

DISSERTATION 2022-24

TOPIC: *Journey Mapping of Positive Pregnancies after fertility treatment with respect to obstetrics and pediatrics outcomes.*

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INTRODUCTION:

WHAT IS INFERTILITY?

- ❑ Infertility is a disease of the male or female reproductive system defined by the failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourses.
- ❑ Infertility may be caused by a number of different factors, in either the male or female reproductive systems.
- ❑ However, in some cases it is an unexplained infertility also.
- ❑ In female reproductive system:
 - some medical condition like POI
 - Endometriosis
 - Age- related oocyte decline
 - Absent or damaged fallopian tubes
 - Recurrent IUI failure
 - Medical disease in mother not permitting pregnancy- surrogacy
- ❑ In male reproductive system:
 - Azospermia
 - Retrograde ejaculation
 - Severe oligoasthenoteratospermia
 - Immunological infertility
 - Less sperm count

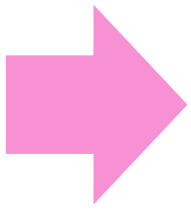


INTRODUCTION: (continued)

WHAT IS IVF TREATMENT?

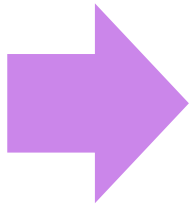
- ❑ The IVF treatment is a medical treatment which helps people to conceive a child after certain amount of time trying to conceive and still unable to get pregnant.
- ❑ IVF is a very sensitive treatment and also a common form of ART.
- ❑ IUI, ICSI, TVOA and FET this all are the part of IVF treatment.
- ❑ Before starting the IVF treatment the couples or the women/husband should undergo some tests like: -
 - For couples: HbsAg, HIV, HCV, Blood group and Rh.
 - For women: ultrasound scan, RBS, AMH, Urine Routine, Vaginal Swab for c/s etc.
 - For men: T3, T4, TSH, RBS, Semen analysis, DFI, Semen culture etc.
- ❑ This study involves those couples or individual who have achieved pregnancy through fertility treatments like ICSI,FET, TVOA.
- ❑ Through this journey mapping, we will be exploring the journey of those women who conceived after fertility treatment and who all continued the services till pediatrics.
- ❑ The importance of this study is to know what were the major factors affecting for drop out, what were the percentage rate of dropout from pediatric vaccination.
- ❑ The success rate of IVF treatment is 60-70%





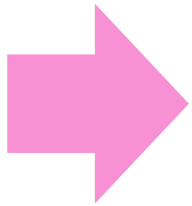
ICSI: (Intra Cytoplasmic Sperm Injection)

By inserting a single spermatozoon straight into the ooplasm of the mature, denuded egg. Healthcare providers most commonly use ICSI when male infertility affects a person's ability to conceive a child. Regardless of sperm count, ICSI technology will increase the possibility of fertilization and pregnancy, thus making it a desirable micromanipulation technique.



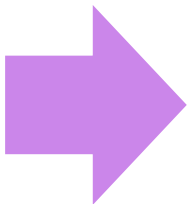
IUI: (Intra Uterine Insemination)

IUI is also a type of IVF treatment in which the sperm that has been washed and concentrated are placed directly inside to the uterus during ovulation. The IUI procedure is quick and typically painless. The main aim of this treatment is to improve the chances of fertilization by increasing the number of healthy sperm that will reach the fallopian tubes when the women is most fertile.



TVOA: (Trans Vaginal Oocyte Aspiration)

The TVOA is a technique in which it removes oocytes from an ovary enabling fertilization outside the body. The egg is collected or egg pick-up is the collection of a woman's egg cells to be used in fertility procedures where the embryo is grown outside the uterus such as IVF and ICSI.



FET: (Frozen Embryo Transfer)

If the couple doesn't want to transfer the embryo right after the procedure, then the next option is FET where FET is a process of ART where previously frozen embryo during an earlier IVF cycle are then thawed and transferred into a woman's uterus.

