bsccp | The British Society for Colposcopy and Cervical Pathology

BSCCP 2017 Annual Scientific Meeting

3rd - 5th May
Cardiff City Stadium, Wales

FINAL PROGRAMME & BOOK OF ABSTRACTS

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WELCOME

On behalf of the Welsh Organising Committee, I have the greatest pleasure in welcoming you to the 2017 BSCCP Annual Scientific Meeting in Cardiff. The conference features a wide range of colposcopy-related topics and high quality speakers as part of a diverse programme. The theme is 'the future of colposcopy' aiming to inform what colposcopists are to do in the landscape of a rapidly changing cervical screening programme. With this in mind we have interactive sessions and I hope that delegate participation will generate lively and challenging discussion.

Our programme will be augmented as always by a wide variety of proffered papers and posters. We were impressed by the high standard of so many submitted abstracts and so please take time to attend the proffered paper sessions and visit the posters when you can. We anticipate that all these elements will combine into a thought-provoking and informative meeting.

Don't forget to avail yourselves of the social programme but remember to keep in good condition for the final day and for your journey home.

Croeso i Caerdydd, y porth i Cymru!

Mr Simon Leeson
Betsi Cadwaladr University Health Board
Chair of the Local Organising Committee

LOCAL ORGANISING COMMITTEE

Local Organising Committee Members
Aderemi Alalade - Betsi Cadwaladr University Health Board
Srividhya Budithi – Betsi Cadwaladr University Health Board
Simon Leeson - Betsi Cadwaladr University Health Board
Kenneth Lim - Cardiff and Vales University Health Board
Louise Pickford - Cervical Screening Wales
Aarti Sharma - Cardiff and Vales University Health Board

NEXT MEETING

Save the Date!
BSCCP 2018
Monday 30th April - Wednesday 2nd May

Manchester Central
Chair, Local Orgaising Committee Pierre Martin-Hirsch

CONFERENCE ORGANISERS

BSCCP 2017 Secretariat

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SCIENTIFIC PROGRAMME

WEDNESDAY 3RD MAY		LOCATION
10.00 – 13.00	**Executive Committee Meeting** Invitation Only	*Fred Keenor*
11.00 – 19.00	**Registration Open**	*Level Three Foyer*
14.30 – 17.30	**Trainers Seminar** Free to attend, but places MUST be pre-booked (only free of charge if attending full conference)	*Ricoh Suite*
17.30 – 19.00	**Welcome Reception**	*Sytner Lounge*
19.00	**Coaches from Cardiff City Stadium to conference hotels**	

THURSDAY 4TH MAY		LOCATION
08.00 – 17.30	**Registration / Speaker Preview Open**	*Level Three Foyer / Hospitality Suite 7*
08.30	**Coaches pick up from each conference hotel from 08.30am and drop off at Cardiff City Stadium**	
08.30 – 17.30	**Exhibition and Posters Open**	*Sytner Lounge*
09.00 – 09.10	**Welcome** Simon Leeson, Chair, Local Organising Committee	*Ricoh Suite*
09.10 – 10.50	**Plenary Session 1** **Recent Advances and New Technologies in The Detection of Cervical Abnormalities** Chairs: Simon Leeson & Theresa Freeman-Wang	
09.10 – 09.25	**Dynamic Spectral Imaging Colposcopy** Mr Jullien Brady, East of England, and Bedford Hospital NHS Trust, UK	
09.25 – 09.40	**Electrical Impedance Colposcopy** Mr Charles Redman, University Hospital of North Staffordshire, UK	
09.40 – 09.55	**Other Colposcopic Technologies** Mr Pierre Martin-Hirsch, Lancashire Teaching Hospitals, UK	
09.55 – 10.10	**The Role of Colposcopy in The New Swedish Screening Programme** Mr Björn Strander, Sahlgren's University Hospital, Sweden	
10.10 – 10.20	**Panel Discussion**	

10.20 – 10.50	**Proffered Papers- Session 1**	
10.20 – 10.35	**O-1: Increased Detection of CIN2+ with Digital Colposcopy integrating Dynamic Spectral Imaging on women referred with Low-grade Abnormalities in US Community-based Clinics: The IMPROVE-COLPO Observational Study** Emmanouil Papagiannakis, DySIS Medical, UK	
10.35 – 10.50	**O-2: Borderline HR HPV Cytology: Do we trust our own Colposcopic Examination Findings?** Dr Valentina Ghirardi, Newcastle University, UK	
10.50 – 11.20	**Tea/Coffee/Exhibition/Poster Viewing**	*Sytner Lounge*
11.20 – 12.20	**Plenary Session 2** **HPV in Colposcopic Practice** Chairs: Srividhya Budithi & Charles Redman	*Ricoh Suite*
11.20 – 11.40	**Follow-up after Treatment** Dr Maria Kyrgiou, Imperial College London, UK	
11.40 – 12.00	**Update on HPV-based Screening** Professor Maggie Cruickshank, University of Aberdeen, UK	
12.00 – 12.20	**HPV Immunisation and Impact – Implications for Cervical Screening** Dr Kate Cuschieri, Royal Infirmary of Edinburgh, UK	
12.20 – 13.00	**BSCCP AGM**	*Ricoh Suite*
13.00 – 14.00	**Lunch/Exhibition/Poster Viewing**	*Sytner Lounge*
14.00 – 15.20	**Plenary Session 3** **A Wider Perspective** Chairs: Aderemi Alalade & Pekka Nieminen	*Ricoh Suite*
14.00 – 14.05	**Presentation of Founders Medal** Professor Maggie Cruickshank	
14.05 – 14.50	**Can we Eliminate Cervical Cancer?** Dr Rengaswamy Sankaranarayanan, International Agency for Research on Cancer (WHO-IARC), France	
14.50 – 15.20	**Proffered Papers- Session 2**	
14.50 – 15.05	**O-3: Exploring Opinions and Concerns about The HPV Vaccine on a UK Online Discussion Forum** Miss Adrianna Klejnotowska, Aberdeen University, UK	

15.05 – 15.20	**O-4: The Impact of Margin Status on Treatment Failure Following Excision of Cervical Intra-Epithelial Neoplasia: A Systematic Review and Meta-Analysis** Miss Esther Moss, University of Leicester, UK	*Ricoh Suite*
15.20 – 15.50	**Tea/Coffee/Exhibition/Poster Viewing**	*Sytner Lounge*
15.50 – 17.20	**Plenary Session 4** **Management of Difficult Colposcopy Cases** Chairs: Kenneth Lim & Sonia Andersson	*Ricoh Suite*
15.50 – 16.20	**Proffered Papers - Session 3**	
15.50 – 16.05	**O-5: Audit on The Management of Patients Referred with HR-HPV Positive Low Grade, Borderline or Negative Cytology In a HPV Primary Screening Pilot Site** Mr Wenzhuang Chin, Hillingdon Hospital, UK	
16.05 – 16.20	**O-6: HPV Primary Screening Pilot Study: Molecular Testing of Potential Triage Strategies for HPV-Positive Women** Dr Christine White, Trinity College Dublin and Coombe Women & Infants University Hospital, Ireland	
16.20 – 17.20	**Interactive Session** Mr Mike Jones, Darent Valley Hospital, Kent Miss Deirdre Lyons, Imperial College Healthcare NHS Trust, UK Mr Narendra Pisal, The Portland Hospital, UK	*Ricoh Suite*
17.30	**Coaches from Cardiff City Stadium to conference hotels**	
19.30 – midnight	**BSCCP Conference Dinner** (Coaches return from Mercure Cardiff Holland House to conference hotels at end of evening)	*Mercure Cardiff Holland House Hotel and Spa*

FRIDAY 5TH MAY		LOCATION
08.00 – 16.30	**Registration / Speaker Preview Open**	*Level Three Foyer / Hospitality Suite 7*
08.30	**Coaches pick up from each conference hotel from 08.30am and drop off at Cardiff City Stadium**	
08.30 – 13.30	**Exhibition and Posters Open**	*Sytner Lounge*
09.00 – 10.45	**Plenary Session 5** **Speakers' Corner** Chairs: Aarti Sharma & Efraim Siegler	*Ricoh Suite*
09.00 – 10.00	**Proffered Papers- Session 4**	
09.00 – 09.15	**O-7: Risk of High Grade CIN (CIN2+) in Women with Persistent High Risk HPV Genotypes and Negative Cytology** Professor John Tidy, Sheffield Teaching Hospital NHS Foundation, UK	
09.15 – 09.30	**O-8: The Risk of Residual or Recurrent CIN in Women Who Fail Test of Cure with High Risk Human Papilloma Virus Persistence but Normal Cytology in North East of Scotland** Dr Emmanouil Kalampokas, NHS Grampian, UK	
09.30 – 09.45	**O-9: Primary HPV Testing- Is it an Acceptable Test for Women in England?** Dr Hersha Patel, University of Leicester, UK	
09.45 – 10.00	**O-10: Does hrHPV Genotype Influence the Risk of HG-CIN in women aged 50 years and older referred to Colposcopy with Negative Cytology?** Professor John Tidy, Sheffield Teaching Hospital NHS Foundation, UK	
10.00 – 10.45	**Debate:** **HPV +ve but Cytologically Negative Cervical Samples are Unhelpful for The Type 3 TZ** For: Mr Nick Dudding, Leeds Teaching Hospitals, UK Against: Professor Maggie Cruickshank, University of Aberdeen, UK	
10.45 – 11.15	**Tea/Coffee/Exhibition/Poster Viewing**	*Sytner Lounge*
11.15 – 12.30	**Plenary Session 6:** **Colposcopy and Treatment: A Patient's View** Chairs: Louise Pickford & Claire Cohen	*Ricoh Suite*
11.15 – 11.20	**Introduction - Setting the Scene**	
11.20 – 11.30	**A Patient's Experience: Going to Colposcopy and Having Treatment**	
11.30 – 11.40	**Using Patient Feedback within Colposcopy to Improve Services: Ensuring your Patients get Great Care** Anna Parberry, The Royal London, Barts, UK	

11.40 – 11.50	**A Patient's Experience: Being Diagnosed with Cervical Cancer via Colposcopy**
11.50 – 12.00	**Support Services for your Patients** Marianne Woods, St George's NHS Foundation Trust London, UK
12.00 – 12.30	**Proffered Papers- Session 5**
12.00 – 12.15	**O-11: Cervical Screening Behaviours, Knowledge and Attitudes in Eastern European Born Women who Have Migrated to England** Dr Hersha Patel, University of Leicester, UK
12.15 – 12.30	**O-12: Cervical Cancer, a Disease with Social Enigma: DGH Experience of Rising Incidence of Cervical Cancer** Dr Kimberley Nash, Luton and Dunstable University Hospital NHS Trust, UK
12.30 – 12.45	**Conservative Management of CIN2** Professor Pekka Nieminen, Helsinki University Hospital, Finland
12.45 – 13.45	**Lunch/Exhibition/Poster Viewing Sytner Lounge**
13.45 – 15.00	**Plenary Session 7** **Algorithms for Management** Chairs: Kate Cuschieri & Björn Strander
13.45 – 14.00	**Evaluation of High Risk HPV DNA Detection in Self-Collected Vaginal Samples and Urine in a Test-Of-Cure Setting** Professor Sonia Andersson, Karolinska Institutet, Sweden
14.00 – 14.15	**Management of CIN3 in Pregnancy** Dr Efraim Siegler, Carmel Medical Center, Israel
14.15 – 14.30	**Prophylactic and Therapeutic HPV Vaccine Update** Professor Peter Stern, University of Manchester, UK
14.30 – 14.45	**Further Triage Options for HPV Triage and Test of Cure** Dr John Smith, Royal Hallamshire Hospital, UK
14.45 – 15.00	**Panel discussion**
15.00 – 16.15	**MDT Clinical Cases** *Ricoh Suite* Chair: Kate Cuschieri Cases Presented by Theresa Freeman- Wang, BSCCP, UK Colposcopy MDT **PANEL:** Expert Colposcopist: Dr Grainne Flannelly, National Maternity Hospital, UK Expert Cytologist: Mr Nick Dudding, Leeds Teaching Hospitals, UK Expert Pathologist: Dr Gareth Rowlands, Cardiff and Vale University Health Board, UK
16.15 – 16.30	**Presentation of Prizes and Closing Remarks** *Ricoh Suite*

GENERAL INFORMATION

Welcome Reception
Wednesday 3rd May 17.30 – 19.00
Cardiff City Stadium, Sytner Lounge

The Welcome Reception will be held at Cardiff City Stadium. The cost for this event is included in the registration fee, but places must be pre-booked. Drink and canapés will be served and the rest of the evening is free for your own dinner plans.

Conference Dinner
Thursday 4th May 19.30 – Midnight
Mercure Cardiff Holland House Hotel and Spa, 24-26 Newport Road, Cardiff, CF24 0DD

The dinner will include a welcome reception followed by a 3-courde dinner and entertainment, Places are limited at dinner so early booking is advised! Please ask at the registration desk for late availability. There is no transport to the dinner, however coaches will collect from the Mercure Hotel at the end of the evening and will return to the conference hotels.

Certificates of Attendance
Certificates of Attendance will be emailed directly to all delegates on the last day of the conference. 11 CPD points will be awarded for the main conference and 2 CPD points for the Trainers Seminar.

Exhibition/Posters
The Exhibition and posters will be located in the Sytner Lounge on the fourth floor. The Exhibition will be open at the following times::

Wednesday 3rd May	17.30 – 19.00
Thursday 4th May	08.30 – 15.50
Friday 5th May	08.30 – 13.30

Insurance
The Conference Organisers cannot accept any liability for personal injuries or for loss or damage to property belonging to delegates, either during, or as a result of the meeting. Please check the validity of your own personal insurance before travelling.

Posters

There will be two dedicated poster sessions from 13.15 on Thursday 4th May and from 13.00 on Friday 5th May. Posters will be available to view for the remainder of the conference during normal opening hours. Authors will be by their boards to discuss their posters at the following times:

Thursday 4th May 13.15 – 14.00	Friday 5th May 13.00 – 13.45
Audit/Quality Assurance P-1, P-3, P-5, P-7, P-9, P-11, P-13, P-15, P-17 P-19, P-21, P-23, P-25, P-27, P-29, P-31, P-33 P-35, P-37, P-39, P-41, P-43, P-89	**Audit/Quality Assurance** P-2, P-4, P-6, P-8, P-10, P-12, P-14, P-16, P-18, P-20, P-22, P-24, P-26, P-28, P-30, P-32 P-34, P-36, P-38, P-40, P-42, P-90
Pathology P-45, P-47, P-49	**Pathology** P-44, P-46, P-48
Science/Epidemiology P-51, P-53, P-55, P-57, P-59, P-61	**Science/Epidemiology** P-50, P-52, P-54, P-56, P-58, P-60
Training/Education P-63, P-65	**Training/Education** P-62, P-64, P-66
Treatment/Morbidity P-67, P-69, P-71, P-73, P-75, P-77, P-79, P-81, P-83, P-85, P-87	**Treatment/Morbidity** P-68, P-70, P-72, P-76, P-78, P-80, P-82 P-84, P-86, P-88

For the first time, delegates can now vote for the best poster at the conference using the mobile app. Please make sure you download the app and cast your vote!

Registration/Information Desks

All delegates will receive their name badge and relevant conference information upon arrival at Cardiff City Stadium. The registration desk will be located in the foyer area of level three.

The Registration desk will be open at the following times:

Wednesday 3rd May	11.00 – 19.00
Thursday 4th May	08.00 – 17.30
Friday 5th May	08.00 – 16.30

Speaker Preview (Hospitality Suite 7)

Presenters must check in their presentation at least four hours before they are due to speak. On the first day, the Speaker Preview Room will be open from 08.00 – 17.30 and priority will be given to speakers in the morning session.

It will not be possible to check in presentations in the main plenary room. Staff will be on-hand in the Speaker Preview room to assist. Presenters do not need to bring a laptop as presentations will be loaded onto a main computer.

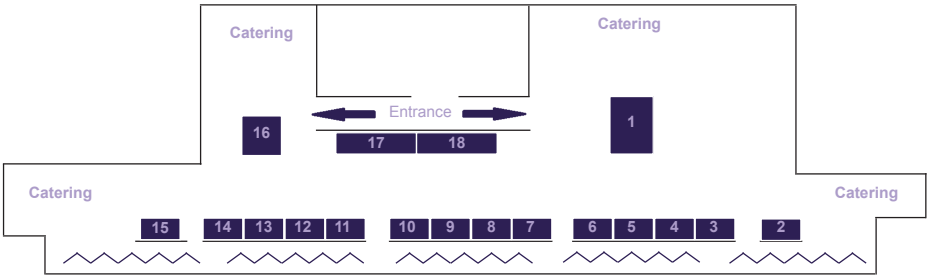
Wi-Fi

Wireless internet access is provided by the venue, please ask at registration for details.

Conference App

The conference app is an easy way to look up sessions, plan your event schedule and participate in live voting including voting for the best poster. Search for BSCCP in App Store or Google Play Store and download for IOS and Android devices.

Exhibition Floorplan



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THE BRITISH SOCIETY FOR COLPOSCOPY AND CERVICAL PATHOLOGY (BSCCP)

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Jo's Cervical Cancer Trust is the only UK charity dedicated to those affected by cervical cancer and cervical abnormalities. It offers a range of online and face to face support and information including: local support groups, a Helpline (0808 802 8000), an online forum and an Ask The Expert service. Services are available free of charge for you and your patients including our peer reviewed information on colposcopy, treatment for cervical abnormalities and HPV testing and our Helpline where 45% of our calls are related to cervical abnormalities and treatments.

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Stand 14

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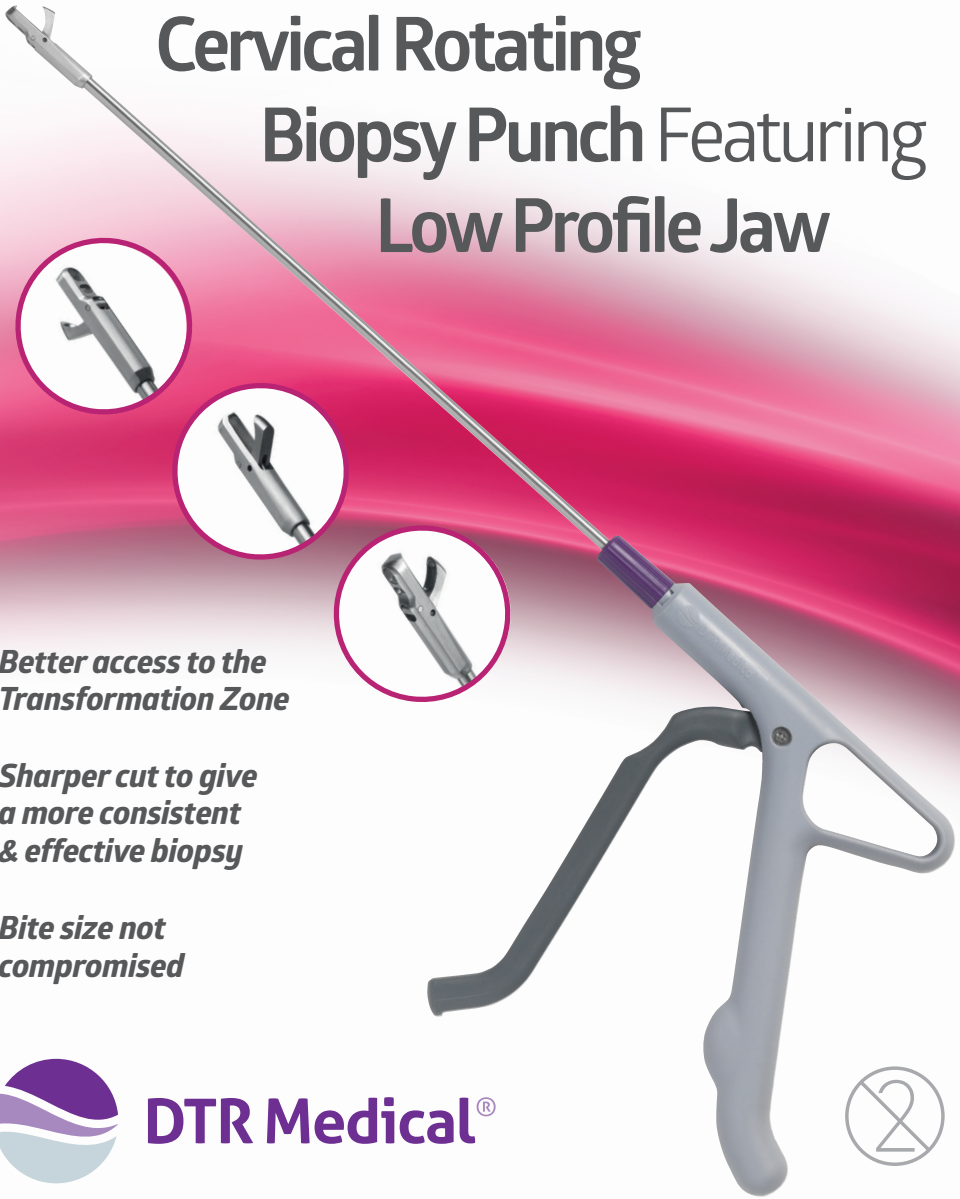

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ORAL ABSTRACTS

O-1

INCREASED DETECTION OF CIN2+ WITH DIGITAL COLPOSCOPY INTEGRATING DYNAMIC SPECTRAL IMAGING ON WOMEN REFERRED WITH LOW-GRADE ABNORMALITIES IN US COMMUNITY-BASED CLINICS: THE IMPROVE-COLPO OBSERVATIONAL STUDY

Dr Aarathi Cholkeri-Singh[2], Philip Lavin[3], Dr Christopher Olson[4],
***Emmanouil Papagiannakis[4]**, Dr Lori Weinberg[5]*
[1]Advocate Lutheran General Hospital, Chicago, USA, [2]Boston Biostatistics Research Foundation, Framingham, USA, [3]Women's Center for Health, Naperville, USA, [4]DYSIS Medical, Edinburgh, UK, [5]Department of Obstetrics/Gynaecology, Advocate Illinois Masonic Medical Center, Chicago, USA

Objective:
To evaluate the detection of women with high-grade cervical lesions in a "real world" setting across multiple US community-based clinics after the adoption of a commercial digital colposcope that integrates the adjunctive Dynamic Spectral Imaging (DSI) for cervical acetowhitening mapping.

Methods:
A two-arm, observational study recruited women ≥21 years old, having colposcopy after a low-grade abnormality screening result. The prospective arm collected outcomes of colposcopies with the study device with DSI utilized for biopsy at the colposcopists' discretion. The retrospective arm collected colposcopist-matched outcomes of colposcopy performed with standard methods. The primary outcome measure was histopathological detection of women with high-grade cervical intraepithelial neoplasia (CIN2+) by colposcopic biopsy.

Results:
The study included 1,788 women in the retrospective and 1,857 in the prospective arm from 41 US community clinics. Subject baseline characteristics were comparable. Biopsy was taken from 71.6% of the women in the retrospective and 71.5% in the prospective arm. The average number of biopsies increased from 1.032 per retrospective patient to 1.256 per prospective patient. The yield of CIN2+ patients was 7.21% in the retrospective and 9.48% in the prospective arm, a 2.27% (p=0.014) absolute and 31.4% relative increase.

The yield of CIN3+ patients was 2.07% in the retrospective and 3.23% in the prospective arm, a 1.16% (p=0.031) absolute and 56.1% relative increase. The False Positive patient rates were comparable (p=0.139).

Conclusions:
In a large "real world" setting, colposcopy with the study device and the adjunctive use of DSI on low-grade referral patients led to a significant increase in CIN2+ and CIN3+ detection compared to standard colposcopy without increasing the number of women undergoing biopsy unnecessarily.

O-2

BORDERLINE HR HPV CYTOLOGY: DO WE TRUST OUR OWN COLPOSCOPIC EXAMINATION FINDINGS?

*Miss Colene McLaughlin[2], **Dr Valentina Ghirardi[1]**, Dr Nicolo Bizzari[1], Dr Stuart Rundle[1], Miss Chris Ang[1], Mr Ali Metin1, Mr Raj Naik[1], Miss Nithya Ratnavelu1, Miss Ann Fisher[1], Miss Rachel O'Donnell[1,2]*

[1]Queen Elizabeth Hospital, Gateshead, UK, [2]Newcastle University, UK

Introduction:

Since 2013 women referred to colposcopy with borderline abnormal cytology have been triaged in accordance with BSCCP guidelines based upon HR HPV testing. Following normal colposcopic examination, women should be simply discharged back to routine recall in 3 or 5 years. This pressures colposcopists to make long-term management decisions based upon their colposcopic examination.

This audit aimed to assess compliance with BSCCP guidance and also evaluate the incidence HGCIN in this population at presentation and following further cytological abnormality in those who return to routine recall.

Methods:

Data for this retrospective cohort study of all colposcopy referrals 04/2013 – 04/2014 with borderline cytology (HR HPV) was collated from electronic colposcopy and pathology records. Descriptive analysis of data was undertaken using BSCCP Document 20 for audit standards. Mature follow-up data from 2013-6 was assessed for incidence of further cytological anomaly.

