| Variable | N | Mean | Std Dev | Minimum | Maximum |
|---|---|---|---|---|---|
| UID | 1131 | 10954.93 | 6633.45 | 6.0000000 | 22594.00 |
| S_ID | 1131 | 5179630567 | 3862188783 | 151.0000000 | 12378012386 |
| LINKNUM | 1131 | 5179630567 | 3862188783 | 151.0000000 | 12378012386 |
| EVACUATE | 1131 | 6.3386384 | 125.0151541 | 0 | 4000.00 |
| EQPDMG | 1050 | 181501.64 | 557176.05 | 0 | 10619396.00 |
| TRKDMG | 1011 | 21672.78 | 76464.84 | 0 | 1165400.00 |
| TRKDEN | 781 | 26.5399616 | 43.8319911 | 0 | 649.6400000 |

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The LOGISTIC Procedure

Data Set: WORK.MERG_IT3
Response Variable (Events): PTCXX1
Response Variable (Trials): LEN1000
Number of Observations: 5245
Link Function: Logit

Response Profile

| Ordered Value | Binary Outcome | Count |
|---|---|---|
| 1 | EVENT | 623 |
| 2 | NO EVENT | 93724985 |

WARNING: 3347 observation(s) were deleted due to missing values for the response or explanatory variables.

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Forward Selection Procedure

Step 0. Intercept entered:

Residual Chi-Square = 346.6357 with 11 DF (p=0.0001)

Step 1. Variable CURVPER entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 16101.980 | 16061.564 | . |
| SC | 16118.336 | 16094.276 | . |
| -2 LOG L | 16099.980 | 16057.564 | 42.416 with 1 DF (p=0.0001) |
| Score | . | . | 225.699 with 1 DF (p=0.0001) |

Residual Chi-Square = 148.5233 with 10 DF (p=0.0001)

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Step 2. Variable LOG2TONS entered:



The LOGISTIC Procedure

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 16101.980 | 16018.263 | . |
| SC | 16118.336 | 16067.330 | . |
| -2 LOG L | 16099.980 | 16012.263 | 87.717 with 2 DF (p=0.0001) |
| Score | . | . | 267.377 with 2 DF (p=0.0001) |

Residual Chi-Square = 100.5360 with 9 DF (p=0.0001)

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Step 3. Variable SWITPER entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 16101.980 | 16007.731 | . |
| SC | 16118.336 | 16073.154 | . |
| -2 LOG L | 16099.980 | 15999.731 | 100.249 with 3 DF (p=0.0001) |
| Score | . | . | 302.249 with 3 DF (p=0.0001) |

Residual Chi-Square = 74.1865 with 8 DF (p=0.0001)

Step 4. Variable LWAVGSPD entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 16101.980 | 15984.771 | . |
| SC | 16118.336 | 16066.551 | . |
| -2 LOG L | 16099.980 | 15974.771 | 125.209 with 4 DF (p=0.0001) |
| Score | . | . | 319.763 with 4 DF (p=0.0001) |

Residual Chi-Square = 46.7339 with 7 DF (p=0.0001)

Step 5. Variable MULTTRAK entered:



The LOGISTIC Procedure

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 16101.980 | 15966.798 | . |
| SC | 16118.336 | 16064.933 | . |
| -2 LOG L | 16099.980 | 15954.798 | 145.182 with 5 DF (p=0.0001) |
| Score | . | . | 321.388 with 5 DF (p=0.0001) |

Residual Chi-Square = 26.2968 with 6 DF (p=0.0002)

Step 6. Variable MEANCRVL entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

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| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 16101.980 | 15961.168 | . |
| SC | 16118.336 | 16075.659 | . |
| -2 LOG L | 16099.980 | 15947.168 | 152.812 with 6 DF (p=0.0001) |
| Score | . | . | 321.612 with 6 DF (p=0.0001) |

Residual Chi-Square = 19.0911 with 5 DF (p=0.0018)

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Step 7. Variable LOGTONS entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 16101.980 | 15955.468 | . |
| SC | 16118.336 | 16086.315 | . |
| -2 LOG L | 16099.980 | 15939.468 | 160.511 with 7 DF (p=0.0001) |
| Score | . | . | 328.746 with 7 DF (p=0.0001) |

Residual Chi-Square = 12.9733 with 4 DF (p=0.0114)

Step 8. Variable CTC entered:

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The LOGISTIC Procedure

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 16101.980 | 15948.854 | . |
| SC | 16118.336 | 16096.057 | . |
| -2 LOG L | 16099.980 | 15930.854 | 169.126 with 8 DF (p=0.0001) |
| Score | . | . | 338.400 with 8 DF (p=0.0001) |

Residual Chi-Square = 4.0267 with 3 DF (p=0.2586)

NOTE: No (additional) variables met the 0.05 significance level for entry into the model.