REVIEW OF LITERATURE:

- ❖ A Practical Guide to Fertility and IVF(2016) – BY Paolo Rinaudo :
- ❖ Women's experience of IVF: a follow-up study(2001) – BY K.Hammarberg, J.Astbury, H.W.G.Baker :
- ❖ Informative predictors of pregnancy after first IVF cycle using eIVF practice highway electronic health records.(2022) – BY Tingting Xu, Alexis de Figueiredo Veiga :
- ❖ Should IUI replace IVF as first-line treatment for unexplained infertility? (2019) – BY Jessica Ka-Yan Man, Anne Elizabeth Parker :
- ❖ Why do couples dropout from IVF treatment?(2008) – BY M.F.G. Verberg, M.J.C. Eijkemans :
- ❖ Dropout rate and cumulative birth outcomes in couples undergoing IVF within funded and actively managed system of care in New Zealand. (2021) – BY Laura M Miller, Mary A Birdsall, Georgina Wallace :

METHODOLOGY:

RESEARCH QUESTION:

- What are the reasons for dropout from the IVF treatment to obstetrics?
- What is the percentage of dropout from pediatric vaccination?

RESEARCH OBJECTIVE:

- To identify the reasons for dropout from the IVF treatment to obstetrics?
- To assess the dropout rate from vaccination retention?

STUDY SETTING:

- Cloudnine Hospital Bangalore

STUDY POPULATION:

- INCLUSION CRITERIA:
All the patients who have gone through ICSI, FET, TVOA are included in this study.
- EXCLUSION CRITERIA:
All the patients who have gone through IUI are not included in this study

SAMPLING TECHNIQUE:

- This study involves purposive sampling with sample size of 222 from the month of APRIL 2023 to MARCH2024.
- The study is conducted for a period of 2 months followed by analysis and recommendations for about a month.

RESEARCH DESIGN:

- This study involves secondary data analysis.
- Purposive sampling was done, only including ICSI, FET and TVOA positive patients.
- Profiling of dropout patients were done by retrospective approach using HIMS.
- To know about the reasons from dropout EHR (Lifetrenz) was used.

DATA ANALYSIS PLAN:

- MSEXCEL
- MS WORD

DATA COLLECTION METHOD:

- Hospital database (EHR) system, designated as LT.
- Using HIMS the data was cross checked
- To ensure data accuracy, the information will be cross- verified with patient's physical case sheets

STUDY INSTRUMENTS:

6th week			10th week			14th week			6 months	
End	Start	MONTH	End	Start	MONTH	End	Start	MONTH	Newborn	MONTH
December	Januray	February	November	December	February	October	Novembe	February	August	February
15Januray	14-Feb	March	December	Januray	March	Novembe	Decembe	March	September	March
15-Feb	14-Mar	April	Januray	February	April	Decembe	Januray	April	October	April
March	April	May	February	March	May	Januray	February	May	November	May
April	May	June	March	April	June	February	March	June	December	June
May	June	July	April	May	July	March	April	July	Januray	July
June	July	August	May	June	August	April	May	August	February	August
July	August	September	June	July	September	May	June	September	March	September
August	September	October	July	August	October	June	July	October	April	October
September	October	November	August	September	November	July	August	November	May	November
October	November	December	September	October	December	August	Septembe	December	June	December
November	December	Januray	October	November	Januray	Septembe	October	Januray	July	Januray

COUNSELING FORM

Date : _____

Patient Name : _____ UHID No: _____

Doctor Name: _____ Treatment Plan : _____

Financial Counseling: _____ Yes ☐ No ☐

IVF/ICSI Procedure Counseling: _____ Yes ☐ No ☐

Pre Anaesthesia Counseling: _____ Yes ☐ No ☐

Advance Payment Done: _____ Yes ☐ No ☐

cloudnine
Fertility

Course of events in a IVF / ICSI cycle

D1 - Please call the centre on the first day of periods to fix an appointment for D2
Please mention that you wish to begin IVF treatment. Contact No. **080-67152243 (8am to 8pm)**

D2 - Scan + Blood tests. (Before 10am).
Start injections and continue till D6. It is very necessary that you receive injections everyday at the same time.
If you prefer to take injections on your own, our Nurses will train you.
Please start injections and continue till further advice.

D7 - Scan + blood tests & continue injections till D9.

D9 or D10 - Could be the last day for injections, Scan and blood tests.
(In an occasional case D11 or D12 will be the last day).

D11 or D12 - day of egg retrieval (TVOA). (Admission 8am to 4pm).
TVOA is done under Anesthesia.
On this day the husband is asked to give semen.
Considering TVOA day as Do, Embryo transfer (ET) will be done anywhere between D2 to D5 after TVOA.
ET does not require anesthesia (Optional)

On the day of embryo transfer you will be at the centre for 4 to 6 hrs.
Following ET you will be asked to take rest at home for 2 to 5 days.
Pregnancy test will be done 2 weeks after ET.

