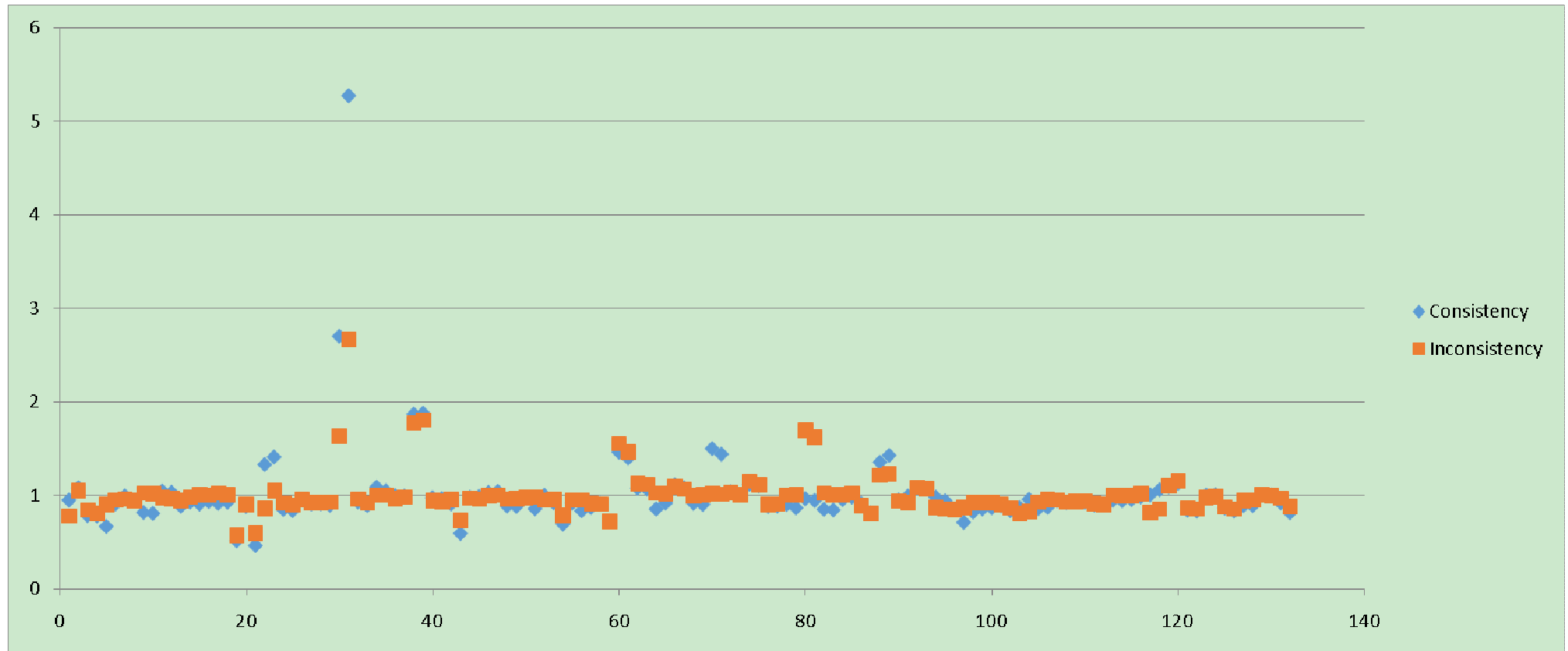


Appendix 7: examination of inconsistency for studies at low risk of bias

Vaginal delivery not achieved within 24 hours of induction



1) Comparison of arm-level deviance contributions from model assuming consistency and independent (inconsistency) treatment effects. The deviance estimates from both models are in agreement, with exception of study 31. The study has been re-examined, there is some uncertainty regarding the assessment of risk of bias for this study. Our conclusion is that it is probably at low risk of bias but we removed it to assess the impact on reported results. Removal of this study (Cheng 2008) does not change the results of the network meta-analysis. The results reported in the main text include Cheng 2008.

