

# Fertility problems

Quality standard

Published: 23 October 2014

[www.nice.org.uk/guidance/qs73](http://www.nice.org.uk/guidance/qs73)

# Contents

List of quality statements .....	5
Quality statement 1: Lifestyle advice.....	6
Quality statement.....	6
Rationale .....	6
Quality measures.....	6
What the quality statement means for different audiences.....	7
Source guidance.....	8
Equality and diversity considerations .....	8
Quality statement 2: Referral for specialist consultation.....	9
Quality statement.....	9
Rationale .....	9
Quality measures.....	9
What the quality statement means for different audiences.....	10
Source guidance.....	11
Definitions of terms used in this quality statement .....	11
Quality statement 3: Counselling .....	12
Quality statement.....	12
Rationale .....	12
Quality measures.....	12
What the quality statement means for different audiences.....	13
Source guidance.....	14
Equality and diversity considerations .....	14
Quality statement 4: Semen analysis .....	15
Quality statement.....	15
Rationale .....	15
Quality measures.....	15
What the quality statement means for different audiences.....	15

Source guidance.....	16
Definitions of terms used in this quality statement .....	16
Quality statement 5: IVF for women under 40 years .....	18
Quality statement.....	18
Rationale .....	18
Quality measures.....	18
What the quality statement means for different audiences.....	19
Source guidance.....	19
Definitions of terms used in this quality statement .....	19
Equality and diversity considerations .....	20
Quality statement 6: IVF for women aged 40 to 42 years .....	21
Quality statement.....	21
Rationale .....	21
Quality measures.....	21
What the quality statement means for different audiences.....	22
Source guidance.....	22
Definitions of terms used in this quality statement .....	23
Equality and diversity considerations .....	23
Quality statement 7: Intracytoplasmic sperm injection.....	24
Quality statement.....	24
Rationale .....	24
Quality measures.....	24
What the quality statement means for different audiences.....	25
Source guidance.....	25
Definitions of terms used in this quality statement .....	26
Quality statement 8: Number of embryos transferred.....	27
Quality statement.....	27
Rationale .....	27

Quality measures.....	27
What the quality statement means for different audiences.....	28
Source guidance.....	28
Definitions of terms used in this quality statement .....	29
Equality and diversity considerations .....	29
Quality statement 9: Cryopreservation before cancer treatment .....	30
Quality statement.....	30
Rationale .....	30
What the quality statement means for different audiences.....	31
Source guidance.....	31
Equality and diversity considerations .....	32
Update information .....	33
About this quality standard .....	34
Diversity, equality and language.....	34

This standard is based on CG156.

This standard should be read in conjunction with QS55, QS53, QS47, QS22, QS15, QS143 and QS172.

## List of quality statements

Statement 1 People who are concerned that it is taking longer than expected to conceive are given advice on the impact that lifestyle can have on their chances of getting pregnant.

Statement 2 People are referred for specialist consultation if the woman has not conceived after 1 year of intercourse or after 6 cycles of artificial insemination, or earlier in certain circumstances.

Statement 3 People who are having problems conceiving are offered counselling before, during and after investigation and treatment for their fertility problems.

Statement 4 Services analysing semen samples use methods and reference values in accordance with the most recent World Health Organization laboratory manual.

Statement 5 Women aged under 40 years who meet the criteria for in vitro fertilisation (IVF) are offered 3 full cycles of IVF.

Statement 6 Women aged 40 to 42 years who meet the criteria for IVF are offered 1 full cycle of IVF.

Statement 7 Women having IVF are offered intracytoplasmic sperm injection (ICSI) only if there are severe deficits in semen quality, obstructive azoospermia, non-obstructive azoospermia or if previous IVF treatment resulted in failed or very poor fertilisation.

Statement 8 Women having IVF have 1 or 2 embryos transferred according to the woman's or donor's age, the cycle number and the quality of the embryos.

Statement 9 People preparing to have treatment for cancer that is likely to result in fertility problems are offered cryopreservation.

# Quality statement 1: Lifestyle advice

## Quality statement

People who are concerned that it is taking longer than expected to conceive are given advice on the impact that lifestyle can have on their chances of getting pregnant.

