

# BOOK OF ABSTRACTS

## PROFFERED PAPERS

## O-1: Uptake of Cervical Screening and Acceptability of PV Self-Sampling in Irish Traveller Women

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## Introduction

Irish Travellers are a minority ethnic group. The 2010 All-Ireland Traveller Health Study noted the life expectancy of Traveller women was 11 years shorter than women in the general population. Coverage of the CervicalCheck, the Irish cervical screening programme, is 78.7% overall, however, there is no recently published data on the attendance of Traveller women. This study sought to determine participation by eligible Traveller women in CervicalCheck and the acceptability of HPV self-sampling.

## Methodology

A face-to-face cross-sectional survey, adapted from the National Cancer Control Programme's 2022 National Survey on Cancer Awareness, was disseminated to Irish Travellers via Primary Health Care Travellers Project peer researchers, following ethical approval, May to December 2023.

## **Results**

451 Travellers participated; 286 (63.4%) were female. Of these, 178 (62.2%) were in the eligible age group for cervical screening. 134 (75.3%) advised they had received an invitation to screening; 121 (68% of all eligible; 90% of all receiving an invitation) advised they had attended at least once (regular attenders 88 (49.4%); 27 (15.2%) irregular attenders). Of all responders in the screening eligible age group, 36 (20.2%) reported HPV self-sampling as acceptable; 18 (50%) of these were non or irregular attenders at screening. Similar proportions of 25-45 year-olds (20.4%) and 46-65 year-olds (20%) reported HPV self-sampling as acceptable.

## Conclusion

Irish Traveller women face barriers to accessing mainstream health services. Uptake of cervical screening overall is lower compared to the general population in this study; one issue may be unreliable postal service to Travellers and non-receipt of invitations. While the overall acceptability of HPV self-sampling was low at 20.2%, half of those who would self-sample did not attend or attended irregularly. HPV self-sampling has the potential to improve cervical screening rates among Traveller women.

## O-2: Metabolomic Technologies In The Diagnosis And Treatment Of Precancerous Cervical Disease.

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### Introduction

Cervical cancer is a significant health concern, often requiring multiple visits and invasive procedures for diagnosis and treatment. Our study proposes the integration of a revolutionary fiber-based robotic instrument with Rapid Evaporative Ionisation Mass Spectrometry (REIMS) technology to enhance diagnostic accuracy and streamline treatment processes. Previous studies using the intelligent knife (iKnife) demonstrated promising results, but limitations prompted the development of a minimally destructive robotic fiber-laser system. The objective is to offer bedside automated diagnosis, optimize treatment feedback, and replace the need for punch biopsies.

## Methodology

Our case-control cross-sectional study involves a two-fold investigation—ex vivo and in vivo. The ex vivo study utilizes 200 cervical tissue samples, analyzed with OPO and CO2 lasers. LD-REIMS profiles guide segmentation, identifying areas with pathology. The in vivo study involves the application of the robotic instrument during colposcopy and surgical interventions. Histologically validated spectral databases for normal, precancerous, and cancerous tissues will be constructed.

## **Results**

Preliminary data from the ex vivo study demonstrate that LD-REIMS profiles effectively identify pathological areas. Initial segmentation based on OPO and CO2 laser analyses reveals promising outcomes. The technology shows potential in discriminating between the presence of precancer (CIN) and normal tissue, as well as distinguishing high-grade precancer (CIN2+) from low-grade precancer (CIN1-).

## Conclusion

Our study presents a novel approach to cervical disease diagnosis and treatment using a fiber-based robotic instrument with REIMS technology. The preliminary ex vivo results indicate the potential for accurate discrimination between normal and precancerous tissues. The ongoing in vivo study aims to optimize real-time information during surgical interventions and colposcopy. Successful implementation may revolutionize cervical pathology assessment, offering a one-stop clinic solution, reducing patient anxiety, and optimizing treatment outcomes. Further research will focus on biomarker discovery and pathway identification for comprehensive clinical application.

## **Disclosures**

Authors declare no conflicts of interest with any commercial entities, and the study adheres to ethical guidelines and regulatory standards. Financial support for the research is provided by institutional grants and collaborative partnerships. The authors are committed to transparent reporting of findings and encourage collaboration for the advancement of cervical disease diagnosis and treatment technologies.

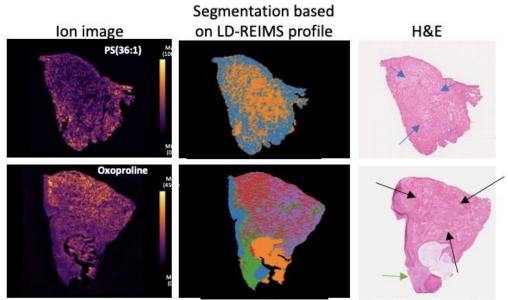


Figure 1. Cervical tissue ion images and tissue segmentation based on the LD-REIMS profiles and ion intensities. LD-REIMS was able to distinguish cancerous tissue from normal (top) and stratify precancer – CIN1, CIN2 (bottom).

## O-3: Is There a Link of Human Papillomavirus mRNA Expression with Other Sexually Transmitted Bacterial Pathogens?

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## **Background**

The impact of high-risk sexual lifestyle inherently parallels prevalent cervical high-risk HPV persistence consequences have been extensively studied; however, any causative interrelations of other bacterial sexually transmitted infections (STI's) with cervical HPV infection are under scrutiny.

## Aim

This study's purpose was to investigate any possible correlation of HPV mRNA positivity and bacterial STI's co-infection.

## Methodology

A ThinPrep sample was obtained in women attending colposcopy clinics of 2 Greek University Hospitals and analysed for HPV testing (DNA & mRNA detection) as well as common STI's (CT/MG/MH/UP/UU) using NAATs. Demographic characteristics and sexual history data were also obtained.

### **Results**

A total of 336 women were included in the final analysis. The median age was 28 years, 36.9% were smokers and 34.5% had received the anti-HPV vaccine. The average number of lifetime sexual partners was 6; about one third (33.9%) reported ≤3 lifetime partners while a similar percentage (36.3%) reported >5 partners. Ninety-two individuals (27.4%) tested HPV mRNA E7/E7 positive. A total of 136 women (40.5%) tested positive for bacterial STIs (CT/MG/MH/UP/UU). Abnormal colposcopy findings were related (p=0.0019) with a positive STI's testing. STI positivity was also related to HPV DNA positivity (OR:1.7,95% CI:1.1-2.6), as well as with HPV mRNA positivity with similar OR:1.7(95%CI:1.1-2.8). Finally, HPV vaccination was linked with decreased STI's risk (p=0.0005).

## **Conclusions**

STI's represent an important public health issue, especially for reproductive ages. In HPV positive women, STI's prevalence seems to be higher compared to the general population. Co-testing as part of cervical cancer screening seems a technically feasible strategy for young individuals, with the potential to reduce the risk of long-term complications such as infertility and adverse obstetric outcomes.

## O-4: VIN Characteristics and Outcome in Women with Cervical Dysplasia: Is Screening Important in this Subset?

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## Background

HPV is associated with multiple pre-malignant conditions of the female genitourinary tract. This includes VIN which is a precursor to vulval SCCs. The association between VIN and cervical dysplasia is suggested in many studies, although definitive guidelines are lacking on cervical screening protocols for this cohort. In the UK, women with undifferentiated type VIN (uVIN) are recommended regular screening, as are multifocal women.

## Methodology

A 10-year retrospective review was performed in a multi-centre vulval service to test the burden of HPV in women with VIN. A regional histologic database was searched between April 2013 and March 2023 to identify women diagnosed with VIN. Patient demographic, cervical smear history and disease outcome was identified.

## **Results**

103 women were identified in the study with two lacking recorded smears. The mean age at diagnosis was 56 years [20-94]. 62 women had smear tests during the study period where 20 had positive HPV tests. 45/101 had preexisting HPV. None of the women with current or previous HPV had DVIN. Women with active or previous HPV were more likely to have multifocal disease (60% v 26%; 45% v 24%) and be current or ex-smokers (40% v 24%; 49% v 41%) respectively.

After a mean 62 [3-132] months of follow-up, recurrence from first line treatment was not predicted by HPV status. However active HPV patients were more likely to progress to SCC (25% vs 14%), as were women with previous HPV (19% vs 15%).

## **Conclusions**

Cervical screening remains an important adjunct in the management of women with VIN. This is particularly important for women with multifocal disease. The risks for progression to SCC seems to remain in both women with active and previous HPV, and data is needed to determine if those over 65 years with VIN should have ongoing screening.

## O-5: Active Surveillance for CIN2 is Not Associated with a Lower Risk of Preterm Birth

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## **Background**

Active surveillance for CIN2 has been implemented in many developed countries, mainly because excisional treatment is associated with increased risk of preterm birth and due to high regression rates of CIN2. However, it remains unclear if active surveillance results in lower risk of preterm birth as cervical dysplasia itself is associated with a higher risk of preterm birth.

## Methodology

We aimed to compare the risk of preterm birth between women with CIN2 undergoing active surveillance or immediate large loop excision of the transformation zone (LLETZ).

We conducted a population-based cohort study using Danish nationwide healthcare registers.

We included women with a first-time record of CIN2 and a subsequent singleton birth in Denmark during 1998-2018. Women with prior record of CIN3+ or LEEP were excluded.

We categorized women into two groups based on their first cervical sample after CIN2. Women with a cervical biopsy and/or cytology were classified as undergoing active surveillance, while women with a record of a LLETZ were classified as such. The active surveillance group was further subdivided based on whether a delayed LLETZ was performed during the surveillance period. We calculated adjusted relative risks (RR) of preterm birth (<37+0) using modified Poisson regression and inverse probability treatment weighting.

## **Results**

We identified 10,537 women with CIN2 and a singleton birth. A total of 869 births (8.2%) were preterm. The risk of preterm birth was comparable between the active surveillance and the immediate LLETZ group (RR 1.03 (95% CI 0.90-1.18)). However, women undergoing a delayed LLETZ had a significantly higher risk of preterm birth compared to women undergoing an immediate LLETZ (RR 1.29 (95% CI 1.08-1.55)). In contrast, the risk was slightly lower for women completing active surveillance without LLETZ compared to those undergoing an immediate LLETZ (RR 0.88 (95% CI 0.74-1.04)).

## O-6: Self-Sampling as the Principal Modality for Population Based Cervical Screening: Eight-Years Follow-Up of the PaVDaG Study.

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### Introduction

Vaginal self-sampling provides a rapid, accessible modality for the engagement of women in cervical screening. There are few data on longitudinal performance of Hr-HPV testing on vaginal self-samples. To address this, we present the longitudinal outcomes of the PaVDaG cohort.

## Design

Population-based longitudinal study.

## Methodology

Women attending for routine screening provided a self-taken vaginal sample in addition to a clinician-taken liquid-based cytology (LBC) sample. 4655 out of the 5136 women from the original cohort completed a further round of LBC screening after their baseline Hr-HPV test. The sensitivity, specificity, positive predictive value (PPV), and complement of the negative predictive value (cNPV) of the self-sample Hr-HPV test for detection of CIN2+ and CIN3+ for up to 8 years after testing were determined. Additionally, clinical performance of Hr-HPV testing in vaginal vs clinician-collected LBC samples was assessed.

### **Results**

A total of 224 of CIN2+ and 127 of CIN3+ lesions were diagnosed over the 8 years. The risk of CIN2+ and CIN3+ in self-sampled Hr-HPV negative (Hr-HPV-) women was 1.5% and 0.8%, respectively for up-to 8 years after primary testing. Thise was similar to the risk of CIN2+ and CIN3+ in LBC- women 3-5 years after primary testing. The risk of CIN2+ and CIN3+ in cervical Hr-HPV- women was 1% and 0.4% respectively.

## **Conclusions**

Our follow up results in women with Hr-HPV negative self-sample suggests, that the three-year recall for women younger than 50 may be beneficial. Further follow up study of self-sampling Hr-HPV screening are needed to identify safety of screening intervals.

## POSTERS

## P-001: Compliance in Selecting Correct Discharge Pathway following Colposcopy

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### Introduction

Colposcopists use a nationally agreed Proforma to document the case details and follow up arrangements. A "Pathway" is chosen by the colposcopists after a review of all clinical details and results. Incorrect choice of Pathway can lead to under or over treatment and waste of NHS resources. When this proforma is not filled in correctly, follow up arrangements can be missed, or patient followed up at wrong time.

### Aims

To assess our compliance in choosing the correct discharge pathway when a patient is discharged from colposcopy clinic and check if the documentation (with regards to discharge) was complete. Closed loop was performed after increasing the awareness of the nationally agreed guidelines and initial audit results among the colposcopists in the trust.

## **Methods**

In this closed loop audit cycle, we included cases that were discharged between November 2022 and January 2023. We reviewed case notes, Colposcopy proforma and SCCRS records. We compared the results of this study with the results of the first part of our audit on 47 patients done between January 2021 - February 2021.

## **Results**

In the 50 cases that we included, indications for Colposcopy referral was Routine abnormal smear (n=39), Failed Conservative Management for Borderline nuclear changes in squamous cells (n=1), Failed conservative treatment for CIN1 (n=4), Failed Test of cure (TOC) smear (n=1), F/U 6months after diagnosis of CIN1 (n=1), Follow up of Mismatch Colp/Biopsy (n=1), Persistent HPV/Low grade dyskaryosis (n=2), Suspicious looking cervix (n=1). There were 10 cases of High Grade Dyskaryosis (HGD), 19 cases of Low Grade Dyskaryosis (LGD), 19 of Borderline nuclear changes in squamous cells with 2 cases negative for cytology. In total, 14 patients received Large Loop Excision of Transformation Zone (LLETZ) and 10 patients received Cold Coagulation (CC) treatment. None in High Grade smears, two patients in Low Grade smears and two in borderline smear changes were not discharged in the correct pathway. In terms of documentation, proforma was not filled in accurately in 9 out of 50 patients. We were 92% compliant in choosing correct discharge pathway and 82% compliant in documentation on Proforma.

Our compliance, both in choosing correct discharge pathway (64% to 92%) and documentation on Proforma (64% to 82%) have improved in this closed loop audit.

## Conclusion

Following dissemination of national (Scottish) guideline and education, our closed loop audit has shown improvements in both choosing correct discharge pathway and appropriate documentation on agreed proforma.

## P-002: THE INVASIVE CERVICAL CANCER AUDIT AND DUTY OF CANDOUR. CAN WE ACHIEVE CONCORDANCE AND CONSISTENCY IN OUR OUTCOME CLASSIFICATIONS? A BSCCP NATIONAL SURVEY 2023.

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### Introduction

The National audit of invasive cervical cancer includes audit outcome classifications of satisfactory, satisfactory with learning points, and unsatisfactory with the application of 'duty of candour' in unsatisfactory cases. This national survey aims to assess concordance and consistency in decision making within the invasive cervical cancer audit and identify the inconsistencies lying within the process.

## Methodology

National survey (2023) of lead colposcopists and cytologists affiliated with the BSCCP and BAC. Respondents were requested to allocate an audit outcome classification to ten cases of cervical cancer to calculate concordance in decision making. Ten respondents both from cytology and colposcopy were anticipated. The questionnaire was resent after a further 3 months to again assess concordance and consistency in decision making.

### **Results**

Twenty-nine respondents replied to round one of the questionnaire; thirteen to the second round. Concordance rates lay between 58.5% and 82.4% for round one, and 61.5% and 78% for round two.

Consistency for overall agreement in outcome classification was 80% (range 69%-92%).

## Conclusion

Standardising opinions on invasive audit outcome classification is clearly difficult, potentially subject to bias, with considerable inter- and intra-observer variation. It is important that concordance in decision making is met not only at the diagnosing hospital trust, but also across the cervical screening programme, ensuring equality in this review process for all women diagnosed with cervical cancer. As things currently stand it is clear that further work at a national level is required to achieve these goals.

## P-003: 15 years of HPV vaccination; how are we doing? A systematic review of efficacy of HPV vaccination in global reduction of high grade cervical intraepithelial neoplasia (CIN) and cervical cancers.

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### Introduction

High Risk Human Papilloma Virus (HPV) is implicated in 99% of cervical cancers. In 2007-08, bivalent HPV vaccine against 16/18 was introduced. In 2011-12 quadrivalent vaccine covered HPV 6/11/16/18. Current Nonavalent HPV vaccine covers nine strains of HPV. The safety profile of vaccine and acceptance have improved over the years. Yet, global HPV vaccination coverage to eligible population is only 13% 2020 (WHO report)

## **Aims**

To review the efficacy of HPV vaccination in reducing the global incidence of high-grade CIN and cervical cancers.

### Methodology

Review included 26 studies, WHO/CDC report, meta-analysis, Cochrane and medical literatures. Most studies emerged from developed countries where HPV vaccination was incorporated in 2007-08.

## **Results**

Meta-analysis of 20 studies, from nine high-income countries with vaccinated sample size of more than 140 million demonstrated reduction in HPV 16/18 infections by 68% (RR 0·32, 95% CI 0·19–0·52) and anogenital warts decreased by 61%. Recent study in England of 66 million sample size demonstrated 83% reduction in high-risk HPV in teenage girls and 66% reduction in women aged 20-24. The precancerous cervical lesions declined by 31 to 51%. An Australian study showed 68% decline in HPV 16/18 infection, with vaccination coverage of 50% eligible girls and boys. Studies demonstrated reduction in mouth, anal and vulvo vaginal cancers and anogenital warts.

## **Conclusion**

Significant reduction in high grade CIN and cervical cancers were noted in vaccinated population with vaccine coverage up to 50% eligible population. WHO strategy is to achieve cervical cancer rate under 4/100 000 women globally by 2030. Known as 90-70-90 strategy; 90% of girls getting HPV vaccine by age 15, 70% of women screened with a high-quality test by ages 35-45, 90% of cervical disease receiving treatment. This model estimates prevention of 74 million new cervical cancers and 62 million deaths.

## P-004: Enhancement of Colposcopy performance by DYSIS Adjunctive colposcopy technology

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## **Background**

Dysis Colposcope with Dysis map is an adjunctive technology for assessing cervical abnormalities approved by National Institute for Clinical Excellence (NICE) in UK. Introduction of primary HPV screening in December 2019 increased referrals to the colposcopy unit hence Dysis was introduced to the colposcopy service to improve the clinical pathway of patient journey in the unit.

### Objective

To use Dysis as adjunctive tool in detecting cervical abnormalities in colposcopy clinics to enhance management.

## Methodology

Dysis assessment were performed in patients referred to colposcopy in 2021. Referral indication, age, initial colposcopist impression, Dysis assessment with final confirmation with histological diagnosis where applicable, diagnostic or excisional biopsy and outcome discharge or further follow up were reviewed.

## **Results**

Dysis Colposcopy assessment was performed on n= 600 patients.

Age range 24year to 64years. Average age 33years.

Referral abnormal cervical screening low grade n=380 high grade n= 60 other indications Post Coital Bleeding, ectropion, follow ups n= 160.

New patients n= 475, follow up patients n=125

Discordance colposcopist opinion low grade Dysis analysis high grade =14 (2.4%)

No biopsies taken n=265 (44%)

Number of diagnostic biopsies n=252 (42%)

Number of excisional biopsies n= 83 (14%)

Outcome: discharge n= 490 (81%) follow up = 110 (19%)

## Conclusion

Dysis improved colposcopist assessment in detecting more high grades by 2.4%. Dysis map and video capture playback was reassuring for the patients. Reduced their anxiety and were happy to be discharged. 81% were discharged to the primary care and reduced follow ups to (19%) only. This generated capacity to see more patients in back drop of COVID recovery plan.

## P-005: CINII or worse in LLETZ with persistent LGHRHPV or HRHPV

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## **Background**

Cervical Screening and Colposcopy Management Guidelines state persistent low-grade CIN is not considered to be a significant precursor to high-grade disease and women can be offered further annual surveillance. Women can be offered treatment at this point as persistent surveillance risks default and women might prefer this option. Options should be discussed with women and informed choice documented. Excisional treatments in this setting are not expected to contain high-grade disease and should be excluded from audits of high-grade cytology management pathways.

Women with persistent HPV with no evidence of disease at colposcopy should not be offered treatment.

## **Aim and Objective**

To determine prevalence of CINII or worse in women with persistent HR-HPV and low-grade HR HPV screening.

## Methodology

All patients who had LLETZ treatment in 2022 were reviewed and excisional treatment for persistent HR-HPV and low-grade HR HPV screening were analysed. Age, colposcopy assessments, TZ, histology and TOC were reviewed.

## **Results**

Number of procedures n=692

For persistent HR HPV and low- grade HR HPV screening n=237 (34%)

Age range 27-67 years, average 39 years

Women in 20s n =44, 30s n=121, 40s n=28,50s n=29, 60s n =15

CINII or worse n= 112, 47% among persistent HR HPV and low-grade HR HPV or 16% of total treatments TZ1 n=  $\,$  120 (51%), TZ2 n=  $\,$  49 (20%,), TZ3  $\,$  n=68 (28%) TOCs

Normal n=99 (42%), NHRHPV n=14 (6%), LGHRHPV n=25 (21%), NO OPEN EXTER n=97 (40%)

### Conclusion

There was significant high-grade CINII or worse 47% in persistent group and 16% of all treatments including for high grade referrals.

69% were less than 40 years which has impact in terms of risk for obstetric morbidity. Although 42% TOC was normal 40% did not have screening per open-exter.

## Recommendation

Consider genotyping to check prevalence of HPV and tailor treatment Ways to improve uptake of TOC

## P-006: Outcomes in patients referred to Colposcopy under Clinical indication referral pathway

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## **Background**

The cervical-screening aims to reduce incidence/mortality from, cervical-cancer by detecting disease at an early-stage (before symptoms appear). Individuals with symptoms of cervical-cancer (postcoital-bleeding/persistent vaginal-discharge that cannot be explained by infection/other causes) are not suitable candidates for screening. If common causes of these symptoms are excluded in general-practice (infection/contraception usage), the individual must be referred for examination by a gynaecologist experienced in the management of cervical-disease. Gynaecologists may refer such individuals with symptoms for colposcopy-examination outside the cervical-screening-programme if cancer is suspected.

## **Objective**

To assess CINII or worse in patients referred to colposcopy clinic with clinical-indications at GSTT.

## Methodology

Patients referred to colposcopy in February/March2023 with clinical-indications identified by Cyres/Colposcopy-database-Viewpoint. Colposcopy assessment/histology/cervical screening and outcome in terms of treatment/discharge or follow-up was determined.

## **Results**

Total number of referrals In February/March2023 were n= 688 of which clinical-indications were n=245 (35%). Non-urgent n=205, urgent n=38. 22% n=54 were for abnormal screening results or indirect-referrals (screening in other parts of country, private, or other countries). Referred for cervical-screening n=30 as difficulty in primary care, cervical polyps n=22, ectropion n=20, post coital bleeding n=56, intermenstrual-bleeding n=34, suspicious-cervix n=17 and others.

Average age: 35years old, range 19-62 years old.

Urgent seen within 2 weeks n=24 63%, after 1month, n=13, 34%, 2months n=1 3% Non-urgent seen within 6 weeks n=49 20%, n=156 seen within 2-4 months one 6months CINII or worse n=8 (cervical-polyp, HGCIN, PCB n=2 cervical-cancer, indirect-screening-referrals n=5) LLETZ n=9. (3.2%)

Majority n=161 65% were discharged after initial-assessments.

## Conclusion

Prevalence of CINII or worse was in 3.2%. However, majority did not have significant pathology. The referral to appointment standard not achieved for urgent 93% within 2 weeks as well as non-urgent 99% within 6 weeks.

## Recommendations

Referral pathways to be reviewed with GPs, referral triage review and establish a cervical check clinic to achieve targets.

## P-007: EFFICACY OF A MULTI-INGREDIENT CORIOLUS VERSICOLOR-BASED VAGINAL GEL IN HIGH-RISK HPV WOMEN OVER 40: SUB-ANALYSIS OF THE PALOMA CLINICAL TRIAL & PAPILOBS REAL-LIFE STUDY.

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### Context:

HPV clearance and resolution of cervical HPV-dependent lesions can be challenging in peri- and post-menopausal women.

**Objective:** This study aims to present a sub-analysis of the PALOMA and PAPILOBS clinical studies in the sub-population of high-risk (HR) HPV-positive women over 40 years.

**Methods:** PALOMA (NCT04002154) was a multicenter, randomized, open-label, parallel-group clinical trial with a, watchful waiting approach-controlled clinical trial. PAPILOBS study (NCT04199260) was a n observational, multicentermulticentre, prospective, one-cohort observational study with one-cohort.

**Patients:** The PALOMA trial included unvaccinated HPV-positive women aged between 30-65 with cytology of ASCUS/LSIL and concordant colposcopy image. The PAPILOBS study included HPV-positive women over 25 years with cytology of ASCUS/LSIL and concordant colposcopy. A total of 30 and 68 HR-HPV patients were evaluated in the PALOMA and PAPILOBS studies, respectively.

Interventions: In the PALOMA trial, patients were randomized into: A) Papilocare® 1 cannula/day (1 month) + 1 cannula/alternate days (5 months); B) Papilocare® 1 cannula/day (3 months) + 1 cannula/alternate days (3 months); C) Control group: watchful waiting approach. In the PAPILOBS study, patients were treated with Papilocare® 1 cannula/day (1 month) + 1 cannula/alternate days (5 months).

**Main outcome measures:** Percentages of HR-HPV patients with normal cytology and concordant colposcopy after treatment in over 40 yo subpopulation are presented.

**Results:** In the PALOMA trial, 90% of patients in the A+B achieved normal cytology and concordant colposcopy compared to only 33% in the control groups, (p=0.003, Fisher test). The PAPILOBS study showed that , 73.5% of patients achieved normal cytology and concordant colposcopy.

**Conclusions:** After a 6-month treatment period, Papilocare® demonstrated clinically robust and statistically significant efficacy in repairing cervical HR-HPV lesions in women over 40 years vs a watchful waiting approach. This efficacy was corroborated in the real-life study.

## P-008: REGRESSION OF HPV-DERIVED VaIN USING AN ADJUVANT TREATMENT WITH A CORIOLUS VERSICOLOR-BASED VAGINAL GEL.

Dr. Silvia Garcia Solbas<sup>1</sup>, Dr. Belen López Cavanillas<sup>2</sup>, Dr. Raquel Ramos Trivino<sup>3</sup>, Dr. Ma del Mar Rubio Arroyo<sup>3</sup>, Dr. Laura Sanchez Rivadulla<sup>4</sup>

<sup>1</sup>Hospital Vithas Virgen del Mar, , Spain, <sup>2</sup>Hospital Universitario La Paz, , Spain, <sup>3</sup>Hospital Universitario de Guadalajara, , Spain, <sup>4</sup>Hospital Arquitecto Marcide, Ferrol, Spain

**Background:** Vaginal intraepithelial neoplasia (VaIN) is considered the precursor lesion of vaginal cancer. Its low prevalence (0.4% of all premalignant lesions of the lower genital tract) limits the available literature on its aetiopathogenesis and natural history, making clinical management of VaIN a real challenge. Human papillomavirus (HPV) infection has been identified as the causative agent in up to 90% of VaIN cases, with HPV 16 being the most frequent genotype. With these four case reports, we aimed to evaluate the effect of a Coriolus versicolor-based vaginal gel in the management of VaIN lesions.

**Methods:** In this study, four patients between 44 and 64-year-old diagnosed with VaIN by cytology, vaginoscopy and/or biopsy were included. Two of the patients were immunocompromised due to previous history of cancer and multiple sclerosis. The patient diagnosed with low-grade VaIN followed a conservative management with the Coriolus versicolor-based vaginal gel only. The other three patients with high-grade VaIN, were subjects to either an excisional treatment or a CO2/laser vaporization, in combination with the Coriolus versicolor-based vaginal gel for 6 months as an adjuvant treatment. Follow-up cytology, vaginoscopy, biopsy, and HPV tests were performed over time for monitoring patients.

**Results:** After 6 months of adjuvant treatment with the Coriolus versicolor-based vaginal gel, all patients showed regression (1 patient) or complete normalization (3 patients) of their cytology, vaginoscopy, and/or biopsy results. Additionally, all patients showed negative results for HPV tests.

**Conclusion:** The use of a Coriolus versicolor-based vaginal gel may be beneficial for both conservative treatment (patients with LSIL VaIN) and post-intervention treatment to prevent lesion recurrence and aid in HPV clearance. This represents a potential clinical advantage approach in this patient population.

## P-009: Conservative treatment of CIN 2 using a Coriolus versicolor-based vaginal gel: an observational study.

Dr. Nadia Nassar Melic<sup>1</sup>, Dr. Miguel Díaz Vega<sup>1</sup>, Dr Silvia Herrero Barrios<sup>1</sup>, Dr. Gemma Pardina Claver<sup>1</sup>, Dr Marta Padine Fabeiro<sup>1</sup>

<sup>1</sup>Obstetrics and Gynecology Service in Hospital Clínico Universitario Lozano Blesa, Zaragoza, Spain Conserv Nassar

**Background:** According to the American Society of Colposcopy and Cervical Pathology (ASCCP), 50% of CIN 2 cases managed conservatively spontaneously regress. The aim of this study was to evaluate the effect of a Coriolus versicolor-based vaginal gel in the conservative management of CIN 2 lesions.

Methods: A retrospective and prospective cohorts, single-center, observational study, including women aged ≥18 years with a diagnosis of CIN 2. Inclusion criteria aligned with the Spanish Society of Colposcopy and Cervical Pathology (AEPCC) guidelines for CIN 2 conservative treatment. Meaning visible transition zone in colposcopy images, lesions affecting less than 2 quadrants, non-affected endocervix, and accepting cytology/colposcopy after 6 months. The retrospective cohort, spanning 2010 to 2017, assessed the regression, persistence, and progression of HPV-dependent lesions in women with CIN 2 undergoing conservative management. Conversely, women in the prospective cohort received treatment with a Coriolus versicolor-based vaginal gel—1 cannula/day for the first month, followed by 1 cannula every other day for the subsequent 5 months. Baseline and 6-month biopsies were performed for evaluation.

**Results:** In the retrospective cohort, 117 women (average age: 35.91) were included, while the prospective cohort included 44 women (average age: 36.09). Three patients from the prospective cohort were excluded due to the absence of a biopsy after 6 months. Following a 6month treatment, 68.2% in the treated group showed regression, 11.4% persisted in CIN 2, and 18.2% progressed to CIN 3. In the retrospective cohort, 55% regressed, 13% persisted, and 32% progressed.

**Conclusions:** The Coriolus versicolor-based vaginal gel 6-month treatment might increase the HPV lesions regression rate compared to spontaneous resolution. This treatment could represent a clinical advantage compared to the "wait and see" approach in patients meeting the conservative treatment criteria for CIN 2 lesions.

