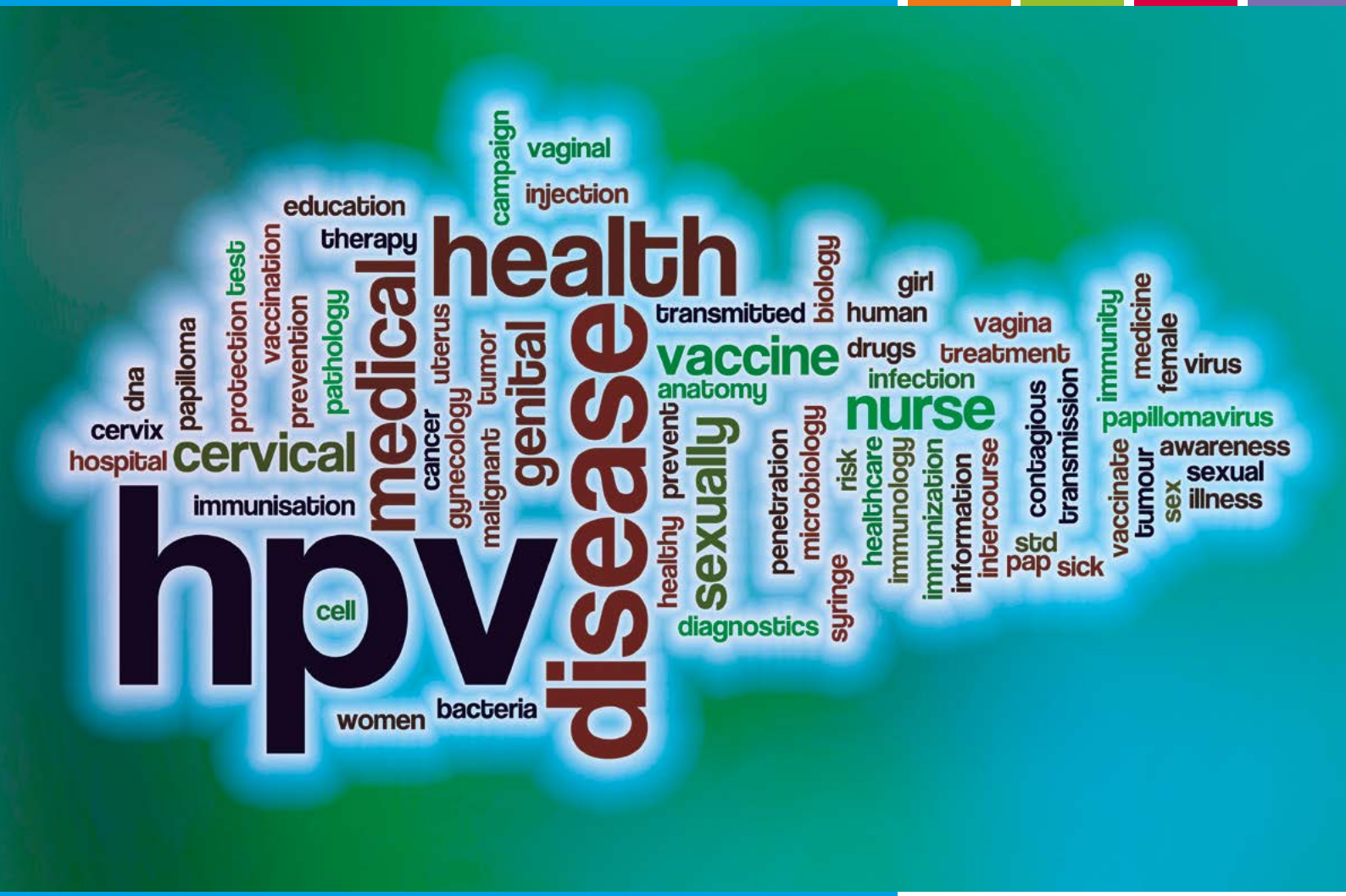
Royal College of Nursing

Human Papillomavirus (HPV), Cervical Screening and Cervical Cancer

CLINICAL PROFESSIONAL RESOURCE



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Jo's cervical cancer trust

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Contents

Notes:

It is recognised that services are provided by registered nurses and midwives, health care support workers, assistant practitioners, nursing associates and student nurses and midwives, and trainee nursing associates. For ease of reading, the generic terms 'nurse', 'nursing' and 'nurses' are used throughout this document.

The RCN recognises and embraces our gender diverse society and encourages this guideline to be used by and/or applied to people who identify as non-binary, transgender, gender fluid or intersex who have a cervix. The RCN also recognises that not all those born female or male will identify with the same gender pro nouns, but for ease of reading and brevity this document uses the term woman/women and includes those with a cervix.

1. Introduction

Worldwide, cervical cancer is one of the leading causes of death from cancer in women; most deaths occur in low to middle income countries (WHO, 2022). Cervical cancer accounts for 2% of all new cancer cases in females in the UK (Cancer Research UK, 2023a), and is, generally, a preventable disease. The primary cause of cervical abnormalities and cancer is persistent or chronic infection with one or more of the high-risk (**oncogenic**) types of human papillomavirus (HPV). In most women and men who become infected with HPV, these infections will resolve spontaneously (without treatment). However, for a minority of women, the infection leads to abnormal changes to the cervix, which, if not treated, may progress to cancer 10 to 20 years later (WHO, 2022). Both understanding and identifying HPV are important public health concerns and form part of the UK National Screening Programme (DHSE, 2023).

In order to support informed and sensitive care of women, this RCN publication focuses on:

- an overview of HPV (including the current vaccination recommendations)
- the national cervical screening programmes
- information about colposcopy
- key facts on cervical cancer.

Registered nursing associates training in cervical sample taking (England only)

In 2019, the NHS Screening Programme announced that registered nursing associates would be eligible to perform cervical screening. The following statement was issued by NHS Cervical Screening Programme, Health Education England and NHS England/NHS Improvement Primary Care Nursing team in September 2019:

“Enhancing the skill base of registered nursing associates (NAs), with the appropriate competency-based training in cervical screening, will:

- increase the number of sample takers across the country
- improve access to screening
- support screening’s aim to reduce the incidence of cervical cancer and reduce the number of women who die from it
- Registered nursing associates working in primary care are eligible to train to undertake the role of cervical sample taker.

Governance arrangements: screening providers need to ensure the following governance arrangements are in place:

- registered nursing associates must meet the core clinical competencies in the Skills for Health competency framework set out in the NHS CSP sample taker training guidance available at: **gov.uk/government/publications/cervical-screening-cervical-sample-taker-training**

To undertake cervical screening, nursing associates must have:

- completed a nursing associate qualification and be registered as a NA with the Nursing and Midwifery Council (NMC)
- undertaken initial theory and practical training as required by the NHS CSP, successfully completed the course and assessed as competent
- undertaken update training and maintained competency in line with national cervical sample taker training guidance.