## Rationale

Lifestyle factors, including body weight, smoking, alcohol and recreational drug use can have an impact on people's chances of getting pregnant. People who are trying to have a baby and are concerned it is taking longer than expected, should be given written and verbal advice about changes that can be made to their lifestyle that can help. This information should be provided for both men and women. Positive outcomes from lifestyle change interventions may reduce the need for onward referrals.

## Quality measures

### Structure

Evidence of local arrangements to ensure that people who are concerned that it is taking longer than expected to conceive are given written and verbal advice on the impact that lifestyle (including body weight, smoking, alcohol and recreational drug use) can have on their chances of getting pregnant.

**Data source:** Local data collection.

### Process

Proportion of people who are concerned that it is taking longer than expected to conceive who are given written and verbal advice on the impact that lifestyle (including body weight, smoking, alcohol and recreational drug use) can have on their chances of getting pregnant.

Numerator – the number in the denominator given written and verbal advice on the impact that lifestyle (including body weight, smoking, alcohol and recreational drug use) can have on their chances of getting pregnant.

Denominator – the number of people who are concerned that it is taking longer than expected to conceive.

**Data source:** Local data collection.

## Outcome

People who are concerned that it is taking longer than expected to conceive feel informed about the impact that lifestyle can have on their chances of getting pregnant.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (such as primary care, fertility, pre-conception advice and gynaecology services) ensure that written information about the impact of lifestyle on fertility is available to share with people who are concerned that it is taking longer than expected to conceive.

**Healthcare professionals and public health practitioners** give written and verbal information about the impact of lifestyle on fertility to people who are concerned that it is taking longer than expected to conceive.

**Commissioners** (clinical commissioning groups and NHS England area teams) ensure that primary, secondary, community and specialist fertility care providers give written and verbal information about the impact of lifestyle on fertility to people who are concerned that it is taking longer than expected to conceive.

**People who are concerned that it is taking them longer than expected to become pregnant** are given advice (both spoken and in writing) on how their lifestyle can affect their chances of getting pregnant, especially if they smoke, drink alcohol, use recreational drugs or are over or underweight.

## Source guidance

Fertility problems: assessment and treatment. NICE guideline CG156 (2013), recommendations 1.2.3.1 to 3, 1.2.4.1 to 4, 1.2.6.1 to 4 and 1.2.10.1

## Equality and diversity considerations

Information given about fertility problems should be culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English. People with fertility problems should have access to an interpreter or advocate if needed.



# Quality statement 2: Referral for specialist consultation

## Quality statement

People are referred for specialist consultation if the woman has not conceived after 1 year of intercourse or after 6 cycles of artificial insemination, or earlier in certain circumstances.

## Rationale

Over 80% of women aged under 40 years will conceive within 1 year if they have regular unprotected vaginal intercourse at and around the time of ovulation. If they do not conceive after 1 year, or after 6 cycles of artificial insemination, they should be referred to specialist services to decide if more support is needed. Women aged 36 years or over and people with a known clinical cause or history of predisposing infertility factors should be offered an earlier referral (before 1 year) because of the impact of these factors on fertility. Delays in referral to specialist services can have a negative impact on patient care and treatment outcomes.

## Quality measures

### Structure

Evidence of local arrangements to ensure that referral pathways are in place for specialist consultation when women have not conceived after 1 year of intercourse or after 6 cycles of artificial insemination, or earlier in certain circumstances.

**Data source:** Local data collection.

### Process

a) Proportion of people (women aged 35 years or under and men) who are referred for specialist consultation if the woman has not conceived after 1 year of intercourse or after

6 cycles of artificial insemination, when there is no known clinical cause or history of predisposing factors for infertility in the woman or man.

Numerator – the number in the denominator who are referred for specialist consultation.

Denominator – the number of people (women aged 35 years or under and men) who have not conceived after 1 year of intercourse or after 6 cycles of artificial insemination and there is no known clinical cause or history of predisposing factors for infertility in the woman or man.

**Data source:** Local data collection.

b) Proportion of people who are referred for specialist consultation within 1 year of identification of fertility problems when there is a known clinical cause in the woman or man, a history of predisposing factors for infertility or the woman is aged 36 years or older.

