

SCOTTISH PROGRAMME FOR CLINICAL EFFECTIVENESS IN REPRODUCTIVE HEALTH

Expert Advisory Group on Infertility Services in Scotland

(EAGISS)

EVIDENCE & EQUITY

A National Service Framework

for

The Care of Infertile Couples in Scotland

APRIL 1999

- **An evidence-based model service specification for Scottish Health Boards Commissioning services for infertile couples**
- **A profile of current infertility services in Scotland**
- **Compatible with the Acute Services Review concept of managed Clinical Networks**

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EVIDENCE & EQUITY

A National Service Framework for the Care of Infertile Couples in Scotland

EXECUTIVE SUMMARY

1. It is acknowledged that the management of infertility represents a healthcare need, that effective treatments are now available and that there are wide variations in provision among Scottish Health Boards. In January 1998, the SODoH convened an Expert Advisory Group on Infertility Services in Scotland (EAGISS) to advise them on the provision of effective services throughout the NHS in Scotland.
2. EAGISS have presented their advice to the SODoH in the form of a **National Service Framework** comprising:
 - A statement of the available evidence base on effective and efficient interventions.
 - A model service specification aimed at commissioners of infertility care in Scotland. This model service is delivered through a Managed Clinical Network of three levels of care.
 - A profile of current infertility services in Scotland with an assessment of how they measure up to the model.
3. The **statement of the available evidence base** has been derived from recent systematic reviews undertaken by others - principally the RCOG's Infertility Guideline Group and 35th Study Group.
4. The **model service specification** involves a network of three levels of care:
 - **Level I:** initial investigation and management provided by the primary care team.
 - **Level II:** further investigation and management provided by a special interest team in a district general hospital.
 - **Level III:** specialist care provided in one of Scotland's four tertiary referral centres (Aberdeen, Dundee, Edinburgh, Glasgow).
5. **Level I care** should be couple-based, should cover basic history-taking and clinical examination and include laboratory investigations to evaluate the woman's general health status, to confirm ovulation and to assess the quality of the semen of the man.
6. **Level II care** involves further management of couples referred following completion of basic assessment in Level I. The main investigation undertaken in Level II is tubal patency testing. This will usually be by hysterosalpingography (HSG). For women with a history suggestive of tubal damage and for those with abnormal or equivocal findings on HSG, diagnostic laparoscopy with dye transit will be required.

Treatments which may be initiated in Level II include ovulation induction with clomiphene and the surgical treatments of polycystic ovarian syndrome (PCOS) and endometriosis. Some Level II centres may also possess the necessary facilities and expertise to offer ovulation induction with gonadotrophins, controlled ovarian hyperstimulation plus intra-uterine insemination and donor insemination.
7. **Level III care** involves the provision of assisted conception techniques requiring an HFEA licence and certain other specialised diagnostic and therapeutic interventions. EAGISS has developed eligibility criteria for NHS-funded assisted conception in an attempt to balance the inevitable conflicts between effectiveness, efficiency, equity and the welfare of any resulting children. It is recommended these criteria be applied nationally across all Scottish Health Boards.

8. NHS-funded assisted conception should be available to couples who meet all of the following **eligibility criteria**:

- Infertility with an appropriate diagnosed cause, of any duration
- or**
- unexplained infertility of at least three years duration.
- Female partner aged <38 years at the time of treatment
- Neither partner previously sterilised
- No child living with the couple in their home
- Less than three previous embryo transfers funded from any source

Each eligible couple is entitled to a maximum of 3 NHS-funded assisted conception cycles, to include a minimum of two transfers of fresh embryos.

9. **Resource implications for Health Boards.** On the basis of these eligibility criteria, it is estimated that a Health Board serving a population of 250,000 would require to provide 154 assisted conception cycles per year. At an average cost of £1,900 per cycle, such provision would cost approximately £156,000 **more** per year than is currently allocated to assisted conception. (Based on the current average expenditure reported by mainland Health Boards.) It is suggested that this additional cost could be offset by the efficiency savings in other elements of the infertility service which will arise if the pattern of care advocated in the model service specification is adopted. A saving of £680 in the management of each of the 230 new couples per year expected to be referred to consultant infertility services in a Health Board of the notional size would be required to offset this cost.

10. **A profile of current services** was compiled using existing information from the Gynaecology Audit Project in Scotland (GAPS) (1995 - 1997), from a postal survey of all directors of public health (June 1998) and from data published by the HFEA. The findings suggest that currently there are inefficiencies in the service. For example, only half of couples have the basic tests of ovulation and semen analysis undertaken in Level I care; a fifth of regularly menstruating women have unnecessary hormonal investigations performed; and 80% of women undergo diagnostic laparoscopy as the first line test of tubal patency. EAGISS consider that rationalisation of such aspects of the service could generate resource savings of the order described above.

EAGISS was convened by the Clinical Resource & Audit Group (CRAG) and supported by the professional and secretarial resources of the Scottish Programme for Clinical Effectiveness in Reproductive Health (SPCERH)

1.

BACKGROUND TO THE EXPERT ADVISORY GROUP ON INFERTILITY SERVICES IN SCOTLAND (EAGISS)

The NHS Executive and its Scottish counterpart have acknowledged that infertility management represents a healthcare need. In Scotland in particular, the public also view infertility as a healthcare need, with 74% of a MORI sample indicating that '*fertilisation treatments for couples unable to have a baby should be free*'. (BBC Survey of the NHS, MORI, 1998)

Clinically effective treatments are now available for many of the causes of infertility. These include *in vitro* fertilisation (IVF) and related assisted conception techniques as well as longer established treatment modalities such as ovulation induction and surgical treatment of endometriosis. It is recognised that there are wide variations in the provision of infertility services, particularly of the more recently established treatment modalities, among Scottish Health Boards.

Acknowledgement of these current inequities prompted the Clinical Resource and Audit Group (CRAG) of the SODoH to convene an Expert Advisory Group on Infertility Services in Scotland (EAGISS) in January 1998. The aim of the group was to advise the DoH on the provision of effective infertility services throughout Scotland. The Group has been supported in its work by the professional and secretarial resources of the Scottish Programme for Clinical Effectiveness in Reproductive Health (SPCERH).

To meet their aim, EAGISS members have produced a National Service Framework for commissioners of infertility services in Scotland. National Service Frameworks are part of a package of measures proposed by the NHS Executive to drive up the quality of services¹ and are compatible with the Managed Clinical Network model of care proposed in the 1998 Scottish Acute Services Review Report².

A **National Service Framework**¹ includes the following components:

- A **clear statement of the evidence base** on effective and efficient interventions and organisational arrangements. EAGISS has worked in parallel with the Infertility Guideline Development Group of the Royal College of Obstetricians & Gynaecologists and has endorsed the recently published RCOG infertility guidelines^{3,4} as statements of available best evidence.
- A **service model** for the defined service. A model service specification for Scottish Health Boards commissioning services for infertile couples has been developed by EAGISS and comprises the major part of this Framework.
- An assessment of the **present position** and the issues to be tackled. The second part of this Framework comprises a profile of current infertility services in Scotland. This profile is based on existing information from a variety of sources :
 - The HFEA *Patient's Guide to DI and IVF Clinics*
 - The audit of infertility care undertaken within the Gynaecology Audit Project in Scotland (GAPS), 1995-1997
 - The findings of a survey of Directors of Public Health undertaken by EAGISS, June 1998
 - Reports submitted by representatives of service user groups

It is hoped that this Framework will assist the SODoH and commissioners at Health Board level in planning and allocating resources to infertility services.

2.

THE EVIDENCE BASE for CLINICALLY EFFECTIVE INFERTILITY CARE

Clinical effectiveness involves the use of healthcare interventions (whether for diagnosis or treatment) which combine **efficacy**, **appropriateness** (for the individual patient or population) and **efficiency** (or cost-effectiveness). This Service Framework aims to promote the use of those interventions which possess these three attributes and the abandonment of those which do not. The use of clinically effective interventions delivered through a Managed Clinical Network of three levels of care (as outlined below) provides a model of care in which Scottish couples can receive appropriate infertility management in settings which are as accessible to them as possible.

Identification of clinically effective interventions requires systematic review of research evidence. A number of authoritative groups have recently published clinical guidelines or guidance based on systematic literature review. These groups include the RCOG Infertility Guideline Group^{3,4}, the Effective Health Care team⁵, the development group for the '*Glasgow Guidelines for the Management and Referral of Infertility*'⁶, and the 35th RCOG Study Group (on *Evidence-Based Fertility Treatment*)⁷.

The healthcare interventions advocated within this Service Framework have been selected with particular reference to the RCOG Infertility Guidelines. The publications of the other groups cited above have also been referred to.

THE MODEL SERVICE SPECIFICATION

3.1 INTRODUCTION

This specification outlines the provision of appropriate services for couples seeking help with the problem of infertility who are resident in Scottish Health Board areas. '*Failure to conceive after two years during which there has been sexual intercourse and no use of contraception*' is an accepted definition of infertility for health service planning. However, it is acknowledged that some couples will require earlier access to services.

Scottish Health Boards serve populations of sizes ranging from under 20,000 (Orkney) to over 900,000 (Greater Glasgow). Population densities vary from 50 hectares per person (in Sutherland) to 35 persons per hectare (in Glasgow). These geographical factors mean that the way infertility services are provided and the accessibility of services will inevitably vary among Health Boards.

This specification has been written to apply to a notional Health Board serving a population of 250,000. This population would include approximately 46,000 women in the age group 20-44 years. It has been previously estimated that such a population might generate 230 new consultant referrals to infertility services per year⁸⁻¹³. This total comprises 0.5% of women in the reproductive age group and represents an estimate of **need** as opposed to the historic annual **met demand** for such services of approximately 0.37%⁸.