## P-010: EFFECT OF A CORIOLUS VERSICOLOR-BASED VAGINAL GEL AS A CONSERVATIVE TREATMENT FOR HR-HPV-DEPENDENT HSIL IN PREGNANT WOMEN

Dr. Carmen Belén De la Torriente Benito<sup>1</sup>, Dr. Antonio Carballo García<sup>2</sup>, Dr. Ana Cristina Fernández Rísquez<sup>2</sup>, Dr. Jesús Joaquin Hijona Elósegui<sup>2</sup>, Dr. Margarita Gil Andrés<sup>3</sup>

<sup>1</sup>Clínica Mencía, Salamanca, Spain, <sup>2</sup>Hospital Universitario Materno-Infantil , Jaén, Spain, <sup>3</sup>Álvaro Cunqueiro, , Spain

**Background:** Human papilloma virus (HPV) infection is the most common sexually transmited infection and is behind of 99% of cervical cancer cases. HPV persistence, particularly genotype 16, may lead to different grade squamous intraepithelial lesions that can result in high-grade lesions (HSIL) which may progress to cervical cancer. Surgical excisional treatment of HSIL/CIN2 and 3 during pregnancy is contraindicated due to the high rate of complications, including increased risk of miscarriage and preterm birth. Thus, the management of an HSIL diagnose during pregnancy is challenging for both, the patient and the clinician. With these three clinical case reports, we aimed to evaluate the effect of a Coriolus versicolor-based vaginal gel in the conservative management of CIN2 lesions during pregnancy.

**Methods:** Here we present three clinical case reports of pregnant women between 26 to 34- year-old with high-risk HPV (HR-HPV) genotypes including 16, 18, 31, 39, and 45, and who were diagnosed with HSIL/CIN2-3 by colposcopy and biopsies. Patients were prescribed with Coriolus versicolor-based vaginal gel (1 cannula/day for 1 month + 1 cannula/alternate days for 2 months) gel as a conservative treatment. Follow-up colposcopy, cytology and HPV tests were performed over time to monitor the patients.

**Results:** All patients showed a regression of CIN2/3 lesions to CIN1 lesions. Two of them, achieved the regression after 3 months of conservative treatment with Coriolus versicolor-based vaginal gel while the third patient after a 6-month conservative treatment period. None of the patients reported any negative effect associated with the use of Coriolus versicolor-based vaginal gel. The 3 patients gave birth to healthy new-borns. Conclusion: Pregnant women treated with HR-HPV, treated with Coriolus versicolor-based vaginal gel showed regression of HSIL/CIN2 lesions. This conservative treatment approach represents a clinical advantage in patients who are not candidates for an excisional surgery during the "wait and see" period.

## P-011: Effect of a Coriolus versicolor-based vaginal gel and a Reishi-based food supplement for the treatment of high-risk HPV associated lesions: a case report.

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<sup>1</sup>Gynecology and Obstetrics Service, HM Gabinete Velazquez., Madrid, Spain, <sup>2</sup>Procare Health., Barcelona, Spain

## **Background:**

Human papillomavirus (HPV) infection is sexually transmitted infection with high prevalence worldwide. HPV infection is linked to cervical lesion development, clearance reate dropping as age increases. Currently, there are no available systematic clinical approaches for combined treatment of couples. In this clinical case, a combined treatment involving a Coriolus versicolor-based vaginal gel for her and a Reishi-based food supplement for him was used for HPV clearance and cytology normalization.

## Methodology:

This case included an asymptomatic 54-year-old woman, who attended a follow-up because her partner presented genital lesions. In physical examination, normal external genitals and speculoscopy showing slight cervical erosion were found. Relevant tests were performed: HPV test, cytology, colposcopy, and biopsy. The results obtained were positive to HPV 26, 53 and 66 (high risk (HR)-HPV), atypical squamous cells of undetermined significance (ASCUS), focal Lugol's at 6h negative lesion, and acute moderate cervicitis with reactive inflammatory changes which could not discard the presence of dysplasia, respectively. Therefore, a conservative treatment with a Coriolus versicolor-based vaginal gel was prescribed (1 cannula/day for 1 month + 1 cannula/alternate days for 5 months). Additionally, her partner was treated with a Reishi-based food supplement (1 capsule daily for 6 months).

**Results:** After 3 months of treatment, the patient returned to the clinic for testing. Cytology and speculoscopy showed normalization and clearance of HR-HPV types was confirmed. However, the patient now tested positive for low-risk HPV types 62 and 81. The patient continued the treatment with the vaginal gel and her partner with the Reishi-based food supplement for up to 6 months.

**Conclusion:** This clinical case illustrates the effect of a combined treatment utilizing a Coriolus versicolor-based vaginal gel for a 54-year-old female patient and a Reishi-based food supplement for her partner, in repairing HPV-related cervical lesions and the clearing HR-HPV after only 3 months.

## P-012: When Compuscope says no! How we have improved our patient letters without compromising our KC65

Miss Helen Staley, Miss Olivia Raglan, Miss Gwen Makosana, Miss Yulia Gurtovaya, Mr Nick Wales

<sup>1</sup>Chelsea And Westminster Hospital NHS Foundation Trust, London, United Kingdom

### Introduction:

Our colposcopy department uses a system called Compuscope to log all colposcopy activity. This system is outdated and the letters generated are confusing for both the Colposcopy team and patient. Compuscope also does not link to the hospital's main system (Cerner). This necessitates paper copies being printed and scanned into Cerner.

Given the need to report KC65 data, which is extracted from Compuscope, we cannot cease to use it. However we now use Cerner for clinical letters in a way which does not impact on generating the KC65.

The purpose of this project was to improve the quality of our letters, reduce our carbon footprint and end unnecessary paperwork.

### Methods:

Standard letter templates which could be inserted into an electronic Cerner letter were made for all clinical activity and their use gradually introduced.

Our FDS figures were compared before and after implementation (which is ongoing).

Feedback was also obtained from the multidisciplinary team.

## **Results:**

Feedback was positive. Despite worry there would be duplication of work, these letters saved time with the use of drop down options to generate a succinct letter. This was automatically sent electronically to the GP and patient, and cc'd to the FDS trackers, avoiding the need for any paper copies. Given the results and referrals are on Cerner, our team liked that everything was readily available on a single system.

Our coordinators favoured these new letters because it was readily apparent whether a 2WW pathway could end. We speculate that this is turn may have improved our FDS figures (35% before vs 83% after). We hope these figures will further improve following full implementation.

## **Conclusion:**

Although we must report our KC65 and there are limitations in how this can be generated, we have used our initiative to generate alternative user and patient friendly letters that have improved our FDS.

## P-013: CIN1: A local audit and suggestions on how to improve our patients' experience Dr Isabel Fox, Miss Diana Marcus, Miss Yulia Gurtovaya, Miss Helen Staley

<sup>1</sup>Chelsea And Westminster Hospital NHS Foundation Trust, London, United Kingdom

## **Introduction:**

It is unlikely those referred with a low-grade smear abnormality who have biopsy-proven CIN1 alongside an adequate colposcopy excluding high-grade disease will have undiagnosed CIN3+. Success of the cervical screening program includes ensuring women are appropriately discharged following colposcopy to reduce patient anxiety and to ensure clinics are not overburdened.

The recommended management of CIN1 is a further smear at 12 months in the community. This audit aimed to identify whether our Trust is following this recommended management.

## Methods:

A retrospective review of all low-grade smear referrals with subsequent biopsy-proven CIN1 at Chelsea and Westminster Hospital NHS Foundation Trust in January 2022.

## **Results:**

There were 27 low-grade referrals with biopsy proven CIN1 (referral smears: 18 mild dyskaryosis, 8 borderline changes in squamous cells, 1 persistent hrHPV with normal cytology). All with the exception of two patients were discharged from the Colposcopy clinic and advised a repeat smear in 12 months in the community. Two patients were reviewed in the Colposcopy clinic in 6 months and both had persisting low-grade abnormalities. The reasons for follow up were: 1 high grade colposcopy impression, 1 history of multizonal HPV disease.

Of the discharged patients, the repeat smear is known for 21 patients, only 11/21 had reverted to HPV negative. 10/21 remained abnormal: 1 moderate dyskaryosis, 2 mild dyskaryosis, 2 borderline changes in squamous cells, 5 persistent hrHPV with normal cytology. Interestingly, of the discharged patients, 11 had previously had an abnormal smear and of these 6/11 remained abnormal.

The numbers of smokers (n=7) and HPV vaccinated (n=5) were too small to allow any generalisation of the significance of these risk/protective factors.

## **Conclusions:**

Our Trust is following national guidance with appropriate deviation for select cases. We speculate whether follow up algorithms should take into account cervical smear history.

## P-014: Three year review of borderline nuclear change in endocervical cells. Should these patients undergo a diagnostic LLETZ on first attendance?

<u>Miss Gwen Makosana</u>, Miss Diana Marcus, Miss Yulia Gurtovaya, Miss Helen Staley <sup>1</sup>Chelsea And Westminster Hospital NHS Foundation Trust, London, United Kingdom

## Introduction:

Borderline nuclear change in endocervical cells generates a referral on the suspected cancer pathway. Although biopsies can be taken, these may be non-diagnostic, particularly as the abnormality may be within the cervical canal and not visible. This impacts on timely management. Diagnostic LLETZ at first visit – "see and treat" is a possible solution.

We undertook a review of patients referred with this smear abnormality with two aims:

- (1) To identify if we are in keeping with guidance
- (2) To review our outcomes to determine if we should adopt a "see and treat" approach

## Methods:

Retrospective review of all patients referred with borderline nuclear change in endocervical cells to Chelsea and Westminster Hospital NHS Foundation Trust between 1<sup>st</sup> January 2020 and 31<sup>st</sup> December 2022.

## **Results:**

There were 18 referrals with this smear abnormality. The mean age was 36 years (range 30-50). Four patients sought care elsewhere. Of the remaining 14 cases, there were no LLETZ at first visit. Cervical biopsies were taken in 11/14 patients and the results were: 3 CGIN, 2 CIN2, 2 CIN1, 3 HPV-only, 1 normal. All of these, with the exception of two with HPV-only on biopsy underwent a LLETZ (n=9). The final LLETZ histology were: 5 CGIN, 1 SCC, 1 CIN2, 2 CIN1, demonstrating that all who underwent a LLETZ had cervical disease, with 8/9 having high-grade disease/cancer.

Two patients who did not undergo a LLETZ, one of which was pregnant and declined; they were advised a six month follow up.

## **Conclusions:**

This audit demonstrates a high rate of high grade cervical abnormalities in women referred with borderline nuclear change in endocervical cells. If we were to utilise a "see and treat" approach, this would allow adequate histological assessment and reduce the need for timely follow up.

P-015: COLPOSCOPY OUTCOMES IN WOMEN AGED 60 YEARS AND OVER - PRE AND POST

## P-015: COLPOSCOPY OUTCOMES IN WOMEN AGED 60 YEARS AND OVER - PRE AND POST HIGH RISK HPV SCREENING

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<sup>1</sup>Nhs Tayside, Dundee, United Kingdom

## **INTRODUCTION:**

Oestrogen deficiency and type 3 Transformation Zone makes colposcopy more uncomfortable for postmenopausal women and is a diagnostic challenge for the colposcopist. Colposcopists believed introduction of hr HPV screening would ease decision making in this age group.

## AIM:

To compare colposcopy outcomes in women aged 60 years and over pre and post introduction of hrHPV screening (Sep 2020).

### **METHOD:**

Data was collected from colposcopy database on all new referrals (over the age of 60) to colposcopy in NHS Tayside between 01/01/2019 and 01/01/2020 (group 1) as well as between 01/01/2022 and 01/01/2023 (group 2). Referral cytology and histology results were obtained and compared between the two groups.

## **RESULTS:**

- 2.3% new referrals in group 1 were 60 years and over (n=18/771). 44%(n=8) were referred with low grade/borderline changes, 28%(n=5) with high grade changes. 50%(n=9) had a biopsy at the first visit. Histology was CIN1 in 5.6%(n=1) and CIN2/CIN3 in 27.8%(n=5).
- 4.2% (n=32/766) new referrals in group 2 were over the age of 60. 50%(n=16) were referred with low grade/borderline changes and 9.4%(n=3) with high grade changes. 62.5%(n=20) had a biopsy at the first visit. Histology was CIN1 in 9.4%(n=3), CIN2/CIN3 in 21.9%(n=7) and 3.1%(n=1) had invasive squamous cell cancer.

In NHS Tayside there has been a 77.8% increase in the number of women aged 60 years and over referred to colposcopy since the introduction of HPV testing in Sep 2020 and a 40% increase in the detection of CIN 2/3.

### **Conclusion:**

Hr HPV screening has led to increased detection of high grade CIN and enabled an effective risk reduction for development of cervical cancer in women aged 60 years and over.

## P-016: ASSESSING THE ATTITUDES AND PREFERENCES TOWARDS HPV SELF-SAMPLING FOR CERVICAL SCREENING IN THE REPUBLIC OF IRELAND – A CROSS SECTIONAL STUDY

Ms Sinéad Woods<sup>1</sup>, **Dr Mairead O'Connor**, Dr Philippa White, Dr Therese Mooney, Ms Estelle McLaughlin, Prof Patricia Fitzpatrick, Prof Nóirín Russell, Dr Caroline Mason Mohan, Dr Laura Heavy

<sup>1</sup>National Screening Service, Dublin, Ireland

## **Background:**

Human papillomavirus (HPV) self-sampling has been recommended by the WHO as an additional method of cervical cancer screening (1). In this study, we aimed to determine the acceptability of HPV self-sampling in the Irish context, particularly in under- and never screened populations while also determining the preferences of those who attend regularly.

**Methods:** An anonymised survey was adapted with permission for the Irish context and distributed using quota sampling to a cross-section of women aged 20-65 living in the Republic of Ireland (1). The attitudes and preferences of respondents were assessed before and after exposure to additional self-sampling information. Respondents were categorised based on previous screening history: under-screened (attended more than 6 months after invite), never screened (never attended screening), pre-eligible (20-24 years) and regular attenders (attended within 6 months of invite).

**Results:** 2024 surveys were completed, 1522 online and 502 face-to-face interviews. 59% (n=1194) were regularly attended screening, 14.8% (n=300) were under-screened, 18.8% (n=381) never screened and 7% (n=149) were under 25 (pre-eligible). Pre-explanation, 51% of all women would choose a form of self-sampling as their first choice, 42% would continue with screening as usual, 6% did not know and 1% would not attend. Post-explanation, 54% of all respondents would choose some form of self-sampling, 42% would continue screening as usual, 4% did not know and 1% would not attend. Based on screening participation category, 65% of never screened and 62% of underscreened women would choose self-sampling compared to 41% of regular attenders.

**Conclusion:** This is the first study to assess the preference of women to HPV self-sampling in Ireland. The findings demonstrate that if a self-sampling option was offered, a substantial proportion of regular attenders would continue to opt for clinician-based screening, while many from the neverscreened and under-screened populations would consider a self-sampling option.

**References:** 1. WHO recommendations on self-care interventions Human papillomavirus (HPV) selfsampling as part of cervical cancer screening and treatment, 2022 update. 2. Drysdale H, Marlow LA, Lim A, Sasieni P, Waller J. Self-sampling for cervical screening offered at the point of invitation: a cross-sectional study of preferences in England. J Med Screen. 2022;29:194-2023

## P-017: Management of Cervical Intraepithelial Neoplasia 2 (CIN 2), Does Age Matter?

<u>Dr Wioletta Kapadia</u><sup>1</sup>, Dr Linda Tan<sup>1</sup>, Dr Haytham Khalil<sup>1</sup>

<sup>1</sup>London North West University Healthcare NHS Trust, London, United Kingdom

## **INTRODUCTION:**

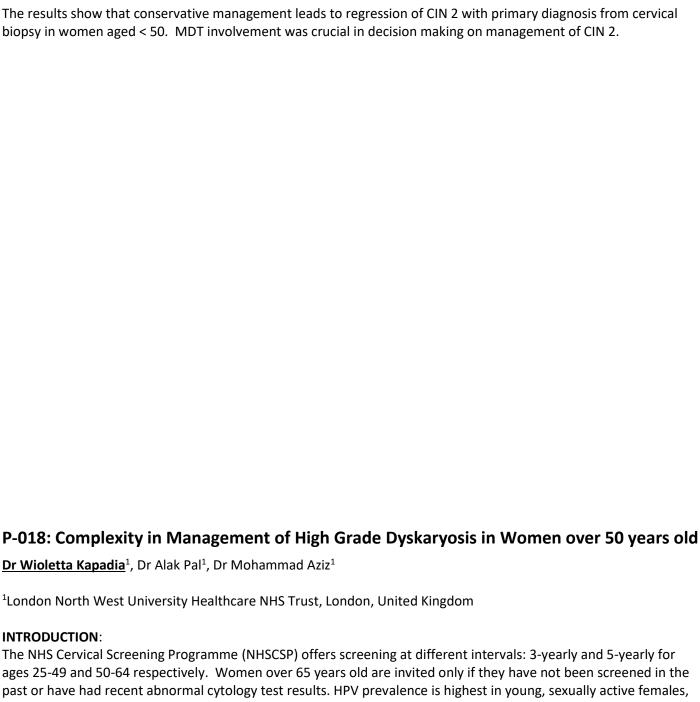
The introduction of our cervical screening program led to a significant reduction in mortality from cervical cancer due to an increase in detection and treatment of cervical intraepithelial neoplasia (CIN). CIN 1 refers to low grade changes and is managed conservatively. CIN 3 on the other hand are high grade changes which require treatment. Management of CIN 2 on many occasions is still controversial, with much discussion regarding whether to treat or to observe. This poster presents data collected between 01/01/2022 and 31/12/2023 in Northwick Park and Ealing Hospitals.

## **METHOD:**

CIN 2 was identified on diagnostic biopsy in 507 cases. Exclusion criteria were applied and the remaining 283 cases with CIN 2 present on cervical diagnostic biopsies were included in this study. 79% (250/283) of women diagnosed with CIN 2 on diagnostic biopsy were aged < 50, including 70 women (25%) aged < 30.

224 women were diagnosed with CIN 2 on their 1st visit to colposcopy clinic, whereas 60 women had already been seen previously in the colposcopy clinic. Of these, 67% (40/60) had been seen with persistent Low Grade dyskaryosis or Borderline changes in squamous cells, 20% (12/60) with persistent High Grade, 10% (6/60) underwent LLETZ treatment and the remaining 2 cases showed progression to higher grade. Conservative management was offered to 93 patients after MDT discussion. Regression changes were confirmed on follow up visit in 77 cases (83%). Similar levels of regression were observed in women aged < 30 and 30-50. Conservative management was offered to over twice as many women aged < 50 than > 50, 32% and 15% respectively.

## **RESULTS:**



then progressively drops until menopause, with some studies showing a slight increase after menopause.

## **METHOD:**

82 women over 50-years-old with High Grade Dyskaryosis with hrHPV detected were referred to Northwick Park Hospital between 01/01/2022 and 31/12/2023. 54 patients were referred with moderate dyskaryosis and 28 with severe dyskaryosis. Colposcopy examination was recorded in all cases, and was inadequate in 54% of cases (44/82). Diagnostic biopsy was taken in 79 cases (96%). CIN 2+ was detected on diagnostic biopsy in 56% of cases (44/79) but only in 27% (13/49) of cases which had TZ type 3 on colposcopy examination.

53 cases were discussed in colposcopy MDT meetings. The results of cytology and histology were confirmed in 36 cases (68%). In 9 cases cytology was downgraded at MDT meeting. Cytology of 5 follow ups (data available at the time of the audit) came back as Low Grade dyskaryosis or less.

Treatment was offered in 84% cases (69/76) with 6 cases lost to follow up. Histology treatment confirmed high grade disease in 43% of cases (25/58). Test of Cure (TOC) was available in 40 cases (await results/lost to follow up). HrHPV was negative in 62% of cases (25/40). High grade dyskaryosis persisted in 12.5% of cases (5/40).

## **RESULTS:**

| High grade Dyskaryosis in women over 50 referred to the colposcopy service had a high prevalence of inadequate colposcopy examination and discrepancies between cytology and histology results. Where decision-making was more complex, intuition and a multi-disciplinary approach were used to guide management. |
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| P-019: Treatment of High Grade Dyskaryosis: when should we "See and Treat"? <u>Dr Wioletta Kapadia</u> <sup>1</sup> , Dr Jatinder Kaur <sup>1</sup>  |
| <sup>1</sup> London North West University Healthcare NHS Trust, London, United Kingdom   |

## INTRODUCTION:

The "See and Treat" protocol, as per the NHS CSP (Cervical Screening Programme), can be offered to women referred with High Grade Dyskaryosis during their first colposcopy visit. Overtreatment in the See and Treat Strategy has been reported to be 1.2–83.3% for Low Grade Dyskaryosis and 13.3–83.3% for High Grade Dyskaryosis. 131 women aged 50+ were referred with High Grade Dyskaryosis between 01/01/2022 and 31/12/2023 to the London North West University Healthcare NHS Trust. 98 of these women were included in this audit.

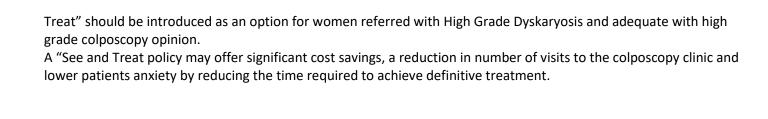
## **METHOD:**

Colposcopy examination was performed and recorded on the Compuscope in all cases. Colposcopy examination was adequate in 48% (47/98). Vaginoscopy was recorded in 20% (20/98). Cervical biopsy was taken in 90% of cases (88/98).

CIN 2+ was detected in 44% of cases (39/88), with a higher detection rate in the adequate colposcopy examination group (26/46 or 57%) than in the inadequate colposcopy examination group (13/42 or 31%). Histopathology results of LLETZ confirmed CIN 2+ in 48% of cases (41/86). High Grade CIN was detected in biopsy (diagnostic or treatment) in 66 cases, with a higher detection rate in women who had adequate colposcopy examination (39 cases).

## **RESULTS:**

Our audit showed that had we offered "See and Treat" to the women in our group, overtreatment would have been 33% lower in the adequate group than in the inadequate (17% vs 47%). The obvious conclusion is that "See and



## P-020: Prevalence of high-risk HPV following negative cone biopsy.

Dr Wioletta Kapadia<sup>1</sup>, Dr Stewart Disu<sup>1</sup>

<sup>1</sup>London North West University Healthcare NHS Trust, London, United Kingdom

### **INTRODUCTION:**

TOC (test of cure) is performed 6 months post treatment for patients who have been treated for cervical intraepithelial neoplasia (CIN). A negative combined test of cytology and hrHPV at 6 months after treatment of CIN can allow a return to routine 3-yearly recall in place of up to 10 years of annual cytology.

## **METHOD:**

An audit on negative cone biopsy was conducted between 01/01/2021 and 31/12/2021 in Northwick Park and Ealing Hospitals to find the prevalence of high-risk HPV in TOC. 17% (77 out of 442 cases) negative cone biopsies were identified. 44% of negative cone biopsies were referred with severe dyskaryotic smear (68% CIN 2+ on diagnostic biopsy) and 34% moderate (26% CIN 2+). 30 out of 56 women aged < 50 (54%) and 2 out of 20 women aged > 50 (10%) were referred with index smears higher than moderate dyskaryosis.

High grade CIN was detected on cervical biopsy in 60% (34/56) and 25% (5/20) in women aged < 50 and > 50 respectively. There was only one case among women aged > 50 where the depth of cone biopsy was > 15 mm. TOC taken 6-months post treatment was negative in 83% (63/76) of cases. TOC was negative for hrHPV in 95% (53/56) of women aged < 50, compared to 50% (10/20) in women aged > 50. All TOC in the second group were Low Grade changes with hrHPV detected.

## **RESULTS:**

Our audit concluded that despite more women aged < 50 having negative cone biopsy, there is a significantly increased incidence of HPV in women aged > 50. This could be due to insufficient depth of cone biopsy (short cervix or cervix flush with vaginal wall in postmenopausal women), but this may not be representative because of the relatively small number of patients audited.

## P-021: Exploring quit smoking practice in colposcopy clinics in Ireland.

<u>Mr Sean Houghton</u><sup>1</sup>, Pheena Kenny<sup>2</sup>, Lynn Swinburne<sup>2</sup>, Dr Zubair Kabir<sup>1</sup>, Laura Tobin<sup>3</sup>, Joanne Watchorn<sup>4</sup>, Grainne Gleeson<sup>3</sup>, Noirin Russel<sup>2,5</sup>

<sup>1</sup>University College Cork, Cork, Ireland, <sup>2</sup>National Screening Service, Dublin, Ireland, <sup>3</sup>CervicalCheck, Limerick, Ireland, <sup>4</sup>Wexford Colposcopy Service, Wexford General Hospital, Wexford, Ireland, <sup>5</sup>Department of Obstetrics and Gynaecology, University College Cork, Cork, Ireland

## **INTRODUCTION:**

Colposcopy clinics have been identified as a suitable location for smoking cessation programmes due to the association between smoking, Human Papilloma Virus (HPV) and cervical cancer. For women who undergo a colposcopy, the treatment is more likely to be successful among women who have quit smoking. In Ireland, colposcopy operates as the diagnostic and treatment service of CervicalCheck, the national cervical cancer screening programme. Estimates show that 41.5% of colposcopy attendees in Ireland are smokers. The objectives of this study are:

- 1. To review if colposcopy is an effective setting for smoking cessation referral.
- 2. What types of current smoking cessation services are offered by colposcopy clinics to smokers?
- 3. To develop a framework that can be applied to smoking cessation services in colposcopy clinics.

## **METHOD:**

A mixed-methods study was undertaken to investigate these study objectives. A questionnaire was circulated to all fifteen colposcopy clinics which then informed semi-structured interviews with three key stakeholders in smoking cessation and health promotion in Ireland.

### **RESULTS:**

Eleven viewed colposcopy clinics as a suitable setting for smoking cessation interventions. 3 out of 11 clinics do not have quit smoking referrals in place and 2 out of 11 of clinics 'Never' refer their patients to smoking cessation services. 8 out of 11 clinics do not have specific materials on the relationship between smoking, HPV and/or cervical cancer for patients. The following themes emerged from the semi-structured interviews:

- Rationale for choosing colposcopy as a setting for smoking cessation.
- E-Referral to an online QUIT Manager system.
- Smoking cessation intervention training for staff.
- Patient anxiety attending clinics.

An 8-item framework was developed for the standardisation of E-Referral to smoking cessation services in Ireland.

## **CONCLUSION:**

All stakeholders view colposcopy as a suitable setting for smoking cessation services. However, referral pathways need to be established in all clinics, educational materials need to be established and staff need to be encouraged to train.

## P-022: Outcome of patients presenting to colposcopy with borderline endocervical dyskaryosis January 2020 –May 2021

Ms Karen Snelgrove<sup>1</sup>

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## **INTRODUCTION:**

Primary human papilloma virus (HPV) screening was introduced in 2018 within the UK. Updated Public Health England (PHE) Colposcopy guidance published in February 2020 states that all women referred with borderline nuclear cells (BNC) in endocervical cells should now be seen within 2 weeks (>93%) with a change in the management of patients to include a recommendation of an excisional, rather than "any" appropriate biopsy (NHSCSP 2021). BNC in endocervical cells incorporates changes in glandular cells where dyskaryosis cannot be excluded. The aim of this paper is to, determine the incidence of cases reported as high-risk HPV plus BNC change in endocervical cells, to calculate colposcopic accuracy and assess histological outcomes in this cohort.

## **METHOD:**

A retrospective audit was undertaken of all women directly referred to the colposcopy service with endocervical BNC between 01-01- 2020 to 31-05-2021.

Final histology and management was extracted from hospital colposcopy database.

Variables that may affect the outcome were collected such as age, colposcopic impression, histological outcomes and cytological follow-up.

## **RESULTS:**

Incidence of BNC in endocervical cells was 0.88% 12/1356

Median age 33.5

100% seen within two weeks

100% discussed colposcopy MDT

66.6% (n=8) hadCIN2+ (Fig 1)

25 %(n=3) treated at first visit

8.33% (n-1) had high grade dysplasia despite normal colposcopy

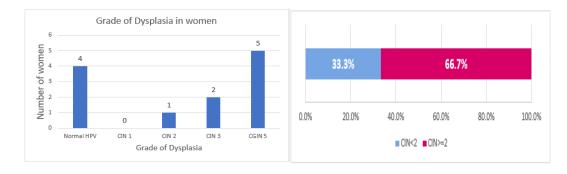
8.33% (n=1) One thought to have high grade disease colposcopically reported cervicitis.

75% (n=9) women treated 88.8% (n=8) had high grade disease.

25% (n=3) not treated (one of which was downgraded on MDT review)

100% (n=12) had cytological follow-up 6 months

Colposcopic accuracy was moderate (positive predictive value 50%)



BNC in endocervical cells is uncommon but should be treated as a high-grade referral. Colposcopic detection of high-grade disease is low in this cohort. All women should be offered an excisional biopsy at first appointment irrespective of colposcopic opinion.

## P-023: Bacterial cervicovaginal pathogens and HPV positivity in women of reproductive age harbouring cervical dysplasias

Mrs Ioulia Magaliou<sup>1,2</sup>, Mr Georgios Michail<sup>3</sup>, Mr Dimitrios Papoutsis<sup>2</sup>, Dr Nikoletta Daponte<sup>1</sup>, Professor Alexandros Daponte<sup>1</sup>, <u>Mr George Valasoulis<sup>1,4</sup></u>

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## **Background/Objectives:**

In a population of women undergoing colposcopy, we aimed to investigate HPV-DNA positivity rates and possible co-infections with other sexually transmitted bacterial pathogens [Chlamydia trachomatis (CT)-Mycoplasma Hominis (MH)-Ureaplasma Urealyticum (UU) & Ureaplasma Parvum (UP)]. We also studied the co-variation of the above parameters with the histological grade of corresponding cervical biopsies.

## Methods:

Clinician obtained Thin-prep cervical samples were evaluated with LBC and underwent HPV DNA detection & genotyping (both LR- & HR-HPV's) as well as common STIs (Ct-Mg-Mh-Up-Uu) detection using NAATs. All women underwent colposcopically-guided cervical biopsies; full demographic and sexual history data have been also recorded.

### **Results:**

In this ongoing study, 213 women have been so far enrolled; with an average age of 32.9 years; only 36.2% had received the anti-HPV vaccine. Positivity rate for HR-HPV was 87% and 7.4% correspondingly for LR-HPV. Interestingly, all individuals with cytological HSIL tested positive for HR-HPV. Allarmingly, 65.2% of the study population tested positive for STIs. One hundred thirty-nine women (57.7%) tested positive for UP/UU, while other pathogens

(CT/MH/HSV-1) were detected in only 12 women. In 142 women histology documented a low-grade lesion (CIN1) and in 54 individuals (25.3%) a high-grade lesion (CIN2+); chronic cervicitis has been documented in most of the remaining specimens.

## **Conclusions:**

Bacterial and viral STI's represent public health priority, however these infections can be effectively treated or safely prevented with antibiotics & anti-HPV vaccination; several anti-STI vaccines are also in late stages of development. Despite elevated costs, co-testing for STIs for young individuals in the context of cervical cancer screening is a technically feasible albeit controversial strategy, with a clear potential of reducing the risk of severe complications like infertility and adverse obstetric outcomes. The relapsing nature of bacterial STI infections challenges the cost effectiveness of these interventions; prior assessment with modeling studies might be considered beforehand.

## P-024: MANAGEMENT AND OUTCOME OF BORDERLINE CHANGES IN ENDOCERVICAL CELLS: AUDIT OF CASES AT DGH

## Dr Sonia Chachan<sup>1</sup>

<sup>1</sup>Stockport Nhs Trust, Sale, United Kingdom

## **Background/Objectives:**

Individuals who have a positive primary hrHPV test and subsequently have a borderline endocervical screening result should be referred to colposcopy and have appropriate assessment. At least 93% of referrals should be seen within 2 weeks.