Numerator – the number in the denominator who are referred for specialist consultation within 1 year of identification of fertility problems.

Denominator – the number of people who have not conceived and have a known clinical cause, a history of predisposing factors for infertility or the woman is aged 36 years or older.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (primary care, secondary care and specialist fertility services) ensure that referral pathways are in place so that people who have not conceived are referred for specialist consultation after 1 year of intercourse or 6 cycles of artificial insemination, or earlier depending on the presence of known infertility factors and the age of the woman.

**Healthcare professionals** refer people for specialist consultation if they have not conceived after 1 year of intercourse or 6 cycles of artificial insemination, or earlier depending on the presence of known infertility factors and the age of the woman.

**Commissioners** (clinical commissioning groups and NHS England area teams) ensure that there is sufficient capacity within specialist services and that agreed pathways and referral criteria are in place for people who have not conceived to be referred for specialist consultation after 1 year of intercourse or 6 cycles of artificial insemination, or earlier depending on the presence of known infertility factors and the age of the woman.

**People finding it difficult to get pregnant** are referred for specialist advice and tests if they have been trying for a year or longer or have had 6 cycles of artificial insemination (which is the direct insertion of sperm into a woman's womb or the neck of the womb). If they have a known problem that might affect their fertility or the woman is aged 36 years or older, they should be referred earlier.

## Source guidance

Fertility problems: assessment and treatment. NICE guideline CG156 (2013), recommendations 1.2.13.5, 1.2.13.6 and 1.2.13.7 (key priorities for implementation)

## Definitions of terms used in this quality statement

### Circumstances for earlier referral

An earlier referral should be offered if there is a known clinical cause of infertility in the woman or man, a history of predisposing factors for infertility (such as amenorrhoea, oligomenorrhoea, pelvic inflammatory disease or undescended testes) or the woman is aged 36 years or over. [[NICE's guideline on fertility problems](#), recommendation 1.2.13.7]

### Specialist consultation

Assessment, investigation or treatment in secondary or tertiary care services (for example, urology departments, gynaecology departments or fertility clinics). [Expert opinion]

# Quality statement 3: Counselling

## Quality statement

People who are having problems conceiving are offered counselling before, during and after investigation and treatment for their fertility problems.

## Rationale

People experiencing fertility problems should be offered counselling because fertility problems themselves, and the investigation and treatment for fertility problems, can cause emotional stress.

## Quality measures

### Structure

Evidence of local arrangements to ensure that people who are having problems conceiving are offered counselling before, during and after investigation and treatment for their fertility problems in secondary or tertiary care.

**Data source:** Local data collection.

### Process

a) Proportion of people who are having problems conceiving and who are having investigations for fertility problems in secondary or tertiary care who receive counselling.

Numerator – the number in the denominator who receive counselling.

Denominator – the number of people who are having problems conceiving and who are having investigations for their fertility problems in secondary or tertiary care.

**Data source:** Local data collection.

b) Proportion of people who are having problems conceiving and who are having treatment for fertility problems in secondary or tertiary care who receive counselling.

Numerator – the number in the denominator who receive counselling.

Denominator – the number of people who are having problems conceiving and who are having treatment for their fertility problems in secondary or tertiary care.

**Data source:** Local data collection.

c) Proportion of people who are having problems conceiving and who have received treatment for fertility problems in secondary and tertiary care who receive counselling.

Numerator – the number in the denominator who receive counselling.

Denominator – the number of people who are having problems conceiving and who have received treatment for fertility problems in secondary or tertiary care.

**Data source:** Local data collection.

## Outcome

People who are having problems conceiving feel supported throughout and after investigation and treatment for their fertility problems.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (secondary and tertiary care services) ensure that counselling services are available for people who are having problems conceiving before, during and after investigation and treatment for their fertility problems.

**Healthcare professionals** refer people who are having problems conceiving for counselling before, during and after investigations and treatment for their fertility problems.

**Commissioners** (clinical commissioning groups and NHS England area teams) ensure that counselling services are available before, during and after investigation and treatment for people with fertility problems, and that pathways and referral criteria are in place.

**People finding it difficult to get pregnant** have the opportunity to see a counsellor before, during and after any tests or treatment for fertility problems.