2) Loop specific inconsistency (Chaimani et al 2013): Vaginal delivery not achieved within 24 hours of induction
(Evaluation of inconsistency using loop specific heterogeneity estimates)

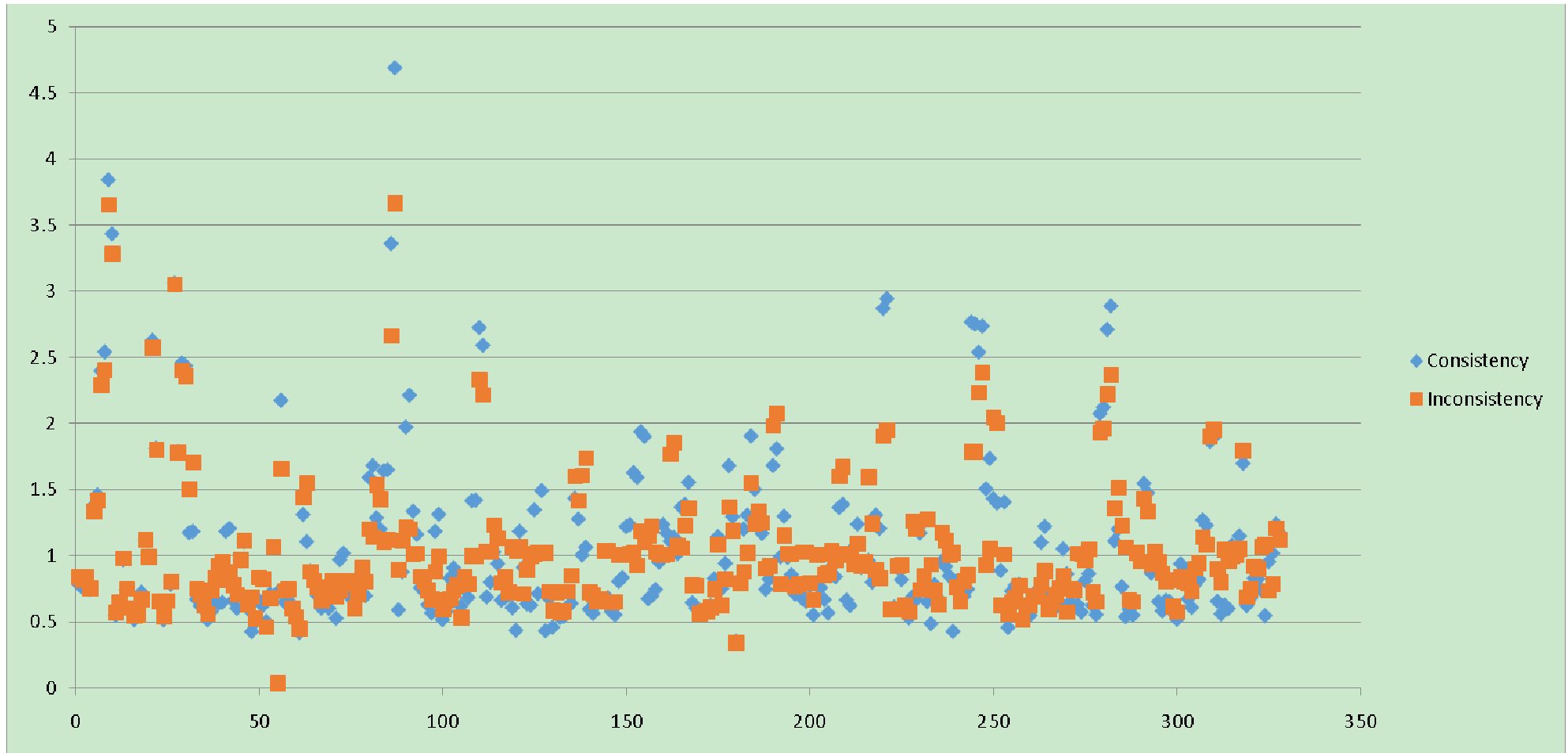
| Loop | ROR | z_value | p_value | CI_95 | Loop_Heterog_tau2 |
|--|-------|---------|---------|---------------|-------------------|
| OMiso<50mcg-VagMiso<50mcg-VagPGE2gel | 2.678 | 2.467 | 0.014 | (1.22, 5.86) | 0.000 |
| OMiso>50mcg-TitrOMiso-VagMiso<50mcg | 2.160 | 0.982 | 0.326 | (1.00, 10.05) | 0.223 |
| VagMiso<50mcg-VagMiso>50mcg-VagPGE2gel | 1.949 | 3.105 | 0.002 | (1.28, 2.97) | 0.006 |
| Notreatment-OMiso>50mcg-VagPGE2gel | 1.844 | 0.954 | 0.340 | (1.00, 6.48) | 0.000 |
| OMiso>50mcg-TitrOMiso-VagMiso>50mcg-VagPGE2pessarySR | 1.822 | 0.807 | 0.419 | (1.00, 7.81) | 0.114 |
| OMiso>50mcg-TitrOMiso-VagPGE2pessarySR-cxPGE2 | 1.797 | 0.985 | 0.324 | (1.00, 5.77) | 0.000 |
| OMiso>50mcg-TitrOMiso-VagPGE2gel | 1.733 | 1.326 | 0.185 | (1.00, 3.91) | 0.000 |
| OMiso>50mcg-VagMiso>50mcg-VagPGE2gel | 1.667 | 1.299 | 0.194 | (1.00, 3.61) | 0.084 |
| OMiso>50mcg-VagPGE2gel-cxPGE2 | 1.630 | 1.836 | 0.066 | (1.00, 2.75) | 0.000 |
| TitrOMiso-VagPGE2gel-VagPGE2pessarySR | 1.598 | 1.094 | 0.274 | (1.00, 3.70) | 0.000 |
| VagMiso<50mcg-VagMiso>50mcg-cxPGE2 | 1.543 | 1.761 | 0.078 | (1.00, 2.50) | 0.004 |
| VagMiso<50mcg-VagMiso>50mcg-VagPGE2pessarySR | 1.538 | 1.525 | 0.127 | (1.00, 2.67) | 0.000 |
| OMiso>50mcg-VagPGE2gel-VagPGE2tablet | 1.522 | 1.097 | 0.273 | (1.00, 3.23) | 0.000 |
| TitrOMiso-VagMiso<50mcg-VagPGE2gel | 1.436 | 0.552 | 0.581 | (1.00, 5.19) | 0.143 |