Individuals referred with borderline changes in endocervical cells with a negative colposcopic examination should not be given a 3 year recall but considered at MDT. They are likely to be followed up at 6 months with screening or in the colposcopy clinic. They will only be discharged to 3 year recall if the cytology is downgraded to negative at MDT.

### Methods:

5 years data (2019 - 2023) on referrals with HR HPV and BNC in EC. Audit of their findings and management

### **Results:**

15 cases identified. Colposcopy findings, MDT review and histology outcomes were collected.

Outcomes: CGIN in 2 cases (13%); High grade CIN in 3 cases (20%); CIN 1 in 1 case; No CIN in 5 cases; did not attend in 2 cases and 1 case pregnant and on colposcopy monitoring.

## P-025: MANAGEMENT AND OUTCOME OF BORDERLINE CHANGES IN ENDOCERVICAL CELLS: 12 MONTH DATA IN THE NORTH WEST OF ENGLAND

**Dr Sonia Chachan**<sup>1</sup>, Mr Stephen Burrows<sup>2</sup>

<sup>1</sup>Stockport NHS TRUST, Stockport, United Kingdom, <sup>2</sup>Manchester University NHS Foundation Trust , Manchester, United Kingdom

## **Background/Objectives:**

Within the NHSCSP the category "Borderline changes in endocervical cells" is a rare reporting category (0.17% of all referrals to colposcopy by Manchester Cytology Centre 2023)

An individual colposcopy dept may encounter only one or two cases per year.

Because of low numbers there is the potential for colposcopic management to be inconsistent and out with national guidance e.g. use of punch biopsy,

It is important to list these cases for discussion at MDT meetings, not discharging if colp normal, and have follow up plan,

Previous publications show that this category has a high PPV for significant pathology (CIN2+)

## Methods:

Source of anonymised data will be the Cyres screening database held at Manchester Cytology Centre Retrospective statistical analysis.

Sample: All colposcopy referrals reported by Manchester Cytology Centre with cytology code 9 "borderline changes in endocervical cells" between 01.01.18 – 31.12.22 (sample size 133)

## **Results:**

Highest histological outcome within 12 months of the referral

| Calculation of PPV and comparison with outcomes for samples reported as ? glandular neoplasia of endocervical type in same time period Discussion of hr-HPV genotypes and outcomes |
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| P-026: AUDIT OF CASES MANAGED CONSERVATIVELY FOR HISTOLOGICALLY PROVEN CIN   |

## P-026: AUDIT OF CASES MANAGED CONSERVATIVELY FOR HISTOLOGICALLY PROVEN CIN2 IN A DISTRICT GENERAL HOSPITAL

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## **Background/Objectives:**

Conservative management of CIN2 has been offered in the UK for last few years, it was incorporated in Publication 20 in 2020. Although offering since 2018, we have audited our cases since 2020 who have completed 24 months of surveillance to benchmark our practice against available evidence and guidance

## Methods:

Patients identified from trust web result system with diagnosis of CIN 2 on cervical biopsy. They were then matched against criteria for conservative management of CIN 2 as per guidelines. They were followed for 24 months with regular colposcopy smears and biopsies as required and MDT discussions.

### **Results:**

Data collected from January 2021 to December 2021. 19 patients with histological diagnosis of CIN 2 fulfilled the criteria for conservative management. After 24 months, 9 (47%) patients discharged to 36 months recall, 5 (26%) underwent treatment, 3 (16%) persistent low grade dyskaryosis, awaiting MDT review, 2 (10%) discharged following persistent DNA.

#### P-027: Vaginal Intraepithelial Neoplasia Audit (VaIN) Leeds Teaching Hospital Trust

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Leeds Teaching Hospital Trust, Leeds, United Kingdom

#### Introduction/Background

Vaginal intraepithelial neoplasia (VaIN) remains a rare disease and only accounting for 0.4% of the lower genital tract premalignant lesions with an overall incidence of 0.2 to 2 per 100000 women/year. VaIN can be challenging to manage due there is no unanimous decision on the suitable treatment modality for VaIN. This is further complicated as the pre-invasive disease is often multifocal, high rate of recurrence and the risk of overtreatment. Therefore, treatment of patients with VaIN are often individualized based on their parity, age, extent of the lesion as well as previous treatment (treatment of VaIN, hysterectomy for HSIL of the cervix, previous irradiation).

#### Methodology

This audit was aimed to assess the long term outcomes for patients who were diagnosed VaIN in St James's University Hospital Leeds.

Data was retrieved through the hospital's online histopathology data base and patient's online database PPM+ . All VaIN cases diagnosed from May 2010 till September 2021 were reviewed retrospectively. These patients are then follow up in terms surveillance and treatment received till 31<sup>st</sup> December 2023 to see if there any development of vaginal cancer.

#### Results

Total of 24 patients with 14 patients with Low Grade ValN (ValN 1)

and 10 patients with High Grade VaIN (4 patients with VaIN2, 6 patients with VaIN3).

Only 2 ValN1 patient undergone excision of ValN. Remaining 12 patients were followed up with vulvoscopy/colposcopy + cytology annually. Only 3 patients with ValN 1 were discharged from surveillance)

- 4 of the VaIN2 patients were followed up annually initially.
   3 out of 4 patients (75%) progressed to VaIN3 requiring surgical management with excision.
- 1 patient with VaIN3 was treated with imiquimod.
   1 patient with VaIN 2 and focal VaIN 3 was under surveillance.
   The remaining 4 patients with VaIN 3 had surgical excision of VaIN
   No patients developed malignancy under follow up or after treatment.

If there is a complete response to therapy and no new lesions at 6 months and 12 months follow-up for High Grade ValN, patients are monitored by annual cytology.

### P-028: A Two Year Review of the Pre Invasive Vulval disorders Service in a District General Hospital in the UK.

#### Mr Rupak Kumar Sarkar<sup>1</sup>

<sup>1</sup>Barnsley Hospital NHS Foundation Trust, Barnsley, United Kingdom

#### **Background/Objectives:**

Usual type vulval intraepithelial neoplasia (uVIN) is a pre malignant condition ,which has the potential for progression to vulval cancer.

The pre invasive vulval disorders service along side the Colposcopy service was developed following the pandemic due to change in CCG funding for the management of this condition in the region .

#### Methods:

To review the outcomes of patients attending the service from January 2022 to December 2023.

A retrospective case note review was undertaken. Referrals were received from the Gynaecology fast track and benign vulval clinics. Patient consent was obtained. Data was anonymised and encrypted. The study was registered with the Trust audit department.

#### **Results:**

Eleven patients with High Grade biopsy proven VIN (VIN 2 and VIN 3) attended . Age between 35 and 66 years. The most common symptoms were vulval pruritis, soreness and irritation. Duration of symptoms ranged between 1 to 3 years. One patient was diagnosed with invasive Vulval cancer and referred to the cancer service. Remaining patients were counselled regarding medical and surgical treatment options. Two patients (20 percent) underwent surgical wide local excision and eight patients (80 percent) opted and completed a 16 week treatment regimen with Imiquimod cream. Two out of the 8 patients (25 percent) who had medical treatment needed a further 8 week

course of treatment. Resolution of disease was achieved in all patients both surgical and medical and all patients remain under 6 monthly follow up for 2 years .

#### **Conclusions:**

The pre invasive Vulval disorders service run by a colposcopist provides continuity of care and has shown encouraging results. Nationwide shortage of Imiquimod cream did delay treatment for a few patients who were kept under review.

#### P-029: Audit of Conservative Management of CIN 2

#### Miss Hazel Catibog<sup>1</sup>

<sup>1</sup>National Maternity Hospital Holles Street D2 Irelad, Dublin, Ireland

#### Introduction:

Conservative management of CIN2 has been widely adopted in Irish units in order to avoid unnecessary treatments in low risk women. This audit was performed to assess the outcome in cases of CIN 2 managed conservatively in our unit and to compare our figures against National / BSCCP guidelines and other similar units.

#### Method:

New referrals who attended the colposcopy clinic during the year 2020, who had histologically proven CIN 2 and followed conservative management of CIN 2, were included in this audit. The management of such patients is laid down in the National Standards for Quality Assurance in Colposcopy from the Irish National Screening Programme. Patients who had previously had treatment for CIN were excluded from the audit. The HPV vaccination status is recorded in all participants. The follow up over the following two years is presented [ 2021 / 2022]

#### Outcome/Results:

26 women were included in this audit. This is a small number but 2020 represented the first year of official conservative management of CIN 2. Our numbers have since increased but two-year follow up has not been completed and hence those cases are not represented in this current audit.

- 31% (n=8) of the 26 women were HPV vaccinated
- 15% (n=4) of patients underwent cold coagulation after a second diagnosis of CIN 2

- 12% (n=3) of patients progressed to CIN 3 and underwent LLETZ treatment
- 23% (n=6) of the patients remain HPV positive but resolution of their CIN 2
- 50% (n=13) of patients were discharged to routine screening two negative HPV tests.

In summary, 7 (27%) out of 26 women underwent treatment for static or progressive CIN. This compares to 19 (73%) women who have shown resolved CIN 2 / HPV or ongoing resolving disease with HPV.

#### **Conclusion:**

This audit demonstrates that more women with CIN 2 regressed to normal than those who required treatment for static or progressive disease. It is a small number, as two- year follow up was necessary for this audit, but it is in line with findings from other colposcopy departments (McMahon 2020). Larger prospective audits are being undertaken and with the vaccinated cohort of the population increasing in size, we anticipate greater regression of CIN 2 will be shown. Conservative management of CIN 2 is a worthwhile undertaking by both patients and clinicians alike and reduces the number of unnecessary treatments, along with their potential adverse consequences.

#### P-030: Audit of management of High Grade Moderate Smear

 $\underline{\text{Mr Mark Pickering}}^1$ , Miss Rachana Dwivedi $^1$ 

<sup>1</sup>University Hospital Dorset, Bournemouth, United Kingdom

#### Introduction:

Nationally we expect 0.5% of smear results to be high grade moderate. It is expected that 60% of high grade smear results would go to be CIN2+. They are challenging group as higher chance of over treatment. This means there is a variation in management.

National guidance states that a biopsy should be undertaken in ≥95% of individuals with high-grade dyskaryosis (moderate or severe) on their test result. If no treatment is carried out, close surveillance with colposcopy and cervical samples every six months is advised. If at follow up there is persistent high-grade cytology, or CIN 2 or CIN 3 is present on biopsy, excisional treatment is recommended (≥90%).

#### Method:

We conducted an audit of All moderate smears between January 2020 to January 2022 referred to Royal Bournemouth Hospital Colposcopy. The aim was to assess management of these patients to see if there was variation particularly in follow up

#### Outcome/Results:

A total of 181 patients were referred with High grade Moderate smear. A total of 165/177 (93%) patients had a biopsy or LLETZ. Biopsy results: CIN 1 56 (34%), CIN 2 53 (32%), CIN 3 37 (22%). The patient who had CIN 1 11/51

(21.6%) had colposcopy follow up in 6 month and 36/51 (70.6%) had repeat smear with GP in 12 months. Out of the 11 patients 4 patients went on to have LLETZ in which 3/4 were CIN 2+.

In conclusion, this Re-enforces that nulliparous cohort should have multiple biopsies over see and treat. However, 1 year follow up to GP with CIN 1 not appropriate due to risk of progression/ underlying CIN 2+. This would not greatly affect work load as only 36 patients over 2 years (<1 per week)

# P-031: Retrospective review to determine success of treatment with Large Loop Excision of Transformation Zone (LLETZ) for confirmed Cervical Glandular Intraepithelial Neoplasia (CGIN)

Mr Brandon Sadler<sup>1</sup>, Ms Sarah Webb<sup>2</sup>, Dr Emma Torbe<sup>2</sup>

<sup>1</sup>University of Bristol Medical School, Bristol, United Kingdom, <sup>2</sup>Great Western Hospitals NHS Trust, Swindon, United Kingdom

#### Introduction:

Women treated for CGIN have a risk of recurrence. Therefore, adequate excisional treatment, and adherence to management and follow-up recommendations, is important.

#### Method:

Patients with CGIN confirmed in LLETZ were identified form the colposcopy database over a three-year period, 1<sup>st</sup> January 2020 to 31<sup>st</sup> December 2022. Electronic patients records and NHAIS Open Exeter were reviewed. The data collected included age, type of transformation zone, depth of incision, margin involvement, repeat excision, MDT discussion and Test of Cure (TOC) outcomes

#### Outcome/Results:

22 patients aged 27 to 44 years were identified as diagnosed with CGIN, 21/22 (95.5%) of these had a recorded MDT discussion.

21/22 had type 1 transformations zone (TZ), 0/22 had type 2, 1/22 had type 3.

Of those with type 1 TZ, 6/21 had an inadequate excision depth of < 10mm.1 patient with type 3 transformation zone had an inadequate excision of < 15mm.

31.8% (7/22) had CGIN involving margins of which all had a repeat excision carried out with clear margins. 1/22 did not attend for the TOC. 100% (21/21) with a TOC tested negative for HPV. 3/21 were late having their TOC, beyond 8 months after their treatment episode had concluded. 7/21 (33.3%) have defaulted attending their second TOC

#### **Conclusion:**

In our data set CGIN affects younger women. The 100% rate of HPV negative at first TOC is reassuring. Work is needed for to achieve the standard of all patients with glandular abnormalities should be discussed at MDT. The lack of second TOC samples led to a change of practice. Second TOC are taken in the colposcopy clinic and not discharged the patient to the community.

### P-032: Retrospective review to determine the success of cold-coagulation treatment for high grade cervical intraepithelial neoplasia

Ms Sarah Webb<sup>1</sup>, Mr Brandon Sadler<sup>2</sup>, **Dr Emma Torbe**<sup>1</sup>

<sup>1</sup>Great Western Hospitals NHS Foundation Trust, Swindon, United Kingdom, <sup>2</sup>University of Bristol Medical School, Bristol, United Kingdom

#### Introduction:

Cold coagulation, is a treatment for high grade cervical intraepithelial neoplasia (HG CIN). It is an alternative to LLETZ (Large Loop Excision of Transformation Zone) for selected cases that meet criteria. It has advantages of having less association with obstetric complications.

#### Method:

To determine the success rate of cold coagulation performed at Great Western Hospitals NHS Foundation Trust. Success was determined by using HPV status as the test of cure at 6 months and the standard <5% of treated women should have histological confirmed cervical intraepithelial neoplasia or cancer at 12 months.

Patients treated with cold coagulation over three years, January 1<sup>st</sup> 2020 - 31<sup>st</sup> December 2022, were identified using the colposcopy database. The test of cure HPV test at 6 months was determined using NHAIS Open Exeter. Electronic patient records were reviewed for those who had a positive TOC.

#### Outcome/Results:

65 patients were identified as having had cold coagulation. 6 did not have a TOC result, 2 had moved area and 4 were non responders and so were excluded. Of the 59 TOC results available 85% (50/59) had a negative TOC. 3% (2/59) had an HPV test that was unreliable / unavailable. 12% (7/59) had a positive TOC. 6/7 were HPV positive cytology negative and 1/7 was HPV positive borderline dyskaryosis in squamous cells.

100% (7/7) with a positive TOC returned for colposcopy assessment. 2/7 had a normal colposcopy examination, 3/7 had cervical biopsy confirming koilocytosis, 2/7 had cervical biopsy confirming CIN 1. Therefore, of the 59 patients having cold coagulation and had a TOC result only 3% (2 / 59) had biopsy confirmed CIN 1.

#### **Conclusion:**

Practice meets the standard <5% of treated women had histological confirmed CIN at 12 months. Cold coagulation is an effective alternative for the treatment of HG CIN, for patients that meet criteria.

### P-033: Does depth of LLETZ affect TOC? – A retrospective review of patients undergoing LLETZ for CIN

Mr Brandon Sadler<sup>1</sup>, ms Sarah Webb<sup>2</sup>, Dr Emma Torbe<sup>2</sup>

<sup>1</sup>University of Bristol Medical School, Bristol, United Kingdom, <sup>2</sup>Great Western Hospitals NHS Foundation Trust, Swindon, United Kingdom

#### Introduction:

Large loop excision of the transformation zone (LLETZ) is an excisional procedure to treat cervical intraepithelial neoplasia (CIN). National guidelines advise depth of excision depending on the type of transformation zone (TZ).

#### Method:

This review compares the TOC rates for patients who have had an adequate excision to those who have had an inadequate excision.

LLETZ procedures performed for CIN over three years 1<sup>st</sup> January 2020 – 31<sup>st</sup> December 2022, were identified from the colposcopy database. Electronic patient records and NHAIS Open Exeter were reviewed. Data collected included transformation zone (TZ), depth of incision and test of cure (TOC) result, follow up colposcopy. Those where the sample was not removed in a single piece and patients with missing or inconclusive TOC results were excluded from the review.

#### Outcome/Results:

358 patients were included in the review after exclusions.

Overall 81.2% (212/261) had a negative TOC after an adequate excision and 76.2% (74/97) had a negative TOC after an inadequate excision

232 patients had type 1 TZ, 85 had type 2 TZ, 41 had type 3 TZ

Type 1 TZ −85.3% (163 / 191) of those with an excision ≥7mm had a negative TOC compared to 82.9% (34/41) whose excision was <7mm

Type 2 TZ − 69.8% (44/63) of those whose excision was ≥10mm compared to 77.2% (17/22) whose excision was < 10mm

Type 3 TZ − 71,4% (5/7) of those whose excision was ≥15mm compared to 67.7%% (23/34) to those whose excision was <15mm

#### **Conclusion:**

This review is limited by small numbers in subgroups. However the results of the type 2 TZ group raise questions for the recommended depths to be reviewed especially as deeper LLETZ are associated with obstetric complications and may not be associated with better outcomes of TOC.

### P-034: Improving Cervical Screening in Patients Undergoing Hysterectomy: a Quality Improvement Project

Ms Ayesha Ahmed<sup>1</sup>, Ms Rachel Daniels<sup>1</sup>, Ms Duaa Faruqi<sup>1</sup>, Dr Emma Torbe<sup>2</sup>

<sup>1</sup>Kings College London Medical School, London, United Kingdom, <sup>2</sup>Great Western Hospitals NHS Trust, Swindon, United Kingdom

#### Introduction:

The 2023 Cervical Screening guidelines mandate a negative cervical screening result for patients undergoing hysterectomy for non-cancerous gynaecological indications.[1] However, adherence to this has faced challenges in clinical practice.

#### Method:

A quality improvement project was performed at Great Western Hospital between September 2023 and January 2024 to increase the uptake and verification of cervical screening tests prior to hysterectomy. Baseline data was collected retrospectively over a six month period prior to implementing the project. PDSA cycles were used to facilitate this project.[2] Data was collected monthly from electronic patient records following both interventions. The initial intervention (02/09/2023) involved educating the multidisciplinary team and introducing visual memory aids within the department. Stakeholder analysis was conducted to identify drivers and barriers in clinicians

discussing and conducting cervical screening tests. A second intervention was implemented to tackle these barriers (15/11/2023). This included updating clinicians' access to the Cervical Screening database and distributing floor plans to ease equipment access and availability.

#### Outcome/Results:

A 20.38% increase (77.14% [n=54/70] to 92.86% [n=13/14]) in the number of patients with up-to-date cervical screening tests prior to hysterectomy was seen following the first intervention. There was an increase in the number of cervical screening tests conducted in clinic, if found to be out of date from 28.57% [n=4/18] to 66.6% [n=2/3], indicating improved adherence by clinicians following our first intervention.

#### **Conclusion:**

By improving awareness and addressing barriers, we observed better clinician adherence to the NHS guideline. The adoption of such interventions is recommended to ensure compliance with evidence-based cervical screening practices, ultimately enhancing patient safety and care.

References:

- 1. https://www.gov.uk/government/publications/cervical-screening-programme-and-colposcopy-management/4-management-of-cases-relating-to-pregnancy-menopause-contraception-and-hysterectomy
- 2. https://www.england.nhs.uk/wp-content/uploads/2022/01/qsir-pdsa-cycles-model-for-improvement.pdf

#### P-035: Colposcopy Outcome under 25 years old

Ms Yuliya Ashton<sup>1</sup>, Mrs Jane Rains<sup>1</sup>, Miss Gulnaz Majeed<sup>1</sup> GSTT, London, United Kingdom

**GSTT** Colposcopy Department, London, UK

#### Introduction:

According to the large population study ARTISTIC Trial into clinical effectiveness of primary human papillomavirus cervical screening in England the prevalence of HPV positivity in women of 20-24 years of age is about 40%.

#### Aim:

To evaluate the outcome of colposcopic assessment of women below the age of 25 years.

#### Methodology:

12 months retrospective study in cohort of women under the age of 25-year-old who have been referred to Colposcopy clinic at GSTT from 01/Jan/2022 to 31/Dec/2022, based on the data from CYRES® Colposcopy System.

#### **Results**

374 (8.6%) women below the age of 25-year-old out of 4320 referrals were identified.

124 (33%) of referred young women were symptomatic (postcoital bleeding, intermenstrual bleeding, and discharge) 194 out of 370 (52%) more than half of the referred cases had a histologically confirmed diagnosis (Punch Biopsy or LLETZ), excluding 8 cases (4%) with inadequate punch biopsies.

#### **Conclusion:**

18 cases of suspicious looking cervix from "non-urgent" cases should have been classified as "urgent" and referred to colposcopy within 2 weeks.

19 cases of low-grade cytology from "non-urgent" referrals and 2 cases from "Urgent referral" should have been in the category of abnormal screening sample.

Only about 1% cases of CINII or worse lesions were not discussed at MDM but offered treatment.

Over three forth of patients - 277 (74%) were discharged to GP after first colposcopic encounter.

#### Recommendation:

HPV immunisation data needs to be collected in future study to determine coverage as well as link to CIN in this age group.

#### P-036: Test of cure (TOC) - Cost Effective Practice – A Quality Improvement Project

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<sup>1</sup>West Middlesex University Hospital, London, United Kingdom

#### Introduction/Background

High risk HPV (hrHPV) screening is the current method for predicting risk of developing invasive cervical cancer. The NHS cervical screening programme (NHSCSP) and the British Society for Colposcopy and Cervical Pathology (BSCCP) advise that TOC for hrHPV should be performed 6months post LLETZ treatment in cases of CIN1/2/3 to determine the appropriate ongoing treatment pathway. The national guidance for the location of the TOC should be performed in the community to as a cost-effective practice, and the colposcopy clinic should be advising on the timing of the TOC.

#### **Aims**

- Aim to evaluate the effectiveness and safety of hrHPV testing after LLETZ.
- Determine optimal follow up management strategies according to histology.

#### Methodology

We conducted a retrospective data collection over a period of 6 months, a total of 106 cases looking at the TOC smears for LLETZ performed at both sites within the trust. The data was collected using both the hospital computerised records and colposcopy records, and subsequently collated onto Excel before analysis.

#### **Results**

| Result (as per BSCCP)           | WMUH (n=56) | Chelsea (n=50) | Total (n=106) |
|---------------------------------|-------------|----------------|---------------|
| Compliance with TOC (100%)      | 100%        | 84%            | 92%           |
| Timing of TOC at 6 months (90%) | 84%         | 38%            | 61%           |
| TOC at GP surgery (100%)        | 55%         | 46%            | 51%           |
| Negative TOC                    | 64%         | 70%            | 67%           |

#### Conclusion

Compliance with TOC is generally very well attended by patients, however, there is need to be more focus on the timing of TOC ensuring they are meeting the 6-month target. Community based TOC will significantly reduce the cost and will improve colposcopy services. The colposcopy clinic must notify the call and recall service with the due date for the next screen. Long term follow up plans regarding the outcome pathways for TOC can be re-audited in future to ensure they are being effective in reducing the risk of developing invasive cervical cancer.

#### P-037: Subtotal Hysterectomy? What about a cervical smear after that??

#### <u>Dr Premalatha Ulaganathan</u><sup>1</sup>

<sup>1</sup>Whiston Hospital, Chester, United Kingdom

#### Introduction:

Women who undergo subtotal hysterectomy will still have their cervix in situ, and so must remain within the NHSCSP.

In June 2021 in Scotland 430 women were wrongly excluded from the screening over a period of 24 years. Less than 5 of them were seriously harmed because of that. The records of everyone excluded from cervical screening in the nation are being reviewed to ensure these people were excluded correctly. However, it was decided that a study would be done in our unit to find out how we performed and if we were communicating the primary care appropriately.

#### Objective:

The aim of the study was to identify those women who had sub-total hysterectomy had follow up smears and how we communicated to patients and General Practitioners (GPs).

#### Methods:

Retrospectively the data was collected from January 2012 till Dec 2021 at a district general hospital. 165 cases were identified. Three of them who had total hysterectomy so excluded from the audit. Two women deceased and so were excluded. Two patients had trachelectomy subsequently so were excluded. Overall 158case notes were analysed.

#### **Results:**

It was noted that all the 158 patients were informed the need for further cervical smears during post-operative period. GPs were informed about the type of the surgery they had. It was noted that except in the years 2013 & 2015 nearly 80% of patients had regular cervical screening. In 2016 the compliance in 100%. Among the 158 patients, 6 were noncompliant. Invitations are being sent to all those who don't attend their smear tests by their primary care practitioners.

#### Conclusion:

It has been concluded that our unit is 100% compliance in informing their patients about the nature of surgery during post operative period. The primary care physicians are communicated clearly about the need for further cervical smear test according to their age in the discharge letters.

#### Recommendation:

The fact that the Gynaecology department performed well was appreciable. It was still decided that an information leaflet would be introduced which gives information about who needs cervical screening after hysterectomy and this would be given to all women who undergo hysterectomy. There was a decision to write to those 6 non- attenders explaining the importance of cervical screening test and encourage them to attend for smear test.

### P-038: Knife Cone Biopsy: A retrospective audit of 10 years of practice at a district general hospital

Ms Jennifer Davies<sup>1</sup>, <u>Mr Liam Beamer</u><sup>1</sup>, Mr David Semple<sup>1</sup>

The Countess Of Chester Hospital NHS Foundation Trust, Liverpool, United Kingdom

Knife Cone Biopsy: A retrospective audit of 10 years of practice at a district general hospital
Knife cone biopsy (KCB) as a form of treatment for cervical pre-malignancy has been superseded by the use of
electrosurgical procedures such as Large Loop Excision of the Transformation Zone (LLETZ). In terms of clinical
benefit there is minimal advantage to performance of a KCB over a LLETZ. However, the former may be preferable to
the histopathologist as the absence of diathermy artefact allows for more accurate assessment of excision margin
status. In a small subset of patients, such as those with a significant glandular abnormality, excision margin status
can influence the need for hysterectomy. Locally, KCB is performed by a single colposcopist but we have no standard
inclusion criteria for whom this is offered to; although all cases are discussed at our gynaecological oncology MDT
and regional MDT. We audited 10 years of KCB data to determine patterns in indication and outcome.
Procedure:

• All patients undergoing knife cone biopsy under general anaesthetic over a 10 year period reviewed

Note made of referral cytology, colposcopic opinion, indication for KCB over LLETZ, histological diagnosis
including excision margin status and depth of cone, complication rates and outcomes in terms of further
treatment.
 The aim was to assess if KCB was a safe and more appropriate alternative treatment for certain colposcopy patients
and to determine appropriate inclusion criteria for KCB.

#### P-039: Borderline cervical smears in Morecambe Bay: colposcopy and biopsy outcomes

**Dr Hui Lim**<sup>1</sup>, Mr Sunday Ajayi<sup>1</sup>

<sup>1</sup>University Hospitals of Morecambe Bay NHS Foundation Trust, , United Kingdom

#### Introduction:

'Borderline change in squamous cells' describes morphological alterations to squamous cells that fall short of low-grade dyskaryosis.

#### Methods:

Our aim was to review the outcome of patients referred following cervical smears showing high risk-HPV with borderline change in squamous cells, in terms of colposcopy and biopsy outcomes, and whether they underwent subsequent treatment.

We conducted a retrospective review of 168 women who underwent colposcopy following a smear with borderline change in squamous cells over a one-year period from 1 October 2022 to 30 September 2023 at the University Hospitals of Morecambe Bay NHS Foundation Trust. Patient demographics and information on colposcopy and

biopsy outcomes were collected from electronic records on CompuScope and Lorenzo, and smear records were reviewed on Open Exeter.

#### **Results:**

The average patient age was 37.9 years. The average time from smear to colposcopy was 61.8 days. Colposcopic impression was normal in 25.6%, HPV only in 18.5%, low grade in 44%, high grade in 5.4% and unsatisfactory in 6.5%. No biopsy was deemed necessary after colposcopy in 33.9% of patients. Of the 66.1% that had single or multiple punch biopsies taken, biopsy results showed wart virus effect only in 34.2%, low grade CIN in 32.4%, high grade CIN in 22.5%, ungraded CIN in 3.6% and normal or non-diagnostic samples in 7.2%. Amongst the 25 high-grade cases (22.5%) diagnosed, 20 (18%) were CIN2, 3 (2.7%) were CIN3, one was reported as likely high grade with possible SMILE, and one as ungraded CIN favouring high grade with crypt involvement. 22% (37/168) of patients underwent treatment with 14.3% LLETZ, 6.5% cold coagulation and 1.2% hysterectomy. 54.2% of those who had LLETZ had high grade CIN confirmed on LLETZ histology. The two cases (1.2%) that underwent hysterectomy both had a history of previous LLETZs and had been discussed at the monthly colposcopy multidisciplinary meeting.

### P-040: An audit of patient satisfaction of colposcopy services in Tallaght University hospital, Dublin, Ireland.

#### Miss Caitlin Mckean<sup>1</sup>

<sup>1</sup>Tallaght University Hospital, Tallaght, Ireland

#### Introduction:

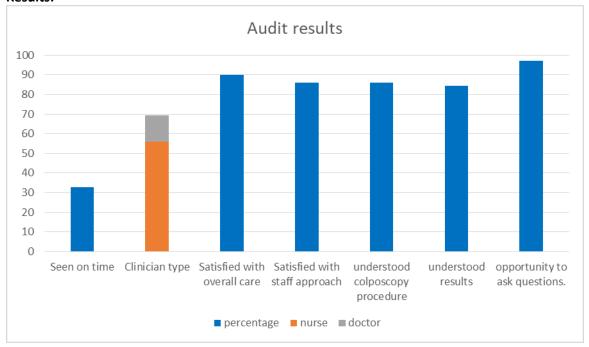
Tallaght University Hospital provides colposcopy services to the women of Dublin and its surrounding area. It was important to us that we ensure a quality service for these women. To that end we conducted a patient satisfaction audit. Since we provided colposcopy services to 5031 women in 2023, it was important to understand the quality of care we provided, from their perspective.

#### Methods:

The aim of this audit was to gain an understanding of patient experience within the colposcopy service in Tallaght University Hospital. This audit was performed from 11th September 2023 until 11<sup>th</sup> December 2023 and was carried

out anonymously. Each patient was given a questionnaire at reception and asked to fill it out after their appointment. An excel spread sheet was used for analysis. We received 912 data entries from patients over the 3 month period. Patients were asked how long they were waiting, if they had been seen by a doctor or nurse, how satisfied where they with the healthcare providers approach to care, how satisfied where they with the overall care provided, how well did they understand the colposcopy procedure, how well did they understand their results and if they had the opportunity to ask any questions.