## Source guidance

Fertility problems: assessment and treatment. NICE guideline CG156 (2013), recommendation 1.1.2.4

## Equality and diversity considerations

Good communication between healthcare professionals and people with fertility problems is essential. Care and support, and the information given about it, should be culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English. People with fertility problems should have access to an interpreter or advocate if needed.

# Quality statement 4: Semen analysis

## Quality statement

Services analysing semen samples use methods and reference values in accordance with the most recent [World Health Organization laboratory manual](#).

## Rationale

Semen analysis is the primary assessment tool for male fertility potential. The accuracy of the result is dependent on following accredited methods of analysis that are regularly audited and subject to quality control. Variations in laboratory techniques significantly influence the reliability of the results of semen analysis. This may lead to a longer process for investigating male infertility, and possibly to inappropriate treatment.

## Quality measures

### Structure

Evidence of a quality assurance programme to ensure that services analysing semen samples use methods and reference values in accordance with the most recent World Health Organization laboratory manual.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (laboratory services) ensure that there is a quality assurance programme in place so that services analysing semen samples use methods and reference values in accordance with the most recent World Health Organization laboratory manual.

**Healthcare professionals** (such as scientists and laboratory technicians) analysing semen

samples use methods and reference values in accordance with the most recent World Health Organization laboratory manual.

**Commissioners** (clinical commissioning groups) ensure that the laboratory services they use comply with the most recent World Health Organization laboratory manual.

**Men having their semen checked** to measure the quantity and quality of their sperm have it tested by a laboratory that uses recommended methods to provide an accurate result.

## Source guidance

Fertility problems: assessment and treatment. NICE guideline CG156 (2013), recommendation 1.3.1.1

## Definitions of terms used in this quality statement

### Reference values

The results of the semen analysis conducted as part of an initial assessment should be compared with the following World Health Organization reference values:

- semen volume: 1.5 ml or more
- pH: 7.2 or more
- sperm concentration: 15 million spermatozoa per ml or more
- total sperm number: 39 million spermatozoa per ejaculate or more
- total motility (percentage of progressive motility and non-progressive motility): 40% or more motile or 32% or more with progressive motility
- vitality: 58% or more live spermatozoa
- sperm morphology (percentage of normal forms): 4% or more.

The reference ranges are only valid for the semen analysis tests outlined by the World Health Organization.



[[NICE's guideline on fertility problems](#), recommendation 1.3.1.1]

# Quality statement 5: IVF for women under 40 years

## Quality statement

Women aged under 40 years who meet the criteria for in vitro fertilisation (IVF) are offered 3 full cycles of IVF.

## Rationale

Access to the appropriate number of full cycles of IVF for women who meet the criteria for IVF will increase the likelihood of those women becoming pregnant. IVF should be considered as an option only if expectant management and first-line treatments for women have not led to a pregnancy. This staged approach to treatment supports the efficient and equitable use of healthcare resources.

## Quality measures

### Structure

Evidence of local arrangements to provide 3 full cycles of IVF for women aged under 40 years who meet the criteria for IVF.

**Data source:** Local data collection. National data on provision of IVF are available from the [Human Fertilisation and Embryology Authority](#).

### Process

Proportion of women aged under 40 years who meet the criteria for IVF who are offered 3 full cycles of IVF.

Numerator – the number in the denominator who receive 3 full cycles of IVF.

Denominator – the number of women aged under 40 years who meet the criteria for IVF.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (specialist fertility services) ensure that policies are in place on provision of 3 full cycles of IVF for women aged under 40 years who meet the criteria for IVF.

**Healthcare professionals** (in specialist fertility services) adhere to policies on provision of 3 full cycles of IVF for women aged under 40 years who meet the criteria for IVF.

**Commissioners** (clinical commissioning groups) should commission sufficient capacity within specialist fertility services to provide 3 full cycles of IVF for women aged under 40 years who meet the criteria for IVF.

