**Supplemental Digital Content 1**

**Supplemental Tables 1 – 8 for:**

**Graves KJ, et al. *In vitro* Testing of *Trichomonas vaginalis* Drug Susceptibility: Evaluation of Minimal Lethal Concentration for Secnidazole that Correlates with Treatment Success**

**Supplementary Table 1.** MTZ-sensitive *T. vaginalis* isolates (66 SEC treatment successes and 4 SEC treatment failures, n=70)

| | **SEC (N=70)** | **MTZ (N=70)** | **TDZ (N=70)** |
|---|---|---|---|
| Median (µg/ml) | 3.1 | 3.1 | 0.8 |
| Mean (µg/ml) | 4.65 | 6.17 | 1.93 |
| Mean rank [a] | 2.02 | 2.29 | 1.69 |

[a] Friedman test

Abbreviations: MTZ=metronidazole, SEC=secnidazole, TDZ=tinidazole

**Supplementary Table 2.** Related-Samples Friedman's Two-way Analysis of Variance by Ranks for MTZ-sensitive *T. vaginalis*

| | |
|---|---|
| N | 70 |
| Chi-Square | 15.430 |
| Degree of Freedom | 2 |
| Asymptotic Significance | < 0.001 |

Abbreviations: MTZ=metronidazole

**Supplementary Table 3.** Pairwise comparisons [a] of 5-nitroimidazole MLCs for MTZ-sensitive *T. vaginalis*

| MLC 1 – MLC 2 | Test Statistic | Standard Error | Standard Test Statistic | Significance | Adjusted Significance [b] |
|---|---|---|---|---|---|
| TDZ – SEC | -0.336 | 0.169 | -1.986 | 0.047 | 0.141 |
| TDZ – MTZ | 0.607 | 0.169 | 3.592 | < 0.001 | 0.001 |
| SEC – MTZ | 0.271 | 0.169 | 1.606 | 0.108 | 0.325 |

[a] Dunn's pairwise post hoc tests
[b] Significance values have been adjusted by the Bonferroni correction for multiple tests.
Each row tests the null hypothesis that the MLC distributions are the same.
Abbreviations: MLCs=minimum lethal concentrations; MTZ=metronidazole

**Supplementary Table 4.** Wilcoxon Signed Ranks Test for MTZ-sensitive *T. vaginalis*

| | | N | Mean Rank | Sum of Ranks | Test Statistic (Z) | Asymptotic Significance |
|---|---|---|---|---|---|---|
| **TDZ – MTZ** | Negative Ranks [a] | 44 | 35.65 | 1558.50 | -5.166 [j] | < 0.001 |
| | Positive Ranks [b] | 15 | 13.43 | 201.50 | | |
| | Ties [c] | 11 | | | | |
| | Total | 70 | | | | |
| **SEC – MTZ** | Negative Ranks [d] | 32 | 26.88 | 860.00 | -1.559 [j] | 0.119 |
| | Positive Ranks [e] | 20 | 25.90 | 518.00 | | |
| | Ties [f] | 18 | | | | |
| | Total | 70 | | | | |
| **SEC – TDZ** | Negative Ranks [g] | 21 | 18.79 | 394.50 | -3.435 [k] | < 0.001 |
| | Positive Ranks [h] | 36 | 34.96 | 1258.50 | | |
| | Ties [i] | 13 | | | | |
| | Total | 70 | | | | |

[a] TDZ<MTZ; [b] TDZ>MTZ; [c] TDZ=MTZ; [d] SEC<MTZ; [e] SEC>MTZ; [f] SEC=MTZ; [g] SEC<TDZ; [h] SEC>TDZ; [i] SEC=TDZ; [j] Based on positive ranks; [k] based on negative ranks

Abbreviations: MTZ=metronidazole; TDZ=tinidazole; SEC=secnidazole

**Supplementary Table 5.** MTZ-resistant *T. vaginalis* isolates (1 SEC treatment failure and 14 MTZ-resistant controls, n=15)

| | SEC (n=15) | MTZ (n=15) | TDZ (n=15) |
|---|---|---|---|
| **Median (µg/ml)** | 50 | 100 | 25 |
| **Mean (µg/ml)** | 55.72667 | 183.3333 | 104.8467 |
| **Mean Rank** [a] | 1.57 | 2.67 | 1.77 |

[a] Friedman Test

Abbreviations: MTZ=metronidazole; SEC=secnidazole

**Supplementary Table 6.** Related-Samples Friedman's Two-way Analysis of Variance by Ranks for MTZ-resistant *T. vaginalis*

| | |
|---|---|
| **N** | 15 |
| **Chi-Square** | 11.660 |
| **Degree of Freedom** | 2 |
| **Asymptotic Significance** | 0.003 |

Abbreviations: MTZ=metronidazole

**Supplementary Table 7.** Pairwise comparisons [a] of 5-nitroimidazole MLCs for MTZ-resistant *T. vaginalis*

| MLC 1 – MLC 2 | Test Statistic | Standard Error | Standard Test Statistic | Significance | Adjusted Significance [b] |
|---|---|---|---|---|---|
| SEC – TDZ | 0.200 | 0.365 | 0.548 | 0.584 | 1.000 |
| SEC – MTZ | 1.100 | 0.365 | 3.012 | 0.003 | 0.008 |
| TDZ – MTZ | 0.900 | 0.365 | 2.465 | 0.014 | 0.041 |

[a] Dunn's pairwise post hoc tests
[b] Significance values have been adjusted by the Bonferroni correction for multiple tests.
Each row tests the null hypothesis that the MLC distributions are the same.
Abbreviations: MLC=minimal lethal concentration; MTZ=metronidazole

**Supplementary Table 8.** Wilcoxon Signed Ranks Test for MTZ-resistant *T. vaginalis*

| | | N | Mean Rank | Sum of Ranks | Test Statistic (Z) | Asymptotic Significance |
|---|---|---|---|---|---|---|
| **TDZ – MTZ** | Negative Ranks [a] | 11 | 6.73 | 74.00 | -1.995 [j] | 0.046 |
| | Positive Ranks [b] | 2 | 8.50 | 17.00 | | |
| | Ties [c] | 2 | | | | |
| | Total | 15 | | | | |
| **SEC – MTZ** | Negative Ranks [d] | 11 | 6.00 | 66.00 | -2.937 [j] | 0.003 |
| | Positive Ranks [e] | 0 | 0.00 | 0.00 | | |
| | Ties [f] | 4 | | | | |
| | Total | 15 | | | | |
| **SEC – TDZ** | Negative Ranks [g] | 8 | 8.31 | 66.50 | -0.879 [j] | 0.379 |
| | Positive Ranks [h] | 6 | 6.42 | 38.50 | | |
| | Ties [i] | 1 | | | | |
| | Total | 15 | | | | |

[a] TDZ<MTZ; [b] TDZ>MTZ; [c] TDZ=MTZ; [d] SEC<MTZ; [e] SEC>MTZ; [f] SEC=MTZ; [g] SEC<TDZ; [h] SEC>TDZ; [i] SEC=TDZ; [j] Based on positive ranks

Abbreviations: MTZ=metronidazole; TDZ=tinidazole; SEC=secnidazole