

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.03)**

Under average intervention effects model and delta = -1.2

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 2.8490685 | 0.8130266 | 0.380395 |
| | | | | -0.01 | | | | | | |
| | | | | -1.2 | | | | | | |

**The fast GEE power of binary outcomes with exponential decay correlation structure and
(alpha0,r0):(0.03, 0.8)**

Under average intervention effects model and delta = -1.2

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 2.8910731 | 0.8241014 | 0.3948754 |
| | | | | -0.01 | | | | | | |
| | | | | -1.2 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.015)**

Under average intervention effects model and delta = -1.2

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 2.9589846 | 0.8411076 | 0.418764 |
| | | | | -0.01 | | | | | | |
| | | | | -1.2 | | | | | | |

**The fast GEE power of binary outcomes with block exchangeable correlation structure and
(alpha1,alpha2,alpha3):(0.03, 0.015, 0.2)
Under average intervention effects model and delta = -1.2**

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 2.8422784 | 0.8111966 | 0.3780778 |
| | | | | -0.01 | | | | | | |
| | | | | -1.2 | | | | | | |

**The fast GEE power of binary outcomes with proportional decay correlation structure and
(alpha0,r0):(0.03, 0.7)**

Under average intervention effects model and delta = -1.2

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 2.2024673 | 0.5958049 | 0.199682 |
| | | | | -0.01 | | | | | | |
| | | | | -1.2 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.03)**

Under average intervention effects model and delta = -1.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 3.2789703 | 0.9064165 | 0.5354044 |
| | | | | -0.01 | | | | | | |
| | | | | -1.4 | | | | | | |

**The fast GEE power of binary outcomes with exponential decay correlation structure and
(alpha0,r0):(0.03, 0.8)**

Under average intervention effects model and delta = -1.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 3.3272175 | 0.9142271 | 0.5529647 |
| | | | | -0.01 | | | | | | |
| | | | | -1.4 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.015)**

Under average intervention effects model and delta = -1.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 3.4053834 | 0.9258299 | 0.5810494 |
| | | | | -0.01 | | | | | | |
| | | | | -1.4 | | | | | | |

**The fast GEE power of binary outcomes with block exchangeable correlation structure and
(alpha1,alpha2,alpha3):(0.03, 0.015, 0.2)
Under average intervention effects model and delta = -1.4**

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 3.2714343 | 0.9051505 | 0.5326504 |
| | | | | -0.01 | | | | | | |
| | | | | -1.4 | | | | | | |

**The fast GEE power of binary outcomes with proportional decay correlation structure and
(alpha0,r0):(0.03, 0.7)**

Under average intervention effects model and delta = -1.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 2.5350437 | 0.7173813 | 0.2817483 |
| | | | | -0.01 | | | | | | |
| | | | | -1.4 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.03)**

Under average intervention effects model and delta = -1.2

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|----------|----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 3.0335193 | 0.858489 | 0.769868 |
| | | | | -0.01 | | | | | | |
| | | | | -1.2 | | | | | | |

**The fast GEE power of binary outcomes with exponential decay correlation structure and
(alpha0,r0):(0.03, 0.8)**

Under average intervention effects model and delta = -1.2

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 3.1309453 | 0.8791969 | 0.7962332 |
| | | | | -0.01 | | | | | | |
| | | | | -1.2 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.015)**

Under average intervention effects model and delta = -1.2

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 3.1568172 | 0.8843181 | 0.8028673 |
| | | | | -0.01 | | | | | | |
| | | | | -1.2 | | | | | | |

**The fast GEE power of binary outcomes with block exchangeable correlation structure and
(alpha1,alpha2,alpha3):(0.03, 0.015, 0.2)
Under average intervention effects model and delta = -1.2**

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 2.9144124 | 0.8300716 | 0.7347298 |
| | | | | -0.01 | | | | | | |
| | | | | -1.2 | | | | | | |