3.2 A MANAGED CLINICAL NETWORK FOR INFERTILITY SERVICES

In the Acute Services Review Report (1998)², the CMO presented the concept of the Managed Clinical Network as the most important strategic issue for the acute sector NHS in Scotland. The Managed Clinical Network model is consonant with a renewed emphasis on the role of primary care. Managing and operating such networks will require all of the clinicians concerned to collaborate in developing detailed descriptions of services, integrated protocols and pathways. The model service specification presented here involves a network of services with primary care at its centre through which Scottish couples can receive appropriate infertility management in settings which are as accessible to them as possible. Such a network, based on each of four tertiary centres, spans the boundaries between professions, Trusts and Health Boards.

In its report '*Infertility Services in Scotland*' (1993)¹⁴, the National Medical Consultative Committee (NMCC) Working Group discussed the provision of services within a framework of three '**levels of care**'. This same framework, with minor modifications, is used in this service specification:

- **Level I:** represents infertility investigation and management which can appropriately be provided by a general practitioner and his team within a primary care setting.
- **Level II:** represents infertility investigation and management which can appropriately be provided by a gynaecologist with a special interest in infertility and his team in a district general hospital.
- **Level III:** represents infertility investigation and management which can only appropriately be provided by a subspecialist gynaecologist and his team in one of Scotland's four tertiary referral centres (Aberdeen, Dundee, Edinburgh and Glasgow). These centres will also provide Level II care for those couples living within their own 'catchment areas'.

Within each care level, it is appropriate that couples with infertility are managed, wherever feasible, by a clinician with a special interest in this problem. Even within Level I, some larger

general practices may choose to adopt a system of 'subspecialisation'. Where such systems are in place, couples may be managed by the 'special interest' practitioner.

At the point of onward referral from Level I to II, infertile couples should be referred only to a special interest consultant at a dedicated infertility clinic. It is considered that infertile couples are not well served by attending general gynaecology clinics either within Level II centres or at outreach settings served by staff from Level II centres. It is acknowledged that these referral arrangements may sometimes mean that couples have to travel further than they would to a generalist clinic.

3.3 LEVEL I SERVICES

It is proposed that the following elements of the investigation and management of the infertile couple can appropriately be provided within a primary care setting. In most cases, the provision of such care will be led by the general practitioner of the female partner. In some instances, couples may choose to seek advice from other primary healthcare agencies – for example, family planning or reproductive health clinics. These same elements of care may appropriately be provided by such agencies – which should, like general practices, possess a mechanism for onward referral to Level II care.

3.3.1 COUPLE-BASED CARE

'The investigation of infertility should involve both partners from the outset.'

Expert groups providing guidance on the management of infertility are unanimous in the view that there is value in caring for patients as **couples**^{3,5-7}. A recent audit exercise found that over 90% of Scottish gynaecologists¹⁵ and general practitioners¹⁶ were supportive of the value of couple-based care. Wherever possible, providers of Level I care should endeavour to see infertile couples together so that both partners receive the same advice and information and so that investigation of both can progress simultaneously.

3.3.2 HISTORY AND EXAMINATION

The aim of history-taking and examination in Level I care is to identify factors which should prompt early referral to Level II. In the absence of abnormal results on history-taking, examination or Level I investigations, referral should be delayed until the couple have been trying to conceive for more than 12 months⁶.

Factors identifiable through history-taking and general/genital examination which should prompt earlier referral to Level II care are:

- i. the woman is aged 35 years or more.
- ii. the length of the woman's menstrual cycle is <21 days or >35 days
- iii. the woman has a past history of ectopic pregnancy, pelvic infection, endometriosis or anatomical abnormalities.
- iv. the man has a past history of urogenital surgery or abnormal findings on examination.

3.3.3 INVESTIGATION

Investigations in Level I care are aimed at confirming that the woman's general health status is appropriate for conception, that she is ovulating and that the man is producing semen of adequate quality. The investigations which should be undertaken to achieve these aims are:

- i. To confirm that the woman's general health status is appropriate for conception, rubella immunity should be verified, cervical cytology history checked and body mass index (BMI) calculated. Should the woman be found to be non-immune to rubella, immunisation should be undertaken while investigation proceeds. An opportunistic smear may be offered if appropriate. Advice on weight loss should be provided if BMI >30.
- ii. Measurement of one mid luteal serum progesterone concentration in the regularly menstruating woman. Irregular menstruation (cycle length <21 days or >35 days) should have prompted early referral.
- iii. Examination of at least one semen sample from the man (by the laboratory serving the local Level II centre).

Additional biochemical or hormonal investigations are irrelevant in the regularly menstruating woman. Oligo or amenorrhoea should prompt early referral to Level II care. In such cases, the following investigations may be initiated within Level I in order to expedite management:

- i. FSH and LH
- ii. TSH
- iii. Prolactin
- iv. Testosterone
- v. Oestradiol

Ideally, blood for these investigations should be taken soon after menstruation (unless the woman is amenorrhoeic) to avoid confusing results which may occur if blood is taken during an LH surge.

3.3.4 ADVICE

History taking in Level I should include enquiry into the couple's knowledge of reproduction, their knowledge and use of the fertile period, the timing and frequency of coitus and any coital difficulties. Advice about the basic physiology of reproduction and the fertile period should be provided, backed up by the provision of relevant literature.

Even at the stage of Level I care, infertile couples may benefit from independent support or counselling. Level I clinicians should be in a position to help couples access such support, at least by having available the local contact details of patient support groups such as CHILD and ISSUE.

Women presenting with infertility are actively attempting to become pregnant. In common with all women planning to conceive, they should be advised to take supplements of folic acid, 0.4 mg daily. (For any women who themselves have a neural tube defect [NTD], who have previously borne an affected infant, who have Type I diabetes or who are taking anticonvulsant medication, the daily dose of folic acid should be 4-5 mg).

The RCOG Guidelines Development Group³ has suggested that general advice given to couples should include the following specific areas. There is evidence (of varying quality) to suggest that each of these aspects of general health may be related to fertility:

- i. the taking of a detailed drug history from both partners – including the use of recreational drugs.
- ii. the taking of an occupational history – as environmental factors can affect fertility.

- iii. advice on stopping smoking – for both partners.
- iv. moderation of alcohol intake in both partners – the suggested upper limit for women is 4 units per week and for men, 4 units per day.
- v. men with poor results on semen analysis should be advised to wear loose fitting underwear and to avoid exposure to high temperature environments.
- vi. the use of temperature charting and LH detection methods to time of intercourse should be discouraged – as there is no evidence that these methods improve outcome. Couples should be advised to have regular intercourse throughout the cycle.

3.4 LEVEL II SERVICES

It is proposed that the following elements of the investigation and management of the infertile couple can appropriately be provided in a general gynaecology department by a gynaecologist with a special interest in infertility. Each gynaecology department providing Level II services should possess one (or more, depending on size) consultant(s) with an infertility interest. These consultants should see infertility referrals at dedicated clinics where all the precepts of good infertility care can be practised and which are conducive to a couple-based approach. In general, referrals of couples to the Level II service will be from general practitioners. Referrals will also be accepted from other primary care providers of reproductive healthcare – for example family planning and other direct access clinics. Generalist gynaecologists may also refer couples to their special interest colleagues. (However, if appropriate referral practices are observed at the point of onward referral from Level I, this eventuality should seldom arise.)

It is proposed that referrals to the Level II service will not usually be accepted until the following conditions have been met:

- i. The couple have been trying to conceive for at least 12 months, unless:
 - a) the woman is aged 35 years or more.
 - b) the length of the woman's menstrual cycle is <21 days or >35 days.
 - c) either partner has a past history of findings on clinical examination suggestive of congenital or acquired urogenital abnormalities.
- ii. The result of a midluteal serum progesterone concentration is available.
- iii. The general health status of the woman has been confirmed to be appropriate for conception.
- iv. The woman has been advised to take folic acid supplements.
- v. The result of at least one semen analysis from the man is available.

3.4.1 INVESTIGATIONS IN LEVEL II

i. Test of tubal patency

The Level II service will undertake a test of tubal patency in appropriate female partners. Systematic reviews undertaken by the RCOG Guideline Development Group³ and by Collins¹⁷ suggest that, for *low risk* women – those without a history suggestive of tubal damage, hysterosalpingography (HSG) may be used as the initial screening test for tubal patency. Where HSG is used, abnormal or equivocal findings will require further elucidation with laparoscopy.

Women with a past medical history suggestive of pelvic inflammatory disease or other evidence

suggestive of tubal damage should undergo diagnostic laparoscopy with dye transit as the initial test of tubal patency.

Before uterine instrumentation for tubal patency testing, consideration should be given to screening for *Chlamydia Trachomatis* or to using antibiotic prophylaxis, in line with the RCOG Guideline.

In the absence of a past history suggestive of pelvic infection, a test of tubal patency may be deferred in women with evidence of ovulatory problems or in the female partners of men with major abnormalities on semen analysis.

ii. Other investigations of the female reproductive system

Systematic literature review by the RCOG Guideline Development Group indicates that the following investigations **do not** provide information which is useful in the management of infertility. These investigations should **not** be performed in Level II services:

- a) Endometrial biopsy for evaluation of the luteal phase.
- b) Post coital test.
- c) Hysteroscopy for evaluation of the uterine cavity.
- d) Ultrasound evaluation of the endometrium

iii. Further examination of the semen

The RCOG Guideline Development Group recommends that *'the male partner should normally have two semen analyses performed during the initial investigation'*. The most recent guidance from the World Health Organisation also advises two semen analyses for initial evaluation. EAGISS therefore suggest that, while one semen analysis is an essential element of Level I care, a second should usually be undertaken following referral to Level II.

The RCOG Guideline Group concluded that there are unresolved methodological problems in testing for antisperm antibodies (ASABs) and do not recommend such testing in the routine, initial investigation of the infertile couple. Nor do they recommend the routine use of specialised sperm function tests such as tests of penetration and biochemical function.

3.4.2 ADVICE

Level II services should reinforce the general advice provided in Level I. Each stage in the investigation and management of infertility should be fully explained to the couple, with written information in a range of languages (if required) being available to give to them. This written information should also include a list of useful addresses of relevant organisations such as patient groups and the Human Fertilisation and Embryology Authority (HFEA).