Results:

490 women were referred during the study, of which 476 (97%) attended. 395 (83%) of patients underwent diagnostic biopsy, of which more than 40% were considered potentially 'unnecessary' with final histology demonstrating koilocytosis at worst. In addition, 34 (7%) patients underwent see and treat LLETZ for high grade appearances at colposcopy. The overall incidence of CIN2+ in this cohort was more than 20%.

Compliance with follow-up guidance following final histology was poor at 70%. In women correctly discharged to routine recall following negative colposcopy (+/- biopsy), the incidence of LGCIN and HGCIN on subsequent cytology was 28% and 8% respectively.

Conclusions:

Management of women with borderline (HR HPV) cytology continues to present a challenge to clinicians with clear evidence of a strong commitment to biopsy, irrespective of colposcopic findings, and a reluctance to discharge to routine recall following colposcopy alone. Evidence demonstrates that accurate colposcopic examination is sufficient to dictate discharge to routine recall.

O-3

EXPLORING OPINIONS AND CONCERNS ABOUT THE HPV VACCINE ON A UK ONLINE DISCUSSION FORUM

Miss Adrianna Klejnotowska, Dr Zoë Skea, Dr Seonaidh Cotton, Professor Margaret Cruickshank
Aberdeen University, UK

Purpose:
The United Kingdom (UK) introduced a national Human Papillomavirus (HPV) vaccine programme in 2008 to all girls between the ages of 12 and 13 years. Although vaccine uptake is high in the UK, coverage is decreasing over time.
The posts on a popular UK parental online discussion forum, Mumsnet, were reviewed to identify whether there were common concerns that might contribute to the decreased coverage over time.

Methods:
Mumsnet was evaluated for HPV vaccine-related threads. Between 2005 and 2016 there were 162 threads, which mentioned the HPV vaccine. Using the content of the first post of the thread, the threads were divided into 3 main categories, including vaccine supporters, vaccine opponents and information seekers. A thematic approach was then used to analyse a number of selected threads. (Ritchie and Spencer 1994)

Results:
Advocates of the vaccine included posts with factual evidence and personal experiences of HPV-related diseases. Opponents of the vaccine included posts about negative personal experiences of the vaccination process, side effects attributed to the vaccine, as well as quoting media articles. Other posts explored concerns surrounding lack of evidence about the length of protection of the vaccine and possibility of sexual disinhibition amongst vaccinated adolescents.

Conclusion:
The results of our study suggest that some parents, who decline the vaccination for their daughter, share common concerns and uncertainties regarding the vaccine. Finding ways to address these may be beneficial in alleviating concerns and thus potentially increasing the vaccine uptake.

O-4

THE IMPACT OF MARGIN STATUS ON TREATMENT FAILURE FOLLOWING EXCISION OF CERVICAL INTRA-EPITHELIAL NEOPLASIA: A SYSTEMATIC REVIEW AND META-ANALYSIS

*Professor Marc Arbyn[1], Mr Charles Redman[2], Professor Christine Bergeron[3], Professor Ulli Petry[4], Professor Pekka Niemanen[5], Mr Simon Leeson[6], **Miss Esther Moss**[7]*

[1]Scientific Institute of Public Health, Brussels, Belgium, [2]University Hospitals of North Midlands, Stoke on Trent, UK, [3]Laboratoire Cerba, Cergy, France, [4]Klinikum Wolfsburg, Germany, [5]Helsinki University Hospital, Finland, [6]Betsi Cadwaladr University Health Board, Bangor, UK, [7]University of Leicester, UK

Objective:
To assess the impact of the margin status of the excised cone on the success of treatment of cervical pre-cancer.

Methods:
A diagnostic test accuracy meta-analysis was performed including women treated by excision for cervical pre-cancer using the margin status of the excised cone and post-treatment HPV as predictors for recurrent or residual CIN within a period of at least 18 months post-treatment. Covariates were: 1) anatomical location of involved margins (ectocervical-only (ECTO); endocervical-only (ENDO); both ectocervical/endocervical margin (ECTO/ENDO); not specified(NS) and 2) type of excisional procedure.

Results:
87 studies were identified as being eligible for inclusion in the meta-analysis. LLETZ had the highest rate of positive margins (27%, 95%CI=23-31%), followed by cold knife conisation (CKC) (21%, 95%CI=15-28%) with laser-conisation (LC) having the lowest proportion (17%, 95%CI=13-23%). The overall risk of treatment-failure (residual/recurrent CIN2+) was 7% (95%CI=4-12%) after treatment of CIN1+ and 8% (95%CI=3-15%) after treatment of CIN2+. Treatment failure was 7 (95%CI=4-12%) times greater in women who have involved margins on pathological examination, compared to clear margins. The pooled sensitivity of margin status to predict residual/recurrent CIN2+ after treatment of high-grade CIN was 63.5% (95%CI=48.8-76.0%) compared to 92.9% (95%CI=85.0–96.8%) for hrHPV DNA testing. The pooled relative sensitivity/specificity of the hrHPV DNA versus involved margins was 1.53 (95%CI=1.34-1.76) and 1.00 (95%CI=0.95-1.06), respectively. Pooled sensitivity of ENDO involvement to detect residual/recurrent CIN2+ was about twice as high compared to ECTO involvement (24% [95%CI=16-36%]) versus 10% [95%CI=2-35%]). The highest risk of residual/recurrent CIN2+ was seen when both ECTO/ENDO were involved (PPV: 24% [95%CI=0-65%]).

Conclusions:
The risk of residual/recurrent CIN2+ is significantly greater with involved margins on excisional treatment. The risk is higher when only ENDO is involved compared to only ECTO but the risk is highest with both ECTO/ENDO involvement. hrHPV post treatment is a better predictor for treatment failure.

O-5

AUDIT ON THE MANAGEMENT OF PATIENTS REFERRED WITH HR-HPV POSITIVE LOW GRADE, BORDERLINE OR NEGATIVE CYTOLOGY IN A HPV PRIMARY SCREENING PILOT SITE

Mr Wenzhuang Chin, *Miss Dana Touqmatchi, Miss Shruti Mohan, Anjali Kothari*
Hillingdon Hospital, Uxbridge, UK

Our unit is part of the HPV Primary Screening Pilot programme in the UK. HPV screening has a high negative predictive value and high sensitivity but low positive predictive value, as the majority of women who are HR-HPV positive will not have high grade disease. The management algorithms are therefore significantly different from cytology based screening. For example women who are HR-HPV positive and have low grade or negative cytology should be discharged to 3 year recall if they have normal colposcopy or HPV only (rather than traditional 6 month or annual follow up for low grade patients).

We studied the management and outcomes of HPV positive women with low grade or negative cytology in the HPV primary screening pilot from August 2013 to August 2014 and followed these patients up until May 2016. 180 patients were identified, of these 21% had negative cytology, 30% had borderline and 49% had low grade. In 59% (107/180) of patients the pilot algorithm was not followed. 43% (78/180) should have been discharged to normal recall but instead had repeat colposcopy. However, 2 patients (3%) who should have been discharged to 3 year recall, subsequently had treatment for CIN 2/3. There were no cancers missed.
It was noted that towards the later years of the study period the algorithms were followed more closely as colposcopists became more comfortable with discharging this group of patients back to the GP. Appropriate discharge of these patients will reduce the number of colposcopy appointments, with benefits for patients and service providers, and appears to be safe. We note however the finding of high grade disease in 2 patients who should have had 3 year recall, highlighting the need for long term monitoring of outcomes as the NHSCSP moves towards HPV primary screening.

O-6

HPV PRIMARY SCREENING PILOT STUDY: MOLECULAR TESTING OF POTENTIAL TRIAGE STRATEGIES FOR HPV-POSITIVE WOMEN

Dr Christine White[1,2], Stephen Reynolds[1,2], Padmaja Naik[2], Roisin O' Brien[2], Trinh Pahm[2], Loretto Pilkengton[2], Imogen Sharkey Ochoa1,2, Carrie Powles[3], Fiona Wright[3], Noel Bolger[2], Jacqui BarryOCrowley[2], Prerna Tewari[1,2], Sharon O'Toole[1], Charles Normand[1], Linda Sharp[4], Grainne Flannelly[3], John O'Leary[1,2], Cara Martin[1,2]

[1]Trinity College Dublin, Ireland, [2]Coombe Women & Infants University Hospital, Dublin, Ireland, [3]National Screening Service, Dublin, Ireland, [4]Newcastle University, UK

Introduction:
A key challenge with HPV primary screening is to find the optimal balance between sensitivity and specificity, and avoid large numbers of unnecessary follow-ups of HPV-positive women. This can be achieved by using more specific HPV tests and appropriate triage algorithms. Previous studies suggest that reflex cytology is a good option for triage of HPV DNA positive women. An alternative approach is to triage with secondary biomarkers.

Methods:
In partnership with CervicalCheck, The National Cervical Screening programme, CERVIVA are undertaking a longitudinal observational HPV primary screening study which will evaluate different triage strategies for management of a HPV-positive primary screening test. Cervical cytology samples from approximately 13,000 women undergoing routine screening will be tested for HPV DNA (cobas 4800 HPV test) and mRNA (Aptima HPV assay). All HPV-positive women will be further assessed with cytology and a panel of molecular tests including HPV16/18 genotyping, p16INK4a/Ki-67, and specific methylation markers. The performance of different triage strategies will be examined both cross-sectionally and longitudinally over two screening rounds for detection of CIN3+.

Results:
To date 7000 woman have been recruited into the study. The median age of the population is 39 years. HPV DNA testing, performed on 5989 samples, shows a 14.7% positivity rate. HPV mRNA, performed on 5969 samples, gave a 13.0% positive rate. HPV mRNA had a significantly lower positivity rate in women under the age 40 years and women with a negative cytology ($p=0.001$ and $p=0.0015$). Second round testing identified 32% of HPV positive women were positive for HPV 16/18 and 30% had an abnormality on cytology. In a smaller subset 35% were positive for p16/Ki-67.

Conclusion:
Overall prevalence of HPV mRNA is lower than HPV DNA in the study population. Here we present the preliminary cross-sectional data in relation in to each of the putative triage tests.

O-7

RISK OF HIGH GRADE CIN (CIN2+) IN WOMEN WITH PERSISTENT HIGH RISK HPV GENOTYPES AND NEGATIVE CYTOLOGY

Professor John Tidy, *Dr Madeleine MacDonald, Ms Rachel Lyon, Mr John Crossley, Ms Kay Ellis, Dr John Smith, Dr Julia Palmer*
Sheffield Teaching Hospital NHS Foundation Trust, Sheffield, UK

Objective:
To measure the risk of HG-CIN in women referred with persistent hr-HPV infection and negative cytology at 12 or 24 months post first positive hr-HPV/cytology negative test.

Methods:
Service evaluation between 1/6/14 and 31/7/16 of all women referred to a single colposcopy clinic within an organised screening programme evaluating hr-HPV primary screening.

Results:
88,924 women underwent hr-HPV primary screening. 1076 women (year 1 = 318; year 2 = 758) were referred. Single infections with HPV 16 were found in 33%, HPV 18 8% and HPV O genotypes in 41%. Multiple infections were present in 18 % of cases. The risk of HG-CIN was 1 in 10 for HPV 16, 1 in 30 for HPV 18 and 1 in 28 for HPV O. The risk increased to 1in 9 for HPV 16 plus any HPV genotype. In risk of LG-CIN was low, 1 in 30, for all HPV genotypes. The PPV for HG-CIN colposcopic impression was 47.4%.

Conclusions:
hr-HPV testing is more sensitive than cytology however over 66% of women with a persistent hr-HPV infection will have negative reflex cytology. Women who have persistent hr-HPV infection with negative cytology are at risk of having HG-CIN, between 10 and 11% of women with HPV 16 falling to 3.6% for women with HPV O infections. This category of referral to colposcopy represents a significant increase in referrals to colposcopy. The low prevalence of disease in such a large group of extra referrals will pose problems for the diagnostic performance of colposcopy.

O-8

THE RISK OF RESIDUAL OR RECURRENT CIN IN WOMEN WHO FAIL TEST OF CURE WITH HIGH RISK HUMAN PAPILLOMA VIRUS PERSISTENCE BUT NORMAL CYTOLOGY IN NORTHEAST OF SCOTLAND

Dr Emmanouil Kalampokas, Nurse Judith Wilson, Professor Margaret Cruickshank, Dr Mahalakshmi Gurumurthy
NHS Grampian, Aberdeen, UK

Background:
The relative risk of cervical cancer after treatment of CIN remains raised for at least 20 years. In Scotland, Test of Cure (TOC) after treatment of any grade of CIN incorporates high risk-HPV test and cytology at 6 months follow-up in primary care. Studies that examine the risk factors associated with TOC hr-HPV persistence with normal cytology are limited. In Scotland, women who fail ToC continue to have annual cytology for 5 years even if colposcopy is normal.

Objective:
To determine the rates of residual or recurrent CIN in women hrHPV+/cytology negative after treatment of CIN and to explore possible associated risk factors.

Methods and Population:
A retrospective observational cohort study of women treated for CIN between 2010-2015 in Aberdeen Royal Infirmary (ARI) and re-referred after ToC hrHPV+/cytology negative.

Results:
A total of 2729 women were treated during this period. Of these, 264 (9.7%) patients were re-referred with hr-HPV positive/cytology negative at TOC. Of these 220 (82.7%) were being followed up after treatment of CIN2/3. 95 (36%) had a normal colposcopy examination but 31 (11.7 %) had residual CIN in cervical biopsy. Only 7 patients have been previously HPV vaccinated (2.7%).

Conclusions:
Further follow-up data after colposcopy will be presented in May. These data are helpful to provide information to women with HPV+/Cytology negative who are re-referred to colposcopy after treatment and to identify if subsequent annual cytology is effective.

O-9

PRIMARY HPV TESTING- IS IT AN ACCEPTABLE TEST FOR WOMEN IN ENGLAND?

Dr Hersha Patel[1], *Dr Susan Sherman*[2], *Professor Douglas Tincello*[1], *Miss Esther Moss1*
[1]*University of Leicester, UK,* [2]*Keele University, Newcastle-under-Lyme, UK*

Introduction:
Although the clinical benefits of changing to primary HPV screening have been demonstrated its acceptability to women as a screening test are less clear. The aim of this study was to explore women's awareness and attitudes towards HPV testing/screening.

Methods:
Forty semi-structured interviews and one focus group session were conducted. Women were recruited from colposcopy clinics and community settings from three sites across the Midlands. The interviews were analysed using thematic inductive approach framework analysis.

Results:
The key themes that emerged were there was unawareness of HPV testing as part of the current screening programme and a lack of HPV related knowledge, both of which resulted in emotions of shock, fear and anxiety upon receiving a positive HPV result. The realisation that HPV is a sexually transmitted infection (STI) was seen as a barrier to primary HPV testing, particularly for women in long-term relationships or those from certain religious backgrounds. The knowledge that they were still being screened for cervical cancer and that HPV testing was just a part of it did not appear to make a difference to their attitudes. Women debated the need for continued screening following a negative result. There was the fear that there would be stigma associated with women who participated in cervical screening since, in their view, they were being tested for an STI, hence the perception that they have adopted a high-risk lifestyle in comparison to women who were non-attenders.

Conclusions:
The acceptability of a HPV test as the primary test in the cervical screening programme may be a limiting factor in encouraging participation with screening in the future. It is

possible that HPV testing in its current form has been "accepted" as women are unaware they are actually being tested for it or its mode of transmission.

O-10

DOES hrHPV GENOTYPE INFLUENCE THE RISK OF HG-CIN IN WOMEN AGED 50 YEARS AND OLDER REFERRED TO COLPOSCOPY WITH NEGATIVE CYTOLOGY?

Professor John Tidy, *Ms Rachel Lyon, Dr Julia Palmer*
Sheffield Teaching Hospital NHS Foundation Trust, UK

Objective:
To estimate the incidence of HG-CIN in women over 50 referred with persistent hrHPV infection and negative cytology.

Method:
Prospective service evaluation. Sheffield commenced HPV primary screening in April 2013. hrHPV genotyping is performed and women who have persistent HPV16/18 infections negative cytology at 12 months are referred to colposcopy. Women with persistent hrHPV O genotypes negative cytology are referred at 24 months. Women underwent colposcopic and ZedScan examinations.

Results:
72629 women have been screened. The overall rate of hrHPV infection was 15%, 5.5% of women 50-64yrs being positive. 4.2% of women over 50 were hrHPV positive cytology negative at first screen. At 12 months 54% of women were still hrHPV positive and of those 36.6% were referred to colposcopy. Of those retested at 24 months 62.2% were hrHPV positive and referred. Between June 2014 and January 2017 198 women 50-68yrs (median 59yrs) attended colposcopy. 180 had single infections (93 HPV O, 65 HPV 16, 22 HPV 18), 18 had multiple infections (11 HPV 16+O, 5 HPV 18+O, 2 HPV16+18+O). 35 (17.7%) had inadequate colposcopic examinations. 25 (12.6%) had an abnormal colposcopic examination at first visit. Biopsies were taken from 32(16.2%) women with 3(1.5%) cases of HG-CIN. All HG-CIN was associated with HPV 16 or 18, 3% of the women referred with HPV16 and or 18. 138 (66.7%) women had negative colposcopic examinations and were discharged to 3 year re-call. All women with an inadequate colposcopic examination were reviewed at 12 months. To date one women has undergone a LLETZ but with no CIN.

Conclusions:
Incidence of HG-CIN in women over 50 referred with persistent hr-HPV infection is low. HG-CIN appears to be confined to women with HPV 16/18 infections. More data including longitudinal follow up is needed to help decide on the management of this group of women.

O-11

CERVICAL SCREENING BEHAVIOURS, KNOWLEDGE AND ATTITUDES IN EASTERN EUROPEAN BORN WOMEN WHO HAVE MIGRATED TO ENGLAND

***Dr Hersha Patel*[1]**, *Dr Susan Sherman[2], Professor Douglas Tincello[2], Miss Esther Moss[1]*
[1]University of Leicester, UK, [2]Keele University, Newcastle-under-Lyme, UK

Introduction:
Women born in an Eastern European country and who have migrated to England (mEE) women represent a high-risk group for cervical cancer (CC) and it has been hypothesized that they have contributed to the increasing incidence of CC in the 25-34 years group. This study aimed to determine the cervical screening behaviours of mEE women, their knowledge and attitudes towards the NHS cervical screening programme (CSP).

Methods:
A mixed methods study using quantitative surveys and in-depth semi-structured qualitative interviews was conducted. Women were recruited from two groups, mEE and native English-born Caucasian women (nEN). Data were analysed using SPSS software and thematic analysis.

Results:
331 surveys were completed and 46 interviews were conducted. Knowledge of the CSP was lower in the mEE group, with 71%, compared to 90% in the nEN group, knowing that a smear test was a screening test for pre-cancerous cervical cells, p= <0.01. A significantly greater proportion of mEE women believed that a smear was part of a full gynaecological examination (46% versus 21%, p= <0.01) and that the screen frequency was one yearly (18% versus 4%, p= <0.01). There was general distrust of the NHS, due to lack of direct access to specialist care, and some mEE women chose to have additional smears in their country of birth. Other mEE women did not participant in any form of screening mainly as result of poor awareness of CC prior to migration, no information being provided at the time of registration with the GP in England and tasks such as sourcing housing and employment taking priority.

Conclusions:
It appears that the screening behaviours of many mEE women are governed by their pre-existing knowledge of CC and screening prior to migration. Targeted education at the point of contact with healthcare services in England may help improve this.

O-12

CERVICAL CANCER, A DISEASE WITH SOCIAL ENIGMA: DGH EXPERIENCE OF RISING INCIDENCE OF CERVICAL CANCER

Dr Kimberley Nash, *Miss Marlin Mubarak*
Luton and Dunstable University Hospital NHS Trust, Luton, United Kingdom

Background:
The incidence of cervical cancer in England is 9.5 per 100 000 women and 7.9 per 100 000 women within the East of England. Over a 5-year period there were 65 new cases of cervical cancer at the Luton and Dunstable University Hospital which serves a female population of approximately 98,000, nearly double the incidence within the East of England.

Objective:
To identify factors contributing to the rising incidence of cervical cancer in the population served by the Luton and Dunstable University Hospital.

Results:
Of the 65 new cases of cervical cancer; 9 (13.8%) women were Eastern European origin, 4 (6.2%) Asian origin and 52 (80%) White British. 25 (38.4%) women were smokers. 38 (58.4%) were identified through the cervical screening programme. 22 (33.8%) had a regular cervical smear history, 43 (66.2%) had an irregular or absent cervical smear history. Of women with a regular cervical smear history, 18 (81.8%) presented with early stage disease (Stage 1A1-1B1), of which 12 (54.5%) had Stage 1A1 disease, and 4 (18.2%) with advanced disease (Stage 1B2 and above). Of women with an irregular or absent cervical smear history, 18 (41.75%) presented with early stage disease, of which 10 (23.2%) had Stage 1A1 disease, and 25 (58.1%) with advanced disease. 25 (86.2%) women presenting with advanced disease had an irregular or absent cervical smear history.

Conclusion:
The majority of women presenting with advanced disease had an irregular or absent cervical smear history. The National Target for women attending for cervical screening is ≥80%. Within the Luton CCG, the uptake is only 68.25%, significantly less than the National Target. Addressing barriers that women face in accessing healthcare, especially cervical screening, improving health education, public awareness and working with primary care are important initiatives to improve the incidence of cervical cancer in areas of deprivation.

POSTER ABSTRACTS

P-1

POSTCOITAL BLEED REFERRALS

Dr Nathalie Rodriguez McCullough, *Mr Tarang Majmudar*
Hinchingbrooke Hospital, Huntingdon, UK

Postcoital bleeding is a common cause of referral to secondary care and in some units these women are reviewed in the Colposcopy clinic instead of a General Gynaecology clinic as this symptom is associated with cervical cancer. The risk of cervical cancer in these women however is low (11%) and most women with these symptoms can be managed in primary care. The purpose of this audit was 1) to look at the proportion of appropriate referrals as per the Cambridgeshire and Peterborough CCG referral criteria; 2) identify compliance with DOH guidance for the management of PCB in <25yo and 3) assess the proportion of women that had pathology, needed treatment and those that could have been managed in primary care. A retrospective audit over 15 months identified 46 women referred with PCB. Women with other associated gynaecology symptoms were excluded. We identified that 79% of women did not comply with the referral guidelines and did not need a referral to secondary care. 41% of the referred women were found to have pathology, and only half of these required or requested treatment. 47% were satisfied with reassurance only. We concluded that most women do not need to be referred to secondary care and can be managed in the community by reassurance, change in POP, treatment of infections and expectant monitoring. Ideally patients should be referred to the Colposcopy clinic only if there are clinical signs of cervical cancer, however we expect that some units will continue to see these women in the Colposcopy clinic rather than a General Gynaecology clinic to offer them a one-stop consultation. We have developed a new referral criteria and a management flow chart for primary care physicians and are working closely with the CCG commissioners to embed this change of practice in our area.

P-2

INVESTIGATING THE SENSITIVITY OF POST COITAL BLEEDING AS A MARKER FOR DETECTING SINISTER GYNAECOLOGICAL PATHOLOGY

Dr Esther Lousada, *Miss Ghadah Ahson*
The Lister Hospital; East and North Hertfordshire NHS Trust, Stevenage, UK

Reason for study:

To investigate the sensitivity of post coital bleeding as a marker for detecting sinister gynaecological pathology. The guidance on management of women presenting with PCB is inconsistent in the UK. Often women who present to the GP with PCB are referred under the two week wait for examination and investigation by a gynaecologist. It has been noted that significant numbers of women referred under this protocol for outpatient review at Lister Hospital do not receive a diagnosis of cervical cancer. Subsequently it has become a point of interest to look into the investigations proposed and subsequent outcomes for these women. By reviewing the incidence of cervical cancer in women presenting with PCB we hope to inform the propriety of the use of PCB as a marker for two week wait cancer referrals.

Criteria to be measured:

To review the age of women referred, the clinical indications cited for referral, place of initial review, investigations proposed and subsequent diagnosis recorded.

P-3

IS NATIONALITY A RISK FACTOR FOR CERVICAL CANCER??

Dr Niamh Maher, *Dr Gillian Corbett, Dr Grace Ryan, Dr Katie Beauchamp, Dr William Boyd*
Mater Hospital Dublin, Ireland

Almost 60% of new cases of cervical cancer are in women aged under 50.
It appears that women of non Irish background may have an increased incidence of presentation at a younger age of more advanced cancers. This audit looked at the number of women with a new episode of cervical cancer diagnosis attending a tertiary referral unit over a 5 year period, focussing on nationality/background, age, group and stage.
Data was collated from a hospital database involving 262 women diagnosed with cervical cancer over a 5 year period, 2010-2015. All had attended the gynaecology oncology services in the Mater hospital in Dublin.

The relevant variables for this audit included age, stage and nationality. Retrospective individual chart review was also undertaken.

10% of women were non Irish. 48% had stage 1 and 10% stage 2 cervical cancer.
26% of this non Irish population were aged less than 40, 71% had stage1-2 disease, 29% stage 3-4.

In the Irish population, 54% had carcinoma in situ or stage 1 disease, 32% stage 2.
38% were under 40 years, none had stage 3-4 cervical cancer.

