COLPOSCOPY QUALITY IMPROVEMENT PROGRAM (C-QuIP)

VICTORIAN CERVICAL CYTOLOGY REGISTRY PILOT STUDY

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on behalf of the C-QuIP Steering Committee

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1. **EXECUTIVE SUMMARY**

The absence of quality assurance for colposcopy is a gap in the National Cervical Screening Program. The C-QuIP (Colposcopy Quality Improvement Program), auspiced by RANZCOG, aims to address this gap by establishing accreditation and audit for fellows, general practitioners and other health professionals performing colposcopy. Draft performance standards were compiled by the C-QuIP Steering Committee and a pilot was conducted by the Victorian Cervical Cytology Registry (VCCR) to evaluate whether data could be collected via a brief form sent to the VCCR and to assess the appropriateness of the standards. Between 1/5/11 and 31/7/11, 28 colposcopists from the Australian Society for Colposcopy Victorian branch participated in the pilot and reported more than 1300 colposcopies. The participants as a whole met most of the draft C-QuIP standards. As individual numbers were low for many participants during this three month period, conclusions could not be drawn at the individual level but did provide an opportunity to review practice relative to their peers. A summary table of the performance standards is provided below. Some areas of further improvement are already noted from this preliminary data, such as follow-up of treated high-grade abnormalities, minimising over-treatment for less than CIN2 disease and ensuring that a biopsy is taken prior to ablative therapy. The feedback about the data collection forms was positive and the system provided the essential data required for the C-QuIP standards, when combined with routinely collected VCCR data. This simple data collection system can be used as an alternative to other data collection methods for C-QuIP and has the added benefit of utilising routinely collected registry data and providing the registries with data essential for the NCSP.

Table 1: Summary of C-QuIP performance standards

<table>
<thead>
<tr>
<th>Diagnostic colposcopy standards</th>
<th>Values for all participants</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1,</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard 1 Number of colposcopy referrals</td>
<td>N= 1312&lt;br&gt;Range (6-160)&lt;br&gt;44% were new patients (of these 110 (20%) HGA</td>
<td>Mandatory</td>
</tr>
<tr>
<td><strong>Level 2,</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard 1 Perform biopsy in &gt;95% of women with high-grade cytology</td>
<td>N=99/110 (90%)</td>
<td>Optional</td>
</tr>
<tr>
<td>Standard 2 90% Biopsies satisfactory</td>
<td>N=656/660 (99%)</td>
<td>Optional</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Standard 3a PPV colposcopy for high-grade histology</td>
<td>N= 72%</td>
<td>New patients only</td>
</tr>
<tr>
<td>Range 40-100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard 3b Yield of high-grade histology in women referred for high-grade cytology</td>
<td>N=73%</td>
<td>New patients only</td>
</tr>
<tr>
<td>Range 50-90%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1.1 BACKGROUND

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) is committed to establishing an accreditation and audit program for fellows, general practitioners and other health professionals performing Colposcopy. As the peak body in women’s health, RANZCOG has established collaborative relationships with many other professional groups including other medical specialties and general practice. The Australian Society for Colposcopy and Cervical Pathology (ASCCP) is strongly supportive of this RANZCOG initiative.

The National Cervical Screening Program (NCSP) (1) has identified six key program components:

1. Cervical Pap smear taking
2. Reporting of cervical cytology
3. Evaluation of the cervix by colposcopy
4. Reporting of histology of cervical biopsy specimens
5. Treatment
6. Follow up after treatment

Currently the NCSP has a Safety Monitoring Committee responsible for monitoring outcomes in the safety of the management of women with low and high-grade abnormalities under the National Health and Medical Research Council’s Screening to Prevent Cervical Cancer: Guidelines for the Management of Asymptomatic Women with Screen Detected Abnormalities (the Guidelines). (2) Performance measures exist for Australia Laboratories reporting cervical cytology and are measured by the National Pathology Accreditation Advisory Council. However, the NCSP has no process for monitoring the standards and practice of colposcopy or of the morbidity and outcomes of treatment. A number of peak international bodies have established colposcopy quality assurance programs, such as the BSCCP, Canada, European Federation of Colposcopy, Singapore and New Zealand. Australia now lags behind other countries with respect to monitoring the quality of colposcopy and the C-QuIP program aims to address this deficiency.