Local governance: the registered nursing associate role is not yet a named profession under the Treatment of Disease, Disorder or Injury (TDDI) legislation regulated by the Care Quality Commission (CQC). However, the CQC expects any provider to consider safety, quality, competency and TDDI legislation when deploying a nursing associate. See the CQC briefing for providers at: **cqc.org.uk/sites/default/files/20190123_briefing_for_providers_nursing_associates_0.pdf**

When a nursing associate has registered with the NMC, a registered professional listed under the legislation (registered nurse or GP) will need to supervise the practice of that nursing associate. The supervisor must be present at the GP practice when the nursing associate is carrying out the procedure. The supervisor can undertake indirect supervision of the nursing associate when carrying out this procedure. This is a delegated activity and the nursing associate would be expected to work within the remits of their professional code.

NHS England/Improvement, Health Education England and PHE are working together to follow a test cohort of registered nursing associates to undertake cervical sample taker training. This evaluation will help make sure that the new profession of registered nursing associates can support primary care and health services to deliver this aspect of care. Any lessons learnt from the evaluation will be incorporated into the training guidance and communicated to providers by NHS England's primary care nursing team and PHE screening (Public Health England, 2019).

The RCN subsequently published a position statement:

"The RCN recognises that registered nursing associates (RNAs) carry out cervical screening, in line with national standards. Service and education providers should be confident that appropriate and relevant training and supervision is in place. Extra training/pre-reading/ pre-course work may be required to ensure RNAs are not disadvantaged during cervical screening training. They should be supported and supervised in their practice, in line with national standards (RCN, 2021).

This position statement focused on supervision and education for this role and and can found at: **rcn.org.uk/Professional-Development/publications/rcn-rna-cervical-sample-training-uk-pub-009591**

2. Human papillomavirus (HPV)

HPV is a common sexually transmitted infection and the HPV family of viruses contains more than 200 types. Some cause benign skin warts or **papillomas**. Approximately 40 HPV types affect the genital area. They can be subdivided into those that are low risk for cervical cancer (including HPV 6 and 11, which are also responsible for some genital warts) and those which are high risk for cervical cancer (including HPV 16 and 18) are responsible for approximately 70% of cervical cancer (WHO, 2014b).

HPV is a normal consequence of having sexual activity and is common regardless of sexual orientation (sexual orientation is not necessarily indicative of who people have sexual intercourse with; HPV can be passed between same sex partners and heterosexual partners). Anyone who has ever had sexual contact including penetrative, anal or oral sex, genital to genital touching or sharing sex toys (with a man or woman) is at risk of HPV infection. Evidence suggests that around 80% of unvaccinated women who have had sexual intercourse have a lifetime risk of becoming infected with one or more of the sexually transmitted HPV types (WHO Europe, 2017). The infection is often transient and will clear naturally. However, in a minority of women it can become persistent and this may lead to changes to the cells of the cervix or to cervical abnormalities known as **cervical intraepithelial neoplasia** (CIN) – the abnormal growth of precancerous cells in the cervix (see Types of cervical cancer, in section 5 on **page 18**).

Risk factors

While high-risk HPV is the cause of 99.7% of all cervical cancers, factors have been identified that may increase the risk of developing the disease.

- Exposure to **diethylstilbestrol** (DES), a man-made (synthetic) form of oestrogen (a risk to those exposed to it in utero). DES was given to pregnant women between 1945 and 1970 to try and stop them having a miscarriage. Evidence now suggests that daughters of women who took DES during their pregnancy (particularly during the first trimester) are more at risk of getting clear cell adenocarcinoma vaginal

Key facts

- HPV infection is a normal consequence of sex. In most women HPV will not cause long-term harm and will normally be eradicated by the immune system.
- Genital warts do not cause cervical cancer.
- There are no visible physical signs of high-risk HPV; it can only be diagnosed by undergoing specific tests.
- Regular cervical screening (previously known as smear tests) can pick up the changes which could progress to cancer.
- The HPV vaccine programme was introduced in September 2008 for girls aged 12–13 years in school year 8; and for boys in 2019.
- The vaccine does not eradicate HPV risk – none of the HPV vaccines currently available protect against all types of HPV infection. It is important that vaccinated women continue to have regular cervical screening.

cancer. Women who have been exposed to diethylstilbestrol in utero should have an initial colposcopic examination but if no abnormality is detected only routine cervical screening is required as per NHSCSP document 20.
cancerresearchuk.org/about-cancer/vaginal-cancer/risk-causes

- Oestrogen and progestogen contraceptives (10% risk).[1]
- Human immunodeficiency virus type 1 (HIV-1).
- Non-attendance for cervical screenings (smear test).
- Increased exposure to the virus (sexual intercourse/number of sexual partners).
- Those vulnerable to infections or less able to fight them off (by affecting the body's immune response).
- Smoking.
- Not having the HPV vaccine.

(Cancer Research UK, National Cancer Institute (2021), and Jo's Cervical Cancer Trust, 2016)

Cancer Research UK (2023b) suggests that there is a 15% higher risk in women who have had a full-term pregnancy compared with those who have not, and the risk among childbearing women is 64% higher in those with more than seven full-term pregnancies, versus those with one or two. The reasons for these associations are as yet unknown. There is also evidence to suggest that the risk could be as much as 77% higher in those under 17 years of age at their first full-term pregnancy (compared with those aged 25 or older). There is also evidence to suggest that an increased number of sexual partners, and early age of exposure, increase the chances of being exposed to the virus.

The identification of HPV

A positive test for a high-risk HPV does not mean that a woman will go on to develop cervical cancer. It does, however, indicate that she is at greater risk than a woman who tests negative. In most women, the immune system successfully deals with any initial HPV infection. This happens before the HPV can completely incorporate itself into the cell DNA and disrupt cell reproduction, leading to CIN. Regular cervical screening can pick up the changes which could progress to cancer.

Transmission of HPV

Transmission of HPV infection usually takes place as a result of sexual activity through skin-to-skin contact; in the case of genital HPVs this takes place as a result of sexual activities. Some low-risk HPVs, such as genital warts, have also been found where an individual has not had a sexual experience. There is also evidence that high-risk HPV has been detected in non-genital areas such as the mouth and oropharynx (Oral Cancer Foundation, 2018) and the conjunctiva of the eye (Kalogeropoulos and Moschos, 2015). This indicates that HPV is transferred during oral sex and via the hands. It is usually impossible to identify from whom the virus was initially contracted. It is also not known how long it takes for the virus to cause neoplasia (abnormal tissue growth or tumour), but it is thought to take many years.