| Placebo-VagPGE2pessary-cxPGE2 | 1.384 | 0.485 | 0.627 | (1.00, 5.14) | 0.000 |
| OMiso>50mcg-VagMiso<50mcg-VagMiso>50mcg | 1.376 | 1.066 | 0.287 | (1.00, 2.47) | 0.072 |
| VagMiso<50mcg-VagPGE2gel-cxPGE2 | 1.330 | 0.727 | 0.467 | (1.00, 2.87) | 0.079 |
| VagMiso<50mcg-VagPGE2gel-VagPGE2pessarySR | 1.320 | 0.703 | 0.482 | (1.00, 2.86) | 0.003 |
| OMiso>50mcg-VagPGE2tablet-cxPGE2 | 1.214 | 0.493 | 0.622 | (1.00, 2.63) | 0.000 |
| VagMiso>50mcg-VagPGE2tablet-cxPGE2 | 1.199 | 0.520 | 0.603 | (1.00, 2.37) | 0.000 |
| OMiso>50mcg-Placebo-cxPGE2 | 1.168 | 0.355 | 0.722 | (1.00, 2.75) | 0.000 |
| VagPGE2gel-VagPGE2tablet-cxPGE2 | 1.134 | 0.337 | 0.736 | (1.00, 2.36) | 0.000 |
| OMiso>50mcg-VagMiso<50mcg-VagPGE2gel | 1.124 | 0.339 | 0.735 | (1.00, 2.21) | 0.052 |
| TitrOMiso-VagMiso<50mcg-VagPGE2pessarySR | 1.115 | 0.112 | 0.911 | (1.00, 7.45) | 0.356 |
| OMiso>50mcg-VagMiso<50mcg-cxPGE2 | 1.099 | 0.250 | 0.803 | (1.00, 2.31) | 0.093 |
| VagPGE2gel-VagPGE2pessarySR-cxPGE2 | 1.057 | 0.118 | 0.906 | (1.00, 2.68) | 0.000 |
| VagMiso>50mcg-VagPGE2gel-cxPGE2 | 1.054 | 0.233 | 0.816 | (1.00, 1.64) | 0.001 |
| OMiso>50mcg-VagMiso>50mcg-cxPGE2 | 1.020 | 0.061 | 0.952 | (1.00, 1.93) | 0.051 |
| VagMiso>50mcg-VagPGE2gel-VagPGE2tablet | 1.013 | 0.028 | 0.978 | (1.00, 2.53) | 0.041 |
| OMiso>50mcg-VagMiso>50mcg-VagPGE2tablet | 1.011 | 0.015 | 0.988 | (1.00, 4.46) | 0.185 |
| VagMiso>50mcg-VagPGE2pessarySR-cxPGE2 | 1.010 | 0.027 | 0.979 | (1.00, 2.16) | 0.000 |
| VagMiso>50mcg-VagPGE2gel-VagPGE2pessarySR | 1.009 | 0.022 | 0.983 | (1.00, 2.31) | 0.032 |
| VagMiso<50mcg-VagPGE2pessarySR-cxPGE2 | 1.005 | 0.007 | 0.994 | (1.00, 3.61) | 0.137 |