Referral of women for colposcopy is a direct consequence of participation in the NCSP under the Guidelines. The Guidelines have clear management and treatment pathways of screen detected abnormalities and can be used as a benchmark for a quality improvement program. The establishment of C-QuIP will ‘close the loop’ in the NCSP and allow governance and audit of a core component of the program.
The Pap test registries (PTRs) around Australia are an integral part of the cervical screening program and already collect data relevant to the proposed quality standards such as screening history, date and outcome of histology. They receive some information specifically on colposcopy via questionnaires, although this is not systematically collected. In addition, they capture information from all providers which is of particular importance if women change practitioners or are lost to follow up. The data on colposcopy is also essential to the registries for follow up purposes, as evidence of colposcopy or biopsy ceases follow up for most cervical abnormalities, and for monitoring program performance and policy impact, such as the HPV vaccination program. With minimal additional information (date of colposcopy and any treatment performed) the registries could potentially provide the information required for the reporting of the quality standards back to the individual practitioner, and the added benefit would be more complete data on colposcopy integrated into the cervical screening program.

2. **VICTORIAN CERVICAL CYTOLOGY REGISTRY PILOT**

2.1 **AIMS**

The aims of the pilot conducted through the Victorian Cervical Cytology Registry were to determine:

- whether a simple data collection form is feasible and acceptable to practitioners who do not have colposcopy software
- the most user friendly reporting format back to practitioners and to C-QuIP
- data specifications required for possible software options
- the appropriateness of the draft standards

2.2 **METHODS**

2.2.1 *Development of performance standards*

The Steering Committee developed draft performance standards based on the NHMRC Guidelines, national and international standards and previous reports (NZ, UK and Australia RANZCOG).(3-10) An information evening was held for prospective participants and feedback on the draft standards was incorporated. In considering the standards, the aim was to focus on a few key quality measures that can be easily interpreted and that would provide useful feedback to participants for self-monitoring of practice. The draft diagnostic and therapeutic colposcopy performance standards arrived at through this process are shown in Appendix 1.
2.2.2 Selection of participants

The time period for the pilot was from 1/5/11 to 31/7/11.

Invitations to participate in the pilot were sent to all 58 Victorian members of the ASCCP. Thirty members responded and consented to participate; 28 participants sent in forms. CPD points were offered to participating colposcopists.

For the therapeutic standards, entry into this pilot dataset was limited to the time period of 01/05/2011 and 31/07/2011, where

- a woman received a colposcopy within the pilot period
- had at least one treatment within the pilot period
- had a histology report submitted by the laboratory
- the Colposcopist submitted the Quality Assurance Data Collection Form.

2.2.3 Data collection

A simple paper-based data collection form, based on the format for a laboratory test request slip, was developed by the VCCR (Appendix 2). The form was designed so that a patient label sticker could be applied, practitioner data was pre-printed and only the additional essential data NOT already collected by the VCCR was requested to complete the draft performance measures. This included only a few fields that had to be completed by the practitioners, including colposcopy findings, whether a biopsy was taken (not the result which is already recorded by the VCCR) and type of treatment if performed. The form had to be completed for EACH diagnostic or therapeutic episode but took less than a minute to complete.

The information flow for data to and from the VCCR is shown below in Figure 1.

A brief feedback form was also included at the end of the study, when the draft performance standards were mailed to participants.
Figure 1: Pilot flowchart

Colposcopist sends report data collection form to Registry for each colposcopy/treatment event

VCCR data entry/upload. Combine with routinely collected data on cytology, histology and treatment

VCCR sends report to Colposcopist on Performance measures

Colposcopist returns feedback form to VCCR
5. RESULTS

A total of 1312 data forms were returned from the 28 participating colposcopists. On average 46 forms were returned per colposcopist (range 6-160). Of the new referrals during the pilot period, fewer than half of referrals were for a new patient with an abnormal smear. Of new referrals, 25% were for HGA cytology, 30% for possible HGA and 38% for LGA abnormalities. Table 1 shows the reasons for colposcopy for eligible visits during the pilot period.