#### **Results:**



- Of the people seen, 32.7% were seen on time.
- 55.9% saw a nurse, 13.4% saw a doctor, 22.6% saw both a nurse and a doctor and 7.8% did not know who they saw.
- We used a point system where a patient awarded the service 5 points if they were extremely satisfied and 1 point if they were not satisfied at all. 91% were extremely satisfied.
- 89.9% rated the staff members approach a 5 for extremely satisfied.
- 86.1% completely understood their colposcopy procedure.
- 84.4% completely understood their smear or biopsy result.
- 97% felt they had the chance to ask all their questions.

#### Conclusion

While we were delighted to have scored so highly throughout this audit it came to our attention that while 97% of patients asked, felt they had the opportunity to ask questions, only 86.1% of patients understood the information given to them. This may be due to the way we educate our patients and the language we use. Other communication tools may be of benefit in this area such as ISBAR, diagrams, clear and simple language.

The limitations of this audit was we only conducted the audit in one language which was English. We felt it would be too difficult for the patient to understand the audit if it was in a language they did not speak. However, in future we could translate this audit into a number of languages to gain a more accurate representation of our patient's experience. Other limitations included, some patients did not wish to fill this survey out and some patients were not given a survey due to human error.

If this audit was to be repeated at a future date this would be a good source of comparison.

# P-041: CLINICAL AUDIT: PATIENTS UNDERGOING LLETZ UNDER GA FOR BORDERLINE **NUCLEAR ABNORMALITIES** Dr Kiran Platzoeder<sup>1</sup>, Dr Muna Rahma<sup>1</sup>, Dr Mark McComiskey<sup>1</sup> <sup>1</sup>Belfast Trust, Belfast, United Kingdom **Background** Borderline nuclear changes are the most common abnormal finding on a smear and there is a paucity of evidence on

the management of this. It can be caused by Human Papilloma Virus (HPV) however 90% clear within 2 years due to cell mediated immune response. Other factors include infections, cervicitis, polyps and hormonal changes. More than half of these cases (in non-smokers) resolve without treatment. If HPV positive, patients are referred to the colposcopy service for further assessment. Large Loop Excision of Transformation Zone (LLETZ) is the mainstay

treatment of High Risk HPV associated with CIN.

Aim & Methods

This audit is designed to study the outcomes of patients undergoing LLETZ with borderline nuclear abnormality (BNA) index smear. A retrospective analysis of 25 patients identified from the Regional Excelicare Database in chronological order from January 2022 was conducted with data collected from local Electronic Care Record. 10 patients were identified with borderline nuclear abnormality smear. These are the provisional data; the full cohort will comprise of 100 patients.

#### **Results**

Number of patients underwent LLETZ with BNA at index smear:- n = 10 Of these 10 patients:-

- ➤ Mean age = 50 years
- Mean number of smears in last 10 years = 5.8
- Mean incidence of life time LLETZ = 1.5
- ➤ Mean BMI = 27
- LLETZ under GA = 4 (40%)
  - LLETZ HP results: 3 (75%) CIN I

1 (25%) - koilocytosis

- > LLETZ under LA = 6 (60%)
  - LLETZ HP results: 2 (33.3%) CIN II
     4 (66.6%) koilocytosis

Reasons for GA:- patient choice, difficult exam and no explanation

- Post op complications = 1 (10%)
- > Test of cure performed = 10 (100%)

#### Conclusion

Borderline nuclear abnormality group who underwent LLETZ represented a perimenopausal / menopausal cohort with the mean age of 50 years. An increased number of recent smears, high risk of lifetime LLETZ along with higher incidence of LLETZ under GA were noted. Incidence of LLETZ histopathology showing greater than CIN I abnormality was low. There were a range of reasons established for LLETZ being done under GA. Post op complications were within the national recommended range.

#### Recommendations

- offer conservative management with vaginal oestrogen pessary and a repeat smear as an alternative treatment.
- a prospective evaluation should be carried out with a re-audit to confirm meeting standards and closing the loop.

### P-042: LARGE LOOP EXCISON OF TRANSFORMATION ZONE(LLETZ) UNDER GENERAL ANASTHESIA.

Indications, and any superior role over local anaesthesia?
In Sligo University Hospital, Ireland.2019-2021.

MRS JENNIFER CURLEY<sup>1</sup>, Mr AASIM ELHAJ<sup>1</sup>, <u>DR NIRMALA KONDAVEETI</u><sup>1</sup>
1, SLIGO, IRELAND, <sup>2</sup>1, SLIGO, IRELAND

#### Abstract:

Large lope excision of transformation zone (LLETZ) is the most common treatment for abnormal cervical cells. Practically a diathermy loop is used to remove a portion of the cervix which include (TZ)with the area of cervical intra-epithelial neoplasia (CIN). The procedure usually takes 5-10 minutes and should be done under local anaesthesia as an out-patient in 90% of cases. However general anaesthesia (GA) is used in selected cases.

Aims of study is to identify the number of ladies requiring GA for LLETZ procedure and the factors contributing for the decision.it also demonstrates the difference in outcome between two methods of anaesthesia.

Overall, 11% of patients require GA and demographics in the GA and LA group were similar. LLETZ has been decided due to CIN1 in 12% of cases, CIN2 and CIN3 in 31% and 50% of cases respectively. Colposcopist decision was indicative in 66% of patients. with large lesion size in 15%. Generally, 34% of ladies underwent through GA as they required further treatment (eg. Hysteroscopy D and C). 8% of patients request GA with anxiety being the main reason. 8% of patients requiring GA had a history of LLETZ(x2).55% of cases had a positive margin. And 10% required a repeat LLETZ.

As we could not demonstrate a clear advantage in negative margins whilst under GA, we could encourage, when possible, for LLETZ to be done under LA. In addition, if GA is required in for LLETZ clearer documentation is suggested.

#### P-043: SUSPICIOUS LESION ON CERVIX: A SERVICE EVALUATION

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#### Introduction/Background

This service evaluation focuses on George Eliot Hospital(GEH) NHS Trust and how referrals from primary care are managed. There is a rule in the unit that all referral for Suspicious lesion on cervix are seen in the gynaecology clinic (GOPD), reducing the burden on the colposcopy clinic and allowing timely assessment.

#### Aims/Methodology

The aim to analyse if patients are appropriately referred from primary care and appropriately triaged and managed in secondary care. Retrospective analysis of clinical and medical records of all patients referred on the 2week wait pathway for Suspicious lesion on cervix between November 2022 till March 2023 was done.

#### **Results**

Patient ranged from 21 to 84 years. Only 4% (2) were outside the cervical screening age. Referral from primary care were mainly for Suspicious lesion on cervix. Presenting complaint (PC) were quite varied and may not have warranted an initial referral on the 2 week wait pathway under suspicious cervix, though some had multiple complaints. Most patients 92% (46) were seen in a GOPD clinic and 8% (4) were referred directly to colposcopy. 34%(17) of patients main presenting complaint was postcoital bleeding. Most of the patients were UpToDate with their smear test (84%), this is above the NHS CSP Standard of >/= 80%. In the most recent National data (up to 31/03/2023), 67.0% of women 25 to 49 had adequate screening test recorded in the previous 3.5years and 74.9% of women 50 to 64 had adequate screening test recorded in the previous 5.5years (NHS England, 2023). 38%(19) of patients were seen in the colposcopy clinic either from initial triage (4) or following specialist review. Of the patients that had a cervical punch biopsy, 5.2% (1) was diagnosed with cancer; 42% (8) with CIN1 or less; 15% (3) with CIN2, CGIN and ungradable CIN. All others were benign findings.

### P-044: HPV vaccination status among age-eligible patients referred to Colposcopy service in a tertiary hospital, Ireland.

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Ayodele David Aina<sup>1</sup>, Sinead Cleary<sup>1</sup>, Gunther Von Bunau<sup>1</sup>

1. Tallaght University Hospital. Ireland

#### Introduction

Cervical cancer is one of the leading causes of death in women globally. It is mostly caused by persistent infection with human papillomavirus HPV and according to world health organisation, prophylactic vaccination against HPV, screening, and treatment of pre cancer lesions are effective ways to prevent cervical cancer. There is a robust national screening programme in Ireland (cervicalcheck.ie) which offers free screening to women from age of 25 years to 65 years. HPV vaccination programme started in 2010 at first class of secondary school aged 12-13 years. A

catch-up programme for older schoolgirls and vaccination of boys were introduced more recently. Vaccine uptake across the country reported at 83% although significant variation across different counties. Methods

All patients referred to our Colposcopy service between 1<sup>st</sup> Jan 2022 to 31<sup>st</sup> Dec 2022 who had access to HPV vaccination in school were included. Referrals were after their first screening test. All procedure and reviews were carried out by certified nurse colposcopists. The first 100 in this category were included in the study, other information like smoking status, parity, referral diagnosis and management were manually retrieved.

#### **Results**

The patients that confirmed vaccination were 73, while 18 patients didn't know or unsure and others were unvaccinated 9 (9%). The most common reason for referral is ASCUS 39% then LSIL at 37%. Severe disease (CIN 3 or cGIN) was noted in 13% of biopsies and were all vaccinated.

#### Conclusion.

In this small cohort of patients, we didn't demonstrate the protective effect of HPV vaccination against severe cervical disease, however 18% of these patients were unsure about their vaccination status and this could not be verified in colposcopy because this information in not recorded in the programme.

### P-045: How are we doing in Colposcopy? Concordance between colposcopic impression and subsequent histological diagnosis

<u>Dr Ciaran McKeown</u><sup>1</sup>, Dr Maria Cheung, Dr CM McCarthy <sup>1</sup>Rotunda Hospital, Tullamore, Ireland

#### Introduction

A colposcopic impression (CI) is formed based on the highest grade feature of any cervical lesion during a standard colposcopic assessment. The positive predictive value (PPV) is calculated as the proportion of individuals who have a CI of high-grade disease which is subsequently confirmed on histological examination. For quality assurance, the PPV for suspected high-grade lesions should be at least 75%.

#### Methods

A retrospective review of all cervical biopsies undertaken in a seven-day period in an Irish tertiary level colposcopy department that had almost 5600 attendances in 2022. The study received ethical approval in October 2023 from the hospital's research advisory group (ref:23/609).

#### **Results**

In total, 47 patients had a cervical biopsy taken. The mean age of patients in this cohort was 39 years of age (range 25-64, SD 11.3). Of these, 14 (29.8%) had previously attended for colposcopic assessment and been discharged. The most common referral smear was atypical squamous cells of undetermined significance (n=23; 49%). All patients referred with abnormal cytology were also positive for Human Papillomavirus. The majority of assessments and biopsies were undertaken by qualified nurse colposcopists (n=24; 51.1%).

A total of 6 (12.8%) patients had a CI of high-grade disease with 4 (66.6%) confirmed histologically. A CI of low-grade disease was given for 35 (74.5%) patients. Of these, 25 (71.4%) had confirmed CIN1 on biopsy. In 8 (22.9%) cases when low-grade disease was suspected, histology of CIN2 or higher was returned.

#### Conclusion

The PPV for suspected high-grade lesions (66.6%) within the time frame studied was lower than the target of 75%. The PPV for suspected low grade lesions was higher (71.4%), although underestimation of grade was noted in 22.9% of cases. The implementation of a formal scoring system (such as the Swede score) may help improve the sensitivity and specificity in identifying high-grade disease in this unit.

# P-046: WHAT HAPPENS IN THE EMERGENCY DEPARTMENT STAYS IN THE EMERGENCY DEPARTMENT – AN AUDIT OF COLPOSCOPY TREATMENT COMPLICATIONS PRESENTING TO CORK UNIVERSITY MATERNITY HOSPITAL.

Dr Marie Rochford<sup>1</sup>, Dr. Farzana Shahir<sup>1</sup>, Dr. Gabriela Paz<sup>1</sup>, Ms. Dara Philpott<sup>2</sup>, <u>Dr. Deirdre Hayes Ryan</u><sup>1</sup> Cork University Maternity Hospital, Cork, Ireland, <sup>2</sup>Colposcopy Department, St. Finbarr's Hospital, Ireland

#### Introduction

Colposcopy treatments are commonly performed in gynaecology as part of the national Cervical Check screening programme. The treatments remove abnormal cervical cells by excising them (LLETZ) or ablating them (Cold Coagulation). The colposcopy department in Cork University Maternity Hospital (CUMH) is located offsite at St. Finbarr's Hospital. Women with post treatment complications are advised to attend the emergency department (ED) in CUMH. The aim of this audit is to identify the local incidence of complications following colposcopy treatment and to examine the communication between the ED and the colposcopy unit.

#### Methods

Retrospective audit in August 2023 of all colposcopy treatments (LLETZ or Cold Coagulation) performed at St Finbarr's colposcopy unit from January to December 2022 inclusive. Eligible cases were identified from the colposcopy units register. All treatment cases were reviewed to determine if the patient subsequently presented to the ED in CUMH. Data including indication for presentation and subsequent management was transcribed from electronic healthcare records to a coded excel file and descriptive statistics conducted.

#### **Results**

During the 12 months of the audit, 700 colposcopy treatments were performed of which 519 were LLETZ and 181 were cold coagulation. Eighteen (2.6%) patients presented to the ED. Ages ranged from 27 to 61 years with a median of 33.5 years. Indication for presentation included, bleeding (78%), pain (33%) and suspected infection (39%). Three patients (16.6%) were admitted for further treatment, mainly intravenous antibiotics and observation. No patient required surgical treatment or blood transfusion. There was no direct communication between the ED and the colposcopy unit noted for any of the 18 cases nor was there any documentation of completion of an incident form for those requiring admission.

#### Conclusion

Communication gaps were evident, prompting subsequent corrective measures. The audit aligns our unit's complication rates with international standards but underscores communication deficiencies.

### P-047: DIFFERENTIATED TYPE VULVAL INTRAEPITHELIAL NEOPLASIA (dVIN) – MYTHS AND FACTS

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**Background:** Differentiated Vulvar Intraepithelial Neoplasia (dVIN) often arises against the backdrop of Lichen Sclerosis (LS), exhibiting an elevated risk of progressing to cancer compared to the Human Papillomavirus (HPV)-related usual type VIN (uVIN). Due to distinct etiological factors governing these two VIN types, the therapeutic approach diverges, with surgery being the predominant treatment for dVIN.

Clinical Case: A 78-year-old woman, diagnosed with LS, presented at the Vulval clinic with severe vulval itching. Vulvoscopy revealed active LS, a small ulcer on the fourchette, and a suspicious white pearly hard lesion on the left labia minora. Biopsies confirmed the presence of dVIN without invasion. The patient was listed for wide local excision of the vulva by the clinician and as per protocol discussed at the local MDT. There was no consensus on the treatment amongst the clinicians, with most of them recommending a three-month regime of topical imiquimod. The patient expressed her dissatisfaction due the conflicting advice that was provided. The case was then discussed with the regional tertiary centre who agreed no role for steroids or Imiquimoid and surgery as the main stay of treatment. Patient was transferred to tertiary centre for surgical excision.

**Conclusion:** This case highlights a paucity of information about the aetiopathogenesis of dVIN. This can result in underdiagnosis and undertreatment of a condition which has been reported to have a higher potential of malignant transformation. We would like to present the myths and facts of management of dVIN and compare the differences between the aetiopathogenesis and treatment modalities between dVIN and uVIN.

### P-048: Prevalence of HPV among a screened population in Ireland: findings from the first 3 years of primary HPV screening within the national cervical screening programme

<u>Dr Mairead O Connor</u><sup>1</sup>, Ms Grainne Glesson<sup>2,1</sup>, Dr Cara Martin<sup>3</sup>, Dr Therese Mooney<sup>1</sup>, Professor Patricia Fitzpatrick<sup>1</sup>, Professor Noirin Russel<sup>2,1</sup>

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**Introduction/Background:** HPV as a primary screening test is more effective than screening with cervical cytology. It has a high sensitivity and a high negative predictive value for cervical intraepithelial neoplasia (CIN). Ireland adopted primary HPV screening with cytology reflex in March 2020 after a Health Technology Assessment.

Aims/Methods: The aim of this study was to document the prevalence of HPV among screened women in Ireland for the first three years of HPV screening with cytology triage in the CervicalCheck programme. Data on the number of primary HPV screening tests performed and the screening results were retrieved for 2020 -2023, with 3 timeframes used: 01/04/2020 -31/03/2021(YR1); 01/04/2021 -31/03/2022(YR2) and 01/04/2022 -31/03/2023(YR3). Only women in the screening age range (25-65 years) and whose tests were taken in primary care settings were included in this analysis.

**Results:** HPV prevalence was 12.1% in Yr1 (23,563/195,177), 10.3% (30,096/293,071) in Yr2 and 11.1% (25,736/231,046) in Yr3. Over the three years, HPV prevalence was highest in those aged 25-29 years (33.2%) and lowest in those aged 60-65 years (1.9%). A total of 79,395 (11.2%) women tested positive for HPV over the study time period. Of these, 54.4% had HPV+ / negative cytology, 37.9% had HPV+ / low grade cytology and 7.6% had HPV+ high grade cytology results.

**Conclusion:** This data provides useful epidemiological insights into HPV prevalence and cytology findings in HPV positive women among attendees at the national cervical screening programme in Ireland. Overall HPV prevalence and HPV prevalence by age are in line with previously reported prevalence rates from a pilot HPV screening research study undertaken in Ireland in 2016-2018, and with international findings.

### P-049: Human Papilloma Virus (HPV) E6/E7 Oncoprotein in Cervical Cancer Screening: A Multicenter Clinical Trial

Professor Jinwei Miao<sup>1</sup>, Ms Zangyu Pan<sup>1</sup>

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#### Introduction/Background:

HPV and TCT testing are better alternative for cervical cancer screening, but additional procedures are required for triage of HPV positive women. HPV encoded oncoproteins E6 and E7, as the main effectors of HPV carcinogenicity

represent promising triage alternatives. This study prospectively evaluated the diagnostic efficacy of HPV E6/E7-ICC oncoprotein detecting in several areas of China.

#### Aims/Methods:

This study enrolled 396 women aged from 20-69 years who were diagnosed with HPV infection. Screen-positive women or women with suspicious findings were further evaluated bybiopsy at colposcopy. We took samples of cervical cells for E6-ICC as well as E7-ICC oncoprotein detecting before VIA. Statistical analysis was used to compare the performance of E6/E7-ICC oncoprotein detecting with other screening tests.

#### **Results:**

Sensitivity and specificity were estimated with histopathology as gold standard. Sensitivity of E6-ICC oncoprotein testing for HSIL+ was 48.86% (CI = 0.38–0.60). Specificity was 84.09% (CI = 0.79–0.88). Sensitivity of E7 oncoprotein testing for HSIL+ was 48.86% (CI = 0.38–0.60). Specificity was 88.69% (95%CI = 0.82–0.90). The AUC of E6, E7 and TCT were 0.664 (CI=0.61-0.72), 0.676 (CI=0.62-0.73) and 0.556 (CI=0.50-0.62). Specificity of E6-ICC oncoprotein testing for LSIL+ was 92.22% (CI=0.87-0.96), Specificity of E7-ICC oncoprotein testing for LSIL+ was 92.22% (CI=0.89-0.97). DeLong's test was used to compare the diagnostic effect in predicting outcome. We found a significant statistical difference between E6/E7 and TCT (p: E6 VS E7=0.598, E6 VS TCT 0.01, E7 VS TCT 0.01). PPV of E6 in ASCUS/LSIL/ASCH/HSIL were (0.50%, 0

#### P-050: Proportion of cervical excision and pregnancy outcomes after LLETZ for CIN

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**Background/Objective:** Robust published data have long established the strong causative link between conservative surgery for cervical precancer and adverse perinatal outcomes. We have embarked in a longitudinal study to quantify how the proportion of the cervical excised volume/length is potentially linked to adverse pregnancy outcomes.

#### **Material & Methods:**

Design: Prospective observational study.

Setting: University Hospital of Larisa & IASO Thessaly, General and Maternity Hospital (Greece).

Population: Women planned to undergo LLETZ for CIN who desire future fertility.

Interventions: The cervical volume and dimensions were calculated with 3D-TVS. The volume and dimensions of the excised cone were accurately assessed before fixation by a volumetric tube and a ruler; the percentage of excision was computed.

**Outcomes:** Proportion of excision and assessment of actual pregnancy outcomes.

**Results:** A total of 16 women (median age 29.93 years) have been recruited so far. Both the total cervical volume before treatment [median:  $18.21 \text{cm}^3$  (min: $15.38 \text{cm}^3$  – max: $22.65 \text{cm}^3$ )] and the volume of the excised cone [median: $2.91 \text{cm}^3$  (min: $1.2 \text{cm}^3$  – max: $4.5 \text{cm}^3$ )] differed substantially. The estimated proportion of excision varied significantly between 6.9-29.3% (median:16.3%). Fifteen pathology cone specimens were reported as CIN3 and one as microinvasive SCC. None of the individuals had been vaccinated. Three women have conceived following treatment and two of them had a missed miscarriage at  $8^{+5}/40$  and  $9^{+2}/40$  weeks of gestation. The microinvasive SCC case has already delivered at  $38^{+2}/40$  weeks of gestation.

**Conclusions:** When decision for excisional treatment is contemplated for a woman who wishes future fertility, the risks and benefits of treatment must be carefully balanced. Assessing the volume fraction and the dimensions of the excised cone could identify individuals requiring closer monitoring during future pregnancies.

### P-051: HPV Self-Sampling for Cervical Screening in Ireland: A Survey of Sampletakers' Attitudes towards HPV Self-Sampling

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HPV Self-Sampling for Cervical Screening in Ireland: A Survey of Sampletakers' Attitudes towards HPV Self-Sampling

Self-sampling for HPV has been implemented as an alternative method to clinician-collected HPV testing for cervical cancer screening in a number of countries and may be considered for use in Ireland in the future. Sampletakers play a pivotal role in the delivery of cervical screening. This survey aimed to determine sampletakers' attitudes towards HPV self-sampling as a potential, additional screening method for cervical cancer.

An anonymous, online, cross-sectional survey of HPV sampletakers registered with CervicalCheck –The National Cervical Screening Programme in Ireland was conducted. Survey content was informed by a literature review and consultations with key stakeholders. It consisted of 18 questions and was disseminated via email to all eligible CervicalCheck sampletakers. Analyses were performed on SPSS v.27.

In total, 200 sampletakers completed the survey, 88% of whom were nurses or midwives. Two thirds (67%) of respondents supported HPV self-sampling as an additional screening method, while 9% did not and 24% were unsure. Reasons for supporting self-sampling included increasing screening uptake (59%), allowing participants to avoid speculum exams (23%) and convenience (20%). Respondents opposed to self-sampling cited a lack of opportunities to counsel participants about screening (28%) and discuss other health concerns (28%) as reasons for not supporting self-sampling. The majority (73%) of respondents believed self-sampling should be performed in participants' homes and 50% thought sampletakers should be involved in its delivery.

The majority of survey respondents supported HPV self-sampling as an additional cervical screening method and thought it should be performed in participants' homes. Respondents were divided in their views on the role sampletakers should play in its delivery, however. This survey provides valuable insights into the preferences of a group central to the delivery of cervical screening services and these insights will be critical to any decision-making process relating to the introduction of HPV self-sampling in Ireland.

### P-052: The role of Machine Learning Artificial Intelligent models in assisting colposcopists: A literature review

#### Dr Jane Thomas<sup>1</sup>

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**Background:** Automated methods for detecting cervical lesions have been introduced due to the subjective nature of colposcopic evaluation which only improves with training and experience. Furthermore, colposcopic evaluation is

time-consuming and is not exempt from error. This literature review aims to evaluate the diagnostic performance of Artificial Intelligence (AI) models concerning classification and biopsy processes and their role in assisting colposcopists.

**Methods:** Detailed searches were performed on four databases: Pubmed, Embase, Scopus, and Cochrane to find papers published from January 2020 to August 2023. Articles that applied Machine Learning (ML) models for the classification of cervical lesions and guidance on biopsy were included in the review. More specifically, only articles that compared the performance between AI models and colposcopists of varying experience were included

**Results:** Through the use of MeSh terms related to the words "colposcopy", "artificial intelligence" and "cervical cancer", several other keywords were identified. These keywords were used and the primary search yielded 312 articles. After screening and evaluating eligibility based on inclusion and exclusion criterion, 7 studies were incorporated into the review with an accumulated total of 58 266 patients. A total of 6 retrospective analytical studies were included and one randomised control trial. In conjunction with human evaluation, Al could serve as an additional supportive tool in the interpretation of colposcopic images. ML models that incorporate multidimensional data are proving to be beneficial in providing a more accurate classification and biopsy sensitivity. The main limitation revolves around the fact that the included studies are mostly retrospective and therefore certain elements of bias cannot be eliminated and some form of clinical data will always be missing. Due to time constraints, the time frame of the included studies had to be restricted to include publications from only 2020 onwards.

### P-053: Excisional Treatment of uVIN: Excision margin status and other determinants of recurrence and need for further treatment.

Dr Laura Yell<sup>1</sup>, Mr Liam Beamer<sup>1</sup>, Mr David Semple<sup>1</sup>

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Excisional Treatment of uVIN: Excision margin status and other determinants of recurrence and need for further treatment.

High-Grade Squamous Intraepithelial Lesions (HSIL) of the vulva encompass Vulval Intraepithelial is categorised based on underlying aetiology between HPV mediated and non-HPV mediated subtypes. HPV mediated or 'usual' type VIN (uVIN) has a greater rate of regression. However, due to a significant risk of occult malignancy at the time of diagnosis, surgical excision is recommended in most cases of HSIL uVIN. Multifocal and extensive changes are associated with the field effect seen with HPV infection, as such wide local excision can lead to substantial anatomical changes and mutilation of the vulva. However, a fine balance needs to be struck to balance against the greater risk of recurrence with positive excision margins. Locally uVIN is excised under vulvoscopic guidance, we reviewed excision margin status, area of wide local excision specimen and number of foci and their impact on need for repeat excision, adjuvant medical therapy and length of follow up.

#### Procedure:

- All patients undergoing vulval excision under general anaesthetic over a 5 year period reviewed
- Note made of surface area of specimen, number of specimens obtained at a single procedure (as a measure of multifocal disease) and the presence of residual uVIN at excision margins.
- We reviewed clinical follow up over a period of 5 years post-procedure for evidence of further surgical
  excision, need for referral for medical treatment and prolonged follow up beyond that advocated by the
  British Society of Gynaecological Oncology (BSGS).

The aim was to determine if marginal status alone is the greatest determinant of need for further management or whether additional considerations should be made for the contributory effects of multi-focal disease and area of tissue excised when determining risk of recurrence. In doing so we hoped to be able to identify a cohort of low-risk patients in whom 3 year follow up and discharge is sufficient.

### P-054: Referrals to difficult smear clinic in secondary care are increasing - how can we support services to deliver cervical screens in primary care?

<u>Dr Helen Bradshaw</u><sup>1</sup>, Ms Catriona Bharva<sup>1</sup>, Ms Susan Manuel<sup>1</sup>, Ms Kate Sheldon <sup>1</sup>Liverpool Womens Hospital, Liverpool, United Kingdom

#### **Background/Objective:**

The colposcopy department at Liverpool Women's Hospital has offered a difficult smear clinic for many years. Its original purpose was to ensure that women who were unable to have a smear test in primary care due to congenital abnormality, disability, extreme anxiety or previous trauma could have the additional support required to facilitate screening. In the last 3 years demand for this service has increased. At present, women referred to the difficult smear clinic are waiting up to 6 months for an appointment. Not only does this generate anxiety for the women who are overdue a cervical screen there is a risk of delay in diagnosis of significant pathology.

#### **Material & Methods:**

The objective of this audit is to examine why women are being referred for a cervical screen in secondary care. This information will be used to identify specific criteria for referral and to develop training and make recommendations to upskill smear takers in primary care. More accurate understanding of which women require referral for cervical screen in secondary care will also facilitate appropriate numbers of difficult smear clinics with sufficient capacity to see women promptly.

The first part of this project is a review of referrals for women attending difficult smear clinic at Liverpool Women's Hospital from November 23 to March 24, where possible this information will be collected prospectively during the clinic visit.

Information is being collected on patient factors which may make a cervical screen more difficult to perform eg pelvic organ prolapse, cervical stenosis, urogenital atrophy, congenital abnormality. Also being documented is whether any additional equipment or technique is required to perform the cervical screen, eg virgin speculum, cover to reduce prolapse, enternox.

#### **Results:**

It is anticipated that results will be available for at least 100 women during this time period. It is planned to disseminate results and learning through the regional cervical screening group.

This project has been supported by funding from NHS England.

#### P-055: WVT COLPOSCOPY PATIENT SATISFACTION SURVEY

Mr GAJENDRAN KANAGALINGAM<sup>1</sup>, Mrs Thirumagal Bavananathan<sup>1</sup>
Wye Valley Nhs Trust, Hereford, United Kingdom

#### Introduction

The WVT Colposcopy Patient Satisfaction Survey was carried out to scope the current provision of services and benchmark it against standards which are recommended nationally in the NHS Colposcopy and Programme Management Guidance

#### Methodology

The survey was registered with the WVT Clinical Quality and Improvement Department for ethical considerations. It was the conducted prospectively from 27/8/22 to 31/12/22 with an estimated target population of 100 women. Questions were sensed checked by the audit team members who were multidisciplinary in nature and included senior management as well. It was designed, formatted and presented in a way to the patients so that the response time for the survey will be minimum.

The following standards and targets were set to capture the proportion of woman responding on the following:

- 1) adequate written information made available prior to consultation aimed at 95%
- 2) Positive perception on the quality of patient information leaflet aimed at 100%
- 3) Satisfaction of colposcopy consultation and treatment received aimed at 100%
- 4) Satisfaction of Colposcopy facilities aimed at 100%

#### **Results**

The survey carried out in 2022 received a total number of 100 responses which is on target with the proposed sample of 100 women. As shown in the table below all of the audit criteria and their standards were being met in accordance with national guidance.

| Standard   | Target | Achievement<br>(2019) | Achievement<br>( 2020) | Achievement<br>(2021) | Achievement ( 2022) |
|--|--------|-----------------------|------------------------|-----------------------|---------------------|
| Adequate written information made available prior to consultation  | 95%    | 82%                   | 85%                    | 97%                   | 100%                |
| Positive perception on the quality of Patient information leaflets | 100%   | 100%                  | 100%                   | 100%                  | 100%                |
| Satisfaction of Colposcopy consultation and treatment              | 100%   | 100%                  | 100%                   | 100%                  | 100%                |
|  | 100%   | 100%                  | 100%                   | 100%                  | 100%                |

| Satisfaction of |  |  |  |
|-----------------|--|--|--|
| Colposcopy      |  |  |  |
| facilities      |  |  |  |

#### Conclusion

The audit standards for the survey in 2022 have improved compared to 2019 and were mostly compliant to national recommendations.

