

O-1 THE PREVALENCE OF CIN IN WOMEN WITH POSTCOITAL BLEEDING OVER 10 YEARS IN A COLPOSCOPY CLINIC

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Objective: To determine prevalence of cervical intraepithelial neoplasia (CIN) in women with postcoital bleeding, with normal or abnormal cytology within 3 years.

Method: Retrospective study of 917 women aged 19-64, with postcoital bleeding seen at St. Marys hospital colposcopy department between 2000-2009.

Results: Of 386 patients with normal referral cytology, 32 (8.3%) had CIN I, 14 (3.6%) had CIN II/III, 2 patients (0.5%) had glandular abnormalities (CGIN) and 1 (0.3%) had invasive cervical cancer stage 1b1. Assuming cumulative smears have 93% specificity, there is a more than expected increase in CIN in women with normal cytology and PCB (using Chi-squared test $p < 0.01$). Of 92 patients with no referral cytology, 9 (9.8%) had CIN I, 5 (5.4%) had CIN II/III, and 3 patients (3.3%) had CGIN. Of 40 patients with borderline cytology, 4 (10%) had CIN II/III, and 1 (0.2%) had CGIN. Significantly more patients with mild dyskariosis and postcoital bleeding had CIN II/III (34 out of 202 (16.8%) than mild dyskariosis alone in our unit (13%, using Chi-squared $p < 0.01$). Of 79 patients with moderate dyskariosis, 46 (50.6%) had CIN II/III, 2 (2.5%) had microinvasive cervical cancer, none had CGIN. Of 70 patients with severe dyskariosis, 53 (75.7%) had CIN II/III. Of 3 patients with glandular abnormalities 2 had CIN II/III only, and 1 patient had high grade CGIN.

Conclusions: Patients with postcoital bleeding have a statistically significant higher incidence of CIN. All patients should be referred to colposcopy with postcoital bleeding after excluding polyps and infection.

O-2 CONCORDANCE BETWEEN INTROITAL AND CERVICAL SAMPLES FOR HUMAN PAPILLOMA VIRUS STATUS AND TYPE

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Background: Self sampling for genital HPV ideally requires concordant HPV status between the introitus and the cervix. We wish to compare the matched samples taken from the introitus and the cervix in terms of both HPV status and typing in women with abnormal cervical smears.

Methods: Paired brush samples were taken from the introitus and then the cervix by a colposcopist. HCII assay was used to detect the presence of HR-HPV (high-risk). HPV typing was carried out using the Papillocheck-assay (Greiner), based on PCR.

Results: 40 women have so far been recruited. HCII results are available for 29 and HPV typing for 10.

HCII - Out of 29 women tested so far, 19/29(66%) were positive for HR-HPV both at the introitus and the cervix, 5/29(17%) were negative on the introitus but positive on the cervix and 3/29(10%) were negative for both. In 2/29(7%), the introital sample was inadequate.

HPV typing - Out of 10 women tested so far for HPV typing, in

4(40%), all the types identified on the cervix were identified on the vulva. In another 4(40%) there was some sharing of the HPV types between both the sites. In 2(20%) there was no concordance.

Discussion: These results although preliminary, show considerable concordance between introital and cervical samples with regards to both presence and type of HR-HPV. This type of data will be important in determining the validity of self-sampling as a primary cervical screening strategy. A complete data set on 50 women will be presented at the meeting.

O-3 BASE HPV 2009: CHARACTERISATION OF HPV INFECTION IN CERVICAL SMEARS FROM YOUNG WOMEN ATTENDING FIRST CERVICAL SCREENING PRIOR TO IMPLEMENTATION OF HPV VACCINATION

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Introduction: In September 2008 the HPV vaccination programme began targeting 12-13 year old girls. Surveillance of HPV vaccine uptake and impact upon HPV infection and cervical disease are essential for the evaluation of this public health intervention.

Objective: To establish a baseline HPV prevalence in women aged 20-22 years attending first cervical screening in Wales for comparison with vaccinated cohorts.

Methods: All samples collected from women attending for their first routine cervical screen (20-22 yrs) across Wales are flagged. Residual samples are anonymised and transferred to the HPV research laboratory for HPV testing using GP5/6+ PCR-ELISA.

Results: Over 10,000 specimens have been collected from 12 cytology laboratories across Wales. In this study population, 82.7% had negative cytology, 10.5% were borderline, 5% showed mild dyskaryosis, 1.1% moderate and 0.8% severe dyskaryosis. Overall, 30.8% cases were positive for HPV (HR and LR). HR HPV prevalence increases significantly with degree of dyskaryosis from 21.4% in cytology negative samples to 94.3% in samples with severe cytological abnormalities. Social deprivation score appears to have no significant effect on HPV status. Of the HR HPV positive cases further analysed, 61.1% represent infections with a single HR type. HPV 16 and HPV 18 account for the majority of HR HPV infections with 17.8% HPV 16 only, 7.8% HPV 18 only and 2.7% positive for HPV 16 and HPV 18.

Conclusion: The results collated in the Base HPV 2009 study will provide a comprehensive dataset for comparison with women who have been offered HPV vaccination.

O-4 CAN THE INITIAL FOLLOW-UP OF CERVICAL INTRAEPITHELIAL NEOPLASIA GRADE 1 BE EXTENDED TO ONE YEAR? A RETROSPECTIVE STUDY OF PATIENT OUTCOMES

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Introduction: The guidelines on when to follow-up women with cervical intraepithelial neoplasia (CIN) grade 1 differ between the United Kingdom, Europe and America. This study examines the potential effects of deferring initial follow-up from 6 months to 1 year.

Sample: All women attending first colposcopy between April 2007 and September 2008 where biopsy confirmed CIN 1.

Method: Data were collected retrospectively on patient characteristics and colposcopy findings and women were followed up 6-monthly until discharge, treatment or for at least 1 year.

Results: CIN 1 was found in 186 women. The average time between first and second appointments was 6 months and 3 weeks. In 102 women (55%) the abnormalities resolved and they were discharged, 70 at their second visit. 58 women (31%) underwent treatment, either because of progression of CIN, in 18 women, or patient preference. Of those undergoing observation, 11 (7%) developed CIN 2 or 3 at their second visit. The median age of those in whom the disease progressed was significantly lower than those in whom CIN 1 resolved (25.5 vs. 29, $p=0.018$). Delaying the first follow-up appointment to one year would have prevented 68 visits, at a cost of £8840.

Discussion: Deferring follow-up for CIN 1 to 1 year has the potential to save money and resources as well as reduce the burden of attending for women. It is unclear, however, whether delaying diagnosis of CIN 2 or 3 would have an effect on long-term outcomes, or whether delaying discharge would have a psychological impact.

O-5 ASSESING THE SWEDE SCORE AND ITS ROLE IN IMPROVING COLPOSCOPIC ACCURACY

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Objectives: The Reid colposcopic index (RCI) is the most well known colposcopic scoring system. Strander et al showed encouraging results when assessing the new Swede Score and its ability to detect high grade disease. The aim of our study was to validate this new scoring system within women attending for colposcopy.

Methods: A four month, prospective, evaluation was carried out at the Royal Free Hospital, London, U.K. Women who attended for either diagnostic colposcopy or inpatient treatment for cervical intraepithelial neoplasia (CIN) were included. Both trained and trainee colposcopists were participating. Swede scores were calculated at the time of colposcopy and correlated with the final histological diagnosis.

Results: Swede scores of eight or more had a sensitivity, specificity, positive and negative predictive value of 38%, 95%, 83% and 70% respectively for high grade lesions. The trainees compared to the trained colposcopists had a significantly greater negative predictive value when scoring three or less on the Swede score (fisher exact test, two tailed p value = 0.01). After separating the first one hundred examinations from the second no obvious learning curve was demonstrated.

Conclusion: At higher scores the Swede score system may possibly be predictive of high grade disease. The Swede score appears to hold several benefits including its role as a colposcopic training tool in addition to possibly providing thresholds for units undertaking 'see and treat' procedures. It may also prove beneficial in settings where cytological screening is absent, using the score in combination with visual inspection after acetic acid.

O-6 CO-OPERATION FOR THE PREVENTION AND TREATMENT OF CERVICAL CANCER AND CIN IN NEPAL: A REPORT FROM AN INTERNATIONAL COLLABORATIVE GROUP

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Women in Nepal have little access to reproductive health services and the incidence of cervical cancer is high. The Nepal Network for Cancer Treatment and Research (NNCTR) has been working for more than 10 years on building up a system of opportunistic screening and treatment. Colposcopy and local treatment of cervical pathology was not available prior to 2006.

An International collaborative group has been established between the NNCTR and a group of UK based Colposcopists. The aim of the group is to enable involved Nepalese professionals to influence the development of a national Nepali policy for the prevention and treatment of cervical cancer. In order to achieve this aim the project is training a group of Nepalese Gynaecologists and nurses in all aspects of a cervical screening and in establishing a colposcopy programme, regular cervical screening, follow up, and minimally invasive treatment.

The BSCCP continues to donate grants to the project to partially cover the expenses of Nepali & UK doctors. The project involves visits of Nepali doctors to the UK and visits to Nepal. UK colposcopists deliver theoretical workshops and giving hands-on training in colposcopy and minimally invasive treatment of CIN. Colposcopy is now embedded in the National Maternity Hospital in Kathmandu and links are now established with The National Cancer Hospital in Bharatpur.

This paper will give details of the magnitude of the problems in Nepal. The chosen method and rationale of cervical screening, the details of the workshops and training-to-date and evidence of quality assurance.

O-7 MANAGEMENT OF CERVICAL CANCER IN PREGNANCY BY CONE BIOPSY AND LAPAROSCOPIC PELVIC NODE DISSECTION: A REPORT OF 2 CASES

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Cervical cancer is the most common malignancy to present in pregnancy. It is diagnosed in 1 in 2205 pregnancies and pregnancy complicates 1 in every 34 cases of cervical cancer. There is a wide variety of treatment options available dependent upon the stage of the disease, the gestation of the pregnancy and the patient's wishes. These options range from termination of pregnancy followed by immediate treatment, to delay of treatment until fetal viability is achieved and the baby has been successfully delivered. Since the development of fertility sparing surgery new options have become available with regard to treatment in pregnancy.

We report the management of 2 pregnant patients with stage 1b1 cervical cancer. Treatment was by way of cold knife conisation and laparoscopic pelvic lymphadenectomy in the first trimester of pregnancy. Both women were treated successfully with a delivery of a healthy term baby and no recurrence of disease to date with a follow-up after treatment of 28 and 29 months respectively. We believe this to be the first case report of its kind.

O-8 ASSESSMENT OF ACCURACY AND CONSISTENCY OF COLPOSCOPIC OPINION USING STATISTICAL PROCESS CONTROL (SPC) CHART (CUSUM)

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Introduction: Current practical colposcopy training requires an experience log of 150 colposcopy cases (50 directly supervised and 100 indirectly supervised), which are retrospectively reviewed prior to the OSCE assessment.

Method: All colposcopies performed by eight trainees at the NGOC between June 2006 and October 2009 were retrospectively analysed using Statistical Process Control (SPC) chart (CUSUM) to determine the trainees' colposcopic ability and consistency to positively predict presence or absence of low or high-grade cervical disease. A positive predictive value of 65% was used as the standard.

Results: All 8 trainees' cumulative colposcopic PPV exceeded the 65% standard. However when consistency was analysed using the CUSUM chart, only one trainee showed consistent accuracy for the prediction of both low and high-grade disease. 5/8 trainees were consistent in predicting either low or high-grade disease but not both. 2/8 trainees were not consistent in predicting either grade of disease. The CUSUM chart method also revealed a varying length of run of inconsistent colposcopies (17 to 145) before consistency in performance was achieved by each trainee.

Discussion: Prospective continuous analysis of colposcopic performance by SPC charts can identify trainees with poor performance early in their training and their specific areas of weakness. SPC charts can also be used to design trainee specific practical training by guiding transition from a directly supervised to indirectly supervised phase of training and also to confirm the end of training based on achievement of competency rather than the current requirement of 50 and 150 cases, respectively.

O-9 MANAGEMENT OF WOMEN WITH HIGH-GRADE CYTOLOGICAL ABNORMALITIES: A COMPARISON OF TRIAGE OPTIONS

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Background: A proportion of women referred for high-grade cytology will be proven to have only low-grade histology. This study aims to investigate possible combinations of tests that could safely identify these women.

Material & Methods: Design: Diagnostic study

Inclusion criteria: Women referred with high grade cytology.

Intervention: An LBC specimen obtained prior to colposcopic evaluation was tested for HPV typing, E6 & E7 mRNA (NASBA), E6 & E7 mRNA by flow cytometry, p16^{INK4a} and microspectroscopy. All women underwent LLETZ (gold standard).

Outcomes: The sensitivity, specificity, PPV, NPV, positive and negative likelihood ratio (LR) were calculated for each parameter alone or in combination for CIN2+ histology.

Results: A total of 118 women have been recruited. The colposcopic assessment appeared to have the best sensitivity [96%(95%CI:90-100)], NPV [67%(95%CI:29-100)] and negative LR [0.10(95%CI:0.02-0.49)]. NASBA had the best specificity [78%(95%CI:51-100)], PPV [94%(95%CI:87-100)] and positive LR [3.23(95%CI:0.94-11.11)]. The combination of colposcopy with high-risk HPV had the best sensitivity [88%(95%CI:78-97)] and negative LR [0.21(95%CI:0.08-0.51)]; flow cytometry with p16 had the best specificity [97%(95%CI:91-100)], negative PV 79%(95%CI:66-91) and positive LR [20.70(95% CI:2.92-146.71)], while NASBA with p16 the best PPV 98%(95%CI:91-100).

Conclusions: Some of the combinations might have significant accuracy for the prediction of high-grade histology. This could allow conservative management for women at low risk and avoidance of unnecessary intervention and/or treatment. All the above markers should be evaluated in a cost analysis and could be integrated in high-grade triage prediction scoring system, allowing tailored selection for treatment. The above findings need to be confirmed in larger cohorts.

O-10 MANAGEMENT OF WOMEN WITH LOW-GRADE CYTOLOGICAL ABNORMALITIES: A COMPARISON OF TRIAGE OPTIONS

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Background: A proportion of women referred for low-grade cytology will be proven to have a high-grade histology. However, the majority will have lesions of low malignant potential and this study investigates possible methods that could identify these women.

Material & Methods: Design: Diagnostic study

Inclusion criteria: Women referred with ASCUS or LSIL cytology; histological diagnosis was available for all women (punch biopsies or LLETZ).

Interventions: An LBC specimen obtained prior to colposcopic evaluation was tested for HPV typing, E6 & E7 mRNA (NASBA), E6 & E7 mRNA by flow cytometry, p16^{INK4a} and microspectroscopy.

Outcomes

The sensitivity, specificity, PPV, NPV, positive and negative likelihood ratio (LR) were calculated for each parameter alone or in combination for CIN2+ histology.

Results: A total of 282 women were included. High-risk HPV testing showed the highest sensitivity [94%(95%CI:80-98)], moderate specificity [65%(95%CI:51-77)] and positive LR [2.70(95%CI:1.8-4.0)]. HPV16-specific typing showed the best specificity [96%(95%CI:87-99)], PPV (87%) and positive LR [10.7(95%CI:2.58-44.25)]. Amongst the various combinations, p16 with high-risk HPV testing showed a specificity of 100% and a sensitivity of 50%.

Conclusions: High-risk HPV testing has the highest sensitivity, whilst HPV 16-specific genotype achieves the best specificity for the detection of high-grade lesions. These test and some of the above combinations could discriminate women at high-risk that need referral to colposcopy +/-treatment from those at low risk that do not require further unnecessary intervention. All the above markers should be evaluated in a cost analysis and could be integrated in low-grade triage prediction scoring system, allowing tailored management of women.

O-11 WOMEN'S KNOWLEDGE ABOUT CERVICAL CANCER: RESULTS OF A NATIONAL SURVEY IN ENGLAND

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Raising awareness of the signs and symptoms of cancer was highlighted as a priority in the government's Cancer Reform Strategy, and measuring cancer awareness is one of the work streams of the National Awareness and Early Diagnosis Initiative (NAEDI). Awareness of possible cervical cancer symptoms has become a focus of interest in England following the decision not to lower the screening age to 20, and the Department of Health has recently launched Key Messages on cervical cancer in an attempt to increase public knowledge.

This paper reports on findings from a survey of 1392 women in

England, using the newly developed Cervical Cancer Awareness Measure. The study used random location sampling to recruit women aged 16 and over across England, and participants completed the survey in their own homes, using computer assisted personal interviewing. When asked to think of possible warning signs of cervical cancer, 40% of participants were unable to name any. Even when presented with a list of symptoms, 61% of women were unable to recognise the three symptoms highlighted in the Key Messages (vaginal bleeding after sex and after the menopause, and persistent vaginal discharge). Women under 25 years of age had poorer knowledge than those aged 25 and over. The survey also found evidence that embarrassment is a significant barrier to discussing gynaecological symptoms and seeking medical help promptly.