Table 1: Indications for colposcopy

<table>
<thead>
<tr>
<th>Indication</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>New patient with abnormal smear</td>
<td>583</td>
<td>(44%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- 20% prior smear HGA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- 26% possible HGA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- 43% LGA</td>
</tr>
<tr>
<td>Follow up at 6 or 12 mths</td>
<td>413</td>
<td>(32%)</td>
</tr>
<tr>
<td>At time of treatment</td>
<td>58</td>
<td>(4%)</td>
</tr>
<tr>
<td>Other</td>
<td>258</td>
<td>(20%)</td>
</tr>
<tr>
<td>Total</td>
<td>1312</td>
<td>100%</td>
</tr>
</tbody>
</table>
The summary data for the diagnostic performance standards is shown in Table 2. Biopsies were performed in 90% of women with high-grade cytology overall, which is lower than the recommended standard of 90%. Reasons for lack of biopsy were provided in some instances, and mostly related to pregnancy; however, a detailed examination of these reasons is beyond the scope of this report. Of biopsies performed, virtually all were satisfactory for histological interpretation as required by the NHMRC guidelines. The PPV of colposcopy for high-grade histology was 72% overall. In other words, in 72% of cases where colposcopy was abnormal, the biopsy confirmed high-grade disease. There are no standards for this measure and it is particularly difficult to interpret the colposcopic findings. Thus measure 3b demonstrates whether for an individual colposcopist a biopsy confirms high-grade disease in women with high-grade cytology as an indication of whether the biopsy was correctly targeted. This measure also incorporates some laboratory error in the reporting of high-grade cytology but given the high-specificity of cytology this should not have a major influence. In other words, if the cytology is reported as high-grade, it is unlikely to be a false positive report and investigation should in most instances confirm high-grade disease. At 73%, measure 3b was very close to the PPV and may be a suitable, and more easily measured, proxy for the PPV in 3a.
Table 2: Summary of diagnostic performance measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Values for all participants</th>
<th>Comment</th>
</tr>
</thead>
</table>
| **Level 1, Standard 1**  
Number of colposcopy referrals | N= 1312  
Mean=46  
Range (6-160) | Mandatory |
| **Level 2, Standard 1**  
Perform biopsy in >95% of women with high-grade cytology | N=99/110 (90%) | Optional |
| Standard 2 90% biopsies satisfactory | N=656/660 (99%) | Optional |
| Standard 3a PPV colposcopy for high-grade histology | N= 72%  
Range 40-100% | New patients only |
| Standard 3b Yield of high-grade histology in women referred for high-grade cytology | N=73%  
Range 50-90% | New patients only |

Figure 3: Performance measure 3a: Positive predictive value of colposcopy for high-grade disease

![Performance measure 3a: Positive predictive value of colposcopy for high-grade disease](chart)

Footnote: CIN2 + is defined as High-grade abnormalities (Adenocarcinoma insitu, endocervical dysplasia / abnormality), HSIL (II, III, NOS), Squamous cell carcinoma (micro/invasive) and mixed adenosquamous / carcinoma in situ.
The summary data for the diagnostic performance standards is shown in Table 3. During the study period, an average of 4.8 women were treated per colposcopist. Approximately 85% (37/44) of women who had ablative treatment had a biopsy prior to treatment, and an additional 5 (11%) women had a biopsy on the same day of treatment. This is lower than recommended by the Guidelines. Although there is no numeric standard for the proportion of treatments that should be for high-grade disease, 67% of treatments in this pilot were for histologically confirmed CIN2+. The rate of treatment failure following treatment for high-grade disease was low, at 2.5%, for the 21 colposcopists who treated women with high-grade disease. There was some form of follow-up in almost 90% of cases treated for high-grade disease, although it is not clear whether this was by the original treating colposcopist from this data set.