1 Women should be advised that current use of combined hormonal contraceptives (CHC) for more than five years is associated with a small increased risk of cervical cancer; risk reduces over time after stopping CHC and is no longer increased by about 10 years after stopping **fsrh.org/standards-and-guidance/documents/combined-hormonal-contraception**

HPV and cervical cancer

Around 40 HPV types are transmitted through sexual contact, including the high-risk HPVs implicated in cervical cancer. The majority of genital HPV infections do not cause overt symptoms and are spontaneously cleared by the immune system in a matter of months. It is not known if the immune system clears the virus from the body or the virus remains but causing little harm.

Genital HPV has fewer implications for carcinogenesis in males. HPV is responsible for 5% of cancers worldwide and may manifest via anal, mouth, vaginal and/or vulval carcinoma. Research has shown clusters of cervical and penile cancer in some geographical regions but penile cancer is rare. Cancer Research UK (2023) reports that there were 699 cases of penile cancer reported between 2016-2018, with almost half associated with high risk HPV (Cancer Research UK, 2023c).

Treatment and prevention of HPV

Condoms and dental dams offer a degree of protection against the initial transmission of HPV infections.

However, as HPV is spread by skin-to-skin genital contact, condoms will not provide complete protection. There is no treatment for HPV, but as most infections are cleared within two years by the immune system, it is considered unnecessary to treat a virus which may not cause ill health.

3. Human papillomavirus vaccination

The HPV vaccination programme was introduced in the UK in September 2008 for girls aged 12 to 13 years and in school year 8 (or from the age of 11 in Scotland). The vaccination helps protect against the two most common high-risk types of HPV (HPV 16 and 18) which are responsible for more than 70% of cervical cancers (Cancer Research UK, 2023a). Girls and boys who were not offered the HPV vaccination in school can request it through the NHS up to their 25th birthday. (Jo's Cervical Cancer Trust, 2019)

The NHS currently uses the Gardasil™ 9 vaccine; in addition to protection against types 16 and 18, this vaccine also offers protection against types 6 and 11 which cause 90% of genital warts (Jo's Cervical Cancer Trust, 2017d). Further information can be found at: **nhs.uk/conditions/vaccinations/hpv-human-papillomavirus-vaccine** and **gov.uk/government/publications/human-papillomavirus-hpv-the-green-book-chapter-18a**

Studies into vaccine efficacy are finding HPV vaccines are well tolerated and effective against high-risk HPV (Lu et al., 2011). Whilst the vaccines are 99% effective at preventing genital warts, the Department of Health (DH) recognises that the current vaccines do not offer protection against all types of HPV, although there is evidence of some cross protection (DH, 2014). It is therefore critically important to remind women that HPV vaccination does not replace cervical cancer screening. In countries where the HPV vaccine is introduced, the World Health Organization (WHO) stresses the ongoing need for screening programmes to be developed or strengthened (WHO, 2016).

In the UK, the primary aim of the vaccination programme is to prevent cervical cancer. Some countries (for example USA and Australia (Lee L, Garland SM, 2017)) have commenced universal vaccination programmes for men and women, as emerging evidence demonstrates that the HPV vaccination helps prevent genital cancers in both sexes, plus leads to an increase in population protection against the HPV virus because of the subsequent additional herd immunity impact.

The Joint Committee on Vaccination and Immunisation (JCVI, 2017) advise government about vaccination programmes and has considered the evidence to support universal vaccination. In June 2019, PHE announced that boys aged 12 and 13 years were to be offered the HPV vaccine from September 2019 (PHE, 2019) and includes the one dose schedule, further information can be found at: **gov.uk/government/publications/single-dose-of-hpv-vaccine-jcvi-interim-advice**.

JCVI announced that a universal HPV vaccine programme would be beneficial, based on evidence from around the world and the impact from herd protection form HPV and the rates of cervical cancer and genital warts.

A universal programme for all young people aged 12-13 years (in school year 8) was introduced from September 2019. There is no catch up programme for those older than this but young people who are eligible for vaccination remain so until they are 25 years old.

Girls being vaccinated may also provide a degree of herd immunity as vaccinated women will not pass high-risk HPV to men, offering some protection without needing to be vaccinated themselves.

The JCVI also recognised increasing evidence of the association between HPV infection and non-cervical cancers in men who have sex with men and the effectiveness of offering the vaccine through sexual health and HIV clinics. In England from April 2018, the HPV vaccine has been made available to men aged 45 or younger who have sex with other men in sexual health and HIV clinics. Scotland, Wales and Northern Ireland have previously committed to offering the vaccine in all sexual health and HIV clinics.

4. Cervical screening

Cervical screening is very important; it saves lives – including those women who have been vaccinated. The vaccine does not protect against all types of HPV.

The national cervical cancer screening programme is currently offered to women aged 25 to 64 and uses aprimary HPV test, the examination of cells under a microscope (UK National Screening Committee, 2016b). In England, Scotland and Wales HPV is primary screening, NI will commence this in 2023. The sample is acquired via cervical screening, which is conducted by a doctor or a registered nurse/midwife. In England this role has now been extended to include registered nursing associates (PHE 2019). The test involves taking a small sample of cells from the cervix to check for abnormalities. Since the introduction of the NHS computerised call and recall cervical screening system, the majority of cervical samples are now undertaken in a primary care setting. Wales, England and Scotland all now use HPV primary screening. As part of this move, Scotland and Wales now invite women with previous clear results every five years, regardless of age.

Cervical Screening Wales changed to testing for high-risk types of Human Papillomavirus (HR HPV) as the primary cervical screening test in September 2018. All samples submitted to Welsh laboratories are tested for HR HPV. Further tests and management will depend on the HR HPV result. Women who have no HR HPV detected are issued with a negative result, they do not have cytology.

Women who have HR HPV detected will have cytological assessment of the sample. If the cells appear normal, they are usually advised to have a repeat test after 12 months. If the cells are abnormal, they will be referred for colposcopy.

National Cervical Screening Programme

Throughout this guidance, all national programmes (England, Wales, Scotland and Northern Ireland) are referred to as the National Cervical Screening Programme (NCSP).

The NHS NCSP websites contain contemporary guides, resources and guidance for good practice in cervical screening:

- England
  gov.uk/guidance/cervical-screening-programme-overview
- Wales
  cervicalscreeningwales.wales.nhs.uk/home
- Scotland
  nsd.scot.nhs.uk/services/screening/cervicalscreening
- Northern Ireland
  cancerscreening.hscni.net/1827.htm

The RCN and the UK National Screening Committee (UK NSC) believe that all registered nurses, midwives and nursing associates who undertake cervical screenings should have access to training programmes (and ongoing continuing professional development opportunities), to equip them to undertake cervical screening with confidence and competence. It is also recommended that they familiarise themselves with local polices and understand national programmes. Practitioners should only perform cervical screenings if they have completed a recognised training programme and every registrant has a professional duty to inform their employer if they require training.