3.4.3 COUNSELLING AND EMOTIONAL SUPPORT

Although there is a lack of evidence that counselling influences the outcome of infertility treatment in terms of pregnancy rates, it does reduce the distress caused by infertility⁷. While it is mandatory that couples undergoing assisted conception treatments regulated by the HFEA are offered independent counselling, it is also considered desirable that couples receiving management in Level II centres have access to such support. The services provided within the dedicated infertility clinics of Level II centres should include a staff member appropriately trained to provide formal, independent counselling.

3.4.4 LABORATORY SERVICES FOR SEMEN ANALYSIS

A recent survey of laboratories in Scotland¹⁹ revealed that at least 31 NHS laboratories currently undertake semen analysis (SA). These comprise six dedicated infertility labs, 14 pathology/cytology labs, five microbiology labs, one haematology lab and five multi-disciplinary labs. In some instances, more than one laboratory within the same hospital undertakes SA.

Health boards should rationalise this situation to reduce the number of laboratories undertaking SA. Each gynaecology department providing Level II or III infertility services should be associated with one service laboratory. Practitioners providing Level I care should send samples to the laboratory serving the Level II clinic to which the couple would be referred.

Laboratories performing SA should undertake this according to recognised WHO methodology¹⁸. Laboratories should also practise internal quality control and belong to an external quality control scheme. At the time of the Scottish survey¹⁹ only five of the 31 labs undertaking SA were using the WHO guidelines and only two were participants in an external quality control scheme. The UKNEQAS (UK National External Quality Assessment Scheme) covers assessment of SA. The WHO guidelines require that semen samples reach the laboratory within an hour of ejaculation. At the time of the Scottish survey, only three laboratories had facilities for production of the specimen on site. Health Boards serving scattered populations should ensure that appropriate on site facilities for production of semen samples are available as advised by the NMCC Working Group¹⁴. The use of a toilet in this instance is regarded as being totally unacceptable.

3.4.5 INFERTILITY TREATMENT IN LEVEL II

i. Ovulation induction with clomiphene citrate

There is evidence from randomised trials to support the use of clomiphene citrate in selected anovulatory women with amenorrhoea or oligomenorrhoea²⁰ though current best evidence suggests that it should not be used, unless in the context of a randomised trial, for ovulatory women with unexplained infertility^{4,7}.

The RCOG guideline group recommends that clomiphene should only be used to a maximum of 12 cycles because of the putative association with ovarian cancer. It should be noted that the CSM have advised that clomiphene be used for no more than six cycles. However, on the basis of comprehensive literature review, the RCOG concluded that there is no evidence of increased risk of ovarian cancer until clomiphene exposure exceeds 12 cycles, whereas there **is** evidence of clinical benefit in using clomiphene for more than six cycles.

Clomiphene cannot be viewed as an innocuous treatment. The restriction on the total number of cycles means that clomiphene cycles must not be 'wasted' and should be undertaken in such a way that the woman is most likely to gain benefit. Similarly, clomiphene is not innocuous with regard to the production of multiple pregnancies. Multiple pregnancy rates of up to 13% have been reported and in a British survey, 57% of triplet pregnancies and 25% of quadruplet pregnancies associated with ovulation induction were due to clomiphene alone²¹.

Treatment with clomiphene may appropriately be provided in Level II care **but only where adequate monitoring can be undertaken in order to assess the dose of clomiphene which produces ovulation from a single, or at most two, dominant follicle(s) for each individual woman**. To establish ovulation and its timing, and to ensure that only one or two dominant follicles are developing, serial ultrasound assessment is required during the follicular phase followed by a mid-luteal serum progesterone measurement.

It is viewed as inappropriate for clomiphene treatment to be **initiated** in Level I care. However, it may be appropriate, particularly where long travelling distances to the Level II centre are involved, for **continuing** treatment to be undertaken in primary care, once the appropriate ovulatory dose has been established. This should be part of a formal shared care agreement between the Level II centre and primary care. An agreed shared protocol should be in place in line with the spirit of the managed clinical network.

ii. **Ovulation induction with gonadotrophins**

Ovulation induction with gonadotrophins is an effective treatment for selected women with anovulatory infertility. Such women include those with polycystic ovarian syndrome (PCOS) who have failed to ovulate with clomiphene.

The aim of induction of ovulation with gonadotrophins, as with clomiphene, should be to stimulate ovulation of a single, or at most two, dominant follicles and thereby avoid the problems associated with multiple pregnancy and hyperstimulation syndrome. Ovulation induction must be conducted according to strict protocols which minimise these risks. Such protocols require daily access to ultrasound and endocrine assays for monitoring of follicular development. Because of these requirements, ovulation induction should only be undertaken in centres where these facilities are available on a seven days/week basis. Some Level II centres may be able to provide such a monitoring service. Otherwise, if ovulation induction is indicated, patients should be referred onwards to Level III care.

iii. **More specialised approaches to ovulation induction**

Pulsatile gonadotrophin releasing hormone (**GnRH**) therapy is of established effectiveness in the treatment of hypothalamic or hypogonadotrophic amenorrhoea. It results in pregnancy rates similar to those of a fertile population and carries lower risks of multiple pregnancy and of ovarian hyperstimulation syndrome (OHSS) than ovulation induction with gonadotrophins.

Anovulation due to hyperprolactinaemia is effectively treated with **dopamine agonists** (bromocriptine, cabergoline, quinagolide).

In order to select the most appropriate treatment for anovulatory patients, specialist investigations including endocrine and chromosomal analyses are required. Such tests should be undertaken, and treatment decisions made, in a Level III centre. However, in the spirit of the managed clinical network, continuing management may be undertaken in a Level II centre if appropriate expertise and monitoring facilities are available.

iv. **Controlled ovarian stimulation (COH) with intrauterine insemination (IUI)**

Meta-analyses suggest that COH with IUI is effective for couples with unexplained infertility and for those with minimal/mild endometriosis⁴. The likelihood of conception is approximately five-fold higher when ovarian stimulation plus IUI is used, compared with untreated cycles. Available data make direct comparison of the relative effectiveness of COH/ IUI and IVF difficult and most data suggest that three or four cycles of COH/IUI are required to match the conception rate achievable with a single cycle of IVF.

As with ovulation induction, strict monitoring and criteria for cycle cancellation are vital if the risks of multiple pregnancy and OHSS are to be minimised. Therefore this treatment must be confined to Level III centres and those Level II centres able to provide this monitoring.

v. **Surgical treatment of polycystic ovarian syndrome (PCOS)**

Clomiphene citrate is usually the first line treatment for PCOS. Patients who do not ovulate within 9 - 12 cycles may be treated by ovulation induction with gonadotrophins or surgically by 'drilling' using laparoscopic ovarian diathermy. Available data reviewed by the RCOG guideline group⁴ suggest that pregnancy rates following ovarian drilling are similar to those achieved using gonadotrophin ovulation induction - but that multiple pregnancy rates are lower. These considerations suggest that, particularly in Level II settings, the surgical option may be preferable.

vi. Treatment of endometriosis

Evidence summarised both in the RCOG Infertility Guideline⁴ and in the Proceedings of the RCOG Study Group⁷ is now conclusive that drug treatments should no longer be prescribed, either alone or in combination with surgery, with the aim of increasing the pregnancy rate in infertile women with endometriosis. Such drug treatments should not, therefore, be used in Scottish Level II or III centres.

For women with endometriosis who present with pelvic pain, drug treatments may have a limited place in management. Although available best evidence suggests that these treatments only reduce pelvic pain for the duration of use, they may be useful for women who prefer to avoid or defer surgery. However, those women for whom infertility is the principal problem will be better served by early recourse to surgery.

Randomised trial evidence indicates that ablation of visible endometriosis graded as 'minimal' or 'mild' by laparoscopic surgery improves fertility. The relative usefulness of ablative surgery and of assisted conception in 'moderate' and 'severe' endometriosis is less clear. It is suggested that surgical ablation of 'minimal' and 'mild' endometriosis may appropriately be undertaken in Level II centres but that women with 'moderate' or 'severe' disease are better managed in Level III centres so that their treatment can be undertaken in the context of trials and where the option of assisted conception is available.

vii. Treatment for male factor infertility

No drug treatments are of proven effectiveness for idiopathic male infertility. Drug treatments (vitamins, clomiphene, androgens, antibiotics, etc) should not be prescribed by Level II centres unless in the context of controlled trials.

Current best evidence indicates that treatment of varicocele (by occlusion of the left internal spermatic vein) is of no value in infertile couples with normal semen parameters^{4,7}. For oligospermic men, the available evidence is open to interpretation. The RCOG guidelines group⁴ concluded that *'semen quality and pregnancy rates may improve in oligospermic men after treatment of a clinically apparent varicocele'* while the 35th Study Group⁷ concluded *'there is insufficient evidence to recommend occlusion of the left internal spermatic vein in subfertile or oligospermic men with a varicocele'*. EAGISS have taken the view that such surgery should **not** be offered in Level II centres.

Donor insemination (DI) may be offered as an approach to management of male infertility by those Level II centres able to meet the HFEA's licensing requirements.

3.5. LEVEL III SERVICES

Scotland's four Level III infertility centres are located in Aberdeen, Dundee, Edinburgh and Glasgow. These centres provide Level II services for couples in their own 'catchment areas' and also provide Level III services both for their local patients and for couples referred from elsewhere in Scotland. The elements of the management of infertile couples discussed in this section should be restricted to these four Level III centres.

The Level III centres are licensed by the HFEA for the provision of IVF, including ICSI, and DI and therefore meet the requirements of the HFEA *Code of Practice* with regard to provision of patient information, counselling and consent. Awarding of an HFEA licence requires that centres provide comprehensive patient information leaflets covering services offered, risks involved, costs, previous live birth rates and complaints procedures. The HFEA also requires that centres offer impartial counselling encompassing 'support', 'implications' and 'therapeutic' types.