These results point to gaps in public knowledge about cervical cancer, and provide information about particular groups to which information and education efforts should be targeted.

O-12 BENCH MARKING COLPOSCOPY PRACTICE IN SCOTLAND

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Background: The National Colposcopy Clinical Audit and Information System is used by colposcopy clinics in Scotland and the bench marking reports compare performance between different hospitals and Health Boards.

Methods: Performance bench marking was conducted from the rollout of NCCIAS which was completed early in 2007. Standards for bench marking were agreed by the NCCIAS Users Group for incorporation into a standard bench marking report. The relative level of performance in key activities was assessed in comparison with other units in Scotland. Data from 2007-2009 was extracted for all hospitals.

Results: 25,353 new referrals to colposcopy were identified.

Standard	Mean	Median	Min	Max	25th quartile	50th quartile
% Negative smear post treatment	92.8	93.9	78.3	100	90.9	93.9
% Histological failures posttreatment	2.0	1.6	0	4.4	1.2	1.6
% Biopsies adequate for pathology	98.6	98.9	96.0	100	98.0	98.9
% with CIN in See&Treat LLETZ	90.9	94.7	35.1	100	91.5	94.7
Biopsy taken at first visit for high gradesmears	87.7	91.9	29.9	98.9	86.9	91.9
% treatments recommended to be done under GA	10.3	7.8	0.5	39.4	12.1	7.0

Conclusions: This exercise has highlighted standards to investigate either to implement change to reduce the performance gap or to recommend appropriate standards which were previously based on professional opinion only. The current standards set by NHS CSP should be more challenging for treatment success rates, adequacy of biopsies and proportion of women being treated under general anaesthetic.

O-13 SURFING THE WEB BEFORE HITTING THE COLPOSCOPY COUCH

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Introduction: Direct colposcopic referral from cytology precludes focussed counselling in primary care. Women undergoing colposcopy may seek information via alternative sources such as the internet. This study evaluated the authorship, relevance, and quality of information about colposcopy readily available on the internet.

Methods: The term 'abnormal smear test' was searched in four popular search engines and the first ten websites on each examined. Links which did not provide patient information about cervical screening were excluded. Quality of information was evaluated using DISCERN, a 16 item instrument which scores the relevance and quality of written patient information^(Charnock 99). Readability was assessed using the Flesch reading ease score, an acceptable score is defined as >60%.

Results: In total 15 relevant websites were identified, 21 were duplicates and 4 were excluded. Website authorship was attributable to commercial organisations (10), charitable bodies (3), a medical practitioner (1) and the BBC (1). Readability scores were not always acceptable (median 63%, range 37-75%). The quality of information provided was highly variable with DISCERN scores ranging from 21-84% (median 48%). The British Society of Colposcopy and Cytopathology (BSCCP) website was not in the first ten of any of the search engines but was cited by 5/15 examined websites (33%). The BSCCP webpage scored 65% for readability and 75% for relevance.

Conclusion: Patient information provided by professional bodies including the BSCCP is not immediately available using popular internet search engines. More readily accessible websites may be less accurate.

O-14 AFTER-EFFECTS REPORTED BY WOMEN AFTER A FOLLOW-UP SMEAR TEST IN PRIMARY CARE: RESULTS FROM THE TOMBOLA TRIAL

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Background: Little is known about the physical after-effects that women experience following cytology tests; previous studies have tended to focus on women undergoing colposcopy and related procedures. We investigated pain, bleeding and discharge in women with low-grade cytology being managed by cytological surveillance in primary care.

Methods: The study was nested in the TOMBOLA trial (Trial of Management of Borderline and Other Low-grade Abnormal smears). Women in the cytological surveillance arm were sent a questionnaire about after-effects (including severity and duration) six weeks after their first surveillance smear. Non-responders were sent up to two reminders. Prevalence of after-effects was adjusted for socio-demographic and psychosocial factors.

Results: 884 women completed the questionnaire (response rate 79%). After adjusting for confounders, 14.8% of women reported pain following the smear, 16.1% experienced bleeding and 7.1% discharge. Overall, 30% of women experienced one or more after-effect. Severe after-effects were rare, reported by less than 1% of

women. For pain and bleeding, the overwhelming majority of women reported a duration of two days or less. In general, discharge tended to last somewhat longer.

Discussion: This study demonstrates that pain, bleeding and discharge are not uncommon in women having repeat cytology tests. Extrapolating from this, it is likely that notable proportions of women attending for primary screening also experience physical after-effects. Given the number of women who have low-grade smears each year, this represents an important consequence of screening, and should be taken into consideration when comparing costs and benefits of different screening strategies and management policies.

O-15 WHICH WOMEN DEFAULT FROM CYTOLOGICAL SURVEILLANCE? FURTHER RESULTS FROM THE TOMBOLA TRIAL

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Background: The TOMBOLA trial found that, in women with low-grade abnormal cytology, a policy of cytological surveillance was no less effective in detecting high-grade CIN over three years than immediate colposcopy referral. For cytological surveillance to be a realistic option, it is essential to maximise attendance for repeat cytology tests. We identified factors associated with non-attendance and late attendance in cytological surveillance.

Methods: We conducted a cohort study nested within TOMBOLA. 2,166 women, aged 20-59, with recent low-grade cytology, managed by 6-monthly cytology in primary care were included. For the first and second surveillance smears separately, women were categorised as "on-time attenders" (attended <6 months of test being due); "late-attenders" (attended >6 months after test due); and "non-attenders" (failed to attend by three years). Multivariate odds ratios for factors associated with late- and non-attendance were calculated.

Results: For the first surveillance smear, younger women, those without post-school education and non-users of prescribed contraceptives were significantly more likely to be non-attenders. In addition to these factors, late attendance was associated with current smoking and having children. The most important predictors of non-attendance for the second surveillance smear were late attendance for the first surveillance smear, and having had a negative first surveillance smear.

Conclusions: Some factors identified as associated with default from cytological surveillance reflect health behaviours and competing demands. A twin approach is needed to minimise default: development of strategies to encourage prompt attendance, perhaps targeted to specific subgroups, together with research to better understand reasons for default.

O-16 CUMULATIVE RATES OF CIN2+ IN THE ARTISTIC TRIAL OVER THREE ROUNDS OF SCREENING: A COMPARISON OF BASELINE LBC AND HPV TESTING

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Introduction

The ARTISTIC trial compared cytology and cytology combined with HPV testing over two rounds of primary cervical screening^{1,2}. The ARTISTIC study cohort has been followed up for a third round of screening at approximately six years following accrual. We present the cumulative rates of CIN2+ over three rounds of screening.

Methods: 24,510 women were screened in round 1, 15,790 rescreened in round 2 and 8,873 in round 3. Women were managed according to national guidance, although during round three triage of borderline/mild cytology using HPV testing was employed. The cumulative probability of survival has been estimated in life table analysis³.

Results: In cytology-ve/HPV-ve women and cytology -ve/HPV+ve women the cumulative CIN2+ rate was 0.67% and 3.24% respectively. In cytology+ve/HPV-ve women and cytology+ve/HPV+ve women, the rates were 7.73% and 37.44% respectively. Amongst all women who were cytology-ve at baseline the cumulative rate was 1.41% (95%CI 1.19%, 1.65%) and in those who were HPV-ve the rate was 0.87% (95%CI 0.7%, 1.06%). Amongst all women who were cytology +ve at baseline the cumulative risk was 20.53% (95%CI 19.04%, 22.08%) and in those who were HPV+ve the rate was 20.12% (95%CI 18.68%, 21.61%).

Discussion: HPV-ve women at baseline had a significantly lower cumulative rate of CIN2+ over 6 years than cytology-ve women. HPV primary screening would provide a longer interval of protection than cytology.

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P-1

CERVICAL SCREENING IN THE 25 YEAR OLDS: ARE THEY A HIGH RISK POPULATION

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The NHS cervical screening programme recommends the first cytological screening of cervical cells of women at age 25. This study analyses the cytology results of women aged exactly 25 in Lewisham to identify the degree of cervical dysplasia in this group and whether the age at first smear is increasing the risk of having higher grade dysplasia.

Retrospective cervical smear results of 966 women aged 25 over a period of a year ending December 2009 were analysed. Colposcopy histology results were also examined.

Results: Of the 966 cervical smears analysed: 779 (80.6%) were normal; 59 (6.1%) were inadequate; 51 (5.3%) showed borderline change; 64 (6.6%) showed mild dyskaryosis; 8 (0.8%) showed moderate dyskaryosis and 2 (0.2%) showed severe dyskaryosis. Higher proportion of 25 year olds had cytological abnormalities than the general population over the same period of time. 126 of these women were referred to colposcopy: 36 (28.6%) had (CIN 2 or 3); 29 (23%) had CIN1. Only 9 of the women were seen at colposcopy because of a first abnormal smear. 97 of the women were seen for follow up or repeat smear abnormalities.

Conclusion: The Lewisham population of women aged 25 appear to be vulnerable to precancerous cervical changes. Most of the women with abnormal histology were seen at colposcopy based on a repeat smear test. This audit shows that most of the 25 year old women in this borough who need colposcopy are having smears before the age of 25.

P-2

ACCURACY OF COLPOSCOPIC DIAGNOSIS AUDIT

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Introduction: It is desirable that colposcopists should be able to differentiate high grade from low grade lesions in order to avoid missing advanced disease and to reduce overtreatment for low grade lesions. There is an increased risk of preterm labour, preterm rupture of membranes with LLETZ and cone biopsy.

Auditing Standards: For those with satisfactory colposcopic examination the predictive value of a colposcopic diagnosis of a high grade lesion should be at least 65%. (Guidelines obtained from the NHS Cervical Screening program).

Methodology: Analysis of 150 patients seen in Colposcopy clinic out of which 20 had further histological diagnosis via LLETZ. Accuracy of colposcopic examination to diagnose CIN were correlated to histological assessment and classified as Accurate & Inaccurate.

Results: Among 20 patients who had cytological abnormalities, and treated with LLETZ, accuracy of colposcopic diagnosis was 80%. Most of inaccuracies were in patients who had persistent low grade lesions.

To maintain skill levels: All colposcopists should see at least 50 new abnormal cytology referrals each year
All colposcopists should attend one colposcopy meeting recognised by the BSCCP every 3 years.

Certification through BSCCP/RCOG and comply with recertification. Colposcopists must be able to demonstrate that they have received adequate training

Closing the Audit loop: Practice cannot be judged on the basis of small sample cases
Larger truly representative samples may be required in order to reach reliable

Conclusions: Audit to be repeated annually to ensure quality assurance and improving standards

P-3

INVASIVE CANCER AUDIT IN THE CONTEXT OF CIN2, CIN3 AND CGIN DIAGNOSED IN THE SAME HIGH-RISK URBAN POPULATION

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Study design: An observational study of CGIN, CIN3 and CIN2 (CIN2+) and invasive cervical cancer diagnosed in a high-risk urban population in 1999-2001, 2002-04 and 2006-07 along with an audit of screening histories of women with invasive cancer analysed according to route to diagnosis, histological type and FIGO stage.

Results: Both CIN2 and CIN3/CGIN were ten times more common than invasive cancers. Most CIN 2+ (76.0%) was found in women aged 20-34 years while 30.1% of 133 invasive cancers were in that age group. Interval cancers (in women screened within 5 years) comprised 53.4% of cancers; screen-detected stage 1A cancers were more likely (p<0.001) to be interval cancers (80.3%) than screen-detected fully invasive (58.3%) or symptomatic cancers (35.3%). Screen-detected cancers were more likely to be seen in younger age bands (p=0.03) and represented 15/18 (83.3%) in women aged 20-29; all except one were stage IA or IB1. Factors other than or in addition to negative cytology were found in more than half of interval cancers. False-negative cytology, high-grade cytology reported as low-grade and lapses in attendance for routine screening, repeat cytology, colposcopy and/or treatment were potentially avoidable factors.

Conclusion: Interval cancers were likely to be early screen-detected cancers, in the younger age groups in which most CIN2+ was found. The study showed the importance of quality control in all screening procedures.

P-4 INVASIVE CERVICAL CANCER IN WOMEN PREVIOUSLY TREATED FOR CIN

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Study design: An audit of women with invasive cervical cancer showed that 16 (12.0%) of 133 cancers at a single NHS Trust during 1999-2007 had previously been treated for CIN. We have analysed these cases in the context of cases of CIN2+ (CIN2, CIN3 and CGIN) diagnosed during the same time period.

Results: Of 16 women previously treated for CIN, seven had persistent CIN3 after incomplete excision and were promptly diagnosed on subsequent excision while six had persistent high-grade cytology or CIN during later follow-up. One had no post-treatment follow-up while two had negative follow-up cytology tests (two and six tests respectively). Initial treatment was for CIN3 in 12 cases and CIN2 in one; three had CIN1 or less on LLETZ after referral for severe dyskaryosis. Of these 16, 11 (68.8%) were aged 35-39 years or over when the initial treatment was carried out compared with 24.0% of women with CIN2+ in routine colposcopy referrals ($p < 0.001$). There were 1,502 CIN3 and 1,472 CIN2 biopsies during 1999-2007 giving an approximate risk of 1:100 for CIN3.

Conclusion: The risk of cancer in women treated for CIN2+ is low. Most had CIN3 rather than CIN2 and, compared with all cases of CIN2+, women developing cancer were more likely have initial treatment when aged 35 years or over.

P-5 CERVICAL CANCER AND SCREENING HISTORY IN WALES

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Introduction: The aim of this study was to analyse the screening histories of women with cervical cancer to establish where resources could be concentrated to improve the programme.

Methods: All cervical cancers diagnosed in women resident in Wales over a seven year period were identified and data retrieved from national databases. Dates and results for all cervical cytology from these women were then obtained.

Results: 1150 cervical cancers were registered between 1st April 1999 and 31st March 2006. 837 were in women of screening age (20-64 years old). The commonest age group was 35-39 years old.

Of the 837 women of screening age, 229 (27%) had never had an adequate smear taken. 339 (41%) had a smear within 4-40 months and the remaining 269 (32%) had a longer interval than recommended. 151 (18%) had had a normal smear within 4-40 months.

Women who had no history of an adequate smear were most likely to have later stage disease requiring the most morbid form of treatment, with chemoradiotherapy. Women whose last smear was an abnormal smear within the last 3 years (188 women) were the most likely to have microscopic disease. This group of women may have had screen detected cancers and are likely to have benefited from screening.

Conclusion: The largest group of women of screening age with cervical cancer are those who do not attend regularly for screening. Resources should be concentrated on fully engaging these women.

P-6 PATIENT SATISFACTION SURVEY OF COLPOSCOPY IN A DISTRICT GENERAL HOSPITAL SETTING

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Introduction: A visit to the colposcopy clinic is connected with considerable embarrassment and worry for most women, eliciting high levels of anxiety. Patients have certain expectations of their gynecologist and the clinic setting that may help to reduce this stress. Patients undergoing "see-and-treat LLETZ" experience greater negative psychological consequences than other colposcopy patients.

Aim: The aim of our study was to measure the patient satisfaction after their first colposcopy visit. One hundred questionnaires designed by Healthcare Governance Directorate were handed out to both new and follow up Colposcopy Clinic patients between May and August 2008. Questionnaires were anonymous and consisted of 33 multiple choice questions and a space for free comments.

Methods: We analysed the data using STATA statistical package using a stepwise ordinal logistic regression model.

Results: We found that 81% of patients had excellent or good experience in the clinic, 8% found it overall satisfactory and only 2% found it poor. The factors most likely to predict patient satisfaction included having enough time to ask questions, and physical comfort at the time of colposcopy. One of the most important factors that predicted patient satisfaction was whether women were informed as to when results would be available.

Conclusion: Patient satisfaction is an important factor in the colposcopy clinic. A great majority of patients are satisfied with their colposcopy visit. We need to ensure our patients are better informed about the whole treatment process and details of follow up arrangements.

P-7 TO ANALYSE THE OUTCOME OF THE COLPOSCOPY SERVICES OF MILTON KEYNES GENERAL HOSPITAL USING NHSCSP/BSCCP GUIDELINES FOR THE MANAGEMENT OF PATIENTS WITH CERVICAL PATHOLOGY AS THE STANDARD

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Methodology: A retrospective audit using computerised data from the colposcopy clinic database. We analysed patients who attended colposcopy clinic from 01/04/2008 - 31/03/2009. 705 cases were studied.

Background: NHSCSP was set up in 1988 and system of computerised call and recall system was introduced to meet certain quality standards.

Cervical cancer incidence fell by 42% between 1988 and 1997.

The colposcopy clinic at Milton Keynes Hospital is situated at a dedicated area with separate waiting and toilet facilities; the clinic is run by 6 colposcopy accredited doctors and a colposcopy nurse specialist.

Results: The referral smears were as follows: mild (29%), moderate (20%), severe (24%), glandular (1.5%), borderline (12%), clinically urgent (1%) and non urgent (14%).