Table 3: Summary of therapeutic performance measures

<table>
<thead>
<tr>
<th></th>
<th>Your data for pilot 01/5/11 – 30/7/11</th>
<th>Values for all participants</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AUDIT LEVEL 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Standard 1: Maintaining skill levels</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of women receiving a colposcopy and one or more treatments during pilot period 1st May 2011 – 31st July 2011</td>
<td>Pilot study involved No. women 115 No. Colposcopists 24 Number of women treated per colposcopists: Range 1 to 26 Average 4.8</td>
<td>Exclusions are target punch, random punch colposcopy where no biopsy recorded, and other diagnostic procedures (Endometrial biopsy, Polpectomy, Vaginal Vault).</td>
<td></td>
</tr>
<tr>
<td>Treatment includes ablative, cone biopsy, hysterectomy or LLETs/LEEP/LOOP biopsy (Diathermy loop)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AUDIT LEVEL 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Standard 1: Ensuring appropriate selection for treatment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All women must have had a biopsy or biopsies taken prior to ablative treatment, unless there are special circumstances</td>
<td>37 / 44 (84.1%) of ablative treatment had a biopsy between 1 day and 6 months prior. Ablative treatment was performed by 11 colposcopists, and represents 38.3% of treatment given in the study</td>
<td>The denominator includes 5 ablative treatments with same day biopsies (11.3%). 3 of these 5 same day biopsies had HSIL diagnosis. Two women did not have a biopsy recorded by VCCR (4.5%)</td>
<td></td>
</tr>
<tr>
<td>Number of women with biopsy recorded greater than one day and less than 6 months prior to date of ablative treatment / Number of women with ablative treatment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Standard 2: minimised</strong></td>
<td></td>
<td>77 / 115 (67.0%) had a prior CIN2+ diagnosis.</td>
<td>Note: 21 women had a less than CIN2, negative</td>
</tr>
<tr>
<td>Number of women treated with less than CIN2 eventual diagnosis on pathology is</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Footnote: Women who received colposcopy but their treatment fell outside the 01/05/2011 – 31/07/2011 were not included in this analysis.
Data analysis considered the most recent prior pap and other cervical event and subsequent treatment (up to 12 months where relevant).
CIN2 + is defined as High-grade abnormalities (Adenocarcinoma insitu, endocervical dysplasia / abnormality), HSIL (II, III, NOS), Squamous cell carcinoma (micro/invasive) and mixed adenosquamous / carcinoma in situ.
When the diagnostic performance measures were provided to participants, they were asked to complete a brief feedback form about the process and usefulness of the standards. The responses from the nine participants who responded are shown below. Although the response rate was low, amongst respondents the data collection form was overall well received and the draft standards were considered useful to their practice. There was some uncertainty about whether data collection software would be useful to the process; however, it is likely that this would be dependent on the actual software proposed and the amount of additional data that would have to be entered.

Table 4: Participant feedback about the C-QuIP pilot and data collection forms

<table>
<thead>
<tr>
<th></th>
<th>1 Disagree</th>
<th>2 Neutral</th>
<th>3 Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I found participating in the pilot study useful to my practice</td>
<td>1</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>I believe the data collected for the pilot was relevant to my practice</td>
<td>1</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>I found the process of returning the completed colposcopy forms easy</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>The final report provided was useful in understanding my performance throughout the</td>
<td>1</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>pilot study period</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would be interested in continuing to collect colposcopy data for my practice in</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>paper or excel form</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would prefer to use data collection software for recording colposcopy quality</td>
<td>1</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>(Note: software would require recording prior cytology and subsequent histology results for each patient, either manually or auto download, which may differ from the pilot which used VCCR data)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would like to be informed about any colposcopy data collection software linked to the</td>
<td>1</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>C-QuIP program that may be developed</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. **DISCUSSION**

To date, there have been no formal requirements for a practitioner to undertake colposcopic evaluation in Australia, other than having a provider number to access Medicare benefits for colposcopy. There was no requirement for any particular training or education, adherence to standards or participation in Quality Assurance Programs. By comparison, performance measures monitored by the Pathology QAP for laboratories reporting cervical cytology have been in place for more than a decade and have demonstrated substantial improvement over time. Within the successful organised cervical screening program, the lack of quality assurance in colposcopy remains an important gap. In recognition of this, the Department of Health and Ageing provided funds to the RANZCOG in 2009 to implement and administer the C-QuIP program over a three year period.