31 triangular and 2 quadratic loops were identified in the network. Table suggests that two loops (1) OMiso<50mcg-VagMiso<50mcg-VagPGE2gel and (2) VagMiso<50mcg-VagMiso>50mcg-VagPGE2gel have statistically significant inconsistency. However, from 33 statistical tests we might expect to see ~1.5 positive results.

Removal of the single study (study 31 Cheng 2008) identified from the deviance plot does not change loop specific inconsistency estimates.

Taken in combination with the results from the global examination of model fit and the plots of the individual arm-level deviance from consistency and independent effects models we conclude that there is no evidence of inconsistency for this outcome.

Caesarean section



2) Comparison of arm-level deviance contributions from model assuming consistency and independent (inconsistency) treatment effects.

2) Loop specific inconsistency (Chaimani et al 2013): Cesarean section
(Evaluation of inconsistency using loop specific heterogeneity estimates)

| Loop | ROR | z_value | p_value | CI_95 | Loop_Heterog_tau2 |
|---|-------|---------|---------|-------------|-------------------|
| OMiso>50mcg-Placebo-TitrOMiso-VagPGE2pessarySR | 1.064 | 0.230 | 0.818 | (1.00,1.81) | 0.000 |
| OMiso<50mcg-VagMiso<50mcg-VagPGE2gel | 1.064 | 0.181 | 0.857 | (1.00,2.08) | 0.000 |
| OMiso<50mcg-OMiso>50mcg-VagMiso<50mcg | 1.062 | 0.169 | 0.866 | (1.00,2.12) | 0.000 |
| OMiso>50mcg-TitrOMiso-VagPGE2pessarySR-cxPGE2 | 1.052 | 0.196 | 0.845 | (1.00,1.75) | 0.000 |
| Notreatment-OMiso>50mcg-TitrOMiso-VagPGE2pessarySR | 1.050 | 0.145 | 0.885 | (1.00,2.04) | 0.000 |
| TitrOMiso-VagMiso>50mcg-VagPGE2pessarySR | 1.045 | 0.181 | 0.856 | (1.00,1.69) | 0.000 |
| Placebo-VagMiso>50mcg-VagPGF2gel | 1.044 | 0.132 | 0.895 | (1.00,1.96) | 0.000 |
| OMiso>50mcg-TitrOMiso-VagPGE2gel | 1.043 | 0.232 | 0.817 | (1.00,1.50) | 0.000 |
| TitrOMiso-VagMiso<50mcg-VagPGE2pessarySR | 1.043 | 0.188 | 0.851 | (1.00,1.62) | 0.000 |
| Notreatment-VagMiso<50mcg-VagPGE2pessarySR | 1.042 | 0.175 | 0.861 | (1.00,1.66) | 0.000 |