RESULTS:

Fig-1: DISTRIBUTION OF SAMPLED CASES BY THEIR STATUS.

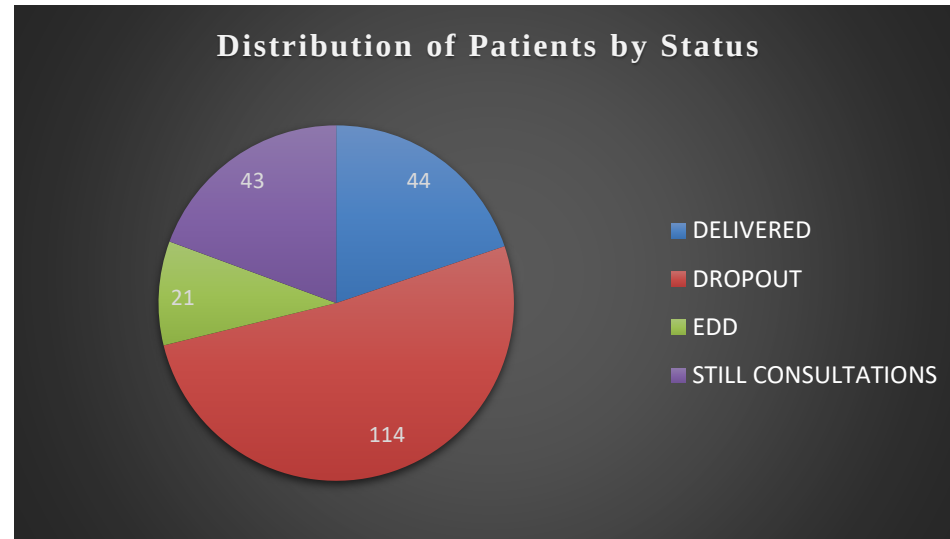
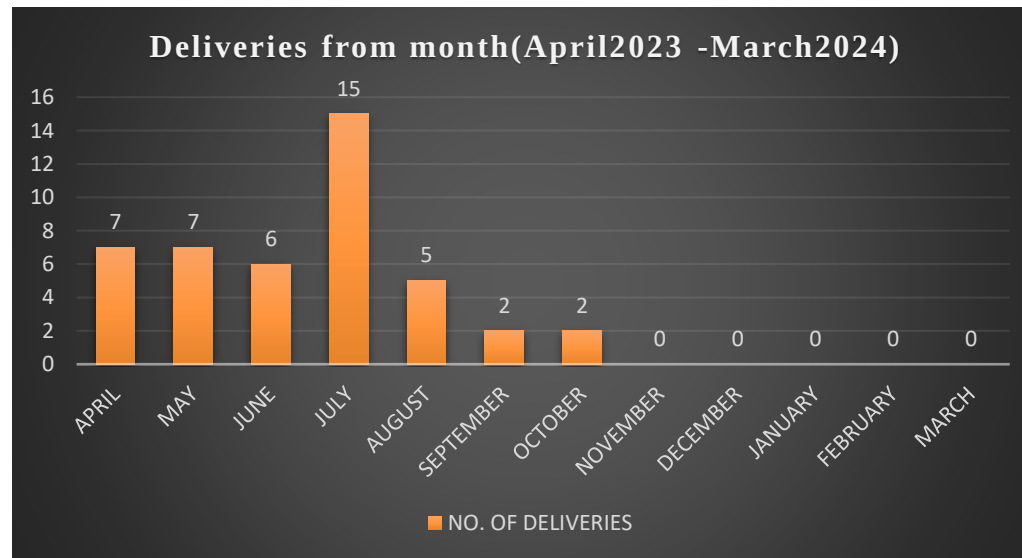


Fig-2: Month- wise deliveries from the sampled cases (Apr23 - Mar24).



RESULTS:

Fig-3: Month- wise dropouts from the sampled cases (Apr23 - Mar24).