Waiting time from referral to colposcopy appointment was \leq 4weeks in 59% cases, \leq 8weeks in 97% of cases and \leq 12weeks in 100% of cases. Waiting time on moderate to severe cases \leq 4 weeks in 97% cases. Biopsy suitable for examination was seen in 85% cases. 13% of the treatments were performed under general anesthesia. Negative smear, 6 months after LLETZ is seen in 92% of cases. Accurate diagnosis of CIN 2 or more was seen in 85% of cases. Default rates are 9.3%.

Conclusions: The colposcopy clinic at Milton Keynes Hospital is maintaining good standards compared to the national standards. Individual colposcopists should audit their work, update the data base and encourage trainees to take colposcopy module are the recommendations after the audit.

P-8

TO STUDY THE REASONS FOR NON CYTOLOGICAL REFERRALS TO COLPOSCOPY AT MILTON KEYNES GENERAL HOSPITAL AND TO EVALUATE THE COLPOSCOPIC AND HISTOLOGICAL FINDINGS IN THESE PATIENTS

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Methodology: Retrospective study carried out from 1/10/2009-31/12/2009, patients identified by computer data base.

Background: Referral criteria to colposcopy should be strictly followed to avoid unindicated colposcopy procedures especially in young women.

In a recent audit of colposcopy services at Milton Keynes Hospital, showed that high number of the referrals were non cytological and we conducted this study to evaluate these cases.

Results: Total number of patients studied was 21. 14% of these women were <25years of age, 86% of them were \geq 25years of age.

Main reason for referrals were post coital bleeding in 61%, intermenstrual bleeding in 37%, ectropion in 5%, clinically suspicious looking cervix in 9%, inability to do smear at GP surgery in 5% and inflamed cervix in 5% of cases.

Out of these 65% women had normal smear and 47% of them the smear was within in last 6 months.

Colposcopy findings-normal (51%), CIN 1 (19%), CIN 2 (9%), ectropion (33%), HPV changes (14%) and squamous metaplasia (9%).

Cervical biopsy performed in 61% of these cases and LBC in 14%.

Final histology results were-normal (46%), CIN 1 (9%), CIN2 (5%), HPV changes (9%), cervicitis (5%), inflammatory changes (5%).

Conclusions: This study revealed that postcoital and inter menstrual bleeding are most common reason for non cytological referrals for colposcopy and referral should be done cautiously as to avoid work load on colposcopy services.

P-9

DIAGNOSTIC DELAYS AND CANCER WAITING TIMES

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Background: Women with high-grade smears should be seen within 14 days and cancer if diagnosed should be treated within 62 days.

Aim: To identify reasons for treatment breaches in women with high grade smears.

Methods: Retrospective review 2008-2009

Results: In 190 women with high-grade smears, 7 cancers (3.7%) were diagnosed. The 62d target was breached in 1 case due to a delay in diagnosis. To allow time for treatment to be completed within 62d, diagnosis of a malignancy should be excluded early in the patient's pathway. We identified 19 women (10%) with diagnostic delays (>31d) which could have breached the 62d target had cancer been diagnosed. The diagnostic delays were due to: deferred 'see and treat' either due to this being performed under GA(3) or to suit the woman(6)/colposcopist(2), referral to MDT(7) and delayed follow-up after a DNA(1).

Discussion: We propose strategies that can help to reduce diagnostic delays. As some of these adversely affect existing MDT arrangements and theatre waiting lists, adopting them may be debatable in units where cancer target breaches are low.

Conclusion: If cancer targets are to be met, units should adopt strategies to reduce diagnostic delays.

P-10

AUDIT OF ADVERSE PREGNANCY OUTCOMES POST LLETZ PROCEDURE

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Aims and Objectives: CIN is a common condition, untreated lesions can progress to cervical cancer. An increasing number of women in the reproductive age group are treated with excisional techniques like LLETZ.

Background: Past research and meta-analysis of literature, has established that conization of the cervix (especially cold knife) is associated with increased risk of serious pregnancy outcomes.

Standards

There should not be any preterm delivery, perinatal mortality or low birth weight in women who had previous LLETZ.

Methodology: Women who underwent LLETZ in the 12-month from 01.04.2000 to 31.03.2001 were compared to the maternity database over the next eight years. Case notes reviews done for preterm deliveries.

Results:

- 491 cases of LLETZ.
- 143 deliveries.
- 26 preterm deliveries in 23 women (3 set of twins).
- The depth of LLETZ ranged from 5 to 24 mm (mode 10mm).

Discussion: In our audit the rate of pre-term delivery is 14.6% for singleton and 18% if twin pregnancies are included. PROM is 8%. There was no association between the depth of the LLETZ and the gestation at delivery.

Limitations: The data available for analysis is from PAH-based deliveries, the numbers are small and we do not have a control group for comparison.

There were 3 sets of twins and four cases of chorio-amnionitis in preterm group.

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P-11 TREATMENT AT 1ST VISIT: A COLPOSCOPY CLINIC EXPERIENCE FOR WOMEN REFERRED WITH HIGH GRADE SMEARS

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Aim: To determine the number of women referred with high grade smears managed with diagnostic punch biopsy and LLETZ, and their outcomes.

Methods: Retrospective analysis of all patients referred to colposcopy with high grade smears over a period of 6 months at Queen Mary's Hospital, Sidcup. Data were accessed from the Mediscan patient database and analysed with Microsoft excel.

Results: 126 patients were identified, data were available for 125. 47.5% (n=59), and 50% (n=62) were referred with moderate and severe dyskaryosis respectively. Mean age was 33.4, 8.8% (n=11) were <25 years old. 94% (n=117) had satisfactory colposcopic examination. 84% (n=104) had high grade and 16% (n=19) had low grade or no CIN on colposcopic examination.

60.4% (n=75) patients had diagnostic punch biopsy and 39.5% (n=49) had excision biopsy (LLETZ) at first visit. Of the former group, 32% (n=24) had CIN1, 18.6% (n=14) had CIN 2, 21.3% (n=16) had CIN 3, 1 patient had microinvasive cancer and 2 had no CIN on histology. Of those who had LLETZ, 14.2% (n=7) had CIN 1, 30.6% (n=15) had CIN 2, 48.9% (n=24) had CIN 3, 1 had microinvasive cancer and 1 had no CIN on histology

Discussion: All women referred with high grade smears had either diagnostic or excisional biopsy. Referral was appropriate and grade of smear abnormality was documented for all patients. QMH performs more diagnostic biopsies at first visit compared to national standards, which reduces overtreatment and thereby the possible complications of LLETZ.

P-12 REVIEW OF PATIENT REFERRED WITH GLANDULAR SMEARS

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Aim: To review the management, colposcopic findings, diagnosis and follow-up in women with abnormal glandular smears.

Methods: Five year retrospective review of the clinical management of patients referred with abnormal glandular cells from Jan 2004 - Dec 2008. Information collected from colposcopy & histology databases and 58 casenotes.

Results: 9 patients were not investigated by colposcopy: all were found to have malignant lesions.

Colposcopic examination and histological correlation of 49 patients:

No abnormality: 7

Unsatisfactory: 9(CGIN 4, NAD 4, Polyp 1)

CIN: 14(CGIN 8, CIN 3, AdenoCa 1, Microinvasion1, NAD 1)

?Invasive: 5(CIN 1, Invasive 2, CGIN 2)

CGIN: 15(CGIN 8, Adeno Ca 2, CIN 5)

Colposcopically significant lesions were detected in 34 cases and out of them 33 had high-grade lesions. 8 out of the 22 cases of CGIN were diagnosed at colposcopy.

Of the 44 cases with a smear report of ?glandular cells without additional features, 35% had CGIN and 16% had invasive lesions. The other 14 smears had additional features reported, out of which 50% had invasive lesions, and 28% had CGIN.

Of the 22 CGIN cases, 4 underwent a hysterectomy of which 3 had residual CGIN.

The other 18 CGIN cases were followed up by cervical smears, minimum follow up of 1 year, with no recurrence noted so far.

Conclusion: Smears indicating glandular neoplasia are associated with a significant probability (25.8%) of invasive lesions. These patients should be seen by an experienced colposcopist, preferably a gynaecologist.

P-13 OUTCOME OF WOMEN FOLLOWED UP AT THE SMEAR CLINIC AFTER A DIAGNOSIS OF LOW GRADE SQUAMOUS INTRAEPITHELIAL LESION (LGSIL)

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Background: Conventionally women are recommended a repeat colposcopic evaluation at clinic following a colposcopic and histological diagnosis of LGSIL until smear negative. This could have implication on time and resource management.

Rationale & Aim: An audit undertaken in our unit in 2008 recommended changed practice of follow-up at dedicated nurse-led smear clinic instead of repeat attendance at Colposcopy to avoid unnecessary intervention without compromising follow-up. This audit was undertaken to evaluate the outcome of this changed practice.

Methodology: Retrospective analysis of 100 case notes was done. Inclusion criteria was Colposcopy and biopsy proven LGSIL. Data was analysed using SPSS 16.0.

Result: Mean age was 32 years and 56 % were nulliparous. Mild dyskaryosis was referral smear in 60%, borderline 21%, moderate dyskaryosis 13%, and normal smear but suspicious cervix 2%.

Service provision at Colposcopy clinic was by Nurse colposcopists in 62%.

Biopsy was taken in 85 % cases. Abnormal result was seen in 73% (CIN I in 60% and 13% koilocytosis). This was the main indication

of referral to the smear clinic; rest was for follow-up of colposcopy.

Of the total, 55 % smears were normal (47 % discharged to Community and 8% had clinic smear on request). Rest 45 % were seen at the Colposcopy clinic of which 25% had repeat smear, 14% underwent a biopsy and 6% had treatment.

Conclusion: A significant number of unnecessary intervention including Colposcopy and biopsy was avoided due to the changed practice. This had implication on resources and clinic staffing.

P-14 COMPLETE OR INCOMPLETE EXCISION IN LARGE LOOP EXCISION OF TRANSFORMATION ZONE (LLETZ), DOES IT REALLY MATTER?

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Objective: To establish the effect of margin status on recurrence following large loop excision of the transformation zone (LLETZ) in women <50 years

Main outcome measures Abnormal smears, cancers and repeat biopsy/LLETZ during two year follow-up period.

Methods: 146 women who underwent LLETZ has been divided into two groups, group1, complete excision (n=58) and group2 incomplete excision (n=88) and the data of follow-up smear is collected and analyzed by chi-square tests.

Results: 24 (41.37%) patients in group1 and 46 (52.27%) patients in group2 had CIN3 diagnosed on initial biopsy. Overall incidence of CIN3 was 70 (47.94%).

7 (12.06%) patients in group1 and 18 (20.45%) patients in group2 had abnormal smears at follow up. One patient in group1 and five patients in group2 were diagnosed with cervical cancer in the 2 year follow up period. The P-values were >0.05 (0.18) and (0.25) for abnormal smears and cancer respectively.

Four patients in group1 and eight patients in group2 required repeat diagnostic and therapeutic biopsy which gives P value of >0.05 (0.6485). In group1 two out of the four patients (50%) and seven out of eight patients (87.5%) in group2 had CIN3 on biopsy.

Conclusion: The difference in the incidence of abnormal smear and need for further biopsy and treatment did not reach statistical significance when figures were analysed by chi square test. In clinical practice, this raises the question about the significance of the importance attached to completeness or otherwise of margins of excision in determining the management and follow up of patients treated for high grade cervical dysplasia.

P-15 AN AUDIT OF COLPOSCOPY DURING PREGNANCY

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Cervical cancer is rare during pregnancy but is the most common invasive disease diagnosed in pregnancy. Colposcopy during pregnancy may cause anxiety but there is no evidence of risk to the pregnancy with colposcopic examination and directed biopsy.

We performed an audit of colposcopy during pregnancy at

University Hospital Lewisham from January 2008 to December 2009. 13 women were seen. Most were referred with abnormal smears (25% borderline, 25% mild, 25% moderate and 25% severe dyskaryosis). 46% of colposcopy examinations were deferred during pregnancy with postnatal follow up arranged. Of the colposcopies performed during pregnancy, 43% appeared normal, 43% had low grade changes and 14% appeared to be high grade CIN. No biopsies were taken during pregnancy. Of the women who have had postnatal follow up, 85% have reverted to normal smears, 1 case with moderate dyskaryosis now has CIN 1 on biopsy.

Our audit concurs with other studies showing the safety of expectant management during pregnancy, with most abnormalities regressing and no cases of disease progression. Of concern in this audit is the numbers of colposcopic examinations deferred during pregnancy. Colposcopy is safe in pregnancy but interpretation of the findings may be difficult due to changes such as squamous metaplasia, stromal hypertrophy and increased vascularity. We recommend a senior colposcopist should see these patients. The BSCCP guidelines were adhered to, low grade abnormalities were followed up postnatally and the one case of suspected high grade disease was intended to be seen at the end of the second trimester.

P-16 THE IMPACT OF MISMATCH MEETINGS ON THE QUALITY OF PATIENTS' CARE IN COLPOSCOPY SETTING

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Introduction: Quality assurance within colposcopy service should be maintained in primary, secondary and tertiary settings. Multidisciplinary meetings that include cytology, histology and colposcopy staff should take place at least twice a year to discuss operational issues relevant to the service and to debate abnormal patients' results.

Patients and Methods: A retrospective review of patients' notes was conducted to identify cases discussed at the monthly multidisciplinary meetings. Patients' demographic data and results of cytology and histology were reviewed by independent investigator. Data were compiled and analysed using the SPSS programme.

Results: A total of 913 patients were seen in colposcopy clinic between 01/11/2008 and 31/03/2009. One hundred and four patients were subjected to discussion at the mismatch meetings (MMM). The mean patients' age was 32 years. Referral smears were (3.9% inadequate, 33.7% borderline, 33.7% mild, 17.3% moderate and 9.6% severe dyskaryosis). The majority of biopsies were reported as CIN2/3 (60.6%). Negative, inadequate and HPV biopsies were found in 12.5%, 1% and 6.7% respectively. There was discrepancy between the initial smear reports and their subsequent review in 44.2% of cases. However, the histology mismatch was only found in 9.6% of cases. In the studied cohort, only two patients were over-treated with LLETZ as the results of the mismatch.

Conclusion: Inter-personal difference in reporting cytology is still a major contributing factor to both over- and under- treatment of patients. This study highlights the important of the MMM in the management of patients who attend to colposcopy clinics

P-17 EVALUATION OF COLPOSCOPY ASSESSMENT BY DIFFERENT GRADES OF COLPOSCOPISTS

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Objective: NHSCCP Publication No 20 highlights the positive predictive value of colposcopy to distinguish low grade from high grade lesions only at 57%. Audit was conducted to evaluate colposcopy assessment by different grades of colposcopists with regards to correlation with initial cytology and final histology.

Methods: Data was collected from colposcopic database and systematic review of the clinical notes for all new referrals with abnormal cytology to the colposcopy clinic between 1/1/06 to 31/12/06 at Chelsea and Westminster NHS Foundation Trust Hospital.

Results: 578 women with abnormal cytology were referred to the colposcopy clinic. Cytology grades were; severe dyskaryosis 7% (n=41), moderate dyskaryosis 9% (n=54), mild dyskaryosis 58% (n=332), borderline 24% (n=138), unclassifiable 2% (n=13). 47 women (8%) did not attend colposcopy. Total number of women who had colposcopic assessment were n= 531. Initial colposcopic assessment was performed by twelve accredited colposcopists (consultants n=6, trainees n=4, colposcopy nurse specialists [CNS] n=2).

Total number of cases seen by consultants n=160, correlated n=95 (60%), not correlated n=54 (33%), unsatisfactory colposcopy n=11 (7%)

Trainees (n= 4), cases n=90, correlated n=60 (67%), not correlated n=29 (32%), unsatisfactory n=1 (1%).

CNS n=2, total number of cases 281, correlation 60% (n=171), not correlated 32% (n=90), unsatisfactory 8% (n=20).

Conclusions: Colposcopy correlation with underlying pathology was almost same 62% for all colposcopist as well as discrepancy rate of 32%. Majority 53% were assessed by CNS, but only 30% with high grade cytology and none treated during the first visit. Thus Multidisciplinary colposcopy clinicopathology correlation meetings are important to ensure appropriate management and quality assurance process.

P-18 DOES THE NUMBER OF SAMPLES OBTAINED DURING LLETZ AFFECT HISTOPATHOLOGICAL COMPLETENESS OF EXCISION AND PERSISTENT DISEASE?

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Background: Large loop excision of the transformation zone (LLETZ) samples should be removed as a single specimen in at least 80% cases according to the National Health Service Cancer Screening Programme (NHSCCP) guidelines.

Aim: We set out to see if removing the specimen in more than one piece affected histopathological completeness and persistent disease at 6 months.

Methods: Retrospective analysis of 107 cases performed between Jan05 - Dec05 in Outpatient Colposcopy in a District General Hospital.

Results: 66 LLETZs were excised as one sample (61.6% - Group A) and 41 LLETZs (38.4% - Group B) as multiple samples (2 - 5). In Group A, 37 were completely excised (56.1%), 17 incompletely excised (25.8%), 9 had no CIN (13.6%) and 3 were unable to be commented upon for completeness (4.5%). In Group B, 23 had complete excision (56.1%), 5 incomplete (12.2%), 2 had no CIN (4.9%), 10 were unable to be commented upon (24.4%) and 1 had no comments (2.4%). 7 cases (6.5%) had persistent disease at 6 months. 4/7 cases (3.7%) were from Group A and 3/7 (2.8%) from group B. 2 patients were pregnant and 1 had missing results. 97 cases were negative (90.7%).