| Notreatment-OMiso>50mcg-VagMiso<50mcg | 1.040 | 0.200 | 0.841 | (1.00,1.53) | 0.000 |
| OMiso<50mcg-OMiso>50mcg-VagPGE2gel | 1.040 | 0.108 | 0.914 | (1.00,2.11) | 0.000 |
| OMiso>50mcg-VagMiso<50mcg-VagPGE2gel | 1.037 | 0.401 | 0.688 | (1.00,1.24) | 0.000 |
| Notreatment-Placebo-VagMiso<50mcg-VagPGE2pessary | 1.037 | 0.141 | 0.888 | (1.00,1.72) | 0.000 |
| VagMiso>50mcg-VagPGE2gel-VagPGF2gel | 1.033 | 0.091 | 0.927 | (1.00,2.08) | 0.000 |
| OMiso>50mcg-VagMiso<50mcg-VagMiso>50mcg | 1.031 | 0.372 | 0.710 | (1.00,1.21) | 0.000 |
| OMiso>50mcg-Placebo-VagPGE2gel | 1.029 | 0.303 | 0.762 | (1.00,1.24) | 0.000 |
| Placebo-VagPGE2gel-VagPGE2pessarySR | 1.028 | 0.177 | 0.859 | (1.00,1.39) | 0.000 |
| VagMiso>50mcg-VagPGE2gel-cxPGE2 | 1.028 | 0.359 | 0.720 | (1.00,1.19) | 0.000 |
| VagMiso<50mcg-VagPGE2gel-VagPGE2pessarySR | 1.024 | 0.161 | 0.872 | (1.00,1.37) | 0.000 |
| Notreatment-VagPGE2gel-VagPGE2pessary | 1.024 | 0.087 | 0.930 | (1.00,1.75) | 0.000 |
| Placebo-VagPGE2gel-VagPGE2pessary | 1.024 | 0.109 | 0.913 | (1.00,1.56) | 0.000 |
| Notreatment-VagMiso<50mcg-VagPGE2gel | 1.024 | 0.176 | 0.861 | (1.00,1.33) | 0.000 |
| Notreatment-VagPGE2gel-cxPGE2 | 1.023 | 0.204 | 0.838 | (1.00,1.28) | 0.000 |
| Placebo-VagMiso>50mcg-VagPGE2pessary | 1.022 | 0.112 | 0.911 | (1.00,1.50) | 0.000 |
| Notreatment-Placebo-VagPGE2pessary-VagPGE2pessarySR | 1.022 | 0.071 | 0.944 | (1.00,1.87) | 0.000 |
| VagPGE2gel-VagPGE2pessary-VagPGF2gel | 1.022 | 0.053 | 0.958 | (1.00,2.28) | 0.000 |
| TitrOMiso-VagPGE2gel-VagPGE2pessarySR | 1.022 | 0.102 | 0.919 | (1.00,1.54) | 0.000 |
| Notreatment-OMiso>50mcg-VagPGE2gel | 1.021 | 0.115 | 0.908 | (1.00,1.45) | 0.000 |
| Placebo-VagMiso<50mcg-VagMiso>50mcg | 1.021 | 0.148 | 0.883 | (1.00,1.34) | 0.000 |
| OMiso>50mcg-TitrOMiso-VagMiso>50mcg | 1.021 | 0.090 | 0.928 | (1.00,1.59) | 0.000 |
| OMiso>50mcg-VagPGE2tablet-cxPGE2 | 1.020 | 0.102 | 0.918 | (1.00,1.49) | 0.000 |
| Notreatment-VagMiso>50mcg-VagPGE2pessarySR | 1.020 | 0.082 | 0.935 | (1.00,1.62) | 0.000 |
