are then sent by post to the lab at the nearby hospital. Each antenatal appointment is logged into a system called 'Onatal'. Every detail of information can be accessed on this system by every midwife from their



computers, iPads or phones. Furthermore, hospital staff can also access the information if the mother is admitted to hospital. Hence, there is no use of paperwork.

Antenatally, the families create a very special relationship with these midwives. The lengthy conversations that take place in the safe environment of the clinic mentally prepare mothers and their families for labour. Although discussions about the different methods of pain relief and choices of a birth place do take place, the midwives believe in empowering the mothers and their partners, and helping them believe in themselves and in their decisions (Hermansson & Mårtensson, 2011). Hence, this allows the couple to be fully in control of the pregnancy under the guidance and support of the midwife.



Postnatal care is quite similar to the postnatal community care in Malta. The midwives visit the mothers every alternating day in their first week after delivery, and once weekly after that. Moreover, they liaise with the 'Kraamzorg'. Kraamzorg are carers whose job is to stay with the mother, her new born and family in their home for eight hours a day for a week and attend to any of the needs of the family. These include aiding the mother with breastfeeding and assisting in any housework or cooking. Moreover they also check certain parameters including the baby's weight and temperature. These parameters are all recorded in a baby's book which the midwife can follow from in her visits. Having a baby can be an overwhelming experience for certain families which some may take time to adjust to. Therefore, the Kraamzorg help families to adjust themselves in their home and to their new life as parents. Thus, there is a constant support in reaching realistic goals and expectations in motherhood and parenthood (McQueen & Mander, 2003) which in turn helps the parents' psychological needs.

During their visits the midwives took their time to sit down with the mothers and listen to their experience of labour and transition to motherhood. Witnessing these visits as an outsider seemed as though the midwife and the mothers were two friends having a conversation over coffee. However whilst the midwife gathered her information about the family's progress, this served as a

platform for the mother to vent any concerns, frustrations and joys, thus influencing her coping mechanisms psychologically.

Being part of a homebirth was a very uplifting experience. I heard and watched videos of homebirths, so I had a clear idea of what to expect. However, participating in one and aiding in the preparations made me realise the difference in work it entails. This particular home birth took place in the outskirts of the village in a farm house.

It was not a rushed process. In the latent phase of labour the midwife and I kept going back and forth to the mother's house to provide encouragement. Once she was in active labour we remained at her house and made all the necessary preparations. These included the birth stool and sterile areas. The mother was accompanied by her husband and also the Kraamzorg.

The atmosphere in the house was calm and light. Although I could not understand their conversations, I was able to see how these influenced the mother. Certain moments of laughter made her cope very well, with the use of breathing exercises. Moreover, she was able to move freely around the house with minimal amount of clothing, making her feel tranquil. In the end the delivery of the child was a touching experience with a lot of emotions from both sides. The relationship and trust between the midwife and the parents reached its climax here, in which I was in awe of.

This experience lit a flame in me and left me wanting to be a better midwife and provide the best, natural care for families. I encourage my colleagues to go on such a journey and explore the different ways midwives work around the world. We can all learn from each other and aid one another to push our profession forward.

References:

- Ayers, S., Eagle, A., & Waring, H. (2006) The effects of childbirth-related post-traumatic stress disorder on women and their relationships: A qualitative study. *Psychology Health and Medicine* 11(4):389-98 · December 2006.
- Bohren, M.A., Hofmeyr, G., Sakala, C., Fukuzawa, R.K., Cuthbert, A. (2017) Continuous support for women during childbirth. *Cochrane Database of Systematic Reviews* 2017, Issue 7. Art. No.: CD003766. DOI: 10.1002/14651858.CD003766.pub6
- Gibson, F. (2014) Midwifery vs. Midwives: what doctors called "the midwife problem". <https://faithgibson.org/midwifery-vs-midwives-midwife/>
- Hermansson, E. & Mårtensson, L. (2011). Empowerment in the midwifery context – A concept analysis. *Midwifery*, 27(6), pp. 811-816. doi:org/10.1016/j.midw.2010.08.005
- Hodnett, E.D., Downe, S., Walsh, D. (2012) Alternative versus conventional institutional settings for birth. *Cochrane Database of Systematic Reviews* (2012) <http://onlineibrary.wiley.com/doi/10.1002/14651858.CD000012.pub4/abstract>
- Manniën, J., Klomp, T., Wiegers, T., Pereboom, M., Brug, de Jonge, A., van der Meijde, M., Hutton, E., Schellevis, F., and Spelten, E. (2012) Evaluation of primary care midwifery in the Netherlands: design and rationale of a dynamic cohort study (DELIVER). *BMC Health Services Research* 2012 12:69.
- McQueen, A. & Mander, R. (2003). Tiredness and fatigue in the postnatal period. *Journal of Advanced Nursing*, 42(5), PP. 463-469. doi:10.1046/j.1365-2648.2003.02.645.x



Championing Maternal & Child Healthcare: Quality, Equity & Dignity - 1st and 2nd February 2018 @ Hilltop Gardens, Naxxar



Prof. Lesley Page



Dr Rita Borg Xuereb



Malta Breastfeeding Seminar - Dar San Ġużepp, Sta. Venera



Gozo Breastfeeding Seminar - Manresa Jesuit Retreat, Rabat - Gozo



Determining Breastfeeding Compatibility in Mothers on Medications

Breastfeeding has been shown to provide optimal health and nutrition, for both the neonate and the mother. Human milk contains growth and immune factors, cytokines, and other substances shown to be beneficial to the newborn infant that cannot be replicated in artificial feedings. To the mother, breastfeeding promotes postpartum weight loss and other benefits such as reduced incidence of hypertension and breast and ovarian cancers. Furthermore, breastfeeding helps promote bonding between mother and child and is naturally the most cost-effective option¹⁻³.

The use of medications in breastfeeding mothers is often controversial. Most women take at least one drug during the time they are breastfeeding, which may pose a risk to the nursing infant. Parents' perception of the risk may lead to noncompliance with the mothers' medications or unnecessary cessation of breastfeeding. Given its health, sociologic and economic benefits it is essential to have good resources to guide decisions about drug use during breastfeeding⁴.

Each registered drug is accompanied with a Summary of Product Characteristic (SmPC), which is a legal document approved as part of the marketing authorisation of a medicine. This provides the basis of information for healthcare professionals on how to use medications safely and effectively including that in breastfeeding mothers⁵. It has been reported however that important information on the use of medicines during breastfeeding is often missing in SmPCs. Arguello et al.⁶ analysed whether 534 SmPCs registered with the European Medicines Agency in 2011 provided clear instructions regarding medicine use in pregnancy and lactation. They report that the excretion of drugs in human milk was unknown in 61.4% of SmPCs and only identified in 16.5% of the SmPCs (of which 88.6% did not inform of possible adverse drug reactions in the neonate). With regards to recommendations for the use of these drugs in breastfeeding, 92.1% of SmPCs restrict their use (despite not providing information on drug excretion in breast milk in 16.9%) whilst almost 20% of SmPC give ambiguous recommendations. In summary, information on the use of medicines during breastfeeding is missing or ambiguous in these legally-binding documents.

Hence it is often necessary to use medications in breastfeeding women outside the terms of their license (off-license) to fulfil the need of individual patients due to the absence of suitable, authorized alternatives. Off-license use can be fully rational and sometimes is the only treatment option for the patient⁷. The clinical responsibility and liability for the off-license use of medications lies with the prescriber and this decision should be backed up by preferably two or more reliable resources.

There are several resources providing information for drug use in lactating women. These include: "Drugs in Pregnancy and Lactation"⁸; "Medications and Mothers'

Milk"⁹; "LactMed"¹⁰; "Micromedex®"¹¹ (online subscription required) and "Evidence Summaries Drugs in Lactation, NHS Midlands Medicines"¹². Their recommendations are generally based on the pharmacokinetics and pharmacodynamics of the drug, literature reports and ratings from other institutions.

Prescribing medications for a breast-feeding mother requires weighing the benefits of medication use for the mother against the risk of not breast-feeding the infant or the potential risk of exposing the infant to medications¹³. Exposing the unborn child to a drug in pregnancy without adverse effects does not make the drug automatically compatible with breastfeeding, since after delivery, drug elimination relies solely on the neonate's clearance mechanisms¹³.

Medications are transferred into breast milk by passive diffusion. Drugs with a low maternal plasma concentration (e.g. drugs that are not or are minimally absorbed from the gastrointestinal tract: nystatin, ispaghula husk, sucralfate) are less likely to pose a problem in breastfeeding. Decreasing drug maternal levels promotes retrograde diffusion of the drug from breast milk into the maternal circulation for elimination. This usually occurs for drugs with a very short half-life and weak acids (e.g. penicillins, aspirin, diuretics) and for longer breastfeeding intervals. Hence, weak acids do not usually accumulate in mother's milk. Drugs that are weak bases (such as amphetamines and isoniazid) become ionised in milk making them more water soluble and less able to diffuse back out into blood. "Trapping" of the drug may lead to accumulation in milk^{1-3,9,13}.

Most drugs pass into breast milk, although they differ in the extent to which this occurs and their ability to harm the neonate or affect lactation^{2,4,9}. In the first two weeks postpartum, large gaps between the mammary alveolar cells allow an increased access of drugs into milk, which may not be able to enter in mature milk^{2,9,13}. Drugs may transfer into breastmilk if they are lipophilic, have low molecular weights, are non-ionised and low protein binding. The mammary epithelium is a lipid membrane, making lipophilic drugs (such as benzodiazepines and chlorpromazine) more likely to dissolve in the fatty globules in milk. Water-soluble drugs with small molecular weights (< 200 Da) cross into milk readily passing through aqueous pores surrounding the alveoli. Molecules larger than 800 Da (e.g. Heparin) are too big to cross biological membranes into breast milk. Highly protein bound drugs (e.g. phenytoin, warfarin and propranolol) remain in the maternal circulation. It is those drugs

which are freely soluble in the plasma (low-protein binding) that are most likely to pass from the mother's bloodstream into breast milk^{1,2,9,13}.