Conclusion: Both methods of excision were equally likely to achieve complete initial histopathological excision. From our study, there was no evidence that removing LLETZ samples as more than one specimen produced a higher rate of persistent disease. We may therefore consider resection in more than one sample in large lesions or where access is difficult.

P-19 IS COMPLETENESS OF HISTOPATHOLOGICAL EXCISION AND PERSISTENT DISEASE AFFECTED BY MODE OF ANAESTHESIA?

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Background: The proportion of large loop excision of transformation zone (LLETZ) performed under local anaesthetic (LA) should exceed 80% according to the National Health Service Cervical Screening Programme (NHSCCP) guidelines.

Aim: We performed an audit to find out if mode of anaesthesia influenced histopathological completeness of excision and persistent disease at 6 months.

Methods: Retrospective data collection of 126 LLETZs performed after Jan 05 in a District General Hospital.

Results: 19 cases were performed under general anaesthetic (GA) and 107 under LA. In GA, 11 had complete histopathological excision (57.9%), 3 had no CIN (15.8%), 2 were incomplete (10.5%) and 3 unable to be commented upon (15.8%). In LA, 60 had complete excision (56%), 22 were incomplete (20.6%), 11 had no CIN (10.3%) and 14 unable to be commented upon (13.1%). There was no persistent disease in 17 cases (89.5%) from GA at 6 months (including 2 with no initial CIN) and 2 results were unknown. In LA, 7 cases (6.5%) of persistent disease occurred at 6 months. 1 result was unknown and 2 patients were pregnant. 97 women had no persistent disease (90.6%).

Conclusion: Both methods of anaesthesia appear to have similar rates of completeness of excision at the initial procedure. They also had comparable rates of achieving no persistent disease at 6 months although known recurrences were only found in the local anaesthetic group. General anaesthetic may therefore be considered more often especially in cases such as recurrent disease or poor access when it is vital to achieve complete resection and reduced persistent disease.

P-20 FOLLOW-UP OF WOMEN WITH MILD CERVICAL DYSKARYOSIS

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Introduction: Management of CIN1 may involve immediate treatment or conservative management, each followed by a period of

surveillance. Current guidelines recommend that women treated for low grade disease require follow-up cytology at 6, 12 and 24 months, whereas untreated women should undergo repeat smear at 6 months. We audited the follow-up of these women to ensure they are exposed to surveillance as recommended by the NHS Cervical Screening Guidelines.

Materials and Methods: We observed all women with CIN1 on punch biopsy during 2004. Women were followed up over a four year period. The number of visits to colposcopy clinic and histological outcomes were recorded.

Results: 160 women were identified as having CIN1 on biopsy. Age ranged from 16-72 years (mean 33 years). 109 women (68%) were discharged for follow-up, whereas 51 women (32%) were followed up in colposcopy clinic.

Of the discharged women, only 28% (31) had a repeat smear at 6 months, with 22% (24) having no follow-up whatsoever. In the hospital group, 86% (44) of women had a repeat smear at 6 months. 75% (38) of women had follow-up over two years, however, only half of this number underwent follow-up within the recommended timeframe.

Conclusion: This audit shows that compliance to cytological follow up is poor particularly in women managed conservatively. There is much debate regarding the clinical and cost effectiveness of active versus conservative management of CIN; it is vital that poor attendance to cytological surveillance be considered in this discussion.

P-21 FOLLOW-UP OF PATIENTS WITH INCOMPLETE EXCISION OF CIN AT ENDOCERVICAL MARGIN

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Background: CIN extending to the endocervical margin is known to increase the risk of recurrence. Current opinion is mixed on the value of cytology combined with colposcopy as part of follow-up.

Objective: To evaluate the follow-up of patients with incomplete excision of CIN at the endocervical margin at the first visit.

Method: A retrospective analysis of the patients attending colposcopy clinic at Nottingham City Hospital from January 2005 to December 2005.

Results: 32 of 211 patients with CIN who underwent LLETZ, had incomplete excision at the endocervical margin. All patients had colposcopy, 31 patients had smear and 12 patients had a colposcopic directed biopsy at the first follow-up.

22 (70.9%) patients had normal smears and 2(6.5%), 4 (12.9%), 2(6.5%) had inadequate, borderline, mild dyskaryotic smears respectively. Only 1 patient had moderate dyskaryosis at the first visit which found to be CIN3 on repeat knife cone biopsy. None of the patients with normal smears had abnormal biopsies.

29 (91%) patients had a satisfactory colposcopy of which 3(9.4%) had a colposcopic impression of high grade CIN but only 1 had confirmed CIN3 on biopsy.

Of the 12 patients who had biopsy, only 1 patient was found to have CIN 2 with a corresponding borderline changes smear result and the rest were normal.

Conclusion: Patients with incomplete excision of CIN at the endocervical margin can be followed at the first visit only by smears without the need for colposcopy and biopsy without compromising the diagnostic accuracy.

P-22 FIVE YEAR COLPOSCOPY AND CYTOLOGY FOLLOW UP OF HIV +VE WOMEN IN A UNIVERSITY HOSPITAL

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Introduction: National guidelines recommend that women diagnosed with HIV should undergo annual cervical cytology, with additional colposcopy if appropriate.

Aims of study: The follow up of HIV positive women attending our Colposcopy Unit was analysed to assess progression and adherence to National Guidelines.

Methods: This study identified 14 HIV positive women seen in the unit since 2005. Cytological, colposcopy and histological results were audited over the last 5 years.

Results: In terms of referral smears 1 (4%) had normal smear; 1 (4%) borderline; 6 (44%) mild dyskaryosis; 3 (22%) moderate dyskaryosis; 3 (22%) severe dyskaryosis.

Six of the women had LLETZ. CIN2 was found in 3, CIN3 in 2 and invasive squamous cell carcinoma in 1 patient. Of the remainder 3 patients had CIN1 on punch biopsy.

Of the 14 women cytological /colposcopy follow up did not show progression in 8 patients. 6 patients were lost to follow up. Of these 3 had shown cytological abnormality when they were lost to follow up.

Conclusion: The majority of these patients with HIV had CIN on biopsy. Almost 50% required cervical treatment. Follow up was erratic with a large DNA rate and eventual loss to follow up. Of those remaining there was little evidence of progression.

The results show that this group of women are at high risk of cervical abnormalities. One of the main problems with this group of patients was attendance for annual cytology/colposcopy with a 44% Lost to Follow Up rate.

P-23 IMPACT OF THE EXPANSION OF THE 62 DAY PATHWAY ON COLPOSCOPY SERVICES

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Expansion of the 62 day pathway to cervical screening is likely to have a significant impact upon colposcopy and histopathology services. Final deliberations announced that the 'clock stops' if invasion is excluded at colposcopy.

A retrospective interval audit (June 2008 to December 2008) was conducted at the Jessop Wing Colposcopy Unit of all women referred with moderate or worse cytology. The potential number of women involved in the 62 day pathway; the incidence of cervical cancer; the number of women successfully managed by 62 days; the predictive values of colposcopy ability to exclude invasion, and the potential number of women breaching the pathway was investigated.

175 women were referred within the allocated study period. Five cancers (3%) were detected; 80% were stage 1a1 treated by local excision. Overall 98% of referrals were colposcoped within 62 days. Two patients breached due to persistent DNA. The positive predictive value for colposcopic assessment to correctly detect a cancer was 0.25; the negative predictive value was 0.97. For the five patients diagnosed with cancer, 40% were treated within the 62 day pathway, i.e. three patients breached.

If exclusion by colposcopic impression can be regarded as the final pathway end point then the majority of patients can achieve the 62 day target. Although the incidence of cervical cancer was low (3%) in this group with 80% FIGO stage 1a1 cancer undergoing local excision, it is questionable whether the positive predictive value of colposcopy alone is a satisfactory method to exclude invasion.

P-24 THE MULTIDISCIPLINARY COLPOSCOPY MEETING: RECOMMENDATIONS FOR FUTURE SERVICE PROVISION AND AN ANALYSIS OF CLINICAL DECISION MAKING

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The NHSCSP recommended (2004) that MDM's were incorporated into patient management. No data has been provided since regarding its functionality or benefits. We assess indications for MDT referral, concordance rates from cytopathology and histopathology review, and concordance rates between MDT treatment decisions and final patient management in an aim to assess the effectiveness of the colposcopy MDT.

Retrospective review of the Jessop Wing Colposcopy Database (Sept 2003 - Sept 2009); cross-referenced with MDT letters, patient notes and hospital clinical results reporting system. Base-line statistics were used for data analysis.

535 cases were discussed at 62 MDT meetings during the allocated study period. Discrepancy between referral cytology and cervix punch biopsy was the most common reason for referral (49%). Cytology and histology review concurred with the initial reports in 75.8% and 97.8% of cases respectively; MDT decision was concordant with final patient management in 97% of cases. The main reason for discordance (67%) was due to patient factors.

When significant discrepancies exist between colposcopy, cytology and histopathology then MDT discussion seems pertinent as all methods are known to have associated false negative and false positive rates. MDT discussion can lead to the avoidance of over-treatment. To improve timeliness of potential treatment, MDT meetings should be held at least monthly. The results of each case discussion should be recorded in the patient case notes, the minutes of each meeting should be circulated to all MDT members and a letter describing MDT recommendations must be sent to the colposcopist responsible for patient care.

P-25 Referral to colposcopy after a single borderline glandular smear; experience gained and lessons learned.

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Since, the management of Irish women with borderline glandular cells has been one of immediate referral to colposcopy rather than repeat cytology. The optimal colposcopic management of women with borderline glandular change is unclear. A balance between detection of occult endocervical disease and overtreatment is required.

This study analysed computerised information from the colposcopy service at the NMH to document the experience; One hundred and fifty six women attended the colposcopy service following a single borderline glandular smear. The mean age was 41 years (24-75), 30 (19%) of women had some abnormal bleeding. The colposcopy was satisfactory in 125 (82%) and unsatisfactory in 31 (18%). High grade changes were detected in 46 women (30%). Only four women had endometrial sampling. Histology results were available for 139 (89%) women; 59 excisions and 80 punch biopsies. Invasive cancer was diagnosed in four women (2.6%) and adenocarcinoma in situ in 5 (3%). Twenty one women had high grade CIN (14%) and sixteen (10%) had CIN 1. No CIN was detected in 93 women (67%); 36 (61%) of excisional procedures performed. For these women, the colposcopic impression was unsatisfactory in 11 (28%), Glandular abnormalities were suspected in 7 (19%), high grade changes in 12 (33%) and low grade changes six (16%).

Significant levels of high grade disease was confirmed in this group of women which would seem to justify the change in policy. Concerns about undetected endocervical disease resulted in unacceptably high levels of negative excisions. Alternative colposcopic strategies including endocervical cytology sampling and HPV triage should be considered.

P-26 PATIENT QUESTIONNAIRE ON COLPOSCOPY ATTENDANCE-A SERVICE EVALUATION

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Background: The default rate in colposcopy with respect to non-attendance (DNA) should be less than 15%. But in our trust the non-attendance of follow-up patients was 22.4% during April-September 2008.

Aim: To identify the reasons for non-attendance through patient questionnaire and to obtain patients views on improving the colposcopy attendance.

Methods: All the follow-up women who attended the colposcopy clinic in the month of October 2008 (n=193) were invited to complete the questionnaire survey. All the data collected were anonymous. The response rate was 62% (n=103).

Results: Of the 103 women who completed the questionnaire, 25% (n=27) of them had stated that they have missed previous colposcopy appointment. The main reasons for non-attendance were menstrual periods and not receiving appointment letter. 70% of the women in the DNA group wanted a re-reminder in the form of mobile text messages or reminder letter a week earlier to their appointment. 37% of the women wanted to make their follow-up appointment at the end of the clinic and 48% of them wanted a choice of out-of hour's

clinic. (Evening/Saturday).

Conclusion: Majority of the women wanted a re-reminder, so a study to evaluate whether reminder mobile text message a week earlier to the appointment could improve women's attendance in colposcopy clinic is needed. The feasibility of making follow up appointment at the end of the clinic and the cost effectiveness of the out of hours clinic need to be assessed.

P-27 "SEE & TREAT" OR "SEE & OVER-TREAT"?

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Best practice in the screening of cervical cancer in the UK includes the potential for definitive treatment for cervical intraepithelial neoplasia (CIN) at first colposcopy. Current NHSCSP guidelines state that treatment by large-loop excision of the transformation zone (LLETZ) or cone biopsy is only appropriate in those women with higher grade CIN or potentially invasive disease. Recent prospective studies demonstrate that many cases of CIN1 regress naturally over a timescale of up to 24 months. However, the numerous advantages of transformation zone (TZ) excision may be responsible for the threshold for treatment being lowered, with many more women undergoing treatment than may be necessary. Additionally, data continues to highlight the potential risks of these procedures, notably cervical stenosis and increased risk of preterm labour. There is ongoing debate as to whether the 'See & Treat' system leads to over-treatment of low-grade lesions. One aim of this study was to determine the number of 'See & Treat' patients that had low-grade disease confirmed histologically. We evaluated all 'See & Treat' consultations at a single centre over a period of 2 years (n = 173). This cohort included many who had a colposcopic impression of low-grade disease. 8% and 26% had a histological diagnosis of normal cervical tissue and CIN1 respectively. Given the potential adverse effects of TZ excision in young women, management should be based on surveillance and reassessment. Punch biopsy may offer a more acceptable alternative for obtaining a tissue diagnosis in these women before pursuing more aggressive treatment options.

P-28 LLETZ- ARE WE PUTTING TOO MANY LADIES TO SLEEP?

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Background: NHCSSP guidelines states that at least 80% of treatment at colposcopy should be provided under LA.

This study investigates the choice of anaesthetic for LLETZ procedure.

Method: Patients undergoing LLETZ from 1/10/2008-31/9/2009 were identified from the colposcopy data base at Birmingham Womens Hospital. Data was collected and analyzed.

Results: TOTAL NO. PATIENTS UNDERGOING LLETZ= 506

GRADE OF COLPOSCOPIST:

NURSES = 83 (16.4%)
CONSULTANTS = 393 (77.7%)
SENIOR REGISTRARS = 30 (5.9%)

GA vs LA:

LLETZ UNDER GA = 110 (21.7%)
LLETZ UNDER LA = 396 (78.2%)

GRADE OF COLPOSCOPIST REQUESTING/PERFORMING LLETZ UNDER GA:

NURSES = 26 (23.6% of ALL LLETZ performed under GA)
SENIOR REGISTRARS = 4 (3.6% of ALL LLETZ performed under GA)
CONSULTANTS = 80 (72.7% of ALL LLETZ performed under GA)

USE OF GA MEDICAL VS NON-MEDICAL COLPOSCOPIST:

31.3% OF LLETZ UNDERGONE BY NURSES WAS UNDER GA.
19.9% OF LLETZ UNDERGONE BY DOCTORS WAS UNDER GA.

JUSTIFICATION FOR USE OF GA MEDICAL VS NON-MEDICAL COLPOSCOPIST:

	DOCTORS	vs	NURSES
PATIENT'S REQUEST	11		8
OTHER PROCEDURE	11		6
SIZE OF LESION	10		7
PT ANXIETY	18		5
POOR VISIBILITY	11		7
OTHER	14		2

Conclusion: Non medical staff colposcopist were more likely to utilise GA than their medical colleagues. An overview of justification of use of GA during LLETZ in medical and non-medical staff colposcopists.

The most common reason for performing LLETZ under GA by non-medical colposcopist was patient's choice. Whereas patient's anxiety was the leading cause with the medical colposcopists.

P-29 EFFECTIVE TREATMENT OF CERVICAL GLANDULAR INTRAEPITHELIAL NEOPLASIA BY LOOP EXCISION. A REVIEW OF HISTOLOGY OUTCOMES AND CYTOLOGY FOLLOW UP

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The usual standard treatment for women with cervical glandular intraepithelial Neoplasia (CGIN) suspected on cytology in the UK has been knife cone biopsy. Women may also be treated with large loop excision depending on local practice or when CGIN has not previously been suspected. We have audited women with a diagnosis of CGIN who have presented to the Liverpool Women's Hospital NHS Foundation Trust over a 5 year period, particularly comparing those undergoing knife cone and LLETZ excisional biopsy. Outcomes are histological result, excision margins, the need for further excisional biopsy or hysterectomy and follow up cytology results.

P-30 MANAGEMENT OF CERVICAL CYTOLOGY SUGGESTIVE OF INVASION

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The correlation of cervical cytology reporting features of invasion is reported as high with a positive predictive value (PPV) of 56% reported in one series. Since the advent of liquid-based cytology we considered the PPV of cytology suggestive of invasion in the Jessop Wing Colposcopy Unit and assessed whether we were able to manage our women in line with NHSCSP and 62 day targets.