3.5.1 INVESTIGATIONS IN LEVEL III

Because their interpretation requires expertise and may be difficult, the following specialist investigations should usually be restricted to the Level III centres. Staff in some Level II centres have acquired the necessary expertise to undertake and interpret some of these investigations. It is suggested that under the forthcoming arrangements for service accreditation, such Level II centres might apply for accreditation to include such investigations in the range of infertility services offered.

- i endocrine assessment, genital tract imaging and semen microbiology in the male
- ii in vitro tests of sperm function
- iii testicular biopsy
- iv selective salpingography and tubal catheterisation procedures in the female

3.5.2 TREATMENT IN LEVEL III

Those treatments requiring an HFEA licence (IVF and any procedure using donated sperm or eggs) can only be carried out in licensed centres. In Scotland, the only NHS hospitals licensed for IVF are the four tertiary centres. Two other centres are licensed for DI, but it may be more appropriate for this treatment also to be restricted to the four Level III centres. In particular, EAGISS suggests that there is merit in centralising services for recruitment and screening of semen donors. The group were supportive of the concept of a single Scottish centre handling donor recruitment.

Because of the expertise and facilities required, the following treatments, while not requiring an HFEA licence, should also be restricted to the four Level III centres. Although, as outlined above, Level II centres which have acquired expertise in these interventions might apply for accreditation to include them in the services offered :

- i. Surgery on the male genital tract including correction of epididymal blockage. It is also suggested that treatment of varicocele, which would usually be by selective embolisation, be restricted to Level III centres. Because of the questionable evidence base in support of treatment of varicocele, patients should be managed in those centres where the full range of alternative treatments (eg ICSI) can be offered and discussed.
- ii. Tubal surgery including reversal of female sterilisation, microsurgery for mild distal tubal disease and tubal catheterisation for proximal tubal obstruction.
- iii. Ovulation induction and ovarian stimulation using gonadotrophins.
- iv. Gamete intrafallopian transfer (GIFT) is an alternative form of assisted conception which does not require an HFEA licence. However, GIFT requires no less stringent monitoring facilities than IVF and entails general anaesthesia and laparoscopy. In general therefore, IVF is considered a preferable intervention for use in Scottish Level III centres.

Reversal of male and female sterilisation

Reversal of sterilisation may be viewed as a form of infertility treatment. However, EAGISS members felt that it was outwith the remit of the Group to make a national recommendation as to whether or not reversal of sterilisation should be available as an NHS funded treatment. The Group did express the view that, when competently performed, reversal of sterilisation represents an effective treatment and that, if it is to be offered within the NHS, then it should be undertaken only in appropriately accredited centres.

Assisted conception

In vitro fertilisation (IVF) using the infertile couple's own gametes is an effective treatment for tubal and unexplained infertility. The use of donated eggs expands the indications to include ovulatory failure. The combination of IVF with intracytoplasmic sperm injection (ICSI), with the addition of invasive techniques for sperm recovery if needed, makes it an effective treatment for some cases of male factor infertility.

Data routinely published by the HFEA allow the outcomes for all assisted conception centres to be audited on an annual basis. Centres where the adjusted live birth rate is significantly below the UK average should review their procedures to identify remediable factors. In addition to the summaries of results made available by the HFEA, the Level III centres should regularly collate data on their own success rates so that these are readily available to commissioners and users of services.

Eligibility criteria for assisted conception

It is acknowledged that NHS resources are insufficient to provide repeated cycles of IVF for all couples requesting it. However, it is unacceptable that couples living in different Health Board areas of Scotland have varying access to NHS IVF services. Common eligibility criteria for assisted conception should be applied across Scotland. In devising such eligibility criteria, conflicts inevitably arise when considering effectiveness, efficiency equity, and the welfare of any resulting children. Pregnancy rates are highest, and IVF is thus most clinically effective and cost-efficient, in young women who have had a previous pregnancy - particularly a previous IVF pregnancy. However, equity considerations require that some women who are less likely to achieve a pregnancy, ie those with no previous children, should not be denied treatment.

The following eligibility criteria have been agreed by EAGISS, based on available evidence and the consensus view of the expert advisory group:

NHS-funded assisted conception should be offered to those couples who meet ALL of the following criteria:

- couples with infertility of **diagnosed cause** (of any duration). for which assisted conception represents effective treatment
- OR**
- those with **unexplained** infertility of at least three years duration.

'Unexplained infertility' applies to infertile couples whose routine semen analysis and tests of tubal patency and ovulation yield normal results. It is acknowledged that such couples experience a spontaneous conception rate which decreases over time. It has been estimated that the conception rate decreases by 15.6% for every year of infertility beyond one²². On the basis of a review of available best evidence, the RCOG guideline development group have concluded that the spontaneous pregnancy rate starts to decrease significantly after three years of attempting to conceive and that IVF should not be offered before that time⁴.

- Couples where the female partner is **aged less than 38 years** at the time of treatment.

A study of almost 37000 IVF cycles registered with the HFEA explored the relationship between age of the female partner and IVF success²³. Livebirth rate (LBR) was maximal (approximately 16.5 per 100 treatment cycles started) for women aged 25 to 30 years and declined steeply for older women. The LBR per cycle started is approximately 10% for women aged 38 years. It is acknowledged that judgements about the lower limit of acceptability for IVF success rates can only be made on an arbitrary basis. The consensus view of EAGISS was that it is not cost-effective to offer IVF cycles in circumstances where the likely success rate is less than 10%.

- Couples where neither partner has previously undergone a **sterilisation** procedure.
- Couples who have **no child** living with them in their home.

Based on evidence of effectiveness alone, women with living children should not be excluded from IVF treatment. The HFEA analysis²³ demonstrated that IVF success rates are significantly

higher among women who have had previous live birth(s) - particularly previous livebirth(s) as a result of IVF, than among those with no previous pregnancies. However, the consensus view of EAGISS (supported by the patient representatives advising them) was that, on equity grounds, couples who already have a child in the home should be ineligible for NHS-funded IVF in order that a childless couple may have this opportunity.

- Couples who have had **less than three previous embryo transfers** (including cycles obtained privately).

The same review of HFEA data²³ demonstrated that IVF success rates fall significantly with increasing number of previous unsuccessful treatment cycles. The LBR per cycle commenced falls below 10% once a couple have had more than three unsuccessful attempts.

Number of NHS funded treatment cycles:

Couples meeting the above eligibility criteria should be entitled to a maximum of three NHS funded cycles of assisted conception. Each couple should be entitled to a minimum of two transfers of fresh embryos obtained following a full cycle of down-regulation, ovarian stimulation and egg recovery. Where frozen embryos are available, the third NHS funded cycle should involve transfer of stored embryos. (See also explanatory notes below)

Intracytoplasmic sperm injection (ICSI)

Standard IVF has limited success in couples with deficient semen characteristics in terms of density, motility or morphology. ICSI is the most successful to date of the various techniques which have been developed to overcome this problem²⁴. All four Scottish Level III centres provide ICSI as well as standard IVF treatments.

In each centre, couples will be selected for ICSI rather than standard IVF on the basis of semen parameters and fertilisation success in previous IVF cycles. The RCOG are currently developing a third national infertility guideline which will address assisted conception. At present, in the absence of national guidelines on selection criteria for ICSI, EAGISS consider it appropriate that selection in individual centres is based on locally agreed criteria. NHS funding should cover the additional costs of ICSI for those cycles where it is deemed the procedure of choice.

NHS funding of ICSI cycles should cover the costs of invasive sperm recovery techniques (eg micro-epididymal sperm aspiration, MESA) if considered appropriate for the individual couple.

IVF using donated oocytes

Couples who meet the eligibility criteria above but where the female partner has ovarian failure, from whatever cause, should be offered NHS-funded IVF using donated oocytes.

Ovarian stimulation prior to IVF

Where couples meet the above eligibility criteria and are accepted for NHS-funded IVF, then Health Board funding should cover the total costs of the IVF cycle including the costs of the drugs required for ovarian suppression and subsequent superovulation. Such drugs should be prescribed by the Level III centre staff supervising the IVF programme. It is unacceptable for general practitioners who are not otherwise involved in the IVF treatment to be required to prescribe these agents. EAGISS has suggested that the costs of drugs for assisted conception might be reduced by negotiation of a common purchasing strategy by the four Scottish Level III centres.

NHS-funded assisted conception should be available to couples who meet all of the following eligibility criteria:

1. Infertility with an appropriate diagnosed cause of any duration
or
unexplained infertility of at least three years duration.
2. Female partner aged less than 38 years at the time of treatment.
3. Neither partner previously sterilised.
4. No child living with the couple in their home.
5. Less than three previous embryo transfers funded from any source.

Explanatory notes:

- A. Couples who meet these eligibility criteria should be entitled to receive the form of assisted conception treatment most appropriate for their individual clinical circumstances. Locally agreed selection criteria should be applied in selecting standard IVF or ICSI (with or without invasive sperm recovery procedures) for each cycle and each couple.
- B. Couples who meet these eligibility criteria should be entitled to a maximum of three cycles of assisted conception. A 'cycle' normally comprises ovarian stimulation, egg recovery and embryo transfer.

The consensus view of EAGISS was that:

- an unsuccessful cycle not reaching the stage of egg recovery because of failure of stimulation **need not** count as one of a couple's three cycles.
 - An unsuccessful cycle not reaching the stage of embryo transfer because of a considered risk of OHSS **need not** count as one of a couple's three cycles.
 - an unsuccessful cycle not reaching the stage of embryo transfer because of failure of fertilisation **should** count as one of a couple's three cycles.
- C. The eligibility criteria are re-applied for each treatment cycle. Thus, for example, if the woman reaches the age of 38, if her total number of unsuccessful embryo transfers reaches three or if a child becomes part of the couple's family, then the couple becomes ineligible for further cycles.
 - D. The entitlement to three cycles culminating in embryo transfer includes an entitlement to a minimum of two complete cycles comprising ovarian stimulation, egg recovery and transfer of fresh embryos. If frozen embryos are available, then the third NHS cycle should involve transfer of frozen embryos only. Couples who have no frozen embryos available are entitled to a third complete cycle.
 - E. Once accepted onto an assisted conception programme, couples should be permitted to undergo successive cycles within a time frame of their own choosing. They should not return to the end of a waiting list following an unsuccessful cycle. Couples with frozen embryos available following their first cycle may opt to have transfer of frozen embryos as their second cycle or to have a second complete treatment cycle, deferring frozen embryo transfer until cycle three.