The bioavailability of a drug is important in determining breastfeeding compatibility. Bioavailability refers to the rate and extent to which an active substance

is absorbed from the pharmaceutical form (e.g. tablet, capsule, etc.) and becomes available at the site of action. Medications with poor oral bioavailability may be considered compatible with breastfeeding because they are usually minimally absorbed from the gastrointestinal tract or undergo significant first-pass metabolism thus pose little risk. Medications that are poorly absorbed (e.g. gentamicin and dopamine) will not reach infant plasma, but can cause side effects including diarrhoea or constipation and rarely pseudomembranous colitis^{1,2,4,9,13}. Drug release mechanisms need to be taken in consideration since they can be responsible for different drug absorption patterns in the mother and the breastfeeding infant. For example mesalazine used for the treatment of maternal ulcerative colitis or for crohn's ileo-colitis is available as modified release tablets. Unlike maternal oral absorption, any amount of mesalazine appearing in breast milk is likely to be well absorbed by the breastfeeding infant because the infant does not benefit from the delayed-release characteristics of the maternal oral tablets¹¹. Drug pharmacokinetics (e.g. absorption) may differ in adults and newborns also because of physiological variations between the two groups. For example premature infants maintain a neutral gastric pH during the first two weeks of life allowing usually acid-labile drugs (e.g. penicillins, omeprazole) to be well absorbed and basic drugs to be absorbed more rapidly. Conversely, weakly acidic drugs (e.g. phenobarbitone) have decreased absorption in infants compared with adults².

The immaturity of renal and hepatic systems in neonates means they have reduced ability to eliminate drugs and possibly cause drug accumulation. Drug elimination rates are considerably lower in premature infants, increasing more slowly than in full-term infants. Glomerular filtration rates reach adult values around 6 months of age, although other factors such as tubular secretion and tubular reabsorption and lower urinary pH in infants also affect drug excretion^{2,4}. This is of particular concern for central nervous system depressant drugs (e.g. opioids). The effect is even more pronounced in premature infants or in those with kidney or liver disease, particularly where the drug has a long half-life (e.g. fluoxetine and antipsychotics).

Finally, the toxicity of the drug should also be considered. Drugs such as ciclosporin and methylenedioxymethamphetamine (Ecstasy) are potentially very toxic and definitely not compatible with breastfeeding.

Evaluating the available information on the compatibility of drugs in breastfeeding women may be challenging. Where possible drug therapy should be avoided or topical therapy used. It is important to be aware of the resources available and utilize reliable and up-to-date information. Medications that are safe for use directly in an infant of the nursing infant's age are generally safe for the breast-feeding mother. However, medications that are safe in pregnancy are not always safe in breast-feeding mothers. Although few drugs are

truly contraindicated in breastfeeding, medications enter breast milk and produce various concentrations, some leading to higher exposure in a nursing infant. Hence the importance of monitoring the neonate for adverse effects^{1,9,13,14}. By understanding better the pharmacokinetics and pharmacodynamics of drugs during breastfeeding, we can assist mothers in making well-informed decisions about medication use during breastfeeding, thus optimizing outcomes for both infant and mother^{1,2,9}.

References

- 1 Burkey BW, Holmes AP. Evaluating Medication Use in Pregnancy and Lactation: What Every Pharmacist Should Know. *J Pediatr Pharmacol Ther.* 2013; 18(3): 247–258.
- 2 Kelsey JJ. Drug Principles in Lactation. [homepage on the internet]. Lenexa: Pharmacotherapy Self-Assessment Program; 2016 [cited 2017 Nov 27]. Available from: https://www.accp.com/docs/bookstore/psap/p2016b3_sample.pdf
- 3 Peddlesden J. Drugs in breastmilk. [homepage on the internet]. Toronto: Rogers Publishing Limited; 2005 [cited 2017 Nov 27]. Available from: http://www.canadianhealthcarenetwork.ca/files/2009/10/PPRCE_AUG05.pdf
- 4 Department of Clinical Pharmacology. Clinical Pharmacology Bulletin, Drugs and Breastfeeding. [homepage on the internet]. Canterbury: Christchurch; 2004 [cited 2017 Nov 27]. Available from: http://www.druginformation.co.nz/Bulletins/Drugs&Breastfeeding_bulletin.pdf
- 5 Fasanya O. Summary of product characteristics (SmPC), What is it and what does it contain? [homepage on the internet]. London: European Medicines Agency; 2013 [cited 2017 Nov 27]. Available from: http://www.ema.europa.eu/docs/en_GB/document_library/Presentation/2013/01/WC500137035.pdf
- 6 Arguello B, Salgado TM, Fernandez-Llimos F. Assessing the information in the Summaries of Product Characteristics for the use of medicines in pregnancy and lactation. *Br J Clin Pharmacol.* 2014; 79(3): 537-544
- 7 Weda M, Hoebert J, Vervloet M, Moltó Puigmartí C, Damen N, Marchange S et al. Study on off-label use of medicinal products in the European Union. [homepage on the internet]. European Union: Netherlands institute for health services research, National Institute for Public Health and Environment, European Public Health Alliance; 2017 [cited 2017 Nov 27]. Available from: https://ec.europa.eu/health/sites/health/files/files/documents/2017_02_28_final_study_report_on_off-label_use.pdf
- 8 Briggs GG, Freeman RK, Towers CV, Forinash AB. *Drugs in Pregnancy and Lactation.* 11th ed. Philadelphia: Lippincott Williams and Wilkins; 2017.
- 9 Hale TW, Rowe HE. *Medications & Mothers' Milk.* 17th ed. New York: Springer Publishing Company LLC; 2017.
- 10 NIH, U.S. National Library of Medicine. *Drugs and Lactation Database (LactMed).* [homepage on the internet]. Bethesda: Toxnet; 2017 [cited 2017 Nov 27]. Available from: <https://toxnet.nlm.nih.gov/newtoxnet/lactmed.htm>
- 11 Micromedex® solutions. [homepage on the internet]. Truven Health Analytics LLC; 2017 [cited 2017 Nov 27]. Available from: <http://www.micromedexsolutions.com/micromedex2/librarian>
- 12 Midlands Medicines. Evidence Summaries Drugs in Lactation. [homepage on the internet]. Nottingham: Midlands Medicines; 2012 [cited 2017 Nov 27]. Available from: <http://www.midlandsmedicines.nhs.uk/content.asp?section=6&subsection=25&pageldx=1>.
- 13 Spencer JP, Gonzalez LS, Barnhart DJ. Medications in the Breast-Feeding Mother. *American Family Physician.* 2001; 64(1): 119-126.
- 14 Midlands Medicines. Breastfeeding mothers and medicines - general guidance. [homepage on the internet]. Nottingham: Midlands Medicines; 2012 [cited 2017 Nov 27]. Available from: <http://www.midlandsmedicines.nhs.uk/content.asp?section=6&subsection=17&pageldx=4>.

Ann-Marie Cassar Flores

B.Pharm (Hons), MSc Clin Pharm (Aberdeen)



MIDWIVES AND NURSES
JOIN FORCES TO CELEBRATE

The International Midwives and Nurses Day 2017

5th May

Midwives:
Making a difference in the world

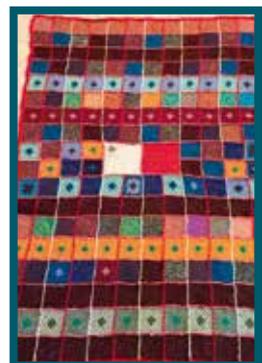
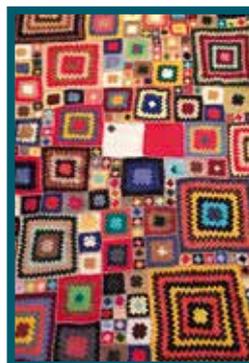
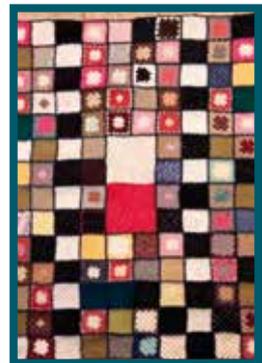
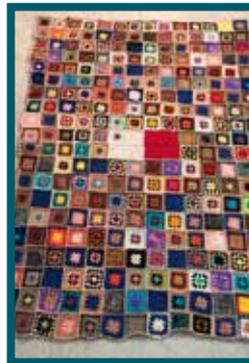
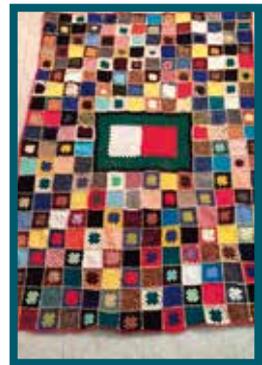
12th May

