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| Table S1: Important characteristics of the included studies |
| Study | **n** | **Design** | **Diagnosis** | **Study arm** | **Follow-up observation** | **Pregnant** | **Followup (months)** | **CIN2** | **CIN3** | **% HPV positive** | **Age** | **% Smokers** | **% using Contraceptive** |
| Discacciati 2011 [20] | 42 | PROSP | Biopsy/LSIL | Expectant management | Colposcopy, cervical smear | No | 12 | 42 |  |  | 26.5±7.5 |  |  |
| Fuchs 2007 [21] | 40 | RET | Biopsy/LSIL, HSIL, ASCUS, ASC-HSIL,  | Colposcopic follow-up | Cervical cytology, cervical-vaginal HPV test | Yes | 36 | 40 |  |  | 14±6 | 45 |  |
| Garcia 2004 [22] | 127 | DB-RCT | Colposcopic punch biopsy, HPV test  | Placebo | Colposcopy, cervical smear, HPV test | No | 6 |  |  | 41.73 | 27±6 | 49 | 55 |
| Grimm 2012 [23] | 29 | RCT | Colposcopic biopsy, HPV test  | Placebo | Colposcopy, cervical smear, HPV test | No | 4 | 13 | 16 | 100 | 31.8±7.3 | 66 | 100 |
| Guedes 2007 [24] | 45 | RCT | Colposcopic biopsy, HPV test  | Colposcopic follow-up | Colposcopy | NR | 12 | 45 |  | 100 |  |  |  |
| Kaufmann 2007 [25] | 13 | RCT | Colposcopic biopsy, HPV test  | Placebo | Colposcopy, cervical smear | No | 12 | 6 | 6 | 100 | 29.3±5.9 |  |  |
| Keefe 2001 [26] | 52 | RCT | Colposcopic biopsy | Placebo | Colposcopy, cervical smear | No | 24 | 20 | 32 | 55 |  | 33 |  |
| McAllum 2011 [27] | 157 | RET | Colposcopic biopsy | Conservative management | Colposcopy, cervical smear | NR | 8 | 157 |  |  | 20.9 | 42.04 |  |
| Munk 2012 [28] | 162 | PROSP | Biopsy/LSIL, HSIL, ASCUS-HCIL, HPV | Colposcopic follow-up | Colposcopy, cervical smear | No | 4 |  |  | 89.51 | 32±3 |  | 50 |
| Nishio 2013 [29] | 131 | RET | Colposcopic biopsy, HPV test  | Colposcopic follow-up | Colposcopy, cervical smear | NR | 40 | 60 | 102 | 100 | 37±15 |  |  |
| Rahangdale 2014 [30] | 29 | RCT | Colposcopic biopsy | Observation | Colposcopy, cervical smear, HPV test | No | 6 | 29 |  |  | 23±2 | 27.6 | 82.3 |
| Trimble 2015 [31] | 42 | RCT | Colposcopic biopsy, HPV test  | Placebo | Colposcopy, cervical smear, HPV test | No | 9 | 11 | 31 | 100 | 31.6±9.3 |  |  |
| Vlahos 2003 [32] | 78 | RET | Biopsy/ASCUS, AGUS | Observation | Colposcopy, cervical smear | Yes | 4 |  |  |  | 28±4.2 |  |  |
| Vlastos 2005 [33] | 47 | RCT | Biopsy/Papanicolaou smear, endocervical curettage | Placebo | Colposcopy | No | 1 | 12 | 28 | 70 | 31±9.6 | 30 |  |
| Wilkinson 2012 [34] | 405 | RET |  | Colposcopic follow-up | Colposcopy | NR | 48 | 405 |  |  |  | 36 |  |
| Yost 1999 [35] | 82 | RET |  | Colposcopic follow-up | Colposcopy | Yes | 12 | 82 |  | 1 | 24±6.9 |  |  |
| Abbreviations: ASCUS, atypical squamous cells of undetermined significance; ASGUS, atypical glandular cells of undetermined significance; CIN, cervical intraepithelial neoplasia; HSIl/LSIL, high/low-grade squamous intraepithelial lesion; HPV, human papillomavirus; PROSP, prospective; RCT, randomized controlled trial; RET, retrospective; NR, not reported.  |