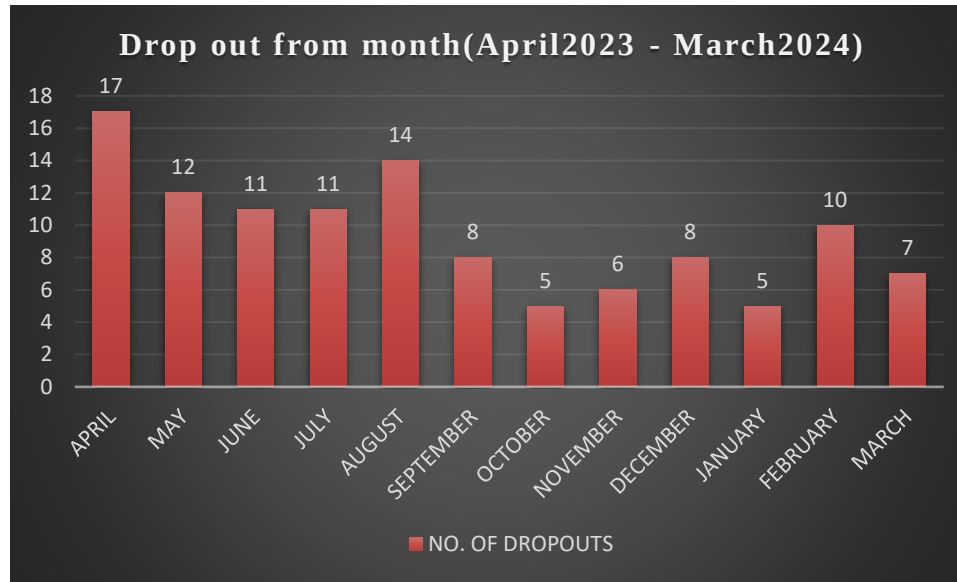


Table Fig-1: Dropout cases with reasons.

REASONS	COUNT
Other hospital	29
Native	24
MTP	40
MTA	6
Other	15
Total	114

RESULTS:

Fig-4: Total number of patients who are still in consultation and the total number of patients whose due dates are approaching.

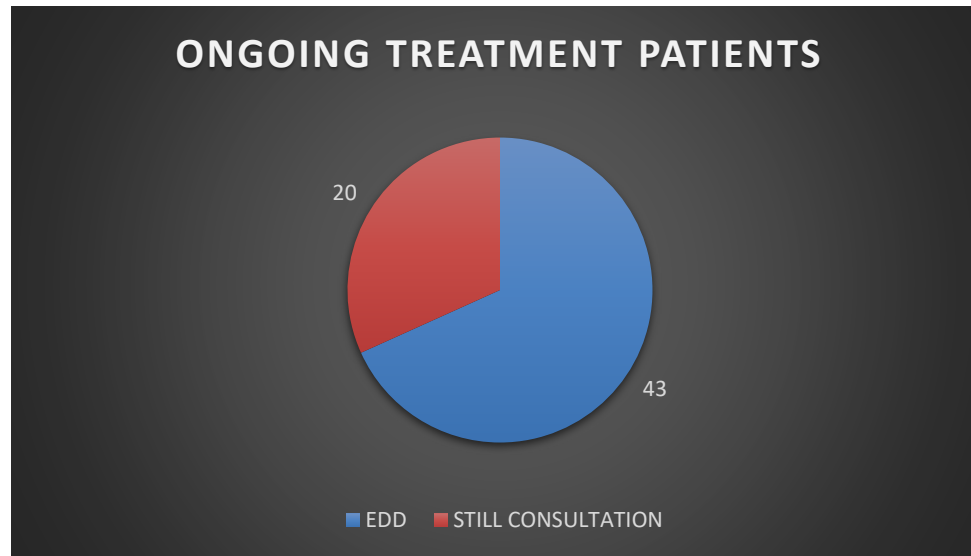


Table Fig-2: Total no. of dropouts from in-house paediatric vaccination.

WEEKS	COUNT
6 th	29
10 th	29
14 th	26
6months	7

RESULTS:

Fig-5: Dropout percentage for weeks 6, 10, and 14, as well as 6 months.