- The NCSP in England provides a refresher e-learning resource. It has been designed to meet the three-yearly updated requirements of registrants and is free to access for sample takers working in the programme. The resource is available at: **e-lfh.org.uk/programmes/nhs-screening-programmes**
- In England, the 2023 guidelines from NHS England and Office for Health Improvement and Disparities can be found at: **gov.uk/government/collections/cervical-screening-professional-guidance**
- In Northern Ireland the Public Health Agency NI (2023) standards for education providers on Cervical Cytology can be found at: **cancerscreening.hscni.net/pdf/NI_education_standards_for_cervical_screening_sample_taking_021216.pdf**
- For Scotland further information is available at Cervical Screening Scotland's website: **healthscotland.com/topics/health-topics/screening/cervical.aspx**
- The RCN sexual health education directory resource can be found: **rcn.org.uk/clinical-topics/public-health/sexual-health/sexual-health-education-directory**
- In Wales further information can be found on the cervical screening website at: **https://111.wales.nhs.uk/encyclopaedia/c/article/cervicalscreening**
- In Wales, from 2022, the interval for routine cervical screening is five years rather than three (Welsh Government, 2022).

Generally, screening assessments are undertaken to monitor individual health and are designed to detect disease indicators or factors which may predispose people to disease, often before symptoms appear. However, poor technique in cervical screening may result in a failure to detect pre-cancerous cervical abnormalities.

In 2016, the UK NSC defined screening as:
"...a public health service in which members of a defined population, who do not necessarily perceive they are at risk of, or are already affected by a disease or its complications, are asked a question or offered a test, to identify those individuals who are more likely to be helped than harmed by further tests or treatment to reduce the risk of a disease or its complications." (UK NSC, 2016a)

The UK NSC recommends that:

- the target population to be screened should be large (sufficiently large to enable safe, clinically and cost-effective screening)
- the cohort to be offered screening would regard themselves as not necessarily having symptoms of the disease or to be at risk of the disease (apparently healthy people)

- there should be an effective means of identifying and contacting the whole cohort to be offered screening
- the population should be proactively approached (by written invitation, verbal invitation at the time of the contact with the health service, encouraging attendance for screening) to ensure that those offered screening would be properly informed of the potential benefits and risks in order to help make an informed choice
- the primary purpose of screening should be to offer benefit to the person being screened. If there is no possibility of benefit to the person being offered screening then it should no longer be considered as a screening programme.

  (UK NSC, 2023a)

In order to achieve maximum effect, cervical screening programmes depend on the female population responding to an invitation to be screened (it is note worthy here that trans-men and/or those who are non-binary people with a cervix may not get an invite for screening (if they have changed their gender marker). The success of a screening programme is assessed by the extent to which it reduces overall morbidity and mortality in the general population.

Key findings supporting the UK NSC recommendations

- The HPV vaccination offered to girls aged 12 to 13 strengthens the rationale for primary HPV screening. The vaccination will offer prevention of HPV and result in a falling number of women who remain at risk of [contracting] HPV and developing cervical cancer.
- A primary test for HPV will save more lives by determining a woman's risk earlier. Work to assess extending the screening interval with HPV screening is ongoing, which has already been extended in Wales and Scotland and is about to be in England. This will follow once confirmatory pilot data and other international evidence is reviewed by the UK NSC.
- HPV testing means that if the woman tested does not have high-risk HPV, her chances of developing a cancer within five years are very small.

  (UK NSC HPV recommendation, 2016a)

In 2020-21, 70.2% of those eligible in the 25 to 64 year cohort had last been screened within the required number of years, which represents a drop a drop of 2% from the previous year, when coverage was 72.2% (NHS Digital, 2021). and contemporary concerns suggest there is a declining number attending for screening. There are a range of possible reasons, including access to appointments, misunderstanding about the need to be screened regularly, as well as confusion about the protection offered by vaccination programmes.

All health care practitioners who come in contact with women eligible for the NCSP should be encouraging them to take up their cervical screening opportunities.

2018–19 Percentage of women who underwent cervical screening	
Scotland	68.7% (2020-21)
England	70.9% (2021)
Wales	73.2% (2019)
Northern Ireland	76.43% (2018)

Data from NHS Digital 2021
https://digital.nhs.uk/news/2021/decrease-in-number-of-people-having-cervical-screening-tests-in-2020-21-new-statistics-show

Public Health Wales (2019) Cervical Screening Wales; Annual Statistical Report 2018-19)
https://phw.nhs.wales/news/cervical-screening-wales-annual-report-2018-19-published/#:~:text=The%20latest%20annual%20report%20for,their%20opportunity%20to%20be%20screened

Northern Ireland (year ending March 2018) had a coverage rate of 76.43%
cancerscreening.hscni.net/2162.htm

Scotland statistics can be found at:
https://publichealthscotland.scot/publications/scottish-cervical-screening-programme-statistics/scottish-cervical-screening-programme-statistics-annual-update-to-31-march-2022

Chaperones, privacy, dignity and the environment

The usual professional care and compassion is required by those undertaking the screening, and nurses and midwives need to be mindful of the Nursing and Midwifery Council (NMC) code, with particular reference to accountability and providing informed decision making and consent to procedures for women undergoing screening (NMC, 2018).

All women attending for screening should be offered the option of having a chaperone present during any consultation, examination, treatment or care (which may or may not include physical examination) and their decision should be documented.

For further information on chaperoning read:

- The General Medical Council's (GMC) *Intimate Examinations and Chaperones* (GMC, 2013). Available at: **gmc-uk.org/ethical-guidance/ethical-guidance-for-doctors/intimate-examinations-and-chaperones**
- The RCN's *Genital Examination in Women: a resource for skills development and assessment*, (RCN, 2023a). Available at: **rcn.org.uk/publications**

The environment should feel private, warm, secure and comfortable and should contain changing facilities. The examination should take place in a closed room that cannot be entered while the examination is in progress. If possible, the examination couch should be located so that the woman faces away from the door. Alternatively, privacy can be ensured by a screen to block the door entrance (or by locking the door).

Jo's Cervical Cancer Trust has found that women do feel embarrassed and fearful of the test and, as a health professional, it is therefore essential to provide a safe space so that women feel comfortable and empowered. Some 72% of the 25-to 29-year-olds surveyed do not feel comfortable getting undressed in front of doctors or nurses, with over a quarter (26.7%) feeling too embarrassed to attend cervical screening. Two thirds (70%) of young women do not think cervical screening reduces a woman's risk of cervical cancer (Jo's Cervical Cancer Trust, 2017b).