**The fast GEE power of binary outcomes with proportional decay correlation structure and
(alpha0,r0):(0.03, 0.7)**

Under average intervention effects model and delta = -1.2

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 2.2657089 | 0.6201006 | 0.5013782 |
| | | | | -0.01 | | | | | | |
| | | | | -1.2 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.03)**

Under average intervention effects model and delta = -1.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 3.4911665 | 0.9371403 | 0.874884 |
| | | | | -0.01 | | | | | | |
| | | | | -1.4 | | | | | | |

**The fast GEE power of binary outcomes with exponential decay correlation structure and
(alpha0,r0):(0.03, 0.8)**

Under average intervention effects model and delta = -1.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|---------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 3.6032679 | 0.94984 | 0.8936274 |
| | | | | -0.01 | | | | | | |
| | | | | -1.4 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.015)**

Under average intervention effects model and delta = -1.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 3.6330385 | 0.9528437 | 0.8981877 |
| | | | | -0.01 | | | | | | |
| | | | | -1.4 | | | | | | |

**The fast GEE power of binary outcomes with block exchangeable correlation structure and
(alpha1,alpha2,alpha3):(0.03, 0.015, 0.2)**

Under average intervention effects model and delta = -1.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 3.3544125 | 0.9184089 | 0.8484525 |
| | | | | -0.01 | | | | | | |
| | | | | -1.4 | | | | | | |

**The fast GEE power of binary outcomes with proportional decay correlation structure and
(alpha0,r0):(0.03, 0.7)**

Under average intervention effects model and delta = -1.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 2.6078348 | 0.7414658 | 0.6312362 |
| | | | | -0.01 | | | | | | |
| | | | | -1.4 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.03)**

Under incremental intervention effects model and delta = -1.8

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 2.5118062 | 0.7094718 | 0.275231 |
| | | | | -0.01 | | | | | | |
| | | | | -1.8 | | | | | | |

**The fast GEE power of binary outcomes with exponential decay correlation structure and
(alpha0,r0):(0.03, 0.8)**

Under incremental intervention effects model and delta = -1.8

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 2.6150734 | 0.7438013 | 0.3050713 |
| | | | | -0.01 | | | | | | |
| | | | | -1.8 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.015)**

Under incremental intervention effects model and delta = -1.8

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 2.6514318 | 0.7553642 | 0.3161045 |
| | | | | -0.01 | | | | | | |
| | | | | -1.8 | | | | | | |

**The fast GEE power of binary outcomes with block exchangeable correlation structure and
(alpha1,alpha2,alpha3):(0.03, 0.015, 0.2)**

Under incremental intervention effects model and delta = -1.8

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 2.454884 | 0.6896717 | 0.2597608 |
| | | | | -0.01 | | | | | | |
| | | | | -1.8 | | | | | | |

**The fast GEE power of binary outcomes with proportional decay correlation structure and
(alpha0,r0):(0.03, 0.7)**

Under incremental intervention effects model and delta = -1.8

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 1.801334 | 0.4369802 | 0.1305706 |
| | | | | -0.01 | | | | | | |
| | | | | -1.8 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.03)**

Under incremental intervention effects model and delta = -2.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 3.1701471 | 0.8868957 | 0.4954795 |
| | | | | -0.01 | | | | | | |
| | | | | -2.4 | | | | | | |

**The fast GEE power of binary outcomes with exponential decay correlation structure and
(alpha0,r0):(0.03, 0.8)**

Under incremental intervention effects model and delta = -2.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 3.2985677 | 0.9096501 | 0.5425533 |
| | | | | -0.01 | | | | | | |
| | | | | -2.4 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.015)**

Under incremental intervention effects model and delta = -2.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 3.3476609 | 0.9173853 | 0.5603597 |
| | | | | -0.01 | | | | | | |
| | | | | -2.4 | | | | | | |

**The fast GEE power of binary outcomes with block exchangeable correlation structure and
(alpha1,alpha2,alpha3):(0.03, 0.015, 0.2)**

