

Cervical Screening Management Recommendations Explanatory Guide

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Introduction

CervicalCheck – The National Cervical Screening Programme provides free cervical smear tests to eligible women aged between 25 and 60 years. From 2015 CervicalCheck provides free testing for high risk human papilloma virus (hrHPV) types in order to triage ASCUS and LSIL smear test results for primary care.

HPV triage will be carried out in programme laboratories on the residual smear test sample. It involves testing only those smear tests reported as either ASCUS or LSIL for the presence of hrHPV. The addition of HPV testing greatly increases sensitivity compared to cytology alone. It allows women at very low risk of CIN (HPV negative [not detected]) to return to routine re-call, whereas women who test positive for the presence of hrHPV are referred to colposcopy to determine if treatment or follow-up is needed.

In CervicalCheck the result of every eligible smear test is accompanied by a management recommendation. Management recommendations are determined by the cytology result, the hrHPV result, the clinical history and where applicable the colposcopy discharge recommendation available to the laboratory.

This document describes the management recommendations provided by the pathology laboratory.

Smear takers are responsible for checking that the management recommendation associated with the cytology result and the hrHPV result, where applicable, is correct with regard to the woman's screening history.

Terminology

Cytology

CervicalCheck uses the Bethesda classification for cytology.

The Bethesda classification uses a terminology of squamous intraepithelial lesions (SIL). These are divided into:

- (i) **Low grade SIL (LSIL)** which includes HPV-associated cellular changes and mild dyskaryosis*
- (ii) **High grade SIL (HSIL)** which includes moderate dyskaryosis*, severe dyskaryosis* and carcinoma in situ
- (iii) **Query squamous cell carcinoma**

* Dyskaryosis is identified in cells as nuclear changes. Laboratory reports equate mild dyskaryosis with LSIL and moderate and severe dyskaryosis with HSIL

Cytological changes in squamous cells which are not normal and do not fulfil the criteria for SIL are classed as atypical squamous cells (ASC). In a review of Bethesda in 2001 this category was subdivided into:

- (i) **ASC-US** 'Atypical Squamous Cells of Undetermined Significance'
- (ii) **ASC-H** 'Atypical Squamous Cells of Undetermined Significance but high grade changes cannot be ruled out'.

Glandular cell abnormalities are less common and are classified as:

- (i) **AGC** 'Atypical Glandular Cells' The glandular cell type is specified as endocervical, endometrial, or glandular cells not otherwise specified
- (ii) **AGC Favour Neoplastic** 'Atypical Glandular Cells Favour Neoplastic Process' The glandular cell type is specified as endocervical or not otherwise specified
- (iii) **Endocervical carcinoma in situ (AIS)**
- (iv) **Query glandular neoplasia**

HPV testing

HPV is the human papilloma virus. There are over 100 different types of HPV. Most are low risk and do not cause changes to cervical cells. There are approximately 14 subtypes that are known to cause cervical cell changes. Only these subtypes - identified by numbers as 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, 68 - are included in the CervicalCheck HPV test (called a 'high risk HPV' or hrHPV test). Smear tests reported as ASCUS or LSIL will have a hrHPV test performed on the residual fluid left in the container after the cytology smear has been prepared. Possible results include:

(i) hrHPV positive/detected

One or more of the 14 HPV subtypes has been detected in the smear sample.

(ii) hrHPV negative/not detected

None of the 14 HPV subtypes has been detected in the smear sample.

(iii) hrHPV equivocal/indeterminate result

Some samples give an equivocal result where it is not clear whether there are any of the 14 subtypes present or not.

(iv) Test not processed

There may be insufficient volume of sample left in the vial after preparing the cytology slide to perform hrHPV testing or the sample may be contaminated (eg. with blood.)

Management recommendation table

It is important to note that for women post-colposcopy, the HPV triage result supersedes the original discharge recommendation from colposcopy when the discharge recommendation pre-dates the introduction of HPV triage (April 2015).