Further considerations, including safeguarding issues

It is important to recognise that cervical screening is one of the few occasions when a woman encounters a health care professional in a relatively private environment. A health care professional should be alert and sensitive to any issues that the woman may wish to discuss and all advice and information should be accurate, up to date and evidence based.

Be prepared for questions covering various women's health issues, including those related to:

- HPV, cervical cancer and the HPV vaccine
- a vaginal discharge or abnormal bleeding
- menopausal symptoms
- sexual problems they and their partner are having.

Health care professionals should be sensitive, listen and, where appropriate, advise the woman to undertake further tests or refer her to an appropriate professional or service. They also need to be aware that some women assume that sexually transmitted infections will be screened for.

All health care professionals involved in caring for women should understand that domestic abuse is not uncommon. Should a woman disclose any abusive situation or history during a consultation, the health care professional must be sufficiently prepared to provide support and relevant information (including details of local or national advice centres), and record her concerns/disclosure.

Any violence against women may be exposed or disclosed during an assessment, such as female genital mutilation (FGM) or issues related to modern slavery/trafficking. Legal requirements around reporting FGM (RCN, 2023b) must be followed closely.

Any of these disclosures may constitute safeguarding processes being instigated, which the health professional should be fully prepared to undertake with sensitivity and professional knowledge and understanding.

Vulnerable women – further resources

Royal College of Nursing

Professional resources with links to websites and organisations providing relevant information and support to victims of:

Domestic abuse
rcn.org.uk/clinical-topics/domestic-violence-and-abuse

Handy pocket guide: *Domestic abuse: RCN guide for nurses and midwives to support those affected by domestic abuse* is available at: **rcn.org.uk/Professional-Development/publications/rcn-support-for-domestic-abuse-uk-pub-009301**

Female genital mutilation
www.rcn.org.uk/clinical-topics/female-genital-mutilation

Female genital mutilation: An RCN resource for nursing and midwifery practice (RCN, 2023b) is available at:**rcn.org.uk/publications**

Modern slavery
rcn.org.uk/clinical-topics/modern-slavery

Modern slavery: RCN guide for nurses and midwives (RCN, 2017), available at: **rcn.org.uk/Professional-Development/publications/rcn-modern-slavery-and-trafficking-uk-pub-009300**

Safeguarding
rcn.org.uk/clinical-topics/safeguarding

Women's Aid and Refuge nationaldomesticviolencehelpline.org.uk

Women's Aid Federation of England womensaid.org.uk

Safer Wales Ltd saferwales.com

Safeguarding in Northern Ireland safeguardingni.org

Adult support and protection - Scotland www2.gov.scot/Topics/Health/Support-Social-Care/Adult-Support-Protection

Department of Health

Domestic abuse
Responding to domestic abuse. A resource for health professionals (DH, 2017), available at: **gov.uk/government/uploads/system/uploads/attachment_data/file/597435/DometicAbuseGuidance.pdf**

Jo's Cervical Cancer Trust

jostrust.org.uk/professionals/health-professionals/nurse-gp/supporting-survivors-sexual-violence

There are other vulnerable groups of women to be aware of, particularly those whose lifestyle might make it difficult to access regular screening. These include women who are homeless, those with no fixed residence, Romany/gypsy or those who may be experiencing chaotic life events/environments which preclude them from attending a clinic or understanding the importance of regular screening checks.

In 2019, Jo's Cervical Cancer Trust also highlighted the specific needs some women with physical disabilities may have outlining key recommendation to help address the issues identified (Jo's Cervical Cancer Trust, 2019).

It is equally important to be aware of women who may have learning difficulties or mental health issues, as well as physical disabilities which may require particular consideration.

In addition, when caring for women under the age of 25 it is important to convey the rational for not routinely screening, as this is a recurring concern among some young women (DH, 2010).

The consultation

First, confirm the woman's perception and understanding of the screening test.

1. Explain the reason for the test and confirm if the test is a call or recall.
2. Outline potential results of the test, including the pathways of care.
3. Explain the risk of HPV infection and potential consequences.
4. Discuss any concerns the woman may have (for example, a previous abnormal cervical screening result or treatment).
5. Enquire about symptoms of post-coital bleeding, abnormal vaginal discharge or dyspareunia, which may be significant and need further investigation or referral.
6. Complete the sample request form or print the National Programme: Open Exeter (NHS England) form or equivalent, in accordance with local policy.
7. Encourage the woman to ask any questions or clarify any information provided.
8. Confirm the woman agrees to the procedure as described.
9. Affirm informed decision making and consent, and again offer the woman the opportunity to decline the examination, ensuring she understands her right to withdraw consent at any time and request the procedure be stopped.
10. Record verbal consent and, if local policy requires, obtain written consent.
11. Reconsider the need for a chaperone and, if the woman declines, record this.
12. Apply correct procedures for your local method of liquid-based cytology (LBC).

When explaining the examination procedure, ensure the language used is easily understood and avoid unnecessary jargon. If there are communication difficulties, it may be necessary to consider postponement of the test until an appropriately trained independent interpreter is available.

Speculum examination in pregnant women

Routine cervical cytology is not recommended in pregnant women, as interpretation of the sample can be difficult, but should be deferred until 12 weeks post-partum. Public Health England (2016). Pregnant women should be reassured that clinically indicated speculum examinations, and tests for sexually transmitted infections, can be safely carried out during pregnancy. It is also advisable to delay cervical screening if the person:

- is menstruating.
- is less than 12 weeks post-partum.
- is less than 12 weeks after a termination of pregnancy, or miscarriage.

(NICE, 2022).

Where clinically indicated, the examination of a pregnant woman with a speculum is considered low risk and can be performed safely by a nurse who has received training on how to perform this examination. Swabs for sexually transmitted infections can be taken from pregnant women, without the need for a speculum examination, using a self-taken vulvovaginal swab (BASHH 2019) (Faculty of Sexual and Reproductive Health Clinical Standards Committee 2019).

It is also important to remind women to attend post pregnancy, and especially after a traumatic birth, which may be more difficult for some women.

Preparing for the test

Training must cover the practical competences of taking a cervical sample. The RCN's *Genital Examination in Women: a resource for skills development and assessment* (RCN, 2023a) provides further details on this skill. The sample taker must have achieved competence in:

- positioning the woman to assist in comfort and visualisation of the cervix
- selection, use and disposal of appropriate specula
- identification of the transformation zone
- selection and use of a sampler to obtain a representative sample.

Equipment required

- Height-adjustable couch.
- Angle-poised light source, preferably free standing.
- An appropriately stocked room to avoid delaying the procedure.
- Trolley with appropriately sized speculum, sampling device, paper cover and gloves.
- Appropriately labelled vial and completed request form.

