## HPV Testing Diagram

Visit the Guidelines website at [http://gp.westernsussexhospitals.nhs.uk/home](http://gp.westernsussexhospitals.nhs.uk/home)

The latest version of this document supersedes all of other versions. Upon receipt of the latest versions all other version should be destroyed. If in any doubt please contact the document owner or Guideline Co-ordinator.
## Contents

<table>
<thead>
<tr>
<th>Contents</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Aim</td>
<td>3</td>
</tr>
<tr>
<td>Sample taking/change in Colposcopy</td>
<td>3</td>
</tr>
<tr>
<td>letters</td>
<td></td>
</tr>
<tr>
<td>Duties</td>
<td>3</td>
</tr>
<tr>
<td>Revised New Protocols</td>
<td>4- 6</td>
</tr>
<tr>
<td>References</td>
<td>7</td>
</tr>
<tr>
<td>HPV diagram</td>
<td>8</td>
</tr>
</tbody>
</table>

## Change History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Author</th>
<th>Details of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>September 2009</td>
<td>Miss P. Khine, Staff Grade Colposcopist Mr J. Hooker, Consultant Colposcopist Mr Jeff Morrison, Cytology Lead/Senior Biomedical Scientist (BMS)</td>
<td>New Protocols and Guidelines</td>
</tr>
<tr>
<td>2</td>
<td>September 2012</td>
<td>Miss P. Khine, Associate Specialist/ Colposcopist Mr J. Morrison, Cytology Lead/Senior BMS Reviewed by Mr Z. Ibrahim, Miss M. Tipples, Consultant Colposcopists, Ms Lyn Jenkins (Hospital Based Programme Co-ordinator)</td>
<td>Protocols and Guidelines updated in view of Implementation of HPV testing</td>
</tr>
</tbody>
</table>
INTRODUCTION

Cervical screening and treatment of high grade abnormalities have the potential to prevent development of cervical cancer. Liquid-based cytology (LBC) has replaced the previous smear method using Aylesbury spatula, reducing the rate of inadequate samples rate from 8% to around 2%.

The role of human papillomavirus (HPV) in the aetiology of cervical cancer is well understood, and HPV testing is now taking its rightful place in the cervical screening process.

HPV Triage and Test of Cure (TOC) was implemented across Sussex and Surrey at the end of July 2012. The latest revision to the cervical cytology/Colposcopy Clinic protocols includes changes in line with the National Health Service Cervical Screening Programme (NHSCSP) implementation guide for the national rollout. (NHSCSP Good Practice Guide No3, June 2011)

Aim of using HPV Testing

- To refer women at high risk earlier to Colposcopy where appropriate, avoiding unnecessary referral for those at very low risk.
- To allow treated women to proceed to a three year recall period after just six months.

Sample Taking

- Sample takers do not need to do anything differently in the way they take the LBC sample.
- The HPV test will be performed on the residual sample, remaining in the LBC thin prep vial.
- Samples will be processed at the Royal Sussex County Hospital Laboratory and all results will be issued as part of a single cytology report.
- Colposcopy Referral will continue to be by the direct referral system

Change in Colposcopy Clinic discharge letters

The current protocols supersedes Colposcopy discharge letters that recommend 10 years annual screening for the follow up of treated high-grade CIN (cervical intra-epithelial neoplasia).

Duties

The accredited Colposcopist is responsible for informing the woman of any results, whether monitoring or treatment is recommended and at what intervals using standard letters.
**NEW CERVICAL SCREENING PROTOCOLS & GUIDELINES**

### HPV Triage of BORDERLINE /MILD DYSKARYOTIC SMEARS

- New and persistent Borderline/Mild dyskaryosis will be HPV tested
- Untreated CIN1 with Borderline/Mild dyskaryosis at 12 or 24 months will be HPV tested
- Women with positive HPV test will be referred for Colposcopy; they should be seen within 8 weeks of referral

### MODERATE TO SEVERE DYSKARYOSIS

These both need referral to Colposcopy when first detected. We would aim to see these within four weeks. They are not recommended for the “Two Week Rule” unless the person taking the smear feels that the cervix looks malignant in which case Two Week Rule urgent referral is advised irrespective of and without waiting for the result of the smear.