There is a documented increase in the diagnosis of cervical cancer in women under 30 years of age. Reasons stated are an increased incidence of STIs or previous childhood cancers.

The above audit supports the idea that the non Irish population are presenting at a later stage with more advanced disease. This may be related to a language barrier, delayed presentation or recognition.

P-4

TEST OF CURE HPV POSITIVE TO NEGATIVE

Mrs Charlotte Harper, *Miss Tania Adib, Mrs Jane Rains, Mrs Suzanne Digby*
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Over a 1 year period, pulled data for all patient who have had a follow up test of cure following a loop cone biopsy.

Then looked at how may were HPV positive to HPV negative.

Worked out a percentage for our trust of HPV negatives post loop cone biopsy.

With the HPV positive patients, we then looked at the loop cone itself, grade, depth and whether local anesthetic or general anesthetic.

We then looked at social factors: age, smoker, parity, immune status.

These social factors may be the contributing factors as to why the patients may remain HPV positive post having a loop cone biopsy performed.

P-5

A PROSPECTIVE STUDY REVIEWING COLPOSCOPY CLINIC DISCUSSIONS BETWEEN CLINICIANS AND PATIENTS ABOUT THE ROLE OF HPV IN CIN/CERVICAL CANCER IN THE UNIVERSITY HOSPITAL OF WALES' GYNAECOLOGY DEPARTMENT

Anne Beames[1], *Miss Katherine Carnegie*[1]
[1]*Cardiff University, Supervisor: Dr Caroline Scherf (UHW), Cardiff, United Kingdom*

Background:
High risk Human Papilloma Virus (HPV) is present in 97.7% of cervical cancers. In 2014 HPV testing was introduced into clinical practice in Wales in an effort to reduce the number of follow-up appointments needed. This project addresses the circumstances in which HPV is mentioned and the quality of the information provided in relation to patient understanding to highlight circumstances its mention could be introduced.

Aim:
To address the quality of information shared with patients attending colposcopy, and, in particular the discussion of HPV and its role in cervical intraepithelial neoplasia (CIN) and

cervical cancer. The primary objectives were to assess:

- the clinical situations in which the role of HPV in CIN and cervical cancer is discussed.
- patients' understanding of the role of HPV in CIN in relation to their clinical diagnosis.

Methods Used:
Details of consultations with different clinicians were recorded whilst observing colposcopy clinics. A specifically designed proforma using binary assessment scales was designed acting to analyse commonalities or omissions of HPV-related information during consultations.

Results and Discussion:
Of 50 consultations, HPV was discussed in 68%, and 98% of patients appeared to understand the information shared, however over a quarter of patients were not informed of the next steps of their care.

Conclusion:
Information provided was sufficient to ensure the majority of patients were confident in their understanding of their diagnoses and management plans. There may however be room for improvement with respect to the number of instances HPV is discussed as the subtle and subjective nature of consultations can mean its mention is omitted in certain cases patients should be informed of its role in CIN and cervical cancer.

P-6

THE INTRODUCTION OF HPV TESTING IN WALES

Dr Rosalind Jones[1], *Ms Helen Clayton*[2], *Dr Rosemary Fox*[2], *Dr Louise Pickford*[3], *Mr Dave Nutall3, Mr Rob Howells1, Mr Kenneth Lim1, Dr Aarti Sharma*
[1]*University Hospital of Wales, Cardiff, UK,* [2]*Public Health Wales, Cardiff, UK,*
[3]*Cervical Screening Wales, Cardiff, UK*

Colposcopy services in Wales are part of the all Wales cervical screening programme and as such are centrally co-ordinated, administered & governed by Cervical Screening Wales (CSW) which is part of the screening division of Public Health Wales (PHW). There are 3 regional screening centres in North Wales, Mid & West Wales & South East Wales responsible for managing their respective regions and ensuring compliance with protocols & guidelines. Alongside this central governance & protocol led model of care individual units also have their own policies.

Unlike the rest of the UK Wales introduced HPV testing in stages; HPV test of cure (TOC) was introduced in Wales in 2014, subsequently HPV triage was introduced in 2016. The introduction of primary HPV testing is planned for April 2017. Publications on HPV testing in other parts of the UK have consistently raised the issues of clinician concern about reliability of recommended discharge & recall schedules & the resulting impact on colposcopy workload. Within Wales the cervical screening programme is governed by a single organisation, cervical screening Wales (CSW) who are responsible for all smears & colposcopy appointments within Wales. We surveyed all colposcopists in Wales to establish the impact & experience of the staged introduction & the centralised clinical governance provided by the cervical screening Wales management of colposcopy services. The results of this survey will be presented at the meeting.

P-7

AUDIT OF MANAGEMENT OF BORDERLINE CHANGES IN ENDOCERVICAL CELLS OR WITH POSSIBLE HIGH GRADE DYSKARYOSIS

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Introduction:
There is limited guidance in the UK on the management of borderline nuclear change in endocervical or squamous cells. Our current internal hospital guidelines suggest that any cytology reporting borderline change of either squamous or endocervical type origin, and who test positive for high risk human papilloma virus (HR-HPV), must be referred to colposcopy. Those women who have borderline change that is difficult to

exclude high grade dyskaryosis, or borderline changes in the endocervical cells, with no abnormality at colposcopy and/or histology should then be discussed at a colposcopy multidisciplinary team meeting. We carried out an audit to see if these standards were being met and to see if the management plans at MDT were consistent.

Method:
Between April and December 2016 those cytology reports with borderline changes either in the endocervical cells or questioning the possibility of high grade dyskaryosis were audited.

Results:
All cases were reviewed at colposcopy and all patients underwent single or multiple biopsies despite the absence or presence of abnormalities at colposcopy. Those with abnormal biopsy results were managed appropriately however those with HPV changes only or no abnormal cells at histology followed very different management pathways.

Less than 20% with no abnormal cells at histology were referred for discussion at MDT and those discussed had different management plans decided even though they had the same histological findings.

Conclusion:
This audit demonstrates the growing confusion and lack of guidance concerning this limited area of patients.

P-8

ALL WALES USE OF COLPOSCOPY APPOINTMENTS & ABNORMALITY DETECTION RATES

Dr Rosalind Jones[1], *Ms Helen Clayton*[2], *Dr Rosemary Fox*[2], *Dr Louise Pickford*[3], *Mr Dave Nutall*[3], *Mr Rob Howells*[1], *Mr Kenneth Lim*[1], *Dr Aarti Sharma*[1]
[1]*University Hospital Of Wales, Cardiff, UK,* [2]*Public Health Wales, Cardiff, UK,*
[3]*Cervical Screening Wales, Cardiff, UK*

Introduction:
Colposcopy services throughout Wales are centrally co-ordinated & governed by cervical screening Wales (CSW). All smears, results and colposcopy appointments are managed by CSW. However within individual units, patients can also be referred to colposcopy for alternative indications. Throughout Wales rates of these alternative referrals vary greatly. The aim of our study is to assess the appropriateness of alternative indication referrals to Colposcopy & their outcomes.

Methods:
We conducted a retrospective analysis of the CSW database from 1/1/15-31/12/16. Following this, we prospectively evaluated all colposcopy services throughout Wales for a 1 week period.

Results:
A total of 10990 patients were seen during the retrospective time period, of which 3914(35.6%) were not referred under CSW guidelines. 39% of patients seen under CSW guidelines had a cervical abnormality ≥CIN1, compared to just 6% of patients seen outside CSW guidelines. 36% of patients seen under CSW guidelines received treatment compared to 14% of patients seen outside CSW guidelines. The details of the prospective data collected are under analysis.

Conclusions:
Greater than a third of the patients are seen in Colposcopy outside the CSW guidelines. Patients seen in a colposcopy setting outside of current CSW guidelines have lower

rates of histology proven abnormality. Clear guidelines on usage of appointments in Colposcopy are essential for appropriate utilisation of the clinic.

P-9

2 WEEKS REFERRALS (OUTSIDE NHSCSP) TO COLPOSCOPY CLINIC

Ms Mable Pereira, Ms Rajee Vijayanand
Royal Berkshire Foundation Trust, Reading, UK

Aim:
Postcoital bleeding and suspicious cervix are the commonest symptoms women are referred to colposcopy clinic urgently (2weeks) as per local cancer pathway and NHSCSP guidelines. More than half of these referrals reveal normal and benign findings questioning the adherence to the guidelines while referring. On this background this audit was conducted and has produced interesting results.

Methods:
Total 65 cases identified over a period of 6 months using database from the computer system. Data was collated and results obtained.

Results:
More than 90% of the women were referred with postcoital bleeding and suspicious cervix. More than 2/3rd of the women were not told about the nature of referral which

is essential as per the referral pathway. About 75% of women had normal or benign findings on colposcopy and histology. Two patients had invasive carcinoma and they were referred for suspicious cervix. One patient had CIN2 and underwent LLETZ procedure. Five patients had CIN1. More than 90% women had a previous normal smear results.One women who had invasive carcinoma never had a smear. Out of 2/3rd of women who were screened for STIs chlamydia infection was found in one patient. More than 50% of the women used some form of hormonal contraception.

Recommendations:
GPs to follow the referral criteria strictly as more than 75% of patients had benign findings. Premenopausal women with postcoital bleeding but normal looking cervix and normal smear history may be referred to outpatient clinic rather than 2 week pathway. If there is obvious cause for bleeding like use of hormonal contraception or ectropion referral may be delayed or made as non urgent. GPs to use NHSCSP wall chart for different cervical appearances when in doubt. GPs to inform the patients about the nature of the referral.

Action Plan:
Convey the results of this audit to GPs in the community.

P-10

MANAGEMENT OF INVASIVE CERVICAL CANCER IN DGH SETTING

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St Helens and Knowsley Teaching Hospitals, Whiston, UK

Aim:

Evaluate the Management of Invasive cervical cancer in a DGH setting in close collaboration with the Regional cancer centre.

Methods & Results:

Retrospective analysis of 42 cases of invasive cervical cancer with an age group range of 25-85 years diagnosed over a 3 year period from January 2014 to December 2016 was carried out. 60% cases were screen detected via direct referral system with abnormal cytology reflecting the success of our local screening programme. Just over 26% cases were picked by Post Menopausal Bleeding clinics, the remainder were urgent referrals with signs and symptoms suggestive of cervical cancer from other clinical areas. 25% of the cases were Stage 1A1 diagnosed after loop excision or knife cone biopsy with clear margins. Stage 1A2 and above were managed at the cancer centre by surgery and chemoradiation. 2 cases were picked via metastasis to the cervix from other organs. There was a rare case of cervical embryonal rhabdomyosarcoma as well.

All the patients are either in remission or still under surveillance and with one death diagnosed with advanced stage 4 disease.

Conclusion:

All the patients were managed according to Cancer Network Guidelines and discussed in the MDT appropriately.

P-11

MANAGEMENT OF PERSISTENT DYSKARYOSIS AFTER COLPOSCOPY

Mr CWE Redman, Mr Mohamed Shahin
Royal Stoke University Hospital, UK

Background/Rationale:
The management of persistent low-grade dyskaryosis can be a problem, especially when colposcopy is not satisfactory or when there are no detectable colposcopic abnormalities. The desire to avoid needless intervention is offset by the risk of missing disease that should be treated.

Prior to the introduction of HPV triage and TOC this problem was perceived as being important and there is an NHS CSP Colposcopy Quality Standard about this. The advent of HPV Triage and TOC in 2011 has probably reduced this problem significantly. The NHS Cervical Screening Programme colposcopy guidelines state that "if a low grade lesion has not resolved within two years of referral to colposcopy, at least a biopsy is warranted (>90%)".

Objectives:
- Assess compliance with the quality standards
- Assess the quality standard in terms of validity, relevance and reliability in the current context when patients referred and managed when HPV Triage and TOC

All cases of 'abnormal smear after colposcopy' referrals during the 3 year period 30th June 2013 to 30th June 2016. The following were excluded:
- patients with high grade or glandular dyskaryosis
- previously treatment

Key Findings:
In three years there were 7 cases of persistent dyskaryosis in untreated patients after colposcopy. This is clinical problem is no longer an issue with the advent of the new HPV Triage/TOC protocols. The small numbers preclude meaningful analysis

Conclusions:
1. Persistent dyskaryosis after colposcopy is an uncommon problem
2. The current NHS CSP quality standard is redundant and needs to be removed.

P-12

QUALITY AND SUCCESS RATE OF LARGE LOOP EXCISION OF TRANSFORMATION ZONE IN DISSIPATING CERVICAL INTRAEPITHELIAL NEOPLASIA YORK TEACHING HOSPITAL NHS TRUST APRIL 2014 – APRIL 2015

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York Teaching Hospitals NHS Trust, York, UK

Introduction:
Maintaining standards at Large Loop Excision of Transformation Zone (LLETZ) in accordance with NHSCCP guidance ensures upkeep of quality of the procedure and thereby accomplishment of high rates of the desired outcome.

Aim:
To assess the quality of the Large Loop excision of transformation zone procedure and test of cure (TOC) at York teaching Hospital.

Methods:
All patients who have had LLETZ procedure performed between April 2014 – April 2015 were identified using electronic patient database. Their data regarding colposcopy findings, procedure and histology were collected from the same. Test of cure results were attained from Open Exeter system. The practice was compared with standards set in the NHSCCP third addition of document 20-March 2016. The data was analysed using excel 2010 version.

Results:
A total of 381 LLETZ were performed during this study period. 229(60%) of patients were 25-34 age group. Procedure was performed under local anaesthesia in 372(98%) cases. Immediate complications such as troublesome bleeding were seen in 5(1.5%), late complications such as readmission with infection was seen in 2(0.5%). Excised specimen was removed in single piece in 317(83%). See and treat cases with histology of high grade on specimen were 196(86%). Depth of the excised specimen to be >7mm was achieved in 280(73%). Subsequent TOC results available were only 316 as 43 cases were non responders or patients who moved areas and 13 were for normal recall. Failed TOC cases were 80(25%).

Conclusion:
Overall commendable standards were achieved in performing procedure under local anaesthesia with 83% (standard 80%) good quality specimen and very low complication rate. Failed TOC rate 25% (standard <5%). 14% cases were lost in follow-up either because patients moved areas or were non-responders. A national cervical smear database is necessary to ensure results of patients are retrievable even after moving areas.

P-13

SHOULD DEPTH AND COMPLETENESS OF EXCISION BE A QUALITY INDICATOR FOR OUTCOME IN COLPOSCOPY TREATMENT?

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Royal Stoke University Hospital, UK

Introduction:
Colposcopic-guided treatment aims to remove abnormal cells in the transformation zone. This should be reflected by a negative cytology at follow-up.

Aim of the study:
The aim of our study was to determine compliance of follow-up with cytology after treatment and ensure the adequate follow-up interval, location and adequacy. Also, further data was collected regarding the nature of histology specimens.

Materials & Methods:
We did a retrospective case review, with a selection of 100 consecutive cases of follow-up cytology in Royal Stoke University hospital.

- Inclusion Criteria: All patients who had a colposcopic-guided treatment for abnormal TZ, where follow-up is required.
- Exclusion Criteria: Patients who had a definitive treatment (i.e. Hysterectomy, chemotherapy or Radiotherapy). Patients who are diagnosed with cancer.

Results:
87% of treated women had no dyskaryosis at six months following treatment. 90.6% of HG converted to normal (only 6 % persistent HG). 82.4% of incomplete ectocervical margin excision had no dyskaryosis at follow-up. This is compared to 88.5% in those cases with clear excision margins (No statistically significant difference). All the cases of depth of 15 mm or more, had an incomplete ectocervical margin, reflecting attempt to completely excise the lesion by using a larger loop.

Conclusion:
This work highlights the importance to achieve the right balance between aiming for clear margins and the risk of deeper and larger volume excision of the cervix. Reassuringly, most of those cases with involved ectocervical margins, had a negative smear.

Keywords:
Depth, Loop treatment, Test of cure

P-14

THE IMPORTANCE OF EFFECTIVE PATHWAYS BETWEEN PRIMARY AND SECONDARY CARE IN THE MANAGEMENT OF HIGH GRADE SMEAR ABNORMALITIES. A TRUST WIDE RE-AUDIT OF NHS CERVICAL SCREENING PROGRAMME (NHSCSP) STANDARDS IN THE PENNINE ACUTE HOSPITALS NHS TRUST

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The NHSCSP guidelines provide standards for best practice in the management of high grade smear abnormalities. The follow up of patients after treatment for high grade

abnormalities is of great importance. Particularly, as it is known that women, who are not followed up after CIN treatment, are at higher risk of developing cervical cancer. In the 2016 NHSCSP guidelines, there has been a move towards community based 'test of cure' follow up of patients treated for high grade abnormalities.

A re-audit of NHSCSP standards in The Pennine Acute Hospitals NHS Trust - a large trust covering the population of 820,000 in the North East sector of Greater Manchester - was carried out, following a previous audit in 2013, with the objective to assess if clinical standards were being met within the trust.

Retrospective data from referral smears of Moderate Dyskaryosis or worse were collected over all four hospital colposcopy sites within the trust. The NHSCSP standards relating to excisional treatment for patients referred with high grade smear results were audited. One yearly quarter was chosen between October 2014 and December 2014, providing data for 96 patients.

We were pleased to report that the majority of NHSCSP standards audited were being met. However, we discovered a concerning 'did not attend' rate for the 'test of cure' smear. In areas such as the North East sector of Greater Manchester especially, where cervical cancer prevalence is above the national average, the loss of patient follow up would be of particular concern.
Therefore, given the shift towards community based 'test of cure' follow up, it is imperative that effective communication between secondary and primary care, as well as, rigorous fail safes are in place to ensure that those most at risk of developing cervical cancer are highlighted, and not lost, in follow up management.

P-15

AN AUDIT OF INVASIVE CERVICAL CANCER CASES DURING 2016 AT WESTERN SUSSEX HOSPITALS NHS FOUNDATION TRUST (WSHFT)

Miss Peggy Khine
Western Sussex Hospitals NHS Foundation Trust, UK

Objectives:
To conduct the local invasive cervical cancer (ICC) audit comparable to National ICC Audit

Methodology:
Prospective review of all women diagnosed with invasive cervical cancer at WSHFT between 01/01/2016 and 31/12/2016.

Results:
17 cases were identified. The mean age of the women was 46 years (range 26-80) with 47.1% were between 25 and 39 years. 35% were screen detected cervical cancer and they all were at Stage 1 at diagnosis. 65% of women were referred to the fast tract clinic by their GP due to cervical symptoms. Higher numbers of these women reached stage 2B or more at presentation. Squamous cell cancer type (65%) was more common than adenocarcinoma (35%) and likely to be diagnosed at early stage. 50% of women under age 50 years had fertility sparing treatment (knife cone/loop excision or trachelectomy) with 30% in this age group underwent a radical hysterectomy. For those age $\geq$ 65 years, chemotherapy plus radiotherapy was the most common treatment. 2 deaths reported from ICC within 6 months of diagnosis in this study. One of them was age 27 at diagnosis. Both of them either never attended or a lapsed attender for cervical screening. They both were stage 2B at diagnosis and received chemotherapy plus radiation. 4/17 (23.5%) cytology slides were eligible for local review as the cancer was diagnosed within 10 years. 2 ((11.8%) cytology slides required external review as ICC was diagnosed within 2 years of negative cytology report.

Conclusion:
In our local population, 47% were diagnosed ICC were under the age of 40 years, higher numbers were either non- attenders or lapsed attenders. Commonest presentation was abnormal vaginal bleeding. The vital information from this audit should be made awareness to the local population to increase screening uptake and the primary care practitioners for appropriate referrals.

P-16

LLETZ TREATMENT, AWAKE OR ASLEEP; WHAT DO WOMEN WANT?

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Homerton Hospital, London, UK

Introduction:
The NHS Cervical Screening Programme standards stipulate that the treatment of CIN should be performed with adequate pain control and should include pre-treatment counselling. Treatment should be offered with local analgesia; where this is inappropriate, general anaesthesia (GA) should be offered. The proportion of women managed as out-patients with local analgesia should be at least 80% (1).

Method:
33 patients were given an anonymous questionnaire to fill in after their LLETZ treatment under Local Anaesthetic (LA) and asked about their experience.

Results:
The majority of patients (67%, 22/33) were aged 25 – 34 years.
58% (19/33) were non-smokers.
85% (28/33) had menstrual cycles.
91% (30/33) felt that they had been given adequate notice of the treatment.
94% (31/33) felt that they had been given adequate information about the treatment.
61% (20/33) felt that they had been given a choice about being treated whilst awake.
73% (24/33) experienced no pain (0/5) or minimal pain (1/5).
91% (30/33) did not have much bleeding afterwards.
18% (6/33) said that they would have preferred to have their treatment asleep.

Conclusions:
The vast majority of women (>90%) felt that they had been given enough notice and information regarding the LLETZ treatment.

Although the majority of women (>70%) felt little or no pain during the procedure; there was a small minority 6% (2/33) who felt significant pain (4/5) which could be explored further.
The vast majority of patients (>90%) did not have much bleeding afterwards.

61% reported that they had been given a choice between LA/GA which is appropriate since clinicians have been advised to offer treatment under general anaesthetic only if local anaesthetic is inappropriate.

The vast majority of patients (>80%) would not have preferred to have their treatment under GA.

References:
1. March 2016: Colposcopy and Programme Management, NHSCSP Publication number 20

P-17

POSITIVE PREDICTIVE VALUE (PPV) OF HIGH RISK – HUMAN PAPILLOMA (HR-HPV) TESTING IN WOMEN REFERRED UNDER HPV TRIAGE, AT ST RICHARD'S HOSPITAL, CHICHESTER

Ms Mayurika Sinha
Western Sussex Hospital Trust, Portsmouth, UK

Background:
HR-HPV triage of women with borderline changes (BNC) or low-grade (LG) cytology was implemented in 2012. According to national pilot studies, the PPV for high grade disease-Cervical intra-epithelial neoplasia (CIN2+) varied from 9.1 to 30%.

Objective:
To evaluate PPV of HR- HPV triage in detection of high grade cervical disease and to determine whether all colposcopists within the unit adhered to the National HPV testing guidelines/pathway.

METHODS:
Retrospective review of all women referred with BNC and LG cytology with positive HR-HPV to colposcopy unit at St Richard's Hospital between 1st January and 31st December 2015. Data extracted from Regional Colposcopy Database.

Results:
A total of 245 women were referred under HPV triage, of which 102 were BNC/positive HR HPV & 143 were LG/positive HR-HPV. PPV in the BNC group was 19.6% & that in the LG group was 10.2%. Overall PPV rate for both groups was 14.2%. Colposcopy prediction of high grade lesions in the women referred under HPV triage was 53%.

98.5% of women with a biopsy proven CIN1 were advised for a repeat smear at 12 months. 71.4% of women with a normal & satisfactory colposcopy were discharged back to routine recall at 3 to 5 years depending on the age. 88.3% women with a normal histology in cervical punch biopsy were discharged back to the community for routine recall.

Conclusion:
The PPV in our unit is within the national standards. In comparison with a similar audit in 2014, more colposcopists in the unit discharged women for routine recall.

Reference:
NHS Cervical Screening Programme (NHSCSP) Publication 20 (3rd Edition) March 2016

P-18

AUDIT OF THE PREVALENCE OF CERVICAL EXCISIONAL BIOPSIES WITH LOW-GRADE HISTOLOGY RESULTS AT GUY´S AND ST THOMAS´ NHS FOUNDATION TRUST

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Mrs Aggie Jokhan,
Guy´s and St Thomas´ NHS Foundation Trust, London, UK

Background and Aim:
We conducted an audit of excisional biopsies that turned out negative or low-grade on histology to assess whether a change in practice is required.

Methodology:
We reviewed cases from April 2015 to March 2016 using the Electronic Patient Records and a colposcopy database Viewpoint.

Results:
Out of total 518 cases of excisional biopsies reviewed, 107 (21%) had a low grade or negative histology. The average age of the patients was 34 (min 23, max 67). Their index cytology was a high-grade dyskaryosis (34%) followed by a low-grade dyskaryosis (30%) and borderline changes (24%). Almost half of the patients were HR HPV positive (45%).
Of the patients, 19% had a previous cervical excisional biopsy (LLETZ) and 21% had some clinical symptoms. 30% of the patients were discussed at our MDT meetings prior to the procedure. Most of the excisional biopsies histology results were CIN 1 (65%), followed by normal results (20%) and HPV changes or cervicitis (15%).

In most of the cases the decision to treat was based on a high-grade diagnostic cervical biopsy (63%), post previous LLETZ (8%), persistent high-grade cytology (6%), unsatisfactory colposcopy (6%), persistent low-grade diagnostic biopsy (5%) and persistent low-grade colposcopy with positive HR-HPV testing (4%). Rest of the cases (8%) were considered individually and most of them were discussed at Colposcopy or Gynaecological Oncology MDT meetings.

Conclusion:
This audit suggests that most of our treatment decisions were justified. Published literature rate for negative and low-grade results in excisional biopsies was between 17.7-24%. Our audit rate was 21%.

Recommendations:
It is advisable to discuss "non-standard" indications at MDT meetings. New trends may involve routine immunostaining with p16/Ki67 and introduction of the new markers. Repeating audit in one year time will help us to minimise the number of unnecessary procedures.