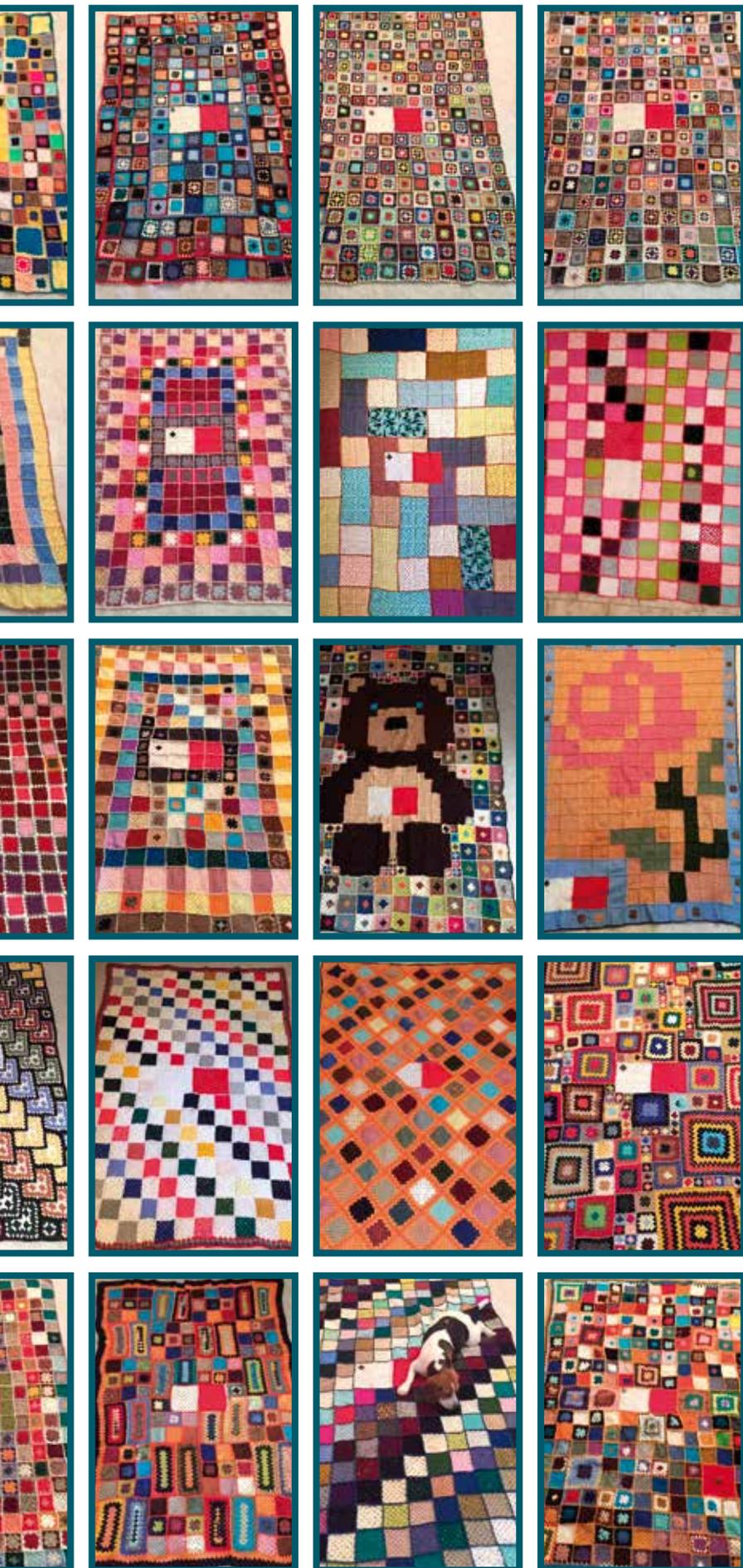
Theme 2017

Nurses:
A voice to lead
Achieving the Sustainable
Development Goals

The Malta Midwives Association
in collaboration with the
Organizzazzjoni Studenti Qwiel
is encouraging midwives, nurses and students to celebrate
The International day 2017 through generosity and
commitment toward persons in need.
The two organisations are supporting
the Malta Society of Arts
<http://artsmalta.org/l-ikbar-kutra-fid-dinja>
in their noble effort
“Holqien tal-ikbar kutra maħduma bil-ganċ fid-dinja
- kutri se jiġu mqassma direttament lil persuni u
organizzazzjonijiet li jeħtiġuhom”.

Midwives, Nurses and students were always at the forefront
to care for, help and support vulnerable individuals.
All who wish to contribute contact
Malta Midwives Association 77237117
or maltamidwivesassociation1974@gmail.com
for free wool





CONTRIBUTORS

***Midwives,
Nurses,
Student Midwives,
Health Care
Professionals from
Other Departments
& Relatives of Staff***

- Pauline Abela
- Josephine Aquilina – (Relative)
- Maria Aquilina
- Maris Aquilina
- Pauline Attard Flores
- Carmen Baldacchino
- Isabelle Bartoli
- Mary Bartolo
- Daniela Buttigieg
- Mary Buttigieg Said
- Josephine Camilleri
- Rita Calleja
- Graziella Cardona Mills
- Maria Cassar
- Sandra Castillo
- Rita Cauchi
- Mariella Chetcuti
- Marthese Chircop
- Catherine Cilia
- Grace Cini
- Giselle Curmi
- Carmen Dimech
- Miriam El Masri
- Rita Galea
- Rosanne Garzia
- Mary Lou Marshall
- M' Grace Martin
- M' Rose Mifsud
- Rose Polidano
- Rosalie Sammut
- Jessie Schembri (Relative)
- Censina Schembri
- Maria Schembri
- Doris Spagnol Abela
- Audrey Scerri
- Yanika Vella
- Staff – Obstetric Ward 2



High Risk Obstetric Anaesthesia

The characteristics of the typical pregnant woman have changed over the last decades. Women with more and more complex medical problems are becoming pregnant. Morbid obesity is an ever-increasing problem. Maternal age is another factor that has changed, with a larger proportion of women becoming pregnant at a later stage in their life. All of these mothers are having successful pregnancies and expect safe delivery of their babies.

Parturients who are considered to be high risk from an obstetric anaesthesia point of view include a wide spectrum, with some classifications being listed below:

- pre-existing chronic medical conditions or diseases, including respiratory, cardiac, metabolic and haematological diseases,
- abnormalities of the spine, including spina bifida occulta, previous spinal surgery and intervertebral disc prolapse,
- advanced maternal age,
- lifestyle choices such as continuing to smoke, drink alcohol or abuse of illicit drugs through pregnancy,
- pregnancy complications, such as (but not limited to) placental abnormalities, foetal problems, rhesus sensitization,
- multiple pregnancies,
- medical problems arising during pregnancy such as uncontrolled high blood pressure that may lead to pre-eclampsia or eclampsia, DVT,
- certain medications that the patient may be on, especially (but not only) anticoagulants that make neuraxial analgesia or anaesthesia more complex as the intervention needs to be timed to the dosing of these drugs, or in case of emergencies, general anaesthetic administered,
- mixed problems such as needle-phobia or anxiety,
- morbid obesity (BMI >40 or BMI >35 with other comorbidities).

The incidence of morbid obesity is still on the rise in our society and this is related to its own set of complications in the pregnant patient. Although it does not affect the severity of labour pain, for instance, it is a well known fact that it is technically more difficult to establish epidural analgesia in the obese parturient. Several attempts at catheter placement may be necessary and obesity also influences the distribution, elimination and response to anaesthetic drugs. Even more so than in non-obese women, neuraxial anaesthesia is preferable to general anaesthetics, not least because of the even greater incidence of difficult airway. Hence, epidural placement early in labour is recommended in obese patients, especially given the increased risk of operative delivery associated with obese parturients.

Anaesthetists often contribute to the care of the high risk obstetric patient, to help the rest of the multidisciplinary team ensure the best possible outcome for both the mother and her baby. The maternal physiological and anatomical changes that accompany pregnancy, as well as consideration of the foetus, influence safety of any anaesthetic intervention during the peri-partum period.

Given the unpredictable and, not infrequently, difficult situations on labour ward, as well as the responsibility of having to consider two lives rather than one, together with the ever-increasing workload of the anaesthetist on labour ward, can make this a stressful time for anaesthetists on labour ward.

The *Saving Mothers' Lives 2003-2005* document reported that a large proportion of parturients with medically complex pregnancies did not always have a clear management plan and this is still the case to-date in Mater Dei Hospital.

An antenatal anaesthetic clinic would greatly improve the quality and level of safety of analgesia and anaesthesia provided, by allowing a detailed antenatal assessment of the high risk mother and prepare an individualised peri-partum plan for these women, involving the multidisciplinary team as necessary. This would avoid unanticipated difficulties in case of emergency presentation, when multi-disciplinary support is less freely available, as well as offer the pregnant mothers the opportunity to discuss methods of labour analgesia and appropriate anaesthetic technique in case of operative delivery.

The plan is to have a more formal referral system than is present at the moment. Referral is to-date done by the obstetrician, but nothing precludes a midwife who pinpoints a high risk pregnancy from alerting the obstetrician and reminding them to refer. In future, with appropriate training, midwives may become instrumental in the referral of patients to and in the running of such a clinic.

The ultimate aim is to always improve patient care, safety standards and provide the best outcome for the mother and her baby. Antepartum consultation allows all the members of the team and the patient to understand the issues involved and plan for a safe labour and delivery.

References

- CEMACH: *Saving Mothers' Lives 2003-2005*
- OOA/AAGBI Guidelines for Obstetric Anaesthetic Services Revised Edition May 2005
- Royal College of Obstetricians and Gynaecologists: *Standards for Maternity Care – Report of a Working Party. June 2008*

Dr Juanita Galea MD, DESA

Resident Specialist
Department of Anaesthesia and Intensive Care

The ART of Preserving Ovarian Reserve in Securing Reproductive Certainty

Part 2

Ovarian Reserve Preservation

A woman's history to natural conception of failed or cancelled IVF cycles is always a good indicator of future fecundity but Ovarian reserve tests: hormonal markers, ultrasound parameters, dynamic tests and ovarian histology are accurate aids for fertility specialists to establish potential fertility and plan best treatment options.

Hormonal Markers

Anti MÜllerian Hormone (AMH) is detected in the foetal ovary at 36 weeks gestation in the columnar granulosa cell of maturing, primordial follicles. It is related to the initial recruitment of growing follicles to be selected for dominance by the action of pituitary follicle-stimulating hormone (FSH).^[55,10] Serum AMH has the least intra-cycle variability and gives good prediction of oocyte quantity but not quality, prior embarking on IVF treatment.^[12,30]

	AMH Level ng/mL	AMH Level pmol/L
High	= 6.8 ng/mL	= 67.09 pmol/L
Normal	4 – 6.8 ng/mL	40.04 – 67.09 pmol/L
Low Normal	2.2 – 4 ng/mL	21.98 – 40.03 pmol/L
Low	30.3 – 2.2 ng/mL	3.08 – 21.97 pmol/L
Very low	= 0.3 ng/mL	= 3.07 pmol/L

Inhibin A and B are both released by the granulosa cells of the ovarian follicle and determine the quality and quantity of OR. Inhibin B is released in early follicular maturation and correlates with early follicular FSH levels in premenopausal women acting as an early indicator of DOR. While Inhibin B increases in early and mid-follicular phase, Inhibin A has a luteal peak and requires further development before can be used as a fertility indicator.^[30,12,47]

Follicle Stimulating Hormone (FSH) and Luteinizing hormone (LH) are two reliable tests performed prior commencing IVF treatment. Elevated serum FSH: LH ratio on day 3 of menses is a direct pituitary compensation for the older and less responsive ovary, indicating reduced ovarian reserve.^[30,12,47,44]

Serum Oestradiol (E₂) originates from the ovarian granulosa cells. Basal E₂ taken on day 3 of menses along FSH gives a clear indication of fertility. An elevated early follicular E₂ levels is associated with poor prognosis with increased risk of IVF cycle cancellation in respective of FSH levels.^[47,30,12]

Dynamic Tests. Serum or ultrasound tests alone do

not adequately identify DOR. Dynamic challenging tests; Clomiphene citrate challenge test (CCCT), Exogenous FSH ovarian reserve test (EFORT) and GnRH-agonist stimulation test (GAST) will differentiate between normal ovulatory women to those with impaired ovarian reserve.^[47,44,10,12] All three tests require base line hormonal mark levels, checked again after a period of stimulation. CCCT is most commonly used. Serum FSH levels are taken on day 3 of menses, Clomiphene citrate is given on day 5-9 and FSH is measured again on day 10. Elevation of hormone would indicate an early production of FSH, suggesting poor ovarian reserve.^[12,44,47]

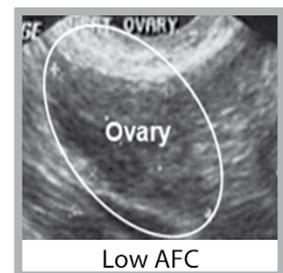
Ultrasound Parameters

Antral follicle count is a scan done on day 3 of menses. Both adnexa are checked for antral follicles. Count of <5 follicles indicate poor ovarian reserve. The disadvantage of this test is the cycle-cycle differences, biological variation and intra observer differences; however, it is still one of the most reliable indicators than age or endocrine markers.^[30,12]

Ovarian volume / vascularity decreases with age. This validates the significant loss of number of follicles and alteration in ovarian stromal blood flow. Both tests are done by a trans vaginal scan and good predictors of success during IVF cycles.^[12,30,14]



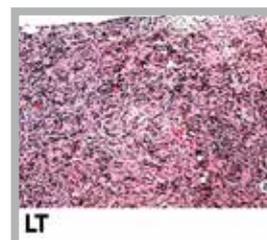
High AFC



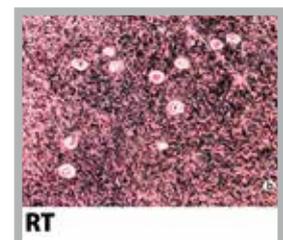
Low AFC

Histology

Ovarian biopsy assesses number of primordial follicles in the ovarian cortex. It gives a more accurate indication of oocyte yield than biochemical and ultrasound tests, however given the invasiveness and surgical risk, ovarian biopsy should not be considered as a routine method for ovarian reserve evaluation.^[47,44]



LT



RT

Nasal hygiene



The essential act for baby care

During the first months of life, babies' breathing is almost exclusively nasal and they cannot blow their noses. Their natural defences, which are still immature, make them delicate individuals. The solution in order to protect them: **STÉRIMAR baby**.