## P-056: AUDIT ON THE MANAGEMENT AND OUTCOMES OF PATIENTS WITH PERSISTENT HPV, LOW GRADE OR SQUAMOUS CYTOLOGY AT CERVICAL SCREENING WITH TRANSFORMATION ZONE 3 AT COLPOSCOPY

<u>Dr Livia Samara</u><sup>1</sup>, Karen Shaw<sup>1</sup>, Mr Amit Patel<sup>1</sup>
<sup>1</sup>University Hospitals Bristol And Weston Foundation Trust, Bristol, United Kingdom

#### Introduction

National guidelines advise referral to colposcopy following cervical screening if results show persistent high risk HPV or abnormal cytology. In patients with a type 3 transformation zone (TZ3) poses challenges. Current guidelines at University Hospitals Bristol and Weston (UHBW) advise, in the absence of an obvious lesion to arrange follow up in colposcopy in 12 months and if changes persist to offer a large loop excision of the transformation zone (LLETZ). However, no guidelines exist for the management of patients found to have no TZ following a diagnostic LLETZ.

#### Aims/Methods

The aim of this audit was to investigate the management of patients with persistent HPV or low grade cytology who were found to have a TZ3 at their initial colposcopy appointment.

Retrospective case note review of all patients (total 129) in 2020 referred to colposcopy with persistent HPV positive, negative cytology, low grade dyskaryosis or borderline changes on cytology who had an unsatisfactory colposcopy at their initial appointment at St Michael's Hospital, UHBW, Bristol.

#### **Results**

At initial appointment 100(77.5%) had 12 month colposcopy follow-up and 16(12.4%) had a LLETZ. At the 12 month follow-up 65(65%) remained HPV positive, 60(60%) underwent a LLETZ. 3 patients had a normal LLETZ with no TZ, 2 were offered 12 month colposcopy follow-up and 1 was discharged to routine recall. 7 had HPV related changes and no TZ, 4 were offered 12 month colposcopy follow-up, 2 were discussed at the colposcopy correlation meeting and 1 had a 6 month test of cure (TOC). 2 had cervical intraepithelial neoplasia 2 (CIN2) with no TZ, 1 had a second LLETZ and the other a TOC. 1 patient had CIN3 with no TZ and had a second LLETZ. This audit highlights the need for local and national guidance on the management of patients with no TZ following a diagnostic LLETZ.

#### P-057: Health inequalities audit

#### Mr Mark Pickering<sup>1</sup>

<sup>1</sup>University Hospital Dorset, Romsey, United Kingdom

#### Introduction

One of our QA findings was to 'Develop an action plan, in collaboration with commissioners, to reduce screening inequalities in underserved and protected population groups'.

#### Aims/Methods

We conducted an audit of All did not attend appointments (DNA) between June and November 2023 (6 month) at Royal Bournemouth Hospital. With this we looked at the indices of deprivation score. This measures relative levels of deprivation in small areas in England called lower-layer super output areas (postcodes). It covers 7 domains: 1. Income Deprivation (22.5%) 2. Employment Deprivation, Education, Skills (22.5%) 3. Training Deprivation (13.5%) 4. Health Deprivation and Disability (13.5%) 5. Crime (9.3%) 6. Barriers to Housing and Services (9.3%) 7. Living Environment Deprivation (9.3%). Decile 1 represents most deprived 10% and Decile 10 the least deprived 10%. We also audited whether the patients have mobility issues, learning difficulties and whether English is their first language.

#### **Results**

There was a total of 49 DNA's. Of these 33/49 were first appointments, 10/49 were follow up appointments and 6/49 were treatments. 17/49 (34.7%) patients English was not their first language. No patients had mobility issues or learning difficulties.

The Indices of deprivation were as follows: Decile 1: 8 (16%), Decile 2: 9 (18%) Decile 3: 2 (4%), Decile 4: 7 (14%), Decile 5: 3 (6%), Decile 6: 5 (10%), Decile 7: 7 (14%), Decile 8: 2 (4%), Decile 9: 4 (8%). Decile 10: 2 (4%). In conclusion, there were a spread of DNAs across different deprivation indices. Possible increase in DNAs in those who do not speak English. However, only one required a translator according to electronic records.

### P-058: Navigating The Intersection: Vulval Intraepithelial Neoplasia(VIN) and Vulval Carcinoma in Synchrony

<u>Sasikala Selvamani</u><sup>1</sup>, Rabia Batool<sup>1</sup>, Nor Azalia Abdul Wahab<sup>1</sup>, Etop Akpan<sup>1</sup> <sup>1</sup>Our Lady of Lourdes Hospital Ireland, Drogheda, Ireland

#### Introduction

We report a case of VIN 3 with concomitant vulval carcinoma .This case report shares insights into the clinical presentation and the need for heightened awareness among colposcopists regarding potential cooccurrence of VIN and Vulval carcinoma in patients presenting with vulval itching.

VIN is a non-invasive squamous lesion and a precursor of squamous cell vulval carcinoma(SCC). It is classified as Low and high grade SIL,(HPV associated) and differentiated VIN(associated with vulval dermatosis). Risk factors include HPV,smoking and immunosuppression. It can be asymptomatic but often presents with vulval itching, burning, unifocal or multifocal vulval lesions of varying appearance. There are no screening strategies for the prevention of Vulval carcinoma. HPV immunization has shown to reduce the risk of Vulval HSIL. Good clinicopathological correlation is needed to make the diagnosis. Treatment of VIN involves complete destruction of lesion, symptom improvement and preservation of vulvar symptoms. Long term surveillance is needed, given the high recurrence rates after any treatment.

#### Aims/Methods

A 72 years old woman attended her GP for persistent vulval itch for 6 months. She has had normal cervical smears and is a non-smoker. Examination under anaesthesia showed 5mm irregular surfaced, raised area on lower part of right labial junction, a raised purplish grey area on posterior fourchette and a white raised area on left lower labia majora. Multiple wedge biopsies were taken from all abnormal areas. Histopathology confirmed invasive moderately differentiated SCC with positive margins on right labial biopsy. The left labial biopsy showed severe dysplasia(VIN 3). Immunohistochemistry was positive for P16.She underwent Vulvectomy ,B/L SLND.

#### Results

The incidence of VIN 3 is increasing and is diagnosed at a younger age than previously. It is often multifocal and frequently coexists with multicentric dysplastic lesions in the cervix and vagina. This report illustrates the multifocal nature and explores the intricate relationship between VIN and Vulvar Carcinoma.

#### P-059: Management of women with type 3 transformation zone

<u>Dr Manar Husain</u><sup>1</sup>, Mrs Caroline Brown<sup>1</sup>, Dr Bianca da Gama-Rose<sup>1</sup>, Mr Paul Hermansen<sup>2</sup>, Dr Amy Fisher<sup>1</sup>, Dr Angelika Kaufmann<sup>1</sup>, Mr Georgios Angelopoulos<sup>1</sup>, Mr Nick Wood<sup>1</sup>, <u>Dr Meera Adishesh</u><sup>1</sup>

<sup>1</sup>Royal Preston Hospital, Lancashire Teaching Hospital NHS Foundation Trust, Preston, United Kingdom, <sup>2</sup>The Manchester Cytology Centre, Central Manchester University Hospital NHS Foundation Trust, Manchester, United Kingdom

#### Introduction

HPV testing has been introduced in the NHS Cervical Screening Programme since 2019. All colposcopy clinics have seen an increase in the number of direct referrals since the introduction of HPV testing, particularly with low grade CIN or negative cytology and HRHPV positive smears. We have particularly noted an increase in postmenopausal women with HRHPV positive smears in our colposcopy unit. More often these postmenopausal women have type 3 transformation zone (TZ) based on which some of them undergo invasive treatments such as loop excision or hysterectomy.

#### Aims/Methods

The main aim of this study was to identify any risk factors for women with type 3 TZ for developing high grade disease and draft a management plan for these women. This is a retrospective study of women seen in colposcopy clinic and who on examination had a type 3 TZ at Royal Preston Hospital, between 2021-2022. The data was collected from COMPUSCOPE.

#### **Results**

In total, 357 women had an unsatisfactory colposcopy. Out of these women, 131 women were above 50 years of age (36%). 254 women were referred with an abnormal smear (71%), 28 women had colposcopy or treatment elsewhere (7.8%) and 73 women were seen as other referrals (20%). Amongst abnormal smears referrals, 49 women had high grade smear with HRHPV + (19.2%). Only 63 women had positive symptoms such as postcoital bleeding, intermenstrual bleeding, irregular bleeding, and postmenopausal bleeding (17.6%). 74 women were using progesterone-based contraception (20.7%). 143 women were noted to be either current or previous smokers (40%). We did detect cervical intraepithelial neoplasia either on biopsy or treatment amongst 30 women (8.4%). Around 77 women had loop excision as diagnostic or therapeutic procedure (21.6%) and one patient even underwent hysterectomy. Majority of women were followed up in colposcopy clinic but with a wide variation.

# P-060: The outcome of cold coagulation for the treatment of cervical intraepithelial neoplasia CIN2 under 45 years old.

<u>Dr Ibrahim Hegazy</u><sup>1</sup>, Dr yasmin Abushara<sup>1</sup>, DR Jennifer O'Neill<sup>1</sup>, Dr Vicky O'Dwyer<sup>1</sup>
<sup>1</sup>Colposcopy Department, Rotunda Hospital, Dublin, Ireland

Setting: Colposcopy Department, Rotunda Hospital, Dublin 1, Ireland

### Introduction

Cold Coagulation is an ablative technique that was developed by Kurt Semm in the 1960's. Prior to treatment, a biopsy is taken to confirm the presence of CIN and exclude invasion. The Semm cold coagulator is heated to 100 °C, and applied to the transformation zone of the cervix for 30 seconds<sup>3, 4</sup>. Two, three, or four applications may be used depending on the size of the transformation zone.

A recent meta- analysis byby Dolman et al (2014) looked at the efficacy of Cold Coagulation has found it to be as effective as LLETZ for treating CIN, with cure rates of up to 96%, and having the added benefit of no documented negative impact on fertility and subsequent pregnancies<sup>6</sup>.

# Aims/Objectives

The purpose of our audit is to evaluate that the selection of patients for performing Cold coagulation met the criteria set out by the Cervical Check, Ireland's National Cervical Screening Programme which was set up in September 2008<sup>1</sup> andNHSCSP guidelines, and to establish the cure rate at 6 months of patients who have undergone cold coagulation for the treatment of cervical intraepithelial neoplasia (CIN2).

### Methods

This Audit was undertaken on women who underwent cold coagulation and for whom there was six months follow up data. Data was collected retrospectively for patients treated between August 2022 and June 2023. As per the National Cancer Screening Service Standard Guidelines all patients were required to have a colposcopically directed punch biopsy<sup>3</sup>. Patients higher grade disease (CIN 2) were invited back to the clinic and were given the option of having a cold coagulation treatment if they fulfilled the criteria for treatment using this technique<sup>4</sup>. Patients were not considered suitable for cold coagulation if they were pregnant, if they had a previous ablative or excisional treatment, if the entire transformation zone was not visible, if there was suspicion of endocervical involvement, if there was evidence or suspicion of glandular or invasive disease or a discrepancy between the cytology and biopsy.

At the clinic the procedure was explained to the patients and written consent was obtained. Patient data was recorded in the Mediscan colposcopy database.

All patients had TOC test done in the colposcopy clinic six months following treatment. Success was defined as a negative HPV test (for high risk sub-types HPV-16 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68). The data was analysed in Excel.

# Results

150 patients were included in our study with diagnosis of Cin 2 . The mean age of this group was 34 years(26-45) {table 3} . All the patients met the NHSCSP criteria (transformation zone visualized in 100%,no evidence of glandular or invasive disease and no major discrepancy between cytology and histology report .

Follow up Toc ( test of cure ) revealed low levels of recurrent high grade changes with 121 (81%) having negative Toc six months following treatment (table 1) . 29(19%) patients were referred back for colposcopy , of which 12 pateints (8%) with negative cells (table 2).

Our study reports cure rates at 6 months following treatment. Most of the published reports have longer periods of follow up. This is one factor that may be responsible for our lower cure rates.

### Discussion

This is an audit of our experience with cold coagulation At Rotunda Hospital for women treated in our colposcopy department over a one year period .

These results confirm that "cold coagulation" provides an acceptable, efficient and effective, low cost consumer friendly treatment for CIN 2 in an out-patient colposcopy clinic. We plan to assess a larger cohort of patients over a period of 3 years to evaluate the outcome of CC treatment for CIN in out unit.

Table 1: Outcome of women treated with Cold Coagulation

| Smear test                                       | Colposcopic opinion                           | Cervical<br>biopsy<br>Test of<br>cure | Test of cure   |
|--|---|---------------------------------------|--|
| HPV +,<br>Negative cells<br>(n=27)               | Low grade                                     | Cin 2                                 | HPV negative (n=25)<br>HPV positive, Normal<br>cells(n=2)  |
| ASCUS<br>(n=69)                                  | LOW GRADE<br>(n=34)<br>HIGH GRADE<br>(n=35)   | Cin2                                  | HPV negative (n=58) HPV positive, Normal cells(n=3) HPV positive, Ascus (n=4) HPV positive, LSIL (n=4)     |
| ASCUS H<br>(n=15)                                | LOWE<br>GRADE<br>(n=8)<br>HIGH GRADE<br>(n=7) | Cin2                                  | HPV negative (n=10) HPV positive, Normal cells 1(n=2) HPV positive, Ascus 1(n=2) HPV positive, LSIL 1(n=1) |
| LSIL (n=34)                                      | LOW GRADE<br>(n=28)<br>HIGH GRADE<br>(n=6)    | Cin 2                                 | HPV negative (n=26) HPV positive, Normal cells(n=4) HPV positive, Ascus(n=2) HPV positive, LSIL(n=2)       |
| High Grade<br>(Moderate<br>dyskaryosis)<br>(n=5) | HIGH GRADE (n=5)                              | Cin 2                                 | HPV negative (n=2) HPV positive, Normal cells(n=1) HPV positive, Ascus(n=1) HPV positive, LSIL(n=1)        |

Table 2: Cytology results at 6 months after Cold coagulation

| Hpv negative                    | 121(81%) |
|---------------------------------|----------|
|                                 | 12 (8%)  |
| HPV positive, Normal cells(n=3) |          |

|                           | 9 (6 %)    |
|---------------------------|------------|
| HPV positive, Ascus (n=4) |            |
|                           |            |
|                           | 8 (5%)     |
| HPV positive, LSIL (n=4)  |            |
| TOTAL                     | 150 (100%) |

## Table 3

| AGE GROUP   | NUMBER |  |
|-------------|--------|--|
| 25-29years  | 29     |  |
| 30-34 years | 64     |  |
| 35-39 years | 40     |  |
| 40-44 years | 17     |  |

### References

- 1. NHS Cervical Screening Programme. Colposcopy and Programme Management .NHSCSP Publication number 20. Third Edition. March 2016.
- 2. Dolman L, Sauvaget C, Muwonge R, Sankaranarayanan R. Meta-analysis of the efficacy of cold coagulation as a treatment method for cervical intraepithelial neoplasia: a systematic review. BJOG 2014;121:929–942.
- 3. Irish Cervical Screening ProgrammeCervicalcheck. CervicalcheckProgramme Report 2013- 2014. Available at: http://www.cervicalcheck.ie/\_fileupload/CervicalCheck%20Programme%20Report%202013-2014%20(web).pdf (Accessed: 8th July 2016).
- 4. Irish Cervical Screening ProgrammeCervicalcheck. Referral to Colposcopy. Available at: http://www.cervicalcheck.ie/colposcopy/referral-to-colposcopy.5658.html (Accessed: 8th July 2016).
- 5. Dolman L, Sauvaget C, Muwonge R, Sankaranarayanan R. Meta-analysis of the efficacy of cold coagulation as a treatment method for cervical intraepithelial neoplasia. BJOG 2014; 121: 929-942.

# P-061: Restoring Trust After CervicalCheck Audit Disclosures

<u>Ms Monica Brennan</u><sup>2</sup>, Ms Estelle Mclaughlin<sup>1</sup>, Ms Ceara Martyn<sup>3</sup>, Ms Lyn Fenton<sup>3</sup>, Ms Fiona Murphy<sup>1</sup>, Professor Nóirín Russell<sup>1</sup>

<sup>1</sup>National Screening Service, Dublin, Ireland, <sup>2</sup>Restoration of Trust, Dublin, Ireland, <sup>3</sup>221+ Patient Support Group, , Ireland, <sup>4</sup>Department of Health, , Ireland

### Introduction

Following CervicalCheck audit disclosures in 2018, there was a loss of trust between patients and the healthcare system. This resulted in establishing a restoration of trust process under the CervicalCheck Tribunal Act 2019. The Act includes meetings to restore trust, the appointment of a Facilitator to manage the process and moderators to chair any meetings. Early discussions between parties revealed a need to repair institutional trust, particularly for patients most affected. Indeed an entirely new process was developed de novo to create an environment conducive to trust-building. A co-designed process was developed in line with restorative practice principles.

That process allowed parties to engage effectively and share authority to direct next stages. While this process originated from legislation, it was also an opportunity for everyone impacted to identify if additional needs could also be met at the end of the process.

### Aims/Methods

Trust is essential in healthcare, restoring trust lost following audit disclosures was needed. Patient representatives required consensus between relevant institutions before trust could be explored with individuals. Using a restorative practice framework,<sup>1</sup> the needs of those affected were the foundation for creating this process. It aimed to work through a future focused, sensitive and empathetic lens for the purpose of restoring the trust of those affected by the events of 2018 in CervicalCheck.

Moderators first met individually with each stakeholder to ascertain needs and concerns. 221+ was then brought together with each stakeholder(s) in turn. Six multiparty meetings were held, including an all-party forum and workshop. Consent from everyone was obtained.

While the process was based on the ideals of restorative practice, it also incorporated a considerable amount of flexibility and creativity.

### **Results**

A joint statement recognising the harm of the past and agreeing to work together towards elimination of cervical cancer was the outcome: <a href="https://restorationoftrustmeetings.ie/joint-statement/">https://restorationoftrustmeetings.ie/joint-statement/</a>

 $<sup>^1</sup>$  O'Dwyer, K., (2021). Aspiring to High Quality Restorative Practices – The RPI Quality Assurance Framework. Dublin: Childhood Development Initiative

# P-062: Is 6 months the optimal time to undergo test of cure following treatment of CIN?

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### Introduction

The risk of high-grade CIN after treatment is < 0.5% if Test of Cure (TOC) is HPV-negative. NHSCSP currently recommends TOC at 6 months post treatment. However, there is a lack literature on the optimal timing of TOC. Anecdotally, we observed some TOC-positive women spontaneously testing negative at a second TOC without repeat treatment. We wanted to investigate how frequently this occurred, given that failed TOC has a significant impact on colposcopy services and increases patient anxiety.

# Aims/Methods

A three-year retrospective audit (April 2019-March 2022) of prospectively-collected routine colposcopy/cytology data on all consecutive CIN treatments to determine the proportion of failed TOC who subsequently tested negative without further treatment.

### **Results**

259 women underwent treatment for CIN. 10 cases, 4% (95% CI 2-7%) were lost to the follow up. Of the remaining 249 women 196, 79% (95% CI 73-84%) attended TOC at 6-8 months post treatment. 33 cases, 17% (95% CI 12-23%) tested positive at 6-8 months post treatment. Of these 33 cases 15, 45% (95% CI 28-64%) tested negative at second TOC at 12-18 months post-treatment, despite not having any further treatment.

# Conclusion

This 3-year audit demonstrated that 45% of women that fail initial TOC at 6-8 months will test negative at a second TOC at 12-18 months. We speculate that this is due to the natural regression of disease due to immune system clearance of HPV. This raises the question as to the optimal timing of TOC. According to our data, delaying TOC to no earlier than 12 months would reduce the proportion of cases requiring further follow-up, with a beneficial reduction in colposcopy workload and patient anxiety. However, this would need to be balanced against a potential increase in loss to follow-up, and delay in diagnosis of persistent disease, if TOC is delayed.

# P-063: Review of postcoital bleeding (PCB) in Limerick Colposcopy service

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### Introduction

Post- coital bleeding (PCB) is defined as non- menstrual bleeding or spotting occurring immediately after intercourse. All women should be investigated for PCB with the aim to exclude cervical cancer.

# Aims/Method

The aim of this study was to evaluate the women seen in colposcopy with PCB, review findings and histology. This was a retrospective chart review from 1<sup>st</sup> January 2023 to 30<sup>th</sup> June 2023. The data was extracted from Iris software © and confirmed with the clinic attendance.

## **Results**

128 women were reviewed in the six month period. Figure below shows analysis of same:

|                      | Up to date screening,<br>HPV positive ( <b>n= 29</b> ) | Up to date screening, HPV negative (n=69) | Not up to screening (n=30) |
|----------------------|--|---|----------------------------|
| Examination: normal  | 24.1% (n=7)  | 43.5% (n=30)                              | 33.3% (n=10)               |
| ectopy               | 27.6% (n=8)  | 29% (n=20)                                | 36.7% (n=11)               |
| low grade            | 31% (n=9)  | 20.3% (n= 14)                             | 30% (n=9)                  |
| high grade           | 13.8% (n=4)  | 7.2% (n=5)                                | n/a                        |
| Biopsy results:      | (n=16)   | (n=32)                                    | (n=13)                     |
| normal               | 6.3% (n=1)   | 21.9% (n= 7)                              | 23.1% (n=3)                |
| CIN 1                | 75% (n=12)   | 71.8% (n= 23)                             | 76.9% (n=10)               |
| CIN 2                | 18.8% (n=3)  | 6.25% (n=2)                               | n/a                        |
| Cold coagulation     | 13.7% (n=4)  | 11.6% (n=8)                               | 7.7% (n=1)                 |
| Discharged after 1st | 24.1% (n=7)  | 53.6% (n= 37)                             | 50% (n=15)                 |
| visit:               |  |   |                            |
|                      |  |   |                            |

### Conclusion

In this cohort of women being referred with PCB, 46.1% (n=59) women were discharged after the first visit to colposcopy. In those with an up-to-date screening with HPV negative,

more than half were discharged after the first colposcopy visit. 72.5% of these women had either normal findings or ectopy at colposcopy examination. They could have avoided a colposcopy appointment and been reviewed by in general gynecology clinic or ambulatory gynaecology to alleviate the burden on colposcopy.

# P-064: Cervical Glandular Intra-Epithelial Neoplasia – 9 Years of a Tertiary Centre Experience

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### Introduction

Cervical glandular intraepithelial neoplasia (CGIN) is a premalignant lesion of the uterine cervix. Colposcopic punch biopsy is of low sensitivity for diagnosis of CGIN as it cannot exclude the presence of invasive disease. Excisional biopsy is used both for diagnostic purposes and as the gold standard of treatment, with concurrent close follow-up due to the high risk of recurrence and residual disease.

# Aims/Method

This study aims to review the management of CGIN in a tertiary centre through colposcopy MDT scrutiny and compare it with national guidance. We identified all cytology-based glandular disease referrals to our centre, between 2015 and 2023. Patients underwent a colposcopy assessment followed by excisional treatment of glandular disease and follow-up according to national guidelines. Data was collected on the patient's demographics, colposcopy impression, attitude at first visit - diagnostic biopsy vs LLETZ, number and type of treatment, LLETZ depth and margins, and recurrence status. We used Microsoft Excel for statistical analysis.

### **Results**

Our sample consists of 37 patients with a mean age of 35 years( $\pm$ 7.4), of which 17(46%) are nulliparous and 6(16%) smoke. All patients discussed at the colposcopy MDT and had a colposcopic examination. A biopsy was taken in 26(70%) patients, but only 15(41%) showed glandular disease. The remaining 11(30%) patients had a diagnostic LLETZ, with a 100% detection rate for glandular disease. 18(50%) patients achieved complete excision with 1 LLETZ treatment, whereas another 18(50%) required a second procedure - repeat LLETZ, trachelectomy or hysterectomy. Mean depth of excision after 1 LLETZ was 12,8 mm( $\pm$ 6.2) and after 2 LLETZ was 17,7 mm( $\pm$ 6.9). Endocervical, ectocervical and lateral margins were affected in 18(50%), 12(33%) and 7(19%) cases, respectively. Overall, 29(78%) histopathology results confirmed CGIN, 2(5%) adenocarcinoma in situ and 2(5%) cervical adenocarcinoma. 31(84%) patients remain free of disease and 4(11%) lost follow-up.

# P-065: A review of referral of postmenopausal women to a colposcopy clinic

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# **Introduction / Background**

Cervical screening and colposcopy in postmenopausal women can present challenges. The impact of low oestrogen levels on the cervical epithelium can mimic low grade cytological changes and genitourinary symptoms of the menopause can lead to patient discomfort. Although evidence supports offering cervical screening to this cohort, a type 3 transformation zone leading to unsatisfactory colposcopy is prevalent after the menopause.

# Aims / Methodology

This is a retrospective cohort study of 129 consecutive postmenopausal women who had their first visit to the colposcopy clinic between 2020 and 2023. The aim of this audit was to evaluate the reason for referral and colposcopic and histological findings for these women. Background demographic data and oestrogen usage was also collected.

### **Results**

The mean age of the cohort was 57 (range 43-79). There were 16 referrals requesting screening due to difficulties obtaining a sample in the community and 113 referrals for colposcopy. Colposcopy referral indications included two consecutive HPV positive tests with negative cytology (37/113; 33%), HPV positive/ atypical squamous cells of undetermined significance (31/113 27%), HPV positive/ low grade cytology (13/113; 27%) and one referral for HPV positive/ high grade cytology. There were three referrals for other reasons - a bulky cervix on CT Abdo Pelvis, CIN3 on an endometrial biopsy and suspected VIN. A finding of "Suspicious cervix" at time of screening accounted for 25% of referrals (28/113). HRT and vaginal oestrogen usage was documented in 11% (n= 14). Of those who underwent colposcopy, 85% had a satisfactory colposcopic exam. Histological findings included no CIN (n=42), low grade CIN (n=8) and high grade CIN (n=6). A diagnosis of cervical cancer was found in 5/113 (4%) women. Four of these women were referred due to a "suspicious cervix" and one was referred with HPV ASCUS. This audit provides an insight into colposcopy in the postmenopausal population. Whereas screening in this age

group can be challenging, this study shows evidence of the presence of significant pathology.

# P-066: Correlation between Age, High-Grade Cervical cytology and Significant Cervical abnormalities: a 10 years experience

Dr Nusrat Batool Janjua, Dr Mohammedelfateh Adam, Mrs Brigita Moore

Topic: Correlation between age, high-grade cytology, and significant cervical abnormalities: a 10 years' experience

### Introduction:

High-grade cervical cytology identifies women with cervical premalignancy and malignancy and facilitates preventive treatment. This cross-sectional observational study aimed to see the association between different high-grade cytology smears with high-grade colposcopy and significant cervical abnormalities i.e. Cervical intraepithelial neoplasia (CIN) II, CIN III, Cervical Glandular intraepithelial neoplasia (CGIN) and Cervical cancer (CA) at University Hospital Waterford between 2010-2020. It also explored the relationship between age, high-grade cytology smears, and significant cervical pathology, especially Cervical CA.

## Methodology:

Women referred with high-grade cervical cytology smears to a colposcopy clinic who had colposcopy and excisional biopsy with Large Loop Excision of Transformation Zone (LLETZ) were included in the study. High-grade cytology smears are defined as Query squamous cell carcinoma, Atypical Squamous Cells- can't exclude High-Grade Squamous Intra-Epithelial Lesion (ASC-H), Query Glandular Neoplasia/Adenocarcinoma in situ (AIS), Borderline Glandular cells, Moderate Dyskaryosis and Severe Dyskaryosis.

The outcome criteria included significant Cervical abnormalities including CIN II, CIN III, CGIN and, Cervical CA. Cases with insufficient data were excluded. Data were entered on an Excel sheet for data analysis and descriptive statistics were used for quantitative data analysis.

### **Results:**

The total number of study participants was 1665. The commonest high-grade cervical cytology was Severe dyskaryosis (766) among the study population and the least number of women (10) were referred with Query Squamous Cell Carcinoma.

The mean age among study participants was 42 years (range 27-77 years) with 12% (207/1665) of women aged 35 and less. The distribution of high-grade smears across different age groups was skewed with most of them in the age group 30-50 years.

The positive predictive value of high-grade cervical cytology for histology of CIN II and beyond (CIN II, CIN III, CGIN and Cervical CA) was highest at 100% for Query squamous cell carcinoma, and Query Glandular Neoplasia/AIS smears and least at 50% for Borderline glandular smears among study participants. Similarly, the positive predictive value of high-grade colposcopy for histology of CIN II, III, CGIN, and Cervical CA was highest at 100% for Query Squamous cell carcinoma, and Query Glandular Neoplasia/AIS and least (76%) for Borderline Glandular smears.

Data analysis showed that CGIN was not seen among women beyond age 65. Cervical premalignancy (CGIN, CIN II and III) and malignancy were predominantly seen in the age group 30-50 years, albeit CIN III was the commonest cervical premalignancy across all age groups.

Among patients diagnosed with Cervical cancer (CA) (n-56), the commonest high-grade referral cytology was severe dyskaryosis. Squamous cell carcinoma was more frequent (43/56=77%) than the Cervical Adenocarcinoma (13/56=23%). The mean age for Cervical CA was 49 years and most of them were from the age group 30-50 years.

# **Conclusions:**

The commonest cervical high-grade cytology among the study participants was severe dyskaryosis and the commonest referral among the patients diagnosed with cervical cancer was severe dyskaryosis.

Furthermore, the mean age among study participants was 42 years and the distribution of high-grade smears across different age groups was skewed toward most of them in the age group 30-50.

Moreover, cervical premalignancy and malignancy were predominantly seen in the age group 30-50 years, albeit CIN III was the commonest across all age groups. CGIN was not seen in women older than 65 years. Among the study subgroup with cervical cancer, Squamous cell carcinoma was more frequent (43/56=77%) than Cervical Adenocarcinoma (13/56=23%). The mean age for cervical cancer was 49 years among women referred to with high-grade cervical cytology.

Finally, the study concluded that there was a strong correlation between different high-grade cytology smears, high-grade colposcopy, and cervical pathology.

# P-067: The optimum depth of large loop excision of the transformation zone: Auditing the local performance

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### Introduction

In the United Kingdom, women who require treatment of abnormal epithelial cells are usually treated with large loop excision of the transformation zone (LLETZ) The depth of cervical excision represents a significant risk factor associated with both the risk of recurrence of CIN disease and the risk of future preterm birth in women of reproductive age. According to the National Health Service Cervical Screening Programme (NHS-CSP) guidance, the goal of excision is to remove all abnormal epithelium, for transformation zone (TZ) I a depth of more than 7mm in 95% of cases and aim to be <10mm in women of reproductive age. While TZ II aim to remove tissue to a depth of 10-15 mm and TZ III to a depth of 15-25mm in >95%. Therefore, regular audits and reviews of the depth of excision obtained to different TZ would improve the surgical performance of LLETZ treatment.

### **Aims**

We aimed to ensure the national required optimum depth of the LLETZ procedure obtained for different types of transformation zones. We investigate the percentage of the LLETZ procedures where the specimens were removed as one sample. We also evaluate the depth of LLETZ specimens as per type of transformation zone and for the different age groups.