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| Tables S2: Quality assessment of the included study with New Castle-Ottawa Quality Assessment Scale |
| Study | **Representativeness of exposed cohort** | **Selection of non-exposed cohort** | **Ascertainment of exposure** | **Demonstration that outcome of interest was not present at start of study** | **Comparability of cohorts on the basis of the design or analysis** | **Assessment of outcome** | **Was follow-up long enough for outcomes to occur** | **Adequacy of follow up completion of cohorts** |
| Discacciati 2011 [20] | \* |  | \* | NA |  | \* | \* | \* |
| Fuchs 2007 [21] | \* |  | \* | NA |  | \* | \* | \* |
| Garcia 2004 [22] | \* | \* | \* | NA | \* | \* |  | \* |
| Grimm 2012 [23] | \* | \* | \* | NA | \* | \* |  | \* |
| Guedes 2007 [24] | \* | \* | \* | NA | \* | \* | \* | \* |
| Kaufmann 2007 [25] | \* | \* | \* | NA | \* | \* | \* | \* |
| Keefe 2001 [26] | \* | \* | \* | NA | \* | \* | \* | \* |
| McAllum 2011 [27] | \* |  | \* | NA |  | \* | \* | \* |
| Munk 2012 [28] | \* |  | \* | NA |  | \* |  | \* |
| Nishio 2013 [29] | \* |  | \* | NA |  | \* | \* | \* |
| Rahangdale 2014 [30] | \* | \* | \* | NA | \* | \* |  | \* |
| Trimble 2015 [31] | \* | \* | \* | NA | \* | \* | \* | \* |
| Vlahos 2003 [32] | \* |  | \* | NA |  | \* |  | \* |
| Vlastos 2005 [33] | \* | \* | \* | NA | \* | \* |  | \* |
| Wilkinson 2012 [34] | \* |  | \* | NA |  | \* | \* | \* |
| Yost 1999 [35] | \* |  | \* | NA |  | \* | \* | \* |

**Criteria**

|  |  |  |
| --- | --- | --- |
| Selection | Comparability | Outcome |
| 1) Representativeness of the exposed cohorta) truly representative of the average \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (describe) in the community  b) somewhat representative of the average \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the community c) selected group of users e.g. nurses, volunteersd) no description of the derivation of the cohort2) Selection of the non-exposed cohorta) drawn from the same community as the exposed cohort b) drawn from a different sourcec) no description of the derivation of the non-exposed cohort 3) Ascertainment of exposurea) secure record (e.g. surgical records) b) structured interview c) written self-reportd) no description4) Demonstration that outcome of interest was not present at start of studya) yes b) no | 1) Comparability of cohorts on the basis of the design or analysisa) study controls for \_\_\_\_\_\_\_\_\_\_\_\_\_ (select the most important factor) ****b) study controls for any additional factor **** (This criterion could be modified to indicate specific control for a second important factor.)  | 1) Assessment of outcome a) independent blind assessment **** b) record linkage ****c) self-report d) no description2) Was follow-up long enough for outcomes to occura) yes (select an adequate follow up period for outcome of interest) ****b) no3) Adequacy of follow up of cohortsa) complete follow up - all subjects accounted for **** b) subjects lost to follow up unlikely to introduce bias - small number lost - > \_\_\_\_ % (select an adequate %) follow up, or description provided of those lost) ****c) follow up rate < \_\_\_\_% (select an adequate %) and no description of those lostd) no statement |

Note: A study can be awarded a maximum of one star for each numbered item within the Selection and Outcome categories. A maximum of two stars can be given for Comparability



**Figure S1: A funnel plot showing a significant publication bias. Circles within boxes show possible missing studies estimated by trim and fill method. Thetha represent percent regression rate**



**Figure S2: A forest graph showing the outcomes of the meta-analysis of percent progression rate of CIN 2**