A retrospective analysis of the colposcopy database was performed of all women referred with? Invasive cytology from June 04 to Dec 08.

Five of fourteen women referred had an underlying malignancy (all FIGO stage 1a1). Cytology had a PPV of 33% and 100% for the detection of malignancy or high-grade intraepithelial neoplasia respectively; Colposcopy had a PPV of 66% for the detection of malignancy. Two women failed to achieve the two week wait target due to persistent DNA; all women with malignancy were treated within 62days, the remainder being managed within 18 weeks.

Cytology reporting? Invasion is useful in detecting high-grade intraepithelial neoplasia and malignancy, though colposcopy certainly improves detection rates. Two week wait targets remain difficult to achieve with regard to patient DNA rates though 62 day targets for malignancy seem more pertinent. Attempts to reduce DNA rates in colposcopy are imperative in order to ensure that waiting targets are achieved.

P-31 BASELINE COLPOSCOPY IN NEWLY DIAGNOSED HIV POSITIVE WOMEN. A REVIEW OF A NEW SERVICE

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Background: Current NHSCSP and BHIVA guidelines state that all newly diagnosed HIV positive women should receive annual cytology with a baseline colposcopy examination if resources permit. A new service offering baseline colposcopy was initiated at St Mary's Hospital in July 2008. A review of the service assessing prevalence of cervical abnormality and the utility of colposcopy at diagnosis was performed.

Methods: Retrospective data was collected on patient demographics, CD4 cell count, viral load, cytology and histology results from patients seen between July 2008 and January 2010.

Results: 26 women were included. Mean age was 38 (range 25-54). 9 (35%), had CD4 cell counts <200 cells/ μ L, 7 (27%), 201-350 cells/ μ L 3 (11%) 351-500 cells/ μ L and 7 (37%) >500 cells/ μ L. Mean viral load was 29840 copies/ml (range <50-292291). 12/24 (50%) of cervical cytology samples taken were abnormal. 10 (42%) were low grade, 2 (8%) high grade. Cervical biopsies were taken in 6 women. 4 (66%) had low grade disease. 1 (17%) high grade, 1 (17%) was insufficient for diagnosis. 1 vaginal biopsy was taken for HPV changes.

Conclusion: Abnormal pathology is extremely common in this cohort of women newly diagnosed with HIV (50%). 2 (8%) of the cohort had an abnormality that would otherwise have been missed with cytology alone thus supporting the practice of baseline

colposcopy. 3 patients were already known to colposcopy services and recent British guidelines would suggest that earlier HIV testing was indicated.

P-32 A QUALITY AUDIT OF LLETZ CERVICAL BIOPSY IN HULL

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Background and aims: Annual incidence rate of cervical cancer in U.K. is 8.4/100,000 females.

LLETZ procedure allows excision of the dysplastic area in the cervical transformation zone, and halts progress of pre invasive lesions to cancer. The aim is to assess the quality of the LLETZ specimens in Hull.

Method: A retrospective audit looking at the quality of LLETZ specimens in Hull, from 1/10/07 to 31/03/08, and comparing them to the standards as mentioned in the 'Colposcopy and Programme management', NHSCSP Publication no. 20, April 2004. 220 cases were audited, as identified from the data of the pathology laboratory, and colposcopy database.

Results: 100% of the loops had histologically demonstrable lesions, (standard 90%), 71.9% being highgrade, and 4% cancer.

68.6% (standard 80%) of the loops were intact, whereas 29.55% of the loops were in multiple pieces, 1.8% were open loops.

84% (standard 95%) of the LLETZ specimens had adequate depth of more than 7mm.

Completeness of excision of the lesion was achieved in 29.7% cases. Excision was incomplete in 30.2% loops and could not be assessed in 40.09% cases, either because of disintegrated or open nature of the loops, or diathermy artefacts.

Positive predictive value of high grade lesions on colposcopic diagnosis was 82.84% (standard 65%).

Conclusion: Recommendation was to target to excise the loops in single piece, aim to achieve more than 7mm depth in ectocervical lesions, and reduce diathermy artefact, in order to ensure complete excision of CIN. The plan is to reaudit in 6 months.

P-33 OUTCOMES OF WOMEN UNDER 25 YEARS OF AGE REFERRED FOR COLPOSCOPY CLINIC AT MID-WESTERN REGIONAL HOSPITAL, LIMERICK (PERIOD FROM JANUARY 2004 TO SEPTEMBER 2009)

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Aim: To determine the colposcopic findings, management, and follow-up of women below twenty five years of age referred to colposcopy clinic at Mid-Western Regional Hospital Limerick

Method: This was a retrospective review of the colposcopy database over 5 year's period from October 2004 to September 2009.

Results: 795 women under 25 years were referred to our unit. Referral smears were high-grade squamous lesions (HGSL) in 35.4% and low grade squamous lesions (LGSL) or atypical squamous cells of uncertain significance (ASCUS) in 46.1% of cases. Following colposcopy 43% had biopsy-proven high grade abnormalities, 24.1%

of them had grade three cervical intraepithelial neoplasia (CIN3). Those with LGSL or ASCUS smears, 25.1% of them had a histology-proven HGSL, while those with HGSL smear 51.1% had HGSL on histology. 447 women (56.1%) had treatment {LLETZ (29.3%) and cold coagulation (70.7%)}. In the LLETZ group 93 (71%) women had histology results of high grade abnormalities. 51% of LGSL smears resolved spontaneously. 6% had persistent disease following treatment that required further treatment (59.3 were CIN2, 22.2% CIN3 and 18.5 CIN1).

Conclusion: The high number of high grade cervical lesion detected in our colposcopy unit among young women raises concern about the lower screening age threshold of 25 year of age.

P-34 CERVICAL CANCER: THE BENEFITS OF SCREENING

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Introduction: The incidence of cervical carcinoma decreases where well organised and good quality screening services are available. Our aims were to determine if patients diagnosed with cervical cancer had been screened appropriately and identify the extent to which clinical outcomes guidance has been implemented.

Methods: We present a retrospective audit of 10 patients diagnosed in a cancer unit in the North West of England who presented within a one year period to assess compliance with set standards. Information was gathered via patient's notes, Meditech system, and screening histories from the Exeter system.

Results: Standards achieved in the audit include: 1) patients underwent colposcopy/examination under anaesthetic and diagnostic biopsy 2) patients were discussed at multidisciplinary team meeting and recommendation for treatment made 3) patients were seen at treatment centre appropriate to cancer stage 4) patients underwent appropriate treatment for respective stage of cervical cancer. One standard failed because one patient's referral time exceeded guidelines.

Two patients presenting with FIGO stage Ia had complete smear histories. Presentation with stage Ib was most common, two with complete and two with incomplete smear histories. One patient presented with stage IIB and three with stage IV, all of which had incomplete smear histories.

Conclusions: The majority of patients diagnosed with cervical cancer had incomplete smear histories and these patients were also more likely to be diagnosed at a later stage. This shows the importance of the screening programme, and it is the women that are regularly missing smears that should be more strategically targeted.

P-35 IMPLEMENTING THE NATIONAL INVASIVE CERVICAL CANCER AUDIT: CORRELATION BETWEEN LOCAL AND REGIONAL CLASSIFICATION

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Objective: To determine the accuracy of information recorded

regionally and locally on the screening classification of cervical cancer cases using the national invasive cervical cancer audit categories.

Methods: Comparison of the audit categorisation of all cervical cancer cases diagnosed at the University Hospital of North Staffordshire (UHNS) between January 2003 and December 2006 with the classification assigned by the West Midlands Cervical Screening Quality Assurance Reference Centre (WMQARC).

Results: Eighty-seven cases of cervical cancer were diagnosed during the three-year study period. There was agreement between the UHNS and WMQARC classification of cases occurred in 52 cases (59.8%), moderate agreement $k=0.5027$ (95% confidence intervals 0.3818-0.6237). The greatest disparity was seen in the classification of lapsed attenders, with 9 of the 26 cases categorised as 'lapsed' by the UHNS being assigned to the 'lost to follow up' category by WMQARC. Three cases were deemed unclassifiable by WMQARC using the national classification since the women were over the age of 70 years but had previously been enrolled in the screening programme, and currently there is no national category for these women.

Conclusions: Accurate and consistent classification of invasive cervical cancer cases is essential in order to obtain useful information on the efficiency of the national screening programme at a local, regional and national level.

P-36 THE IMPACT OF THE DEATH OF JADE GOODY ON THE NUMBER OF WOMEN DIAGNOSED WITH CIN 3 AND INVASIVE CERVICAL CANCER WITHIN THE WEST MIDLANDS REGION

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Due to the recent media interest in cervical screening following the death of Jade Goody from invasive cervical cancer, the West Midlands QA Reference Centre (WMQARC) decided to assess the profile of women diagnosed with CIN 3 and invasive cervical cancers within the West Midlands region between 2008 and 2009, in order to evaluate the impact of publicity on women attending for screening.

Methods: Women diagnosed between 1 January 2008 to 31 December 2008 and between 1 January 2009 to 31 December 2009 were assessed. Whilst data for invasive cervical cancers were notified through the national invasive cervical cancer audit, any additional cases not notified through the audit process and all CIN 3 data were obtained from the West Midlands Cancer Registry. A computer algorithm, developed by the WMQARC, assigned a screening status to each cervical cancer or case of CIN 3 based on the woman's screening history prior to the date of her diagnosis. Deprivation status was classified using Indices of Deprivation 2007.

Results: Over 5,000 CIN 3 cases and over 500 invasive cervical cancers were diagnosed during this time period. Comparative results will be presented on the number of cases diagnosed by month, the age distribution at diagnosis, stage, deprivation status and the screening history at diagnosis.

Conclusion: Use of combined screening and cancer registry data provide the opportunity to accurately assess, using a large cohort of data, the impact of this type of media coverage on screening attendance and diagnosis of significant cervical screening abnormalities.

P-37 QUALITY ASSURANCE AUDIT IN A LONDON DGH COLPOSCOPY UNIT – IS OUR COMPUTERISED DATABASE ROBUST AND ARE WE MEETING NATIONAL STANDARDS?

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Objective: Compare colposcopy practice with national standards and manually validate colposcopy database

Design: Retrospective study

Population:

1. Women referred with high grade smears from 1/4/2007 to 31/3/2008
2. Women referred with low grade smears from 1/4/2006 to 31/3/2007

Outcome measures

Diagnostic or therapeutic biopsies in high grade smears, follow up post treatment, treatment failures, diagnostic or therapeutic biopsies in low grade smears showing disease persistence, data accuracy

Results

1. 98% of high grade referrals had a biopsy within 6 months.
Standard >90%
2. 96% of treatments had smears within 8 months of treatment.
Standard > 90%
3. 84% had negative smears 6-8 months after treatment.
Standard > 90%
4. 100% with positive smears post treatment were colposcoped within 12 months.
Standard 100%
5. 4% histological failures 12 months post treatment.
Standard < 5%
6. 100% of low grade smears showing disease persistence had a biopsy within 2years.
Standard > 90%
7. Data accuracy of database ranged between 83-98%

Conclusion: Our colposcopy unit was meeting the national standards in 5/6 parameters and the database was producing robust data

P-38 KNOWLEDGE OF HUMAN PAPILLOMAVIRUS (HPV) AND CERVICAL CANCER AND PATIENT ACCEPTABILITY OF HPV TESTING

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Aim: To assess patient acceptability of the introduction of routine HPV testing of cervical smears and how this relates to patient knowledge of HPV.

Methods: Women (n=55) attending a hospital colposcopy clinic in 2009 completed an optional questionnaire. The questionnaire assessed knowledge about HPV and cervical cancer. It asked questions to determine whether women thought the addition of routine HPV testing of their cervical smear was an acceptable way to assess their risk of cervical cancer.

Results: 70.9% of women in this setting had heard of HPV. They identified HPV as the most significant risk factor for developing cervical cancer. Acceptability for HPV testing was also high; the

majority thought that HPV testing would be an improvement to the screening programme for cervical cancer. Chi-squared analysis showed no association between acceptability of routine HPV testing and knowledge of HPV and cervical cancer (p=0.532). In this group of women the acceptability of HPV testing was unchanged by the knowledge that HPV is sexually transmitted. (p=0.962).

Conclusions: The participants in this study were well informed, and the large majority thought HPV testing was acceptable. This study suggests that although women are aware of HPV and its aetiological role in cervical cancer, there is some confusion about the prevalence of HPV infection and the likelihood of developing cervical cancer. Further patient education could be used to support the introduction of HPV testing into the cervical screening programme.

P-39 AUDIT ON HIGH GRADE CERVICAL DYSKARIOSIS: IS IT JUSTIFIED TO TREAT AT FIRST VISIT

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Introduction: Early detection and treatment of high grade Cervical Intraepithelial Neoplasia (CIN) can prevent up to 75% cervical cancer developing (NHS Cervical Screening Programme). Untreated over 50% of high grade CIN will progress to cervical cancer (Ostor AG., 1993). The “select and treat” causes less waiting time for anxious patients, ensure treatment is performed and less number of appointment (Sadan O., 2007).

Objectives: To evaluate the appropriateness of “select and treat” as a suitable modality in treating for high grade cervical dyskariosis referred to George Eliot Hospital NHS Trust.

Methodology: A retrospective study where all of the case notes of patients who were referred due high grade dyskariosis from January to June 2009 were identified.

Results: A total of 58 cases were reviewed. 57% (33) of the cases had severe dyskariosis and 43% (25) had moderate dyskariosis in cervical smear. One case was excluded in view of diagnosis of cervical cancer stage 1b. All of the other 57 patients had undergone Large Loop Excision of Transformation Zone (LLETZ) during the first visit. The histology results revealed 61.4% (35) CIN3, 31.6% (18) CIN2, 5.3% (3) CIN1 and 1.7% (1) of CGIN. In all the 57 cases, 70% (40) had a clear endocervical margin and 44% (25) had clear ectocervical margin. 81% (46) of the cases had depth of more than 7mm.

Conclusions: 94.7.1% (54) of the cases referred had CGIN, CIN2 or CIN3. Hence, “select and treat” is a good modality in treating high grade Cervical Dyskariosis.

P-40 IMPROVING COLPOSCOPY PATIENT INFORMATION

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Assessment of colposcopy patient information is routinely monitored by the West Midlands QA Reference Centre (QARC) both through the QA Team visit process and the evaluation of the regional colposcopy patient satisfaction survey. Following the regional

colposcopy patient satisfaction survey in 2005, results highlighted inadequacies in the variation of colposcopy literature available to patients. Following discussions at the regional colposcopy nursing group, in order to ensure the provision of consistent and accurate information, a regional colposcopy information leaflet was developed and implemented throughout all colposcopy clinics within the West Midlands region.

Methods: The developed leaflet was submitted to the Plain English Campaign in order to ensure that the leaflet was clear, accurate and understandable for patients. In order to tailor the leaflet for each individual clinic, each clinic was requested to submit details of all treatment procedures performed and the main contact details for patient queries regarding referral or treatment. Via the 2010 regional patient colposcopy satisfaction survey, the regional information leaflet was assessed across the 25 colposcopy clinics within the region.

Results: Results will be presented on the assessment of the leaflet in comparison with the evaluation of patient information provision from previous patient colposcopy surveys.

Conclusion: The development of a regional colposcopy patient information leaflet has enabled the provision of consistent and understandable information to women visiting colposcopy clinics within the West Midlands region. Following successful feedback of the leaflet, a set of regional post treatment information leaflets have also been developed.

P-41 AYRES SPATULA v CERVE-X-BRUSH: A RETROSPECTIVE COMPARISON IN SCREENING FOR CGIN

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Objective: To compare the efficacy of Cervex-Brush to Ayres spatula in the screening of cervical glandular intra-epithelial neoplasia (CGIN)

Background: Liquid based cytology (LBC) has replaced the traditional Papanicolaou smear in the West Hertfordshire region in September 2005. This was in accordance to national campaign to phase out the traditional cervical screening method. The evidence was overwhelmingly in favour of liquid based cytology for squamous carcinoma of the cervix. However, there is paucity of data regarding efficacy of liquid based cytology in detection of atypical glandular changes.

Methods: Inflex database was searched for histologically confirmed cases of CGIN between 1997 and 2009. These cases were then reviewed and the initial referral smear noted. Those smears performed before 09/2005 were by using Ayres spatula whilst the rest were collected using Cervex-Brush.

Results: During the study period, there were 10935 patients referred to the colposcopy clinic with abnormal smears. There were 84 (0.008%) patients with a histological confirmation of CGIN. One case from the pre LBC group was excluded because there was no referral smear. 34 patients had a referral smear using Ayres spatula and 49 using Cervex-Brush. 12 (35.3%) cases of glandular abnormality were detected on the referral smear done by the Ayres spatula whilst 8 (16.3%) were detected using a Cervex-Brush. Overall therefore the Ayres spatula was better than Cervex-Brush in detecting CGIN. (RR 2.16; 95% CI 1.0-4.7, p=0.05)

Conclusion: Our study suggests Ayres spatula is more effective in detection of atypical glandular changes as compared to Cervex-Brush (LBC).