### **Methods**

Data to be collected retrospectively from electronic record Medviewer software, Infoflex between 01/03/2023 and 30/09/2023. The sources of data were the Colposcopy sheath, Operation notes and other electronic records on both the Medviewer & the Infoflex softwares. All patients who had LLETZ for the specified period were included,41 cases with none excluded. Data was analysed using EXCEL sheath 2018. Epidemiology of the collected data was analysed to age, parity, smoking, and hormonal status. The surgical data included anaesthesia used, the number of specimens obtained per LLETZ and documentation of the procedure. Then the depth of LLETZ and correlation with the type of transformation zone, margin completion and age group were analysed.

## **Results**

The cohort of women who underwent LLETZ in our study is 67% at reproductive age. Interstingly,71% are on hormonal medication. Up to 88% had LLETZ under local anaesthesia. The LLETZ was obtained as one specimen in 85% and the histology outcome was high grade in 81% of cases.

Only 3% of women had < 7mm excision depth. The depth of excision of TZ1 was 7-9 mm in 37% of cases, while 60% had excision with a larger depth ≥ 10mm. Nevertheless, 3% of women with TZ1 had < 7mm excision depth. The women with TZ2 represent 12% of cases, 60% had 10-15mm and 40% >15mm. The women who had TZ3 represented 15% of cases and 17% of them had less than 10mm, however, the margin was complete in 98% of cases. While incomplete ectocervix and endocervix were reported in 15% and 12% respectively to women with TZ1.

# Conclusion

Although guidelines recommend a certain depth to be obtained for different transformation zones. The way to achieve this in clinical practice is discussed in the outcome of this study including the recommendation to document the size of the loop used and keep auditing to raise awareness. However, women with TZ3 had complete margins with less than the recommended depth.

# P-068: INEQUALITIES AND ATTENDANCES AT COLPOSCOPY APPOINTMENTS

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### Introduction

Sociodemographic 'pattern' have been observed among non-attenders at 2 week-wait appointments<sup>1</sup>. In particular, ethnicity, social economic deprivation, disability and geographic location of residence have been related to disparities in cervical cancer screening uptake and potential outcome <sup>2,3</sup>. This study examines the demographics of non-attenders at colposcopy clinic appointments to identify the underserved groups within our local population.

### Aims/Methods

Electronic patient records were used to collect information regarding patient demographics for all colposcopy clinic appointments scheduled at a local unit in November 2023 (n=256). Using national NHS England "did not attend" rate, 7.6%, power calculation was performed which indicated a sample size of >=230 is adequate for this study. New direct referral via cytology lab, new GP referral based on history and symptoms and existing follow-up appointments to the local unit have been included. The variable Index of Multiple Deprivation Decile was generated using the English Indices of Deprivation 2019, based on patient's postcode. Chi-square ( $\chi^2$ ) test have been used to test the association between categorical variables (new patient, ethnicity, Index of Multiple Deprivation decile, primary language not being English) and non-attendance at scheduled colposcopy clinic appointment. Binomial logistic regression with used to model the association between age, length of time from referral to scheduled clinic appointment and demographics variables.

### **Results**

The non-attendance rate within this sample was 12.9%, which is higher than overall non-attendance rate in England (7.6%)<sup>4</sup> and the reported rate for non-attendance at 2-week-wait suspected cancer referrals in the UK (5-7%)<sup>1</sup>. There is possibility that the higher DNA rate reported at this local unit can be related to late notification of patients for several "catch-up" clinics that took place during the time frame of this study. Overall, the study had not demonstrated any statistically significant relationship between non-attendance at colposcopy clinic, and being a new patient, ethnicity, Index of Multiple Deprivation decile, primary language not being English, age, length of time from referral to scheduled clinic appointment.

## **References**

- 1. Jefferson L, Atkin K, Sheridan R, Oliver S, Macleod U, Hall G, et al. Non-attendance at urgent referral appointments for suspected cancer: a qualitative study to gain understanding from patients and GPs. Br J Gen Pract. 2019 Nov 19;69(689):e850–9.
- 2. WISDOM JP, McGEE MG, HORNER-JOHNSON W, MICHAEL YL, ADAMS E, BERLIN M. Health Disparities Between Women With and Without Disabilities: A Review of the Research. Soc Work Public Health. 2010 May;25(3):368–86.
- 3. Fuzzell LN, Perkins RB, Christy SM, Lake PW, Vadaparampil ST. Cervical cancer screening in the United States: Challenges and potential solutions for underscreened groups. Prev Med. 2021 Mar 1;144:106400.
- 4. NHS England » Reducing did not attends (DNAs) in outpatient services [Internet]. [cited 2024 Jan 14]. Available from: https://www.england.nhs.uk/long-read/reducing-did-not-attends-dnas-in-outpatient-services/

# P-069: pre-PINCS: Attitudes to Postnatal Instead of Normally-timed Cervical Screening - preliminary results

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### Introduction

The peak incidence of cervical cancer is in the 25 to 30-year age group, coinciding with the average age of a first-time mother in England and Wales (29 years). During pregnancy and the postnatal period women have multiple interactions with healthcare professionals and discussions regarding screening, for themselves and their baby. These contact points are teachable moments, opportunities to inform, educate and facilitate the uptake of cervical screening.

A quality improvement project, involving new mothers, midwives and primary care teams generated several ideas for change. One key idea to improve uptake was to offer screening at the 6-week postnatal check-up, reducing need for additional appointments. Self-testing was also suggested to improve screening uptake for busy new mums.

# Aims/Method

Pre-PINCS aims to understand if women would find it acceptable to participate in a study where they undergo cervical screening at 6-weeks postnatal. Inclusion criteria were to be 24.5 years or older and pregnant or within 5-years of delivery to complete the questionnaire, or 1-year of delivery to have an interview. Invitations to participate in the anonymous web-based questionnaire were distributed via social media, primary and secondary care services, women's health charities and research networks. On completing the questionnaire, participants could voluntarily provide contact details if willing to participate in a semi-structured interview. Interviews were audio recorded and transcribed. Thematic analysis was performed using NVivo.

# **Results**

At the time of abstract submission, 374 people had completed the online questionnaire with 28 scheduled for interview. The preliminary results of the study will be presented at the BSCCP Annual Scientific Meeting 2024. The results of the study will inform the PINCS-1 and PINCS-2 studies. The aim of these studies is to assess the feasibility and acceptability of cervical screening timing and method in the postpartum period.

# P-070: GROWING RATE OF MULTIPLE TYPES CERVICAL HR-HPV INFECTION AMONG FEMALE POPULATION OF KHARKIV SINCE THE BEGINNING OF MILITARY ACTIVITY AROUND PRESUMABLY DUE TO THE PROPENSITY TO PERSISTENT HPV

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**Background**. Rise of cervical malignant lesions after tumultuous events and social upheaval well known. Evidently it ensues from alterations in host body making hr-HPV persist. Shift in the vaginal microbiota might be viewed as one of them. Bacterial vaginosis (BV) is strongly associated with increased host susceptibility to STI (hrHPV included) causing epithelial cell (EC) shedding and suppressing leukocyte recruitment. Also by spurring up regrowth of EC with in-dwelling HPV it might trigger viral DNA incorporation into host genome. Recurrent BV can be associated with host genetic variation in stress-related genes and smoking. The key concern of cervical cancer prevention is to recognize HPV-infection destined to persist and then progress to malignancy.

The study examined the rate of cervical hr-HPV-infection and its genotyping among women of Kharkiv district and coming back refugees 1 year and later after the beginning of military activity in the area.

**Methods:** The study had accrued 213 hrHPV-positive patients with newly recognized LSIL and HSIL who LSIL were split in two arms: LSIL (171 pts) and HSIL (42 pts). They were checked by HPV-genotyping test Quant-21, colposcopy, their vaginal swabs were assessed by Nugent score, neutrophil count, exfoliated EC/clue cell count, biofilm formation (48h-incubation).

**Results:** It turned out that 69% HSIL-carriers were recognized two and more hr-HPV-genotypes, 52.3% - with evident BV, 31.2% - with asymptomatic BV, whereas among LSIL-carriers there were 46,1%, 21.6% and 32.3% respectively. Furthermore HSIL vaginal swabs showed higher number of exfoliated EC/clue cells (p<0.05) and Gardnerella vaginalis growth (p<0.001), lower neutrophil count (p<0.001), and thicker biofilms than LSIL group.

**Conclusions:** Extreme stressful events make women with genetic predisposition experience shift of vaginal ambience to BV, that can entail persistent hr-HPV-infection (perhaps even reactivation) and recognition of multiple hr-HPV-genotypes in the same woman might be viewed as the sign of persistence.

# P-071: Outcomes for women with repeat HPV tests 12 months following an initial HPV positive/normal cytology result

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**Introduction:** Ireland's national cervical screening programme transitioned to primary HPV screening in 2020. In the current algorithm, women with HPV positive/normal cytology result are recommended a repeat HPV test at 12 months. Those who test negative at repeat HPV test are returned to routine screening while those with persistent HPV are referred to colposcopy. The aim of this study is to examine the outcomes of women who undergo repeat HPV tests following initial HPV + / normal cytology result.

**Methods:** Data on follow-up tests and outcomes from 01 April 2021 to 31 March 2023 (Yr1: 01/04/2021–31/03/2022; Yr2: 01/04/2022–31/03/2023) were retrieved from the CervicalCheck database. Data were analysed by Chi-squared test.

**Results:** 88% of women advised to attend for a repeat HPV test in the first year of this protocol (2021/2022) attended within 15 months. In Yr1 and Yr2 9,638 and 15,849 follow-up tests were performed, respectively. Overall, 55% (n=14,035) had persistent HPV infections. The percentage of women testing HPV+ on follow-up was higher in Yr1 (n = 5,516; 57.7%) than Yr2 (n = 8,434; 53.5%; p <0.05). HPV+/low grade cytology results (39% vs 31.2%: p= <0.05) and HPV+/ high grade cytology results (4.9% vs 4.1%; p <0.05) were higher in Yr2. HPV+/negative cytology results were higher in Yr1 than Yr2 (64.7% vs 56.1%; p <0.05). The rates of women testing HPV+ with low grade, high grade or negative cytology declined with age.

**Conclusion:** This data provides useful insights on follow-up for women who tested HPV+/with normal cytology on primary HPV screening test. In women rescreened after 12 months 55% remain HPV positive and are referred to colposcopy. The programme is monitoring these outcomes with a view to reviewing the optimal recall time interval as evidence from UK shows that waiting for longer leads to increased clearance of HPV.

# P-072: Audit of Colposcopy Multidisciplinary Team (MDT) Meetings at Mid Yorkshire Teaching Trust

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### Background

Colposcopy MDT meetings are a key part of care for women attending for colposcopy. Their purpose is to plan the management of patients whose results and colposcopy findings do not fit the defined protocols. It is therefore essential standards are met for MDT meetings.

# Aim and Objectives

To see if we are meeting the criteria set for MDT attendance, number of meetings and cases discussed. As well as if actions were carried out withing the correct time frame. We will also be looking to see if the outcomes are recorded in the patient nots and written communication is given to the reporting clinician.

### Standards

We will be using our local standards which are drawn from national standards.

# Method

Data will be collected from the MDT minutes and from all the cases discussed, from every MDT meeting from January 2023 – December 2023. Patients electronic notes will then be reviewed in addition to see if standards were met.

# **Results**

There were a total of 12 meetings held in the time period audit which met criteria for one meeting to be held each month. A total of 324 cases where discussed in these meetings and these cases will be reviewed against the set standards and reported on, recommendations will then be made from this. A re audit will take place in 12 months time.

# P-073: Understanding Women's Values in Managing Human Papillomavirus (HPV)

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### Introduction

In March 2020, the Scottish Cervical Screening programme changed from cervical cytology testing to high-risk human papillomavirus (HR-HPV) testing. This change has effectively led to a 'new disease' as women are now aware of having a potentially pre-cancerous virus for the first time. While current management involves a 'watch and wait' approach, the anxiety associated with having HR-HPV has prompted some women to seek 'treatments' outside the screening programme recommendations. Our systematic review identified available treatments for persistent HR-HPV with CIN ≤1, including vaccinations, oral medications, topical medications, and non-surgical device treatments. We wanted to understand what women value in treatment.

# Aims/Method

The aims of this study are to:

- Identify the most important factors in women's decisions about their care and potential treatment choices for persistent HR-HPV to inform a discrete choice experiment (DCE)
- Design a pilot DCE based on qualitative analysis

Qualitative interviews were conducted on Microsoft Teams. Women were recruited by a research nurse as they followed their normal care pathway. All interviews were recorded and transcribed manually by the researcher. Thematic analysis was undertaken to identify themes and key care factors. Ethical approval was obtained before conducting interviews.

### **Results**

9 women have been recruited so far, and 7 have been interviewed. Data saturation should be reached at 10 participants.

Preliminary analysis revealed mixed results: some women indicated satisfaction with current management, whereas others preferred treatment sooner. Some women indicated a high willingness to pay (WTP) for earlier treatment if approved and available. Further themes will be presented at BSCCP 2024.

The results will be used to inform the development of a subsequent health economics study (DCE), which covers the key factors of care identified as being important to women's management of persistent HR-HPV. This study further analyses whether women seek treatment, what they look for, and their WTP.

# P-074: Assessing individual colposcopic diagnostic test accuracy with receiver operator curves

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### Introduction

The objective of the NHS Cervical Screening Programme (NHSCSP) is identification and treatment of high grade cervical intraepithelial neoplasia (CIN2+) to prevent cervical cancer. Quality assurance (QA) is central to the NHS Cervical Screening Programme, including colposcopic performance.

In systematic reviews, colposcopy has a wide range of diagnostic accuracy and high intra- and inter-observer variation, with a large range of sensitivity and specificity (30% to 90% and from 40% to 95%, respectively). Current NHSCSP QA data calculate individuals' positive predictive values (PPV), which can be 'gamed'; diagnostic test accuracy requires specificity and sensitivity.

# Aims/Methods

We sought to measure individual colposcopist performance with receiver operator curves (ROC) with a retrospective audit of initial referral to colposcopy unit from 1/1/2021 to 31/12/2023 using Cyres software. We analysed data using Microsoft Excel, excluding trainee colposcopists and those with very low numbers.

### **Results**

The overall sensitivity and specificity of colposcopists for diagnosing CIN2+ on initial referrals were 67.9% and 72.1%, respectively. Individual colposcopists' sensitivity ranged between 54.5% to 70.4% and specificity ranged between 85.8% to 97.6%, except for two outliers. The PPV ranged from 69.6%% to 95.7% and NPV between 68.5% to 86.6%, except for two colposcopists (PPV 29.9% and 33.3%; negative predictive value (NPV) 27.3% and 50%). However, biopsy rates for presumed LG CIN also varied significantly between colposcopists (8 to 86%) which affect our ability to measure the true PPV and NPV, since this can only be calculated from those biopsied.

### Conclusion

ROC are useful tools for assessing the performance of colposcopists. When assessing colposcopic performance, it is important to measure both PPV *and* NPV. Data are affected by biopsy rates for presumed LG CIN and those with poor NPV should be encouraged to biopsy, or use adjunct tests, to avoid missing HG CIN.

# P-075: Failed Test of Cure following LLETZ procedures carried out January-March 2022 in MTW Hospital

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# **Background:**

Development of cancer of the cervix is a multi-step process. Oncogenic high-risk human papillomavirus (hrHP) is present in up to one-third of women following LLETZ and is associated with increased risk of residual disease and disease recurrence. HPV testing may serve as a surveillance tool for identifying women at higher risk of recurrence.

Within the NHS Cervical Screening Programme (NHSCSP) a 'test of cure' (TOC) sample following treatment for CIN/CGIN is therefore recommended at six-months to determine the presence of hr-HPV and inform the timescale for further cervical screening.

Samples are tested for hr-HPV; if hr-HPV is not detected patients return to routine recall at three years; if hr-HPV is detected, reflex cytology is performed, and patients are referred-back to colposcopy irrespective of the cytology result. These cases are regarded as those failing TOC.

NHS England Colposcopy Guidelines stipulate that following treatment for CIN 1, failed Test of Cures (TOCs) must not exceed 5%

# Methodology:

A retrospective study. Data Collection Period was January 1<sup>st</sup> to March 31<sup>st</sup>, 2022. The colposcopy database and MASEY Colposcopy database were searched for subsequent HPV and cytology results at six to twelve months post treatment. When failed TOC were found, clinical details were extracted from MASEY.

### **Results:**

From this data, it can be suggested that treatments at MTW for CIN are inadequate although the sample size is small. Small sample size of only 50 patients over three months may not give accurate representation of completeness and therefore success of treatments. Six women did not undergo a test of cure smear test and therefore may remain HPV +ve. Investigation why they have not undergone TOC would be useful but difficult to obtain as this is multifactorial.

# **Conclusion:**

Failed TOC referrals have a significant impact upon colposcopy services and patients, resulting in increased workload for colposcopy units and increased anxiety and potential interventions for the patients.

# P-076: RESPONSE RATES BY CALL TYPES IN IRELANDS' CERVICAL SCREENING PROGRAMME

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Response rates by call type in Ireland's cervical screening programme Authors: M Rourke<sup>1</sup>, T Mooney<sup>1</sup>, P Fitzpatrick<sup>1</sup>, NE Russell<sup>1</sup>, G Gleeson<sup>1</sup>
<sup>1</sup> National Screening Service, Dublin, Ireland

### Introduction

The Irish cervical screening programme, CervicalCheck, established in 2008 offers screening to 1.3 million eligible women, aged 25-65. Depending on participant age and the date and result of previous screening, if any, different types of invitations are issued by the programme.

# Methodology

The CervicalCheck database was analysed to determine the number of invitations issued over a 24 month period (01-04-2020 to 31-03-2022), for new entrants (new calls), women on 3-year recall (call\_3); on 5-year recall (call\_5), on 1-year recall (HPV positive, cytology negative), lapsed attenders (not attended for screening in the 35 months since their last call) and non-responders (have never attended). Data was matched with individual screening attendance date (if any) to determine how many months elapsed between invitation date and screening.

# **Results**

New calls had an average response of 57%, 67% and 75% by 6, 12 and 24 months, respectively. Call\_3 had an average response of 56%, 69% and 77% by 6, 12 and 24 months, respectively. Call\_5 had an average response rate of 61%, 73% and 78% by 6, 12 and 24 months, respectively. 1-year returns had an average response of 66%, 84% and 89% by 6, 12 and 24 months, respectively. Lapsed attenders' average response was 13%, 20% and 27% by 6, 12 and 24 months respectively and non-responders' average response rate was 3%, 5%, 7% by 6, 12 and 24 months, respectively. There was no effect of age-group on response within categories of invitations.

## **Conclusions**

The transition to primary HPV screening resulted in fluctuations in the number of women eligible for screening in any given year. This analysis is useful for service planning but demonstrates the challenges to the programme in maximising response and screening coverage along the screening journey. Initiatives to address response rates in lapsed and non-responders will be explored.

# P-077: Comparison of cure rates in women treated with cold-coagulation versus LLETZ cervical treatment for CIN2-3 on pretreatment cervical punch biopsies: a retrospective cohort study

Dr Umme Habiba<sup>1</sup>, <u>Miss Tabassum Shoaib</u>, DR Fouzia saghir, Dr Rebekah Jones <sup>1</sup>University of Birmingham, Sutton Cold Field, United Kingdom

**Purpose:** To compare the cure rates between women who were treated with cold-coagulation versus large loop excision of the transformation zone (LLETZ) for cervical intraepithelial neoplasia grade 2 (CIN2) or 3 (CIN3) on pretreatment cervical punch biopsies.

**Methods:** This was a retrospective cohort study of women having had a single cervical treatment for CIN2 or CIN3 on pretreatment cervical punch biopsies between 2022-2023. The cure rates were defined as the absence of any dyskaryosis (mild/moderate/severe) on cytology tests during follow-up and were determined at 6 and 12 months after treatment.

**Results:** We are collecting data on identified 150 women having had cervical treatment with cold-coagulation and LLETZ and comparing the cure rates at 6 months following cold-coagulation and LLETZ treatment and then at 12 months.

**Conclusion:** We found that women with CIN2 or CIN3 on pretreatment cervical punch biopsies, after adjusting for multiple confounding factors, had almost similar rates when treated with LLETZ versus cold-coagulation at 6 months, with this difference disappearing at 12 months so far .need more data to establish correlation.

**Keywords:** CIN; Cold coagulation; LLETZ.

# P-078: The role of Colposcopy MDT in solving discordance / dispute and prescribing the best plan in managing cervical precancerous lesions .

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### Introduction

The NHS Cervical Screening Programme (NHSCSP) recommended that multidisciplinary meetings should be incorporated into patient management in 2004 and several studies have been done to prove its effectiveness. A snapshot analysis of database was carried out in our unit in 2021, after pandemic to reflect on ongoing efficacy and functionality of the Colposcopy MDT.

# Aims/Method

**Design:** Retrospective review.

Setting: London North West NHS Trust, Ealing Hospital, colposcopy multidisciplinary meetings.

Population: All women referred to colposcopy multidisciplinary meetings from July 2021-December 2021

**Methods:** Retrospective review of the colposcopy database, cross-referenced with multidisciplinary team outcome reports, patient notes and hospital results reporting system such as ICE, EPRO and, Compuscope and National cervical screening database.

Baseline statistics were used for data analysis.

**Main outcome measures:** Indications for MDT referral; concordance rates from cytopathology and histopathology review; concordance rates between MDT treatment decisions and final patient management.

### Results

A total of 68 cases were discussed at the MDT meetings.

Discrepancy between referral cytology and colposcopy impression was the most common referral (70 %) followed by discrepancy between referral cytology and cervical biopsy (30%). Cytology and histology review concurred with the initial reports in 66% and 87% of cases respectively; the MDT decision was concordant with the final patient management in 97% of cases. The main reason for discordance (67%) resulted from patient factors.

# **Conclusions**

When significant discrepancies exist between colposcopy, cytology and histopathology, then MDT discussion seems pertinent in reviewing the evidences such as histology slides, and cytology slides, patients age, previous history, duration of abnormality and suitability for treatment and recommendation of treatment in the patients' best interest.

To improve timeliness of treatment, MDT meetings should occur at least monthly, rerecorded in the patient's notes, the minutes of each meeting should be circulated and recommended actions carried out.

# P-079: A retrospective review of women greater than 50-years of age referred to Lancashire Teaching Hospitals NHS Trust with persistent high-risk human papilloma virus positive screening and negative cytology triage in 2022.

Dr Sara El Falaha<sup>1</sup>, Dr Abdul Elkashef<sup>1</sup>, <u>Ms Amy Fisher</u><sup>1</sup>, Ms Meera Adishesh<sup>1</sup>, Miss Alice Martha Schofield<sup>1</sup> Royal Preston Hospital, Lancashire Teaching Hospitals NHS Trust, Preston, United Kingdom

### Introduction

Cervical cancer is the second biggest killer of women worldwide and 14<sup>th</sup> most common cancer in the United Kingdom (UK). The UK has a well-established screening programme for the detection of precancerous cervical changes. Women aged 25 to 64 years of age are eligible for screening. Since 2019, due to enhanced sensitivity, primary screening on cervical samples has been performed using High Risk Human Papilloma Virus (HR-HPV) genotypes 16 and or 18. Positive HR-HPV results have cervical cytology triage. Any women with a positive HR-HPV screen and negative cytology triage are recalled for an additional screen 12-months later.

# Aims

To retrospectively identify the number of women referred for colposcopic examination at Lancashire Teaching Hospitals NHS Trust, aged greater than 50 years (50-69yrs) who had persistent HR-HPV screening and negative cytology triage over one year between January 01st and December 31st, 2022. Colposcopic opinion, ongoing management plan and demographic data such as smoking status were collected. Data was accessed via COMPUSCOPE.

### **Results**

In total 137 women underwent colposcopy. Twenty women (14.6%, 20/137) were 65-years or older (65-69). Fifty-eight women (42.3%, 58/137) were aged 50-55-years, 40 (29.2%, 40/137) aged 56-60-years and 19 (13.9%, 19/1437) were 61-64-years respectively. Colposcopy opinion was reported as, unsatisfactory (84%, 115/137), normal (8%, 11/137), HPV (1.5%, 2/137), low-grade (3.5%, 5/137), other (1.5%, 2/137), two were not recorded (1.5%, 2/137). In total 39 women were current smokers (28.5%, 39/137), 77 (56.3%, 77/137) had never smoked, 13 (9.4%, 13/137) previously smoked and eight (5.8%, 8/137) had no smoking status documented.

# P-080: Multidisciplinary management of extensive condyloma, multizonal vulvar and anal intraepithelial neoplasia in a woman with severe aplastic anaemia associated with COVID-19 vaccination, bone marrow transplant and previous splenectomy.

<u>Dr Sara El Falaha</u>, Mr Edward Parkin<sup>1</sup>, Mr Nicholas James Wood<sup>1</sup>, Miss Alice Martha Schofield<sup>1</sup> Royal Preston Hospital, Lancashire Teaching Hospitals NHS Trust, Preston, United Kingdom

### Introduction

Multizonal intraepithelial neoplasia (MZIN) is increasingly more common amongst women. Anal, vaginal, vulvar and a portion of oral cancers are induced by Human Papilloma Virus (HPV) infection, however, they are less frequent with an incidence of 1-3/100,00 person-years for each cancer when compared to cervical cancer, 15/100,00 woman-years. In the last decade, incidence of vulvar cancer has increased by 10% and anal cancer in women by 59%. Women who are immune compromised are less likely to clear HPV infection and therefore at higher risk of developing MZIN and cancer.

# **Aims**

We present a case of 53-year-old women who developed florid vulval and anal condyloma, with subsequent vulval-intraepithelial-neoplasia grade 2 (VIN2) and anal-intra-epithelial-neoplasia grade 3 (AIN3). Primary cervical screening was high-risk HPV negative. The MZIN and extensive condyloma developed on background of severe aplastic anaemia associated with COVID-19 vaccination with subsequent graft versus host disease. The woman had also had a splenectomy after a traumatic diaphragmatic injury following a horse-riding accident. Treatment with surgical resections and off license nano-valent GARDASIL-9 vaccination. Ongoing care and surveillance are provided under multidisciplinary team.

### **Results**

We present the multidisciplinary management of this complex case. Imaging of the vulva and peri-anus, pre hemi vulvectomy and nano-valent GARDASIL-9 vaccination and post-surgery and completed vaccination schedule. Discussion regarding ongoing multidisciplinary management of MZIN and service considerations.

# P-081: A retrospective review of women less than 50-years of age referred to Lancashire Teaching Hospitals NHS Trust with persistent high-risk human papilloma virus positive screening and negative cytology triage in 2022

Dr Sara El Falaha<sup>1</sup>, Dr Abdul Elkashef<sup>1</sup>, <u>Ms Amy Fisher</u><sup>1</sup>, Ms Meera Adishesh<sup>1</sup>, Miss Alice Martha Schofield <sup>1</sup>Royal Preston Hospital, Lancashire Teaching Hospitals NHS Trust, Preston, United Kingdom

# Introduction

Cervical cancer is the second biggest killer of women worldwide and 14<sup>th</sup> most common cancer in the United Kingdom (UK). The UK has a well-established screening programme for the detection of precancerous cervical changes. Women aged 25 to 64 years of age are eligible for screening. Since 2019, due to enhanced sensitivity, primary screening on cervical samples has been performed using High Risk Human Papilloma Virus (HR-HPV) genotypes 16 and or 18. Positive HR-HPV results have cervical cytology triage. Any women with a positive HR-HPV screen and negative cytology triage are recalled for an additional screen 12 months later.

# **Aims**

To retrospectively identify the number of women referred for colposcopic examination at Royal Preston Hospital, aged less than 50 years (25-49yrs) who had persistent HR-HPV screening and negative cytology triage over one year between January 01st and December 31st, 2022. Colposcopic opinion, ongoing management plan and demographic data such as smoking status were collected. Data was accessed via COMPUSCOPE.

## **Results**

In total 270 women were referred and underwent colposcopy. The highest number of referrals

was 31-39-years (43%, 116/270), followed by >40-years (38%, 102/270) and 27-30-years (19%, 52/270) respectively. Colposcopy opinion was reported as, unsatisfactory (35.5%, 96/270), normal (16%, 43/270), HPV (5.5%, 15/270), low-grade (35.2%, 95/270), high-grade (3.4%, 9/270), other (3.7%, 10/270) and two were not recorded (0.7%, 2/270). In total 68 women were current smokers (25.2%, 68/270). Six women with high-grade disease had never smoked (66.6%, 6/9), two were current smokers (22.2%, 2/9) and one not recorded (11.2%, 1/9).

# P-082: Outcomes of CIN 2 - with especially reference to conservatively managed CIN 2

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### Introduction

CIN 2 management has changed over the past number of years, with more 'conservative' management for younger nulliparous women. Review of previous CIN 2 management in 2013, (N=290) with a 2 year follow-up period showed 69% CIN 2 were treated, 26% followed up. Of those treated for CIN 2 − 20% had a final outcome of ≤ CIN 1. NHSCSP has issued guidelines for CIN 2 conservative management since 2020. The following audit is a review of CIN 2 management and whether those conservatively managed followed recommended guidance

# Aims/Methods

Assessment of all patients diagnosed with CIN 2 on biopsy over period 01/01/2021 to 31/12/2021 and review of outcomes especially in terms of longitudinal outcomes over a 2 year period.

Review of outcomes of CIN 2, in terms of time taken to improve, or progress and outcomes of final excision.

# Results

282 patients were diagnosed with CIN 2 in 2021, as opposed to 290 in 2013.

80% (225) were treated after 1<sup>st</sup> or 2<sup>nd</sup> visit. 57 (20%) were deemed suitable for conservative management. Of those who were managed conservatively, 8 patients DNA'd (2.8%). 35% (17) returned to normal, i.e HPV negative, over the 1-2 year period.

Most who returned to HPV negative, did so within first 12 -18 months. These were also less than 30 years old. Of those managed conservatively, all were discussed at MDT at least once during their management pathway.

# Conclusion

Long term outcomes of CIN 2, especially those conservatively managed does need assessment to review success of conservative management. More data to assess size of lesions, age that more patients improve at and also long term outcomes of CIN 2 conservatively managed is essential

# References

Conservative Management of CIN 2. https://www.gov.uk/government/publications/cervical-screening-programme-and-colposcopy-management/3-colposcopic-diagnosis-treatment-and-follow-up

# P-083: Audit of outcomes of Cytology Negative/ HPV positive referrals in terms of age at diagnosis and final outcomes at 2 teaching hospitals

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## Introduction

Primary HPV Screening is a more sensitive test for cervical abnormalities than traditional cytology.

HPV positivity is often a transient event. The NHSCSP recommends referral to Colposcopy if HPV positive/ cytology

negative persists over 2 years – or 3 samples taken a year apart.

HPV primary screening with cytology triage commenced in England in December 2019 and referral criteria for HPV positive/ Cytology negative, has shown increased numbers of referrals in the third year.

## Aims/Methods

HPV primary screening commenced in England in December 2019 and referral criteria for HPV positive/ Cytology negative, as HPV positivity over a 2 year period.

This led to an expected increase in HPV positive/ cytology negative referrals following 2 years post- implementation. The outcomes of these referrals was assessed.

### **Results**

The number of referrals increased 10 fold over the 4 year period, from low levels 9 – ICHT 2019.20) to 132 and 122 referrals in each of the Units. The incidence of HGCIN in each of the Units was 5% and most patients showed negative findings and discharged.