| TitrOMiso-VagMiso<50mcg-VagMiso>50mcg | 1.019 | 0.103 | 0.918 | (1.00,1.47) | 0.000 |
| VagPGE2gel-VagPGE2tablet-cxPGE2 | 1.019 | 0.140 | 0.888 | (1.00,1.32) | 0.000 |
| OMiso>50mcg-Placebo-VagPGE2tablet | 1.018 | 0.073 | 0.942 | (1.00,1.65) | 0.000 |
| Placebo-VagPGE2gel-cxPGE2 | 1.018 | 0.245 | 0.806 | (1.00,1.18) | 0.000 |
| Placebo-VagPGE2pessarySR-cxPGE2 | 1.018 | 0.122 | 0.903 | (1.00,1.35) | 0.000 |
| VagMiso>50mcg-VagPGE2pessary-cxPGE2 | 1.017 | 0.102 | 0.919 | (1.00,1.42) | 0.000 |
| VagMiso<50mcg-VagMiso>50mcg-VagPGE2pessarySR | 1.017 | 0.126 | 0.900 | (1.00,1.33) | 0.000 |
| VagMiso<50mcg-VagPGE2pessarySR-cxPGE2 | 1.017 | 0.115 | 0.908 | (1.00,1.36) | 0.000 |
| VagMiso>50mcg-VagPGE2gel-VagPGE2pessarySR | 1.017 | 0.146 | 0.884 | (1.00,1.27) | 0.000 |
| Placebo-VagMiso<50mcg-VagPGE2pessarySR | 1.017 | 0.091 | 0.927 | (1.00,1.45) | 0.000 |
| VagMiso>50mcg-VagPGE2gel-VagPGE2tablet | 1.017 | 0.134 | 0.893 | (1.00,1.29) | 0.000 |
| OMiso>50mcg-VagMiso>50mcg-cxPGE2 | 1.016 | 0.183 | 0.855 | (1.00,1.21) | 0.000 |
| OMiso>50mcg-VagMiso<50mcg-cxPGE2 | 1.016 | 0.161 | 0.872 | (1.00,1.24) | 0.000 |
| OMiso>50mcg-VagMiso>50mcg-VagPGE2gel | 1.016 | 0.196 | 0.844 | (1.00,1.19) | 0.000 |
| Notreatment-VagMiso<50mcg-cxPGE2 | 1.016 | 0.112 | 0.911 | (1.00,1.35) | 0.000 |
| VagMiso<50mcg-VagPGE2gel-cxPGE2 | 1.016 | 0.175 | 0.861 | (1.00,1.21) | 0.000 |
| Placebo-VagMiso<50mcg-cxPGE2 | 1.016 | 0.149 | 0.882 | (1.00,1.25) | 0.000 |
| OMiso>50mcg-Placebo-VagMiso>50mcg | 1.015 | 0.123 | 0.902 | (1.00,1.29) | 0.000 |
| VagMiso>50mcg-VagPGE2pessary-VagPGF2gel | 1.015 | 0.039 | 0.969 | (1.00,2.14) | 0.000 |
| Notreatment-OMiso>50mcg-Placebo-VagPGE2pessarySR | 1.014 | 0.049 | 0.961 | (1.00,1.73) | 0.000 |
| Placebo-VagMiso<50mcg-VagPGE2gel | 1.013 | 0.126 | 0.899 | (1.00,1.24) | 0.000 |
| Placebo-VagMiso>50mcg-VagPGE2pessarySR | 1.013 | 0.078 | 0.938 | (1.00,1.40) | 0.000 |
| Notreatment-VagMiso>50mcg-cxPGE2 | 1.013 | 0.078 | 0.938 | (1.00,1.40) | 0.000 |
| Placebo-VagPGE2pessary-cxPGE2 | 1.012 | 0.076 | 0.940 | (1.00,1.37) | 0.000 |