To avoid the examination being disrupted or causing additional delays, it is important to have any potential additional equipment readily available. This includes samplers to undertake testing for infection (for example, microbiological and chlamydia swabs), alternative samplers to ensure the whole cervix is sampled, and any other additional equipment that may be required (for example, latex-free products).

Examination

Request that the woman remove her underclothes. A paper sheet to preserve modesty should be provided to cover the full lower torso. Ensure the woman is ready to undergo the assessment (see Figure 1).

During examination of the external genitalia, abnormalities such as **candida albicans, lichen sclerosis**, vulval lesions or signs of female genital mutilation should be noted. Additionally, during the internal examination, note any signs of abnormal vaginal discharge or infection. These symptoms will need to be discussed with the woman, recorded in her notes and appropriate action taken or a referral made.

- Offer the woman the opportunity to empty her bladder before commencing the examination; and privacy to change.
- If necessary, offer assistance onto the couch.
- Confirm the woman may request to stop the examination at any point.
- Advise the examination may be uncomfortable but should not be painful.
- Explain each phase of the test before proceeding.
- Offer to demonstrate the speculum and explain which part of the speculum will be inserted into the vagina if appropriate.
- Encourage the woman to lie on her back (most common) or left lateral position, to assist in comfort and visualisation of the cervix.
- Explain that spotting, following a cervical sample, is not unusual.
- Position the trolley at the bottom of the couch, the couch at an appropriate height for working and the light at an angle which will illuminate the vagina (ensuring the light poses no threat to the woman).
- Wash hands and wear gloves.
- Warm the speculum, as necessary with warm water (avoid lubricants, unless clinically indicated – however, this should be used sparingly and be an approved water-based gel (as agreed by the local cyto screening laboratory).
- Ask the woman to raise the modesty sheet to allow access.
- Ensure that the blades of the speculum are closed before commencing.
- Proceed to gently insert the speculum into the vagina, aiming for the posterior vault.
- Open the blades approximately 5mm and gently, but seamlessly, guide the speculum until the anterior lip of the cervix can be seen (appears as a smooth crescent).

- Open the speculum to expose the full cervix.
- Avoid scraping the cervix with the speculum as this may cause contact bleeding.
- The speculum need only be opened wide enough to reveal the cervix.
- It is not necessary to overexpose the cervix and vagina as this may cause discomfort.
- Once the entire cervix is visualised, secure the speculum in place.
- Inspect the cervix; note the appearance and colour of the cervix, amount and colour of vaginal secretions and the location of the transformation zone.
- Obtain the sample using the appropriate sampling tool (follow the manufacturer's instruction on correct use), ensuring all the transformation zone is sampled.
- Ensure sample is placed in the LBC vial as per protocol.
- Remove the speculum from vagina, explaining that it may be necessary to open the speculum slightly to release the cervix before removing the speculum.
- To ensure modesty, make sure the woman is covered, remove the trolley and advise the woman to dress.
- Ensure safe disposal of all equipment and adhere to local health and safety guidelines.

The cervix visual assessment guide

A visual educational tool developed by health professionals specialising in colposcopy and gynaecology by Roberts, A, a Specialist Nurse Colposcopist at South Tees Hospitals NHS Foundation Trust can be found at:
fabnhsstuff.net/fab-stuff/cervix-visual-assessment-guide

Figure 1:
Procedure for a cervical screening assessment

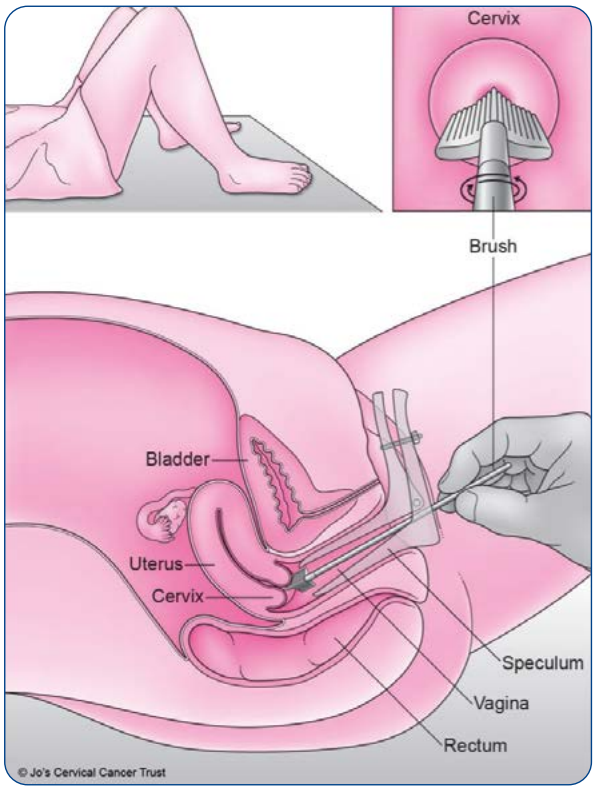

Diagram courtesy of
Jo's Cervical Cancer Trust (2018)

Difficult examinations

If it is not possible to visualise the cervix:

- ask the woman if she has been advised on the position of her cervix at previous examinations
- consider repositioning the woman (lateral position), raising the buttocks off the couch using a pillow, turning the speculum so the locking ratchet faces up or down or using a sheath to support the vaginal walls.
- request assistance from another trained sample taker.

Bi-manual examination is not necessary when undertaking cervical screening and is not a prerequisite for the sample taker. Digital examination may only be necessary to assist in the location of the cervix and not as a means of physical assessment that will aid diagnosis.

If it is still not possible to visualise the cervix then the procedure should be abandoned, and referral made to a colposcopy clinic.

Following the examination

Ensure that the woman knows how and when she will receive her results. Explain again what will happen if a result is abnormal and how her care will progress from here. Mention the possibility of vaginal bleeding and short-term discomfort, both of which should be minimal and temporary (and who to contact if concerned). Record keeping must be accurate and complete; the sample request form is an essential part of the process to prevent an inadequate report due to clerical omission.

Should additional tests or swabs be indicated, the nature of these should be fully discussed with the woman and arrangements made for her to receive these results, together with any follow-up treatment that may be needed.

The health care practitioner is responsible for:

- the understanding and interpretation of results
- the communication of results to the woman
- making appropriate follow-up arrangements
- monitoring onward referral to secondary services
- implementing the failsafe recommendations for non-responders, including understanding the national guidance on failsafe actions (NHS Cancer Screening Programmes, 2004; Public Health England, 2016).

Jo's Cervical Cancer Trust has further information on understanding screening results and abnormal cells: **jostrust.org.uk/information/cervical-screening/results**

Monitoring personal practice and audit

Health care practitioners should always reflect on their practice and use every opportunity to learn and develop; regular and complete auditing of practice is considered obligatory. Individual national cervical screening programmes will have their own requirements regarding audit, and sample takers should consult their own regional co-ordinators.