A simple act of daily hygiene for a healthy nose.

An act that puts a smile back on a baby's face

Babies feel very bad about having a blocked nose since they cannot readily breathe through their mouths. As soon as the mucosae become obstructed, they sleep poorly, become grumpy, turn down their meals and also run the risk of becoming dehydrated. Used every day during washing, **STÉRIMAR baby** ensures a perfect lavage of the nose. From the first spraying onwards, they breathe more easily and recover their smile. A genuine alternative to physiological saline, **STÉRIMAR baby** therefore helps to prevent disorders of the ENT sphere (colds, rhinopharyngitis and otitis...) by reinforcing the natural defences of a baby's nasal mucosa.



A pampered little nose...

Rich in trace elements and mineral salts, **STÉRIMAR baby** is an isotonic seawater solution that does not irritate a baby's nasal mucosa since its salt concentration is similar to that of the cells of a baby's body. Its baby nozzle, equipped with a collar, has been specially designed to be gentle on a baby's nose. So, right from the earliest months, make **STÉRIMAR baby** a daily habit!



Washing a baby's nose: instructions

Lay the baby on his/her side or in a sitting position with the head tilted to one side:

- spray once to prime the system,
- gently insert the nozzle into the baby's nostril,
- administer one spraying and allow the surplus solution, which should contain the mucus, to drain away and wipe the nose,
- clean the nozzle with soapy water, rinse and wipe,
- repeat the operation in the other nostril.

Available in pharmacies and parapharmacies



LT RT

Biopsy taken from Monozygotic twins. Notice the absence of primordial follicles on the Left slide. The twin on the Right slide donated ovarian tissue to her sibling, resulting in a pregnancy.

Fertility Preservation

Subfertility is a worldwide issue and Assisted Reproductive Technologies (ART) with ovarian reserve assessments has given women afflicted with infertility, potential strategies to combat this predicament. Women postpone having children until later in life for economic, educational and social reasons. This is resulting in reduced family size in European countries, Australia, New Zealand and America with added risk of permanent biological childlessness which may halt population growth. [50,9,38] Women are aware of their 'biological clock' but few comprehend that ticking starts at the age of 35. [6] According to China's 6th National Census in 2010, Chinese women are giving birth at an advanced reproductive age of 35-49, showing a 10% increase compared to the 2000 statistics. [38]

Early detection and advanced medical treatment in young cancer patients under 40 years old, increases life expectancy, wanting to maintain their fertility and restore endocrine function. Fertility preservation has great potential value but barriers in technique developments and implementation, remain. Medical and surgical interventions aim to protect the ovary in women undergoing cancer with ovarian suppression or ovarian transposition. Cryobiology has become the growing option to preserve fertility. The Cryopreservation of embryos, mature and immature oocytes; fresh and cryopreserved ovarian tissue; oocyte and ovarian tissue donations; social freezing; surrogacy and adoption, all raise ethical, personal willingness and medical challenges. [38,13,14]

Ovarian Protection

Ovarian Suppression during chemotherapy is used for pre-menarche and childbearing age women. Primordial follicles appear to be less sensitive to cytotoxic therapy. Administering gonadotropin-releasing hormone (GnRH) agonist during treatment of alkylating agents will reduce sensitivity to the cytotoxic treatments, reducing damage, preserve ovarian and endocrine function with the aim of restoring future natural fertility. [42,24,16]

Ovary Transposition (oophoropexy) is removal of ovaries out of the irradiation field, commonly indicated in cases of Hodgkin's disease, cervical and vaginal cancer and sarcomas of the pelvic region, but ineffective with chemotherapy. [48,24,42]

Cryobiology

Embryo Cryopreservation was first achieved in 1983 [60] and is the only established method to preserve fertility in patients undergoing IVF treatment or cancer patients. Freezing of embryos require stimulated cycles, which may postpone the start of cytotoxic drugs in aggressive malignancies or oestrogen sensitive cancers. [42] In addition it is contraindicated for pre pubertal young girls or single women with no male partner or sperm

donor due to ethical and religious reasons. [24,35] Improved clinical outcomes with frozen embryos is well document: only the best blastocysts embryos are cryopreserved and the endometrial receptivity is better in the absence of ovarian hyper stimulation during fresh IVF cycles. [60]

Oocyte Cryopreservation remains in the experimental stage but repeated successes are bringing closer to being an established treatment. [22] The first pregnancy achieved by frozen oocyte was in 1986. [60] Oocytes can be retrieved as **mature** or **immature** state. [35,48,24,13] Banking **mature oocytes** is more problematic than freezing embryos. Cooling and exposure to cryoprotecting agents (CPAs) damages the sensitive spindle apparatus and affects the cytoskeleton with depolymerisation of chromosomes, aggravating the high incidence of aneuploidy in human oocytes. [35,13] Vitrification of oocytes into 'glass' state exposes them to high concentrations of CPAs increasing the chemical toxicity and osmotic shock but evades crystallization due to intracellular ice formation seen in slow freezing. Vitrification renders the oocyte stable by arresting molecular activity causing least damage on the spindle. [42,13,26,60,57] CPAs cause hardening of the zona pellucida, which would predispose the use of intra cytoplasmic sperm injection (ICSI) for fertilization, [13] within 3-5hours whilst the oocyte is still fertile. Cryopreserving mature oocytes is however not feasible to cancer patients who cannot waste time on ovary stimulation for oocyte harvesting. [35] Cryopreserving **immature oocytes** (germinal vesicle) is the treatment of choice for pre-pubertal girls or women who cannot delay cancer treatment. Oocytes can be retrieved without delay from an unstimulated ovary. This technique reduces costs by eliminating stimulation drugs and gives flexibility of fertility preservation to women without a sperm donor. Immature oocytes must be matured through in vitro maturation (IVM) by exposing them to FSH. Immature oocytes are less prone to cryoinjury, but success rates in human reproduction remains low. [13,35,26,60]

Ovarian tissue transplantation and cryopreservation are offered to pre-pubertal girls and women who cannot delay their cancer treatment; options no longer considered as experimental procedure to preserve fertility. [24,52] Ovarian tissue can be cryopreserved with its vascular pedicle or as ovarian cortex strips. Xenografting of the first fresh ovary was performed in 1902, by Dr. Franklin H. Martin, a prominent Chicago gynaecological surgeon, on a 29 year old teacher where both ovaries had been removed. She was the recipient of one-third of each ovary from an altruistic donor but neither ovarian nor endocrine function were restored. [41] Procedure was repeated over a century later in 2004 between monozygotic twins, discordant for premature ovarian failure, which resulted in restoration of ovarian function, successful pregnancies and healthy offspring. [41,42,46,17] Cryopreserved ovarian tissue can be auto transplanted back either orthotopically or heterotopically with a 2 year lapse after cancer treatment is completed. [13,48,32,31]

In orthotopical transplantation the tissue is transplanted back in its original place, eliminating ischaemic complications, increasing the chance of full



restoration of fertility and endocrine function with possible natural conception. With heterotopic transplantation, ovarian cortex strips are transplanted subcutaneously to other parts of the body; the forearm or abdominal wall.



Heterotopic transplantation of ovarian tissue in the forearm

This provides easier access for monitoring and oocyte retrieval, but comes with ischaemic complications and ART is always needed to achieve a pregnancy.^[42,35] The danger of ovarian tissue transplantation following cryopreservation is the reseeding of malignant cells back into the patient,^[42,32] however this technique has been considered to preserve fertility in patients with chromosomal conditions such as Turner Syndrome.^[34] This manifests huge ethical considerations as ovarian tissue cryopreservation has to be performed when the child is 12-13 years old to salvage optimal number of primordial follicles before complete apoptosis.^[34]

Social Egg Freezing Since 1960, human reproduction has become malleable with new innovations, to limit, augment and control fertility.^[57] Social oocyte 'banking' is legitimate in America, and some European countries including the United Kingdom, but it carries questionable medical, ethical and social implications.^[60] Women choosing to postpone motherhood, consider oocyte cryobiology, anticipating gamete exhaustion (AGE).^[49] Postponing pregnancy till later on in life raises maternal and neonatal risks caused by pregnancy related complications. Babies might not suffer socially, raised by financially secured parents, but maternal age alters the foetal programming leading to lifelong health implications^[59] In addition, banked oocytes are hardly ever used and one must establish the true utilization of stored gametes.^[49]

Donation, surrogacy and adoption might be the last resort. Oocyte donation has been exchanged between women since the early 1980s.^[57] Egg sharing is common practise in most IVF clinics and approved by the Human Fertilization and Embryology Authority (HFEA) in the UK. In addition, fertility credibility has been assured by continuous advanced eugenics technology. In 2015 legislation approved mitochondrial donation, the answer for genetically inherited mitochondrial diseases, to improve pregnancy outcomes with maternal spindle transfer (MST) and pro-nuclear transfer (PNT).^[27] Embryo donation, surrogacy and adoption are not perhaps the ideal scenario for preserving a woman's fertility, denying her genetically related children, but may be the only option left to fulfil a lifelong wish of being a parent.