Result		Recommendation	
P1	Unsatisfactory/Inadequate	R6	If this is the first or second unsatisfactory smear test result - repeat no earlier than 3 months. Note: If a woman has previously been treated for a glandular abnormality and there are no TZ cells present in the smear test sample – report as unsatisfactory (repeat no earlier than three months).
		R7	If this is the third consecutive unsatisfactory smear test result – refer to colposcopy.
		R7	If the woman has had any three smear test results that are abnormal in the previous 10 years and has not had a colposcopy – refer to colposcopy.
P2	Negative for intraepithelial lesion or malignancy/no abnormality detected (NAD) - last result was routine re-call, within previous 10 years, and woman will be over screening age when next smear test is due	R1	No further programme screening required.
P2	Negative for intraepithelial lesion or malignancy/no abnormality detected (NAD)	R2a	If the woman is 25+ and this is the first programme smear test - repeat in 3 years.
		R2a	If the woman is between 25 and 44 years and has negative screening history or has completed follow up regime post colposcopy - repeat in 3 years.
		R2b	If the woman is over 45 years and this is the second successive routine recall recommendation, - repeat in 5 years.
P2	Negative (NAD) for intraepithelial lesion or malignancy - HIV+ patients/ post transplant patients/renal dialysis patients/DES exposed patients/ preorgan transport workup.	R3	Annual smear tests are required (from age 20).
P2	Negative for intra intraepithelial lesion or malignancy/No abnormality detected (NAD) - follow up smear tests where no attendance at colposcopy	R3	If this is the first smear test following a result of ASCUS or LSIL and the woman has not had HPV testing performed – repeat in 12 months.

Result		Recommendation	
P2	Negative for intra intraepithelial lesion or malignancy/No abnormality detected (NAD) - follow up smear tests where no attendance at colposcopy	R2a	If this is the second smear test following a result of ASCUS or LSIL and the woman has not had HPV testing performed – return to routine re-call. This will be 3 years regardless of age.
P2	Negative for intra intraepithelial lesion or malignancy/No abnormality detected (NAD) - follow up smear tests post colposcopy discharge		Follow up regime is determined by the discharge recommended by colposcopy.
P2	Negative for intra intraepithelial lesion or malignancy/No abnormality detected (NAD) - follow up post hysterectomy		<ul style="list-style-type: none"> • for women on routine re-call for at least 10 years prior to hysterectomy and no CIN in the sample at hysterectomy, no vault cytology is required. • for women with less than 10 years' routine re-call and no CIN at hysterectomy, a sample should be taken from the vault 6 months after surgery and there should be no further cytology follow up if it is negative (NAD). • for women with completely excised CIN at hysterectomy, a sample should be taken from the vault at 6, 12 and 18 months after surgery and there should be no further cytology follow up if all are negative (NAD). • for women with incomplete or uncertain excision of CIN, follow up should be conducted as if the cervix were still in situ. <p>Note: HPV testing may be performed post hysterectomy in colposcopy. In these cases follow up regime is determined by the discharge recommended by colposcopy.</p>
P2	Negative for intra intraepithelial lesion or malignancy/No abnormality detected (NAD) - suspicious cervix recorded on cytology form	R7	Refer to colposcopy.
P3a	ASCUS - HPV triage hrHPV not detected/negative	R1	No further programme screening.

Result		Recommendation	
P3a	ASCUS - HPV triage hrHPV not detected/negative	R2a	If the woman is 25+ and this is the first programme smear test - repeat in 3 years.
		R2a	If the woman is between 25 and 44 years – repeat in 3 years.
		R2b	If the woman is over 45 years and this is the second successive routine recall recommendation - repeat in 5 years.
P3a	ASCUS - HIV+ patients/ post transplant patients/renal dialysis patients/DES exposed patients/ preorgan transport workup	R3	Annual smear tests are required (from age 20).
P3a	ASCUS - HPV triage hrHPV indeterminate/equivocal	R7	Refer to colposcopy.
P3a	ASCUS - HPV triage hrHPV test not processed	R7	Refer to colposcopy.
P3a	ASCUS - HPV triage hrHPV detected/ positive	R7	Refer to colposcopy.
P4	LSIL - HPV triage hrHPV not detected/negative	R1	No further programme screening.
P4	LSIL - HPV triage hrHPV not detected/ negative	R2a	If the woman is 25+ and this is the first programme smear test - repeat in 3 years.
		R2a	If the woman is between 25 and 44 years – repeat in 3 years.
		R2b	If the woman is over 45 years and this is the second successive routine recall recommendation - repeat in 5 years.
P4	LSIL - HIV+ patients/ post transplant patients/renal dialysis patients/DES exposed patients/preorgan transport workup	R3	Annual smear tests are required (from age 20).
P4	LSIL - HPV triage hrHPV indeterminate/equivocal	R7	Refer to colposcopy.
P4	LSIL - HPV triage hrHPV test not processed	R7	Refer to colposcopy.
P4	LSIL - HPV triage hrHPV detected/ positive	R7	Refer to colposcopy.