Resource implications for Health Boards of EAGISS eligibility criteria

i) New referrals

Extrapolation from data on IVF/ICSI referrals in Grampian (130 per year from a population of 531,200) suggests that a notional Health Board serving a population of 250,000 should expect 60 new couples to be referred for IVF/ICSI each year.

On the basis of a maximum of three funded cycles per couple and a 15% success rate per cycle, there would be an annual requirement (for new referrals) for a maximum of 154 cycles, made up of 60 first cycles, 51 second cycles and 43 third cycles. (This represents a maximum requirement for cycles, assuming all eligible, unsuccessful couples return for their full entitlement of three cycles.) In addition, experience from Aberdeen suggests that around 25% of third cycles would involve transfer of frozen embryos.

In order to calculate the maximum cost impact of the EAGISS eligibility criteria two significant assumptions have been made:

- i) reductions in the cost of drugs through the introduction of a common purchasing strategy and
- ii) continuation of current levels of core support in terms of accommodation and facilities.

Using these assumptions, the representatives from the Scottish Level III centres on the EAGISS Group indicated that £1900 per cycle of assisted conception and £500 for cycles using frozen embryos represent realistic costs per cycle within which assisted conception could be provided, given the volume anticipated. These data relate only to the direct costs of providing assisted conception.

The resulting resource implications for the notional Health Board is shown in Table 1.

**Table 1:
Maximum cost implications of EAGISS eligibility criteria for Health Board serving 250,000 population**

	Number of cycles	Estimated cost £
First cycles	60	114,000
Second cycles	51	96,900
Third cycles - fresh	32	60,800
Third cycles - frozen	11	5,500
Total		277,200

ii) Existing waiting list couples

The above analysis for a notional Health Board ignores the existence of waiting lists for assisted conception. For equity to be achieved, there is a need to provide assisted conception for those on waiting lists before new referrals could be accepted. The following analysis is for Scotland as a whole and uses the same estimated costs as above.

**Table 2:
Maximum cost implications of removing existing waiting list.
Scotland wide analysis.**

	Numbers of cycles	Estimated cost £
First cycles	1199	2,278,100
Second cycles	1019	1,936,100
Third cycles - fresh	649	1,233,100
Third cycles - frozen	217	108,500
Total		5,555,800

iii) Affordability

For new referrals, a Health Board serving a population of 250,000 would require to provide 154 assisted conception cycles to meet the need for tertiary infertility care, at an estimated cost of £277,200. Figures presented in Table 5 (Page 29) suggest that, on average, £121,000 is spent on tertiary care for a population of 250,000. These data are based on current cost per cycle of £3000. As a result of the EAGISS eligibility criteria, there is a predicted difference in current and expected expenditure of £156,200 per annum.

EAGISS members feel that this affordability gap could be reduced significantly with rationalisation of all infertility services, in line with the proposed model specification. In particular, reduced expenditure to the NHS is likely to arise from:

- a move from diagnostic laparoscopy to HSG as the primary test for women at low risk of tubal damage
- a reduction in duplication of laboratory investigations and elimination of inappropriate investigations
- elimination of ineffective treatments (e.g. drug treatments for endometriosis associated infertility)
- reduction in attendances at hospital-based infertility clinics by, on average, one visit per couple resulting from completion of basic management within Level I care.

The above analysis has also shown that the maximum cost to a Health Board serving a population of 250,000 of clearing the existing waiting list is of the order of £250,000. It is unlikely that savings of this magnitude could be made from rationalisation of management of infertility. Without the waiting list being addressed, however, equity of access to tertiary assisted conception services will not be achievable.

THE PRESENT POSITION: A PROFILE OF CURRENT SERVICES

This profile of current infertility services in Scotland has been compiled as a component of the EAGISS National Service Framework. An attempt has been made to describe the extent to which current services measure up to the model service recommended by EAGISS. As in the service specification, infertility management is considered within a Managed Clinical Network involving three '**levels of care**':

- **Level I:** represents infertility investigation and management which can appropriately be provided by a general practitioner and his team within a primary care setting.
- **Level II:** represents infertility investigation and management which can appropriately be provided by a gynaecologist with a special interest in infertility and his team in a district general hospital.
- **Level III:** represents infertility investigation and management which can only appropriately be provided by a subspecialist gynaecologist and his team in one of Scotland's four tertiary referral centres (Aberdeen, Dundee, Edinburgh and Glasgow). These centres will also provide Level II care for those couples living within their own 'catchment areas'.

In compiling this profile, EAGISS have drawn on existing information from a variety of sources:

- The HFEA *Patient's Guide to DI and IVF Clinics*
- The audit of infertility care undertaken within the Gynaecology Audit Project in Scotland (GAPS), 1995-1997
- The findings of a survey of Directors of Public Health undertaken by EAGISS, June 1998
- Reports submitted by representatives of service user groups

4.1 LEVEL I SERVICES

The EAGISS model service specification:

- advocates that patients seeking help with the problem of infertility should be managed as **couples** whenever feasible.
- Defines indications for early referral to Level II care.
- Specifies investigations that should be undertaken prior to onward referral to Level II. These include:
 - * confirmation of rubella immunity of the woman and recording of the woman's cervical cytology history
 - * confirmation of ovulation by measurement of midluteal serum progesterone
 - * examination of at least one semen sample from the man
- advises that additional investigations are usually inappropriate in Level I care.

4.1.1 FINDINGS FROM THE GAPS AUDIT RELATING TO LEVEL I CARE

In 1995 and 1997, the GAPS Infertility Audit examined Level I infertility care by means of:

- a questionnaire survey of a representative sample of 500 general practitioners (May 1995) (Response rate, 414/500, 83%)¹⁶
- collection of information from the general practitioner referral letters of 1557 women attending 12 Scottish hospitals for the management of infertility. The study of referral letters was undertaken as part of a broader case-note review exercise which also examined care provided in the Level II setting. The 1557 women comprised 1214 whose referral occurred prior to September 1995 and 343 referred between that date and February 1997, allowing any change over time to be assessed.
- **Couple-based care:**
 - * 66% of general practitioners responding to the questionnaire survey indicated that they arrange to see both partners together if both are registered with the practice.
 - * The review of referral letters suggested that only 17% (September 1995 audit) and 21% (February 1997 audit) of couples had been seen together during management by the general practitioner.
- **Early referral to Level II care**
 - * 88% of responders to the general practitioner questionnaire 'agreed' or 'strongly agreed' that '*the presence of amenorrhoea, oligo-menorrhoea, oligospermia, a history suggestive of pelvic pathology or abnormal findings on examination of either partner should result in early referral to a specialist clinic*'.
 - * The September 1995 case-note review showed that the mean duration of infertility at the time of the first attendance at a Level II clinic among women recorded as having amenorrhoea or oligomenorrhoea was 25 months. We cannot say whether this is a function of the time at which patients presented to their general practitioners or of delay in onward referral.
- **Investigations undertaken in Level I**
 - * The case-note review showed that, at the time of onward referral to Level II, only 51% (September 1995 audit) and 53% (February 1997 audit) of female partners had had confirmation of ovulation by measurement of plasma progesterone.
 - * Similarly, confirmation of the woman's rubella immunity was provided in only 10% (September 1995) and 14% (February 1997) of cases.
 - * Of male partners, only 34% (September 1995) and 43% (February 1997) had at least one semen analysis performed prior to onward referral to Level II.
 - * The review of referral letters showed that many regularly menstruating women had unnecessary and inappropriate investigations performed in Level I care: thyroid function tests (19% in both audit periods), plasma FSH/LH (21% and 20%), plasma oestradiol (8% and 6%), plasma prolactin (18% and 15%).

The pattern of management advocated in the EAGISS model service specification would standardise the investigations undertaken in Level I. Such a pattern of care would generate resource savings by avoiding the use of unnecessary tests and by reducing the number of visits in Level II care.

4.2. LEVEL II SERVICES

The EAGISS model service specification:

- provides guidance on the appropriate use of tubal patency testing
- provides guidance on tests which are unhelpful and should not be performed
- suggests rationalisation of laboratory services for semen analysis
- advises on the monitoring facilities required for clomiphene treatment and on the maximum number of cycles per woman
- advises on the monitoring facilities required for ovulation induction with gonadotrophins
- advises on the treatment of polycystic ovarian syndrome (PCOS) and of endometriosis
- indicates that drug therapies for male infertility and surgery on the male genital tract are inappropriate in Level II settings

4.2.1 FINDINGS FROM THE GAPS AUDIT RELATING TO LEVEL II CARE

In 1995 and 1997, the GAPS Infertility Audit examined Level II infertility care by means of:

- a questionnaire survey of all 168 consultant and senior registrar gynaecologists in Scotland (May 1995)¹⁵ (response rate 157/168, 94%)
- the case-note review described above. The case-note review audit was undertaken in 12 Scottish hospitals which included the four specialist Level III centres and which were chosen as being representative of Scotland as a whole in terms of geographical distribution, size and hospital type (teaching/district general) (Appendix 1). The case-note review covered consecutive women (both new referrals and follow-up attenders) seen at infertility/gynaecology clinics for an infertility-related consultation during two audit periods (commencing September 1995 and February 1997). The records of 1510 women were examined in the September 1995 audit and of 1080 women in the February 1997 audit.
- **couple-based care:**
 - * of gynaecologists responding to the questionnaire, only 31% indicated that they specifically ask the infertile couple to attend together although a further 63% will see the couple together if both happen to attend.
 - * The case-note review suggested that 54% (September 1995) and 71% (February 1997) of patients were seen together as a couple at their **first** visit to a Level II clinic. Similarly, 63% (September 1995) and 74% (February 1997) were seen together at **any** of their visits to date. For both percentages, the change over time reached statistical significance.
- **Tubal patency testing**
 - * Although the EAGISS model service specification and the RCOG Infertility Guideline⁴ now suggest that hysterosalpingogram (HSG) is an appropriate first-line test for women at low risk of tubal damage, Scottish gynaecologists to date have favoured laparoscopy as the 'gold standard' for accurate assessment of tubal patency. Of responders to the gynaecologists' questionnaire, 93% 'agreed' or 'strongly agreed' that: '*diagnostic laparoscopy and dye transit, rather than HSG, should be the primary investigation of the female genital tract*'
 - * The case-note review showed that, of those women who had undergone a test of tubal patency, laparoscopy was the first-line test in 85% (September 1995) and 79%

(February 1997) of cases. This difference over time is statistically significant - suggesting that gynaecologists are moving towards HSG as an adequate first-line test for selected women.