### GLANDULAR NEOPLASIA/ ? INVASION

Women must be referred for colposcopy after one test reported as glandular neoplasia/? Invasion and they should be seen urgently within two weeks of referral

### FOLLOW UP AFTER TREATMENT OF CIN

**HPV Test Of Cure (TOC)**

Women who have been treated (LLETZ – large loop excision of transformation zone or Cone Biopsy) for CIN 1, 2, or 3 and whose follow up cytology is negative/Borderline/Mild dyskaryosis after treatment will have HPV tested (TOC).

Women found to be negative/BNC/Mild dyskaryosis with a negative HPV test can return to a three year recall period.

Women found to be negative/BNC/Mild dyskaryosis with a positive HPV test will be referred back to Colposcopy. Colposcopy Clinic will send a follow up appointment.

During year one, TOC will only be performed on newly treated women having their first follow up sample at least 6 months following LETZ or cone biopsy.

In the subsequent years, TOC includes women who have received treatment in the past for CIN and are now on annual follow up cytology, if their cytology is negative/Borderline or Mild dyskaryosis

NB. If the cervical sample is taken in the Colposcopy Clinic, the request form should be clearly marked ‘TOC’

### INADEQUATE OR UNRELIABLE HIGH RISK HPV TEST

Women whose cytology results show negative/borderline or mild dyskaryosis but test for High risk HPV is inadequate or unreliable must have cytology sample test in 3 months from the date taken previously. Cytology sample can be taken at the Hospital nurse smear clinic or in the community.
**Exceptions:** Women diagnosed and treated for CGIN (Cervical Glandular Intraepithelial Neoplasia) and invasive cervical cancer will not be included in HPV triage or TOC

### TREATMENT AFTER CGIN

Follow up cervical sample at Colposcopy clinic at six months after treatment. If this is normal, repeat cervical sample at six monthly by the GP for 4 ½ years, then annual smears for 5 years before returning to normal recall.

After treatment of CGIN, follow up samples must contain endocervical cells. Paired samples (Cervex broom and cytobrush) should be taken and supplied in the same pot (NHSCSP No.20)

### POST HYSTERECTOMY

For women on routine recall for at least 10 years prior to hysterectomy and no CIN at hysterectomy: No vault cytology required

For women with less than 10 years routine recall and no CIN at hysterectomy: A vault sample at 6 months, if negative, no further cytology

*If a woman had a hysterectomy for known CIN and has a completely excised CIN at hysterectomy, vault smear sample at 6 months and this should be treated like any other treated CIN and HPV Test of Cure (TOC) will be tested on the sample. If HPV negative no further cytology would be necessary*

*HPV testing can be requested in women with persistent low grade cytology from the vault after hysterectomy and after MDT discussion*

For women with incomplete/ uncertain CIN excision: Follow-up should be conducted as if cervix were still in situ, and follow-up as for low/high grade disease

For women with Cervical Cancer: Annual recall for life, or until suggested otherwise by Gynaecologists/Oncologists

*Note:* These post hysterectomy guidelines are from NHSCSP publication 20 – ‘Colposcopy and Programme Management’ and are clinical guidelines which are not part of the cervical screening programme. Vault smear samples are not indicated following hysterectomy for endometrial or ovarian cancer, or following radiotherapy for treatment of cervical cancer.

*NB. HPV testing requests outside the national guidelines can be made after MDT discussion. A note of ‘discussed at MDT’ should be written on the request form.*

### ENDOCERVICAL CELLS AND CYTOBRUSHES

The Cytology Department will inform the referring clinician if they feel any cervical sample is inadequate. Please bear in mind that the aim of a cervical sample is to take cells from the transformation zone, the site of which will vary according to the cervix.

We would advise use of cytobrushes therefore only in those cases where it is judged the transformation zone cannot be reached with a normal Cervex broom. It is further advised that in the rare event where endo/cytobrush is necessary, it should be taken and sent in the same LBC pot; please let the laboratory know that endo/cytobrush is taken.
WOMEN WITH ABNORMAL CERVIX OR SYMPTOMS

They should be referred under the ‘two week rule’ for gynaecological examination if cancer is suspected. If there is a capacity issue in the two week rule clinic, women should be seen by senior Colposcopists in the Colposcopy clinic. Please discuss with Miss Melanie Tipples, Gynae-Oncology Lead. On rare occasions, in order to meet the two week rule clinic targets these women should be offered an appointment on the Worthing site.