**Women under 40 finding it difficult to get pregnant** who have been trying for 2 years or longer or have had 12 cycles of artificial insemination (which is the direct insertion of sperm into a woman's womb or the neck of the womb) are offered 3 full cycles of IVF. A full cycle of IVF involves collecting eggs and sperm, fertilising the eggs outside the woman's body, and placing 1 or 2 fertilised eggs (embryos) into the womb to start a pregnancy.

## Source guidance

Fertility problems: assessment and treatment. NICE guideline CG156 (2013), recommendation 1.11.1.3 (key priority for implementation)

## Definitions of terms used in this quality statement

### Criteria for IVF for women aged under 40 years

Women aged under 40 years should be offered 3 full cycles of IVF if they have not conceived after 2 years of regular unprotected vaginal intercourse or 12 cycles of artificial

insemination (including 6 or more by intrauterine insemination). The use of intracytoplasmic sperm injection (ICSI) should not preclude the provision of the appropriate number of IVF cycles. [[NICE's guideline on fertility problems](#), recommendation 1.11.1.3]

## Full cycle of IVF

A full cycle should include 1 episode of ovarian stimulation and the transfer of any resultant fresh and frozen embryo(s). [[NICE's guideline on fertility problems](#)]

Any previous full cycle, whether self- or NHS-funded, should count towards the total of 3 full cycles offered by the NHS. [[NICE's guideline on fertility problems](#), recommendation 1.11.1.6]

## Equality and diversity considerations

The existence of living children should not be a factor that precludes the provision of fertility treatment.

The statements include reference to specific age groups. This is to promote effective care because age was found to be the only robust factor in determining IVF success.

The statement focuses on people who have a possible pathological problem to explain their infertility. It includes women in same-sex relationships and women with or without a partner having artificial insemination.

# Quality statement 6: IVF for women aged 40 to 42 years

## Quality statement

Women aged 40 to 42 years who meet the criteria for in vitro fertilisation (IVF) are offered 1 full cycle of IVF.

## Rationale

The overall chance of having a live birth after IVF treatment falls with rising female age and also decreases as the number of unsuccessful cycles increases. Access to the appropriate number of full cycles of IVF for women who meet the criteria for IVF will increase the likelihood of those women becoming pregnant. IVF should be considered as an option only if expectant management and first-line treatments for women have not led to a pregnancy. This staged approach to treatment supports the efficient and equitable use of healthcare resources.

## Quality measures

### Structure

Evidence of a locally agreed policy on provision of 1 full cycle of IVF for women aged 40 to 42 years who meet the criteria for IVF.

**Data source:** Local data collection. National data on provision of IVF and intracytoplasmic sperm injection (ICSI) are available from the [Human Fertilisation and Embryology Authority](#).

### Process

Proportion of women aged 40 to 42 years who meet the criteria for IVF who are offered 1 full cycle of IVF.

Numerator – the number in the denominator who receive 1 full cycle of IVF.

Denominator – the number of women aged 40 to 42 years who meet the criteria for IVF.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (specialist fertility services) ensure that policies are in place on provision of 1 full cycle of IVF for women aged 40 to 42 years who meet the criteria for IVF.

**Healthcare professionals** (in specialist fertility services) adhere to policies on provision of 1 full cycle of IVF for women aged 40 to 42 years who meet the criteria for IVF.

**Commissioners** (clinical commissioning groups) should commission sufficient capacity within specialist fertility services to provide 1 full cycle of IVF for women aged 40 to 42 years who meet the criteria for IVF.

**Women aged 40 to 42 finding it difficult to get pregnant** who have been trying for 2 years or longer or they have had 12 cycles of artificial insemination (which is the direct insertion of sperm into a woman's womb or the neck of the womb) are offered 1 full cycle of IVF if all of the following apply:

- they have never had IVF before
- tests show that their ovaries would respond normally to fertility drugs
- they have discussed the risks of IVF and becoming pregnant at this age with their doctor.

A full cycle of IVF involves collecting eggs and sperm, fertilising the eggs outside the woman's body, and placing 1 or 2 fertilised eggs (embryos) into the womb to start a pregnancy.