- **Unhelpful and unnecessary tests**

- * Temperature charting and post-coital tests (PCT) are among the investigations which EAGISS and the RCOG³ have concluded are unhelpful in infertility management. The GAPS case-note review showed that only 0.6% of women had been asked to keep temperature charts (both audit periods) and only 2% had had a PCT as part of their management (both audit periods).

- **Laboratory services for semen analysis**

The survey of laboratories in Scotland¹⁹ quoted in the EAGISS model service specification has shown that at least 31 separate laboratories in Scotland currently undertake semen analysis (SA). At the time of the survey only five were using WHO Guidelines for SA and only two were participants in an external quality control scheme. Only three laboratories were able to provide facilities for the production of a semen sample on site.

- **Monitoring facilities for ovulation induction**

- * In the GAPS survey of gynaecologists, 82% of responders 'agreed' or 'strongly agreed' that: *'gonadotrophins should not be prescribed in units which do not have access to monitoring with ultrasound and oestradiol levels, 7 days a week'*.

From the survey responses, it appeared that 10 gynaecology units were undertaking ovulation induction with gonadotrophins. It was unclear how many of these units actually had access to monitoring facilities on a 7 days/week basis. In 10 units, there was disagreement among gynaecologists working there as to whether or not 7 days/week monitoring was available.

- **Treatment of endometriosis**

- * On the basis of meta-analysis of randomised trials²⁵, EAGISS and the RCOG⁴ have concluded that drug treatments do not enhance fertility in women with minimal/mild endometriosis. The situation for women with moderate/severe endometriosis is less clear-cut, but currently available best evidence would suggest that medical treatments are inappropriate. Nevertheless, only 55% of responders to the GAPS gynaecologists' questionnaire 'agreed' or 'strongly agreed' that: *'drug treatments for endometriosis do not improve conception rates and should not be prescribed for this purpose'*.

In the September 1995 and February 1997 case-note review audits, 176 and 98 women with endometriosis-associated infertility were identified. Of these, 77/176 (44%) and 34/98 (35%) were recorded as having received drug treatments for endometriosis. During each audit period, around half of the treated women (37/77 and 17/34) were recorded as having other symptoms attributable to endometriosis and for which drug treatment may have been appropriate. Nevertheless, these figures suggest that a proportion of women are receiving ineffective and inappropriate medical therapies for endometriosis-associated infertility.

- **Drug treatments for male infertility**

- * The RCOG⁴ have concluded, on the basis of available best evidence, that none of the various drug therapies which have been evaluated (including bromocriptine, antibiotics, androgens, anti-oestrogens and steroids) are helpful in the routine management of males with sub-optimal semen parameters. Nevertheless, only 56% of responders to the GAPS gynaecologists' questionnaire 'agreed' or 'strongly agreed' that: *'drug treatments are ineffective in the treatment of idiopathic male infertility, and should not be used'*. A total of 39% expressed 'neither agreement nor disagreement' or 'did not feel qualified to answer'. Only 7% of the gynaecologists indicated that they ever use these drugs - in comparison with 48% of consultant urologists in Scotland surveyed using a brief complementary questionnaire.

- * In the September 1995 case-note review audit, evidence of drug treatment of the male

partner was found in only 4% of records.

4.3. LEVEL III SERVICES

The EAGISS model service specification:

- Indicates those components of infertility care which should be restricted to Level III centres:
 - * Treatments requiring an HFEA licence
 - * Surgery on the male genital tract including reversal of vasectomy
 - * Tubal surgery including reversal of sterilisation
- Provides eligibility criteria for NHS-funded assisted conception.
- Indicates that assisted conception cycles meeting these eligibility criteria should be fully funded, including the costs of drugs and any additional costs of ICSI / invasive sperm recovery, if indicated.

4.3.1 FINDINGS FROM THE GAPS AUDIT RELATING TO LEVEL III CARE

- **Restriction of treatments to Level III centres**
 - * The RCOG⁴ have concluded that: 'Tubal surgery should only be carried out in centres where there are facilities and staff for appropriate investigations and treatment. It is likely that this expertise can be accessed through a tertiary centre. In response to the GAPS gynaecologists' questionnaire, 56 consultants (from 26 gynaecology units) said that they perform reconstructive tubal surgery. Of these, only 19% reported that they use microsurgical technique and an operating microscope.
 - * The September 1995 GAPS case-note review revealed only 10 cases of tubal surgery for which the operation note was available. These cases were managed in six different units which included three of the Level III centres.

4.3.2 FINDINGS FROM HFEA PATIENTS' GUIDES

The HFEA provides data on the success rates of treatments for each licensed centre on an annual basis. The most recent publication is based on data relating to live births resulting from cycles in the year to 31st March 1997²⁶. However, these most recent data are presented in an 'Interim Patients' Guide' which includes only raw, rather than adjusted, live birth rates. Thus, the live birth rates of individual clinics are not directly comparable.

The most recent published adjusted live birth rates are in the 3rd Edition Patients' Guide and relate to cycles in the year to December 1996²⁷. Adjusted live birth rates provide information on the outcomes of treatment in the Scottish Level III centres which can be compared with outcomes from centres elsewhere in the UK.

For completeness, both the older, adjusted rates and the more recent, raw rates are presented in the tables below.

TABLE 3.
SUMMARY OF ADJUSTED LIVE BIRTH RATES
RESULTING FROM IVF AND DI IN SCOTTISH CLINICS
(FROM HFEA PATIENTS' GUIDE, 1997)

CLINIC	NO. IVF CYCLES	ADJ. LBR / CYCLE STARTED (%)	95% CI	NO. DI CYCLES	LBR / CYCLE STARTED	95% CI
OVERALL UK	30216	15.1		16659	9.2	
ABERDEEN	441	13.5	9.9-17.8	290	10.7	7.4-15.0
EDINBURGH	546	12.7	9.6-16.4	462	4.4	2.7-6.8
GLASGOW	1061	8.0	6.1-10.3	161	7.1	3.4-12.6
DUNDEE	698	13.0	10.5-15.8	204	5.8	3.0-9.9

TABLE 4.
SUMMARY OF UNADJUSTED LIVE BIRTH RATES
RESULTING FROM IVF AND DI IN SCOTTISH CLINICS
(FROM HFEA INTERIM PATIENTS' GUIDE, 1998)

CLINIC	NO. IVF CYCLES	LBR / CYCLE STARTED (%)	NO. DI CYCLES	LBR / CYCLE STARTED
OVERALL UK	33520	17.8	14304	9.6
ABERDEEN	643	18.4	292	8.6
EDINBURGH	604	14.5	420	3.3
GLASGOW	831	11.7	381	8.4
DUNDEE	663	16.4	142	7.7

4.3.3 FINDINGS FROM EAGISS SURVEY OF DPHs

Further information on Level III treatments has been obtained from a questionnaire sent by EAGISS to the Directors of Public health at each Scottish health board. (Appendix 2).

- **Current eligibility criteria for assisted conception**

- * The questionnaire for DPHs asked about individual health boards' levels of provision of assisted conception treatments and about the eligibility criteria applied. The results of this survey are summarised in Table 5. All 15 Scottish HBs do provide for some NHS-funded IVF. However, estimated expenditure on IVF cycles per 1000 head of population varies from £130 (Lothian) to £1200 (Orkney). The mean figure for mainland HBs is £485.

These estimates of current expenditure are based on a notional cost per cycle of £3,000. This sum was chosen by DPHs as representing the current, overall cost to the health board of a treatment cycle, including drug costs.

- * Among their eligibility criteria, all HBs apply an upper limit on the age of the female partner. Upper age limits (at the time of treatment) vary between 37 and 40 years. No HB applies a limit on the age of the male partner.

- * For couples meeting their eligibility criteria, 10 of the mainland HBs fund up to three cycles per couple and one funds up to two cycles. Only one HB (Grampian) funds just one cycle per eligible couple.