The most challenging patients are those over 50, with a Type 3 TZ, and unsatisfactory colposcopy. Identification of those at higher risk of HGCIN, would be helpful, in order to allow earlier discharge, in over 50's.

# **References**

Positive High-Risk HPV Test with Negative Cytology— A Conundrum and Blessing of Our Latest Technology Diane M. Harper1 and Jennifer A. Groner. Cancer Epidemiol Biomarkers Prev; 23(1) January 2014. P10-11 HPV-positive women with normal cytology remain at increased risk of CIN3 after a negative repeat HPV test Nicole J Polman\*, Nienke J Veldhuijzen, Danie lle A M Heideman, Peter J F Snijders, Chris J L M Meijer and Johannes Berkhof. British Journal of Cancer (2017) 117, 1557–1561 | doi: 10.1038/bjc.2017.309

# P-084: Outcomes of Radical Trachelectomy at an Academic Institution. A 7 Year Review

Ms Deirdre Lyons<sup>1</sup>, Miss Selina Chiu<sup>1</sup>

<sup>1</sup>Imperial College Healthcare Nhs Trust, London, United Kingdom

### Introduction

Radical trachelectomy - fertility sparing treatment for early-stage cervical cancer, removing the cervix en bloc, upper part of vagina and usually undertaken for patients with Stage IA1, stage IA2, and stage IB and lesions less than 2cm

A Metaanalysis in 2021 showed no statistically difference in risk of recurrence, between patients undergoing radical trachellectomy and radical hysterectomy.

Follow-up at present is with HPV testing, there is discussion about whether cytology is also required for follow-up of these patients.

# Aims/Methods

Analysis of trachelectomy patients from 2015 to 2023

Data obtained from Trust analytics portal.

Electronic notes were reviewed looking at reason for referral, outcome of final histology and follow up results of HPV testing and cytology

# **Results**

17 patients were planned for radical trachelectomy, of which 14 underwent the operation. 12 patients underwent abdominal trachelectomy and 2 laparoscopic

One patients was converted to radical hysterectomy at initial surgery, 2 has positive lymph nodes at frozen section Follow-up showed recurrence in 1 patient. This patient had cytology post trachelectomy showing high grade query invasive and her recurrence occurred 5 months post her initial surgery

Prior to introduction of HPV testing, cytology and HPV testing was undertaken -5 patients cytology showed borderline changes but were HPV negative - none of these have shown a recurrence.

# Conclusion

In our study one patient had a recurrence identified by abnormal cytology at follow-up, margins were clear on the original trachelectomy.

Cytology post treatment yielded more minor abnormalities, while HPV testing appears to have better specificity

### References

Brown et al: Role of Cervical Cytology in Surveillance after Radical Trachelectomy for Cervical Cancer Gynecol Oncol. 2016 August; 142(2): 283–285. doi:10.1016/j.ygyno.2016.05.030.

Smith, E.S et al Radical Trachelectomy for the Treatment of Early-Stage Cervical Cancer: A Systematic Review. Obstet Gynecol. 2020 September; 136(3): 533–542. doi:10.1097/AOG.0000000000003952

# P-085: Are we picking up cervical pre-cancer with HPV primary screening as predicted?.

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<sup>1</sup>Milton Keynes University Hospital, Milton keynes, United Kingdom

# **Introduction / Background**

This audit meticulously examines the effectiveness of cervical cancer screening procedures—cytology, histopathology, and colposcopy, emphasizing their accuracy and correlation

# Aims / Methodology

Retrospective data from January to December 2023, involving women referred to a colposcopy MDT at Milton Keynes University Hospital, underwent thorough analysis. The comprehensive assessment considered age, cytology results, colposcopy impressions, biopsy outcomes, and subsequent management.

### **Results**

A notable finding was the identification of non-correlation in 133 patients of 261 women, particularly in cases displaying a 2-grade discrepancy between cytology and histopathology. The mean age of the cohort was 37, with an age range from 24 to 64.

Cervical cytologic findings indicated 27.82% with normal results (indicating referral positive HRHPV, PCB, suspicious cervix), 10.53% with mild abnormalities, 29.32% categorized as borderline, 9.02% with moderate abnormalities, and 18.80% with severe abnormalities. Additional findings included 2.26% with borderline endocervical results, 1.50% diagnosed with CGIN, and 0.75% showing signs of invasion.

Within the cohort, 20 patients with normal smear results exhibited three consecutive positive HRHPV tests. Subsequent biopsies revealed seven had CIN 3, seven had CIN 2, and six had CIN 1. Conversely, 15 patients referred for PCB or suspicious cervix, had nine with CIN 1, two with CIN 2, and one with CIN 3. Three patients in this group had colposcopy impressions suggesting CIN 2 or more, but biopsy results were negative.

Biopsy results exhibited a 2-grade higher discrepancy in 66% of cases compared to cytology, while in 26% of cases, biopsy was 2 grades lower. 12 unsatisfactory colposcopies resulted in CIN findings on biopsy or LLETZ.

Histopathology revealed a 2-grade higher disease in 20 cases compared to colposcopy findings and 2 grades lower in eight cases.

One patient diagnosed with CGIN and another biopsy showed squamous cell carcinoma. Intriguingly, both cases displayed borderline findings in their cervical smears.

# P-086: An audit of directly referred patients from the national cervical screening with negative cytology and high risk HPV

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### Introduction

Guidance has been developed by NHSCSP to manage patients who have a hrHPV positive screening with negative cytology on three consecutive annual cervical screening tests. These patients are now directly referred for colposcopy examination. Due to the increased sensitivity to detect hrHPV in primary screening samples, there is an earlier opportunity to identify patients who are at risk of developing pre-cancerous cervical abnormalities (CIN) even when the sample is reported negative for dyskaryotic cells.

### Aim/Methodology

The aim is to measure the proportion of patients who have dyskaryotic cells and their outcomes. All cases from the 1/12/22 till 31/12/23 who were directly referred from the national screening program with hrHPV positive and negative cytology on three consecutive annual cervical screenings were included. Using retrospective and prospective data gathering gave a total number of 150.

### Results

30% of patients (45 patients) proceeded to punch biopsies. 33% of biopsies were HPV only (15 patients), 11% were negative (5 patients), 16% were CIN 1 (7 patients), 16% were CIN 2 (7 patients), and 18% were CIN 3 (8 patients), 1% was insufficient (1 patients) and 4% were VIN 3 (2 patients). 33% of those who had biopsies proceeded to an excisional biopsy and out of the total study size it was 10% of patients (15 patients). Those who had excisional biopsies 46% (7 patients) of those returned as HG CIN either CIN 2 (13%) or CIN 3 (33%). 27% were HPV only/negative (4 patients) and 27% were CIN 1 (4 patients).

### Conclusion

This audit clearly demonstrates the success of primary HPV screening and does show an increase in the early detection of HG CIN. Which underpins the fundamental aim of the national screening program to increase detection of CIN and reduce the cases and morbidity of cervical cancer.

# P-087: Retrospective Review of Follow-up Post Hysterectomy for Recurrent CIN Over a Ten Year Period

<u>Dr Aoife Corcoran</u><sup>1</sup>, Mrs. Sheila O'Donnell<sup>1</sup>, Mr. Kevin Hickey<sup>1</sup> <sup>1</sup>University Hospital Limerick, Limerick , Ireland

# **Introduction**

Large loop excision of the transformation zone(LLETZ) is the standard treatment for high grade CIN. In cases of recurrent cervical abnormalities where there is minimal to no cervical tissue accessible due to previous treatments, repeat LLETZ can be extremely difficult and hold a higher risk of injury. In this situation options include conservative management with regular cytology and colposcopy, or hysterectomy.

For those that proceed to hysterectomy and histology reveals residual Cervical Intraepithelial Neoplasia (CIN), as per Cervical Check these women require annual vault screening for ten years. If there are no abnormalities identified during this timeframe, then the women may exit the screening programme. Vault screening may take place in primary care, or under surveillance of the Colposcopy clinic if there is clinical concern.

### Aim/Methodology

To identify the number of patients who have undergone hysterectomy for persisting CIN over a ten-year period in University Hospital Limerick(UHL) and assess whether these women were followed-up as per national guidelines.

- A list of all women that have undergone hysterectomy for management of recurrent CIN from January 2013 to September 2023 in UHL, was requested from the pathology department.
- A retrospective review of pathology reports was preformed to assess presence of residual CIN, enabling us to identify those who met our criteria.
- We performed a retrospective colposcopy chart review to assess patient characteristics and attendance at follow-up.
- Data was analysed using Microsoft Excel.

### **Results**

24 patients met our criteria, with 9(37.5%) attending for annual screening as per guidelines. 11(45%) women have been discharged to their GP following 1-4 negative HPV results. 11(45%) are still attending annual screening. Does the advent of HPV screening alter the current recommendation from Cervical Check for annual vaginal vault smears for 10 years.

# P-089: Navigating Uncertainty: Clinical Decision-Making in Unsatisfactory Colposcopy Cases

### Mr Mohamed Makki<sup>1</sup>

<sup>1</sup>North Cumbria, Newcastle, United Kingdom

Navigating Uncertainty: Clinical Decision-Making in Unsatisfactory Colposcopy Cases

# Background:

Unsatisfactory colposcopy, where the cells of interest are not visible in women with positive HPV cervical screening tests poses a common challenge in clinical practice, given the ambiguity arising from limited evidence and guidance. This study aims to explore the outcomes of patients referred with HPV positive/cytology negative screening tests and an unsatisfactory colposcopy opinion.

### Aim of the Study:

- Analyse decision-making processes for women with unsatisfactory colposcopy.
- Ascertain adherence to colposcopy guidelines.
- Evaluate the outcomes of these patients.

### Methods:

Data spanning from 01/04/2016 to 31/03/2019 were extracted. Patients were identified from the colposcopy database based on referral with positive HPV/cytology negative screens and initial unsatisfactory colposcopy opinions (TZ3). Follow-up attendances and outcomes were documented. Additional factors such as age (under/over 50), and smoking status were collated using an Excel spreadsheet.

Conclusions

In situations where decisions are influenced by emotional factors in areas of clinical uncertainty, following clinical guidance can alleviate the challenges and anxiety associated with decision-making. The opinions and experiences of colposcopists are likely to play a substantial role in shaping national policies and implementing guidelines within a clinical setting.

### Abbreviations

HPV Human papillomavirus

LLETZ Large loop excision of the transformation zone

MDT Multidisciplinary team TA Thematic analysis

TZ type Transformation zone type 3; cells that are infected by HPV but not visible for assessment as they are tucked

3 inside the cervical canal

# P-090: Learning from most common cervical screening incidents and role of the lead colposcopist

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## Introduction

Screening incidents can have major service impact, affect large numbers of people and can reduce public confidence. The NHS England Quality Assurance Service collects information on incidents and disseminates learning for quality improvement.

# Aims/Method

Case studies demonstrating key learning points will be presented.

### **Results**

# Case study 1: Colposcopy specific induction policy for new starters, including locums

NHS Cervical Screening Programme (NHSCSP) guidance on offering repeat LLETZ in women over 50 with incompletely excised CIN3 not followed by a locum.

Learning: No formal induction process for new colposcopists, no easy access to local/national colposcopy policies, lack of MDT attendance for locum colposcopist

## Case study 2: Colposcopy failsafe

2 month delay in actioning results and issuing appointment for LLETZ; conservative management offered without MDT discussion. No clear policy of how results are actioned by colposcopists.

Learning: Audit to confirm all biopsy proven CIN2 are either treated or discussed at MDT for conservative management of CIN2. Ensure colposcopists are meeting standards, specifically 50% MDT attendance. Clear processes in place for managing results promptly, including cover for absence.

### Case study 3: Treatment complications- insourcing with limited oversight

Insourced colposcopy service brought in to deal with long waiting times. Bowel injury resulting in surgical intervention following a repeat LLETZ during insourced out of hours clinic.

Learning: Lead colposcopist is accountable for all activity and case selection even if outsourced and out of hours. Difficult colposcopy procedures should have an agreed pathway to seek medical help if needed.

# Case study 4: Complications from non-indicated procedure

Colposcopy follow up for confirmed CIN1-2 in 68 year old with difficult access included unnecessary diagnostic LLETZ. Learning: Undertaking diagnostic LLETZ, where not indicated in guidance, in patient with difficult access to cervix resulted in delayed diagnosis of VVF.

# **Conclusion**

Learning from incidents can improve services and reduce risk to patients.

# P-091: AUDIT ON OUTCOME OF CLINICALLY LOOKING SUSPICIOUS CERVIX

<u>**Dr Irum Ansari**</u><sup>1</sup>, Dr Heather Langan<sup>1</sup>

<sup>1</sup>Sligo University Hospital, Sligo, Ireland

### **INTRODUCTION**

Suspicious looking cervix is a comprehensive term used to include all cervical lesions that have the potential for cervical cancer. Clinically suspicious looking cervix does not mean CIN but mostly it is caused by benign and inflammatory conditions.

### **OBJECTIVE**

To assess appropriateness of non-smear related referrals to colposcopy.

To evaluate the incidence of histology proven pathology and outcome of women referred to colposcopy with clinically suspicious cervix (low grade /high grade changes).

**STANDARDS:** The British society for colposcopy and cervical pathology (BSCCP Guidance)

### **METHODOLOGY**

The record of all women of any reproductive age group referred by GP to colposcopy clinic with clinically suspicious cervix from January, 2021 to July, 2022 is obtained from colposcopy computerized system via hospital PID numbers of the patients and Pre designed proformas were filled and data was analysed by audit department.

SETTINGS: Colposcopy Unit - Sligo University Hospital, IRELAND

**RESULTS**: Out of these 45 women, majority 27(60%) had no symptoms apart from clinically suspicious cervix on examination. 35(77.8%) had previous normal smear result, 1 (2.2%) had abnormal smear and 3 (7%) had previous history of HPV while 6 (13%) had previous cervical treatment.

Regarding procedure, 30 (67%) patients had colposcopy only, while 15(33%) had both cervical smear and colposcopy examination.

Out of 15 smears taken, 7(16 %) patients had normal cytology, 8(18%) had HPV.

Regarding colposcopy examination most of women 38(84.4%) had normal colposcopy impression, low grade changes seen in 4 (8.9%), high grade disease seen in 2 (4.4%) and HPV changes in 1 patient (2.2%). Biopsy was taken in 44% of patients and regarding histology results, CIN1 was revealed in 9 patients (20%), CIN 3 in 1 (2.2%), HPV changes in 5(11.1%). In view of follow-up 21 (46.7%) were discharged to GP for 3 yearly smears, LLETZ was done in 1 patient (2.2%), cold coagulation in 3 (6.7%).

## **CONCLUSION**

In our study we observed that 27 (60%) of women referred to colposcopy clinic with clinically suspicious cervix were asymptomatic, most of them had normal cervix on colposcopy exam and only few had low/high grade disease. This study has suggested that women who are referred with a clinically suspicious looking cervix should be assessed in a general gynaecology clinic rather colposcopy unit because most of them will not have cancer. More investigations need to be done to look at the probability of cervical cancer in suspicious looking cervix in high-risk group of women.

# **RECOMMENDATIONS/ACTION PLAN**

After excluding Common cervical anomalies on examination

If the abnormality is still suggestive of cervical cancer:

- do not proceed with a cervical screening test
- refer immediately to the colposcopy clinic

As per Guidance Note 16 (Guideline for the management of the atypical appearance of the cervix in cervical screening) Cervical check Feb 2020

# P-092: Has introduction of HPV triage in borderline glandular smears improved effectiveness of cervical screening?

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**Background**- 'Borderline glandular abnormality' (BGA) was introduced in cervical screening terminology in 2012. HPV triage was introduced in Scotland in 2020. This project was conducted to compare the management and outcome of BGA between 2014 and 2021.

**Aim**- To compare the clinical approach and outcomes of cervical smear with bGA pre and post introduction of HPV triage.

**Materials and method**- Retrospective study over one year period (2022) in NHS Lanarkshire. All smear with bGA identified from cytology records from 2022(n=65). These women were followed up with regards to investigation, treatment and histology outcomes. This was compared with the audit results from 201. BGA with hrHPV+ was compared with BGA with hrHPV- cohort.

**Results**- 41 women had hrHPV+/BGA smear. Mean age was 42 years. 4 out of 5 women who were fully immunised had negative histology with 1 CIN3.

83% (n=34) had some form of histology. Histology was negative (32%, n=18), CIN1 (10%, n=4), CIN2 (5%,n=2), CIN3(10%, n=4), HGcGIN (14%, n=7), adenocarcinoma(5%, n=2), SCC(5%, n=2). Premalignant lesion were diagnosed in 41% while invasive cancer in 10%.

In the audit cohort (n=35) from 2014, 22 (62.5%) needed some form of biopsy. 18 (51.4%) had some form of treatment (Cold coagulation-5 and LLETZ –14). 12 (34%) had premalignant condition. 3 (9%) had some form of malignancy.

hrHPV -/BGA was reported in 24 women. These were either post LLETZ persistent abnormal smears or TOC smear. 8 had cervical biopsy, 2 LLETZ, 1 hysterectomy, smear follow up in 8. Histology available for 11 (46%) included 8 negative, 1 CIN1, 1 unsatisfactory. All but one had no clinically significant lesion.

**Conclusion**- Urgent referral for colposcopy and assessment is strongly recommended. HPV positivity helps pick up precancerous/cancerous lesions. Over years there has been increasing trend towards histological diagnosis.

# P-093: Retrospective study to assess outcomes of women with Persistent HPV and negative cytology

Miss Ghadah Z Ahsan<sup>1</sup>, <u>Dr Priyatha Babychan</u>
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# **Background**

We have seen a steady rise in the number of referrals with persistent HPV infection and negative cervical cytology with the introduction of primary HPV screening. This poses a clinical challenge when associated with negative colposcopy and histology. We set out to assess the outcome of such referrals and incidence of histologically proven high grade CIN amongst this group of women.

### Aim

The aim of this study was to evaluate the outcomes of women with three consecutive high-risk HPV and negative cytology and assess the incidence of histologically proven high-grade cervical dysplasia amongst this group.

# Materials and method

We conducted a retrospective review of all referrals received between January to June 2022 with 3 consecutive high risk HPV infection and negative cytology. The data was captured from the Infoflex, Open Exeter and ICE.

### **Results**

A total number of 133 women were included in the analysis. 115 (86.4%) had a satisfactory colposcopy examination. From these, 50% (58/115) were recorded to have normal Colposcopy and discharged to routine recall. 7/115 (6%) were considered high grade on colposcopy examination, but only one was histologically proven CIN2. 18/133 (13.5%) were unsatisfactory colposcopy. Of these 17/18 (94.4%) were advised a repeat cervical screening in 12 months. 1/18 was ceased from follow up after MDT discussion.

Out of the 17 patient who were referred for repeat cervical screening test, 2 moved area, 1 did not respond, 8/17 had negative HPV, 5/17 had HPV infection with negative cytology and one glandular neoplasia that was later confirmed histologically.

### Conclusion

Our study did not show a significant risk of high grade CIN in this group of women. Further prospective studies are needed to define optimal surveillance strategies for these patients and to assess if conservative approach over LLETZ is acceptable approach for low risk women.

## P-094: Two unusual cases

## **Dr Sophie Lace**<sup>1</sup>

<sup>1</sup>Liverpool Women's Hospital, , United Kingdom

## **Background**

I would like to present two cases of women we have manged at Liverpool Women's as an MDT between our colopscopy and Obstetric teams.

## Aim

I will present the case notes, colposcopic and scan images to explain the unusual cases and the management we put in place. With pregnancy and colposcopic outcomes.

## **Results**

The first case was a patient who presented to colposcopy with a large cervical mass. This was biopsied and the histological diagnosis has never before been reported in conjunction with an ongoing viable pregnancy. This woman was referred to a consultant with an interest in colposcopy in pregnancy and managed by the MDT. Regular review was undertaken and a safe vaginal delivery of a healthy baby girl was achieved at term.

The second case was a patient who was seen in colposcopy in the first trimester with a low grade smear that had been taken prior to pregnancy. Previous cervical trauma made a complete cervical assessment impossible. The case was followed by the team during pregnancy and biopsy offered following delivery due to persistent colposcopic changes consistent with CIN. There was a very unusual finding on the histopathology in conjunction with the CIN.

# P-095: Diagnosis of 1B1 cervical cancer in well screened post-menopausal patient with negative cytology and negative high risk Human Papilloma Virus history.

<u>Miss Hema Nosib</u>, Mr Tarang Majmudar, Mr Krishnayan Haldar, Dr Elizabeth Astall, Dr Brian Rous, Dr Mahmoud Ali, Dr Paidamwoyo Gwiti, Dr Ciara Mackenzie

#### Introduction

Case presentation of 57 year old with normal up-to-date smear history diagnosed with stage 1B1 squamous cell carcinoma (SCC) of the cervix.

## Methodology

Patient was referred to the gynaecology Rapid Access Clinic with a six month history of post-menopausal bleeding mostly triggered by intercourse. High risk Human Papilloma Virus (HPV) negative smear two months prior. Normal transvaginal ultrasound assessment of endometrium. Clinical examination revealed an erosion on the posterior lip of cervix without suspicious features but punch biopsies were obtained for assurance. Histology unexpectedly revealed Cervical Intraepithelial Neoplasia (CIN) 3. The extent of the complexity was concerning therefore case referred to tertiary centre for second opinion; agreed extensive CIN3 with block positive immunohistochemistry for P16 and suspicious for invasive SCC. Large Loop Excision of Transformation Zone (LLETZ) was recommended. Patient returned for formal colposcopy which revealed high grade changes in all four quadrants and a 14mm deep LLETZ was performed. Histology showed HPV associated SCC with depth of Invasion of 6 mm and incomplete excisions status. Magnetic Resonance Imaging (MRI) showed mass arising from posterior lip of cervix expanding the posterior fornix but without vaginal or parametrial invasion. Cross sectional imaging revealed no metastases. Discussed again at specialist multi-disciplinary meeting (MDT) and provisional FIGO Stage at least 1B1. Patient proceeded to radical hysterectomy with bilateral salpingo-oopherectomy and bilateral pelvic lymphadenectomy at the Cancer Centre. Final histology confirmed 1B1 invasive SCC of the cervix.

#### **Results**

Although primary screening for high-risk HPV has a high specificity, this case serves as a reminder that a small minority of women will have false negative smear results. The importance of careful clinical examination and judicious biopsy cannot be overestimated so as not to miss these rare presentations.

## P-096: Are we asking enough about ASC-H?

Ms Maria Cheung<sup>1</sup>, Dr Ciaran McKeown<sup>1</sup>, <u>Dr Claire McCarthy</u><sup>1</sup> Rotunda Hospital, Dublin, Ireland

**Introduction**: The cytological finding of ASC-H ("Atypical Squamous Cells - cannot exclude high grade squamous intraepithelial lesion") in cervical smears is inconsistently used and management can present a clinical challenge for colposcopists. Risk of high-grade changes (CIN2 or higher) varies in the literature from 12-70%. We aimed to review these referrals, their colposcopic and histological comparators, and management outcomes to help guide future management.

**Methodology**: A retrospective review of all ASC-H referrals in 2022 to a large colposcopy unit in Ireland was performed. Ethical approval was received from the local institutional committee.

**Results**: In 2022, 97 patients attended with an ASC-H referral smear, with 2672 new referrals being seen in that calendar year (3.6% referrals). 92 (95%) had a cervical biopsy based on colposcopic impression. Of these, a maximum diagnosis of CIN1 was found in 41 (42%), CIN2 in 18 (19%) and CIN3 in 31 (32%). cGIN was found in 2 (2%) cases. 63 (65%) of the patients had a treatment performed, the majority of which (51; 53%) were LLETZ procedures and 12 (12%) were cold coagulation. Of the LLETZ procedures performed, histological analysis showed a maximum diagnosis of CIN1 in 24 (47%), CIN2 in 11 (22%) and CIN3 in 15 (29%). cGIN was identified in 1 (2%) LLETZ specimen. Test of Cure (TOC) HPV smear at 6 months post-treatment showed persistent HPV with normal cytology in 6 (10%), HPV with LSIL in 1 (2%), HPV with ASCUS in 3 (5%) and HPV with ASC-H in 2 (3%).

Our study findings show that ASC-H cytology, in the presence of high-risk HPV, is associated with high-grade changes (CIN2/CIN3) in 51% of cases. Treatment was curative in 85% of these cases at first TOC. 12% required repeat TOC for persistent HPV with normal cytology and normal colposcopy. 3% are awaiting TOC.

# P-097: Rapid progression of HPV to aggressive adeno-squamous cervical carcinoma 16 months after a negative cytology smear

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## Introduction

10% of all HPV infections become persistent, developing into, CIN/CGIN. The time interval for this change is 1–10 years. Up-to 1% of CIN1 and 12% of CIN3 progress to invasive cancer over 5-20 years.

## Aims/Method

A 56-year-old woman was referred to the colposcopy with hr-HPV positive smear and cytology of high-grade moderate dyskaryosis. Of note, her BMI was 62 and she was on methotrexate for rheumatoid Arthritis. LETZ was performed in February 2022. LETZ measuring 18x20 to a depth of 10mm showed no dysplasia and clear margins. P16 was negative.

Repeat smear in September 2022 was hr-HPV positive but cytology negative. Colposcopy showed a normal cervix. The woman moved out of area and was referred locally to colposcopy for suspicious looking cervix when she attended GP for repeat smear. A second LLETZ was performed in June 2023, 16months after the first LETZ. It was reported as HPV associated poorly differentiated Adeno-squamous carcinoma of cervix, FIGO stage at-least 1B1. All margins were involved by invasive disease with LVSI.

The case was discussed at NICA meeting and duty of candor ruled out. MDM discussion after MRI (a tiny restricted focus of diffusion restricted to cervix, no parametrial lesion) suggested radical surgery. Due to high BMI and other co-morbidities, she was unfit for radical surgery and had a repeat LLETZ instead.

### **Results**

Although rapid progression to invasive cervical cancer has been reported in in patients with HIV, no association in women on methotrexate or raised BMI has been reported.

## P-098: Vaginal Intra-epithelial neoplasia study

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## Introduction

Vaginal intra-epithelial neoplasia (VaIN) is a spectrum of vagina pre-cancer lesions caused by HPV. Incidence is 0.2-0.5/100 000. There is increased risk of VaIN in those who have persistent abnormal cytology , hysterectomy for CIN, those who are immunosuppressed and those on DES. Disease is classified into VaIN 1 which is low grade lesions and VaIN 2 and 3 are the high grade lesions. They are commoner in the 5th-  $6^{th}$  decade of life These lesions can be managed conservatively and by surgical excision and ablation. Medical management include imqumod, and cefovir .

## Aims/Method

The aim of the study was to study our diagnosis and management of VaIN in Calderdale and Huddersfield NHS foundation trust.

We conducted a retrospective study on histologically diagnosed VaIN lesions over 10 years. We recruited 50 cases with VaIN diagnosis.

## **Results**

Approximately half of our patients had VaIN 1(48%), 30% had VaIN 2 and fewer had VaIN3. Three had co-existing cancer. 30% of these patients had symptoms of abnormal vaginal bleeding or complaint of a wary lesion in the vagina. More than 70% of the patients had persistent cervical cytology and 30% had hysterectomy for CIN. Twenty 40% of the patients who had VaIN has had a LLETZ treatment for CIN previously. All the patients had abnormal cytology after their LLETZ procedure. Persistence of abnormal cytology with negative punch biopsy and negative or low-grade histology of LLETZ sample should raise suspicion of VaIN.

34% of those with VaIN 1 lesion resolved with conservative management and 4 of the patients with VaIN 1 had surgical treatment for persistence. All cases with VaIN 3 had treatment. All treated cases had follow up 6 months after their procedure and treatment.

## P-100: Review of Cervical Smear Outcomes from Defaulters Attending a Drop-in Clinic

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<sup>1</sup>Nhs Tayside, Dundee, United Kingdom

In our local health board, sadly 1 in 3 women (and people with cervix) default from cervical screening. So, we run campaigns in the month of January and June to coincide with Jo's cervical trust's cancer awareness and prevention weeks. One initiative that has attracted smear defaulters is a 'pop up' or 'drop in' clinic which is a walk in service and prior appointments are not needed.

Aim: To assess outcomes of a pop-up clinic aimed at staff and members of the public who were overdue or had never had a smear.

Method: In 2023, pop-up clinics were advertised via posters around the hospital and on social media, targeting those who had defaulted smears. Patients (n=99) completed a form regarding date of last smear, commenting on why they had defaulted. Using SCCRS, we assessed patients' HPV and cytology results, alongside calculating time defaulted.

Results: 7/99 (7%) had hrHPV and reflex cytology tested. 4/7 (4% cohort) had abnormal cytology (3 low grade dyskaryosis, 1 borderline squamous). 3/4 with abnormal cytology had CIN1 confirmed on colposcopy and discharged to conservative management and one is still awaiting results. Most often quoted reasons for default were anxiety, superseding family and work commitments and access to GP practices for smear tests

Conclusion: The pickup rate of abnormal cytology in our cohort aimed for smear defaulters is the same as general population (4%). Interestingly, incidence of hrHPV in our cohort was much lesser than expected (7% vs 13% in the generic population).

Further analysis of the data is necessary to understand a correlation between defaulting smears and risk of HPV positive. What has become apparent through this investigation is that availability of GP appointments is a significant factor, alongside smear anxiety, leading to defaulting and increased risk of cervical cancer. Based on this, our health board's public-health is working with stakeholders to have more frequent 'drop in clinics' to remove one barrier for cervical screening.

# P-101: The path untrodden; Colposcopy outcomes in individuals with persistent high-risk HPV and normal cytology

<u>Ms Jenna Paton</u><sup>1</sup>, Dr Rupali Prakash<sup>1</sup>, Dr Vimala Nellore<sup>1</sup>, Dr Kalpana Ragupathy<sup>1</sup>

Nhs Tayside, Dundee, United Kingdom

**Background**: Primary HPV screening was introduced in Scotland in 2020. In the absence of cytological abnormality, women and people with cervix are referred to colposcopy if three subsequent smear samples show persistent HPV. For proven cytological abnormalities, predictive outcomes of colposcopy are better and diagnosis of high grade Cervical Intraepithelial Neoplasia (CIN) are higher in those with high grade dyskaryosis rather than low grade abnormalities. Hence the cohort with negative cytology, but persistent HPV is of particular interest to evaluate specificity of colposcopy.

**Aim**: To evaluate the colposcopy outcomes of women referred to colposcopy with persistent high risk HPV positive and negative cytology

**Methods:** This was a retrospective study of patients referred to our colposcopy unit with three consecutive smears showing persistence of hr HPV and negative cytology. Data was collected for patients referred to colposcopy clinic between January 2023 and December 2023 (n=1043). Scottish Cytology Call Recall Service (SCCRS) records, online clinical portal, patient case notes, colposcopy cards and ICE system were used to collect patient demographics, screening, biopsy results, colposcopist's impression and management decisions.

**Results**: 32/1043 (3.1%) were referred because of persistent hr HPV and negative cytology. 16/32 (50%) had biopsies done; 5/32 (16%) had high grade CIN (CIN 2 and 3). Specificity and positive predictive value of colposcopy for high grade CIN was 100% whilst sensitivity and negative predictive value was 20% and 69%. The biopsy pick up rate of any CIN was 93% (14/15; one result still awaited).