This may include:

- the number and rate of unsatisfactory samples
- percentage of abnormal results
- monitoring population coverage and uptake
- rejected samples or samples taken out of the programme and incidents.

Systems should be in place at a local level to provide continuous audit and regular update training. A named person, within each practice/clinic where cervical samples are taken, should be responsible for an overview of the screening programme. This should include the regular availability of results' tables to each cervical screening taker within the practice.

Where results are consistently different from the local laboratory or national average, discussion with the laboratory or national co-ordinator should be mandatory, and retraining made available. Laboratories should report regularly, and in detail, on the quality of all sample takers' work. New sample takers should have feedback from the laboratory or regional co-ordinator on the quality of their first 15 cervical screenings (or the nationally agreed number). Experienced sample takers should also ensure objective peer review and critical appraisal of their service regularly, and at least once every three years.

5. Cervical cancer

Cervical cancer develops in a woman's cervix (the entrance to the uterus) and often has no early stage symptoms. The most common is unusual vaginal bleeding, which can occur after sex, in between periods or after the menopause. The Department of Health provides information on unusual vaginal bleeding for under 25s (DH, 2010).

Physiologically, the cells lining the surface of the cervix undergo a series of changes and, in some cases, the abnormal/precancerous cells may become cancerous. Nevertheless, cell changes in the cervix can be detected early and, using cervical screening and treatment, can reduce the risk of cervical cancer developing.

In 2016-18, there were 3,197 cases of cervical cancer reported, with 853 deaths from cervical cancer reported between 2017-2019 (1% of all cancer deaths in females in the UK) (Cancer Research UK, 2023a).

Types of cervical cancer

There are two main types of cervical cancer:

1. squamous cell carcinoma (SCC)
2. adenocarcinoma.

1. Squamous cell carcinoma (SCC)

SCC is the most common and accounts for approximately 90-95% of all cervical cancers. The precursor lesions for SCC are identified as dyskaryosis (cell change) through cervical screening and through colposcopy and biopsy as **cervical intraepithelial neoplasia** (CIN) – the abnormal growth of precancerous cells in the cervix (also referred to as CIN and CGIN – cervical glandular intraepithelial neoplasia) (Jo's Cervical Cancer Trust, 2017).

There are three distinct CIN classifications or grades for categorising abnormal (precancerous) cell growth:

- CIN 1 – mild dyskaryosis
- CIN 2 – moderate dysplasia
- CIN 3 – severe dyskaryosis.

In most women it takes many years to progress from a normal cervix to CIN 3.

The challenge is in identifying those women who have the potential to progress to cancer and those who do not. As a result, all women with CIN are treated as if they have the potential to develop cervical cancer.

2. Adenocarcinoma

Adenocarcinoma is far more difficult to detect at a pre-cancerous stage. The move to HPV primary testing is likely to be more sensitive at detecting adenocarcinoma and its precursor, CGIN. Cervical screening testing is unreliable at picking up the glandular changes that indicate development of an adenocarcinoma.

Further testing may include:

- a pelvic examination carried out under general anaesthetic
- blood tests to assess the state of the liver, kidneys and bone marrow
- computerised tomography (CT) scan
- magnetic resonance imaging (MRI) scan
- chest X-ray
- positive emission tomography (PET) scan.

Colposcopy

Staging

Staging is a measurement of how far the cancer has spread. The higher the stage, the further the cancer has spread. The staging for cervical cancer is as follows.

- **Stage 0** (pre-cancer) – there are no cancerous cells in the cervix, but there are biological changes that could trigger cancer in the future; this is called cervical intraepithelial neoplasia (CIN) or carcinoma in situ (CIS).
- **Stage 1** – the cancer is still contained inside the cervix.
- **Stage 2** – the cancer has spread outside of the cervix into the surrounding tissue but hasn't reached the tissues lining the pelvis (pelvic wall) or the lower part of the vagina.
- **Stage 3** – the cancer has spread into the lower section of the vagina and/or into the pelvic wall.
- **Stage 4** – the cancer has spread into the bowel, bladder or other organs, such as the lungs (NHS Choices, 2017).

Figure 2: Performing a colposcopy

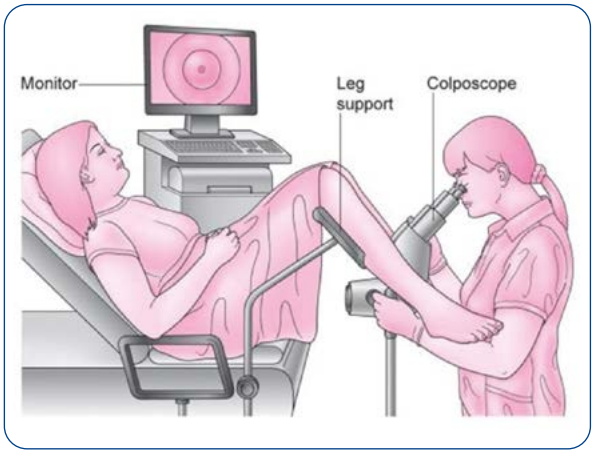

Diagram courtesy of
Jo's Cervical Cancer Trust (2018)

A colposcopy is a detailed examination of the cervix with a microscope, following the application of acetic acid and/or lugol's iodine solution. The microscope may be linked to a camera allowing the woman to view what the colposcopist (a registered doctor or nurse trained to perform colposcopy) sees. It also means the images can be filed in the woman's health care records for future reference (see Figure 2).

Prior to the examination it is important that the colposcopist takes time to explain the procedure to the woman and ensures she understands what is going to take place. Even if she is returning for treatment, a full explanation needs to be provided each time.

Following the consultation, the woman should be shown to a private area to prepare for the examination and offered the opportunity to use a bathroom. Questions may be asked at this point, needing varying levels of detail and explanation throughout the examination. When ready, the woman will be shown to the examination room and offered assistance to help attain the correct positioning on the couch, maintaining privacy and dignity at all times.

In some cases, a minor operation called a large loop excision of the transformation zone (or LLETZ) may be carried out. This usually happens in the colposcopy clinic under a local anaesthetic, but sometimes requires a general anaesthetic. A small section of the cervix is removed with a wire loop. This can then be examined under a microscope for pre-cancerous or cancerous cells.

It is important to reassure the woman, where appropriate, and remind her that she may have vaginal bleeding and/or period-like pains for up to four weeks after the procedure.

Histological confirmation less than CIN 1 can adjust the woman's recall to every three years. However, some women may not be comfortable with this. They may have had abnormalities in the past and a recall every six months has been the norm. The NHS Cervical Screening Programme (NHSCSP) has proposed a new pathway based on current best evidence and this should be explained to the woman. They can also be directed to local or national literature/websites for further information.