In selecting the draft performance standards, international standards and previous work done by other groups was considered. It is important to note that these standards are aimed at monitoring individual colposcopists and not the program as a whole, which can be best done through the PTRs but utilising data from individual colposcopists. For example, the waiting time from diagnosis of high-grade abnormality is an important indicator of program quality but can be measured through the PTRs and is to some extent outside the control of the individual colposcopists.

There were a number of challenges when considering the methods of data collection from colposcopists. An underlying premise was that there should be several options available to make the process simple and streamlined, so as to maximise participation. Options for data collection include: PMS, QAP software, and a paper-based form to be sent to PTRs to supplement data already available. One of the key advantages of using registries is that relevant legislation is in place, and processes for data security and confidentiality are well developed. Importantly, PTRs already collect cytology, histology, HPV and some data on colposcopy as part of routine follow up processes although this is not systematic. Thus systems are already in place to collect colposcopy and relevant data for the draft performance measures and there is no duplication of effort. Systematic collection of colposcopy data would greatly assist the PTRs as colposcopy or biopsy is the desired outcome for followup of high grade abnormalities by the PTRs.

The data from this pilot show that the participants as a whole met most of the draft C-QuIP standards. As individual numbers were low for many participants during this three month period, conclusions could not be drawn at the individual level but did provide an opportunity to review practice relative to their peers. This would be facilitated in future by providing a line listing of exceptions outside the standard for review by colposcopists. For example, a biopsy may not have...
been performed for a high-grade cytological abnormality in a pregnant woman if colposcopy is normal and this may be determined on individual case review. As members of the ASCCP, the colposcopists who participated in this pilot are likely to be the most experienced and interested in colposcopy and not necessarily representative of all colposcopists in Victoria or Australia. Some areas of further improvement are already noted from this preliminary data, such as follow-up of treated high-grade abnormalities, minimising over-treatment for less than CIN2 disease and ensuring that a biopsy is taken prior to ablative therapy. Even though a detailed analysis of the actual performance was not the main aim of the study and the numbers in the pilot were still relatively small, especially for the therapeutic standards, the draft measures are clearly useful in highlighting how participants are performing relative to their peers.

Predictive value of colposcopy for high-grade histology is a controversial measure of colposcopy quality as categorising colposcopic appearance of the cervix is notoriously difficult. No specific performance standard was set for this measure, and in over 70% of abnormal colposcopies, a high grade biopsy was confirmed within six months. What is most important in terms of outcome for the woman is whether the colposcopy leads to a biopsy taken in the appropriate location to diagnose a high-grade lesion if one is present. Hence Performance measure 3b was developed to ascertain what proportion of cases of high grade cytology yielded high-grade histology. It is recognised that cytology is imperfect and the PPV of high-grade cytology is around 75% from monitoring of laboratory performance measures. However, using this measure to compare practitioners, rather than laboratories, should provide a measure of performance of an individual practitioner as the influence of laboratory performance will even out across all colposcopists. It is also an easy standard to measure as it does not require recording of colposcopy findings and can be readily done by the PTRs. In this pilot, both measures Performance measure 3a and 3b produced similar results.

Whilst it is desirable in future to have a means of electronic transmission of colposcopy data directly from colposcopists to the PTRs or C-QuIP, we have shown in this pilot that a simple manual form can provide useful information on colposcopy performance and is acceptable to colposcopists. There were no changes suggested to the form and the feedback about the process was positive from those who responded. A major advantage of using the registries is that most of the information required for the performance measures is already captured as part of routine registry data collection as permitted by legislation. Only a few additional fields are required, relating to the colposcopy findings and treatment, thus the workload for the colposcopist is minimised. The registries are a critical part of the NCSP and already collect most of the relevant data for monitoring of colposcopy, with the exception of systematic data on colposcopy findings. In addition, the colposcopy data are
important to the registries for follow up of abnormalities and monitoring the program and policy changes.