P-19

AUDITING THE COMPLICATIONS OF LLETZ CERVICAL TREATMENT VERSUS COLD-COAGULATION OVER A ONE-YEAR PERIOD

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Objective:
To audit the complication rates of women treated with either LLETZ cervical treatment or cold-coagulation in our colposcopy unit against the standards set out by the NHS-CSP guidelines. It is reported that the proportion of treatment associated with primary haemorrhage that requires a haemostatic technique must be less than 5%, and the proportion of cases admitted as inpatients because of treatment complications must be less than 2%.

Methods:
We retrospectively collected data from our electronic colposcopy database for women treated over the time period of August 2015-July 2016. Hospital notes were retrieved for those who were identified with complications for further data collection.

Results:
We identified 494 patients with LLETZ and 24 patients with cold-coagulation treatment. There were no complications noted after cold-coagulation. There were 12/494 (2.4%) patients who had post-LLETZ bleeding with one patient being admitted as an inpatient for further management (1/518 or 0.2). The bleeding occurred between 2-28 days after treatment, with 42% of women having had treatment under a general anaesthetic mainly due to a large lesion size. The mean age of women with bleeding was 39 years (range: 27-59) with a mean BMI of 26kg/m2 (range: 17-34). Only one in three women with bleeding required oral antibiotics, and less than 8% of women had a temporary vaginal pack. All women with bleeding were self-referred directly to the colposcopy service without prior GP consultation/examination.

Conclusion:
We are compliant with the NHS-CSP auditable standards with regards to post-treatment complications and inpatient admissions. As very few women actually necessitated further management this puts into question the appropriateness of the initial referral of these women. Areas for improvement therefore involve educating both staff and patients about the possibility of bleeding after excisional treatment and the role of the GP in reviewing these women before onward referral to the colposcopy service.

P-20

MANAGEMENT OF ?GLANDULAR NEOPLASIA OF NON-CERVICAL ORIGIN REPORTED ON CERVICAL SCREENING SAMPLES

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South Tees Hospitals NHS Foundation Trust, Northallerton, UK

Introduction:
The scope and type of clinical investigation following urgent referral of patients whose cytology is reported as ?glandular neoplasia of non-cervical origin is poorly documented. It is acknowledged in the literature that these women may require cervical assessment but not repeat screening as the majority of women will not have cervical disease. The NHSCSP Colposcopy and Programme Management guidance advocates endometrial assessment but not colposcopy and fails to address the potential for extra-uterine or cervical disease in this group of women.

Methods:
We undertook a retrospective audit of ?glandular neoplasia of non-cervical origin cytology reported from 2011 to 2016, to ensure that women had been investigated, diagnosed and managed appropriately and to identify outcomes for patients with this cytology outcome. Direct laboratory referrals from 2011 to 2016 were included. Retrospective data was collected via case note analysis. A total of 17 patients with an age range of 45 - 65 years were identified.

Results:
The trust was 100% compliant with standards identified for the referral and endometrial assessment of ?glandular neoplasia of non-cervical origin according to NHSCSP guidance.

Ten patients (59%) were diagnosed with cancer and 7 patients had no pathological diagnosis reached. Of the patients with malignancy, seven had endometrial cancer, two had cervical cancer and one had ovarian cancer. Two patients were identified to have a delayed diagnoses 12-18 months after original investigations failed to detect extra-uterine cancer.

Conclusion:
This study demonstrates that women referred with ?glandular neoplasia of non-cervical origin are at high risk of malignant pathology of the genital tract.

P-21

MONITORING QUALITY STANDARDS IN PRIMARY CARE CERVICALCHECK - THE NATIONAL CERVICAL SCREENING PROGRAMME, REPUBLIC OF IRELAND

Miss Elaine Buckley
The National Cervical Screening Programme, Limerick, Ireland

The 'Guidelines for Quality Assurance in Cervical Screening' set out the quality standards and requirements for each component of the cervical screening programme. There are quality standards and requirements for: Programme office, Primary care, Cytopathology, HPV testing, Colposcopy and Histopathology.

The first edition (2009) of the QA Guidelines was developed by expert groups and reviewed by international experts. Revisions to create the second edition (2013) were made by the NCSS Quality Assurance Committee for Cervical Screening, which monitors the implementation of the guidelines.

Primary care plays a pivotal role in ensuring the overall success of CervicalCheck as it is where the vast majority of smear tests are carried out. The role of health professionals in providing a quality service in cervical screening to women is dynamic. In addition to carrying out the smeartaking procedure and ensuring results are followed-up, health professionals in primary care play a vital role in the promotion of cervical screening and in the communication of key messages to support women's knowledge in this area. GPs have also contractual obligations to CervicalCheck.

Smeartaker Coordination supports & facilitates registered smeartakers in the provision of quality assured smeartaking services to eligible women. Smeartaker activity & performance are monitored against the guidelines for quality assurance in cervical screening.

CervicalCheck has a quality management system in place which deals with a number of quality issues including complaints & non-conformances against service providers (smeartakers), external feedback from stakeholders (both positive & negative) and a continuous improvement process.

This poster will outline a sample of primary care standards and how they are monitored and escalated if required. Standards are monitored using a number of reports generated from information stored on the screening register & laboratory discrepancy logs, smeartaker inadequacy rates, sample submission times, repeat less than minimal interval, major discrepancies identified by laboratories.

P-22

FINANCIAL AND CLINICAL IMPLICATIONS OF RADICALLY CHANGING HPV TRIAGE FOR NO CLINICAL BENEFIT

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[3]St Georges University Hospital, London, UK

Patients entering HPV triage system with colposcopically confirmed low grade CIN or less should be followed up with repeat cytology in the community at 12 months.

Objectives:
To review the management of HPV triage patients following a modified triage pathway which includes colposcopy follow up at 12 months even if colposcopy was normal or low grade on the initial visit. To assess the clinical effectiveness and extra cost of this pathway compared to standard triage.

Method: Retrospective data collected from view point data base, recorded on a spread sheet and analysed.

Results:
300 patients presented for HPV triage in a teaching hospital between 01.01.2014-30.09.2014.Low grade disease was colposcopically diagnosed in 87% of patients, high grade disease 10% and no disease in 3%. Biopsy at first presentation was taken in 95% cases and histology confirmed high grade CIN in 11%, CIN I/HPV in 75%, no disease in7.5%, inadequate histology in 1% and CGIN 0.6%. No patients discharged after first visit. Biopsy on second visit in 23% of cases and 68% of patients had normal cytology but were not discharged .Only 23% of patients had been discharged after 2 or3 years follow up. Some of the patients had reached their 4th visits, overall 52% of the original number of patients had been lost to follow up. This left a total visits of 596.

Conclusion:
Data presented and published from other colposcopy units has shown that following the triage pathway 300 referrals would probably generate approximately 420 colposcopy visits in total.
This study reveals significant cost implications of generating 596 visits even though the DNA rate was as high as 52% overall and clinical outcome was the same. Assuming the published cost of a colposcopy visit is approximately £700, a policy of discharging after first visit would represent a massive savings of approximately £420,000-£29,400=£126,000 based on population of 300 referred patients.

P-23

POSITIVE PREDICTIVE VALUE OF COLPOSCOPY IN DETECTING HIGH-GRADE LESION: OLD STANDARD, DOES IT APPLY IN THE ERA OF HPV TRIAGE AND TEST OF CURE

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Introduction:
NHSCSP guidelines regarding the Positive predictive value (PPV) of a high-grade (CIN2+) colposcopy diagnosis: where an adequate colposcopic examination requires visualising the upper extent of the lesion and squamo-columnar junction, should be at least 65%. Prior to the introduction of HPV testing in April 2012, high-grade (HG) referrals made up 49% of total referrals to our colposcopy unit, this dropped to 25% following the introduction.

Objective:
We aim to compare both the PPV between low grade/Borderline dyskaryosis (LG/BNC) and high-grade (HG) referrals, before (Group 1) and after (Group 2) the full implementation of HPV testing.

Method:
Women were identified using the colposcopy CYRES data analysis system. Women within Group 1 were seen between April 2010 and April 2012 and within Group 2 between April 2013 and November 2016.

Results:
The PPV in Group 1 referred with LG/BNC was; 42% for colposcopist A, 46% for colposcopist B and 38% for colposcopist C 38%, the average PPV was 42%. For women referred with HG, the PPV in the same group was; 90.4% for colposcopist A; 93.5% for colposcopist B and 88% for colposcopist C, the average PPV was 90%. The PPV in Group 2 referred with LG/BNC was; 54% for colposcopist C, 24.5% for colposcopist D and 42% for colposcopist E, the average PPV was 37%. The PPV in the same group for HG referrals was; 88.5% for colposcopist C; 85% for colposcopist D and 88.9% for colposcopist D. the average PPV was 86.7%

Conclusion:
The PPV describes the performance of a diagnostic test, which depends on the prevalence of the disease. Our review shows a low PPV for women referred with LG/BNC in comparison to women referred with HG, irrelevant to the operator. We suggest further research to assess PPV and separate PPV based on referral smear.

P-24

AUDIT OF DISCREPANCY BETWEEN CYTOLOGY AND HISTOLOGY OF LLETZ- IS IT JUST A FACT OF LIFE?

Mrs Sonu Pathak, Ms Sanjay Kumari, Mrs Alison Walker
Royal Free London NHS Foundation Trust, UK

Aim and Objective:
To perform an audit of patients who have undergone LLETZ from January – December 2014, studying the degree of discrepancy between the cytology and histology.
This discrepancy could have serious implications, including unnecessary anxiety and increased surveillance on one hand, and risk of missing significant disease on the other.

Methodology:
NHSCSP publication 20(second edition) standards were used. The following elements were studied - Proportion of single piece LLETZ specimen: >80%, Proportion of LLETZ done under LA: >80%Treated women with no dyskaryosis six months following treatment: 90%, Colposcopy specificity (true positive): ~65%. 102 out of 392 cases had discrepancy.

Result and discussion:
For high grade lesions, colposcopic opinion had 84% (standard average overall ~ 65%) concordance with smear. Cervical biopsy had 61.3% concordance with smear. 85.29 %(n=102) of negative, CIN I and upgradeable results following LLETZ were discordant with smear and/or cervical biopsy.22.19 %(n=392) of total LLETZ specimen do not agree with original smear and/or cervical biopsy.

Conclusion:
A cohort of eleven colposcopists had a uniform distribution of cases with discordant cytology and histology. Therefore, professional's skill and training is unlikely to be a factor. Histological classification of a large number of cervical biopsy samples in CIN 2 category could indicate a certain degree of lack of commitment or difficulty is assessment of specimen.

A confirmed discrepancy is not an indication for a further excisional biopsy but follow-up is essential because a small percentage of patients may have disease that has been missed (1).

Recommendations:
Cautious directed biopsy, preferably multiple to reduce the likelihood of missing significant disease.

To increase the proportion of LLETZ specimen as single piece to aid improved histological assessment.

Reference:
1. Cervical cytology/histology discrepancy: a 4-year review of patient outcome.
Moss EL1, Moran A, Douce G, Parkes J, Todd RW, Redman CW.

P-25

AUDIT OF TIMELY DEFINITIVE TREATMENT OF HIGH GRADE CIN

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Aims and Objectives:
The NHS cervical screening program recommends that at least 90% of patients should have definitive treatment for high grade Cervical Intraepithelial Neoplasia (CIN) within four weeks of the histopathological report. Our aim was to evaluate whether our centre meets this target.

Method:
A retrospective review was performed of patients who underwent a biopsy confirming high grade CIN between July and September 2016 at the colposcopy clinic in University Hospital of Wales . High Grade CIN included patients with CIN2 and CIN3.

Results:
Of the 39 patients diagnosed with high grade CIN, 23 were CIN2 and 16 had CIN3. Of the 23 CIN2 patients, ten decided to be treated conservatively with a follow up smear in 6 months. A further three patients did not attend for a definitive procedure, one became pregnant and one left the area. These patients were therefore excluded from our analysis. Among the 23 CIN2 and 16 CIN3 patients, 13 and 12 underwent treatment respectively. Among these 25 patients who had definitive treatment, only ten (40%) were treated within four weeks of the histopathological report.

Conclusion:
Our results demonstrate that at present our Centre is unable to meet the recommended target. However the numbers are small and we will perform a re-evaluation with a larger cohort in six months. Reasons for delay are not currently known but will be explored in due course.

P-26

ARE WAITING TIMES MET WHEN REFERRALS ARE MADE TO THE COLPOSCOPY DEPARTMENT IN QUEEN ELIZABETH HOSPITAL, GATESHEAD?

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This is a quality assurance audit to assess if the colposcopy department at the Queen Elizabeth Hospital, Gateshead, North East England, could deliver according to the NHS Cervical Screening programme and Cancer Waiting times: national policy, during a six month period.

Standards were set as per the most recent NHS Cervical Screening Programme, Colposcopy and Programme Management, NHSCSP Publication Number 20, Third Edition March 2016.

A retrospective audit was performed to cover six months from July 2015 to December 2015. In total fifty three referrals were made to the department in this time period.

Of the fifty three referrals, fourteen notes could not be obtained, one patient was treated privately and one patient did not attend. Thus leaving thirty seven notes for review. All referrals were from the NHS national screening programme for cervical cancer.

A total of 37 patients were identified for audit.

97% (36) of patients received an appointment within NHS Cervical Screening Programme (NHSCP) targets.

100% (37) of patients received an appointment within the Cancer waiting times (CWT): National policy.

100% (37) of patients received treatment within the CWT policy.

1 patient was diagnosed with adenocarcinoma, moderately differentiated, cervical glandular intraepithelial neoplasia (CGIN) treated in 45 days, from point of referral. This was from an asymptomatic high grade screening sample, of an individual that attended invitations to the screening programme. This was treated by means of a

modified total laparoscopic radical hysterectomy with bilateral salpingo-oophorectomy and bilateral pelvic node dissection.

As per NHSCSP Publication Number 20, Queen Elizabeth Hospital, Gateshead, North East England, complies with referral/waiting time standards.

P-27

A COMPARISON OF GENERAL VS TAILORED FOLLOW-UP FOR PATIENTS HAVING UNDERGONE FERTILITY SPARING TREATMENT FOR CERVICAL CANCER

*Dr Jennifer Davies-Oliveira[1], Dr Simran Sharma1, **Dr Florian Drews[1]**, Dr Rosalind Jones[1], Dr Ewelina Rzyska[1], Mr Rob Howells[1], Mr Ken Lim[1], Dr Aarti Sharma[1]*
[1]UHW, Cardiff, UK

Objectives:
Post operative follow-up for patients who undergo fertility sparing treatment for cervical cancer – knife cone excision or trachelectomy – has traditionally been shared between a Gynaecology-Oncology clinic and the colposcopy service at the University Hospital of Wales. This cohort of patients has very complex follow-up needs, including difficult examinations, physical/psychological issues and subfertility problems. We introduced a dedicated follow-up clinic. Our aim is to evaluate this service and whether this change translates into improved care.

Methods:
We undertook a retrospective review of patients who underwent knife cone excision or trachelectomy, comparing four months prior and post September 2016 when a dedicated follow-up clinic was commenced.

Results:
A total of 32 patients were seen during the stated period. In the pre-September group, ten patients had undergone a knife cone excision and ten a trachelectomy.

In the gynae-oncology clinic, 17 patients (85%) were seen by a consultant, 3 patients (15%) were seen by trainees. All patients were examined in clinic. Colposcopy was done at a different appointment. In 17 patients (85%), this was carried out within 3-6 months following the initial visit.

In the post-September group, nine patients had previously undergone a knife cone excision and three a trachelectomy. In our dedicated clinic, 11 patients (92%) were seen by a consultant and one patient by a subspeciality trainee. All patients were examined

and had a colposcopy. Smears were carried out in 9 (75%). The remaining patients were not due a smear at the time of the study.

Conclusions:
The dedicated service for follow-up of patients undergoing fertility sparing treatment for early cervical cancer is more suited to providing these patients with the follow-up they need, as it is a consultant led service. Furthermore, this one-stop setup prevents patients from having to attend multiple appointments.

P-28

WOMEN UNDER 25 YEARS REFERRED TO COLPOSCOPY

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Background:
NHSCSP recommends cervical screening commence after 25 years of age, as screening is not effective before that age. There is potential for harm in terms of anxiety, high prevalence of HPV, low grade abnormalities, increased referrals to colposcopy and unnecessary treatment. LLETZ is a risk factor for mid trimester miscarriages and preterm labour. Further, with HPV immunisation approaching it's tenth year, the incidence of abnormal cytology is expected be reduced.

Aim and Objectives:
To review number of women referred to colposcopy under 25 years of age with abnormal cytology and/or clinical indications over the last 3 years.

Methodology:
Data collection from colposcopy database View point between August 2014 to December 2016.

Results (Patients referred to colposcopy under 25 years):

Total number:
2014: 13%
2015: 5.4%
2016: 6%

Abnormal cytology:
2014: 8.4%
2015: 4.2%
2016: 3.5%

Clinical indications:
2014: 3.5%
2015: 1.6%
2016: 2.7%

LLETZ:
2014: n= 9
2015: n= 7
2016: n = 2

HPV Vaccination:
2014: 5%
2015: 18%
2016: 22%

Conclusion:
Total number of referrals of patients under 25 years old is decreasing.

P-29

SIGNIFICANCE OF NEGATIVE COLPOSCOPY IN WOMEN WITH LOW GRADE HPV POSITIVE SMEARS

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Rotunda Hospital, Dublin, Ireland

Background:
Reflex HPV testing was introduced in Ireland in May 2015. Since then, all women with ASCUS or LSIL smears who are HPV positive are referred for colposcopic assessment. The current recommendation is that women with low grade HPV positive smears who are found to have a normal cervix on colposcopic assessment are discharged to routine screening (1).

Aim:
To audit the outcomes following referral to colposcopy of women with low grade HPV-positive smears.

Methods:
A retrospective review was done to examine the coposcopic diagnosis and histology results of all women referred to our colposcopy clinic with ASCUS/LSIL HPV positive smear between 01/06/2015 and 31/10/2015. Histology results were obtained using the pathology iLabs system, and colposcopy impressions were obtained from our clinic database Mediscan system.

Results:
398 women were referred with low grade HPV positive smears and 54 of these had a normal cervix on colposcopic assessment. Of the 148 women referred with ASCUS-HPV

positive smears, 23 (15%) had normal colposcopy. 21 (91.3%) of these women were discharged without biopsies as per the current guideline. Two women had random biopsies – one had CIN I and the other CINII. 250 women were referred with LSIL HPV positive smears. 31 (12.4%) of these women had normal colposcpy. Of these 26 (83.8%) were discharged without biopsies. Random biopsies were done for 5 women; CIN I was diagnosed in three specimens, CINII in one, and CINIII in one.

Conclusion:
Our preliminary observations of this cohort of women raises concerns regarding the safety of the policy of discharging women to routine screening if they have low grade HPV positive smears and a normal colposcopic examination.

(1) www.cervical check.ie Guidance Note 14 HPV reflex testing in primary care.

P-30

A REVIEW OF CERVICAL CANCERS DIAGNOSED IN UNIVERSITY HOSPITAL LEWISHAM BETWEEN 1ST JANUARY 2010 TO 31ST DECEMBER 2015

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University Hospital Lewisham, UK

In this audit, we looked at the cases of cervical cancer diagnosed in our unit; especially at the referral indication, colposcopic impression, punch biopsy result, type of cancer, and age range; between 1st January 2010 and 31st December 2015.

Introduction

The figures were extracted from the compuscope.

During this time frame, six thousand four hundred and fifty five (6455) patients were seen at the colposcopy department at UHL.

Forty (40) women were diagnosed with cervical cancer.

This constitutes about 0.6%.

The age range of women diagnosed with cervical cancer within this time frame ranged from 26 to 93 years.

Most patients were between 30 and 60 years

Twenty five of the patients had colposcopic impression of suspected invasion or high grade abnormality.

Two patients had a colposcopic impression of low grade abnormality

1 patient had an unsatisfactory colposcopy.

Some patients did not need colposcopy or cervical smear as they already had a histological diagnosis of cervical cancer before their clinic appointment.

P-31

AN AUDIT OF THE MANAGEMENT OF WOMEN WITH LOW GRADE DYSKARYOSIS AT WEST HERTS HOSPITALS 2013 TO 2015

*Dr Ronald Joseph, **Mr Ade Sanusi**, Mr Malcolm Padwick, Dr Diana Tun, Miss Selvi Vickram*
West Herts Hospitals, Watford, UK

Background and standards:
Since the incorporation of the high risk Human Papilloma Virus (HPV) triage into the cervical screening programme, the way women with low grade Dyskaryosis are managed have changed. These changes are outlined in the most recent guidelines and our practice should reflect these standards. If the HR-HPV test is positive, the woman must be referred for colposcopy. If the HR-HPV test is negative, the woman must be returned to routine recall. To prevent possible overtreatment, however, they should not be managed on a 'see and treat' basis. They should be seen within six weeks of referral (99%).
A significant proportion (50%) of new referrals in our clinics are for urgent clinical indications like post coital bleeding

Aim:
To assess the way women with low grade dyskaryosis at West Herts between 2013 and 2015 are managed against the most recent guidelines.

Method:
This was a retrospective audit of new patients presenting to the department with abnormal smears in the calendar year 2013. This group of women were followed for 2 years. Women with Low grade and borderline dyskaryosis and HPV positive were included. The women who rebooked were excluded. Data were obtained from our infoflex data base.

Results:
There were 297 new patients who met the selection criterion. 284 (95.6%) of women were seen within 6 weeks. 100% of the referrals were women who were HPV positive. 9.7% of women with HPV negative smears returned in the first year and 12.5% in the 2nd year. 2 women, (1%) had loop excision at the first visit. After the second year 85.3% of women were discharged.

Summary:
Although two standards were fully met, we feel this group of women were managed appropriately. Given the number of women seen for none cytology abnormality over 95% of women were seen on time.

P-32

GLANDULAR ABNORMALITIES ON SMEARS: SHOULD WE OFFER 'SEE AND TREAT'?

Miss Magdalena Thiel[1], *Dr Nikos Plevris*[2], *Miss Rachana Dwivedi1*
[1]*Royal Bournemouth Hospital, UK,* [2]*Poole Hospital, UK*

Background:
Cervical glandular Intraepithelial Neoplasia (CGIN) and adenocarcinoma in situ (AIS) are premalignant conditions associated with human papilloma virus infection. Left untreated CGIN and AIS may progress to adenocarcinoma. CGIN remains challenging to diagnose, with a higher rate of false positive smears having been observed.

Aim:
1. To assess need and benefit of 'see and treat' for glandular abnormalities detected on cervical smear.
2. To compare smear findings with histological assessment of glandular abnormalities detected by cervical screening, determining accuracy of smear reporting.
3. To evaluate management of patients with glandular abnormalities, compared with BSCCP guidelines.

Method:
Retrospective data analysis of computer held records, including cytology, histology and patient documents. Inclusion criteria: All patients attending Royal Bournemouth Hospital colposcopy department with '?glandular neoplasia' or 'CGIN' reported on routine cervical smear or other fast-track pathway, from 01 January 2008 to 31 December 2016.

Results:
27 patients identified with cytological glandular abnormalities reported on cervical smear attended colposcopy. 18/27 (66.7%) underwent initial cervical biopsy, 15/18 (83.3%) had subsequent LLETZ or cone biopsy, 2/18 (11.1%) had a hysterectomy, 1 patient did not require further treatment. Of the LLETZ/Cone biopsy group, 3/15 (20%) needed a further LLETZ/Cone biopsies, 1 (6.7%) had subsequent hysterectomy.

9/27 (33.3%) patients had initial LLETZ, of these 2 (22.2%) required further treatment (cone biopsy, hysterectomy) and 1 is still awaiting treatment of cure (TOC).

There was a 17/27 (63.0%) concordance between smear findings and histological diagnosis, 8/27 (29.6%) had CIN2-3 or SCC. Normal histology findings in 2/27 (7.4%).

All patients (100%) were treated and followed up as per BSCCP guidelines.

Conclusion:
As 83.3% of women required LLETZ following initial cervical biopsy, and 80% of those needed no further treatment, 'see and treat' clinics can be recommended to reduce treatment times, appointments and patient anxiety.

P-33

AUDIT ON COMPLIANCE OF HIGH RISK HUMAN PAPILLOMA VIRUS PATHWAY IN COLPOSCOPY SERVICE IN A LARGE DISTRICT GENERAL HOSPITAL IN THE MIDLANDS

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Worcestershire Acute Hospitals NHS Trust, Worcester, United Kingdom

Aim
To measure the compliance to HR HPV pathway against national and local guideline for the patients referred to the colposcopy service at Worcestershire Acute Hospitals NHS Trust (W.A.H.T) with Negative smear, Borderline squamous or Mild dyskaryosis with a positive HR HPV test.

Method
A prospective audit of all patients undergoing colposcopy with above mentioned cytology results between 1st December 2015 to 29th February 2016. The patients were identified from the West Midlands Colposcopy database and all notes, investigation results and management plans were reviewed.