P-42 THE ASSOCIATION OF VULVAL, VAGINAL AND PERIANAL INTRAEPITHELIAL NEOPLASIA WITH ABNORMAL CERVICAL CYTOLOGY

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Our aim in this study was to estimate the number of women who had vulvar, vaginal or perianal intraepithelial neoplasia and their relation to abnormal cervical cytology.

Methods: Retrospective study from 2000-2007. All patients who have been diagnosed as VIN, VaIN and PaIN were identified from the main cytological database.

Results: 30 patients were identified as having VIN (1-3). 12 patients were identified as having VaIN. 4 patients were identified as having PaIN during this time period. The median age for the VIN group was 60.5 years. The median age for the VaIN group was 49.5 years. All the women diagnosed as having VaIN have had abnormal cervical smears ranging from mild to severe dyskaryosis. 10 of the 30 women in the VIN group had abnormal cervical smears ranging from severe inflammatory changes to severe dyskaryosis. 1 of the 4 patients in the PaIN group had a previous abnormal cervical smear. There was one patient who was identified as being HPV positive and had CIN, VaIN and PaIN.

Conclusions: In our study all women with VaIN, a third of women with VIN and a quarter of women with PaIN had abnormal cervical smears. The findings in our study of VaIN are consistent with a recent study 6. A prospective study of concurrent vulvoscopy of younger women with abnormal cervical smears will provide a definitive answer and might provide an additional recommendation to our current national screening programme.

P-43 IMPROVING THE QUALITY OF COLPOSCOPY SERVICE IN COMPLIANCE WITH THE QUALITY ASSURANCE RECOMMENDATIONS

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Introduction: The Quality Assurance review of our colposcopy service commented that although, overall a high standard of service is provided, there was need for further improvement of performance against national standards.

Objectives: To address the issues raised by the Quality Assurance review team.

Methods: A retrospective audit was undertaken between January 2008 and August 2008 to identify whether these were clinical or administrative failures and what actions could be taken to improve our performance against national standards.

Results: We audited our practice for the management of patients with high-grade smears. Our clinical management with respect to predictive value of colposcopic diagnosis, suitability of biopsies for histological assessments, treatment of patients under local anaesthetic was meeting standards, as was our low non-attendance rate. Administrative performance in the form of attendance at clinic within 4 weeks of referral and clinic appointments offered within four weeks of referral as well as communication of results to the referrer and the patient was not meeting national standards.

Conclusion: Administrative delays were identified as the area affecting the performance of the service. In order to shorten the waiting times following referral, direct referral system from cytology to colposcopy has been introduced. To further improve communication with patients and referrer, in collaboration with the IT department, we are in the process of developing "e-letters" to ensure results are sent out and received timely. It is anticipated that measures taken in response to QA review would greatly enhance colposcopy clinic performance and ensure a high quality service.

P-44 REVIEW OF PATIENTS WITH LOW-GRADE SMEAR ABNORMALITIES REFERRED FOR COLPOSCOPY

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We reviewed outcome of patients referred to colposcopy with low grade smear abnormalities by retrospective analysis of records over 12 months between 1/1/2008 to 31/12/2008. Retrieved the list of patients and histopathology from computer database, and analysed using frequency tables.

380 patients with low-grade smear abnormalities were referred, out of which the data available for 373 patients was analysed. 2 of referrals were for inadequate samples and subsequent smears done in the clinic were negative. They were referred back to routine recall. Of 209 patients referred for borderline smears, 197 needed punch biopsy at 1st visit. 2 did not attend appointment. 115/197 had miscellaneous results (squamous metaplasia, koilocytosis), 29/197 had CIN 1, 30/197 had CIN2, 23/197 had CIN3. patients who had CIN2+3 needed treatment. Of 162 referred for mild dyskaryosis, 1 patient DNA'd appointment. 2 had LLETZ, results reported as CIN 2, CIN 3 each. 159/162 had punch biopsy at first visit. 61/159 had miscellaneous results, 41/154 had CIN1 43/154 had CIN2, 17/154 had CIN3. CIN2+3 needed LLETZ. 2 of the patients with CIN 2 did not attend the appointments. The patients with CIN 1 were followed up with repeat colposcopy. Overall, occurrence of CIN 2 was 49(13.1%), and CIN3 was 33(8.8%) and cancer was 3(0.8%) from LLETZ biopsy.

Conclusion: 76.4% of patients with low-grade smear abnormalities had normal colposcopy or low-grade lesion on colposcopy. Hence there is a good correlation between low-grade smear abnormality and findings at colposcopy and histology.

P-45 AUDIT OF THE OUTCOME FOR WOMEN WITH POSITIVE MARGINS ON EXCISIONAL TREATMENT FOR CIN

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Aim: To determine failure rate of excisional treatment of cervix for CIN when excisional margins are positive.

Material and Methods: 100 women who had undergone LLETZ between July 2006-Dec 2007 with histologically positive excisional margins were identified from the Infloflex database. Inclusion criteria was at least one follow up smear after the treatment. Winpath and Openexerta databases were used to obtain histopathology and follow up. NHSCSP guidelines were used as the standard.

Results: 82% were referred with high grade smear and 18% with mild dyskaryosis or lesser. The follow up smear was positive in 15% with positive ectocervical margin, 4% with positive endocervical margin and 28% with both margins positive. 83% had a follow up

smear within 8 months. 12% women had a dyskaryotic follow up smear with 5/12 (5%) had histological treatment failures.

74% and 26% were seen respectively at Hospital A and B. Roller ball coagulation is used for haemostasis at Hospital A whereas cold coagulation for 30 sec is used in Hospital B. 11/12 women with positive f/u smears were treated at the QE 2 i.e. 14.8% and 1/12 of these women were treated at the Lister i.e. 3.8%.

Conclusions: Women with positive ecto and endocervical margins should have 1st follow up in the colposcopy clinic as more than a quarter of these women have positive follow up smear. All women with positive smears should be recolposcoped. Cold coagulation is perhaps better than roller ball in destroying residual dyskaryotic cells after LLETZ, resulting in fewer treatment failures.

P-46 IS THE UPTAKE OF SMEAR BETTER AT THE GP SURGERIES FOLLOWING COLPOSCOPIC TREATMENT? AN AUDIT AT A DISTRICT GENERAL HOSPITAL?

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Aims/Objectives: To study the performance of the colposcopy unit and to find whether patient uptake is better if the follow up smears are at the GP surgeries after treatment, based on the new hospital policy.

Results: 93% had appointment within 8 weeks in 2005, 82% within 8 weeks in 2006.

48% were followed in 6 months in 2005, 63% in 2006. This improved to 89% and 88% when the time for follow up was stretched to 8 months. Overall 92.4% were followed after loop excision in 2005, 95% in 2006. The smaller percentage of increase is due to patients having a smear delayed due to pregnancy.

Follow up rate increased from 15% to 65% at the GP surgeries in 2006 following the implementation of new policy. 8.6% were lost with no follow up in 2005 but this declined to 5% in 2006. All the patients lost in follow up were initially planned to have follow up in clinic.

In 2006, 59% of patients had their follow up smears within 6 months in clinic whereas only 38% had their follow up smears in 6 months at the GP surgeries. This increased to 86% in both groups if the time period was stretched to 8 months.

Summary/Conclusions: Follow up at GP surgeries was good but steps need to be taken to improve it to have all follow up in 6 months. Hospital needs to improve the number of patients seen within 8 weeks to >90%.

P-47 CERVICAL CYTOLOGY SUGGESTIVE OF GLANDULAR NEOPLASIA

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Cervical cytology reporting glandular neoplasia is reported as having a positive predictive value (PPV) of up to 43% for malignancy and up to 31% for other clinically significant lesions. Since the advent of liquid-based cytology (LBC) we considered the PPV of cytology

suggestive of glandular neoplasia in the Jessop Wing Colposcopy Unit to see if results were comparable with study data using Papanicolaou techniques. We also considered the PPV of colposcopy and punch biopsy as the latter in particular is regarded as being of limited value in glandular neoplasia.

A retrospective analysis of the colposcopy database was performed of all women referred with cytology reporting glandular neoplasia from June 04 to Dec 08.

In total thirty-two of fifty-two women referred (62%) were found to have a final diagnosis of CGIN; four had a coexistent FIGO stage 1a1 adenocarcinoma; and one FIGO 1a1 SCC. One woman was also found to have endometrial cancer. Therefore 12% of women referred had an underlying malignancy. Cytology had a PPV of 63% for the detection of a glandular lesion, 81% in total for a clinically significant lesion. The PPV for colposcopy and punch biopsy were 51% and 56% respectively in detecting a glandular lesion.

The PPV of cytology in the detection of glandular neoplasia surpasses that of colposcopy and punch biopsy and may have improved since the implementation of LBC. Larger collaborative studies are needed to corroborate this data. These studies may further clarify the role of directed punch biopsy.

P-48 PSAMMOMA BODIES ON CERVICAL SCREENING: A SIGN OF UNDERLYING GYNAECOLOGICAL MALIGNANCY OR JUST AN INCIDENTAL FINDING?

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Psamomma bodies are concentric, laminated, calcified, extra-cellular bodies. It is thought that they arise as a result of dystrophic calcification. They may be detected on cervical samples following routine screening as part of the NHSCSP. The published literature suggests that they may be associated with significant gynaecological pathology such as tubal serous carcinoma, epithelial ovarian, endometrial and clear-cell cervical and neuroendocrine carcinomas of the cervix. From 4 January 2004 to 1 November 2009 one cervical screening laboratory reported only 8 samples with psammoma bodies on cervical samples following screening. A total of 180403 were reported giving an incidence of 1 in 22550. Out of these 8 women 6 were referred to one NHS Hospital Trust. Two were not referred for a specialist opinion. One has had 4 negative smears and 1 was offered further screening but did not respond. Five patients were seen in our department and all had significant gynaecological pathology and required surgery: 2 had benign disease, 1 had high grade CIN and 2 had cancer. One woman did not attend several appointments and did not respond to failsafe follow-up. We conclude that although a very uncommon finding, all women with psammoma bodies found as an incidental finding should have an urgent colposcopy and thorough gynaecological investigations if cervical dyskaryotic cells are detected. If no evidence of dyskaryosis are detected an urgent gynaecological referral should be made.

P-49 THE EXAMINATION OF ANAL SMEARS IN A SELECTED FEMALE POPULATION, USING MOLECULAR MARKERS

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Aim: Firstly to provide epidemiological data on anal HPV infection and its relation with cervical HPV infection. Secondly to estimate the accuracy of three methods of anal smears examination, as screening tools in a high risk population.

Methods: The study population included women with: Cervical cancer, CINII/III, condylomata, HPV-negative controls.

Anal and cervical smears are collected and transferred to a Thin-Prep Medium. The evaluation of the smears is accomplished using: Flow cytometry (flow- fish) of E6-E7 genes, PCR for the identification of HPV genotypes, Morphological cytology.

Proctoscopy is applied only to women with a positive test. A detailed sexual history is also taken.

Results: So far 46 women have been tested. HPV DNA is frequently positive in both cervix and the anus except in controls, but mRNA is seldom positive.

There is high cross-correlation, between HPV types of cervical and anal smears. Anal smears were significantly more likely to be inadequate than cervical ones (McNemar's $p < 0.05$).

There is no correlation (Spearman index $r = 0.05$) between flow cytometry values of the cervix and anus. Relative risks for anal HPV infection are in females with pre-existing cervical HPV infection=17.3, and in females with more than 3 lifetime sexual partners=2. Reported anal intercourse and condom use appeared to have little or no effect on anal HPV infection.

Conclusion: Women with pre-existing cervical HPV infection are more prone to harbor anal HPV. Whether this leads to clinical lesions is to be established. Examination of anal smears with PCR and flow is feasible. It seems more difficult to obtain an adequate smear from the anus than from the cervix.

P-50 CIN3 DIAGNOSED AT ERPC – A PRUDENT PATHOLOGIST OR UNIQUE LESSON?

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A 29 year old presented seven weeks from her last menstrual period, complaining of 10 days' vaginal bleeding. She had delivered one child vaginally after an uneventful pregnancy, but never had a smear test. Ultrasonography revealed a blighted ovum; a diagnosis of missed miscarriage was made and treatment options discussed.

She elected for an evacuation of retained products. Intraoperatively a cervical ectropion was noticed. Histology was reviewed by a doctor and confirmed products of conception, but also some cervical squamous epithelium and an incidental finding of CIN3 involving crypt ducts (figure 1). Subsequent smear test, colposcopy and punch biopsy confirmed the diagnosis.

Discussion: Evacuation of retained products of conception is one of the most commonly employed management strategies for miscarriage. Although miscarriage and CIN are both relatively common, and affect the same age groups, we can find no reports of a similar diagnosis being made in the literature. It is uncertain what proportion of retained products sent for histology contain cervical cells, and the effect of suction aspiration on the cervical epithelium architecture.

Our case raises several pertinent learning points. (1) It is imperative to send products at ERPC for histological assessment; (2) Histological assessment must be at the microscopic level; (3) the importance of results being reviewed by an appropriately qualified person prior to filing; (4) The patient must be informed, when consent is taken, that histology will be sent (and may reveal another diagnosis).

(Figures will include a histology slide revealing CIN3 involving duct crypts.)

P-51 HUMAN PAPILLOMAVIRUS (HPV) PREVALENCE IN WOMEN TREATED FOR HIGH-GRADE CERVICAL INTRAEPITHELIAL NEOPLASIA (CIN)

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Background: The role of Human Papillomavirus (HPV) in the development of cervical cancer and its pre-malignant lesions has been well documented. The introduction of HPV testing into the follow-up management of high grade lesions has been suggested since persistence of HR HPV infection is a predictor of persistent or recurrent lesions.

HPV molecular tests differ in sensitivity and operational characteristics and it is essential that they should be subject to direct comparison on validated sample sets.

Objectives: To evaluate the utility of HPV testing in women treated for high-grade CIN undergoing follow-up treatment.

Materials and Methods: Cervical samples were investigated for HPV type specific infection using GP5/6⁺ PCR-EIA assay and the results compared to a commercial HPV molecular assay from Greiner Bio-one (PapilloCheck[®]). Samples were collected prior to LLETZ treatment of biopsy proven CIN 2/3 and 6 months after treatment.

Results: DNA extraction efficiency was confirmed by β -globin PCR with 457/477 positive (96%). All samples were analysed by PapilloCheck[®] and GP5/6⁺ PCR-EIA testing is ongoing. PapilloCheck[®] results detected 194 samples (80.2%) as HR HPV positive prior to treatment and 137/215 positive (63.7%) at 6 months. HPV 16 was detected in 196/331 cases (58.3%) of all HR HPV positive cases. In the 331 HR HPV positive samples, 128 samples (38.7%) had a multiple infection.

Conclusion: HR HPV prevalence in women attending colposcopy for LLETZ treatment of biopsy proven high grade CIN prior to treatment was 80.2% compared with 63.7% at 6 months post treatment.

P-52 HUMAN PAPILLOMAVIRUS TYPE DISTRIBUTION IN VULVAL INTRAEPITHELIAL NEOPLASIA: POTENTIAL OF VACCINATION TO PREVENT VIN:

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Introduction: The aim of this study was to assess HPV positivity and type distribution in a contemporary sample of histologically confirmed VIN, and to use this data to predict the potential of prophylactic HPV vaccination to prevent VIN.

Materials and Methods: Sixty seven cases were investigated (age 21 - 82 yrs, mean 48 yrs). Histological composition was: VIN (grade not specified) - 7, VIN1 - 3, VIN2 - 6, VIN3 - 47, VIN plus vulval carcinoma - 2, vulval carcinoma - 2. This study was approved by South Wales LREC (SMKW/EL/03/5178). DNA was extracted from biopsy material and HPV types were identified using the PapilloCheck[®] HPV DNA-chip (Greiner Bio-One GmbH, Frickenhausen, Germany).

Results: Valid results were obtained for 55/67 cases. HPV infection was present in 39/55 (71%). 27/39 cases (69.2%) were positive for HPV16 and 2/39 (5.1%) for HPV18. HPV positive cases had a mean age of 44 yrs, as compared to a mean of 53 yrs for HPV negative cases (t test, p=0.0435).

Conclusions: Previous studies show wide variation in the proportion of VIN samples testing HPV positive - it is likely that results are highly dependent on grade of VIN, time period investigated and typing methodology. In this study HPV16/18 were present in 29/55 (52.7%) of cases; implying that in this population, vaccination could potentially prevent around half of VIN (not allowing for cross protection). These results are also consistent with previous suggestions that HPV positive VIN tends to occur in younger patients.

P-53 UNUSUAL PRESENTATION OF LANGERHANS CELL HISTIOCYTOSIS (LCH), ISOLATED LESION ON THE CERVIX – CASE REPORT

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Case report of uncommon lesion detected on the cervix at colposcopy examination which turned out to be an isolated focus of Langerhans Cell Histiocytosis (LCH) on the cervix. Patient was 47 year old nulliparous women referred to colposcopy for severe dyskaryosis. She was a heavy smoker with a history of multiple sclerosis. Colposcopy revealed evidence of high grade lesion (CIN 2 & 3), and cervical polyp and lateral to transformation zone an isolated dense acetowhite lesion but with no other diagnostic characteristic features of CIN. A loop excision of the area of high grade dysplasia to include the endocervical polyp was performed. The unusual isolated lesion was also removed separately.