## Source guidance

Fertility problems: assessment and treatment. NICE guideline CG156 (2013),

recommendation 1.11.1.4 (key priority for implementation)

## Definitions of terms used in this quality statement

### Criteria for IVF for women aged 40 to 42 years

Women aged 40 to 42 years should be offered 1 full cycle of IVF if they have not conceived after 2 years of regular unprotected vaginal intercourse or 12 cycles of artificial insemination (including 6 or more by intrauterine insemination) and have never had IVF treatment before, have no evidence of low ovarian reserve (when a woman doesn't have many eggs left) and have had a discussion of the additional implications of IVF and pregnancy at this age. The use of ICSI should not preclude the provision of the appropriate number of IVF cycles. [[NICE's guideline on fertility problems](#), recommendation 1.11.1.4].

### Full cycle of IVF

A full cycle should include 1 episode of ovarian stimulation and the transfer of any resultant fresh and frozen embryo(s). [[NICE's guideline on fertility problems](#)]

## Equality and diversity considerations

The existence of living children should not be a factor that precludes the provision of fertility treatment.

The statements include reference to specific age groups. This is to promote effective care because age was found to be the only robust factor in determining IVF success.

The statement focuses on people who have a possible pathological problem to explain their infertility. It includes women in same-sex relationships and single women having artificial insemination.

# Quality statement 7: Intracytoplasmic sperm injection

## Quality statement

Women having in vitro fertilisation (IVF) are offered intracytoplasmic sperm injection (ICSI) only if there are severe deficits in semen quality, obstructive azoospermia, non-obstructive azoospermia or if previous IVF treatment resulted in failed or very poor fertilisation.

## Rationale

ICSI is a technique in which a single sperm is injected into an egg to achieve fertilisation. It is sometimes used in addition to IVF and improves the chances of conception. However, given the added resources involved, its use should be determined by clinical need.

## Quality measures

### Structure

Evidence of local arrangements to ensure that ICSI is offered only if there are severe deficits in semen quality, obstructive azoospermia, non-obstructive azoospermia or if previous IVF treatment resulted in failed or very poor fertilisation.

**Data source:** Local data collection.

### Process

Proportion of women having IVF with ICSI because of severe deficits in semen quality, obstructive azoospermia, non-obstructive azoospermia or because previous IVF treatment resulted in failed or very poor fertilisation.

Numerator – the number in the denominator having ICSI because of severe deficits in semen quality, obstructive azoospermia, non-obstructive azoospermia or because



previous IVF treatment resulted in failed or very poor fertilisation.

Denominator – the number of women having IVF with ICSI.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (specialist fertility services) ensure that policies are in place to offer ICSI to women having IVF only if there are severe deficits in semen quality, obstructive azoospermia, non-obstructive azoospermia or if previous IVF treatment resulted in failed or very poor fertilisation.

**Healthcare professionals** (in specialist fertility services) offer ICSI to women having IVF only if there are severe deficits in semen quality, obstructive azoospermia, non-obstructive azoospermia or if previous IVF treatment resulted in failed or very poor fertilisation.

**Commissioners** (clinical commissioning groups) monitor the use of ICSI for women having IVF in the services they commission.

**Women having IVF** are offered an additional procedure to improve their chances of getting pregnant only if problems with the sperm mean that it is unlikely to fertilise the egg without it, or if there was poor or no fertilisation with IVF in the past. The procedure involves injecting a sperm directly into the egg and is called intracytoplasmic sperm injection (ICSI for short).

## Source guidance

Fertility problems: assessment and treatment. NICE guideline CG156 (2013), recommendation 1.13.1.1

## Definitions of terms used in this quality statement

### Severe deficits in semen quality

Low quality sperm identified through comparison of sperm analysis results to the reference values in the [World Health Organization laboratory manual](#). [Expert opinion]

### Intracytoplasmic sperm injection (ICSI)

A procedure sometimes used in addition to IVF, which involves injecting a single sperm into the inner cellular structure of an egg. [[NICE's guideline on fertility problems](#)]

### Non-obstructive azoospermia

No sperm in the ejaculate due to testicular failure. [Adapted from [NICE's guideline on fertility problems](#)]

### Obstructive azoospermia

The testes produce sperm as normal but a blockage prevents entry to the ejaculate. [Adapted from [NICE's guideline on fertility problems](#)]

# Quality statement 8: Number of embryos transferred

## Quality statement

Women having in vitro fertilisation (IVF) have 1 or 2 embryos transferred according to the woman's or donor's age, the cycle number and the quality of the embryos.