Result		Recommendation	
P3b	ASC-H Atypical Squamous Cells cannot exclude high grade	R7	Refer to colposcopy.
P5/6	HSIL - High Grade Squamous Intraepithelial Lesion	R7	Refer to colposcopy.
P7	Query Squamous Cell Carcinoma	R7	Refer to colposcopy.
P8a	AGC - Atypical Glandular Cells	R7	Refer to colposcopy.
P8b	AGC - Atypical glandular cells favour neoplastic	R7	Refer to colposcopy.
P9	Query Glandular Neoplasia	R7	Refer to colposcopy.
P10	Broken/Damaged/Expired Vial	R6	Repeat no earlier than three months.
Endometrial cells in a woman over 40 (out of cycle)		Refer for gynaecological assessment.	
Clinical details of abnormal bleeding (PCB/IMB/PMB)		Refer for gynaecological assessment.	

Reference list

- (1) Herbert A, Bergeron C, Wiener H, Schenck U, Klinkhamer P, Bulten J et al. European guidelines for quality assurance in cervical cancer screening: recommendations for cervical cytology terminology. *Cytopathology* 2007; 18(4):213-219.
- (2) NHS CSP Publication No. 20: Colposcopy and Programme Management Guidelines for the NHS Cervical Screening Programme.
- (3) *British Journal of Cancer* (2011) 105, 983–988. doi:10.1038/bjc.2011.326
www.bjcancer.com. Published online 6 September 2011

Code	Cytology Pattern (Bethesda Terminology)	HPV Test Result (where applicable)	Code	Management Recommendation	Rationale/ Recommendation
P1	Unsatisfactory/Inadequate	N/A	R6	3 month repeat	First or second unsatisfactory smear test result
			R7	Refer to colposcopy	Woman previously treated for glandular abnormality & no TZ cells present 3 consecutive unsatisfactory smear test results
P2	Negative/MAD	N/A	R1	No further screening required	Any 3 smear test results that are abnormal in previous 10 years & woman has not had colposcopy
			R2a	3 year re-call	Screening completed - woman is over 61 years or will be over 61 years when next smear test is due
			R2b	5 year re-call	No history OR completed follow-up regime post colposcopy OR routine re-call screening history (< 45 years) OR second consecutive negative smear following result of ASCUS or LSIL and woman has not had HPV testing performed
			R3	1 year re-call	Second successive routine re-call recommendation, woman > = 45 years
			R4	6 month repeat	If advised annual smear tests at colposcopy discharge
P3a or P4	ASCUS or LSIL	Not detected/negative	R7	Refer to colposcopy	If this is the first smear test following a result of ASCUS or LSIL and woman has not had HPV testing performed If HIV+/post organ transplant/DES exposed/renal dialysis
			R1	No further screening required	Following hysterectomy and CIN is completely excised (follow discharge recommendation)
			R3	1 year re-call	If advised bi-annual smear tests at colposcopy discharge
			R2a	3 year re-call	Screening completed - woman is over 61 years or will be over 61 years when next smear test is due
			R2b	5 year re-call	Any ASCUS or LSIL result in combination with hrHPV not detected result and woman is HIV+/post organ transplant/DES exposed/renal dialysis
P3b or P5 or P6	ASC-H HSIL	Not detected/negative	R7	Refer to colposcopy	Any ASCUS or LSIL result in combination with hrHPV not detected result and woman is under 45 years
			R7	Refer to colposcopy	Any ASCUS or LSIL result in combination with hrHPV not detected result and woman is over 45 years (if this is second successive routine re-call recommendation)
P7	Query squamous cell carcinoma	Detected/positive	R7	Refer to colposcopy	Any ASCUS or LSIL result in combination with hrHPV detected result
			R7	Refer to colposcopy	Any ASCUS or LSIL result where the HPV test was either equivocal/indeterminate or test was not processed for technical reasons
P8a or P8b	AGC (atypical glandular cells)	Indeterminate/test not processed	R7	Refer to colposcopy	Any ASC-H result
			R7	Refer to colposcopy	Any HSIL result
P9	AGC favour neoplastic process	N/A	R7	Refer to colposcopy	Any query squamous cell carcinoma result
			R7	Refer to colposcopy	Any AGC result
P10	Query glandular neoplasia/AIS/ Adenocarcinoma	N/A	R7	Refer to colposcopy	Any AGC favour neoplastic result
			R6	3 month repeat	Any query glandular neoplasia/AIS/Adenocarcinoma result Repeat no earlier than 3 months from date of last smear test

* Regardless of age women require two consecutive MAD smear results with a routine re-call recommendation at 3 year interval prior to moving to a 5 year interval.
 * If there are endometrial cells present out of cycle for a woman over 40 years it is recommended to refer for gynaecological assessment.
 * If clinical details record PCB/MS/PMB it is recommended to refer for gynaecological assessment.
 * TZ cells must be present in the smear sample if a woman has previously been treated for a glandular abnormality.



An tSeirbhís Náisiúnta Scagthástála
National Screening Service



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