Audit outcome
During the audit period, 175 patients were assessed in the colposcopy clinic.115 (66.1%) patients had punch biopsy of cervix. 37 were reportedwith HG CIN and 31 had CIN 1. 33 were diagnosed with HPV only but no CIN. 4 had a normal biopsy and 10 had an insufficient sample.

88% patients were discharged back as per the guideline but 12% patients were followed up in 6 and 12 months.
96.7% of the patients with untreated CIN 1 were followed up in colposcopy clinic in 12 months.
97.1% of the patients who had loop excision were discharged to GP for TOC in 6 months.

Conclusion
The audit showed that the punch biopsy rate at W.A.H.T for this group of patients is slightly higher than West Midlands average but a significant number of the patients (37 out 175, 21% of the patients referred) were diagnosed with HG CIN on punch biopsy who went on to have treatment.

12% patients were followed up in 6 and 12 months where there was no obvious indication or no documented concern from the colposcopist. The guideline for follow up of patients with untreated CIN 1 was adhered to in most of the cases.

Management of an unsatisfactory colposcopy and/or inadequate biopsy in low risk patients was adhered to 75% of the cases. 25% of patients were brought back to clinic earlier than recommended.

88.9% of the high risk patients (previous high grade disease or persistent low grade disease of $\geq$ 2 years) with unsatisfactory colposcopy were discussed at the colposcopy MDT meeting.

Audit was circulated to all colposcopists within the trust with a copy of current HPV pathway and protocols for reference. A re-audit has been planned in 12 months' time.

P-34

NATIONAL SURVEY: CURRENT PRACTICES IN THE MANAGEMENT OF A TYPE 3 TRANSFORMATION ZONE

Dr Kristyn Manley[2], Dr Andrew Wills[2], Dr Naomi Crouch[1], Professor A López Bernal[2], Mr Amit Patel[1]

[1]University Hospitals Bristol NHS Trust, UK, [2]University of Bristol, UK

Introduction:

Unsatisfactory colposcopy is a common area of clinical uncertainty due to the lack of clear evidence and guidance. Colposcopists' opinions and experiences are likely to have a significant influence on the development of national recommendations and the implementation of clinical guidelines. The aim of this study was to analyse decision-making when applied to women with unsatisfactory colposcopy.

Methods:

A questionnaire was prepared based on a conceptual framework, literature review and contributions from four focus groups. It contained 14 items which covered a range of clinical and cytological variables, oestrogen use, techniques to improve diagnostic yield, cytological follow-up and depth of LLETZ. It was tested for acceptability, reliability and validity.

Results:

1200 UK Colposcopists were emailed with a 17.1% response rate. For women with high-grade screening there was a preference for LLETZ (87.1% if family complete, 57.7% if incomplete). For women with low-grade screening, 72.9% chose cytological follow-up of whom 74.5% preferred this to be in colposcopy and at six months (58.4%) rather than twelve. 93.6% recommended non-routine methods to improve diagnostic yield. A smaller depth of LLETZ that currently recommended (69.2% chose 7-10mm) was preferred in women who had not completed their families. For women 25-39, there was a preference for 24 months of cytological follow-up before LLETZ. For women >40 or who had completed their families there was no clear preference.

Conclusions:

This survey provides valuable information to guide a national consensus strategy. Areas with clear consensus include use of a multidisciplinary team and offering excision to women with high-grade cytology and those with high risk factors yet low-grade cytology such as smokers, non-attenders, parous and older women. Areas of discordance, which are affected by paucity of evidence, include technique and length of cytological follow-up and depth of LLETZ in women at high risk of treatment-related morbidity.

P-35

UNSATISFACTORY COLPOSCOPY EXAMINATION - A REVIEW LOOKING AT THE OUTCOME OF 260 UNSATISFACORY COLPOSCOPY EXAMINATIONS (8% OF THE TOTAL COLPOSCOPY EXAMINATIONS) WITH A MINIMUM OF TWO YEARS FOLLOW UP. THE REVIEW HAS LOOKED AT THE PATIENTS AGE, REASON FOR REFERRAL, ANY PREVIOUS TREATMENT TO THE CERVIX, THE OUTCOME AND FOLLOW UP

Mrs Sarah Stevens, *Ms Veena Kaul*
Mid Yorkshire NHS Trust, Pontefract, United Kingdom

We identified 260 cases that were recorded as unsatisfactory colposcopy examinations between January 2013 and January 2015. The total number of examinations that took place during this time period was 2600 (8%of examinations were recorded as unsatisfactory)

We identified each case using the data recording system used in colposcopy and interigated these cases.

For each case we recorded the age of the patient at time of visit, the reason for referral, any previous treatment to the cervix and treatment type.

We then reviewed these identified cases to record the follow up management, outcomes of their visits, any discussion at MDT and the MDT recommendations.
This information was presented to demonstrate management of unsatisfactory colposcopy and the outcomes.

P-36

COLPOSCOPY MDT AUDIT AT GUY'S AND ST THOMAS' NHS TRUST

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Background:
Colposcopy-MDT improves the quality of care for challenging cases like mismatch between cytology/histology, glandular abnormalities, cervical cancer, difficult-cases, and management of under 25's. There is emphasis on frequency of meetings/attendance/teaching/training.

Aim:
To provide high-standard of care for women referred to colposcopy at GSTT.
Objective: To evaluate our compliance with the Colposcopy and Programme-Management-Guideline20 Standards.

Methodology:
Local SOP for colposcopy MDT/National Guideline was reviewed and data captured over 6 months Jan-June 2016 as a re-audit from 2015.
Resources used: Electronic-colposcopy-database-Viewpoint and MDT outcomes.

Results:
- Colposcopy-MDT meetings: (n=11, 2016) vs. (n=9, 2015).
- Cases discussed: (n=127, 2016) vs. (n=109, 2015) average 13/session 2015 vs. 12/session 2016.
- Main indication: discrepancy between cytology/histology/colposcopy: (n=62, 2015) vs. (n=64, 2016).
- Cytology over-recall 19% (n=12, 2015) vs 23% (n=15, 2016), cytology under-recall 10% (n=6, 2015) vs. % 22% (n=14, 2016), cytology concordant 71% (n=44, 2015) vs. 55% (n=35).
- Histology overcall 2% (n=1, 2015) vs. 5% (n=2, 2016), under-recall 11% (n=5, 2015) vs 2% (n=1, 2016) concordant 87% (n=39, 2015) vs. 93% (n=39, 2016).
- MDT decisions: LLETZ treatment (n=14, 2015) vs. (n=19, 2016), discharge (n=5, 2015) vs. (n=13, 2016).
- Under 25's discussed (n=7, 2015) vs. (n=5, 2016).

Additional cases discussed in 2016: Over 65's (n=3), glandular abnormalities (n=8), invasive cytology/cancer (n=11), diagnostic LLETZ when colposcopy was negative (n=6) and negative LLETZ (n=8).
MDT meetings attendance rate: Colposcopy team Consultants, nurses, cytologists and histopathologist: >50%. Gynae-oncologists and trainees: <50%.

Conclusion:
- Colposcopy-MDT is provides high-quality care.
- Gynae-oncologists/trainees attended <50% of the MDT meetings. Cancer cases/glandular abnormalities were discussed in gynae-oncology-MDT.
- Colposcopy-MDT-proforma/electronic capture developed as part of 2015 audit has been implemented.

Recommendations:
MDT SOP has been updated per NHSCSP Guideline 20 (Mar 2016) and MDTs would be re-audited as part of audit cycle.

P-37

? GLANDULAR NEOPLASIA OVER 5-YEARS AUDIT

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Background:
Cervical screening with cytology can predict the presence of cervical glandular intraepithelial abnormalities, including cervical adenocarcinoma and high grade intraepithelial glandular neoplasia (CGIN).

The NHSCSP (May 2010) recommended, it is essential all women with the presence of cytological glandular abnormality should have colposcopic assessment.

Women with samples reported as ?glandular neoplasia should be referred for investigation urgently within two weeks by colposcopy to exclude significant cervical and endometrial neoplasia.

Objectives:
To evaluate the sensitivity of cytology, colposcopy and histology in detection of CGIN. Also to observe if these women were managed in accordance with NHSCSP guidelines.

Methods:
A retrospective study of 46 women with ? Glandular Neoplasia on cytology referred to colopscopy between 1st January 2011 and 31st December 2016. The data was collected from colposcopy database and electronic patient records.

Results:
46 women were found to have ?Glandular Neoplasia on their cytology reports. All patients attended colposcopy clinic for their first assessment (100%).

Colposcopy showed high grade lesions in 22 (48%), Low grade lesions in 9 (19.5%), normal in 15 (33%).

All women had biopsy (excisional/ multiple punch) done in their first colposcopy clinic visit. Single punch biopsy was not performed, multiple punch biopsy taken in 17 (37%) and excisional biopsy (LLETZ/Knife cone) carried out in 29 (63%).
Histology confirmed adenocarcinoma in 11(24%) cases only. High grade CIN II-CIN III found in 17(37%) meanwhile, low grade abnormality confirmed in 8(17%).

Conclusion:
CGIN imposes challenges on the management in term of diagnosis and therapeutic options.

P-38

CORRELATING DYNAMIC SPECTRAL IMAGING AND HIGH-GRADE HISTOPATHOLOGY MAPPING OF THE CERVIX: A FEASIBILITY SERVICE EVALUATION

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Introduction:

Prediction of cervical pathology challenges colposcopy, affecting its sensitivity to identify disease and limiting individualized management options. Published data mapping the histopathological distribution of cervical intraepithelial neoplasia (CIN) is lacking.

This is the first comparison of Dynamic Spectral Imaging (DSI) and histopathological mapping of the cervix, aiming to assess the potential of DSI to assist the precise colposcopic description of high-grade lesions.

Methods:

Five women (age range 24-39 years) who had DSI colposcopy prior to a large loop excision of the transformation zone (LLETZ), due to CIN2+ biopsies (n=3) or high-grade cytology (n=2), were included. LLETZ specimens were oriented by the colposcopist and processed by an expert histopathologist blinded to colposcopy findings. Samples were serially cut in 2-3mm slices perpendicular to the os and at least three levels were taken from each slice. CIN was measured and mapped onto a diagram that divided the cervix in eight slices (octants), and each octant in two parts (closer and farther from the os), providing 16 evaluable areas per case. Each area was characterized, independently, as either HG or not by the DSI map and histopathology.

Results:

All five colposcopies were satisfactory. Four had histology showing CIN2+ and one showed CIN1 only. In total, CIN2+ was found in 31 areas. One satellite CIN2+ lesion was missed by DSI and overall 25 of the CIN2+ areas were mapped correctly. Three areas that were predicted as HG by DSI were not confirmed by histopathology.

Conclusions:

These data suggest excellent correlation between DSI mapping and high-grade histology and justify future prospective studies to explore uses of DSI beyond improved sensitivity and biopsy site selection.

P-39

CERVICAL INTRAEPITHELIAL NEOPLASIA (CIN2) OUTCOMES AT HOMERTON UNIVERSITY HOSPITAL

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Objective:
The purpose of this study is to audit the management and outcomes of high grade cervical intraepithelial neoplasia (CIN2) at Homerton University Hospital.

Methods:
A retrospective review was performed to investigate all women with cervical biopsy proven CIN2 between January 2014 and January 2017, who were seen in the colposcopy clinic at the Homerton University Hospital NHS Foundation Trust, London, UK.
The potential risk factors were examined in addition to the colposcopy outcomes and follow up plan.

Results:
Total Number of patient is 214 over three-year period. Age ranges from 20-51 average 30 years of age. 93% were referred with abnormal screening samples and 7% were seen for other urgent and non-urgent clinical indications.
Referral cytology documented four cases with suspicion of glandular neoplasia, borderline 28%, high grade (moderate) 18%, high grade (severe) 14%, low grade (mild) 32%, one case of invasive carcinoma and negative cytology in 12/214.
Colposcopy assessment reported two cases were suspicious of cervical carcinoma, high grade CIN II–III were in in 54% of women, low grade abnormality seen in 36%, HPV / Warty lesions in 6.5% and normal in six cases.

Repeated cytology was done in 29/214 cases, among them 27.5% were high grade dyskaryosis, 59% were low grade dyskaryosis and four cases were negative.
Cervical biopsy was taken for every case; multiple punches in 47%, single punches in 10% and LLETZ excision in 71/214(33%).

Conclusion:
A diagnostic excisional procedure is recommended in women with biopsy-confirmed cervical intraepithelial neoplasia 2 or 3 and unsatisfactory colposcopy.

P-40

CIN2+ BY STANDARD, RANDOM AND DYNAMIC SPECTRAL IMAGING BIOPSIES DURING ROUTINE COLPOSCOPY FOR LOW-GRADE REFERRALS. AN NHS COLPOSCOPY CLINIC BASED STUDY

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Introduction:

Women with low-grade (LG) cytological abnormalities are expected to soon make up the vast majority of direct referrals to colposcopy, as a result of the human papillomavirus (HPV) vaccination. The sentinel sites study showed that 16% of this population have high-grade (HG) cervical intraepithelial neoplasia (CIN).

This is the first UK-based study aiming to assess the detection rates of CIN2+ by different methods of biopsy selection, and evaluate if and how using the dynamic spectral imaging (DSI) digital colposcope affects outcomes compared to conventional colposcopy.

Methods:

This is a nested case control study including women referred with LG high-risk (HR) HPV positive cervical cytology from 11/2015 until 1/2017 to Musgrove Park Hospital, Taunton, who were examined using the DSI digital colposcope (DSI group). Biopsies were taken from sites identified: (1) before DSI map (internal control); (2) using map to confirm/refine biopsy area; (3) map only identified sites. A contemporaneous control group (4), examined by conventional colposcopy, was used to compare results (external control).

Results: Seventy-one women were in the DSI group. Of those, 22 (31%) were found to have CIN2+ lesions. Colposcopy pre-DSI predicted 5 (22.7%) of the CIN2+ cases as "high-grade". However, as some areas considered "low-grade" were also biopsied, standard pre-DSI colposcopy (sub-group 1) detected 9 CIN2+ cases and a further 8 with

use of the DSI map (sub-group 2) (p=0.008). Biopsies based exclusively on DSI (sub-group 3) detected 5 additional CIN2+ cases (p=0.044).

The control group included 390 women. Baseline characteristics were comparable to the DSI group. Of those, 79 were found to have CIN2+ lesions, a detection rate of 20.3%, which is lower than in the DSI group (p=0.0637).

Conclusions:

These data suggest that DSI has an adjunctive role, on many levels, for this important, challenging population.

P-41

OUTCOMES OF ASCUS AND LSIL REFERRALS SEEN AT OUR COLPOSCOPY UNIT IN TALLAGHT HOSPITAL AND A REVIEW OF THE MANAGEMENT, OUTCOMES AND FOLLOW UP OVER A 12 MONTH PERIOD

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Background:
The National Cervical Cancer Screening Programme was launched in Ireland in 2008. The successful introduction of an organised, well-managed, national cervical screening programme has the potential to reduce current incidence rates from cervical cancer among women in Ireland by up to 80%.

There are approximately 300 new cases of cervical cancer in Ireland every year.

Study Method:
We reviewed all the cases of patients referred to our colposcopy unit in 2013 with a referral diagnosis of ASCUS or LSIL.

Of these, we audited the outcomes of those classified as low grade by our colposcopists, and retrospectively reviewed their demographics, management and outcomes with their follow up histology and cytology results.

Results:
In our study, 492 patients out of 890 referrals were deemed low grade at colposcopy. Of these a biopsy was performed in 334 patients. With regards biopsy results, 225 were classified as CIN 1, 52 as CIN2 and 21 as CIN 3, histology was classified as unsatisfactory in 58 cases. 158 of our patients did not undergo a biopsy.

Within the biopsy group (n=158), 21% remained both HPV and cytology positive; 57% had cleared HPV and demonstrated no cytological atypia. Of those deemed as appearing normal at colposcopy, only 18% were both HPV and cytology positive at one year; 56% demonstrating neither HPV or cytological atypia at one year. Of those patients classified as low grade who did not undergo biopsy, (n=158), 53 patients were seen at six months, 33 patients at 12 months. At twelve months 20% of patients were HPV and cytology positive, while 55% were HPV negative with normal cytology.

Conclusion:
HPV testing for cancer-associated HPV DNA along with a repeat smear and follow up cytology, is a viable option for the conservative management of women with ASCUS and LSIL.

P-42

HPV TRIAGE REFERRALS: HOW IS IT WORKING AND FOCUS ON SHARED DECISION MAKING IN WOMEN WITH LOW GRADE CIN

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HR-HPV testing using Hybrid Capture 2 is now recognised to be a more sensitive screening test than cytology or colposcopy. As a result, HR-HPV triage has been rolled out nationally in 2013 for women with borderline, low-grade or negative cytology results. Pilot studies have shown that satisfactory negative colposcopy examinations carried a high negative predictive value, with only 4.4% of these women diagnosed with CIN2+ over the following three years.

Women with low grade CIN are advised to attend a follow up in 12 months for colposcopy or repeat cytology in the community. How effective is this follow up process? Following publication of Montgomery ruling in 2015 particularly in O&G setting, we also believe that 'Shared Decision Making' is vital when managing women with low grade CIN.

We are reviewing up to 100 women referred to our Colposcopy clinic through HPV Triage protocol with at least two years of follow up, looking at the following:

- Compliance to BSCCP audit standards (audit aspect)
- Outcomes including (Quality assurance / improvement aspect):
- Proportions discharged at first visit to routine recall, 12 months colposcopy or 12 months repeat cytology in the community.
- Evidence of Shared Decision making
- Practise of colposcopy directed punch biopsy
- Repeat Cytology results at 12 months
- Repeat Colposcopy outcomes including Treatment
- Proportion of women with CIN2+ diagnosed at different times in the management pathway.
- Any re-referrals among discharged women
- Failed to attend rates at 12 months in Colposcopy clinic and their management
- Compliance to cytology at 12 months in community setting

Recommendations will be made as needed, particularly to embrace / embed the concept of Shared decision making more actively in women with low grade CIN and also improve effectiveness of follow up processes.

P-43

IMPROVING INFORMATION SHARING ABOUT LLETZ AND IMPACT ON FUTURE PREGNANCIES: A QUALITY IMPROVEMENT PROJECT

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Background:
Deep and multiple LLETZ treatment can be associated with an increased risk of preterm birth. NICE advises cervical length scanning at 16-24 weeks for women with a history of cervical trauma, and to consider prophylactic cerclage if the cervix is shortened.

Aims:
To develop a pathway to assist in timely triage of women at increased risk of preterm delivery after LLETZ treatment.

Methods:
Following an audit of LLETZ treatments we presented our data, including a discussion of the guideline, to the colposcopy and maternity departments. We worked together to improve communication and assist obstetricians to identify women at higher risk of preterm delivery after their treatment.

Results:
Our audit revealed that the depth of LLETZ was not explicitly reported in our pathology results. We amended our templates so that this is recorded without ambiguity. Obstetricians were unaware that the depth of LLETZ could be used to help triage high-risk women, and welcomed our suggestion of improving communication with them. We agreed to provide patient-specific information on the depth of LLETZ and potential risk of preterm labour in each patient's results letter. Those at higher risk (>10mm or

multiple treatments) receive written advice to seek early medical review during any future pregnancy, and to show the letter to their doctor or midwife. Those at lower risk are offered reassurance, but still advised to inform their maternity team. The patient letter clearly defines those women at increased risk, and also serves as accessible documentation in the primary and secondary care notes.

Conclusions:
We have established a system to assist the triage of women at risk of preterm labour after LLETZ for specialist obstetric care. By including the patients in the information sharing, we are also empowering them to take responsibility for their own health.

P-44

MULTIFOCAL INTRAEPITHELIAL NEOPLASIA (MIN) IN RENAL TRANSPLANT RECIPIENTS

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Background:
Immunosuppression as a result of renal transplantation is known to increase the risk of cancers associated with viral infection. The current NHSCSP guidance recommends cervical screening at/shortly after diagnosis of renal disease requiring replacement therapy, and that women undergoing renal transplant should have had cervical cytology performed within the previous year.

Methods:
The aim of the study was to establish the incidence of pre-malignant/malignant anogenital HPV-associated disease amongst the female renal transplant population. A retrospective review of all cases of renal transplantation at the University Hospitals of Leicester between May 2005 and October 2015 was performed.

Results:
In total 169 case notes were reviewed. 21 of 169 patients (12.4%) had a history of pre-invasive/malignant anogenital HPV-associated disease. The age at diagnosis of anogenital disease ranged from 22 to 67 years. The mean interval from first transplant to diagnosis of pre-invasive/malignant anogenital disease was 65.3 months, however in 5 cases the diagnosis occurred prior to first transplant. There were 18 cases of intraepithelial neoplasia (13 CIN, 2 VIN, 2 VAIN, and 1 AIN) and 4 malignancies (2 cervix, 1 vulva and 1 anal cancer). The majority of women with cervical disease had a high-grade abnormality; 53% CIN2+ and 12% invasion. Extra cervical HPV-assoicated disease occurred in 7 of the 21 patients (33%). Disease at multiple sites was found in 3 (7%)

patients, with all 3 women having cervical disease in addition to vaginal/vulval disease. Cervical disease occurred in 3 (20%) patients outside the screening age.

Conclusion:
Renal transplant recipients appear to have a significantly greater incidence of HPV-assoicated anogenital disease compared to the general population. Although cervical screening is advised around the time of transplantation long-term surveillance for intraepithelial neoplasia at other lower genital tract sites needs to be considered in this high risk population.

P-45

GASTRIC-TYPE ADENOCARCINOMA OF THE CERVIX

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Introduction:
The majority of cervical carcinoma is HPV-related. Primary gastric-type adenocarcinoma of the cervix was recognised in the WHO classification in 2014 but remains uncommon. Diagnosis can be challenging, particularly differentiating a primary cervical lesion from a metastatic gastrointestinal tumour. We present two cases and summarise the histological appearances and management of this type of tumour.

Cases:
The first woman was 47 years old and presented with abnormal bleeding having had a negative routine smear within the last 12 months. Histology and immunohistology

from her LLETZ biopsy were consistent with gastric-type adenocarcinoma (adenoma malignum). Immunohistochemical studies were positive with CEA, CK7, MUC6 and PAX8 and negative for CK20, CDX2, ER, PRand p16. Pre-operative staging was 1b1 and she underwent laparoscopic radical hysterectomy. Histology confirmed the diagnosis and staging. The second patient was 54 years old and had a non-routine smear suggesting glandular neoplasia having had a negative smear 18 months previously. Her LLETZ biopsy suggested primary intestinal-type mucinous adenocarcinoma of the cervix with positive staining for CEA, CDX2 and CA19.9 and negative for PAX8, CA125, ER, PR and p16. Her staging was also 1b1 pre-operatively and she underwent laparoscopic radical hysterectomy.

Discussion:
Gastric-type tumours of the cervix form a spectrum from well-differentiated adenoma malignum to gastric-type adenocarcinoma which is more poorly differentiated. In their recent immunohistochemical analysis study of cervical and vaginal gastric-

type adenocarcinomas, Carleton et al demonstrated overlap with pancreaticobiliary adenocarcinomas but suggested PAX8 reactivity could be useful in distinguishing the two. Treatment is as for other cervical carcinomas.

P-46

HIGH GRADE SQUAMOUS DYSPLASIA ON PRODUCTS OF CONCEPTION! - "CASE REPORT"

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Introduction:
Primary squamous cell dyskariosis of the endometrium is exceedingly rare. Objective of this report is to illustrate an unusual case of High Grade Squamous Dysplasia on histology of products of conception.

Methods: Case report
Forty years old G2 P0 attended at early pregnancy unit due to abdominal pain and brownish discharge at 9-week gestation. Trans vaginal ultrasound showed early embryonic demise She opted for surgical management and retained products of conception sent to histology and karyotyping
The fetal karyotyping results were consistent with trisomy 22 and her sample and her partner were sent for genetic testing to exclude a balanced chromosome rearrangement.

Histology showed: decidua and mildly hydropic chorionic villi. There was no evidence of gestational trophoblastic disease. Within the specimen there were also fragments of squamous epithelium which show high grade dysplasia. The morphology and immune phenotype were that of high grade dysplasia; keeping with CIN 3 of cervical origin, however vaginal origin could not be excluded.

She was seen at colposcopy clinic soon after. Her colposcopy findings, smear and the biopsies taken during her attendance were all completely normal; vaginal examination was normal. The case was discussed at multidisciplinary meeting (MDM) with recommendation of hysteroscopy and endometrial biopsy, however patient got pregnant again soon after and she could not have hysteroscopy so far.

Conclusion:
This interesting case showed, unexplained high grade squamous dysplasia on products of conception in a women who had normal colposcopy, smear and cervical biopsy. Literature search; there was a case described of primary squamous cell carcinoma of the endometrium which deemed to be squamous metaplasia, progressing through dysplasia to carcinoma. HPV 's role remains uncertain .

P-47

EVALUATING COLPOSCOPIC REFERRALS WITH 'CLINICALLY SUSPICIOUS CERVIX'

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Aim:
To evaluate the outcome of women referred to the colposcopy clinic with suspected cancer or a 'clinically suspicious cervix'.