Prospects

AMH diagnoses poor ovarian reserve, when levels are low and in conditions such as polycystic ovarian syndrome (PCOS) when levels are abnormally high. Recent recombinant technology has been able to produce a bioactive, cleaved AMH which could be used to manipulate events of folliculogenesis and preserve fertility beyond normal years.^[10] In addition researchers propose that AMH levels can be used for embryo selection in IVF. AMH in follicular fluid may be a useful follicular marker for a successful fertilization and embryo implantation.^[10]

Shutting down ovaries with oral contraceptive medication preserves fertility but^[43] potential treatment to preserve fertility is being researched with 'artificial gametes'; to restore fertility for surgically and cytotoxic damaged ovaries and menopausal women.^[25] Stem cells have various characteristics: self-renewal, clonality and potency.^[56] Totipotent or omnipotent cells are the most undifferentiated cells found in early development and are becoming a novel hope in cell-based therapy. The fertilised oocyte is a totipotent cell with embryonic and extraembryonic tissues. Pluripotent cells arise from 3 layers (ectoderm, endoderm and mesoderm) forming tissues and organs.^[56] First human pluripotent embryonic stem (hES) cell lines were reported more than 15 years ago.^[8] This technology is still in its embryonic state, but in 2013 a group of Japanese researchers reported the generation of oocytes from mouse embryonic cells and induced pluripotent cells (iPS).^[8] Researchers are now utilising the very small embryonic-like stem cells (VSELs), a novel population of pluripotent stem cells with the aim of in vivo manipulation towards becoming autologous gametes. In addition, it has been suggested that all women should be genotyped to uncover genetic variants associated with ovarian reserve that cause oocyte depletion,^[43] but the most ambitious of all is manufacturing artificial organs. Since ovary cryopreservation has yet to be perfected, a pre-fabricated 3-Dimensional artificial human ovary has been created with self-assembled human theca and granulosa cell micro-tissues for in vitro maturation of oocytes.^[33]



3 – Dimensional Artificial ovary

Conclusion

Fertility preservation is the fundamental right for every woman whatever the underlying cause of her infertility, whether due to natural loss caused by ovarian age but more so in premature ovarian failure in women inflicted with disease, especially cancer where the only desire in life is to fulfil what the body was programmed to achieve.

There is nothing more heart-breaking than to witness a barren woman denied the possibility of preserving her fertility because of an underlying disease. It would be like sprinkling salt on an open wound. Through the science of reproductive medicine and scientific endeavours, preserving ovarian function needs to be placed in the forefront position for further research to ensure a

Public Speaking



Speaker: Dr. JOSEPH AGIUS
B.A., M.Sc. (Dublin), EdD (Sheffield)

Duration: 20 hours (8 sessions)

Name Of Certification Body:
The Malta University Consulting
Ltd. (MUCL)

Thursday 13 September
Thursday 27 September
Thursday 4 October
Thursday 11 October
Thursday 18 October
Thursday 1 November
Thursday 8 November
Thursday 15 November

Time: 5:30pm - 8:00pm

Fee: Members 130 Euros

Non-Members 150 Euros

Malta Midwives Association
62, Office 1
Triq il-Kuncizzjoni
Msida

Kindly book on:
maltamidwivesassociation1974
@gmail.com

or
Mob: 77237117 / 79251179
Certificate is eligible for CPD

The course objective focuses on effective public speaking particularly dealing with the fear of speaking. It shows participants that public speaking is fun and easy. The course provides practice in both impromptu and prepared speeches and also addresses the important issue to 'wake 'em up!' during presentations! Participants are introduced to the principles of adult education.

Another area which is discussed in these sessions is stage fright. This is a phenomenon that one must learn to control. Participants are encouraged to think of any presentation as a friendly conversation rather than a formal speech. Communication with confidence is the key.

Humour can be a useful tool in public speaking. So in these sessions participants are provided with guidelines on how to use humour in a presentation.

Sessions are conducted in groups of 10 to 12 persons

Kindly book your attendance by sending a cheque payable to Malta Midwives Association



SiDerm™

Stretch Mark Cream

Available from pharmacies. Enquiries 21244847



continuous, safe and sound security of reproductive certainty.

References

- ⁶ Azhar, Erum, David B. Seifer, Katherine Melzer, Ahmed Ahmed, Jeremy Weedon, and Howard Minkoff. 2015. "Knowledge of Ovarian Reserve and Reproductive Choices." *Journal of Assisted Reproduction and Genetics*: 1-7.
- ⁸ Bhartiya, Deepa, Indira Hinduja, Hiren Patel, and Rashmi Bhilawadikar. 2014. "Making Gametes from Pluripotent Stem Cells - a Promising Role for very Small Embryonic-Like Stem Cells." *Reproductive Biology and Endocrinology* 12: 114. doi:10.1186/1477-7827-12-114.
- ⁹ Broekmans, Frank J., Erik AH Knauff, Egbert R. te Velde, Nick S. Macklon, and Bart C. Fauser. 2007. "Female Reproductive Ageing: Current Knowledge and Future Trends." *Trends in Endocrinology & Metabolism* 18 (2): 58-65.
- ¹⁰ Broekmans, Frank J., Jenny A. Visser, Joop SE Laven, Simone L. Broer, Axel PN Themmen, and Bart C. Fauser. 2008. "Anti-Müllerian Hormone and Ovarian Dysfunction." *Trends in Endocrinology & Metabolism* 19 (9): 340-347.
- ¹² Coccia, Maria Elisabetta and Francesca Rizzello. 2008. "Ovarian Reserve." *Annals of the New York Academy of Sciences* 1127 (1): 27-30.
- ¹³ D Coyne, Kathryn, Amr Kader, and Ashok Agarwal. 2010. "Creating a Standard of Care for Fertility Preservation." *Current Women's Health Reviews* 6 (3): 261-266.
- ¹⁴ Dayal, MB. 2012. "Fertility Preservation Options for Female Cancer Patients: A Systematic Review." *J Fert in Vitro* 2: 110.
- ¹⁶ Demeestere, I., P. Simon, S. Emiliani, A. Delbaere, and Y. Englert. 2007. "Fertility Preservation: Successful Transplantation of Cryopreserved Ovarian Tissue in a Young Patient Previously Treated for Hodgkin's Disease." *The Oncologist* 12 (12): 1437-1442. doi:10.1634/theoncologist.12-12-1437 [doi].
- ²² Gook, D. A. and D. H. Edgar. 2007. "Human Oocyte Cryopreservation." *Human Reproduction Update* 13 (6): 591-605. doi:dmm028 [pii].
- ²⁴ Gurgan, T., C. Salman, and A. Demiro. 2008. "Pregnancy and Assisted Reproduction Techniques in Men and Women After Cancer Treatment." *Placenta* 29: 152-159.
- ²⁵ Hendriks, S., E. A. Dancet, A. M. van Pelt, G. Hamer, and S. Repping. 2015. "Artificial Gametes: A Systematic Review of Biological Progress Towards Clinical Application." *Human Reproduction Update*. doi:dmv001 [pii].
- ²⁶ Huang, Jack Y. J., Togas Tulandi, Hananel Holzer, Seang Lin Tan, and Ri-Cheng Chian. 2008. "Combining Ovarian Tissue Cryobanking with Retrieval of Immature Oocytes Followed by in Vitro Maturation and Vitrification: An Additional Strategy of Fertility Preservation." *Fertility and Sterility* 89 (3): 567-572. doi:http://dx.doi.org/10.1016/j.fertnstert.2007.03.090.
- ²⁷ Human Fertilisation Embryology Authority. 2014. *Mitochondria Donation: An Introductory Briefing Note*.: Human Fertilisation Embryology Authority.
- ³⁰ Johnson, NP, EM Bagrie, A. Coomarasamy, S. Bhattacharya, AN Shelling, S. Jessop, C. Farquhar, and KS Khan. 2006. "Ovarian Reserve Tests for Predicting Fertility Outcomes for Assisted Reproductive Technology: The International Systematic Collaboration of Ovarian Reserve Evaluation Protocol for a Systematic Review of Ovarian Reserve Test Accuracy." *BJOG: An International Journal of Obstetrics & Gynaecology* 113 (12): 1472-1480.
- ³¹ Kolibianakis, Stratis. 2015. "Increasing Survival of the Graft: The Way Forward in Ovarian Tissue Transplantation." *Reproductive Biomedicine Online* 30 (1): 4-5.
- ³² Kondapalli, Laxmi A. 2012. "Ovarian Tissue Cryopreservation and Transplantation." In *Oncofertility Medical Practice*, 63-75: Springer.
- ³³ Krotz, Stephan P., Jared C. Robins, Toni-Marie Ferruccio, Richard Moore, Margaret M. Steinhoff, Jeffrey R. Morgan, and Sandra Carson. 2010. "In Vitro Maturation of Oocytes Via the Pre-Fabricated Self-Assembled Artificial Human Ovary." *Journal of Assisted Reproduction and Genetics* 27 (12): 743-750.
- ³⁴ Lau, Nga Man, Jack Yu Jen Huang, Suzanne MacDonald, Shai Elizur, Yariv Gidoni, Hananel Holzer, Ri-Cheng Chian, Togas Tulandi, and Seang Lin Tan. 2009. "Feasibility of Fertility Preservation in Young Females with Turner Syndrome." *Reproductive Biomedicine Online* 18 (2): 290-295. doi:http://dx.doi.org.chain.kent.ac.uk/10.1016/S1472-6483(10)60268-4.
- ³⁵ Maltaris, Theodoros, Rudolf Seufert, Franz Fischl, Michael Schaffrath, Kunhard Pollow, Heinz Koelbl, and Ralf Dittrich. 2007. "The Effect of Cancer Treatment on Female Fertility and Strategies for Preserving Fertility." *European Journal of Obstetrics & Gynecology and Reproductive Biology* 130 (2): 148-155. doi:http://dx.doi.org/10.1016/j.ejogrb.2006.08.006.
- ³⁶ Morgan, S., R. A. Anderson, C. Gourley, W. H. Wallace, and N. Spears. 2012. "How do Chemotherapeutic Agents Damage the Ovary?" *Human Reproduction Update* 18 (5): 525-535. doi:10.1093/humupd/dms022 [doi].
- ³⁷ Nelson, S. M., E. E. Telfer, and R. A. Anderson. 2013. "The Ageing Ovary and Uterus: New Biological Insights." *Human Reproduction Update* 19 (1): 67-83. doi:10.1093/humupd/dms043 [doi].
- ³⁸ Qiao, Jie and Rong Li. 2014. "Fertility Preservation: Challenges and Opportunities." *The Lancet* 384 (9950): 1246-1247.
- ³⁹ Ramalho de Carvalho, B., D. B. Gomes Sobrinho, A. D. Vieira, M. P. Resende, A. C. Barbosa, A. A. Silva, and H. M. Nakagava. 2012. "Ovarian Reserve Assessment for Infertility Investigation." *ISRN Obstetrics and Gynecology* 2012: 576385. doi:10.5402/2012/576385 [doi].
- ⁴⁰ Richardson, M. C., M. Guo, B. C. J. M. Fauser, and N. S. Macklon. 2014. "Environmental and Developmental Origins of Ovarian Reserve." *Human Reproduction Update* 20 (3): 353-369. doi:10.1093/humupd/dmt057.
- ⁴¹ Rodriguez, Sarah B. and Lisa Campo Engelstein. 2011. "CONCEIVING WHOLENESS Women, Motherhood, and Ovarian Transplantation, 1902 and 2004." *Perspectives in Biology and Medicine* 54 (3): 409-416.
- ⁴² Salama, M., K. Winkler, K. F. Murach, B. Seeber, S. C. Ziehr, and L. Wildt. 2013. "Female Fertility Loss and Preservation: Threats and Opportunities." *Annals of Oncology : Official Journal of the European Society for Medical Oncology / ESMO* 24 (3): 598-608. doi:10.1093/annonc/mds514 [doi].
- ⁴³ Schuh-Huerta, S. M., N. A. Johnson, M. P. Rosen, B. Sternfeld, M. I. Cedars, and R. A. Reijo Pera. 2012. "Genetic Variants and Environmental Factors Associated with Hormonal Markers of Ovarian Reserve in Caucasian and African American Women." *Human Reproduction (Oxford, England)* 27 (2): 594-608. doi:10.1093/humrep/der391 [doi].
- ⁴⁴ Sharara, Fady I., Richard T. Scott, and David B. Seifer. 1998. "The Detection of Diminished Ovarian Reserve in Infertile Women." *American Journal of Obstetrics and Gynecology* 179 (3): 804-812.
- ⁴⁷ Sills, Eric Scott, Michael M. Alper, and Anthony P. H. Walsh. 2009. "Ovarian Reserve Screening in Infertility: Practical Applications and Theoretical Directions for Research." *European Journal of Obstetrics & Gynecology and Reproductive Biology* 146 (1): 30-36. doi:http://dx.doi.org.chain.kent.ac.uk/10.1016/j.ejogrb.2009.05.008.
- ⁴⁸ Sonmezer, M. and K. Oktay. 2004. "Fertility Preservation in Female Patients." *Human Reproduction Update* 10 (3): 251-266. doi:10.1093/humupd/dmh021 [doi].
- ⁴⁹ Stoop, D., E. Maes, N. P. Polyzos, G. Verheyen, H. Tournaye, and J. Nekkebroeck. 2015. "Does Oocyte Banking for Anticipated Gamete Exhaustion Influence Future Relational and Reproductive Choices? A Follow-Up of Bankers and Non-Bankers." *Human Reproduction* 30 (2): 338-344. doi:10.1093/humrep/deu317.
- ⁵⁰ Stoop, Dominic, Ana Cobo, and Sherman Silber. 2014. "Fertility Preservation for Age-Related Fertility Decline." *The Lancet* 384 (9950): 1311-1319. doi:http://dx.doi.org/10.1016/S0140-6736(14)61261-7.
- ⁵² Suzuki, N., N. Yoshioka, S. Takae, Y. Sugishita, M. Tamura, S. Hashimoto, Y. Morimoto, and K. Kawamura. 2015. "Successful Fertility Preservation Following Ovarian Tissue Vitrification in Patients with Primary Ovarian Insufficiency." *Human Reproduction (Oxford, England)* 30 (3): 608-615. doi:10.1093/humrep/deu353 [doi].
- ⁵⁵ Visser, Jenny A. and Axel P. N. Themmen. 2005. "Anti-Müllerian Hormone and Folliculogenesis." *Molecular and Cellular Endocrinology* 234 (1-2): 81-86. doi:http://dx.doi.org/10.1016/j.mce.2004.09.008.
- ⁵⁶ Volarevic, Vladislav, Sanja Bojic, Jasmin Nurkovic, Ana Volarevic, Biljana Ljujic, Nebojsa Arsenijevic, Majlinda Lako, and Miodrag Stojkovic. 2014. "Stem Cells as New Agents for the Treatment of Infertility: Current and Future Perspectives and Challenges." *Biomed Research International*: 507234. doi:10.1155/2014/507234.
- ⁵⁷ Waldby, Catherine. 2014. "Banking Time": Egg Freezing and the Negotiation of Future Fertility." *Culture, Health & Sexuality* (ahead-of-print): 1-13.
- ⁵⁹ Wunder, Dorothea. 2013. "Social Freezing in Switzerland and Worldwide - a Blessing for Women Today?" *Swiss Medical Weekly* 143: w13746. doi:10.4414/smw.2013.13746.
- ⁶⁰ Zhang, Lu, Li-Ying Yan, Xu Zhi, Jie Yan, and Jie Qiao. 2015. "Female Fertility: Is it Safe to 'Freeze?'" *Chinese Medical Journal* 128 (3): 390-397. doi:10.4103/0366-6999.150115.