Under incremental intervention effects model and delta = -2.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|----------|----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 3.0943371 | 0.871681 | 0.467671 |
| | | | | -0.01 | | | | | | |
| | | | | -2.4 | | | | | | |

**The fast GEE power of binary outcomes with proportional decay correlation structure and
(alpha0,r0):(0.03, 0.7)**

Under incremental intervention effects model and delta = -2.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 6 | 3 | 0.85 | 360 | binary | logit | 2.2659977 | 0.6202105 | 0.2135062 |
| | | | | -0.01 | | | | | | |
| | | | | -2.4 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.03)**

Under incremental intervention effects model and delta = -1.8

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 2.7151487 | 0.7749309 | 0.669361 |
| | | | | -0.01 | | | | | | |
| | | | | -1.8 | | | | | | |

**The fast GEE power of binary outcomes with exponential decay correlation structure and
(alpha0,r0):(0.03, 0.8)**

Under incremental intervention effects model and delta = -1.8

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 2.8545345 | 0.8144916 | 0.7159099 |
| | | | | -0.01 | | | | | | |
| | | | | -1.8 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.015)**

Under incremental intervention effects model and delta = -1.8

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 2.8578448 | 0.8153755 | 0.7169697 |
| | | | | -0.01 | | | | | | |
| | | | | -1.8 | | | | | | |

**The fast GEE power of binary outcomes with block exchangeable correlation structure and
(alpha1,alpha2,alpha3):(0.03, 0.015, 0.2)**

Under incremental intervention effects model and delta = -1.8

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 2.5227023 | 0.7131934 | 0.5998467 |
| | | | | -0.01 | | | | | | |
| | | | | -1.8 | | | | | | |

**The fast GEE power of binary outcomes with proportional decay correlation structure and
(alpha0,r0):(0.03, 0.7)**

Under incremental intervention effects model and delta = -1.8

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 1.8530575 | 0.4574316 | 0.3460153 |
| | | | | -0.01 | | | | | | |
| | | | | -1.8 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.03)**

Under incremental intervention effects model and delta = -2.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 3.4280671 | 0.9289619 | 0.8631912 |
| | | | | -0.01 | | | | | | |
| | | | | -2.4 | | | | | | |

**The fast GEE power of binary outcomes with exponential decay correlation structure and
(alpha0,r0):(0.03, 0.8)**

Under incremental intervention effects model and delta = -2.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|---------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 3.6013005 | 0.9496362 | 0.89332 |
| | | | | -0.01 | | | | | | |
| | | | | -2.4 | | | | | | |

**The fast GEE power of binary outcomes with nested exchangeable correlation structure and
(alpha1,alpha2):(0.03, 0.015)**

Under incremental intervention effects model and delta = -2.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 3.6082933 | 0.9503574 | 0.8944091 |
| | | | | -0.01 | | | | | | |
| | | | | -2.4 | | | | | | |

**The fast GEE power of binary outcomes with block exchangeable correlation structure and
(alpha1,alpha2,alpha3):(0.03, 0.015, 0.2)**

Under incremental intervention effects model and delta = -2.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 3.1804512 | 0.8888599 | 0.8087923 |
| | | | | -0.01 | | | | | | |
| | | | | -2.4 | | | | | | |

**The fast GEE power of binary outcomes with proportional decay correlation structure and
(alpha0,r0):(0.03, 0.7)**

Under incremental intervention effects model and delta = -2.4

| T | S | clusters | df | theta | totaln | Dist | Link | stdel | zpower | tpower |
|----|---|----------|----|-------|--------|--------|-------|-----------|-----------|-----------|
| 22 | 6 | 12 | 9 | 0.85 | 360 | binary | logit | 2.3310634 | 0.6447183 | 0.5267146 |
| | | | | -0.01 | | | | | | |
| | | | | -2.4 | | | | | | |