Method:
A retrospective review of referrals to the colposcopy unit at Princess Anne Hospital, a tertiary hospital and regional cancer centre. 60 cases which were referred under the two week wait rule for suspected cancers were evaluated. Information was obtained from their referral letters, colposcopy electronic database (compuscope) and investigation results. Study period was 1st March - 30th December 2016.

Results:
Of the sixty cases, 90% had a benign cervix and only 10% cervical intraepithelial neoplasia (CIN). There were no invasive cancers identified. Most were multiparous (67%), median

age range of 31-40 years, with no prior abnormal cervical cytology (78%) or cervical treatment (88%). The benign cervical lesions were mostly cervical ectropion, nabothian follicles, inflammatory lesions and polpys.

Of those with CIN, most were of low-grade (CIN 1). There was a smoking history in 50% and postcoital bleeding reported in 67%.

Conclusions:
Most patients referred with a clinically suspicious cervix will not have CIN or cancer. We suggest that the majority should be referred and assessed in a general gynaecology clinic, while the minority with strongly suggestive symptoms or clinical cancer should be referred directly to colposcopy on an urgent basis. Due consideration should also be given to those with risk factors for cervical cancer such as recent history of abnormal cytology, cervical treatment and postcoital bleeding.

P-48

CYTOLOGICAL AND MOLECULAR BIOMARKERS AS TRIAGE CRITERIA OF WOMEN WITH INTRAEPITHELIAL LESIONS VIA THE IMPLEMENTATION OF A PERSONALIZED DECISION SUPPORT SCORING SYSTEM: THE EXPERIENCE OF AN ACADEMIC DEPARTMENT OF CERVICAL PATHOLOGY

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Objectives:

The aim of this study is to present a decision support scoring system (DSSS) based on artificial neural networks (ANN) using a clinical algorithm and combination of diagnostic results from classic methods and HPV-related biomarkers available for CIN2+ detection leading to a more personalized management of women with cervical abnormalities minimizing future reproductive morbidity as a result of unnecessary interventions.

Methods:

We recruited women with abnormal cytology referred to Colposcopy Clinics of 2nd and 1st Obstetrics & Gynaecology University Departments (AUTH). We collected detailed demographics, cytological/colposcopic evaluation and performed a panel of HPV-related biomarkers using Thin-Prep (Hologic) LBC including: HPV DNA-genotyping (Genomica), mRNA E6/E7 HR-HPV detection (Biomerieux/IncellDX), and P16/Ki67 immunocytochemistry (Roche). Thin-Prep samples were analyzed and assessed at the University Laboratory of Morphological & Molecular Clinical Diagnostic Cytopathology of 2nd Obstetrics & Gynaecology Department. For diagnostic accuracy improvement, we used ANN to combine cytology and biomarker results using histology as the gold standard.

Results:

Data was retrieved from 2275 initial or follow-up visits corresponding to 1355 women during the last 78 months. Cytological result, HPV status and DSSS were evaluated in terms of sensitivity (SV), specificity (SP), positive predictive value (PPV) and negative predictive value (NPV). The likelihood for high-grade (CIN2+), low-grade (HPV/CIN1) and negative histology were predicted by the DSSS with higher accuracy, from the initial patient visit, compared to cytology alone or with HPV testing. SV for CIN2+ prediction was 92.95%, SP was 98.85% with high PPV and NPV (95.26% and 98.25% respectively).

Conclusions:

The proposed DSSS can predict with the highest accuracy the histological diagnosis, through the estimation of CIN2+ risk, in women with abnormal findings at cervical cancer screening aiming to reduce the referral rate for colposcopy and unnecessary treatments. As a result, it guides patient-specific management with therapeutic interventions towards a more personalized medicine.

P-49

THE DILEMMA OF CODE 9 SMEARS - A THREE YEAR STUDY OF SMEARS REPORTED AS BORDERLINE CHANGE IN ENDOCERVICAL CELLS

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Objective:
To evaluate the association of smears reported as borderline change in endocervical cells (BCEC) with cervical pre-malignant or malignant conditions and the risk factors impacting on any association.

Study Design:
Retrospective data analysis
Population and setting:
Patients presenting to the colposcopy service over a 36 months with BCEC smear report.

Methods:
CANISC database, case, notes, pathology reports, treatment and up to one year follow-up information was reviewed from January 201 to December 2014. Data was analysed using IBM SPSS Statistics 20. Pearson's chi-squared analysis was used to compare statistical significance of the data collected; the level of significance at which the null hypothesis was rejected was 0.05

Result: The incidence of BCEC smears in the study population was 3.98%. A significant proportion 35% had a history of previous abnormal smears and previous cervical treatment. No pathology was noted in 53.3% whereas benign pathology was observed in 16%. The incidence of low grade disease (CIN1) was 5.3%, high grade disease was 22.7% and adenocarcinoma of cervix was diagnosed in 2.7%. A higher incidence of high grade abnormalities seems to be present in postmenopausal women (p 0.035) and in women using contraception (P 0.026).

Conclusion:
This study adds to the limited published UK data on the outcome of women with BCEC smears which will allow further comparison when HPV screening studies will be published. We hope that the recent introduction of HPV triage in the management of BCEC smears will reduce nearly 70% of women coming to colposcopy and having unnecessary procedures.

P-50

TEMPORAL TRENDS IN THE INCIDENCE AND MORTALITY FROM CERVICAL CANCER IN WALES: 1985 – 2012

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Background:
Studies from different countries have reported varying trends in cervical cancer, especially since the introduction of screening. The aim of this study is to analyse time trends in incidence, geographical distribution, survival and mortality from cervical cancer in Wales, which could guide policies and decisions.

Methods/materials:
Cervical cancer cases registered between 1985 and 2012 were identified from the Welsh Cancer Intelligence and Surveillance Unit. A Poisson regression model was fitted to assess temporal trends.

Results:
A total of 5896 cervical cancer cases were registered with the Welsh cancer registry from 1985 to 2012. The age-standardised incidence rate of cervical cancer was 12.9 per 100000 population over the study period. There has been a significant decline in the incidence of cervical cancer with lower rate in 2010-2012 compared to 1985-1987. A significant decline was recorded across almost all age groups, with the most striking decrease in women above 65 years. There is variation in incidence among geographic areas with the highest incidence in more deprived areas. Almost all age groups recorded a significant decline in mortality over the study period, but women over 65 years continued to fare worse compared to other age groups.

Conclusion:
The incidence of cervical cancer has reduced considerably over the last three decades, most likely because of introduction of a robust screening programme and increased awareness. The current geographical distribution suggests that incidence of cervical cancer is higher in more deprived areas. Mortality continues to decrease, but women above 65 years still have poorer prognosis.

P-51

CHALLENGES IN INCORPORATING HPV DNA TEST TO CURRENT CERVICAL CANCER SCREENING PROGRAMME

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Introduction:
There has been a recent shift from cytology only screening to HPV DNA testing in cervical cancer screening. Benefits of HPV test compared to cytology only method is well-known. A negative HPV DNA test carries a stronger negative predictive value compared to a negative cytology for protection against development of CIN3+. However, there remains unclear consensus on management of women with a positive HPV test.

Objectives:
The aim of this study is to identify outcomes of women with positive oncogenic HPV (especially HPV 16 and HPV 18) in particular those with negative colposcopy.

Methodology:
This is a retrospective study of 4867 women who underwent HPV testing as part of co-testing or primary screening between January 2013 and December 2016 in a tertiary institution in Singapore. HPV DNA test was done using the COBAS 4800 System 14 High-risk HPV with 16/18 Genotyping Real-time PCR kits.

Results:
Median age of women was 48 years. Cotesting was performed in 59.0% and HPV primary screening in 23.5% of women. Of the 30 positive HPV 16 results, colposcopy diagnosis included 17 normal, 9 low-grade changes and 4 high-grade changes. Of the 13 positive HPV 18 result, 6 had normal colposcopies, 3 low-grade changes and 4 high-grade changes. One patient with normal colposcopy underwent multiple random biopsies showing CIN1 that led to a negative diagnostic LEEP procedure. Two patients had both HPV 16 and HPV 18 positivity where one had a hysterectomy due to persistent negative colposcopy and histology with persistent HPV 16 and 18 infections.

Conclusions:
While incorporating HPV DNA tests in the current cervical cancer screening program can increase detection of high-grade CIN, there is a need to strike a balance between increased sensitivity and overtreatment that may lead to recognised future fertility implications.

P-52

RAMAN SPECTROSCOPY FOR IDENTIFICATION OF LOW GRADE CERVICAL CYTOLOGY CASES LIKELY TO PROGRESS TO HIGH GRADE / CANCER

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Cervical cancer is the fourth most common cancer in women worldwide and mainly affects younger women. The mortality associated with cervical cancer can be reduced if this disease is detected at the pre-cancer stage (low grade squamous intraepithelial lesions (LSIL) or high grade squamous intraepithelial lesions (HSIL)). Current gold standard methods include cytology and histopathology but these methods are limited in terms of subjectivity, cost and time. Recently HPV co-testing

has been introduced for primary screening but this has resulted in large numbers of women with an LSIL cytology result and a HPV positive result being referred for colposcopy. There is an unmet clinical need for new methods to aid clinicians in the appropriate management of women presenting with LSIL. The aim of this study was to objectively identify patients with LSIL who may be at risk of progressing to HSIL or cervical cancer. ThinPrep® Pap samples were recruited from the Coombe Women and Infants University Hospital Colposcopy Clinic. Raman spectra were recorded from single cell nuclei and subjected to multivariate statistical analysis. In parallel, HPV DNA (Cobas 4800 HPV test) and HPV mRNA (APTIMA HPV test) testing was performed. High classification accuracy was achieved for LSIL cases with either a transient HPV infection or a transforming HPV infection. Our study has shown that Raman spectroscopy can distinguish between women with LSIL cytology who at risk of disease progression and those who are likely to regress.

P-53

OUTCOMES OF URGENT REFERRALS FOR SUSPECTED CERVICAL CANCERS ON CLINICAL EXAMINATION

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Introduction:
The purpose of this project was to evaluate the outcomes of urgent referral for suspected cervical cancer.

Methods
All cases referred to a teaching Hospital in the UK over a 21-month period from Jan 2015 to Sept 2016 were included in this study. Descriptive statistical methods were used to analyse the results.

Findings:
620 cases were referred for suspected cervical cancer and were included in the study. The mean age of the patients was 29.5 years (Range: 17 – 84). 126 (20.3%) cases were aged less than 25 and 10 (1.6%) were aged over 65 years and were outside the cervical screening program. 233 (37.6%) women had a cervical biopsy done and the rest (62.4%) were normal. In total, 3 cases (0.5%) had cervical cancer, 14 cases (2.3%) had CIN 3 and 10 cases (1.6%) had CIN 2. At histological assessment in the <25 age group, there were no cases of cancer, 8 cases of CIN 1, 3 cases of CIN2 and 2 cases of CIN 3. In the > 65 age group, there was one case each of cancer and CIN 3.

Discussion:
A significant number of women were referred for suspected cervical cancer (30 per month). Less than 1 in 20 cases (4.4%) had high-grade cervical abnormalities or cancer, suggesting a poor sensitivity and specificity rate of clinical examination.

Conclusion:
A significant number of cases are referred for suspected cervical cancer and forms a significant burden to colposcopic services. The sensitivity and specificity of clinical examination is poor and has significant financial implications. Further review and audits are needed to evaluate the referral pathways and its utility in detection of cervical cancer. An assessment by a general gynaecologist and if required further referral to colposcopy services would be lead to better utilisation of colposcopy services.

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NATIONAL CERVICAL CANCER AND CIN TRENDS REFLECT SCREENING COVERAGE

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CervicalCheck, the Irish National Cervical Screening Programme, commenced screening women aged 25-60 in 2008; the coverage target is 80%. While overall coverage has risen from 61% to 79% since 2008, it has consistently been lower in older (51-60 years) than younger (25-50 years) women. Screening offers considerable cancer protection in older women; women screened in their early 50s have 75% lower risk of developing cervical cancer between the ages of 55-59 than women not screened in their early 50s.

Data from the National Cancer Registry for the period 2001-2014 was examined in relation to the national trends in cancer and CIN3 detection in older and younger women. Provisional data for 2015 registrations has also been examined and is detailed below.

The total number of cancers fell from the year 2009 in younger women. In women aged 25-50 the percentage of cervical cancers presenting with symptoms fell (64% in 2001; 49% in 2007) to 43% in 2014 (preliminary data for 2015 = 22%), while that of screen-detected cancers rose from 25% in 2001 to 49% in 2014 (preliminary data for 2015 = 49%). In women aged 51-60 the pattern is different with no change in the proportion of symptomatic cancers detected from 2001 (75%) through 2008 (76%) followed by a more gradual drop in 2013 (59%) (48% in 2015). For CIN3, the rates rose dramatically in younger women in the period 2008-2011, with a smaller increase in older women. In both age groups, there was a fall in CIN3 rates from 2012-2014. Smaller numbers of CIN3 were detected in older women.

These findings reflect the outcomes of lower uptake of cervical screening in older women. Targeted strategies are in development to address the coverage rates in the older age group.

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POTENTIAL BENEFITS FOR CIGARETTE SMOKERS WITH NORMAL CERVICAL CYTOLOGY OR CERVICAL PRECANCER FROM SWITCHING TO VAPING (E-CIGARETTE) - A COLLABORATIVE PROTOCOL

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Smoking represents one of the strongest environmental co-factors along with HPV in the pathogenesis of cervical neoplasia. Smoking intensity predisposes to HG-CIN; the risk for vaginal, vulvar, and anal dysplasias is also elevated. The risk of HG-CIN in current smokers is twice that of non-smokers. Synchronous OC use possibly exerts a synergistic effect increasing the risk of HG-CIN's.

Electronic cigarettes (EC's – e-cig's) are devices imitating conventional cigarettes which deliver nicotine via inhalation without tobacco combustion. Essentially, e-cig's are nicotine-delivery devices which have gained popularity based on assumptions that their vapors contain far less carcinogenic particles and thus are non-toxic despite their safety and long-term effects have remained controversial. However, claims of EC's negligible toxicity have been substantiated by several studies.

Few researchers have so far assessed the possible positive effects of vaping on patients harboring cervical precancer, and no prospective data are available regarding alterations in cervical cytology or biomarkers affecting smokers who switched to vaping.

A centrally audited multicenter prospective randomized study can be conducted in standardized settings focusing either on patients with normal cytology, or harboring mild dysplasias. Women enrolled in the study will either quit smoking or reduce the number of cigarettes consumed per day. E-cig & conventional cigarette exposure and consumption will be standardized and alterations over time will be analyzed. Alternatively, patients with "dual use" might be excluded.

Established parameters which can be measured are changes in LBC, or alterations in cervical biomarkers (hrHPVE6/E7mRNA, hrHPVDNA, p16/Ki67, methylation markers, viral Integration). Few central laboratories will undertake the processing of the samples. Alternatively, if the study is to be conducted using self sampling devices, then measurements will be HPV-biomarker-based.

Fluctuations in cytology or biomarkers will be studied for a period of 12-18 months. Corroborating the results with complementary cervical biopsies at given times is another option.

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IT INNOVATION TO IMPROVE PARTICIPATION IN CERVICAL SCREENING WITH CERVICALCHECK, THE NATIONAL CERVICAL SCREENING PROGRAMME

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CervicalCheck - The National Cervical Screening Programme offers regular free smear tests to 1.2 million women aged 25-60 years. For the programme to be successful at least 80% of the population should be up to date with their cervical screening. To maximise participation among eligible women and among 'harder-to-reach' women, direct programme entry was introduced in year three of the programme. This included the introduction of an online eligibility tool to make it easier for women to register themselves and participate in CervicalCheck.

Access to Google Analytics for the CervicalCheck website was obtained and analyses were performed to determine activity on the eligibility tool webpage. In 2015, there were 909,637 unique visits to the CervicalCheck website, with 197,811 visits to the eligibility tool. This resulted in 37,272 new registrations to the programme (conversion rate 7.5%).

This innovative IT tool was developed to support the CervicalCheck programme to achieve a population coverage of 80% - which has the potential to reduce the incidence and mortality rates of cervical cancer in Ireland. CervicalCheck will continue to develop and actively monitor the impact of media campaigns and web technology to improve programme participation.

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OUTCOME OF LLETZ IN WOMEN OF AGE 50 YEARS OR OVER FOR HIGH GRADE SMEARS

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Background:
Interpretation of smears is a challenge in older women owing to atrophic changes. Colposcopy can be difficult and are often unsatisfactory. As fertility conservation is not a factor, LLETZ can be performed but that may lead to further colposcopic challenges because of stenotic os. This may also lead to hysterectomy in some women.

Aims:
To find the incidence of cancer in women 50 years or over
To find out if cytology correlates with colposcopy and histology

Method:
Electronic data search was performed on all women 50 years or over with moderate and severe dyskaryotic referral smear from 1st January 2016 to 31st December 2016. Data was collected from Infoflex on their colposcopic opinion, management plan at first visit ie, initial biopsy and then LLETZ based on biopsy results or LLETZ directly, final histology, status of margins and test of cure if available.

Results:
Of the 30 women of age 50 years or over referred with high-grade smears, one was suspicious of glandular neoplasia, 16 were severely dyskaryotic and 13 were moderately dyskaryotic smears. Two patients had LLETZ privately. Their histology was not available. They were excluded from the study. Four women out of 28 (14%) had cancer. Three women had squamous and one woman had adenocarcinoma. Five out of 30 (18%) had negative histology. One patient had a negative smear after 3 months of vaginal oestrogen. High-grade histology was found in 14 women (50%) and four women (14%) had low-grade histology.

Conclusion:
Although cervical cancer is a disease of women in the reproductive age group, there is a 14% incidence of cancer in women of age 50 years or over. There were 18% of LLETZ specimens with a negative histology. Repeating smears after 3 months of vaginal oestrogen treatment after a satisfactory and negative colposcopy may decrease unnecessary treatments.

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AN "ABNORMAL RESULT": THE EXPECTATIONS, EMOTIONS AND KNOWLEDGE OF THE MANAGEMENT OF ABNORMAL SCREENING RESULT

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Introduction:
Receiving an abnormal smear result has been shown to evoke emotions of anxiety and result in negative psychological outcomes. To explore this area further in order to develop strategies to address these factors, a study was performed to identify the patient expectation, knowledge and experiences of receiving an abnormal smear result.

Methods:
Forty in-depth semi-structured interviews were conducted with women recruited from community groups and colposcopy clinics across the East Midlands. Data were analysed using thematic framework analysis.

Results:
Knowledge of the process that follows an abnormal smear result was limited, however the need for information varied; some women preferred information if/when they received an abnormal result whereas others wished to be better informed beforehand. The results letter was thought to be vague and ambiguous resulting in additional anxiety and confusion. This was further perpetuated by the perceived long period of time prior to being seen in colposcopy. Poor self-interpretation of the abnormal result evoked emotions of fear, with some women believing that they had been given a diagnosis of terminal cancer. Anticipation of a colposcopic examination was also feared, primarily due to a lack of knowledge. Women who had undergone treatment had an inadequate understanding of the consequences of treatment, resulting in a lack of appreciation of the implications of multiple treatments. One factor that lowered women's levels of anxiety was the provision of information directly by a clinician. The ability to retain information during attendance for a procedure was limited; sharing information prior to the appointment may help.

Conclusions:
Knowledge of the management of an abnormal screen result appears to be poor both in the general population and in women who have attended for colposcopy. Provision of more detailed information in the results letter or even directly by a clinician, in primary care, may help alleviate these.

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THE POTENTIAL OF RAMAN SPECTROSCOPY AS A NEW TECHNOLOGY FOR CERVICAL CANCER SCREENING AND ITS APPLICATION TO THE IRISH CERVICAL CANCER SCREENING PROGRAMME (CERVICAL CHECK)

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Raman spectroscopy has gained much interest in the past few years as it offers the possibility of characterising a variety of clinical samples based upon the biochemical changes associated with the development of neoplasia. The technology is label free and requires little sample preparation. Raman spectroscopy is a laser based system which utilises the scattering of light to provide a biochemical finger print of a given sample.

Current gold standard methods for screening include cytology, colposcopy and histopathology but these methods are limited in terms of subjectivity, cost and time. This subjectivity presents a problem of false positives and false negatives which can result in the mismanagement of patients resulting in cases of over treatment or the missed opportunity to intervene at an earlier stage of the disease. The aim of this study was to investigate the ability of Raman spectroscopy to identify false negative Pap smear samples. ThinPrep® Pap samples were recruited from the Coombe Women and Infants University Hospital Colposcopy Clinic. Raman spectra were recorded from single cell nuclei and subjected to multivariate statistical analysis. In parallel, HPV DNA (Cobas 4800 HPV test) and HPV mRNA (APTIMA HPV test) testing was performed. Our study has shown that Raman spectroscopy can identify samples that were falsely reported as negative on histology but were re assessed only to be confirmed as CIN 1. The potential impact this would have on patient management within the CervicalCheck screening programme was also assessed.

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REVIEW OF THE OUTCOMES OF NON CERVICAL GLANDULAR NEOPLASIA ON CERVICAL CYTOLOGY IN THREE CASES

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Cervical cytology reporting glandular neoplasia is rare, with an incidence of 0.4% in England, which it has been increasing since the widespread use of liquid based cytology. Non cervical glandular neoplasia confirmed by cytological screening may represent cells from adenocarcinoma originating from endometrial, ovarian, fallopian tubes or metastatic lesions from beyond the genital tract.

While the primary aim of cervical screening program is to screen for cervical neoplasia, the incidental finding of non-cervical glandular neoplastic cells present a diagnostic and cytological challenge, therefore urgent gynecological opinion is essential to establish the origin of these cells, rather than a colposcopy referral.

We present three cases of asymptomatic Caucasian women, with no previous history of abnormal cervical smear tests, whom their routine cervical screening, revealed non cervical glandular neoplasia. Following further investigations, to exclude endometrial and other pathology, such as hysteroscopy, endometrial biopsy and Computerized Tomography (CT) scan of the abdomen and pelvis, the cases were discussed at the oncology Multidisciplinary Team (MDT) meeting. Decision was made for total abdominal hysterectomy and bilateral salpingo-oophorectomy in all three cases, plus pelvic

lymphadenectomy in the third case with endometrial cancer. Of three histological specimens, two confirmed FIGO Stage 1A ovarian high-grade serous adenocarcinoma and one Stage 1A endometrial endometroid adenocarcinoma.

In conclusion, cervical cytology reported as non-cervical glandular neoplasia is associated with a high probability of clinically significant lesions, such as endometrial and ovarian cancer. Hence, an immediate referral and thorough evaluation of the genital tract by an experienced gynaecologist within two weeks, is important to improve outcomes. Following this, the findings should be discussed at the oncology MDT meeting. Finally, all cases should be registered nationally and protocols should be in place for the management of this significant finding.

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IMPACT OF EASTERN EUROPEAN MIGRATION ON CERVICAL CANCER CHARACTERISTICS IN NORTH LONDON

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Introduction:
It has been proposed that one of the reasons for the static incidence of cervical cancer over the past decade in the UK is diagnosis in women who have migrated to the UK from countries without established screening programs, in particular Eastern Europe (EE).

Methods:
To determine the country of origin of all women diagnosed with a cervical cancer between 2007 and 2016 in North West London.

Results:
In total 71 cancers were diagnosed; 39 (54.9%) were UK-born, 20 (28.2%) were EE-born and 12 (16.9%) were non-UK/EE born women. Significantly more EE women had not previously had a smear performed in the UK prior to their diagnosis compared to UK-born women, 90% versus 52.6%. There was a difference in route to diagnosis between the two groups with a greater proportion of EE-born women being screen detected (70%), compared to UK-born women (41%). In the women who presented symptomatically, 5/6 (83.3%) EE women were eligible for screening compared to 14/23 (60.9%) of UK born women.

Conclusions:
Women born in EE countries are over represented in our cervical cancer population as compared to UK-born women (6.2% of Harrow/Brent population were EE-born in 2011 census). Many of these women may not have had screening before migrating to the UK, but do appear to be accepting invitations for screening. It is to be anticipated that the detection of cervical cancer will be higher in the first round of screening in this population but it is hoped that with subsequent screening rounds this will fall.

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THE DEVELOPMENT AND EVALUATION OF A CERVIX VISUAL ASSESSMENT GUIDE

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The Cervix Visual Assessment Guide (CVAG) is designed to assist primary care health professionals with the assessment and evaluation of the cervix. The CVAG is a visual educational tool developed by health professionals specialising in colposcopy and gynaecology in response to local trust audit results and regional colposcopy data analysis. The audit data suggests that some primary health workers' have little experience of recognising the signs and symptoms of invasive cancer of the cervix and identifies a significant number of women referred to oncology and colposcopy clinics with suspected cancer of the cervix in the absence of disease.

The evaluation aims to determine what value the CVAG has for the professionals using it within the primary care environment, by evaluating their perceptions, experience and understanding of the Guide. A qualitative study design was adopted; based on the application of Ovretveit's (1998) 'Eight Phase process to planning and managing an evaluation' framework using interpretive phenomenological philosophy to analyse findings. Ethical approvals were obtained from all participating organisations. A purposeful sampling strategy involving 5 GP practices engaged in the study. Phase one targeted the whole sample via an on-line qualitative survey, phase two involved recruitment of 5 primary healthcare professionals for interview using a semi-structured, open ended questioning technique. All data collected was analysed using Interpretive Phenomenological Analysis (IPA).