## Rationale

An effective embryo transfer strategy minimises the chance of multiple pregnancies following IVF and improves the outcome of IVF with the birth of more single, healthy babies. Multiple pregnancies represent a significant health risk to mothers and babies.

## Quality measures

### Structure

Evidence of local arrangements to implement an agreed embryo transfer strategy in which 1 or 2 embryos are transferred according to the woman's or donor's age, the cycle number and the quality of the embryos.

**Data source:** Local data collection.

### Process

a) Proportion of IVF cycles in which embryo transfers are carried out in line with [NICE's guideline on fertility problems](#) (see also the definitions section below).

Numerator – the number in the denominator carried out in line with [NICE's guideline on fertility problems](#).

Denominator – the number of embryo transfers in IVF cycles.

**Data source:** Local data collection.

## Outcome

a) Proportion of embryo transfers that are elective single embryo transfers.

**Data source:** Local data collection. National data on elective single embryo transfers are available from the [Human Fertilisation and Embryology Authority](#).

b) Number of IVF treatments resulting in multiple pregnancy.

**Data source:** Local data collection. National data on multiple pregnancy rates following IVF treatment are available from the [Human Fertilisation and Embryology Authority](#).

## What the quality statement means for different audiences

**Service providers** (specialist fertility services) ensure that systems are in place to monitor the number of embryos transferred during IVF cycles.

**Healthcare professionals** (in specialist fertility services) transfer the appropriate number of embryos during IVF, taking into account the woman's or donor's age, the cycle number and the quality of the embryos.

**Commissioners** (clinical commissioning groups) ensure that the services they commission have policies in place on embryo transfer strategies that take into account the woman's or donor's age, the cycle number and the quality of the embryos.

**Women having IVF** have 1 or 2 embryos transferred into their womb, depending on the woman's age (or the donor's age), the number of IVF treatments she has had and the quality of the embryos.

## Source guidance

[Fertility problems: assessment and treatment. NICE guideline CG156 \(2013\)](#), recommendations 1.12.6.5, 1.12.6.8 (key priorities for implementation), 1.12.6.6 and 1.12.6.7

## Definitions of terms used in this quality statement

The number of embryos transferred should be determined by the age of the woman, cycle number and quality of embryos as follows.

### Embryo transfer according to age, cycle number and quality of embryos

Age	Cycle	Quality of embryos (evaluated at both cleavage and blastocyst stages)	Number of embryos to transfer
Under 37	1st	N/A	1
Under 37	2nd	1 or more top-quality embryos available	1
Under 37	2nd	If no top-quality embryos are available	No more than 2
Under 37	3rd	N/A	No more than 2
37 to 39	1st or 2nd	1 or more top-quality embryos available	1
37 to 39	1st or 2nd	If no top-quality embryos are available	No more than 2
37 to 39	3rd	N/A	No more than 2
40 to 42	N/A	N/A	No more than 2
N/A	N/A	Top-quality blastocyst available	1

Embryo quality is evaluated at both cleavage and blastocyst stages, according to the [Association of Clinical Embryologists \(ACE\)](#) and [UK National External Quality Assessment Service \(UK NEQAS\)](#) for Reproductive Science Embryo and Blastocyst Grading schematic.

[Adapted from [NICE's guideline on fertility problems](#)]

## Equality and diversity considerations

The existence of living children should not be a factor that precludes the provision of fertility treatment.

# Quality statement 9: Cryopreservation before cancer treatment

## Quality statement

People preparing to have treatment for cancer that is likely to result in fertility problems are offered cryopreservation.

## Rationale

Some treatments for cancer can cause fertility problems. Cryopreservation of men's sperm or women's oocytes or embryos may give people with cancer the option of having children in the future.

## Structure

Evidence of local arrangements to ensure that people preparing to have treatment for cancer that is likely to result in fertility problems are offered cryopreservation.

**Data source:** Local data collection.

## Process

a) Proportion of males having treatment for cancer that is likely to result in fertility problems who receive sperm cryopreservation.

Numerator – the number in the denominator who receive sperm cryopreservation.