Diane Casha

MSc RN.RM(UK), SRN.RM(MLT),
Fertility Nurse Specialist, Dip. Child Psychology,
Guest Lecturer at University of Kent, United Kingdom.



University of Malta: B.Sc. Midwifery Abstracts

Parenting Newborn Twins: Mothers' Experiences

This study aimed to explore the experiences of mothers parenting newborn twins, with the main objectives being to identify the positive aspects of parenting twins, explore the provision of midwifery care to this group of mothers and to explore mothers' challenges in caring for their newborn babies.

In order to achieve the aim and objectives, a qualitative study consisting of face-to-face semi-structured interviews, with questions designed by the researcher, was carried out. The research sample consisted of six (n=6) mothers of twins, at six-eight weeks postpartum who were attending the Well-Baby Clinic and the response rate was 100%. The information gathered from the interviews was analysed using the Braun and Clarke (2006) method of thematic analysis.

The results indicate that mothers parenting newborn twins considered the experience to be very positive overall, even though all mothers identified challenges which they are experiencing in their new role as mothers of twins.

Participants also emphasised the importance of support received from family members and how this helped them cope with the challenges they encountered.

Mothers also identified certain aspects of midwifery care which may need improvements such as the care given to them during the night shifts and during the time of change of shift and also regarding the advice mothers received from their midwives.

For this reason, the researcher has proposed relevant recommendations for practice, education and further research.

Alison-Claire Boffa

Midwives' Views of Labour Pain Management

Labour pain and ways to relieve it are a major concern for women and their partners, as well as the midwives collaborating in their care (Klomp, Jonge, Hutton, Hers & Lagro-Janssen, 2016). Little is known about local midwives' views on managing labour pain. The aim of the study was to explore midwives' views on labour pain management, by seeking to identify the methods of labour pain relief offered locally together with the midwives' views on pharmacological and non-pharmacological approaches to pain relief. Information-giving by the midwife prior to administration of pain relief was also explored.

A qualitative study using semi-structured interviews was carried out to fulfill the proposed aims and objectives. Six midwives working within the delivery suite of the local general hospital were recruited by convenience sampling and a 100% response rate was achieved. The collected data was transcribed verbatim and analyzed using Braun

and Clarke's (2006) thematic analysis.

The findings demonstrated that midwives offer both pharmacological and non-pharmacological methods of pain relief, with the majority of midwives providing women under their care with unbiased information on pain relieving methods. Findings also showed that midwives were knowledgeable about the side effects caused by pharmacological methods of pain relief. Lack of resources for non-pharmacological approaches to pain relief were also identified.

Labour pain management depends on several factors including time constraints and work load, altered perception of pain among society, onset and progress of labour, as well as types of maternity care. Recommendations for practice, education and future research were also proposed, such as the need for the introduction of midwifery-led care and continuity of care.

Lara Bondin

Mothers' Perceptions of Cardiotocography during Labour

Cardiotocography (CTG) monitoring is a technique commonly used to assess the wellbeing of the fetus during the intrapartum period. The aim of this small scale quantitative study was to explore mothers' perceptions of CTG monitoring during labour. The objectives sought to identify the maternal knowledge about intrapartum CTG monitoring gained prior to and during labour, and to investigate mothers' involvement in decision-making about fetal monitoring in labour. The researcher was interested in assessing maternal perceptions of benefits and drawbacks of intrapartum CTG monitoring, and in identifying maternal views on how CTG monitoring influenced their birth experience. A convenience sample of 38 women, representing a response rate of 84%, completed a questionnaire which had been designed specifically for the purposes of the study. The participants were mothers who had experienced CTG monitoring during their recent

labour. The questionnaires were completed during their postpartum hospital stay at the local, general hospital. Data was analysed manually using descriptive statistics and by content analysis. The study's findings indicated that although many women received information about the function and purpose of intrapartum fetal monitoring, primarily during their labour, they were often not informed of the different methods of fetal surveillance available. The majority were not allowed to participate in decision-making about their preferred fetal monitoring technique. Participants identified benefits of CTG monitoring, such as reassurance associated with the constant monitoring of fetal well-being. They also identified drawbacks of this monitoring technique, such as discomfort and restrictions in mobilisation. CTG monitoring via telemetry was perceived to diminish negative effects on mobilisation. Participants were overall satisfied with the fetal monitoring they received and



did not feel that it greatly impacted on their birth experience. Recommendations for practice, management and further research, based on research findings, are proposed. These include providing further information to expectant mothers

regarding intrapartum monitoring techniques during the antenatal period and allowing them to better contribute in related decision-making.

Jennifer Ciappara

Midwives' Experiences of Managing the Premature Urge to Push during the First Stage of Labour

The aim of this study was to explore midwives' experiences of managing the premature urge to push during the first stage of labour. The study's objectives were to explore midwives' views of, and approaches to Early Pushing Urge (EPU), as well as to explore how midwives help women cope with the early urge to push. To fulfil the study's aim and objectives, a qualitative approach was adopted and face-to-face, semi-structured interviews were conducted with a purposive sample of six midwives. A response rate of 100% was achieved. The interviews were audio-recorded and transcribed verbatim. Data was analysed using thematic analysis, as described by Braun and Clarke (2006).

The findings of this study indicated that midwives vary in their views about the nature of EPU.