Recommendations:

1. A simple paper-based colposcopy data collection form for Pap test Registries should be provided as an alternative for C-QuIP data collection for those practitioners who wish to use it. As a first step, the form should be offered to all colposcopists in Victoria where the system is already in place.

2. A listing of cases ie exceptions that were outside any performance standards would be useful for colposcopists to review their practice.

3. Using this simple data collection form, registries can provide the performance standards directly to the colposcopists participating in C-QuIP on an annual basis, similar to the information they provide for laboratory performance measures.
REFERENCES

(1) National Cervical Screening Program (NCSP):


APPENDICES

Appendix 1

DRAFT DIAGNOSTIC STANDARDS

<table>
<thead>
<tr>
<th>«Title» «Given_Name» «Surname»</th>
<th>«Work_Address_1»</th>
<th>«Work_Address_2»</th>
<th>«SuburbCity» «State» «Postcode»</th>
<th>Your data for pilot 7/5/11 – 30/7/11</th>
<th>Values for all participants</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**AUDIT LEVEL 1**  
**Standard 1**  
Documenting Colposcopy occasions of service and maintaining skill level

<table>
<thead>
<tr>
<th>Number of colposcopy referrals during the pilot study</th>
<th>1312</th>
<th>Note these are all colposcopies recorded on forms</th>
</tr>
</thead>
</table>

Indications for colposcopy

- New patient with abnormal smear  
  - Number of women with definite high-grade cytology who have punch or excisional biopsy/Number of women with referral for high-grade cytology  
  - Number of women with referral for high-grade cytology  
  - Other

- Followup of patient with abnormal smear at 6/12 or 12/12  
  - Followup of patient with abnormal smear at 6/12 or 12/12  
  - Followup of patient with abnormal smear at 6/12 or 12/12

- At time of treatment  
  - At time of treatment  
  - At time of treatment

- Other  
  - Other  
  - Other

- Other  
  - Other  
  - Other

**AUDIT LEVEL 2**  
Reducing failure of diagnosis and to improve diagnosis of high-grade abnormalities

- Perform a biopsy in more than 95% of women with high-grade cytological abnormalities

- Number of women with definite high-grade cytology who have punch or excisional biopsy/Number of women with referral for high-grade cytology  
  - Number of women with definite high-grade cytology who have punch or excisional biopsy/Number of women with referral for high-grade cytology  
  - Number of women with definite high-grade cytology who have punch or excisional biopsy/Number of women with referral for high-grade cytology

- Defined as where prior Pap is high grade for this pilot.

**Ensuring quality of cervical biopsies**

**Standard 2**  
Of all biopsies taken, more than 90% should be suitable for histological interpretation
<table>
<thead>
<tr>
<th>Standard 3a</th>
<th>1-6/660 (99)%</th>
</tr>
</thead>
</table>

Colopscopic findings should be correlated with histological findings to determine the predictive value of colposcopy for high-grade cervical abnormalities

<table>
<thead>
<tr>
<th>Standard 3b</th>
<th></th>
</tr>
</thead>
</table>

Predictive value of high-grade cytology for high-grade histology

<table>
<thead>
<tr>
<th>Number of women with histologically confirmed high-grade (CIN2+) within 6 months of colposcopy/Number of women with colposcopic findings CIN2+)</th>
<th>There is no set standard for this measure, recognising that no benchmarks are available</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Number of women with histologically confirmed high-grade (CIN2+) within 6 months of colposcopy/Number of women with high-grade cytology preceding colposcopy and biopsy</th>
<th>Definite high-grade cytology preceding colposcopy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definite high-grade cytology preceding colposcopy Includes both glandular and squamous lesions</td>
<td></td>
</tr>
<tr>
<td>AU DIT L EVEL 1</td>
<td>Your values</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Maintaining skill levels</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Standard 1</strong></td>
<td></td>
</tr>
<tr>
<td>Number of treatments per 3 year period</td>
<td></td>
</tr>
</tbody>
</table>