Findings were overwhelmingly positive for use of the CVAG in training situations and for inexperienced practitioners. The personal value of the CVAG for experienced professionals is mixed. The findings indicate enough positive impact for consideration of further roll-out of the CVAG within the region, with potential for supporting continuing professional development, national training and screening programmes.

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THE ANALGESIC EFFICACY OF FORCED COUGHING DURING CERVICAL PUNCH BIOPSY - A PROSPECTIVE RANDOMIZED CONTROLLED STUDY

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Objective:
To assess the effectiveness of forced coughing as a pain reducing technique during cervical punch biopsy compared to control group.

Patients and methods:
The study is a prospective randomized-control trial. The study group comprised of 90 women who underwent cervical punch biopsies during investigation of abnormal Pap smear results. The women were randomly assigned to "cough" (n=45) and control (n=45) groups. Pain was measured on a 10-cm visual analog scale (VAS) during different stages of the procedure, and compared.

Results:
Study groups were similar in age, marital status, education, gravidity and parity. VAS pain score during biopsies was significantly lower in the "cough" group (P<0.005). The median pain level was 1.5 in the "cough" group compared to 4 in the control group. 80% of the women in the "cough" group reported on a pain level of 2 or less compared to 40% of the women in the" control" group (P = 0.0002). Similar results were found for the second biopsy, 69% of the women reported of VAS ≤ 2 in cough group compared to 28% of the patients in the control group. Forced coughing was shown to decrease anxiety from future cervical procedures, and decreased patients' desire for future pain management for 32% of the women in the "control" group compared to 12% of the women in the "cough" group (P=0.05).

Conclusion:
Forced coughing provides a significant pain relief during cervical punch biopsy and decreases the patients fear and desire for pain medications in future procedures, and may be the perfect alternative to local anesthesia.

Key words:
Cervical biopsies, Forced coughing, visual analog scale, pain perception

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FIELD EVALUATION OF THE MOBILEODT COLPOSCOPE IN NEPAL

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Introduction:
The mobile ODT colposcope (Mobile ODT, Tel Aviv, Israel) is a hand held mobile colposcope with a magnification lens and light source mounted on a smart phone supported by a secure mobile APP and cloud based information system.

Methods:
A single visit camp was held over 5 days in the Kathmandu valley with 995 women screened. The screeners on the camp received one-to-one tuition on the device by the UK team. A questionnaire was circulated to the screeners after the camp. The questionnaire contained a series of open space comments and rating scales of 1-10. The responses were thematically analysed.

Results:
Seven screeners responded. The advantages of the device were: ease of use, clear image for diagnosis and case discussion, ease of data capture and portability. The disadvantages of the device were requiring electricity to charge and lack of base with care being required to store the device when not being held. All the screeners would recommend the device to others.

The device was highly rated in terms of improving knowledge and skills median score 10 (10 high-1low). Ease of data entry median score 10 (10 easy-1 difficult) and ease of use median score 10 (10 easy-1 difficult).

All the screeners used the device for education and explanation to clients of both their screen results and where applicable demonstration of treatment. Comment was made that showing the patient an image of their screening increased the client confidence and trust in the test.

Conclusion:
The ability for the device to free stand would improve the design. The mobile colposcope can be used in low resource settings with minimal training. The device is highly rated in terms of benefit of clear image capture, diagnosis, teaching, training and data capture.

With thanks to Mobile ODT for providing the colposcope loan.

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CARE INFORMATION EXCHANGE (CIE) - TO SUPPORT PERSON-CENTRED, INTEGRATED HEALTH IN NORTH WEST LONDON

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Background:
Care Information Exchange (CIE) - initiative to support person-centred, integrated health and social care in North West London by:

- giving individuals access to information about their care held by different health/ social care providers
- allowing individuals to share information with health and social care professionals
- providing secure messaging, shared care planning, and symptom tracking for individuals/ professionals

Project funded by Imperial Healthcare Charity. The system used Patients Know Best - web based, N3 hosted, fully encrypted patient controlled record.
Colposcopy service undertakes a patient satisfaction survey annually - overarching request in 2016 to obtain more detail about their results.
The ICHNT Colposcopy team requested to be an early adopter site and went live in October 2016.

Patients access histology, cytology, microbiology and radiology results online.
A 28 day delay is in place to ensure review by the clinician before being available for patient access.

Methods:
All patients were offered the opportunity to sign up for CIE.
Required to complete a pro-forma and produce photographic ID to register.
Administrative staff complete registration process, patients can then log on and access records.
Uptake is assessed weekly and the volume of queries is assessed compared to a baseline audit.

Patient letters modified to include report of results to coincide with CIE

Results:
460 patients signed up

- 176 Patients registered
- 68 patients logged on at least once since going live.
- 31 patients logged on 2 or more times since going live.

Conclusions:
Overwhelming interest in CIE among patients.
Numbers of patients registering/ accessing the portal increasing weekly.
Slight plateaux with repeat log in.
Initial increase in patient queries due to change in result letter.
Patient satisfaction survey will assess patient acceptance and enthusiasm for accessing their results.
Future plans - engage with patients who have used CIE

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EVALUATION OF LLETZLEARN - A TRAINING SIMULATOR

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Background:
Learning excisional treatment can be quite daunting and stressful for trainees and trainers, both concerned about offering safe patient care.
Through trial and error with assistance from a medical equipment manufacturer, we have developed a training simulator that can be used in a clinical environment.

The first prototype was built using household products and developed over a period of two years before being given to our medial designer/ manufacturer for product proofing culminating in the simulator that we use today.

The simulator has been evaluated via a series of one-day training courses comprising both theory and practical sessions to give trainees the confidence and competence they need, before treating a patient. Thus, maintaining patient safety.

Importantly it allows the trainee to use all the necessary equipment required for LLETZ procedure and learn to trouble shoot and solve problems, making their training more effective.

To date we have carried out 4 training courses attended by 30 delegates that included doctors and nurses.

Course evaluation feedback from trainees confirms that the simulator fulfils the aims of improving confidence and competence in performing excisional treatment as outlined below:
'Should be beneficial for all colposcopy trainees';
'Excellent course involving interactive sessions';

'This course should be made official and recognised by BSCCP';
'Excellent teaching by all 3 trainers';
'Fabulous course, strongly recommend for all colposcopy trainees - Outstanding';
'Hands-on practical most beneficial'
'Very useful to gain confidence on LLETZ';
'This simulator reduces the stress on both the trainer and the trainee';
' Realistic scenario of the clinical procedure';
' ... of the highest quality'.

Conclusion:
We would like to see the simulator available in all colposcopy units in the UK and Ireland.

We believe it would add great value to the practical evaluation of colposcopy trainees in the BSCCP OSCE examination.

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IMAGING MODALITIES IN CERVICAL CANCER STAGING – AGREEMENT AND COMPARISON BETWEEN TRANSVAGINAL ULTRASOUND AND PET/CT RESULTS

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Background and Objective:
FIGO guidelines state that Cervical cancer stage should be determined based on a clinical exam. However, imaging modalities are useful in accurate treatment decision and lowering the need for bimodal therapy. Transvaginal ultrasound (TVS) is a simple, cheap and safe imaging test, and has been compared to MRI in several studies that showed that in early stages of cervical cancer the TVS had similar and sometimes even more accurate results then MRI. This study was taken to compare the performance of TVS to those of 18F FDG PET-CT, as a useful tool determining the stage of the disease and mandate the therapy.

Methods:
73 women diagnosed with cervical cancer during the years 2010-2015 at the Carmel Medical Center, Haifa were included in this retrospective observational study. All women had a clinical examination, high-resolution dedicated TVS and 18F FDG PET-CT performed. For women in early stages who underwent surgery, the imaging test results were compared to the histopathologic results from the surgical specimen.

For women with a more advanced disease that were treated with Chemotherapy and pelvic radiation, we looked at the agreement between the three tests.

Results:
TVS has successfully ruled out parametrial involvement in 25/25 of women underwent surgery (NPV=100%). PET-CT has ruled out correctly lymph node and distant metastases in 25/27 of operable women (NPV=92.5%). In women with advanced disease, we found an agreement between TVS results and physical examination, PET-CT or both in 33/43 women (76.7%).

Conclusion:
TVS has successfully determined parametrial involvement in early stages. In an advanced disease we found a high rate of agreement between TVS, clinical examination and 18F FDG PET-CT available. These results encourage the future use of TVS in the triage of cervical cancer patients.

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MANAGEMENT OF CYTOLOGICAL BORDERLINE CHANGES IN GLANDULAR CELLS IN NORFOLK

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In case series, women with a smear showing borderline changes in glandular cells associated with high risk HPV have a high incidence of high grade disease (up to 40%) and cancer (up to 16%). Current NHS cervical screening programme guidance recommends colposcopy and 'any appropriate biopsy'. However, the colposcopic findings of women with this type of smear are often subtle, inaccurate or unsatisfactory due to the lesion being within the endocervical canal. The absence of significant findings on colposcopy many lead to no biopsy being taken and significant disease being missed.

In a retrospective review over 3 years of forty five patients in the 3 Norfolk hospitals we found 34% had CIN3, high grade CGIN or cancer despite a normal colposcopy. We recommend multiple punch biopsies are taken as a minimum, even if colposcopy is normal and extra cytology +/- colposcopy after 6 months.

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UNSATISFACTORY COLPOSCOPY MANAGEMENT OUTCOMES AT HOMERTON UNIVERSITY HOSPITAL NHS FOUNDATION HOSPITAL

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Background:
Colposcopy is the assessment of the lower genital tract and cervix. The squamocolumnar junction and transformation zone should be identified; this determines whether the examination is satisfactory or not.

Management of an unsatisfactory colposcopic examination depends on cervical cytology and histology.

Objectives:
To determine the prevalence of high grade CIN in women with unsatisfactory colposcopy and the squamo-columnar junction was not seen.
Methods: Retrospective study from 1st January 2011 – 31st December 2017. Study population identified using Infoflex© database and Cyrus electronic system. 93 women with unsatisfactory colposcopy and type 3 transformation zone (IFCPC nomenclature) were identified.

Results:
All patients attended colposcopy clinic for their first assessment (100%). Colposcopy documented to be unsatisfactory as the squamo-columnar junction not been seen in all cases (100%).

Age at referral range from 25-72 average 47, 52% were women with abnormal smear; 10/47 were high grade dyskaryosis and 37 were low grade dyskaryosis. 48% of women were referred with urgent and non-urgent clinical indications; one case inadequate cytology, two cases were borderline and 93% were negative cytology.

One-third of women had biopsy (excisional/ multiple& single cervical punch) done in their first colposcopy clinic visit. Single punch biopsy was performed in six cases (19%), multiple punch biopsy taken in 22 (71%) and excisional biopsy (LLETZ) carried out in 3 (10%).
Histology confirmed high grade CIN II-III in five cases (16%), low grade CIN I in three cases (10%), HPV/ cervicitis in 11 (35%), five cases histology reported inadequate (16%) and no CIN / NO HPV in seven cases (22%).

Conclusion:
An unsatisfactory examination following high grade dyskaryosis warrants a diagnostic excisional procedure (LLETZ). If colposcopic assessment and histology is normal and cytology is low grade dyskaryosis, a follow up smear is recommended.

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THE IMPACT OF USING ELECTRICAL IMPEDANCE SPECTROSCOPY (ZedScan) ON THE PERFORMANCE OF COLPOSCOPY IN DIAGNOSING HIGH GRADE SQUAMOUS LESIONS OF THE CERVIX.

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Objectives:
To compare the efficacy of colposcopy plus ZedScan for detecting intraepithelial high-grade lesions compared to colposcopy alone.

Methods:
A prospective study conducted at a University Hospital colposcopy clinic, CHU Amiens-Picardie, France. Patients referred following abnormal cervical cytology or colposcopic follow up were examined by colposcopy plus ZedScan to assess the cervix. Two colposcopists took part in the study. The results of ZedScan directed and colposcopically directed biopsies were compared.

Results:
91 patients were included in this study. The median age was 33 (23-61) years. 80 (88%) were referred with abnormal cytology; low grade 72.5%, high grade 15.4% and 12% follow-up post conisation or colposcopic follow up. 30 women had high grade disease, colposcopy alone detected 19 high-grade lesions. ZedScan increased the detection of high grade lesions by 47.4% (p=0.01), identifying 28 high grade lesions including one case of invasive cancer. Two cases were missed by colposcopy and ZedScan, one with a TZ3 lesion. HPV16 was the most common genotype found in the women with high grade disease. The increase in detection of high grade disease in women referred with low grade cytology was 50%. 56 women underwent biopsy, the number of biopsies per woman biopsied was 1.14 for colposcopy and 1.26 for colposcopy and ZedScan. The sensitivity and NPV for colposcopy were 61.3% and 81.7% and 93.3% and 91.3% for ZedScan. A combination of normal colposcopy practice and ZedScan had a sensitivity and NPV of 100%. No adverse events were reported.

Conclusion:
ZedScan used in conjunction with the colposcopy improves sensitivity in detecting high-grade lesions at the expense of a slight increase in the number of biopsies.

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THE MANAGEMENT AND OUTCOMES OF CERVICAL INTRAEPITHELIAL NEOPLASIA (CIN2) IN YOUNG AGE WOMEN

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Objective:
The purpose of this study is to review the management and outcome of high grade cervical intraepithelial neoplasia (CIN2) in women less than 27 years of age.

Methods:
A retrospective review was performed to investigate young women with cervical biopsy proven CIN2 between January 2014 and January 2017, who were seen in the colposcopy clinic at the Homerton University Hospital, London, UK.
The potential risk factors were examined in addition to the colposcopy outcomes and follow up plan.

Results:
Total Number of patient is 59 over three-year period. Age range from 20-26. Majority 98% (58/59) of this group has not got any child. 44% were smokers and Ex-smoker.
They were referred by their GP (100%) with abnormal screening samples and in very few cases were for other urgent and non-urgent clinical indications.

Referral cytology was largely borderline 34%, followed by the same number of high and low grade dyskaryosis 27% each. Colposcopy assessment reported high grade in 41% of women, low grade abnormality seen in 44%, normal in 2% and not documented in one case.

Repeated cytology was done in 15/59 cases, among them 33% were high grade dyskaryosis, 67% were low grade dyskaryosis and two cases were negative.

Cervical biopsy was taken for every case; histology reported CIN2 in all cases. Out of 59 cases only 15 cases received cervical treatment (24%). Histology from patients who received LLETZ, confirmed CIN2 in 14 cases (93%), CIN II in one case and no CIN I documented.

Conclusion:
In young age group women referred with high grade cytology moderate dyskaryosis, there is a place for conservative management especially in nulliparous women who is considering to have children in the future to avoid LLETZ related risk of preterm labour.

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DOES DEPTH OF EXCISION OR MARGINAL STATUS SIGNIFICANTLY INFLUENCE TEST OF CURE OUTCOME FOLLOWING A LLETZ? RESULTS OF A RETROSPECTIVE COHORT STUDY

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Introduction:
The National Health Service Cervical Screening Programme (NHSCSP) document 20 states minimum and maximum suggested depth of excision for large loop excision of the transformation zone (LLETZ) treatments for cervical intraepithelial neoplasia (CIN). Some have found that involved endocervical margins are related to increased risk of residual and recurrent CIN. However, high sensitivity of high-risk human papilloma virus (HR HPV) test of cure (TOC) is expected to remove any necessity for differential follow up, based on completeness of excision.

This study aims to assess if excision parameters influence the TOC result.

Methods:
This is a retrospective cohort study including all women who had LLETZ for high-grade (HG) CIN, from 01/10/2013 until 30/09/2015 in Musgrove Park Hospital, Taunton. Data were retrieved from the hospital colposcopy database. All women with no HG CIN in the LLETZ specimen, invasive cancer or glandular abnormalities were excluded from analysis. Mann Whitney and Fisher's exact tests were used to compare groups.

Results:
A total of 554 women who had LLETZ for HG CIN during the study period were identified. Of those, all information including TOC cervical cytology results were available for 503, and these data were analysed. There was a correlation between depth of excision and marginal involvement of the LLLETZ by HG CIN ($p=0.038$). However, LLETZ excision margin involvement did not influence the follow up cytology result or HR HPV status ($p=0.89$ and $p=0.11$, respectively). Depth of excision also did not correlate with presence of high risk HPV status in the TOC smear ($p=1.000$).

Conclusions:
Neither depth of excision nor marginal status appear to influence cytology or HR HPV positivity at the TOC smear. More importantly, marginal involvement seems to have no impact on follow up cytology result. These data support the recommendations in NHSCSP Document 20, albeit only for short-term outcomes.

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LONG TERM FOLLOW UP OF CONSERVATIVELY MANAGED CIN2

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Introduction:
There is increasing evidence to show that CIN 2 can regress in young women therefore intervention with LLETZ treatment may not always be required. Many authors now recommend consideration of conservative management in young women. We have been offering conservative management of CIN 2 in selected patients in our Colposcopy clinic since 2011. We have shown regressions rates of up to 60% in line with other studies.

Methods:
Conservative management of biopsy proven CIN 2 was offered to young women with lesions fully visible at colposcopy who were able to attend for 6 monthly colposcopy review until the lesion regressed or required treatment. The study group consisted of 28 patients between 2011-14. Data was extracted from the electronic patient record, colposcopy database and Open Exeter smear recording record.

Results:
The study included 28 patients with a mean age age 26 yrs (19-32). 72% of patients had normal colposcopy/smear at discharge from colposcopy clinic. 28% of patients had low grade smear/CIN 1 at discharge. Length of follow up was 3.2 yrs (2-5) in the community. Twenty-six patients (93%) have on-going negative cytology. Two patients (7%) were referred back to colposcopy. Of these, one had low grade smear at discharge, the next smear was high grade and LLETZ showed CIN 2. The second patient had two normal smears followed by BNC and CIN 1 on biopsy.

Conclusion:
Conservative management of CIN 2 with regular observation and follow up is a suitable alternative to LLETZ treatment in selected young women.

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CERVICAL STENOSIS FOLLOWING EXCISIONAL TREATMENT OF THE CERVIX: IS A MIRENA COIL AN ALTERNATIVE TO HYSTERECTOMY: A CASE SERIES

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Background and Objective:
Cervical stenosis is a late complication of excisional cervical treatment that's more prevalent in postmenopausal women. Incidence is unknown, but it's become more apparent following the introduction of Test of Cure. Cervical stenosis can be associated with menstrual disorders, haematometra, infertility and inadequate cervical cytological follow-up. Different treatments have been advocated, including repeat loop excision, ultrasound-guided hysteroscopy, stents, however stenosis recurs. This study investigates whether dilatation and insertion of Mirena coil is an effective treatment that allows adequate cytological monitoring.

Methodology:
Prospective case series of 20 patients with a history of cervical excision, One case of laser loop, 19 Large Loop excision of Transformation Zone (LLETZ) and subsequent cervical stenosis presenting to colposcopy unit between 2013 and 2016.

Results:
Of the 20 patients, 16 presented with abnormal cervical smears, 3 had persistent inadequate smears and 1 had haematometra. 75% were postmenopausal – mean age: 51.9 (32-68); mean number of LLETZ: 1.4 (range 1-3); and mean depth of LLETZ: 17.53 mm (range 2-38mm). 13/20 had a small central LLETZ and Mirena insertion and a further 2/20 had colposcopy, dilatation and Mirena insertion hence overall success rate of 15/20 (75%). Only one patient presented post-operatively with symptoms of infection and high vaginal swab confirmed anaerobic bacteria. At 6 months follow-up, the cervix was open and adequate smears were obtained in 10/15 women; 2/15 cervix still open but smears inadequate; 1/15 smear pending; and 2/15 lost to follow-up. Hysterectomy was offered to 4 women (20%) with failed dilatation.

Conclusion:
This study shows that Mirena coil can keep the cervix open after cervical dilatation and reduce the number hysterectomies. We propose that it could be used as prophylaxis at the time of LLETZ for women at risk of cervical stenosis, such as those who are postmenopausal or have amenorrhea.

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A REPORT ON THE MANAGEMENT OF BIOPSY PROVEN VIN IN 55 PATIENTS OVER A 10 YEAR PERIOD AT ONE VULVAL CLINIC IN DGH

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Introduction:
Vulvar intraepithelial neoplasia (VIN) is a premalignant condition of the vulva.VIN refers to squamous lesions, which comprise the great majority of vulvar neoplasia.Vulvar intraepithelial neoplasia (VIN) is typically multifocal, and the lesions vary in appearance. Tissue biopsy is necessary for a definitive diagnosis. VIN may be associated with or progress to invasive squamous cell carcinoma. VIN can be difficult to distinguish clinically from lichen sclerosus or lichen planus, especially when they occur concurrently.The goals of treatment are to prevent development of invasive vulvar carcinoma and relieve symptoms, while preserving normal vulvar anatomy and function. Treatment is individualized based upon biopsy results, extent of disease, and the woman's symptoms

Report:
We would like to present the management of 55 patients diagnosed with VIN managed at one vulval clinic in DGH. Although it is more common in women over 50 years it can occur from age 20 onwards, Age at diagnosis was spread from 35 years and 81 years. The majority were around age of 60 yrs.The follow up has been for about 10 yrs, in some instances discharged early for GP follow up with patient education and smoking cessation advice.

80% of them were VIN 2 & 3 and 9% had micro invasion. Rest were VIN 1. Higher grades of VIN were associated with multifocal lesions. Noted 30% association with HPV and 16% with CIN.

Management was either observation, excision or Imiquimod, based on the grade of VIN. About 90% treated with imiquimod had no recurrence.

References:
An update on vulvar intraepithelial neoplasia: terminology and a practical approach to diagnosis.AU Reyes MC, Cooper K
SO J Clin Pathol. 2014 Apr;67(4):290-4. Epub 2014 Jan 7.

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IS ENDOCERVICAL CRYPT INVOLVEMENT ASSOCIATED WITH RESIDUAL HIGH GRADE DISEASE?

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Introduction:
Endocervical crypts occur when the columnar epithelium is thrown into longitudinal folds protruding into the cervical stroma. Some studies have found higher recurrence rates of CIN in tissues samples with crypt involvement.

The aim of this audit was to determine whether endocervical crypt involvement in LLETZ specimens was associated with residual high-grade disease.

Methods:
Data were collected from women seen at the post-treatment smear clinic 01.01.2015 - 31.12.2016. Demographics and biopsy results were obtained. Women with low-grade histology or absent information were excluded from the analysis. A Chi-square test was used.

Results:
Two hundred and seventy three women were seen during the study period. Of these 90 cases were excluded due to insufficient data / low-grade histology on LLETZ.
The total number of cases suitable for analysis was 183.
The mean age was 32 years old (range 25-57).
68 women had crypt involvement in their histology (37%; 68/183) and 115 had no crypts on histology (63%; 115/183).

At the 6-month follow-up, overall >75% of women in both groups were smear negative and HR-HPV negative. Similar rates of HR-HPV positivity with a negative smear were seen in both groups; 10% (7/68) and 11% (13/115) respectively.

Three women (2.6%; 3/115) on the crypt negative group had residual high-grade disease in their cytology report versus one in the crypt positive group (1.4%; 1/68). There was no significant difference in the rates of residual disease ($p = 1$). All four patients with residual high-grade disease had incompletely excised samples, (depth of LLETZ 8-15mm).

Conclusion:
Incomplete excision is an important adverse factor for recurrence. However, the increased sensitivity offered by HR-HPV testing negates any differential follow policy based on incompleteness of excision.

Interestingly, in this audit, there was no significant difference in the rates of residual high-grade disease in respect to crypt status.

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MANAGEMENT OF POSTHYSTERECTOMY ABNORMAL VAGINAL VAULT CYTOLOGY

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Primary vaginal cancer is an uncommon entity, accounting for 1% to 4% of cancers of the female genital tract. Due to the rarity of the disease, there are currently no formal recommendations for vaginal cancer screening in the general population, except for subgroups which are at increased risk of developing VaIN. Women who have had a hysterectomy for cervical precancer or cancer, and to a lesser extent for endometrial cancer represent such high-risk groups. The work-up of an abnormal vaginal smear in these patients poses a great challenge to the clinician, considering the lack of robust consensus guidelines.

A precise estimate of the accuracy of current screening tests is hampered by the scarce data and the few available studies. Vaginal cytological abnormalities are common in previously hysterectomized women, however the reported PPV of cytology for HG-VaIN and vaginal cancer is extremely low. Diagnostic colposcopy of the vaginal vault is a strenuous procedure as a consequence of the disturbed anatomy of the area and the multiple folds of the lax vaginal walls; it requires time, an expert colposcopist, a co-operative and relaxed patient and special equipment.

Given that the majority of HG-VaIN and vaginal cancer are hrHPV positive, HPV screening and genotyping qualifies as a valuable adjunct in the workup of abnormal vaginal cytology. The sensitivity and NPV of hrHPV testing range from 92% to 100% for the prediction of HG-VaIN. Thus, hrHPV testing may be useful in identifying women who should undergo colposcopy and directed biopsies. The role of other HPV-related biomarkers is under investigation; however hrHPV DNA (+)ve patients who testing positive for hrHPV mRNA, or dual stain (p16/Ki67) are likely to harbor preneoplastic disease.