Treatment options

Treatment for for abnormal cells (cell changes) and cervical cancer will depend on the extent of the disease spread and the prognosis is better the earlier it is diagnosed. However, cervical cancer can be fatal as identified by Cancer Research UK, with 890 deaths recorded in 2014 (Cancer Research UK, 2014b).

The prospect of a successful treatment is higher for cervical cancer diagnosed at an early stage, although the success rates do decrease the further the cancer has spread. The preferred treatment option for removing abnormal cervical cells continues to be the large loop excision of the transformation zone (LLETZ) to remove the area affected. See Figure 3. Laser or cryotherapy may also be used and, dependent on the management required, treatment may include radiotherapy and/or chemotherapy.

Other treatment methods may include cone biopsy and, in rare cases, hysterectomy (or removal of the cervix **trachelectomy** if fertility is a consideration).

Cell removal is preferred over cell destruction as this facilitates histological examination of the area. Destructive techniques are still used widely including: **laser therapy**, **cold coagulation** and **cryotherapy**.

Figure 3:
Diagrammatic representation of use of LLETZ

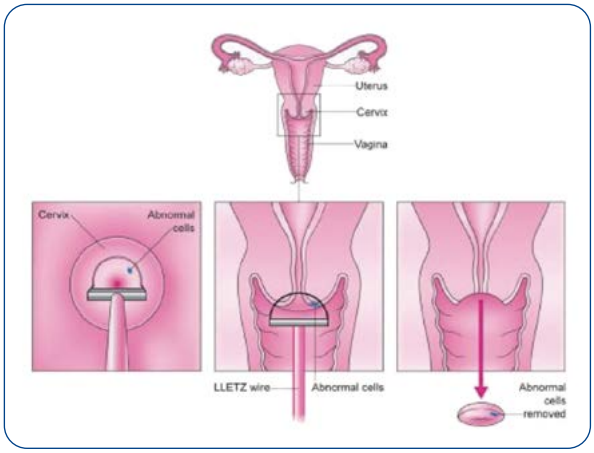

Diagram courtesy of
Jo's Cervical Cancer Trust (2018

Test of cure

This term is used to describe cervical screening where all women who have been treated for CIN, have a cytology test six months after their treatment. In England, Wales and Scotland only samples where high risk HPV is detected will have cytological examination. Women who then have a negative high-risk HPV result will return to a routine recall. Women who are positive for high-risk HPV will return to colposcopy. In Northern Ireland, first the sample will have a cytological examination to check for abnormal cell changes. If there are no cell changes, or mild or low grade cell changes (but no high risk HPV) then a person will be invited for routine recall. If there are mild or low grade cell changes (and a person is positive for high risk HPV) or if there are high grade cell changes, a person will be invited back to colposcopy.

Usually, treatments are very effective at removing the detected abnormality, with most women only needing one treatment before returning to normal cervical screening results.

It is essential to utilise a robust failsafe system (Tidy, 2016), ensuring that all women receive their results and a treatment plan. Women should always be offered information in a format suitable to their needs, ensuring a comprehensive understanding of the process.

6. Conclusion

All people with a cervix, whether vaccinated or not, should undergo cervical screening. Increasing awareness among men and women about the risks of HPV, and how regular screening can make a positive difference to health, is a key public health message which should be reinforced at every opportunity.

It is crucial that registered practising health care professionals who perform cervical screening are competent and confident. They should actively engage a woman's participation and confidence in the screening programme, as it will offer peace of mind and a positive public health outlook. Prior to the sample being taken, women should be fully informed of the reason for the procedure and the implications for their future health and wellbeing. A screening test should be taken in such a way as to provide an adequate sample for assessment, with the minimum of distress or discomfort.

The importance of action, regular screening and effective follow up cannot be over emphasised – early diagnosis and treatment saves lives, plus reduces stress and anxiety for the woman and her family. Access to services should be local and easily accessible to reduce service barriers that may restrict take-up to the national screening programme.

Registered health care professionals should be adequately prepared and trained to carry out an effective screening programme and ensure a high-quality service for women. Particular attention should be given to ensuring that women who have difficulty accessing the service are identified and invited for screening. It may be helpful to liaise with local groups and service providers to reach those who traditionally do not seek screening.

7. Glossary

Candida albicans, a type of yeast that is a common member of the human gut flora, often shortly referred to as thrush, candidiasis or candida.

Chlamydia, a sexually transmitted infection caused by the bacterium chlamydia trachomatis.

Cold coagulation, a procedure to treat women with an abnormality on their cervix by destroying the abnormal cells through a heated probe.

Cryotherapy, a treatment that uses extreme cold to destroy cancer cells.

Diethylstilbestrol (DES), a man-made (synthetic) form of oestrogen. DES was given to pregnant women between 1945 and 1970 to try and stop them having a miscarriage. Evidence now suggest that daughters of women who took DES during their pregnancy (particularly during the first trimester) are more at risk of getting clear cell adenocarcinoma vaginal cancer. **www.cancerresearchuk.org/about-cancer/vaginal-cancer/risk-causes**

Dyspareunia, difficult or painful sexual intercourse.

Herd immunity, (also called herd effect, community immunity, population immunity or social immunity) is a form of indirect protection from infectious disease that occurs when a large percentage of a population has become immune to an infection, thereby providing a measure of protection for individuals who are not immune.

Laser therapy, a treatment that uses intense, narrow beams of light to cut and destroy tissue, such as cancer tissue.

Lichen sclerosis, a long-term skin condition that mainly affects the skin of the genitals. It usually causes itching and white patches to appear on the affected skin.

Oncogenic, causing development of a tumour or tumours.

Papillomas, a small wart-like growth on the skin or on a mucous membrane, derived from the epidermis and usually benign.

Trachelectomy, in this type of surgery the cervix and the upper part of the vagina are removed, but the rest of the uterus (womb) is left in place.

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gov.uk/government/groups/uk-national-screening-committee-uk-nsc

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RCN quality assurance

Publication

This is an RCN practice guidance. Practice guidance are evidence-based consensus documents, used to guide decisions about appropriate care of an individual, family or population in a specific context.

Description

This updated edition includes guidance for registered nurses working in a range of health care settings, in particular those involved in women's health, cervical screening and public health. It focuses on an overview of HPV (including the current vaccination recommendations), the national cervical screening programme, information about colposcopy and some key facts on cervical cancer.

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The Nine Quality Standards

This publication has met the nine quality standards of the quality framework for RCN professional publications. For more information, or to request further details on how the nine quality standards have been met in relation to this particular professional publication, please contact: **publications.feedback@rcn.org.uk**

Evaluation

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