**Conclusion**: Primary HPV screening has enabled a 16% additional detection rate of high grade CIN. This is an unknown entity for colposcopists and we plan to use this study to counsel colposcopy patients about the incidence of high grade CIN when referred with persistent hrHPV and negative cytology, but also reassure that majority will have low grade CIN amenable to conservative management.

## P-102: Does HPV subtype and Ct (Cycling threshold) value impact regression of CIN2 during conservative management?

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## Introduction

As personalised medicine advances, there is growing interest in tailoring the management of patients undergoing conservative management of cervical intraepithelial neoplasia grade-2 (CIN2). One area of potential research is exploring the relationship between high-risk human papillomavirus (HrHPV) subtype, viral load (measured by Cycling threshold/Ct value), and regression of CIN2. We audited a cohort of patients to assess these potential associations.

## Aims/Method

A retrospective review of electronic records for patients with biopsy-confirmed CIN2 over 12-months in 2021. Among those who underwent conservative management of CIN2, we collected data on various variables and analysed trends in HrHPV subtype, Ct value and CIN status over 2-years.

## **Results**

- 35 patients had conservative management of CIN2.
- 5 patients with static or progressive disease.
  - Average age 35 years (range: 28 to 42).
  - All referred with low grade dyskaryosis.
- 3 patients had HrHPV 16:
  - o Ct value range: 18.86 to 26.60.
  - 2 static or progressive disease.
  - 0 regression in CIN.
  - $\circ$  1 lost to follow-up.
- No patients had HrHPV 18.
- 31 patients had HrHPV Others:
  - o Ct value range: 16.80 to 33.70.
  - o 3 static or progressive disease. Ct value range: 19.40 to 24.75.
  - o 25 regression in CIN. Ct value range: 16.80 to 33.70.
  - 3 lost to follow-up.

## **Conclusions**

Acknowledging the limitations of a small sample size, some noteworthy conclusions can be drawn:

- All the patients whose CIN2 resolved had HrHPV Others only.
- Among patients with HrHPV 16, 66% had static or progressive disease (33% were lost to follow-up), raising the question of whether LLETZ should be considered for all patients with HrHPV 16.
- The Ct value of all patients who had static or progressive disease was under 26.60, indicating a high viral load, suggesting a potential relevance of viral load in predicting disease progression.

# P-103: A novel DNA Methylation marker for prediction of Cervical Intraepithelial Neoplasia grade 2 progression

<u>Dr Laura Ellis</u><sup>1,2</sup>, Dr Sarah Bowden<sup>1,2</sup>, Dr Maria Paraskevaidi<sup>1,2</sup>, Prof Barbara Moscicki<sup>3</sup>, Dr James Flanagan<sup>1,2</sup>, Prof Maria Kyrgiou<sup>1,2</sup>

<sup>1</sup>Imperial College London, London, United Kingdom, <sup>2</sup>Imperial College Healthcare NHS Trust, London, United Kingdom, <sup>3</sup>University of California in Los Angeles, Los Angeles, United States of America A novel DNA Methylation marker for prediction of Cervical Intraepithelial Neoplasia grade 2 progression

Laura Burney Ellis, Sarah Bowden, Maria Paraskevaidi, Barbara Moscicki, James Flanagan, Maria Kyrgiou

## **Introduction**

Historically, Cervical Intraepithelial Neoplasia grade 2 (CIN2) has been the cut-off to proceed to local surgical treatment of the cervix. However, treatment has been shown to increase the risk of poor future reproductive outcomes, and there is increasing evidence to suggest that a large number of CIN2 lesions will regress. DNA methylation has recently been proposed as a novel molecular technique, which may be accurate for both diagnosis and prediction of future oncological outcomes.

## Methods

DNA was extracted from liquid-based cytology samples in a subset of 58 women aged 16-24 managed conservatively for histologically-confirmed CIN2, with known outcomes (12 progressors, 31 regressors, and 15 late regressors). Extracted DNA underwent bisulphite conversion and an Illumina 850k EPIC Methylation array. Data were processed using R; *minfi* package and a bespoke statistical pipeline.

## Results

Quality control was met for all 58 samples. Data were adjusted for principal components, previous pregnancy, and smoking status. Beta values were compared between groups using linear regression. In progressors (n=12) as compared to regressors (n=46) one CpG was statistically significantly differentially methylated (FDR <0.1).

## Conclusion

Previous work with DNA methylation in prediction of CIN2 progression has typically focused on known CpG sites. We have identified a novel CpG site which may assist in predicting progression of CIN2. This CpG site is within the promoter region of a gene involved in immune regulation, and thus biological plausibility exists for its role in malignant development. Larger prospective cohort studies are needed to validate these findings.

## P-104: HPV genotyping for risk stratification in women diagnosed with CIN2

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<sup>1</sup>Gødstrup Hospital And Aarhus University, Denmark, Ejstrupholm, Denmark

#### Introduction

In recent years, active surveillance has been introduced as an alternative to excisional treatment in younger women with CIN2. However, early identification of women at increased risk of persistence and progression is important to ensure timely treatment. Evidence is limited on biomarkers that may be used to identify women at increased risk of persistence and progression.

## Aims/Method

Here, we aimed to describe HPV genotype-specific risk of persistence and progression in women undergoing active surveillance for CIN2. We conducted a historical cohort study on women aged 23-40 years diagnosed with CIN2 at Aarhus University Hospital, 2000-2010. Women were considered as undergoing active surveillance if they had a first record of a cervical biopsy in the Pathology Databank within two years after index diagnosis and no LLETZ prior to this. Archived tissue samples underwent HPV genotyping using the HPV  $SPF_{10}$ -DEIA-LiPA<sub>25</sub>. Persistence and progression were defined as a record of  $\geq$ CIN2 in the Pathology Databank based on the worst diagnosis during follow-up. We estimated the relative risk (RR (95% CI)) of persistence and progression using a modified Poisson model.

## **Results**

A total of 455 women with CIN2 were included. Two-thirds were ≤ 30 years (73.8%) at index diagnosis, and nearly half had a high-grade index cytology (48.8%). Overall, 52.2% of all women had ≥CIN2 during follow-up; 70.5 % in HPV16 positive and 29.5% in those positive for other HPV types. HPV16 was associated with a significantly higher risk of persistence and progression (RR 1.64 (95% CI (1.37-1.95)) compared to non-HPV16 types. The risk was highest in HPV16-positive women with a high-grade index cytology compared to HPV16-positive women with a low-grade cytology (RR 1.29 (95% CI (1.03-1.61-)), whereas no differences were observed across age groups. These findings may suggest the use of HPV genotyping for risk-based management.

# P-105: Diagnostic Accuracy of Adjunctive Colposcopy Technologies: A Systematic Review and Meta-analysis

<u>Dr Apostolia Galani</u><sup>1</sup>, Dr Maria Paraskevaidi<sup>1</sup>, Dr Athanasiou Antonis<sup>1</sup>, Dr Laura Burney Ellis<sup>1</sup>, Dr Stefania Maneta<sup>1</sup>, Dr Konstantinos Kechagias<sup>1</sup>, Dr Deidre Lyons<sup>1</sup>, Dr Ilkka Kalliala<sup>1</sup>, Professor Zoltan Takats<sup>1</sup>, Professor Maria Kyrgiou<sup>1</sup> Imperial College London, London, United Kingdom

#### Introduction

Cervical cancer is a significant global health concern, necessitating the continual enhancement of screening methods to improve early detection. In recent years, adjunctive colposcopy technologies have emerged as promising tools to augment the accuracy of cervical cancer diagnosis. This meta-analysis aims to systematically evaluate and compare the diagnostic performance of various adjunctive technologies in colposcopy, both individually and in combination with standard colposcopy.

## Aims/Method

A comprehensive meta-analysis of 46 studies was conducted, including studies on ZedScan, Multimodal Hyperspectroscopy Imaging (LuViVa), Optical Coherence Tomography (OCT), DySIS, High Resolution Microendoscopy (HRME), and Truscreen, alongside a reference group of colposcopy alone. Data on sensitivity, false positive rates, and area under the curve (AUC) were extracted from each study. We assessed these metrics for each technology both individually and when combined with colposcopy.

## **Results**

Our findings revealed significant variations in the diagnostic performance of the adjunctive technologies. ZedScan demonstrated a sensitivity of 87.0% when combined with colposcopy, outperforming its individual performance (average sensitivity not specified). LuViVa combined with colposcopy exhibited a sensitivity of 79.7%, while Optical Coherence Tomography (OCT) displayed an average sensitivity of 68.9%. DySIS, HRME, and Truscreen exhibited sensitivities of 63.8%, 79.6%, and 49.8%, respectively. When compared to standard colposcopy (sensitivity 67.7%), some adjunctive technologies demonstrated improved sensitivity.

This meta-analysis provides valuable insights into the diagnostic potential of adjunctive colposcopy technologies in cervical cancer screening. ZedScan, LuViVa, and DSI when combined with colposcopy displayed promising sensitivity values, indicating their potential to enhance the accuracy of cervical cancer detection. Clinicians and policymakers can use these findings to make informed decisions regarding the integration of these technologies into routine cervical cancer screening programs. Further research is warranted to explore the clinical implications and cost-effectiveness of these adjunctive approaches.

## P-106: CASE SERIES OF HIGH GRADE VAINS DIAGNOSED AT OUR COLPOSCOPY UNIT: DEMOGRAPHICS AND MANAGEMENT

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<u>TITLE:</u> CASE SERIES OF HIGH GRADE VAINS DIAGNOSED AT OUR COLPOSCOPY UNIT: DEMOGRAPHICS AND MANAGEMENT

INTRODUCTION: Vaginal Intraepithelial neoplasia (VAIN) is a relatively rare premalignant lesion with an incidence of 0.2-0.3 cases per100000 women and is strongly associated with HPV. VAIN 2-3 are considered precancerous and has a relatively high risk of progression to carcinoma in 11-13% cases. Treatment options for high grade VAIN include laser treatment, vaginectomy or application of imiquimod, which is a recent advance. Our unit has seen an increasing number of high grade VAINs and 5 cases were detected in the last calendar year (incidence of 0.2%) which is a lot higher than reference incidence rates.

## **AIMS AND OBJECTIVES:**

<u>AIM:</u> To understand the demographics of patients with high grade VAINs and analyse the treatment options available locally

## **OBJECTIVES:**

- 1. To determine if the incidence of high grade VAIN is higher in any particular patient group
- 2. To analyse how these patients are being managed in our ICS
- 3. To recommend actions for the colposcopy unit to improve diagnosis and create a local protocol for management of high grade VAIN

**METHODOLOGY:** Retrospective data collection for 5 patients diagnosed with high grade VAIN in 2023 and do a literature review.

## **RESULTS:**

All 5 patients were postmenopausal with an age range of 52-66 years. They all had previous LLETZs with persistent smear abnormalities and unsatisfactory colposcopy. In 2 cases the diagnosis was made only when the vault smear at 6 months post hysterectomy was abnormal. These patients were discussed both in the colposcopy multi-disciplinary team meeting and the regional oncology MDT as there is no pathway for management locally yet. The patients who still had a uterus and cervix were offered hysterectomies with vaginal cuff excision in the first instance. 2 patients were referred to a tertiary centre for laser treatment as this is not offered locally. The 5<sup>th</sup> patient is being managed conservatively with a view to offer imiquimod in 6 months if the lesions persist.

## **CONCLUSION**

It is difficult to diagnose VAINs and some of them get missed initially during colposcopy. Iodine application should be a routine practice for unsatisfactory colposcopies or histology/cytology discrepancies. HPV clearance advice is important as we saw regression of the lesion in 1 patient who was being conservatively managed.

When patients have a hysterectomy for smear abnormalities with unsatisfactory colposcopy, excision of vaginal cuff should be the usual practice to avoid persistence of VAINs.

Immiquimod is a newer modality of treatment, and our colposcopy unit is in a position to offer this instead of referring patients to other centres. This requires writing a new pathway for these patients as the incidence is slowly increasing.

## P-107: Challenges of HPV primary Screening

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## Introduction

Primary high risk Human Papilloma Virus (hrHPV) screening has replaced conventional cytology-based screening in the United Kingdom (UK). HrHPV testing is superior to cytology in detecting pre-invasive disease (sensitivity of 90%). However, during follow-up care, challenges have been encountered when hrHPV negative results are associated with positive histology for pre-invasive disease. Literature review suggests positive result of pre-invasive disease after hrHPV negative results is around 0.8 %. Some of these findings have been high grade pre-invasive disease. This raises questions about the reliability of hrHPV testing and management dilemmas when planning care for women who have hrHPV negative results.

HrHPV testing includes a number of serotypes and probably when a negative test is associated with positive histology, more sub-typing is needed to identify the causative serotype. The other possibility is the hrHPV deoxyribonucleic acid (DNA) was not detected, due to sub-optimal concentration in tissues, therefore the change in histology could be feasible. Whatever it is, this provides a challenge in planning follow-up care, as hrHPV testing in unreliable in these patients. This also raises the question of the safety of women discharged for 5 yearly screening following a hrHPV negative test. However, randomised trials have provided adequate evidence of the safety of Primary hrHPV

## Aims/Methods

The audit was done to find out hrHPV negative but histology positive patients, who attended colposcopy clinic at Withybush Hospital, during the period of February 2021 to January 2022.

These cases have been discussed at the monthly multi-disciplinary meeting (MDT) and the case notes were retrieved from the MDT database during this period.

#### **Results**

A small number of cases have been identified over the period of one year who had a negative hrHPV result and positive histology.

So far, 7 of these cases have interestingly shown high grade pre-invasive disease on histology:

One case was a follow-up due to a high grade colposcopic impression but no cervical intraepithelial neoplasia (CIN) was found on punch biopsy. At the follow-up, hrHPV was negative but punch biopsy was CIN 2.

One patient had CIN 3 on punch biopsy and had refused treatment. Follow-up showed hrHPV negative with CIN 2 on punch biopsy.

One patient was referred with a suspicious-looking cervix. HrHPV test was negative and punch biopsy was CIN 2. One was a second follow-up post Large Loop Excision of the Transformation Zone (LLETZ) where hrHPV was negative and punch biopsy showed CIN 2.

Two cases had HrHPV negative tests with CIN 2 on punch biopsy, where preceding punch biopsies had been CIN 1. There was therefore, progression of disease from CIN 1 to CIN 2 even with hrHPV negative tests at the same time. Out of these two cases, one had microinvasion in the past and the other was on follow-up for CIN 1 but with a high grade colposcopic impression.

One pateint had LLETZ for CIN 3. Test of cure was hrHPV negative but punch biopsy was CIN 2. A second follow-up at 6 months still showed hrHPV negative with CIN 2 on punch biopsy and surprisingly had also developed Vulval Intraepithelial Neoplasia (VIN) 1.

# P-108: Knowledge deficits within healthcare provision to women with lower genital tract HPV related disease - Do we need a regular education programme?

<u>Miss Tolu Adedipe</u><sup>1</sup>, Dr Harjot Kumar, Dr Amrit Pokharel, Ms Sarah Bolton <sup>1</sup>Hull University Teaching Hospital Nhs Trust, Hull, United Kingdom

**Introduction:**Human papilloma virus is the most common pathogen responsible for female cancers (1). It's diagnosed in 90% of cervical cancers, of vulvar cancers and has a strong association with cutaneous and anogenital warts, increasingly being linked to infertility and has a strong indirect link to poor obstetric outcomes. It is pertinent that any Gynaecologist should be very conversant of advances in HPV management and research.

**Methodology**: A prospective short study assessing baseline knowledge and attitudes via the use of an internet – based questionnaire, on HPV associations with lower genital tract disease over a 2-week-period.

**Results:**25% were pre-foundation year doctors inclined to O&G: 30% were junior O&G doctors: 30% are General practitioners whilst 15% were general gynaecologists. Lack of confidence was noted in 26% notably in those who had less formal training as would be expected whilst great confidence was seen in 17% - largely senior clinicians.89% were keen to receive regular education on HPV. Knowledge deficit was variable with 15% achieving the highest scores. 65% had median scores whilst 20% demonstrated significant knowledge deficit with a higher percentage of factual errors.A recognised need for yearly updates in Vulvar disease management, possibly virtually to aid accessibility was the commonest preference whilst formal undergraduate and or postgraduate training was weighted less at 2.37 and 2.58 respectively. Limitations of the study include small numbers and the geographical preponderance.

**Summary**: The study has highlighted the knowledge deficit regarding HPV association with lower genital tract disease, shedding light on different preferred education delivery models.

1. Kombe Kombe AJ, Li B, Zahid A, Mengist HM, Bounda GA, Zhou Y, Jin T. Epidemiology and Burden of Human Papillomavirus and Related Diseases, Molecular Pathogenesis, and Vaccine Evaluation. Front Public Health. 2021 Jan 20;8:552028. doi: 10.3389/fpubh.2020.552028. PMID: 33553082; PMCID: PMC7855977.

## P-109: VIRTUAL REALITY A TOOL FOR PATIENT COMFORT IN COLPOSCOPY

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#### Introduction:

Most women tolerate Colposcopy well, but a sizeable proportion still need more than local anaesthesia, which is achieved by distraction by music, television or conversation to get through the procedure. Some require general anaesthesia due to anxiety and previous unpleasant experiences. We wanted study the use of Virtual Reality as distraction media for alleviating anxiety, discomfort, and pain for patients attending colposcopy.

## Method:

Feedback questionnaire from patients to compare with previous experiences.

These patients were attending Colposcopy Department in a tertiary hospital.

Thirty consenting women who previously had colposcopy were offered VR

Headset (Oculus Quest<sup>™</sup>) to see an immersive 360 video on Ecosphere<sup>™</sup> app for the duration of their treatment and their feedback forms were evaluated. Comparison was done

on favourability, likely future use and recommendation to friends and family.

## Results:

The 30 women who responded to the questionnaire gave a favourable score of 4.166 out of 5 in comparison with their previous visit .Also 90% women said they would reuse it in similar clinical situations and would recommend it to their friends and family.

#### Conclusion

Although the numbers were small the study showed that Virtual reality is effective in reducing anxiety and discomfort during colposcopy and most patients would want to use it again and in similar clinical settings. This provides evidence for its wider application and would help reduce cancellations of procedures and more importantly reducing use of general anaesthesia for patient anxiety. Future development of VR technologies for this application, coupled with larger trials, would strengthen the evidence base for alternative pain and anxiety management in Colposcopy and other clinics.

## P-110: HPV ENTRAPMENT SYNDROME-A FRUSTRATING PROBLEM IN THE TRIAGE PATHWAY

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#### Introduction

HPV Entrapment Syndrome was first described in the Jones vs Tidy BSCCP debate (2021) addressing "exiting older women from the HPV Triage Pathway". It described how a patient cannot leave the Triage pathway because a negative screen result cannot be achieved despite at least 3 colposcopy visits often with repeat LLETZ. Both older patients and those with no evidence of post LLETZ stenosis are affected. Unsatisfactory colposcopy secondary to severe cervical stenosis or even an absent os is the main reason for failing to make a diagnosis of where the HPV is coming from.

There are no management guidelines despite stress for the patients and frustration for the clinicians over inadequate colposcopy.

## Aims/Methods

We looked at the scale of HPV Entrapment Syndrome and propose a management pathway to address it. The patient who initiated this study had HPV entrapment for 15 years and attended 33 colposcopy appointments. We audited one clinician's management over a period of 12 months, determining the final outcome of a typical service. A calculation was made of a number of important end points.

### **Results**

177 new referrals were seen and 66/177 were from the HPV Triage pathway. 8 of these had a diagnosis of CIN including 2 cases of CIN 3. 73 new referrals presented with high grade dyskaryosis. Only 3 of these were HPV Entrapment patients.

The colposcopy MDT discussed 119 cases and 11 of these were HPV Entrapment patients. Their age demographic as 80% being over 60 and 70% had cervical stenosis or worse in the age range of 58 to 71.

## **Conclusions**

HPV entrapment Syndrome is a difficult management problem with no guidelines and burdens MDT meetings. Severe cervical stenosis is common and repeat excisional treatment only makes matters worse. We propose a management pathway which incorporates taking a satisfactory endocervical brush smear immediately post EXIT LLETZ in order to confirm disease free status and allow discharge from the clinic.

## P-111: HPV related preterm birth – Single centre cohort study on HPV 31 and preterm birth

<u>Miss Tolu Adedipe</u><sup>1</sup>, Dr Harjot Kumar, Dr Amrit Pokharel, Ms Sarah Bolton <sup>1</sup>Hull University Teaching Hospital Nhs Trust, Hull, United Kingdom

## **Introduction/Background:**

Human papillomavirus (HPV) is a common genital infection in men and women<sup>1</sup>, and its high risk variants (HR-HPV) have a well-established co-relation with cervical pre-invasive and invasive disease (i.e. CIN or squamous cell carcinoma)<sup>2</sup>. High-risk HPV types include 16, 18, 31, 33, 34, 35, 39, 45, 51, 52, 56, 58, 59, 66, 68, and 70<sup>2</sup> with geographical differences in type distribution being described<sup>3</sup>. For example, at our tertiary centre, Hull University Teaching Hospitals (HUTH), we have observed a higher proportion of HR-HPV types that are NOT 16/18 (HPV Other).

HPV infection is also proposed as a possible cause for pre-term labour<sup>4</sup>. Studies investigating the causality of this relationship have published conflicting results – eg. Norwegian-Swedish cohort study finding no statistically significant relationship<sup>4</sup>, but a similar cohort study from Canada found a strong association (irrespective of cervical treatments)<sup>5</sup>.

## Aims/Methodology:

We propose that geographical differences in HPV type prevalence may be contributing to the heterogeneity in the published data. We retrospectively collected data from the NHS cervical screening programme referrals to our Colposcopy service, and selected patients whose HPV type was "Other". Our primary outcome measure was preterm birth rate (including miscarriages).

## **Results:**

129 out of a total of 175 referrals over our collection period were HPV Other carriers (72.8%). Our pregnancy outcome data is still being collated, with a view to be ready for presentation. The aim is use this project to register a pilot single centre prospective cohort study exploring the link between HPV other infection and preterm birth.

- 1) Cates, W., and the American Social Health Association Panel. 1999. Estimates of the incidence and prevalence of sexually transmitted diseases in the United States. Sex. Transm. Dis. 26:S2-S7
- 2) Burd EM. Human papillomavirus and cervical cancer. Clin Microbiol Rev. 2003 Jan;16(1):1-17. doi: 10.1128/CMR.16.1.1-17.2003. PMID: 12525422; PMCID: PMC145302.
- 3) Li N, Franceschi S, Howell-Jones R, Snijders PJ, Clifford GM. Human papillomavirus type distribution in 30,848 invasive cervical cancers worldwide: Variation by geographical region, histological type and year of publication. Int J Cancer. 2011 Feb 15;128(4):927-35. doi: 10.1002/ijc.25396. PMID: 20473886.
- 4) Wiik J, Vaernesbranden MR, Jonassen CM, Staff AC, Carlsen KCL, Granum B, Haugen G, Hedlin G, Hilde K, Jacobsson B, Nilsson S, Nordlund B, Rangberg A, Rehbinder EM, Sengpiel V, Skjerven H, Sundet BK, Söderhäll C, Vettukattil R, Sjøborg K. Maternal human papillomavirus infection during pregnancy and preterm delivery: A mother-child cohort study in Norway and Sweden. Acta Obstet Gynecol Scand. 2023 Mar;102(3):344-354. doi: 10.1111/aogs.14509. Epub 2023 Jan 16. PMID: 36647213; PMCID: PMC9951315.
- 5) Niyibizi J, Mayrand MH, Audibert F, Monnier P, Brassard P, Laporte L, Lacaille J, Zahreddine M, Bédard MJ, Girard I, Francoeur D, Carceller AM, Lacroix J, Fraser W, Coutlée F, Trottier H; HERITAGE Study Group. Association Between Human Papillomavirus Infection Among Pregnant Women and Preterm Birth. JAMA Netw Open. 2021 Sep 1;4(9):e2125308. doi: 10.1001/jamanetworkopen.2021.25308. PMID: 34524433; PMCID: PMC8444026.

# P-112: What is the best time interval for the follow-up of women over 50 years with a persistent positive hrHPV test?- Audit

<u>**Dr Sowmya Mayigaiah**</u><sup>1</sup>, Sinead Cleary, Gunther Von Bunao <sup>1</sup>Tuh, Dublin, Ireland

## **BACKGROUND**

Several kinds of cervical cancer happen to women over the age of 50, but not much is known about the management of persistent HPV in this age group. High-risk human papillomavirus (HR-HPV) is a significant contributor to the development of cervical cancer. Indeed, the majority of genital HPV infections are temporary, with over 90% of women naturally clearing infections within 12–24 months after being infected. Persistence HR-HPV infection amplifies the likelihood of developing cervical precancerous lesions.

## **OBJECTIVE**

This retrospective audit aims to investigate the prevalence and persistent rate of HPV infection in women above 50 years of age and also identify the risk factors associated with HPV infection.

#### **METHOD**

100 Colposcopy medical charts from 2022-2023 were retrieved physically, and the data collected was analysed using SPSS.

#### **RESULT**

The average age in the study group was 54 years. The most common referral smear was P3-ASCUS( 47.24%), followed by LSIL (43%). Most of the women are still attending for follow-up for > four years( 42%), 24 % are attending for <4 years, and 15% are attending for> 2 years. Only 2% were discharged from our screening. 32.3 % were smokers among this group of women.

## **CONCLUSION**

A structured follow-up pathway specifically tailored for women > 50 years of age with persistent HPV can be introduced locally and should be revised for better-predicted outcomes for these women.

# P-113: Audit of management plans for all cases of CIN 2 diagnosed on biopsy in Mid Yorkshire Teaching Trust

## Miss Ashima Chawla<sup>1</sup>

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## Introduction

Cervical screening programs have significantly reduced rates of cervical cancer by detection and treatment of high grade cervical intraepithelial neoplasia (CIN 2 and CIN 3). Recent guidelines have recommended conservative management of CIN 2 cases with monitoring rather than 1<sup>st</sup> line ablative or excision treatment due to concerns regarding over treatment especially in women who have not yet completed their family

## Aims/Methods

To audit compliance in management of CIN 2 as per the national guidelines with the focus on the criteria for conservative management.

Standards

We will be using the standards laid out in the Mid Yorkshire Teaching Trust guideline and the national guidance on colposcopic diagnosis, treatment and follow up.

Methods

This is a retrospective audit of all cases of CIN 2 proven on biopsy detected between 1<sup>st</sup> January 2022 to 31<sup>st</sup> December 2022. Patients electronic notes will be reviewed to see if standards were me

#### **Results**

There were total of 135 cases diagnosed and they will be reviewed against the set standards and reported on. Recommendations will be made from this and a reaudit will take place in 12 months time.

## P-114: An audit cycle on the implementation of Colposcopy MDT Outcomes in 2022 and 2023

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## Introduction

The primary purpose of the colposcopy multidisciplinary team (MDT) meeting is to plan the management of patients with discordant cytology, colposcopy and histology findings. It is a requirement by the screening quality assurance service (SQAS, 2021) standards that all outcomes of case discussions at MDT meetings are recorded in the patient notes and reported to the managing clinician. This was introduced following safety incidents in other institutions where MDT outcomes were not implemented.

## Aims/Methods

Aim: To evaluate the implementation of MDT outcomes according to SQAS standards Methods: We conducted an audit of 64 cases discussed at the MDT over 4 months in 2022 and re-audit of 60 cases over 3 months in 2023. Data were collected from the patient electronic record (Infoflex) which is our primary method of documentation and paper notes where paper copies of the electronic notes are filed. Findings were crosschecked with our "MDT Outcome Excel Spreadsheet" entries.

## **Results**

In 2022, 89% (57/64) of MDT outcomes were implemented. There was no documentation of intended plan for one patient (1/64). In 6/64 patients, it was uncertain if MDT outcomes for completion of the Invasive Cancer Audit were actioned.

Following recommendations from 2022, the re-audit for the year 2023 showed 95% (57/60) of MDT outcomes were implemented. In 3/60 patients (all Invasive Cancer Audit patients), the MDT outcome was not consistently recorded as complete.

## **Conclusions**

We have shown improvement in documenting implementation of MDT outcomes for colposcopy patients. However, documentation of completed MDT outcomes as part of Invasive Cancer audit requires improvement.

# P-115: The value of reviewing hrHPV detected and Cytology negative patients in Colposcopy

## Dr Dora Butnaru<sup>1</sup>

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## Objective

- 1. Outcomes for women after 2 consecutive tests with hrHPV detected and negative Cytology
- 2. Impact of this new referrals on our Colposcopy unit

## **Materials and Methods**

A retrospective observational study of 223 women seen at the Tipperary University Hospital (TippUH) Colposcopy Clinic from 1 January 2021 to 31 December 2022 (2 years).

Inclusion criteria in the study was: first time appointments referred with screening tests x2 showing hrHPV detected and cytology negative.

## **Results**

- 1. The 223 patients identified would not have been referred to Colposcopy prior to the changes in the screening process introduced in March, 2020. Out of this cohort, 7 (3.13%) of these patients required treatment.
- 2. Out of 1313 new referrals at the Colposcopy unit in TippUH, 223 were for screening tests x2 showing hrHPV detected and cytology negative 16.98% of the totals of new referrals.

Comparing with previous 2 years before this study, new referrals to our unit have increased from 1224 new referrals 2019-2020 to 1313 in 2021-2022, an increase of 7.29%.

**Breakdown of findings** 

| Breakdown of findings                                     |   |
|---|---|
| New apt 2019-2020   | 1224  |
| TOTAL NO OF FIRST APPT 2021-2022                          | 1313  |
| TOTAL NO OF PATIENTS                                      | 223 (16.98%)  |
| CRITERIA FOR INCLUSION                                    | 2XHR HPV, CYTOLOGY NAD (P2)                               |
| NORMAL COLPOSCOPY findings                                | 143 (64.12%)  |
| HPV COLPOSCOPY FINDINGS                                   | 19 (8.52%)  |
| LOW GRADE COLP IMPRESSION                                 | 40 (17.93%)   |
| HIGH GRADE COLP IMPRESSION                                | 2 (0.89%)   |
| OTHER FINDINGS (ECTOPY, ATROPHY , UNSATISFACTORY, POLYPS) | 15 (6.72%)  |
| BIOPSIES NUMBER   | 57 (25.5%)  |
| N BIOPSY  | 8 (14% out of all biopsies and 3.58% out of all referrals |
| AWAITING BIOPSY REPORT (at the time of Audit)             | 2   |
| HPV ON BIOPSY   | 5 (8.77% and 2.24%)                                       |
| CIN 1 ON BIOPSY   | 34 (59.64% AND 15.24%                                     |
| CIN 2 ON BIOPSY   | 6 (10.52% AND 2.69%)                                      |
| CIN 3 ON BIOPSY   | 1 (1.75% and 0.44%)                                       |
| UNGRADED BIOPSY   | 1 (had LLETZ with CIN 3 complete)                         |
| NO OF TREATMENTS  | 7 (3.13%)   |
| LLETZ   | 4   |
| COLD COAG   | 3   |
| MORE INTENSIVE SCREENING                                  |   |
| ROUTINE SCREENING   |   |
| COLP R/W  |   |
| DNA   | 4   |

Audit completed