Prospective trials assessing the contribution of vaginal screening tests in detecting HG-VaIN will clarify the natural history of VaIN and help develop evidence-based recommendations.

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THE VAGINAL MICROBIOME AFTER EXCISIONAL TREATMENT FOR CERVICAL INTRAEPITHELIAL NEOPLASIA

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Background:
The vaginal microbiota (VMB) is usually Lactobacillus spp. dominant appears to protect the female reproductive tract against infections including HPV. CST (community state type) III and the high-diversity VMB deplete of Lactobacillus spp. CST IV have both been associated with higher rates of HPV acquisition, persistence and increased severity of cervical intraepithelial neoplasia (CIN). These CST's have also been associated with pre-term birth (PTB); a known complication of excisional treatment.

Objectives:
To investigate the impact of excisional treatment for CIN on VMB composition.

Material and Methods:
Population: Non-pregnant, premenopausal women attending the colposcopy clinic for excisional treatment of histologically-proven CIN in London, UK.
Interventions: Vaginal swabs collected immediately prior to treatment, and at 6 month follow-up. Bacterial DNA was extracted and sequened using the Illumina MiSeq platform.
Analysis: Heirarchical clustering of sequence data was used to examine bacterial species classification data, and linear discriminant analysis effect size (LEfSe) to identify biomarkers.

Results:
One hundred and three women provided both pre- and post-treatment samples. Excisional treatment did not significantly alter the distribution of CSTs within the cohort, and diversity remained significantly greater compared to normal, healthy untreated controls. There was no association with post-treatment CST and HPV status. LEfSe identified Streptococcus agalactiae (Group B streptococcus) to be significantly overrepresented in post-treatment samples.

Conclusions:
Excisional treatment does not appear to have a significant impact on VMB composition. CST III and IV remained at a higher prevalence than in a normal control population. These results suggest that the increased prevalence CST III and IV in women with CIN may be due to intrinsic host factors rather than as a result of disease, and these intrinsic factors may also predispose them to PTB. Furthermore, Streptococcus agalactiae which has been associated with PTB risk, may add to the risk in this patient cohort.

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CERVICAL SCREENING CAMP KATHMANDU VALLEY NEPAL- EVALUATION OF THE 'SINGLE-VISIT-APPROACH' USING VISUAL INSPECTION WITH ACETIC ACID (VIA) WITH THERMOCOAGULATION TREATMENT AND FIELD TESTING THE USE OF THE MOBILE ODT HAND HELD COLPOSCOPE. (SUPPORTED BY NNTCR, DFIF, THET, BSCCP, PHASE NEPAL)

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Aim:
To reduce the incidence of cervical cancer in the Kathmandu valley through high quality training of health professionals and service delivery of a 'single-visit-approach'.

Methods:
Cervical cancer screening and prevention training was attended by all nurses prior to the camp for initial training (6) or refresher (10). Local nurses (10-16) and gynaecologists (1-3) attended a mobile camp (hosted by schools, community spaces etc.) held in a different district of the Kathmandu valley over 5 days. The 6 nurses new to the screening camp where assigned a nurse mentor.

Women were registered and completed a health-screening questionnaire. Cervical screening was conducted with torchlight and 5% glacial acetic acid using direct visual inspection. Equivocal cases and screen positive cases were confirmed with application of iodine and the use of a mobile smart phone operated hand-held colposcope (MobileODT, Tel Aviv, Israel). Thermocoagulation without local anaesthetic was used to treat VIA positive cases following local protocol. Safety, acceptability and screening data was collected. The MobileODT, Single visit and referral pathway were evaluated. Three BSCCP accredited colposcopists attended the camp to support the team and provide quality assurance.

Results:
There were 997 women screened over 5 days of whom 0.3% (3) had cervical cancer. The percentage of VIA positive cases was 3.6% (36) all of whom received thermocoagulation of the cervix. The MobileODT was used with ease, the images were clear and facilitated high quality diagnosis, clinical discussion and training. All women who had thermocoagulation tolerated the treatment well. No concern regarding safety was noted. The referral pathway for suspected cancer was appropriate and adhered to. The standard of VIA was high.

Conclusion:
High quality locally delivered cervical screening camps using SVA augmented by MobileODT are feasible in Nepal, though a decade of support and training has been required to reach this goal.

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HUMAN PAPILLOMA VIRUS (HPV) POSITIVITY IN TEST OF CURE SAMPLES- A COMPARISON OF TREATMENTS AND GRADES OF DISEASE

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Background:
Cervical Screening Wales introduced HPV testing into the cervical screening programme from September 2014. Initially, this was as 'Test of Cure' (ToC), performed only on first cervical samples following treatment for CIN or CGIN. From December 2015 ToC was extended to all women on early recall following treatment for CIN/CGIN.

Aim:
To compare HPV positive rates in TOC samples following excisional and ablative treatment
To compare HPV positive rates in TOC samples for different grades of disease.

Method:
Over the 14 month period from September 2014 to November 2015, there were 2528 Test of Cure samples received by the laboratory and these were all tested for HPV. The samples were matched with their grade of disease, treatment episode and the type of treatment recorded on the All-Wales Colposcopy database. The HPV positivity rate in the TOC samples were compared dependent on their treatment and their grade of disease.

Results:
HPV positivity rates following excisional treatment (LLETZ) was 19.8% (410 of 2073). This was comparable for some ablative treatments as cold coagulation was 16.4% (39 or 238) but other ablative methods such as cryotherapy had significantly higher rates at 31.7% (26 of 82).
HPV positivity rates varied for different grades of disease: low grade disease (CIN 1 or less) was 21.3%; CIN1 was 19.5%. and high grade disease was 18.7%.

Conclusion:
This shows that monitoring HPV positivity rates in TOC samples will be helpful as this will enable outcome data on different treatments, enable informed discussion with patients and inform the planning for colposcopy services.

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COMPARISON OF COLD COAGULATION AND LLETZ FOR THE TREATMENT OF CIN II

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Background:

Cold coagulation is an ablative method for treatment of cervical intraepithelial neoplasia (CIN). It has been used in clinical practice since 1966 but has been superseded by Large Loop Excision of the Transformation Zone (LLETZ). LLETZ may have adverse obstetric outcomes such as pre term labour and mid trimester loss.1 Cold coagulation is easily performed in the outpatient setting, requiring minimal or no analgesia, with few reported complications.

Aims:

The aim of the study was to compare the effectiveness of cold coagulation with LLETZ for the treatment of CIN II.

Methods:

We looked at all patients who had cold coagulation for the treatment of CIN II over a 6 month period in our colposcopy unit. We compared post treatment outcomes with a similar number of patients who underwent LLETZ for CIN II.

Results:

The number of patients in our study was 100 – 50(50%) had cold coagulation and 50(50%) had LLETZ treatment. The median age of the cold coagulation and LLETZ groups was 29 and 30, respectively. All patients had biopsy proven CIN2. All patients had a type 1 transformation zone. Both groups had similar referral smears. Their follow up test of cure compared favourably with each other. The cold coagulation follow up smears included normal (42), LSIL (4), ASCUS (2), inadequate (2) and 24% (12) tested positive for HPV. The LLETZ follow up smears comprised of normal (42), ASCUS (4), LSIL (4) and 28% (14) tested positive for HPV.

Conclusion

Cold coagulation for treatment of CIN II performs favourably when compared to LLETZ treatment. There were no adverse side effects reported amongst those who had cold coagulation treatment. Cold coagulation is a good option for treatment of CIN2 in suitable patients.

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GLANDULAR SMEAR - MANAGEMENT IS STILL AN ENIGMA. ARE WE OVER OR UNDER TREATING THEM? ANALYSIS OF THE QUALITY OF CYTOLOGY REPORT

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Introduction:
Although recommended by the recent NHSCSP[1] that colposcopy to be performed (100%) it is well known for its limitation in the management of glandular abnormalities. We set out to find the quality of our smear report at our Regional Cytology Laboratory at the Heart of England NHS Foundation Trust.

Methods:
We collected all the glandular abnormalities from our cytology database in our laboratory for two years 2015-16. The data was cross checked twice and analysed. The sensitivity, specificity and positive predictive value were calculated using the statistical software https://www.medcalc.org/calc/diagnostic_test.php[2]

Results:
A total 38 ?glandular neoplasia and borderline glandular abnormalities were reported during the period of 2 years. The median age was 30 years. There were 29 high grade CGIN +/- CIN reported on final histology when the disease was predicted on a smear suggestive of ?glandular neoplasia. There were 12 cases reported as invasive cancer. The smear report also specified about the endocervical or non-endocervical glandular abnormalities. There were three non-endocervical glandular abnormalities. All of them were postmenopausal and had endometrial cancer.

Borderline glandular abnormalities were reported in six of them. Three of them had normal histology outcome and rest three had high grade disease.

Our sensitivity of glandular smear report was 90.62% (95% CI 75 – 98%) and specificity of 50% (95% CI 11.8 - 88.2%). The positive predictive value was 90% (95% CI 81.17 – 95.59%).

The concern is that the glandular abnormalities affect women of reproductive age (median in our study was 30) due to the limitation of colposcopy a large proportion of them will require excisional biopsy or treatment.

Conclusion:
Our cytology report suggests a high sensitivity and positive predictive value for glandular cervical abnormalities. Therefore, although colposcopy has limitation in the assessment of glandular abnormalities cytology should guide and influence management.

Ref:
1.https://www.gov.uk/government/uploads/515817/NHSCSP_colposcopy_management.pdf
2.https://www.medcalc.org/calc/diagnostic_test.php

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MARGINAL ERROR - DO INCOMPLETE LLETZ RESECTIONS MATTER?

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Introduction:
Large Loop Excision of the Transformation Zone (LLETZ) is the current gold standard treatment for Cervical Intraepithelial Neoplasia (CIN). To date there has been conflicting evidence on the significance of the resection margin status as a determinant of residual or recurrent disease.

Aim:
The aim of our study was to examine the correlation between excision margin status and eradication of CIN in women who were treated by LLETZ.

Method:
We reviewed all women who underwent a LLETZ procedure between 1.1.2012 and 31.12.2014 in the colposcopy clinic of the Rotunda Hospital and on whom excision margin status and test of cure outcome (negative smear and negative HPV test) was available at 6 months.

Results:
The final group consisted of 1077 patients with histologically proven CIN on whom excision margin status was known and both cytology and HPV status were available six months following treatment. 399 (37%) had completely excised margins and 678 (63%) were incompletely excised. Six months following treatment, 536 (79%) patients

with incomplete excision margins and 321(80%) with complete excision margins had negative cytology(x^2=P>0.05). 527(78%) with incomplete excision margins and 327(82%) with complete excision margins were HPV negative(x^2=P>0.05). There was no statistically significant difference in cure rates between patients with endodermal or ectodermal margin involvement(x^2=P>0.05). Both the age of patient and the grade of disease on LLETZ histology had no impact on disease recurrence(x^2=P>0.05). Multiple margin involvement was a risk factor for disease recurrence(x^2=P<0.05). Women with incomplete excision margins with a positive smear at 6 months were more likely to have high grade disease (x^2=P<0.05).

Conclusion:
In our experience, excision margin status does not correlate with test of cure outcome for women with CIN. We would recommend that women treated for CIN should have the same follow up protocol regardless of excision margin status.

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PATHOPHYSIOLOGY AND INTRAPARTUM MANAGEMENT OF CERVICAL SCAR TISSUE (CST) AND STENOSIS IN OBSTETRIC PATIENTS WITH PREVIOUS COLPOSCOPIC-GUIDED CERVICAL TREATMENT

Mr Mohamed Shahin

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Colposcopic guided cervical treatment is recommended for high-grade cervical epithelial abnormalities. Large loop excision of transformation zone (LLETZ) is the commonest procedure performed for treatment of such cases. The risk of preterm labour is well studied in pregnant women following cervical treatment, however, there is a little evidence and research in managing cervical scar tissue in labour and risk of cervical dystocia. Most of the published case reports failed to accurately recognise the pathophysiology and describe the appropriate management of such cases, with many having unnecessary Cesarean sections (CS).

This is a case series and review of available published literature for the management of intrapartum management of cervical scar tissue in labour ward. Women who were initially deemed to have cervical dystocia and counselled for CS were carefully reassessed and review of the decision was undertaken, followed by successful vaginal birth.

On literature review, there is paucity in published literature in managing such cases, mostly as case reports. The concern is the risk of cervical dystocia and uterine rupture. However, most of those cases, the cervical dystocia is usually apparent failure to dilate,

due to intracervical scarring, rather than true cervical rigidity - with various degrees of cervical effacement. Digitally releasing cervical scarring gently during examination can overcome it and allows successful vaginal delivery. Recently, there was a case report of a cesarean section the same. However, no such attempt has been made, despite being apparently simple, with the information provided.

Conclusion: Awareness of the anatomy and pathology of the cervix in such cases is helpful in managing them – by avoiding unnecessary Cesarean sections.

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LLETZ TALK ABOUT COLD COAGULATION

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Introduction:
Large Loop Excision of the Transformation Zone (LLETZ) is the gold standard treatment for cervical intraepithelial neoplasia (CIN). However, there is increasing evidence that LLETZ may associated with obstetrical complications. A recent meta-analysis by Dolman et al looked at the efficacy of cold coagulation and found it to be as effective as LLETZ with no documented negative impact on fertility and subsequent pregnancies. In 2015 we introduced cold coagulation as an option for our patients.

Aim:
This study assesses our initial experience with cold coagulation.

Method:
We reviewed 6 month follow up data of the first 200 women who underwent cold coagulation using cytology and HPV status as test of cure indicators. A random sample of 200 patients treated by LLETZ during the same period was used to compare treatment outcome.

Results:
Six months following treatment, 173 (86.5%) of the women treated by cold coagulation and 167(83.5%) treated by LLETZ had normal cytology (x2=P>0.05). 148(74%) treated by cold coagulation and 166(83%) treated by LLETZ were HPV negative (x2=P<0.05). 139(70%) women treated by cold coagulation and 152(76%) treated with LLETZ had normal cytology and were HPV negative (x2=P>0.05).

Conclusion:
The results of our initial experience with cold coagulation have been reassuring. Assessing cytology alone, there was no significant difference in cure rates between those treated by cold coagulation and LLETZ. Regarding HPV status alone, those treated by cold coagulation compare less favourably to LLETZ and the difference is statistically significant. However there is a lack of reliable data on the natural history of HPV infection and studies suggest that testing HPV at 6 months may be too early to assess outcome.

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A POSITIVE ASSOCIATION BETWEEN CLEARANCE OF HIGH-RISK HPV STRAINS AFTER LLETZ AND ABSENCE OF RESIDUAL DISEASE IN PATIENTS WITH EARLY STAGE CERVICAL CANCER

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Introduction:
The standard treatment for early-stage cervical cancer is radical hysterectomy and pelvic and r para-aortic lymphadenectomy. A number of pathological parameters have been explored for their usefulness in tailoring a less aggressive approach for patients with low risk early stage disease. We examined whether, in patients with cervical cancer stage I A 1-I B 1, positive for high-risk human papilloma virus (hrHPV), clearance of the viral DNA after large loop excision of the transformation zone (LLETZ) correlates with cervical residual disease at the final pathological specimen.

Material and Methods:
Data were collected of patients diagnosed with early stage invasive cervical cancer (stage IA1- IB 1) and positive hrHPV DNA, who had a repeat cervical HPV test 3-12 weeks after LLETZ and before the final surgical treatment. We compared characteristics of patients with persistent and cleared hrHPV from the cervix, and investigated an association of post-LLETZ hrHPV status with residual cancer on final pathology.

Results: Of 28 patients, 13 were cleared of hrHPV post-LLETZ; none had residual cancer in the final pathological specimen, 2 had CIN 3. 7 women had undergone radical hysterectomies, 1 radical trachelectomy, 3 simple hysterectomies and 2 had undergone repeat LLETZ.

Of the 15 women who showed persistence of hrHPV, 10 had residual cancer in the final pathological specimen, 3 had CIN3 or AIS, and only 2 were negative for cancer.

Conclusions:
Clearance from the cervix of hrHPV post-LLETZ, was found to correlate in all the cases (100%) with the absence of residual cancer from the final surgical specimen. We speculate that testing for hrHPV after LLETZ might serve as a new parameter for risk assessment and treatment tailoring of less aggressive surgery in women with early stage cervical cancer negative to HrHPV. Additional patients and studies are needed to strengthen our findings.

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APPLICATION OF RAPID EVAPORATIVE IONIZATION MASS SPECTROMETRY (REIMS) iKNIFE FOR REAL-TIME IDENTIFICATION OF CERVICAL DISEASE

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Cervical cancer and its precancerous form cervical intraepithelial neoplasia (CIN) commonly affect women of reproductive age. Fertility-preserving trachelectomy procedures are available, but if the excisional margins are not cancer-free, as is the case in 33% of procedures, these women must undergo a hysterectomy, therefore losing their child-bearing potential. Rapid Evaporative Ionization Mass Spectrometry (REIMS) analyzes electrosurgery-generated aerosols, using time-of-flight mass spectrometry to provide real time tissue identification without the need for sample preparation, raising the potential for use as an intraoperative diagnostic technique and improving the surgical and fertility outcome for one third of the women who undergo trachelectomy.

We conducted a pilot study showing that REIMS can differentiate between cancerous and healthy cervical tissue thus presenting an innovative technique that could drastically improve fertility-sparing operations.

Cervical biopsies of 66 women were cut using a Covidien diathermy hand-piece. The surgical aerosol produced was transferred into a Waters Xevo G2-S mass-spectrometer. The tissue samples were then stained for histopathological validation. These diagnoses were used in multivariate statistical analysis of mass spectroscopic spectral data, including principal components and linear discriminant analysis performed using Offline Model Builder software. Correct classification rate was checked using leave one patient out cross-validation, with an overall result of 96%.

Frozen section is the current method for intraoperative assessment of margin status at the time of trachelectomy, and the concordance between intraoperative frozen section and final histology has been quoted as 84%, significantly lower than the preliminary results of REIMS. In addition to providing real-time information, thus reducing anaesthetic time, REIMS has the potential to improve the accuracy of intraoperative margin detection. This could potentially increase success rates of trachelectomy, leading to a truly advanced fertility sparing technique in modern surgery. This principle is also under investigation for use in CIN to be rolled out into the colposcopy clinic.

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LLETZ PROCEDURE: LOCAL ANAESTHETIC VS GENERAL ANAESTHETIC

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Aims

To compare GSTT's colposcopy service against the Cervical screening standards set out in guidelines. Identify areas where improvements may need to be made.

Method

All patients who had LLETZ procedure 1/1/15 through to 31/12/15 were identified by the colposcopy database Viewpoint and Cyres. Data was collated from these 2 databases, Electronic- Patient-Record, Galaxy, Gynae Oncology Theatre Diary, and Gynae Manager record. Data was collected on a proforma and then anonymised and inputted onto an Excel spreadsheet.

Results

- The proportion of women managed as outpatients with local analgesia should be ≥ 80%. LLETZ under LA n=434 (86%) vs LLETZ under GA N=68 (14%)
- All treatments should be recorded (100%) LA: 100% vs GA: 87% (59/68 on viewpoint)
- When excision is used ≥ 80% of cases should have the specimen removed as a single sample. LA n= 27 (6%) had multiple samples, 94% single LLETZ vs GA n=12 (18%) had multiple samples, 82% single LLETZ
- Data on margin involvement: GA: n=22 (32%) complete, 35 (51%) incomplete, n=11 (16%) no CIN vs LA: n=243 (59%) complete, n=154 (35%) incomplete, n=37 (6%) no CIN
- Excisional biopsy depth GA vs LA: GA n=54 (80%) average depth 11mm vs LA N=372 (86%) average depth 9mm
- TOC cytology: GA: normal n=41 (60%), abnormal n=11 (16%), inadequate n=1 (1.6%), DNA n=11 (8%) vs LA: normal n=346 (80%), abnormal n=27 (8%), inadequate n=6 (1%), DNA n=55 (13%)
- TOC: HPVGA: HPV+ve n=22 (48%), HPV –ve n=23 (51%) vs LA: HPV +ve n=97 (28%), HPV –ve n=249 (72%)

Conclusion

GSTT is achieving the majority of standards. There was inconsistency between data from different sources.

Recommendations

Viewpoint database has been installed in theatres
A SOP developed for high grade CIN under GA so as to achieve the 4 week target from biopsy to LLETZ.

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BORDERLINE HR HPV CYTOLOGY: DO WE TRUST OUR OWN COLPOSCOPIC EXAMINATION FINDINGS?

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Introduction:
Since 2013 women referred to colposcopy with borderline abnormal cytology have been triaged in accordance with BSCCP guidelines based upon HR HPV testing. Following normal colposcopic examination, women should be simply discharged back to routine recall in 3 or 5 years. This pressures colposcopists to make long-term management decisions based upon their colposcopic examination.
This audit aimed to assess compliance with BSCCP guidance and also evaluate the incidence HGCIN in this population at presentation and following further cytological abnormality in those who return to routine recall.

Methods:
Data for this retrospective cohort study of all colposcopy referrals 04/2013 – 04/2014 with borderline cytology (HR HPV) was collated from electronic colposcopy and pathology records. Descriptive analysis of data was undertaken using BSCCP Document 20 for audit standards. Mature follow-up data from 2013-6 was assessed for incidence of further cytological anomaly.

Results:
490 women were referred during the study, of which 476 (97%) attended. 395 (83%) of patients underwent diagnostic biopsy, of which more than 40% were considered potentially 'unnecessary' with final histology demonstrating koilocytosis at worst. In addition, 34 (7%) patients underwent see and treat LLETZ for high grade appearances at colposcopy. The overall incidence of CIN2+ in this cohort was more than 20%.
Compliance with follow-up guidance following final histology was poor at 70%. In women correctly discharged to routine recall following negative colposcopy (+/- biopsy), the incidence of LGCIN and HGCIN on subsequent cytology was 28% and 8% respectively.

Conclusions:
Management of women with borderline (HR HPV) cytology continues to present a challenge to clinicians with clear evidence of a strong commitment to biopsy, irrespective of colposcopic findings, and a reluctance to discharge to routine recall following colposcopy alone. Evidence demonstrates that accurate colposcopic examination is sufficient to dictate discharge to routine recall.

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FOR YOUR NOTES

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FOR YOUR NOTES

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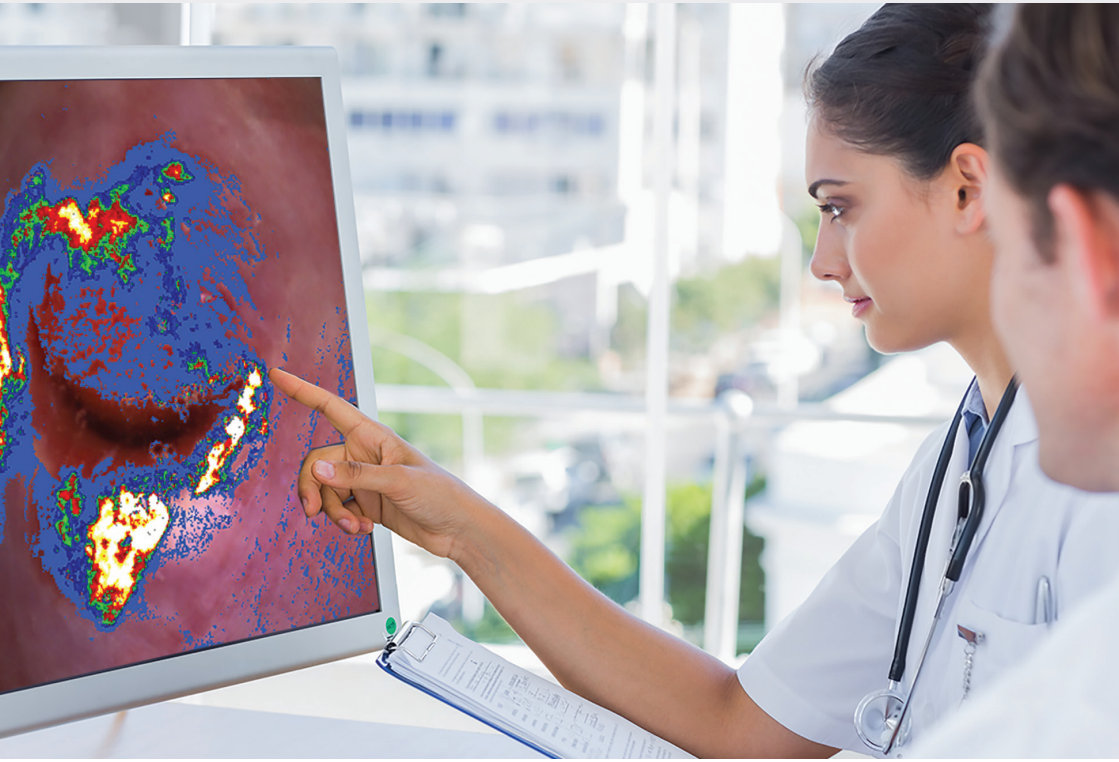

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