Continued on next page.

| | | | | | |
|--|-------|-------|-------|-------------|-------|
| Notreatment-VagMiso>50mcg-VagPGE2pessary | 1.011 | 0.042 | 0.966 | (1.00,1.71) | 0.000 |
| VagMiso<50mcg-VagMiso>50mcg-VagPGE2gel | 1.010 | 0.125 | 0.901 | (1.00,1.18) | 0.000 |
| OMiso>50mcg-TitrOMiso-VagMiso<50mcg | 1.009 | 0.050 | 0.960 | (1.00,1.45) | 0.000 |
| Notreatment-VagPGE2pessarySR-cxPGE2 | 1.009 | 0.041 | 0.967 | (1.00,1.53) | 0.000 |
| Notreatment-VagMiso>50mcg-VagPGE2gel | 1.008 | 0.054 | 0.957 | (1.00,1.37) | 0.000 |
| Notreatment-OMiso>50mcg-Placebo-VagPGE2pessary | 1.008 | 0.030 | 0.976 | (1.00,1.73) | 0.000 |
| VagPGE2gel-VagPGE2pessarySR-cxPGE2 | 1.008 | 0.064 | 0.949 | (1.00,1.30) | 0.000 |
| Placebo-VagPGE2gel-VagPGF2gel | 1.008 | 0.025 | 0.980 | (1.00,1.87) | 0.000 |
| VagMiso>50mcg-VagPGE2tablet-cxPGE2 | 1.008 | 0.056 | 0.956 | (1.00,1.32) | 0.000 |
| Placebo-VagPGE2tablet-cxPGE2 | 1.008 | 0.037 | 0.971 | (1.00,1.52) | 0.000 |
| Notreatment-OMiso>50mcg-cxPGE2 | 1.007 | 0.038 | 0.969 | (1.00,1.45) | 0.000 |
| Placebo-VagMiso>50mcg-VagPGE2tablet | 1.007 | 0.031 | 0.975 | (1.00,1.57) | 0.000 |
| Placebo-VagPGE2gel-VagPGE2tablet | 1.007 | 0.035 | 0.972 | (1.00,1.50) | 0.000 |
| Placebo-VagMiso>50mcg-cxPGE2 | 1.007 | 0.062 | 0.951 | (1.00,1.26) | 0.000 |
| Notreatment-VagPGE2pessary-cxPGE2 | 1.007 | 0.030 | 0.976 | (1.00,1.58) | 0.000 |
| Placebo-VagPGE2pessary-VagPGF2gel | 1.006 | 0.018 | 0.985 | (1.00,1.95) | 0.000 |
| TitrOMiso-VagMiso>50mcg-VagPGE2gel | 1.006 | 0.034 | 0.972 | (1.00,1.42) | 0.000 |
| VagPGE2gel-VagPGE2pessary-cxPGE2 | 1.006 | 0.028 | 0.978 | (1.00,1.54) | 0.000 |
| OMiso>50mcg-Placebo-cxPGE2 | 1.006 | 0.063 | 0.950 | (1.00,1.21) | 0.000 |
| Notreatment-VagPGE2gel-VagPGE2pessarySR | 1.006 | 0.027 | 0.978 | (1.00,1.53) | 0.000 |
| OMiso>50mcg-Placebo-VagMiso<50mcg | 1.005 | 0.048 | 0.962 | (1.00,1.25) | 0.000 |
| Notreatment-VagMiso<50mcg-VagMiso>50mcg | 1.005 | 0.028 | 0.977 | (1.00,1.44) | 0.000 |
| OMiso>50mcg-VagPGE2gel-cxPGE2 | 1.005 | 0.049 | 0.961 | (1.00,1.23) | 0.000 |
| OMiso>50mcg-VagMiso>50mcg-VagPGE2tablet | 1.004 | 0.023 | 0.982 | (1.00,1.44) | 0.000 |
| VagMiso>50mcg-VagPGE2gel-VagPGE2pessary | 1.004 | 0.018 | 0.986 | (1.00,1.56) | 0.000 |
| OMiso>50mcg-VagPGE2gel-VagPGE2tablet | 1.004 | 0.021 | 0.983 | (1.00,1.44) | 0.000 |
| Notreatment-OMiso>50mcg-VagMiso>50mcg | 1.004 | 0.017 | 0.986 | (1.00,1.52) | 0.000 |
| TitrOMiso-VagMiso<50mcg-VagPGE2gel | 1.003 | 0.029 | 0.977 | (1.00,1.27) | 0.000 |
| Placebo-VagMiso>50mcg-VagPGE2gel | 1.002 | 0.019 | 0.984 | (1.00,1.26) | 0.000 |
| VagMiso>50mcg-VagPGE2pessarySR-cxPGE2 | 1.002 | 0.020 | 0.984 | (1.00,1.24) | 0.000 |
| VagMiso<50mcg-VagMiso>50mcg-cxPGE2 | 1.002 | 0.023 | 0.982 | (1.00,1.19) | 0.000 |

81 triangular and 7 quadratic loops were identified in the CS network. Examination of loop specific inconsistency suggests none achieve statistically significant inconsistency. Taken in combination with the results from the global examination of model fit and the plots of the individual arm-level deviance from consistency and independent effects models we conclude that there is no evidence of inconsistency for this outcome.