Histology returned confirming HPV, CIN2 and CIN3 which was completely excised. Histology of the unusual isolated lesion showed ectocervical tissue with central ulceration and the underlying stroma contained an infiltrate of histiocytic cells and numerous eosinophils. Immunocytochemistry showed strong S-100 positivity, features compatible with Langerhans Cell Histiocytosis (LCH) of the cervix. Further investigations did not show any evidence of extragenital LCH or Diabetes Insipidus, a common association with LCH.

Two follow up colposcopic examinations and smears performed at 6 months interval were normal with no evidence of recurrence.

Pure genital tract histiocytosis is extremely rare and of the cervix even more so. Hadinec et al have reported the only other case of pure cervical histiocytosis and their patient was also treated with complete resection of the lesion with no evidence of recurrence disease subsequently.

P-54 ATTITUDES TOWARDS THE HUMAN PAPILLOMA VIRUS VACCINE

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Aim: Our aim was to investigate the awareness of cervical cancer and the role of the Human papilloma virus (HPV) vaccine in prevention. The HPV vaccine is not yet available in the Republic of Ireland.

Methods: 250 questionnaires consisting of 10 questions were distributed to patients attending a colposcopy clinic. As a control group, 100 questionnaires were distributed in a general gynaecology outpatients. 200 and 69 questionnaires, respectively, were available for analysis.

Results: The results in both groups were similar. However, the colposcopy group had greater awareness of the role of HPV in cervical cancer. 63% of those attending colposcopy understood the link between HPV and cervical cancer compared to 42% of those attending general gynaecology OPD ($P < 0.01$). An average of 58% of people felt they understood what the vaccine was used for. 71% agreed with giving the vaccine to 12 year old girls at school and 69% believed that the HSE should make it a priority to do so. 15% of women were concerned about the safety of the vaccine. 31% admitted that they were influenced by celebrities to attend for screening. 28% admitted to being influenced by family and friends.

Conclusion: Despite some lack of understanding and concerns about safety, the majority of women in North Dublin agreed with providing the HPV vaccine to young girls. Those women attending for colposcopy showed a superior knowledge of the aetiology of cervical cancer.

P-55 LARGE LOOP EXCISION OF TRANSFORMATION ZONE AND CERVICAL LENGTH IN THE PREDICTION OF SPONTANEOUS PRETERM BIRTH

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Objectives: To evaluate the combination of maternal risk factors and previous treatment for cervical intraepithelial neoplasia in predicting the risk for spontaneous preterm delivery (sPD) and to explore if the addition of cervical length (CL) yields a significant improvement in the prediction model.

Methods: This retrospective study was carried in 26,867 singleton pregnancies that underwent transvaginal sonographic measurement of CL at 20⁺⁰-24⁺⁶ weeks between January 1998 and June 2006. Maternal characteristics, obstetric history and previous large loop excision of transformation zone (LLETZ) were recorded.

Results: The rate of sPD (<34 weeks) was 1.5%. There were 477 (2.1%) cases that had LLETZ. The CL was significantly shorter in those that had LLETZ than in those that had not ($p < 0.0001$). Logistic regression analysis demonstrated that in predicting sPD there were significant contributions from racial origin (Black: adjusted OR 2.11, South Asian: adjusted OR 1.84, East Asian: adjusted OR 2.71), cigarette smoking (adjusted OR 2.18), previous sPD (adjusted OR 4.82) and LLETZ (adjusted OR 2.956). With the addition of CL (adjusted OR 0.86 per mm), LLETZ did not remain a significant predictor in the model. The detection rate of sPD provided by maternal characteristics, obstetric history and LLETZ was improved from 29.4% to 56.7%, at false-positive rate of 10%, with the addition of CL.

Conclusions: Our study showed that LLETZ increases the risk of sPD, even after adjustment for maternal risk factors. However, the measurement of CL provides clinically more useful information in the prediction of sPD than the history of LLETZ.

P-56 DIGITAL CERVIVOGRAPHY AS AN ADJUNCT TO COLPOSCOPY

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Introduction: Visual screening methods for cervical intraepithelial neoplasia such as direct visual inspection and cervicographs have been shown, in several studies, to have low specificity and sensitivity. However, most of these studies used lower resolution photographs. Some used digital photography in conjunction with cervical smears. To our knowledge, there are no published studies using digitally captured and electronically stored images at colposcopy for assessing the degree of correlation with cytology and histology.

A i m
1. To assess the degree of correlation between electronically stored high resolution digital cervicographs, cytology and histology.
2. To evaluate the agreement between different colposcopists.
3. To assess the usefulness of cervicographs as an adjunct for training, in assessing the suitability for treatment under local anaesthetic and for use in multidisciplinary meetings.

Methodology: 40 cases were randomly selected retrospectively and stored images on View point system were interpreted by 5 accredited colposcopists of different grades separately. They were blinded to the original colposcopic impression, cytology and biopsy results. Data regarding clarity and the adequacy of images for interpretation, impression on diagnosis, and whether the lesion needs local or general anaesthetic if treatment needed were collected. Results- Data collection is nearing completion. Statistical analysis will be performed to check the sensitivity, specificity and correlation coefficient.

P-57 A 10 YEAR REVIEW OF WOMEN REFERRED WITH ATYPICAL GLANDULAR CELLS (AGC) ON SMEAR WITH AGE REFERENCE AND FINAL DIAGNOSIS

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Background: The incidence of (AGC) on all smears is 0.05-0.01%. which is associated with a high prevalence of invasive adenocarcinoma (40-43%) and preinvasive disease (20-28%). NHSCSP guidelines suggest all reports attempt a site of origin and a rigorous protocol be employed.

Objective: To fully examine the referral smear, the investigations, management and the outcome of these women.

Methods: Retrospective analysis of all women with atypical glandular cells on smear with specific reference to 2 age groups, <35yrs and >36 yrs over a 10 year period from 2000-2009.

Results: The total number of women referred with AGC was 129. Total number of notes available was 121.

Sites of origin were cervical n=71(55%), endometrial n=29(22.4%) and Unspecified n=29 (22.4%)

Percentage with malignancy were 42/121(34.7%), premalignancy 45/121(37.1%), benign disease 34/121(28%). Cervical disease was found in 88/121 (72.7 %) and extracervical was detected in 33/121(27.3%).

Women under 35yrs all had cervical disease while women over 36yrs had mostly extracervical disease mainly endometrial cancer 18/33 (54%).

Conclusion: The colposcopist should insist that a report of AGC's should always be supplemented by an attempt at a site of origin.

In women over 36yrs of age, ultrasound + endo sampling +/- hysteroscopy should be part of the routine investigative protocol as well as colposcopy for these women.

P-58 INCIDENTAL LOWER GENITAL TRACT INFECTION IN PATIENTS REFERRED FOR COLPOSCOPY

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Background & Aim: Presence of genital tract infection can complicate colposcopic treatment by increasing the risk of post-procedure infection. Such infections should be treated before referring to colposcopy. The aim of our study was to determine the incidence of genital tract infection in patients referred for colposcopy in a district general hospital setting.

Methods: 100 consecutive patients referred between January 2009 and March 2009 to a colposcopy unit in a district general hospital were included in the study. All patients were questioned regarding symptoms of infection prior to colposcopic examination. Triple swabs were taken if infection was suspected on the basis of history and examination findings. Invasive colposcopic treatment was deferred if infection was strongly suspected.

Results: Of the 100 patients, triple swabs were performed on 19 patients by the colposcopist based on history and examination

findings. Of these, 12 patients were confirmed to have infections on their triple swab results. Two patients had chlamydia infection, seven had bacterial vaginosis, three patients candidiasis and one had both candidiasis and bacterial vaginosis. All cases of confirmed infection were treated. However 25 % of patients with suspected infections had their colposcopic biopsy/treatment deferred pending microbiological results.

Conclusion: 12% of the patients referred for colposcopy had incidental genital tract infection. Such infections can negatively impact the outcome of the colposcopic appointment. We recommend that patients referred for colposcopy be assessed for infection by the referring practitioners.

P-59 RETROSPECTIVE COHORT STUDY OF UNDER 25'S WHO WERE REFERRED TO THE COLPOSCOPY CLINIC IN A DISTRICT GENERAL HOSPITAL

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Introduction: NHSCSP guidelines recommend that cervical screening is offered to women over 25. However, there is an increase in the incidence of under 25's being referred to the colposcopy for either an abnormal smear or abnormal looking cervix on examination. There is a low incidence of invasive cancer detected in this age group, however there has been a suggestion that the age at which women are offered cervical screening should be reduced due to increased promiscuity, and a younger age at which sexual activity commences.

Aim

To calculate the incidence of young women attending colposcopy in a district hospital setting, and to ascertain the reason for referral, colposcopic findings and histological diagnosis.

Methods: This was a retrospective cohort of women referred to the colposcopy clinic over a 5 year period (2005-2009). Data of 200 women were obtained from Mediscan, and were analysed using Microsoft excel.

Results: The median age was 21.5 years (range 17-24 years). Most cases were referred by the GP for an abnormal smear. 68.5% were referred for mild dyskaryosis. 10% for moderate dyskaryosis and 7.5% for severe dyskaryosis. 4.5% of them had borderline smears. There was only 1 case of adenocarcinoma in this cohort. On colposcopy impression, 54.5% had a low grade CIN, 21.5% had high grade CIN and 17% were normal in appearance.

Conclusions: Primary care practitioners should adhere to BSCSP guidelines for cervical screening. Deviation from this can result in unnecessary anxiety and over treatment in young women.

P-60 FISCHER LOOP EXCISION AND STANDARD LARGE LOOP EXCISION OF TRANSFORMATION ZONE (LLETZ): A COMPARATIVE STUDY

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Aims and Objectives: To compare Fisher Loop to standard large loop excision of transformation zone (LLETZ)

Material and Methods: 95 consecutive women were examined and the demographic data, the adequacy of excision, depth of the cone, residual abnormalities. If excision was complete follow up was by smear only at 6 months and colposcopy also if excision was incomplete.

Results: 49 were in the Standard and 46 in the Fischer group. There were significant differences in the age, parity and combined oral contraceptive (COC) use between the groups. More young, nulliparous women and those using COC had standard LLETZ. Women in the Fischer group were more likely to have completed their family. There were no significant differences in the number of specimens achieved, depth of cone specimen. Both instruments achieved similar excision rates. For the majority (88/95, 92.6%) 6 month follow up data is available. Sixty three had 1 year (66.3%) and 25 (26.3%) 2 year follow up. Thirty seven (82%) vs. 33 (76.7%) of the women in Standard and Fischer groups respectively had negative smears which were not significantly different. Inadequate and abnormal smear rates were also not different although the numbers were too small to draw conclusions. Fifty three women (55.8%) had colposcopy at 6 months. Colposcopy was significantly more difficult in the Fischer group due to cervical stenosis (1/28, 3.6% in standard group vs. 8/25, 32% in Fischer $P < 0.009$).

Conclusions: Both procedures are equally effective in the excision of CIN and incidence of residual disease but with higher incidence of cervical stenosis in the Fischer group.

P-61 THE CONSERVATIVE MANAGEMENT OF HIGH-GRADE SMEARS

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Introduction: The conservative management of high-grade smears is controversial due to concerns over missed or progressive disease.

Methods: All referrals for colposcopy due to moderate dyskaryosis between March 2004 and December 2006 were selected. Women found to have no cervical abnormality on colposcopic examination, despite adequate visualisation of the squamocolumnar junction, and who did not undergo a LLETZ biopsy at first presentation were investigated.

Results: Thirty-six women were identified, median age 27.5 years. The reason given for not treating at the first visit was colposcopy/cytology discrepancy in 25 cases, request for conservative management in 10 cases and return for treatment in 1 case. 22 women underwent a LLETZ biopsy at some point following the initial colposcopic examination, median time to LLETZ 4.3 months (range 3.1-21.7 months), 73% of specimens contained CIN 2/3. 14 women did not undergo a LLETZ and were discharged once their cytology had returned to normal. The median time for the return to normal

cytology was 12.5 months (range 2.9-38.5 months). The median follow-up period following normal cytology was 44.9 months (range 10.3-66 months) and during this period the conservatively managed women had a median of 3 negative smears (range 1-5). Only one woman had an abnormal smear during the follow-up period, a borderline nuclear abnormality.

Discussion: A proportion of cervical intraepithelial lesions will regress with time. This study shows that the conservative management of moderate dyskaryosis in the absence of colposcopic abnormalities appears to be acceptable management in a selected group of patients.

P-62 IS A COLPOSCOPICALLY-DIRECTED PUNCH BIOPSY A RELIABLE DIAGNOSTIC TEST IN LOW-GRADE CERVICAL INTRAEPITHELIAL NEOPLASIA? A PROSPECTIVE STUDY

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Introduction: Colposcopy has a sensitivity of only 50% for high grade CIN and the validity of colposcopy-directed punch biopsy (CDPB) has been questioned. As a preliminary to performing a RCT evaluating the cost-effectiveness of using CDPB in the management of women referred with low grade smears, a prospective trial evaluating the accuracy of CDPB in patients with suspected low-grade CIN was performed.

Methods: Entry criteria were patients with low-grade cytological and colposcopic findings and in whom the decision to perform a LLETZ biopsy had been taken. A single CDPB was taken immediately before the LLETZ. The trial was powered in order to detect a level of Kappa (k) of 0.4 (ie fair to moderate agreement), with a two-sided significance level of 5% and a power of 90%.

Results: 63 paired CDPB/LLETZ specimens were analysed. Histologically inadequate specimens were excluded. 35% (n=22) of the cohort had high-grade CIN (CIN2/3) which was detected by punch biopsy in 9 cases. There were no false positive CDPB results.

Conclusions: The accuracy of CDPB in this context has never been performed. The amount of high-grade CIN detected despite there being only low grade findings accords with previous studies and exemplifies the lack of sensitivity of colposcopic assessment based on cytology and colposcopic findings alone. These data indicate that even a single CDPB will improve sensitivity without an increase in false positives thereby improving detection of high-grade CIN and suggests that this strategy would be cost-effective.

P-63 THE PREVALENCE OF CERVICAL CYTOLOGICAL ABNORMALITIES IN HIV-INFECTED WOMEN

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Introduction: Literature reports high prevalence of abnormal cervical cytology in HIV-infected women in comparison to the non-HIV women. There is a suggestion that treatment with Highly Active Anti-Retroviral Therapy (HAART) may be associated with regression of HPV infection. The objective of this study was to determine the prevalence of cervical smear abnormalities in HIV-infected women in comparison with non-HIV women.

Methods: We performed a retrospective study of 534 HIV-infected women and 2859 non-HIV women identified through clinic attendance log and an Infoclix database. The study participants attended between 1st July 2003 and 30th June 2005 for a cervical smear test as a part of their routine medical care. A conventional smear was performed and the outcomes in term of cytology results were studied in the two groups. A sub-group analysis of HIV-infected women depending on their CD4 count and HAART status will be presented.

Results: There was no difference in the mean age or ethnicity in the two groups. 146 (27.3%) HIV-infected women had abnormal cervical cytology as compared to 775 (27.1%) non-HIV women. In the HIV-infected group, the prevalence of abnormalities was borderline nuclear changes: 8.61%, mild dyskaryosis: 17%, moderate dyskaryosis: 0.9%, severe dyskaryosis: 0.74%, inadequate: 6.74%. In the non-HIV group, the prevalence of abnormalities was borderline nuclear changes: 9.75%, mild dyskaryosis: 12.27%, moderate dyskaryosis: 2.76%, severe dyskaryosis: 2.3%, inadequate: 5.87%.

Conclusion: There does not seem to be a higher prevalence of smear abnormalities in HIV-infected women as compared to the non-HIV women (high risk HPV group).

P-64 PERFORMING SECONDARY EXCISION FOR CERVICAL INTRAEPITHELIAL NEOPLASIA, WHICH METHOD IS BEST?

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Objective: Several treatment methods are available when managing high-grade cervical intraepithelial neoplasia (CIN), but there is little evidence surrounding the optimal management of women undergoing secondary procedures. Large loop excision of the transformation zone (LLETZ) and laser cone biopsy are offered within our colposcopy unit, this study aimed to compare both treatment options when carried out as secondary procedures.

Methods: A retrospective review of all women who underwent more than one treatment for CIN from January 2002 to December 2008 was carried out within the colposcopy department at The Royal Free Hospital, London. Outcomes included the presence of disease following excision, margin status, volume and height of specimen.

Results: Fifty three women underwent repeat excisions within the study period. There was a significant difference between the median volume of tissue removed following the laser cone biopsy compared to the LLETZ (1.66cm³ and 0.63cm³, p=<0.0008). The percentage of specimens with complete endocervical margins was higher within

the laser cone biopsy group (Fisher exact test, p value = 0.512, OR 1.633 95%CI [0.433-6.16]). The combined specimen height for the different treatment combinations did not differ significantly.