While some midwives view EPU as a physiological part of labour, others argue that it could be a sign of complications. Midwives discussed various factors perceived as influencing the onset of EPU, primarily citing fetal malpositions and malpresentations. The effects of EPU on the labour process

were also discussed with midwives mainly perceiving EPU to have a negative effect on labour. Midwives' approach to EPU varied, with some advising the stop-pushing technique and others suggesting that women should follow their bodily instincts. Preferred management techniques were influenced by the stage of cervical dilatation and maternal parity. Midwives' views of, and approach to, EPU had often evolved over the course of their career, becoming more physiological over time. Both non-pharmacological and pharmacological methods were used by midwives to help women cope with EPU, with midwifery presence and support being considered particularly important. Overall results suggested a lack of clarity regarding the nature of EPU and the optimal way to manage it. On the basis of the results a number of recommendations for practice, education and further research are suggested, such as the need for large-scale quantitative research to identify the true nature of EPU allowing for development of tailored management techniques.

Maria Deschrijver

Postnatal Mothers' Experience of Breastfeeding Support in the Community

The aim of this qualitative study was to explore postnatal mother's experiences of breastfeeding support in the community. The study's objectives were to explore sources of breastfeeding support and their significance to nursing mothers. The study was further interested in exploring aspects of breastfeeding support women perceived as helpful and unhelpful, and in eliciting recommendations that could help to improve community breastfeeding support.

A purposive sample of six adult women who were breastfeeding eight weeks after the delivery of their infant, voluntary participated in an audio-recorded, semi-structured, face-to-face interview. A 70% response rate was obtained. The data generated was transcribed verbatim and analysed using thematic analysis, as described by Braun and Clarke (2006).



Left side - back row

Dr. Josephine Attard
Rebecca Gauci Borda
Francesca Ricupero
Alison Claire Boffa
Raquel Micallef
Jennifer Ciappara
Noileen Grech
Rebecca Falzon
Michela Galea
Tiffany Marie Smith
Lara Bondin

Left side- front row

Melissa Falzon
Rebecca Schembri
Maria Deschrijver
Carstell Galea
Dr. Rita Borg Xuereb
Ms. Nicole Borg Cunene



The findings indicate that women deemed community support as an essential element in their continued breastfeeding journey. Sources of support identified included the women's significant others, members of their family of origin and different healthcare professionals, particularly midwives. Participants discussed aspects of support that were beneficial to them such as help in positioning the infant for optimal attachment, and assistance with household

chores to allow a focus on breastfeeding. On the contrary, some of the support received was less helpful, particularly the receipt of conflicting advice. Recommendations for management, practice, and further research are suggested, such as the requirement for more breastfeeding rooms in public areas, and the importance of increased awareness about the needs of breastfeeding mothers at the place of work.

Melissa Falzon

The Presence of a Companion during Labour and Childbirth: Mothers' Experiences

The intrapartum period is considered a life-changing event and constitutes a "rite of passage" for women (van Genep, 2013). The presence of a companion has been found to have both positive and negative influences on the women's well-being and intrapartum experience (World Health Organisation [WHO], 2016). The aim of this study was to explore mothers' experiences of having a companion present during labour and childbirth at the local general hospital. The objectives of this study were to identify how the involvement of the companion affected mothers' overall intrapartum experiences and to explore whether parturient women's expectations of their companion during labour and childbirth were met.

This study was conducted using a qualitative approach. Ten mothers were recruited voluntarily through purposive sampling. This resulted in a response rate of 100%. Data was collected using self-designed, semi-structured, face-to-face interviews. Each interview was audio-recorded, transcribed verbatim and analysed using the thematic analysis process as described by Braun and Clarke (2006). This study rigorously adhered to ethical considerations.

The resulting themes included preparation of the

pregnant woman and her companion for the intrapartum experience, going through labour and childbirth, and the beginning of a new experience. The study demonstrated that parturient women wanted to be accompanied by their partner who had to prepare himself for the experience. It also showed that during this process, companions had to perform several roles which were not always predetermined and which were encouraged or hindered by a several factors.

Finally, this study showed that the presence of a familiar companion in the labour room contributed to rendering the intrapartum experience a positive one for the woman, because it allowed her to embark or re-embark on the journey of parenthood together with her partner. Given the importance of a familiar presence in the labour room, it would be valuable firstly, if midwives and student midwives were further educated on this matter and secondly, if further studies were conducted in Malta to explore women's experience on having multiple companions during labour and childbirth. This would make it possible to determine whether one should bring about changes in the Maltese policy of companionship during labour and childbirth.

Rebecca Falzon

First-time Mothers' Experiences on Breastfeeding Advice

Breastfeeding is globally known as the best method of infant feeding. Nevertheless, a high percentage of women who initiate breastfeeding, stop in the first few weeks following the birth of their child (Attard Montalto, Borg, Buttigieg-Said & Clemmer, 2010; Berridge, McFadden, Abayomi and Topping, 2005; Manhire, Hagan & Floyd, 2007; WHO, 2009), the main cause being conflicting advice (Attard Montalto et al., 2010; Manhire et al., 2007). The aim of this study was to investigate women's experiences of receiving breastfeeding advice. The study's objectives outlined how advice related to breastfeeding, provided in the postnatal period, affected mothers' breastfeeding experience; and explored first time mothers' satisfaction with breastfeeding advice. The study was carried out using a qualitative research design. Data was collected from a purposive sample of eight first time breastfeeding mothers who voluntary took part in a one-time face-to-face interview. Mothers who met the inclusion criteria for participation were approached by the gatekeeper, to maintain confidentiality. During this study, all ethical considerations were adhered to, and prior to conducting the study all permissions were

obtained. The interviews were audio recorded, transcribed verbatim and analysed using thematic analysis as described by Braun and Clarke (2006). Three themes were identified from the mothers' accounts; these were 'Barriers to mothers' understanding of breastfeeding advice', 'Factors facilitating mothers' understanding of breastfeeding advice' and 'Mothers' satisfaction with breastfeeding advice'. The findings revealed that, deficits in breastfeeding knowledge among midwives and midwives' immoral attitudes and behaviour hindered women's perception of breastfeeding advice. However, the midwife's support and flexible teaching improved women's understanding of breastfeeding advice. Mothers' satisfaction of breastfeeding advice depends on the process of care received at the postnatal ward. In view of these findings, recommendations for research, practice and education were proposed, including revising the local breastfeeding policy for its applicability in practice, and avoiding burnout, providing more training on adult learning theories to student midwives and conducting quantitative research on primiparas satisfaction with breastfeeding advice.

Carstell Galea



Midwives' Awareness of Sexually Transmitted Infections during the Perinatal Period

Sexually Transmitted Infections (STIs) are a significant health problems. Most STIs negatively affect both men and women. However, STIs transmitted during pregnancy, childbirth and the postpartum period can result in severe detrimental complications on both the maternal and infants' health (World Health Organization [WHO], 2016g).

The purpose of this study was to explore midwives' awareness of four types of STIs, namely, Hepatitis B, Hepatitis C, HIV and Syphilis during the perinatal period. This aim was addressed by three more specific objectives: assessing midwives' knowledge of vertical transmission of STIs during the perinatal period; determining midwives' knowledge regarding the prevention of vertical transmission of STIs during the perinatal period; and exploring midwives' awareness of the effects of STIs on the neonates of affected mothers. Prior to conducting this study, ethical approval was obtained. A quantitative study using a self-designed, semi-structured questionnaire consisting of both close- and open-ended questions was distributed among a sample of forty midwives – selected by convenience, non-probability sampling – working in Obstetrics Ward 1, Obstetrics Ward 2 and Central Delivery Suite of a local hospital. Response rate

was 100%. The data obtained by close-ended questions was analysed manually through simple percentages and presented in bar graphs and pie charts, whereas that by open-ended questions was analysed by using content analysis. The findings showed that many midwives were not aware of what vertical transmission of HIV, Hepatitis B, Hepatitis C and Syphilis was, but most participants were well-informed on its prevention. Nearly all midwives advised the use of condoms postnatally to mothers.

Furthermore, most participants acknowledged the complications that neonates of infected mothers with HIV, Hepatitis B, Hepatitis C and Syphilis could experience. Almost all participants expressed a desire to increase their knowledge of this topic. Results were then discussed in light of other literature studies. Recommendations for practice, education and further research are proposed in the conclusion of this study. These include, among others: the provision of further educational sources to midwives and other health specialists; replicating the study on a larger sample and through a qualitative method; and the development of a mobile application that offers guidance to midwives and mothers on this subject.

Michela Galea

Mothers' Experiences of Their First Booking Antenatal Visit in a Hospital Clinic

A small scale study was conducted with the aim of exploring mothers' experiences of their first booking antenatal visit in a hospital clinic. The objectives were: to gain an insight into the mothers' positive views regarding their booking antenatal visit, to determine any negative factors experienced by the mothers in the booking antenatal visit and to identify how certain aspects of the antenatal booking visit could be improved in the local setting.

A qualitative research design was adopted, and one-time, face-to-face and audio-recorded interviews were conducted with a purposive sample of nine expectant mothers, who attended for their booking visit at the local main public hospital. The interviews were transcribed verbatim, translated to the English language and then analysed thematically, as described by Braun and Clarke (2006).

Analysis of the findings revealed four themes. The first theme: Pre-Existing Knowledge on the Booking Visit, demonstrated that although most of the expectant mothers were knowledgeable on the importance of the antenatal booking visit, they were uncertain on the optimal gestational age at which this should be conducted. The Essential Aspects of the Booking Visit emerged in the second theme and included: the midwives' attributes, the medical

aspects of midwifery care, the time allocated to discuss pregnancy related symptoms, and the waiting times at the antenatal clinic. The third theme: Dissatisfaction with the Antenatal Booking Visit, identified three principal negative aspects regarding: the medical and emotional aspects of midwifery care, the antenatal clinic's operating system and the partners' exclusion throughout the antenatal booking visit. Lastly the fourth theme: Improving Practice, revealed that the local antenatal booking visit necessitates further improvement, primarily regarding its services and operating system, with the aim of ameliorating the antenatal care delivered to future pregnant women.

Hence in order to improve practice, a straightforward and printed scheme should be introduced to inform the expectant mothers on the aim of each visit at the antenatal clinic. Additionally a detailed obstetric consultation should be implemented, to improve the antenatal care services delivered to expectant mothers. The small scale of the study was the principal limitation of this research design. Nonetheless in such a qualitative study a small sample size is acceptable, as the aim of the researcher was not to generalise the findings but to gather indepth data from the participants, regarding their experiences throughout the antenatal booking visit.

Rebecca Gauci Borda



“Optimizing the Birth Environment – Midwives’ Perspectives”

The birth environment has been found to impact greatly women’s childbirth experience, thus its creation and maintenance is of utmost importance (Aune et al., 2015). The aim of this study was to explore midwives’ perspectives about the birth environment at the local public hospital. The study’s objectives were to identify midwives’ views on how the birth environment effects labour and birth, and to explore midwives’ views on what features or equipment optimize the birth environment. A qualitative approach was adopted for this study, and a self-designed interview schedule was used to conduct face-to-face, semi-structured interviews, with a purposive sample of nine midwives working in the local public hospital. The interviews for this study were audio-recorded and transcribed verbatim in English. The data collected was then analysed by thematic analysis (Braun & Clarke, 2012). Ethical considerations were maintained throughout the entire duration of this small-scale study.