**AUDIT LEVEL 2**

**Ensuring appropriate selection for treatment**

**Standard 1**
All women must have had a biopsy or biopsies taken prior to ablative treatment, unless there are special circumstances

Number of women with biopsy recorded in 6 months prior to date of treatment / Number of women with ablative treatment

**Standard 2**
Number of women with less than CIN2 eventual diagnosis on pathology is minimised

1 – Number of women treated with CIN2+ on pathology within 6 months of treatment / number of women treated for any abnormality

Include CIN2+ at treatment?

**Standard 3**
The proportion of confirmed high-grade histological treatment failures should not exceed 5% in 12 months

1- Number of women with high-grade histology within 12 months of treatment for high-grade histology / Number of women receiving treatment for high-grade histologically confirmed lesion

N/A

Cannot be measured yet as need 12 months of followup.
**Standard 4**  
Followup of women (within 9 months) who are treated for a high-grade cervical abnormality should be maximised.

| Number of women who have at least one test within 9 months of treatment for high-grade histologically confirmed abnormality / Number of women treated for histologically confirmed high-grade lesion | N/A | Cannot be measured yet as need 9 months of followup  
Test defined as (Pap, HPV, biopsy or colposcopy) |
Colposcopy Quality Improvement Program (C-QuIP) Victorian Pilot Study with the Victorian Cervical Cytology Registry (VCCR)

Number of forms returned: 9

<table>
<thead>
<tr>
<th></th>
<th>1 Disagree</th>
<th>2 Neutral</th>
<th>3 Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I found participating in the pilot study useful to my practice</td>
<td></td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>I believe the data collected for the pilot was relevant to my practice</td>
<td></td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>I found the process of returning the completed colposcopy forms easy</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>The final report provided was useful in understanding my performance throughout the pilot study period</td>
<td>1</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>I would be interested in continuing to collect colposcopy data for my practice in paper or excel form</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>I would prefer to use data collection software for recording colposcopy quality (Note: software would require recording prior cytology and subsequent histology results for each patient, either manually or auto download, which may differ from the pilot which used VCCR data)</td>
<td>1</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>I would like to be informed about any colposcopy data collection software linked to the C-QuIP program that may be developed</td>
<td>1</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>
Appendix 2

Data Collection form:

VICTORIAN CERVICAL CYTOLOGY REGISTRY

COLPOSCOPY DATA COLLECTION FORM

Complete one form for each visit for colposcopy, treatment or both

PLACE PATIENT LABEL HERE OR

Name ...........................................................................................................................................................................

Address ...........................................................................................................................................................................

..............................................................................................................................................................................

DOB: ......./......./...............

COLPOSCOPY THIS EPISODE ☐ YES ☐ NO Date ....../....../......

INDICATIONS FOR COLPOSCOPY

☐ New patient with abnormal pap smear
☐ Follow-up of patient with previous abnormal smear at 6/12 or 12/12
☐ At time of treatment
☐ Other (specify) ...........................................................

COLPOSCOPY FINDINGS:

☐ Normal ☐ LSIL

☐ HSIL (Specify) ☐ CIN 2 ☐ CIN 3

☐ Cancer ☐ Unsatisfactory

☐ Other (specify) ...........................................................

BIOPSY THIS EPISODE:

☐ YES ☐ NO (If yes, please cc VCCR on pathology request slip)

TREATMENT THIS EPISODE: ☐ YES ☐ NO Date ....../....../......

TYPE OF TREATMENT:

☐ LEEP ☐ Hysterectomy

☐ Ablative ☐ Cone Biopsy

☐ Other (specify) ...........................................................

Signature ........................................ Date ....../....../......

Please send completed forms to:
Victorian Cervical Cytology Registry, PO Box 161, Carlton South Vic 3053