MANAGEMENT OF ABNORMAL SMEAR IN PREGNANCY

There is no evidence to show that the pre-malignant lesions (CINI to III) will advance or grow faster during pregnancy and certainly the cells are isolated to the cervix and in no way affect the developing fetus.

A pre-malignant lesion does not influence the mode of delivery of the baby.

1. If CIN1 or less is suspected, repeat the examination three months following delivery

2. If CIN2 or 3 is suspected, repeat colposcopy at the end of the second trimester or, if the pregnancy has already advanced beyond that point, three months following delivery. Biopsy/treatment usually deferred until delivery

3. If invasive disease is suspected clinically or colposcopically, a biopsy adequate to make the diagnosis is essential. Cone, wedge and diathermy loop biopsies are all associated with a risk of haemorrhage and such biopsies should be taken where appropriate facilities to deal with haemorrhage are available. Punch biopsy suggesting only CIN cannot reliably exclude invasion.

4. Involvement of Miss Melanie Tipples, Gynae-Oncology lead and MDT for further management is mandatory

MANAGEMENT OF ABNORMAL SMEAR IN POSTMENOPAUSAL WOMEN

- In an adequately screened woman, postmenopausal bleeding (PMB) is NOT an indication to take a cervical sample unless clinically indicated (suspicious symptoms and cervix)

- If they are not taking HRT, there will be inversion of squamocolumnar junction and it is important to take a good endocervical brush sample

- If there are severe atrophic (oestrogen deficient) changes, severe inflammation or inadequate smears, then the woman should be advised to use a course of vaginal oestrogen cream or vaginal oestrogen pessary prior to repeat colposcopy examination.

- Treatment of CIN in the postmenopausal woman is the same as in the pre-menopausal woman depending upon accessibility of the lesion. For example, it would be more common to perform a deep loop cervical excision due to inversion of squamocolumnar junction.
REFERENCE: NHS Cervical Screening Programme No 20, May 2010, Quality Assurance Reference Centre (QARC) Guidelines on HPV implementation
NHSCSP website: http://www.cancerscreening.nhs.uk

AUTHORS: Miss Peggy Khine, Associate Specialist, Gyneacologist/Colposcopist, Mr Jeff Morrison, Cytology Lead/Senior BMS, Reviewed by Miss Melanie Tipples, Consultant Gynaecologist/Colposcopist and Oncology Lead, Mr Zaky Ibrahim, Consultant Gynaecologist/Colposcopist, St. Richard’s Hospital, West Sussex NHS Hospitals Trust, and Ms Lyn Jenkins, Hospital Based Programme Co-ordinator, Cytology Department, Worthing and SRH

OTHERS INVOLVED: Consultant Colleagues in Obstetrics and Gynaecology, Colposcopy Working Party, LRMG Committee.

PUBLISHED: 09/09 REVIEWED 09/12 REVIEW DUE: 09/14
HPV Testing Diagram

BNC or Mild Dyskaryosis

HPV Triage

HPV -ve

Routine Recall
(RR)
3 or 5 year depending on age

HPV +ve

Colposcopy
(No repeat cytology)

Negative Colposcopy, no biopsy
OR Biopsy with no CIN

CIN 1

CIN 2/3

No Treatment

Treatment

Cytology at 6 months

NG/BNC/Mild

Test Of Cure

(Not including CGIN or invasive Cervical Cancer)

Treated CIN LLETZ/Cone

Colposcopy

HPV -ve

HPV +ve

Cytology at 12, 24 months - if Negative for RR
If BNC or Mild at 12, 24 months; HPV re-triage
If any sample moderate or worse for Colposcopy Referral

CIN 1 on Colposcopy
-as per triage arm

CIN2/3 - treat

3 year Recall
Return to RR at next FU

Negative & Satisfactory Colposcopy

CIN1 on Colposcopy
-as per triage arm

CIN2/3 - treat

3 year Recall
Return to RR at next FU

Routine Recall
(RR)
3 or 5 year depending on age

Routine Recall
3 or 5 year depending on age

Colposcopy
Clinic to Inform PCSS

Moderate or Worse

No Treatment