- * Most HBs apply a minimum duration of unexplained infertility among their eligibility criteria. The most commonly applied minimum is four years (seven HBs) with others quoting two, three and five years.
- * Restrictions relating to existing children vary among HBs. Four indicate that couples must have 'no child living in the home' and four that 'neither partner must have any living children'. One HB (Highland) specifies only that applicants must have 'no child as a couple'. Grampian specifies only that 'couples with no children are given priority'.
- * Estimated waiting times for NHS-funded IVF (as reported by DPHs) range from 24 months to 60 months

Table 5 Summary of Responses to Questionnaire to DPHs on provision of assisted conception services (August 98)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Health Board	GG	Lothian	Lanark	Gramp	A & C	Taysid e	A & A	Fife	Forth V	Highland	D & G	Borders	WI	Shetland	Orkney
Population served	909600	767800	560800	531200	430500	393600	376500	349300	274600	208700	147600	106100	29500	23020	19800
Tertiary centre used	Glas	Edin	Du/Gl	Ab	Glas	Dun	GIA/D	Dun	D/E/G	Ab	Du/Gl	Dun	Du/Gl		Ab
NHS-funded DI	✓	✓	✓	✓	✓	✓	✓	✓	X	✓	--	✓	✓		✓
DI limit	None	None	None	None	None	None	None	10	--	None	--	None	--		None
NHS-funded IVF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IVF limit (cycles)	174	33	100	90	36	60	83	90	84	(48)	32	12	--	12	8
OI / IUI limit	85	--	--	--	--	--	--	--	--	--	--	--	--		--
Additional NHS-funded 'frozen' cycles	X	X	X	X	X	X	✓	X	--	X	X	✓	--		✓
NHS-funded ICSI	X	✓	✓	X	X	✓	✓	✓	X	✓	✓	✓	✓		X
ICSI limit	n/a	Inc. in 33 IVF	33		n/a	30	20	inc. in 90 IVF	--	None	inc. In 32 IVF	4	--		n/a
NHS-funded IVF using donor eggs	X	✓	✓	✓	✓	✓	✓	✓	✓	✓	X	✓	✓		X
Donor egg limit	n/a	Inc. in 33 IVF	None	--	--	--	None	inc. in 90 IVF	Inc. In 84 IVF	None	--	--	--		n/a
Female upper age limit	37 (WL)	34/37 (WL/Rx)	40	40	37	40	37/39 (WL/Rx)	39	40	37	40	40	40		37
Male upper age limit	None	None	None	None	None	None	None	None	None	None	None	None	None		None
Cycles per couple	2	3	3	1	3	3	3	3	3	3	3	3	3		1+froz.
Minimum duration unexplained (yrs)	None	4	4	4	2	4	2	4	5	4	3	4	4		2
Minimum duration cause identified (yrs)	None	3	2	None	2	None	None	None	None	None	None	None	None		None
Restrictions re other children	no child in home	no child in home	no living child (either)	no children priority	no child in home	no living children (either)	no living children (either)	no living children (either)	no child in home	no child (couple)	no child in home	no living children (either)	'At least two'		None
Other restrictions	ster.	ster.		ster		--	ster.		priv funded inc.	ster		ster	ster		none
Drug funding	inc	inc.	inc	GP	inc	inc	inc.	inc	inc	inc	HB	inc	inc	GP/HB	GP
WL DI (couples)	50	none	12	none	11	13	--	12	--	--	--	--	--		
WL IVF (couples)	157	329	--	180	136	217	76	184	--	--	15	39	--	37	0
WL ICSI	n/a	inc. in IVF	--	n/a	29	96	19	57	--	--	27	19	--		6
WL OI/IUI (couples)	333	--	--	--	--	--	27	--	--	--	--	--	--		--
Av. Waiting time NHS IVF (months)	36	36	24	24	30	33	24	24	--	24	30	60	--		9
IVF expenditure £/1000 population	574	130	774	500	250	457	661	424	617	690	493	245	--	1087	1200

THE VIEWS OF SERVICE USERS

Patient Satisfaction with the Management of Infertility

(Souter VL, Penney G, Hopton JL, Templeton AA Hum. Reprod. [1998] 13 1831 - 1836)

The GAPS team have published the findings of a survey of infertility service users. The summary of this paper is reproduced here.

Objective To assess patient satisfaction with the investigation and initial management of infertility.

Design A postal questionnaire survey.

Setting Scotland

Subjects 1366 women attending out patient clinics for the investigation and initial management of infertility at 12 hospitals throughout Scotland.

Results The response rate to the questionnaire was 59% (806/1366). Overall, 87% of responders were satisfied or very satisfied with their care but a number of deficiencies were identified. Thirty nine % had never been asked to bring their partner to the clinic and 86% felt they had not been given enough help with the emotional aspects of infertility. Forty seven % felt they were not given a clear plan for the future and 23% of those who had been given drug treatments reported receiving little or no information about the treatment or possible side effects. Overall, only a third had been given any written information and 78% expressed a wish for more written information. Women ranked *"the information and explanation given"* and the *"attitude of the doctor at the clinic"* highly in comparison to other aspects of their care, including *"help with the emotional aspects of infertility"*.

Conclusions In general women were satisfied with their care but improvements may be made by giving more explanation and written information and by adopting a more couple-centred approach. Where resources allow, clinics should take steps to address the emotional aspects of infertility.

Contributions provided by representatives of patient groups

Ayrshire Infertility Support Group (Sheena Young)

We consider ourselves very fortunate to live within an area where the Health Board have identified the needs of infertility sufferers and made a great effort to address those needs. We had to put the patients' views forward some years ago and highlight the long waiting times for IVF treatment, but the Health Board listened and funding was increased to reduce the waiting times.

We believe that all Health boards should offer a fair and equal service to **all** infertility sufferers and not as now, dependent on where you live. By not providing treatments such as ICSI and egg donation some groups of sufferers are being discriminated against. The single most important issue needing to be addressed, in our view, is this one of inequality.

Ayrshire patients are treated for level 3 service at Glasgow Royal Infirmary, and we sit in the waiting room there with patients from Glasgow and other areas. Many are horrified to find we have waited in many instances, years less than they for treatment, especially when that treatment is being provided by **their** local hospital.

The funding issues combined with the difference across the country in eligibility criteria make

the present system totally unacceptable. Number of cycles offered, age of the female partner and existence of children in a previous relationship are three points which we find varies tremendously throughout the country.

It seems to be generally understood that 3 cycles of assisted conception gives a couple the optimum chance of success and so it is our view that this is what should be offered. The age of the female partner is another difficult area, with many couples in today's society waiting until later to marry and start a family, we think this must be kept in mind and age limits set realistically. Lastly, and possibly, the most difficult of the criteria differences, is that of previous children, with some Health boards excluding the couple if either has had children in previous relationships and others having various deviations to that statement. It is very important to get this one right and to see that it is followed rigidly by the medical profession. We have known lots of cases where this criterion has been disregarded. We feel a countrywide criterion should be adopted and adhered to, and feel also that Health boards should be given **specific instructions** which cannot be ignored as recommendations have in the past.

There is a lack of knowledge among GPs about infertility services which might also be helped if countrywide guidelines were introduced. Wrong and inaccurate information is often given by GPs we have found, who are not up to date in what is the present situation in the area.

Counselling is something else that needs to be addressed, with all too often patients being given little or no access to this service. Patients may not even realise themselves what benefit they can get from counselling, especially at the unsuccessful end of treatment. The psychological side of infertility needs treating just as much as the physical.

The single most worrying thing I have read recently was from a Scottish health board, and I quote "One cannot rule out the possibility that at some point we may decide to reduce the level of funding in line with policy followed by the majority of health authorities in the UK".

Reduction in the levels of funding in Scotland is totally unacceptable to patients, with most boards not providing adequate funding at this time and waiting times for IVF and ICSI being 4 - 5 years in some areas. It is not before time that policy was made to ensure that all follow a fair and equitable system. It is the duty of each health board to address the needs of those who require treatment. It is the duty of government to see that this is implemented. We want to see a complete range of treatments offered in each area, IVF, ICSI and donor treatments, so that everyone who needs those treatments has fair access to them and no one is discriminated against because of where they live or what form of infertility they suffer from.

Consumer View of Infertility Services in Scotland - a Summary ISSUE The National Fertility Association

Questionnaires were sent out to 135 ISSUE members in Scotland.

The majority of couples were referred for treatment by their GP (85%0 with self-referral accounting for 6%. Almost half of the couples (48%) had been trying to conceive for between 1 - 2 years before seeking help with 42% trying for 6 months to a year. Only 4% had been trying for less than 6 months. The longest time before seeking help was 3.5 years.

Couples were asked to rate their GP's knowledge of infertility. 50% of couples rated their GP's knowledge of infertility as poor, with a further 33% describing it as satisfactory. 17% rated their GP's knowledge as either good (11%) or excellent (6%). On being asked how they felt their GP dealt with the problem, 42% described it as satisfactory and 21% as poor. The way their GP dealt with the problem was described as good by 15% and excellent by 19%.

Provision of information, improved knowledge of infertility, better knowledge of availability of services, more awareness of psychological and emotional impact of infertility, better co-ordination of tests between levels of service and more support when giving results were listed as ways in which the service could be improved by GPs.

More understanding of the psychological and emotional impact of infertility, more information, more time for questions/discussions at follow-up to procedures, better knowledge of infertility and better co-ordination of services were the main improvements listed as ways in which the service could be improved by consultants.

Couples suggested hospitals/clinics could improve the service by providing more funding to shorten waiting lists, information on waiting times/funding, more co-ordination between staff and between levels of service, more time for appointments, positioning treatment centres away from maternity units, access to counselling from the beginning, more awareness of psychological impact, better communication with patients and more follow-up, particularly psychological support.

Counselling was offered to 62% (32) of couples mainly at tertiary level. When asked if there were any aspects of treatment with caused them distress, 84% of couples answered "yes". Causes of distress listed were insensitive staff, poor co-ordination of services, standard of treatment, lack of information, the treatment itself, waiting times, failure of treatment, lack of provision and lack of support.

Couples commented that a holistic approach to infertility which recognises the emotional pain and provides services sensitively and quickly is required. Better management and co-ordination of services, increased funding and provision of services are needed.

Conclusions

The attitude of doctors and staff is important. There is a need for more information on all aspects of infertility and of the way in which the service is provided. A co-ordinated service between all levels is required in order to avoid repetition of tests, reduce delays and ensure steady progress through the system. The emotional and psychological impact of infertility should be addressed at all stages.

The Consumers' View of Infertility Services in Scotland: an overview of the current situation (Clare Brown, CHILD)

National Infertility Awareness Campaign (NIAC)

NIAC is the umbrella body that involves practically everyone with an interest in infertility. The campaign believes that the current funding situation, which is patchy, inequitable, chaotic, badly thought out and effectively "treatment by postcode" is totally unacceptable.