Denominator – the number of males having treatment for cancer that is likely to result in fertility problems.

**Data source:** Local data collection.

b) Proportion of females having treatment for cancer that is likely to result in fertility

problems who receive oocyte or embryo cryopreservation.

Numerator – the number in the denominator who receive oocyte or embryo cryopreservation.

Denominator – the number of females having treatment for cancer that is likely to result in fertility problems and:

- who are well enough to undergo ovarian stimulation and egg collection
- whose condition will not worsen with cryopreservation
- who have enough time before the start of their cancer treatment.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (specialist fertility services) ensure that agreed referral pathways are in place to provide cryopreservation to people who are preparing to have treatment for cancer that is likely to result in fertility problems.

**Healthcare professionals** (in specialist fertility services) offer cryopreservation to people preparing to have treatment for cancer that is likely to result in fertility problems.

**Commissioners** (clinical commissioning groups) ensure there is sufficient capacity within fertility services to provide cryopreservation for people preparing to have cancer treatment that is likely to result in fertility problems, with agreed referral pathways in place.

**People preparing to have treatment for cancer that is likely to result in fertility problems** are given the option to preserve (freeze and store) their eggs or sperm for possible use in the future.

## Source guidance

Fertility problems: assessment and treatment. NICE guideline CG156 (2013),

recommendations 1.16.1.8 and 1.16.1.10

## **Equality and diversity considerations**

The existence of living children should not be a factor that precludes the provision of fertility treatment.

There should not be a lower age limit for cryopreservation for fertility preservation in people diagnosed with cancer.



# Update information

## Minor changes since publication

**September 2016:** Number of cycles of in vitro fertilisation (IVF) corrected in the definitions section of statement 6.

## About this quality standard

NICE quality standards describe high-priority areas for quality improvement in a defined care or service area. Each standard consists of a prioritised set of specific, concise and measurable statements. NICE quality standards draw on existing NICE or NICE-accredited guidance that provides an underpinning, comprehensive set of recommendations, and are designed to support the measurement of improvement.

Expected levels of achievement for quality measures are not specified. Quality standards are intended to drive up the quality of care, and so achievement levels of 100% should be aspired to (or 0% if the quality statement states that something should not be done). However, this may not always be appropriate in practice. Taking account of safety, shared decision-making, choice and professional judgement, desired levels of achievement should be defined locally.

Information about [how NICE quality standards are developed](#) is available from the NICE website.

See our [webpage on quality standards advisory committees](#) for details about our standing committees. Information about the topic experts invited to join the standing members is available from the [webpage for this quality standard](#).

NICE has produced a [quality standard service improvement template](#) to help providers make an initial assessment of their service compared with a selection of quality statements. This tool is updated monthly to include new quality standards.

NICE guidance and quality standards apply in England and Wales. Decisions on how they apply in Scotland and Northern Ireland are made by the Scottish government and Northern Ireland Executive. NICE quality standards may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

## Diversity, equality and language

Equality issues were considered during development and [equality assessments for this quality standard](#) are available. Any specific issues identified during development of the

quality statements are highlighted in each statement.

Commissioners and providers should aim to achieve the quality standard in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this quality standard should be interpreted in a way that would be inconsistent with compliance with those duties.

ISBN: 978-1-4731-0790-8

## Endorsing organisation

This quality standard has been endorsed by NHS England, as required by the Health and Social Care Act (2012)

## Supporting organisations

Many organisations share NICE's commitment to quality improvement using evidence-based guidance. The following supporting organisations have recognised the benefit of the quality standard in improving care for patients, carers, service users and members of the public. They have agreed to work with NICE to ensure that those commissioning or providing services are made aware of and encouraged to use the quality standard.

- [Association of Clinical Embryologists](#)
- [British Infertility Counselling Association](#)
- [Faculty of Sexual and Reproductive Healthcare](#)
- [Fertility Fairness](#)
- [Infertility Network UK](#)
- [Primary Care Women's Health Forum](#)
- [Royal College of General Practitioners \(RCGP\)](#)
- [Royal College of Obstetricians and Gynaecologists](#)
- [Royal College of Nursing \(RCN\)](#)