Analysis of the findings revealed three main themes. The first theme is: The Physical Birth Environment. This theme revealed the highly-medicalized layout of the delivery rooms, including their features and equipment which contribute to the medicalization of childbirth. The second theme is: The Psychological Birth Environment. This revealed midwives’

beliefs that a welcoming environment would contribute positively to the mothers’ labour process through relaxation and natural hormonal processes. The third theme is: Humanization of the Birth Environment. This theme revealed midwives’ beliefs that humans are also a part of the birth environment, highlighting the essential contribution of the mothers’ partners and midwives. Main conclusions highlight the importance of the birth environment, along with the belief that the birth environment at the local public hospital may not be ideal, due to its inability to provide a relaxed and home-like atmosphere.

The relatively short-lasting interviews, which lasted for approximately fifteen minutes and the presence of the researcher during the interviews were the main limitations of this research. Thus, recommendations are to replicate this study on a larger scale, using quantitative analysis to explore further midwives’ views about the birth environment, and also, to conduct a qualitative study which explores mothers’ and fathers’ views about the birth environment. These studies may contribute to better understand the importance of the birth environment, which may contribute to improvements in midwifery care.

Noileen Grech

Midwives’ Perspectives on the Use of the Partogram

This small-scale quantitative study aimed to explore midwives’ perspectives on the use of the partogram through a self-designed, structured questionnaire. In order to meet the aim of the study the following objectives were set: to assess midwives’ awareness of the partogram, to identify midwives’ documentation on the partogram and to identify the factors leading to the underutilization of the partogram. A sample of forty midwives (N=40) was selected by convenience sampling from a Central Delivery Suite of a local public hospital. All the distributed questionnaires (n=40) were completed, yielding a 100% response rate. The results of the closed-ended questions were analyzed manually, using simple descriptive statistics, whereas open-ended questions were analyzed by means of content analysis.

The findings suggest that midwives view the partogram as a preventative tool since the general consensus is that its use can reduce maternal and neonatal morbidity and mortality. All of the participants acknowledge the importance

of using the partogram in every delivery, mostly because it provides an overview of labour progress. However, they still believe that its use may be hindered by a number of barriers, foremost among which is lack of knowledge. Although the participants claim to have received previous partogram training, most of them manifest a lack of awareness of accurate documentation of the state of the liquor. Moreover, a few participants are also not aware that the normal labour cervicograph should fall to the left of the alert line. The implementation of local written guidelines on the adequate use of the partogram and its accurate documentation is therefore recommended. Another recommendation is that midwives should be encouraged to update their knowledge and skills by attending continued professional development courses in order to keep abreast of changes and updates. In order to allow for generalizability of findings, future studies should include a larger, random sample of midwives from all the maternity wards.

Francesca Ricupero

Mothers’ Experiences of Ultrasound in Antenatal Care

The aim of this small-scale study was to gain insight into mothers’ experiences of ultrasound in antenatal care. The objectives of this study explored mothers’ views of antenatal ultrasound examinations, what mothers are expecting from their ultrasound examination and their reactions after having received an ultrasound examination. In order to fulfill the study’s aim and objectives, a qualitative approach was

adopted using a self-designed semi-structured interview schedule. A purposive sample of eight first-time mothers, expecting a singleton pregnancy with normal ultrasound findings were interviewed following a routine ultrasound examination at a state general hospital. Audio-recorded interviews were transcribed verbatim and translated into the English language. Thematic analysis using Braun and



Clarke's (2006) framework was used to analyse the data. Findings demonstrated how mothers generally perceived ultrasound examinations as a highly-awaited and positive experience. Through the use of ultrasound examinations, mothers could acquire information on their baby's wellbeing, validate their pregnancy and resultantly gain reassurance. The accumulation of fear prior to the ultrasound examination was instantly displaced by excitement upon visualisation of the fetus on the monitor screen. Ultrasound examinations also assisted mothers in developing a bond with their baby, as anticipation for childbirth increased. An important contributor to mothers' overall experience of an ultrasound concerned the sonographer's approach while conducting

the examination. In their accounts, participants discussed their opportunity to communicate and ask further questions, as well as their disappointment in not being able to see the image of their baby properly. In view of this restraint, it has been recommended that additional ultrasound monitor screens are installed in the examination room in an attempt to promote a more enjoyable experience for all mothers. Educating mothers on the aim of ultrasound examinations as part of the Parentcraft Education programme is also suggested. Furthermore, the student researcher recommends further research exploring mothers' experiences of ultrasound in cases of a multiple pregnancy.

Raquel Micallef

Mothers' Perspectives of Fatigue after Childbirth

Fatigue is typically defined as a sensation of exhaustion during or after normal activities, or a feeling of inadequate energy to begin such activities. This phenomenon is one of the most common symptoms reported by mothers after childbirth (Taylor & Johnson, 2010). The aim of this study was to determine mothers' perspectives of fatigue after childbirth. The objectives of the study were to evaluate mothers' perspectives of fatigue at 6 weeks postpartum, to identify factors influencing fatigue after childbirth and to explore how mothers cope with fatigue after childbirth.

In order to fulfil these objectives, a self-designed, one-time questionnaire was used as the research tool, consisting of closed and open-ended questions. The sample consisted of 30 Maltese mothers at six weeks postpartum and purposive sampling was used. All the mothers had given birth to a healthy term infant. The data was analysed using descriptive statistics and content analysis (Polit & Beck, 2012). The study had a response rate of 100% (N=30).

Analysis of the findings revealed that fatigue can affect everyday life and is influenced by various factors such as suffering from lack of sleep and the demands of infant feeding. Mothers tend to experience more than one of these influencing factors postnatal fatigue seems to taper off throughout the first six weeks postpartum. However, mothers have found various methods to cope with the phenomenon of fatigue after childbirth. These include social support, planning and finding time for oneself.

The main limitation of this study was that it was carried out on a small scale. Therefore, a recommendation is to replicate the study on a larger scale, so as to gain a deeper understanding of mothers' perspectives. It is also recommended to educate the general public on the implications of fatigue and to provide support to mothers suffering from postnatal fatigue.

Tiffany Smith

First-time Father's Experiences of Postnatal Care within a Hospital Setting

The aim of this study was to explore first-time fathers' experiences of postnatal care within a hospital setting. The objectives of this study were: to explore fathers' involvement during postnatal care whilst in the hospital environment, to explore how fathers' rooming-in experience influences their postnatal care experience within the hospital setting and to explore the advice given to fathers during postnatal care in the hospital setting. A qualitative approach was adopted to carry out this study, by conducting one-time, face-to-face interviews using a semi-structured, self-designed interview schedule. A purposive sample of eight fathers was recruited from a local, general hospital. The interviews were audio-recorded, transcribed verbatim and translated to the English language. Data was analysed using Braun and Clarke (2006) thematic analysis. Three main themes emerged from

this study: fathers and healthcare professionals' (HCPs) relationship, fathers' postnatal education whilst in the hospital setting and fathers' experience of rooming-in whilst in the hospital setting. Following the findings of this study, it is highly recommended that HCPs should make fathers feel more included, as in certain instances they felt left out. This can be done by addressing fathers during infant and maternal examinations and giving advice when the father is present. Furthermore, the provision of a better hospital environment is suggested, as fathers were not able to meet their physical needs. The main recommendation for further research is to replicate the study on a larger scale, to gain a better understanding of the postnatal care experiences of first-time fathers.

Rebecca Schembri

LA ROCHE-POSAY
LABORATOIRE DERMATOLOGIQUE

A BETTER LIFE FOR SENSITIVE SKIN



LIPIKAR BAUME AP+ & SYNDETAP+

Anti-Scratching **EFFICACY**

Optimal safety even from

THE FIRST DAYS OF LIFE

Lansinoh®



2-IN-1 DOUBLE ELECTRIC BREAST PUMP

THE ULTIMATE CHOICE FOR COMFORT & FLEXIBILITY

SOOTHE & PROTECT
SORE, CRACKED NIPPLES WITH

HPA® LANOLIN



Protective Facial Cream

Protect those kissable cheeks in this cold weather...

Sebamed Baby Protective Facial Cream is intentionally formulated at pH 5.5 to enhance the skin's protective barrier function, whilst minimizing dehydration, irritations and infections. This is important since the baby's delicate face is exposed to environmental influences.

Its moisturising complex with vitasqualane, lipids and the natural moisture-retaining ingredients allantoin and hyaluronic acid prevents dryness. The combination of panthenol and lipids further protects from irritated skin around the mouth due to saliva. Formula is rapidly absorbed and non-occlusive.

**Pump dispenser
for easy application**



**With detailed
Massage Guide inside**



Soothing Massage Oil

The way to your baby's heart is through their skin...

Sebamed Baby Soothing Massage Oil consists of 95% natural soya oil. Soya oil has a very high content of essential fatty acids (including Omega-3 and -6), which are very well tolerated by the skin. Product does not leave an oily film, but leaves skin feeling soft and supple.

Thanks to its balanced composition that is free from parabens, alcohol, colourants and other harmful substances, this Soothing Massage Oil may be applied as often as required. However, never massage if the baby's skin is red, inflamed, bruised, swollen, or broken.

Apply a few drops of the Soothing Massage Oil onto your hands, then simply rub hands together to warm the oil.

Start with baby's legs and feet, using slow sweeping strokes and your fingertips to massage toes. Move onto massaging the whole body, re-applying more oil as needed. Restrict massaging time for young babies to 2-5 minutes.

The intense physical contact of a massage supports the parent-child bond, whilst a soothing massage stimulates baby's blood circulation and relieves tummy ache.

LEGS



FEET



ARMS



CHEST & TUMMY



BACK





bébé - enfant

PRIORITY GIVEN TO INGREDIENTS OF **NATURAL ORIGIN**

0% PARABEN, PHTHALATE
PHENOXYETHANOL

Every Skin Type Deserves it's own Mustela Care



NORMAL SKIN
bébé - enfant



DRY SKIN
bébé - enfant



VERY SENSITIVE SKIN
bébé - enfant



ECZEMA-PRONE SKIN
bébé - enfant

60 YEARS OF DERMATOLOGICAL RESEARCH

MUSTELA®, IT ALL STARTS WITH SKIN

Atopic-prone is another way of saying Eczema-prone.

EXPANSCIENCE®
LABORATOIRES