Conclusion: A significantly larger volume of cervical tissue is removed following a secondary laser cone biopsy, however the combined depth of cervical tissue removed is not increased when including primary treatment. There was a trend towards a larger proportion of specimens achieving complete endo-cervical margins within the laser cone biopsy group. For women undergoing repeat cervical excisions laser cone biopsy should remain an option to practicing clinicians.

P-65 EFFECT OF CONDOM USE AFTER CIN TREATMENT ON HPV POSITIVITY AND OTHER BIOMARKERS: A RANDOMISED CONTROLLED TRIAL

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Background: So far, no study has investigated whether consistent condom use after treatment of CIN reduces HPV positivity post-operatively and possibly as a result, the risk of treatment failure.

Materials & Methods: Design: Single-blinded randomised controlled trial.

Inclusion criteria: Women planned to undergo LLETZ for CIN. Intervention: Women randomly allocated to Group A were given recommendation for condom use, whilst women in Group B received routine information. An LBC sample was tested for HPV typing, E6 & E7 mRNA (NASBA technique), E6 & E7 mRNA by flow cytometry, p16^{INK4a} and microspectroscopy at 0 (pre-treatment), 6 and 12 months. A questionnaire to assess compliance was also completed.

Outcomes: The relative risk (RR) and absolute RR (ARR) were calculated in an intention-to-treat analysis. The number needed to treat (NNT) and compliance were also assessed.

Results: A total of 113 women were recruited. Fifty-four have completed 6 and nineteen 12 months follow-up. The positivity for all the tested markers at follow-up was significantly reduced in Group A. In particular, 22% of women tested positive for HPV in Group A in comparison to 57% in Group B [RR:0.39(95%CI:0.24-0.54), ARR:0.343 (95%CI:0.064-0.622)]. The NNT was 3. Analysis of HPV positivity in relation to the excision margins, treatment failures and compliance rates as well as histological data for both groups will be presented.

Conclusions: Post-treatment condom use significantly reduces HPV positivity. It remains to be confirmed whether this will also result in decreased number of treatment failures.

P-66 PROPORTION OF CERVICAL EXCISION AND REGENERATION AFTER TREATMENT FOR CIN AND CORRELATION TO OBSTETRIC OUTCOMES

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Background: The aim of this study was to determine how the percentage of the cervical volume (and/or endocervical canal) excised affects cervical regeneration and future obstetric outcomes.

Material & Methods: Design: Prospective observational study. Inclusion criteria: Women planned to undergo excisional treatment for CIN that wish to preserve their reproductive function.

Intervention: The cervical volume (and dimensions) is estimated by MRI prior to treatment. The volume (and dimensions) of the cone is assessed prior to fixation by a volumetric tube and a ruler; the percentage (%) of excision is recorded. Cervical regeneration is estimated by repeat MRI at 6 months.

Outcomes: Cervical regeneration and future obstetric outcomes in relation to the proportion of excision.

Results: A total of 48 women have been recruited; all were treated by LLETZ. Twenty-nine have completed six months follow-up. Four of these are currently pregnant. The cervical volume prior to treatment varied from 11 to 39.6cm³, the volume of the excised cone from 0.8 to 5cm³ and the percentage of excision from 2.75 to 33.11%. Cervical healing was complete when the proportion of the excision was <10%, partial if >20%, while it varied for those in between. The outcomes in pregnancy will be correlated to the proportion of excision and the completeness of the regeneration.

Conclusions: There is possibly a cut off in the proportion of the volume excised, above which, healing and regeneration is adversely affected. This might also signify those women that need further surveillance and/or management during future pregnancy.

P-67 IS IT IMPORTANT TO COMPLETELY EXCISE CIN IN LLETZ CERVICAL BIOPSIES?

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Aim: To determine the impact of completeness of excision of CIN in LLETZ specimens in 6/12 follow up smears.

Method: 220 LLETZ biopsies were performed in Hull, in between 1/10/07 and 31/03/08. Information of completeness of excision of CIN was obtained from the pathology reports, and results of the immediate post LLETZ smears were compared.

Results: Of the 220 LLETZ cases, there were 179 with preinvasive or microinvasive cancer lesions. In 53 cases, lesions were completely excised, 59 were incompletely excised at various margins, in 66 cases completeness of excision was uncertain, and no relevant information present in 1 report.

96.15% of the lesions which were completely excised, had negative subsequent smears. 92.45% of the lesions which were incompletely

excised, had negative follow up smears. 86.2% of the pre-invasive lesions, whose completeness of excision could not be assessed, had negative follow up smears. 6% of the follow up smears of the cases with incomplete or uncertain excision, were moderate to severely dyskaryotic.

There was no statistical significance between the smear results of the lesions completely and incompletely excised (P 0.41), or between the results of the completely excised and uncertain completeness of excision of lesions (P 0.42).

Conclusion: Majority of the follow up smears were negative, regardless of the completeness of excision of lesions in the LLETZ specimens, probably because ablation with roller ball diathermy at the raw cervix, destroys another 2-3mm of tissue, and treats any remaining premalignant cells.

P-68 10 YEARS REVIEW OF VAIN (VAGINAL INTRAEPITHELIAL NEOPLASIA)

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Introduction: VAIN is uncommon finding in patients undergoing colposcopic assessment. It is increasing in recent years.

It is estimated that 1-3% of patients with CIN have coexistent VAIN. It is common in immunosuppressed patients. VAIN and CIN share common etiology. HPV virus is present in both cervical and vaginal lesions.

Histologically assessment analogous to CIN and graded VAIN 1,2 and 3.(1)

Objectives: The aim of the study was to review all cases of VAIN at St Mary's Hospital from 2000-2009 to:

- Assess if there was increase in diagnosis of VAIN,
- To examine all VAIN patients,
- To examine all patients with previous hysterectomy.

Methods: Histology results obtained for all vaginal biopsies and studied all patients with VAIN.

Results: Number of patients attending Colposcopy at St Mary's Hospital-12000.
62 patients with VAIN.

An increase in the incidence of VAIN per year from 3 patients in 2000 to 12 patients in 2009.

Vaginal biopsies results showed 48% with low grade VAIN and 52% with high grade lesions.

97% had history of multicentric disease.

20% of patients discovered incidentally during colposcopic examination.

75% high grade were immunosuppressed.

9 patients with previous hysterectomy-3 patients had hysterectomy for non-CIN reasons.

Conclusion

The incidence of VAIN is increasing.
Most high grade patients were immunosuppressed.
VAIN can appear many years after CIN.

References:

Rome RM, England PG (2000) Management of VAIN, International Journal of Gynecological Cancer 10 (5) 382-390.

P-69 WHAT IS THE FREQUENCY OF CERVICAL STENOSIS IN WOMEN WHO HAVE UNDERGONE LARGE LOOP EXCISION OF THE TRANSFORMATION ZONE FOR DYSKARYOTIC SMEARS, WHEN USING DEPOT CONTRACEPTION AND THE ASSOCIATED RISK FACTORS IS ANY?

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Objective: To assess the frequency of cervical stenosis in women who have undergone large loop excision of the transformation zone for dyskaryotic smears, when using Depot contraception and the associated risk factors if any.

Study Group: A systematic review of the case notes of women treated by large loop excision of the transformation zone for cervical dysplasia, when using Depot contraception at the colposcopy clinic University Hospital North Staffs during the period 01/11/2005 to 31/08/2008. Cervical stenosis occurred in 8 of the 54 women. Amongst the factors analysed depot injection were found to be independent predictors of stenosis in some cases.

Conclusion: Cervical stenosis can be correlated with a history of duration of depot use in conjunction with large loop excision of the transformation zone in some cases. The inability to achieve adequate cytological samples and satisfactory colposcopy leaves these women at risk of cervical pre cancer and cancer of the cervix.

The stenosis can mask significant cervical disease including pre cancerous abnormalities of the cervix which if undetected could lead to significant morbidity and mortality. The consequence of which is often surgical in the form of cervical dilatation, hysterectomy or further cone biopsies with in some cases loss of the ability to achieve pregnancy.

Recommendation: This audit suggests that women who use depot should be counselled that their risk of stenosis if large loop excision of the transformation zone is undertaken and the consequences in terms of morbidity.

P-70 LONG TERM FOLLOW UP OF WOMEN WITH BORDERLINE NUCLEAR CHANGES (BNC) REFERRED FOR COLPOSCOPY

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Objective: For many years there has been no consensus regarding the management of low grade smears. The aim of this study was to evaluate the outcome of women with borderline cervical smears referred for colposcopy.

Methods: A retrospective study was conducted of 167 women with borderline cervical smears referred for colposcopy at St Richards Hospital from 1st January 2004 to 31st December 2005. All records were obtained from Colposcopy Regional Database. Cytology and histology reports were obtained using SemaHelix Hospital database and Open Exeter Screening database.

Results: A total of 165 patients were included following 2 exclusions. 29.7% (49/165) were treated on the first visit (see and treat). CIN was identified in 56.2% (27/49) and of these 48.1 % (13/27) were high grade. A surveillance method of colposcopy, biopsy or cytology alone

was employed in 70.3% (116/165). Treatment was only given when abnormalities persisted (select & treat). On follow up until 2010, 31.0% (36/116) were recalled and treated. CIN was found in 75.0% (27/36) and of these 74.1% (20/27) were high grade. 69.0% (80/116) were monitored using surveillance, with 96.3% (77/80) remaining negative to date having had no treatment throughout the follow up period.

Conclusion: There was a higher detection of CIN in the select & treat group compared with the see and treat group. This study has demonstrated that surveillance leads to fewer women receiving unnecessary treatment. Therefore the surveillance method is a safe and appropriate approach in managing women with borderline smears.

P-71 A 'SEE AND TREAT' POLICY FOR REFERRAL SMEARS SUGGESTIVE OF MODERATE DYSKARYOSIS: IS IT JUSTIFIED?

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Objective: To assess a "see and treat" policy for referrals with a moderate dyskaryosis smear.

Background: The NHSCSP guidelines states that, "Treatment at first visit for a referral of borderline or mild dyskaryosis should only be used in exceptional cases, and only when audit has identified that CIN is present in $\geq 90\%$ of the excised specimens". There is no guidance for women presenting with moderate and severe dyskaryosis on referral smears. Whilst literature suggests 95% correlation between cytology and histology for a severe dyskaryosis referral, there is controversy regarding management of smears suggestive of moderate dyskaryosis. In this study we determine the yield of CIN when a 'see and treat' policy is employed for such referrals.

Method: A thorough search of our INFOFLEX® database between 01/01/2001 and 31/12/2009 was performed. All the cases of moderate dyskaryosis on referral smear treated with a loop biopsy at their first visit were included and histology reports were analysed.

Results: There were 9237 patients referred during the study period. There were 1388 (15.0%) patients with moderate dyskaryosis. No biopsy was obtained in 88 patients and 22 cases were excluded as histology reports were not available. Histology revealed 935 (68.5%) cases of high-grade CIN, 199 (14.3%) cases of low-grade CIN and in 131 (9.4%) cases, there was no evidence of CIN. There were 13 cases of micro invasion or glandular changes.

Conclusion: In our study population, a "see and treat" policy for patients with moderate dyskaryosis on referral smear is appropriate.

P-72 MANAGEMENT OF 'NORMAL' COLPOSCOPY IN THE PRESENCE OF HIGH GRADE CYTOLOGICAL ABNORMALITY

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Aims: To compare the histology results in patients with a negative colposcopy in patients with a high grade smear and assess the management options.

Background: Colposcopy as a screening tool alone is questionable; the results are operator dependent, subjective, or sometimes inconclusive especially in low grade disease. In patients with high grade cytological abnormality, there is a good correlation between high grade smears and colposcopic findings. In this study we aim to determine the prevalence of 'normal' colposcopy in the presence of a high grade cytological abnormality.

Methods and Results: Infloflex® database was searched for patients referred with a moderate or severe dyskaryosis smear to our colposcopy clinic between 01/01/2001 and 31/12/2009. During the study period, there were 9237 patients referred to the clinic. Of these there were 1388 (15%) patients with high grade smears. 64 (4.6%) had a satisfactory normal colposcopy. 8 (12.5%) patients had no biopsy and had negative follow-up smears. 76 (87.5%) patients had a loop biopsy. 15 (23.4%) patients had no CIN, 11 (17.1%) had CIN 1 and 29 (45%) had CIN 2 or 3.

Conclusion: In our study population, 4.6% women have a 'normal' colposcopy in the presence of a high grade cytological abnormality. 45% of these patients have a high grade CIN on histology.

P-73 REGENERATION OF CERVIX FOLLOWING EXCISIONAL TREATMENT FOR CERVICAL INTRAEPITHELIAL NEOPLASIA: A STUDY OF COLLAGEN DISTRIBUTION

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Introduction: Cervical incompetence is a known risk factor of excisional treatment to the cervix. A recent meta-analysis showed an increase in preterm delivery after a single excisional treatment using LLETZ. It has been suggested that this may be due to an inflammatory process, rather than a structural weakness. This study aims to examine the change in the composition of the healing cervical tissue in terms of collagen distribution.

Methods: Patients were identified who had repeat excisional treatments, including Laser, LLETZ or Hysterectomy, for CIN in our unit during the period 1991-2008 using Infloflex® database. Consent was obtained from 17 women for this study. Tissue specimens were obtained adjacent to the transformation zone for each paired cone specimen for each patient. The specimens obtained were stained using Picro-sirus red stain and intensity of staining was assessed subjectively between the paired specimens.

Results: Sixty eight slides (two each from the 1st and 2nd excisional biopsy for each case) were examined. Five women had two successive LLETZ biopsies, six LLETZ followed by laser, three laser followed by laser, one a knife cone followed by LLETZ and two had LLETZ followed by hysterectomy. Six paired specimens showed an increase in general collagen in the second specimen, in five cases there was a decrease in the second specimen, in six other cases there was a discordant pattern as between the paired slides in the specimens from the first and second treatment samples.

Conclusion: Varying collagen distribution occurs during regeneration of the cervix following treatment.

P-74 COLD COAGULATION VERSUS LLETZ AS MANAGEMENT OF BIOPSY-CONFIRMED CIN1-CIN3 – ARE WE MEETING THE STANDARDS?

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Introduction: Large loop excision of the transformation zone (LLETZ) of the cervix as a form of treatment of cervical intraepithelial neoplasia (CIN) is associated with a significant increase in the risk of future obstetric complications compared with no treatment¹. Ablation of transformation zone by cold coagulation (CC) is an accepted alternate management option for younger women. It is reported to have less side-effects and does not require a local anaesthetic to be administered. A departmental audit showed that the use of cold coagulation was increasing among the colposcopists in the department and this study was carried out to determine the trends and failure rates of both procedures.

Methods: This study was conducted at the Neath Port Talbot and Princess of Wales Hospital. All women who had biopsy confirmed CIN in 2008 were included in the study. Cases of 'See & treat' LLETZ were excluded from the study. Data was obtained from the CANISC database. Case notes review was required of all cases with treatment failure in the first 12 months post treatment.

Results: A total of 129 women underwent CC after a small cervical biopsy had reported CIN 1- 3. There were more women who were between 20 - 30 years as compared to those who underwent LLETZ. Nearly half of the women who had CC were nulliparous. There were more women who had CC for CIN 1 & 2 whereas more women had LLETZ if the biopsy reported CIN3. Cytological and biopsy-proven failure of treatment was more in the CC group.

P-75 DOES INCOMPLETE HISTOLOGICAL EXCISION MARGIN MEAN INCOMPLETE TREATMENT FOR WOMEN WITH HIGH GRADE CERVICAL INTRAEPITHELIAL NEOPLASIA (CIN)

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Aim

To establish if treatment is complete following a large loop excision of transformation zone (LLETZ) procedure for abnormal cervical cytology/ histology.

Background: Moderate and severe dyskaryosis on cervical smears require a rapid referral for colposcopic assessment. LLETZ is a form of treatment that can be reported as having incomplete histological excision margins.

Methods: A retrospective case study of 178 women who had a LLETZ procedure for high grade CIN detected on cervical biopsy between May 2007 and May 2009.

Results: 75 cases had incomplete histological margins with a median patient age group of 26years (21-55). CIN grade 2/3 were confirmed in 93.3% (n=70) and Cervical glandular intraepithelial neoplasia (CGIN) in 4% (n=3). Microinvasive carcinoma was detected in 2.6% (n=2) and referred for hysterectomy.

Follow up cytology were normal in 89.3% (n=67), Borderline in 5.3% (n=4), Unsatisfactory in 4%(n=3) and Mildly dyskaryotic in 1.3%(n=1).Colposcopy revealed mild acetowhite changes in 1.3% of cases. Further cytology and histology showed normality.

Recurrent disease was subsequently detected in 1.3% of cases after 18months with positive cytology and histology showed low grade CIN. This reverted back to normality.

Conclusion: Incomplete histological margins following a LLETZ procedure for high grade CIN does not mean incomplete treatment.

Reference - National Health Service Cervical Screening Programme Guidelines Vol No 20. 2004.

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