The Case for Public Funding of a Restorative Reproductive Medicine Clinic

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Introduction

- With Assisted Reproductive Technology (ART), a child is not a cure for infertility.[a]
- A paradigm shift occurred with the birth of the first IVF baby (Louise Brown) in 1978 - fertility research has largely focused on how better to bypass the natural fertility pathway rather than restoring reproductive health.[b]
- In the era of ART, reconstructive tubal surgery still has an important role but it's utilisation is diminishing due to surgical de-skilling.[c]
- Fertility Fundamentals is the only clinic in SA offering a restorative reproductive approach.[d] Clinicians are trained in medical and surgical NaProTechnology.

Objectives

- Audit of treatment costs and outcomes, including a subgroup of women treated unsuccessfully with IVF.
- Development of a business model to assess cost savings to SA Health and Medicare.
- Assessment of potential to reduce admissions.

Methods

- Audit of clinic treatment outcomes 2014-2018.
- Analyse cost per pregnancy compared with IVF.
- Analyse how a restorative approach may reduce hospital admissions and costs.

Results

Years and Major Diagnostic Results

	2014/15	2015/16	2016/17	2017/18
Pregnancy Rate (Infertile patients)	38 % (20/51)	47 % (18/38)	37% (16/43)	40.5% (17/42)
Laparoscopy – Endometriosis	77% (10/13)	72% (13/18)	70% (7/10)	60% (12/20)
Laparoscopy – Abnormal	85% (11/13)	83% (15/18)	80% (8/10)	75% (15/20)
Ovulation Defects	90% (46/51)	36% (14/38)	39% (17/43)	60% (28/46)
Luteal Phase Defects	combined ovulation +/- luteal defects	50% (19/38)	39% (17/43)	54% (25/46)

Results (Continued)

IVF Patient Subgroup

- 8 Couples treated from 2014-2017 who had previously failed IVF (no clinical pregnancy):
- 3/8 conceived with restorative approach (previously had combined total of 15 IVF cycles)
- 3 live births
- One patient with past history of 4 miscarriages including with IVF conceptions, delivered 2 babies at term in consecutive pregnancies using our pregnancy support

Costings per pregnancy compared with IVF

- Fertility Fundamentals treated 52 patients over 12 months to achieve 20 pregnancies.
- The figures use Fertility Fundamentals' average patient and pregnancy numbers over the 3-year period from 2014-2017.
- The IVF modelling is derived by treating same number of patients with a single cycle of IVF.

Fertility Fundamentals Services	Total Cost
Medicare consultations billed (413 consultations billed - item 23, 36, 44)	$33,370
Pelvic ultrasound / follicle tracking scans (avg 4 per patient): 208 @ $55.65	$11,575
Hormone tests - oestradiol, progesterone (avg 20 per patient): 1040@$43.70	$45,448
TOTAL	$90,393
No of pregnancies achieved	20
Cost per pregnancy	$4,519

IVF Service per cycle^	Total Cost
Item numbers 13200,13206,13212,13215 total / patient	$4,041.74
Total to treat 52 patients	$210,170.48
No pregnancies achieved- 23.9%*	12
Cost per pregnancy	$17,514

^ PBS medicine cost not included
*23.9% pregnancy rate published ANZARD 2012

Business Model - Cost Savings

- Fertility Fundamentals (FF) receives $100,000 per annum (p/a) funding from SA Health, and saves SA Health $193,404 p/a and Medicare $101,376 p/a.
- FF achieves 65% more pregnancies than IVF.
- 3 fewer babies are born prematurely & with low birth weight than with IVF.
- Ovarian Hyperstimulation Syndrome (OHSS) occurs rarely compared with IVF (>20% IVF cycles, and 1% require admission).
- 14% fewer Caesarean sections amongst our patients compared to IVF conceptions.
- The above figures are conservative estimates and do not incorporate parameters which are difficult to quantify, such as:
  - lower chronic disease burden by treatment of underlying insulin resistance and other conditions eg thyroid dysfunction.
  - lower ectopic pregnancy rate.
  - lower miscarriage rate.

Results (Continued)

Other Health Economic Considerations

- Fertility Fundamentals potentially **reduces hospital admissions** and offers more cost effective treatment due to:
  - No egg retrievals
  - Less OHSS and fewer multiple pregnancies, Caesarean sections and premature babies
  - Fewer ovarian cysts, ectopic pregnancies and miscarriages (by treating ovulation and luteal abnormalities)
  - Timely management of thyroid dysfunction and insulin resistance

Discussion

- NaProTechnology effectively manages infertility and other gynaecological disorders.[b]
- Treatment at Fertility Fundamentals allows women to conceive naturally
- Average treatment cost per couple at Fertility Fundamentals is **less than half** of an IVF cycle (AUD $1,738 vs $4,042).
- The cost per pregnancy achieved at this clinic is **75% lower** than that of an IVF conception (AUD $4,519 vs $17,514).
- FF services are cost-effective, they deliver greater savings to the health care system and have advantages of restoring reproductive & general health.

Conclusion

- Fertility Fundamentals uses NaProTechnology, a restorative approach which treats the underlying causes of infertility- health is restored and conception occurs naturally.
- In our case series, this approach is more cost effective than IVF and is accessible to all.
- The service at Fertility Fundamentals makes medical and financial sense.

References

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