Fifth national survey of funding & provision of infertility services in the UK commissioned by NIAC published February 1998

According to the above survey, the estimated number of IVF treatments per 100,000 population in 1996/97 in Scotland was 27.5. In Wales it was 23.0, England 10.4 and Northern Ireland 0. This statistic shows that Scotland is by far the best place for patients to live for NHS funded infertility treatment. An example is that of eligibility criteria where there are huge variations around Scotland highlighting once again that where you live is the single most important factor regarding your success in getting NHS funding. There is a wide range of restrictions applied, the most common being the maximum age for the woman ranging from 38 to 43. Another varying criterion is whether either partner or just one partner or both partners have living children either from the current relationship or from a previous relationship. The length of the relationship is also used as a criterion in some areas with that varying from one year to five.

Are there sufficient NHS-funded IVF cycles?

According to data produced by the Human Fertilisation & Embryology Authority (HFEA) 2745 cycles of IVF took place in Scotland in 1995/96. Data included in the EAGISS Survey of DPHs in August 1998 showed that 862 cycles of NHS-funded IVF had been performed. The obvious conclusion that must be made is that 1884 cycles took place in the private sector. The answer

to the question asked above must be NO.

Clinically effective infertility care

The EAGISS Model Service Specification highlighted the need for clinically effective infertility care involving the use of healthcare interventions which combine efficacy, appropriateness and efficiency, the use of which, in the 3 levels of care, would ensure Scottish couples receive appropriate infertility management.

The EAGISS Profile of Current Services shows areas where effective care is sadly lacking. The people personally affected by these inefficiencies are patients and the knock-on effect can be devastating as demonstrated below.

NIAC survey on the emotional and financial impact of infertility 1997

The feelings experienced by patients living in Scotland

Frustration - 90%	Depression/isolation - 81%	Anger - 43%
Guilt/shame - 33%	Suicidal feelings - 19%	

The EAGISS profile of current services identified areas of concern regarding GPs. The NIAC survey asked patients if they felt that their GP had provided them with sufficient information about infertility and the treatments available to help couples conceive. 76% of patients said NO.

Level 1 services

Infertility is a “shared problem” - couples should be seen together as much as possible. Discrepancies between what should be happening and what actually is are extremely worrying and not cost-effective.

Written information in a range of languages should be given to the patients at all times - Levels 1, 2 and 3 including information on support organisations, not just in Level 1 as the model only mentions this when referring to information on basic physiology of reproduction and the fertile period.

Counselling

Counselling is vital, before, during AND after treatment. When asked in the NIAC emotional survey whether patients in Scotland would request counselling if it was offered on the NHS - 81% said that they would. Only 11% had received counselling either as part of their treatment or funded by the NHS.

Recommendations

- We would like to see government funding of an equitable service and a speedy service as delay can adversely affect the outcome of treatment.
- Guidelines should be in place to ensure eligibility criteria which are clinically based and appropriate treatment is given to individual couples.
- We would like to see the media taking more responsibility for themselves.
- More resources to be made available to fund vital research projects and development of services.
- We would like to see dissemination of good practice, a greater increase in fertility specialist nurses and provision of more information which can be easily accessed by both healthcare professionals and patients.

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APPENDICES

1. Hospitals participating in GAPS II Study of the Investigation & Initial Management of Infertility
2. Questionnaire for Health Boards on Provision of Assisted Conception Treatments

Hospitals participating in GAPS II Study of the Investigation and Initial Management of Infertility

Aberdeen Royal Hospitals NHS Trust

Crosshouse Hospital, Kilmarnock

Ninewells Hospital, Dundee

Royal Infirmary of Edinburgh

Raigmore Hospital, Inverness

Victoria Hospital, Kirkcaldy

St John's Hospital, Livingston

Monklands District General Hospital

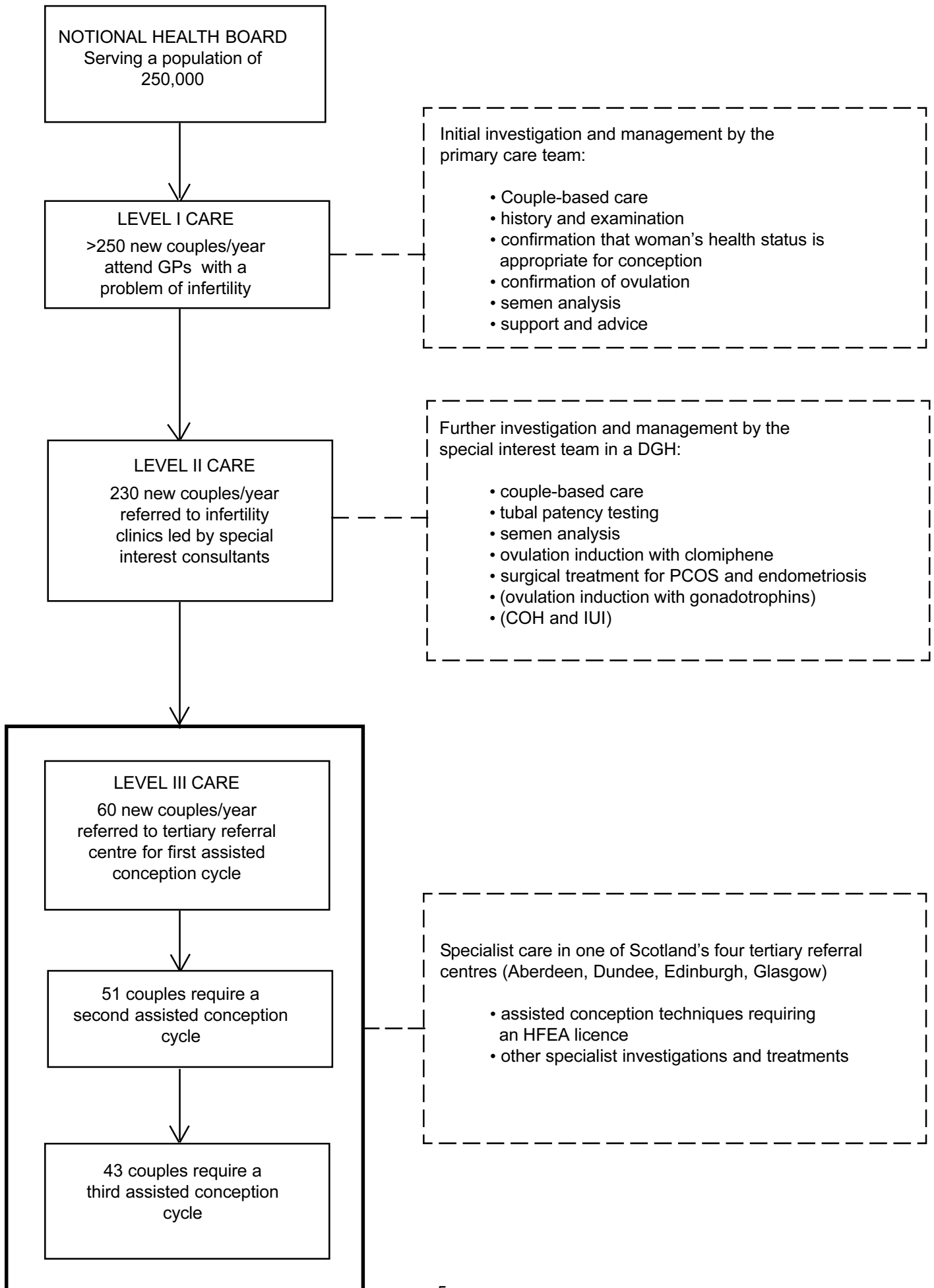
Royal Alexandra Hospital, Paisley

Glasgow Royal Infirmary

Stirling Royal Infirmary

Western Infirmary, Glasgow

MODEL SERVICE SPECIFICATION FOR THE CARE OF INFERTILE COUPLES ESTIMATED REQUIREMENT FOR SERVICES



Scottish Programme for Clinical Effectiveness in Reproductive Health

Expert Advisory Group on Infertility Services in Scotland

Questionnaire for Health Boards

on

Provision of Assisted Conception Treatments

		Circle appropriate response or enter information requested	
1.	Name of Health Board		
2.	Size of population served		
3.	Tertiary centre(s) used for assisted conception treatments	Aberdeen Edinburgh	Dundee Glasgow
Treatments provided			
4.a	Does your HB provide NHS-funded donor insemination (DI)?	Yes	No
4b.	If Yes, how many treatment cycles per year does this funding cover? (Or 'no limit')		
5a.	Does your HB provide NHS-funded in vitro fertilisation (IVF)?	Yes	No
5b.	If Yes, how many complete treatment cycles (ovarian stimulation/egg recovery/embryo replacement) per year does this funding cover? (Or 'no limit')		
5c.	If there is a limit on complete treatment cycles, is additional NHS funding available for aborted treatment cycles or replacement of frozen embryos?	Yes	No
6a.	Does your HB provide NHS-funded intracytoplasmic sperm injection (ICSI)?	Yes	No
6b.	If Yes, how many cycles per year does this funding cover? (Or 'no limit')		
7a.	Does your HB provide NHS-funded IVF using donated eggs?	Yes	No
7b.	If Yes, how many cycles per year does this funding cover? (Or 'no limit')		
Patient Selection Criteria			
Does your HB employ specific criteria in selection couples for NHS-funded IVF or ICSI:			
8.	Female upper age limit?	_____ years	
9.	Male upper age limit?	_____ years	
10.	Limit on number of complete cycles per couple?	_____ cycles	
11.	Minimum duration of 'unexplained' infertility?	_____ years	
12.	Minimum duration of infertility where cause identified?	_____ years	

13. Restrictions relating to previous children? (Describe)

14. Any other Restrictions? (Describe)

Funding of ovarian stimulation drugs for assisted conception treatments

15. For NHS-funded IVF cycles, in your HB, how are the costs of these drugs met?

Include in price of treatment cycle:

General practitioner

Other (describe)

Waiting Lists

Of couples who meet your local selection criteria for NHS-funded treatment, are you able to provide a figure for the number of couples currently on waiting lists for each of the following:

16a. DI ?

16b. IVF ?

16c. ICSI ?

17. Are you able to give an estimate of the average time couples in your HB wait for NHS-funded IVF?

months