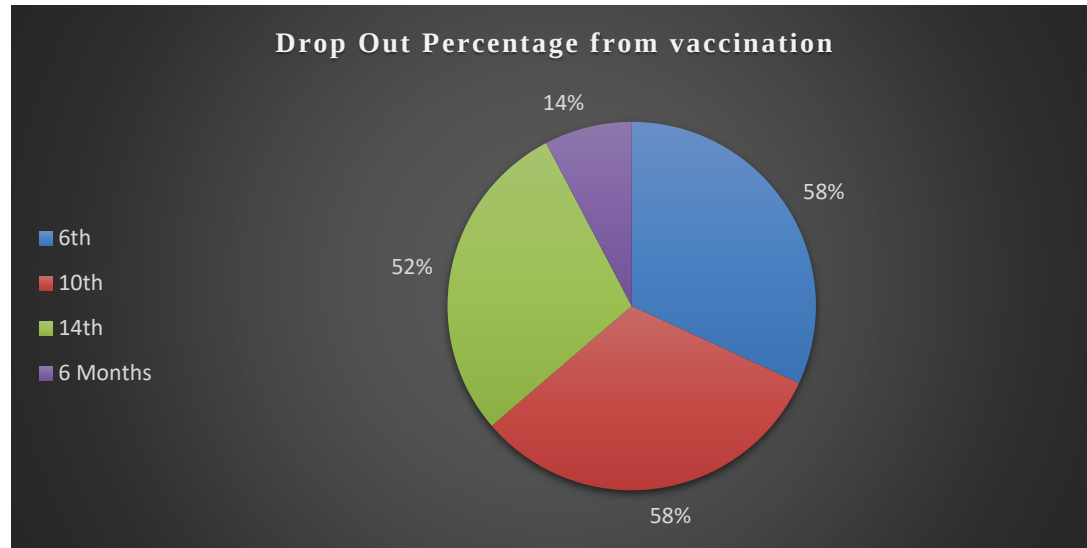


Table Fig-3: Total no. of vaccination retention from in-house pediatric vaccination.

WEEKS	COUNT
6 TH	19
10 TH	13
14 TH	10
6months	3

RESULTS:

Fig-6: Vaccination retention percentage for weeks 6, 10, and 14, as well as 6 months.

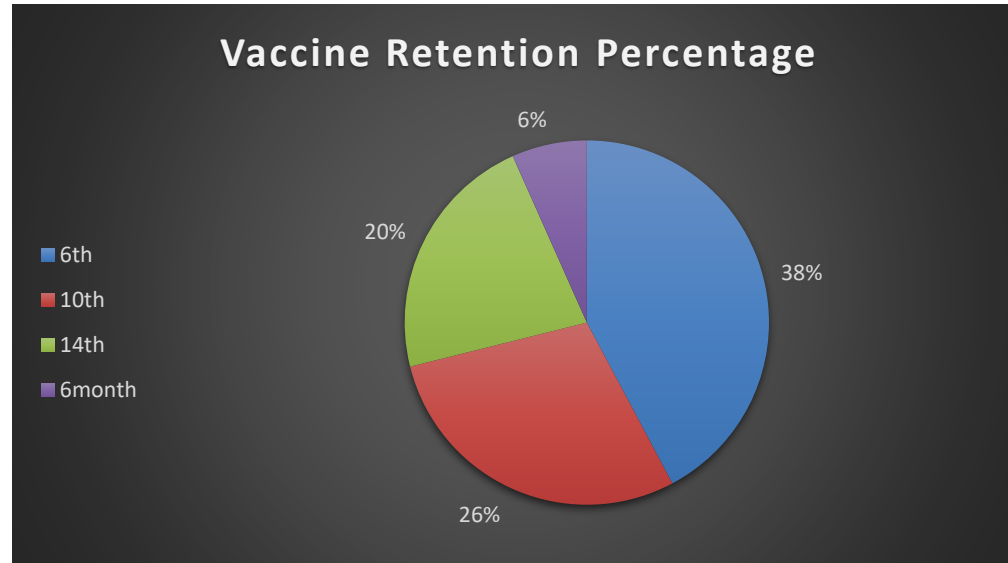


Table Fig-4: No. of Vaccination due for weeks 6, 10, and 14, as well as 6 months among overall delivered cases.

WEEKS	Due Date count
6 th	2
10 th	8
14 th	14
6month	40

RECOMMENDATION:

The following recommendations are provided to retain patients from IVF treatment to till obstetrics:

- ✓ Developing targeted marketing campaigns to raise awareness about the hospital obstetrics and gynaecology services.
- ✓ Patients can be given proper package counseling so that they can avail the packages and deliver in the hospital only.
- ✓ Establishment of proactive follow-up system, by GRE teams to retain the couples from taking the hospital services.
- ✓ Making more awareness about home care services.

RECOMMENDATION:

The following recommendations are provided to retain patients for vaccination retention:

- ✓ During the discharge process the GRE team can give proper in-house vaccination package details to the patients.
- ✓ Making more awareness about home vaccinations services.
- ✓ Placing more info-graphs regarding in-house vaccinations in the OPD and pediatric department.
- ✓ Reminder message from the app for week wise and month wise vaccine dose.
- ✓ Follow-up call can be given for the next vaccination due dates.

Thank You!