Summary of Forward Selection Procedure

| Step | Variable Entered | Number In | Score Chi-Square | Pr > Chi-Square |
|---|---|---|---|---|
| 1 | CURVPER | 1 | 225.7 | 0.0001 |
| 2 | LOG2TONS | 2 | 47.7707 | 0.0001 |
| 3 | SWITPER | 3 | 36.5019 | 0.0001 |
| 4 | LWAVGSPD | 4 | 26.9778 | 0.0001 |
| 5 | MULTTRAK | 5 | 20.2858 | 0.0001 |
| 6 | MEANCRVL | 6 | 6.9754 | 0.0083 |
| 7 | LOGTONS | 7 | 6.6827 | 0.0097 |
| 8 | CTC | 8 | 8.8425 | 0.0029 |

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Analysis of Maximum Likelihood Estimates

| Variable | DF | Parameter Estimate | Standard Error | Wald Chi-Square | Pr > Chi-Square | Standardized Estimate | Odds Ratio |
|---|---|---|---|---|---|---|---|
| INTERCPT | 1 | -11.6832 | 0.1260 | 8599.7719 | 0.0001 | . | . |
| LOGTONS | 1 | 0.1043 | 0.0339 | 9.4943 | 0.0021 | 0.109832 | 1.110 |
| LOG2TONS | 1 | 0.0227 | 0.00863 | 6.9428 | 0.0084 | 0.082843 | 1.023 |
| MULTTRAK | 1 | 0.4252 | 0.0928 | 20.9902 | 0.0001 | 0.110134 | 1.530 |
| SWITPER | 1 | 0.0258 | 0.00762 | 11.4650 | 0.0007 | 0.016638 | 1.026 |
| CURVPER | 1 | 0.0760 | 0.0121 | 39.4536 | 0.0001 | 0.031028 | 1.079 |
| MEANCRVL | 1 | -1.6122 | 0.5762 | 7.8282 | 0.0051 | -0.069986 | 0.199 |
| CTC | 1 | -0.2662 | 0.0897 | 8.8119 | 0.0030 | -0.071089 | 0.766 |
| LWAVGSPD | 1 | -0.0156 | 0.00278 | 31.5448 | 0.0001 | -0.122087 | 0.984 |

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Association of Predicted Probabilities and Observed Responses

Concordant = 0.0% Somers' D = -.000
Discordant = 0.0% Gamma = -1.00
Tied =100.0% Tau-a = -.000
(58390665490 pairs) c = 0.500



The LOGISTIC Procedure

```
Data Set: WORK.MERG_IT3
Response Variable (Events): PTCXX2
Response Variable (Trials): LEN1000
Number of Observations: 5245
Link Function: Logit


                    Response Profile

            Ordered  Binary
              Value  Outcome      Count

                  1  EVENT          427
                  2  NO EVENT  93725181

WARNING: 3347 observation(s) were deleted due to missing values for the response or explanatory variables.


            Forward Selection Procedure


Step  0. Intercept entered:


        Residual Chi-Square = 423.4289 with 11 DF (p=0.0001)


Step  1. Variable CURVPER entered:


   Model Fitting Information and Testing Global Null Hypothesis BETA=0

                          Intercept
              Intercept      and
Criterion       Only      Covariates    Chi-Square for Covariates

AIC           11359.428     11319.617         .
SC            11375.784     11352.328         .
-2 LOG L      11357.428     11315.617       41.811 with 1 DF (p=0.0001)
Score              .             .         283.711 with 1 DF (p=0.0001)


        Residual Chi-Square = 180.9699 with 10 DF (p=0.0001)


Step  2. Variable LOG2TONS entered:
```

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The LOGISTIC Procedure

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 11359.428 | 11236.928 | . |
| SC | 11375.784 | 11285.996 | . |
| -2 LOG L | 11357.428 | 11230.928 | 126.500 with 2 DF (p=0.0001) |
| Score | . | . | 366.051 with 2 DF (p=0.0001) |

Residual Chi-Square = 96.0758 with 9 DF (p=0.0001)

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Step 3. Variable SWITPER entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 11359.428 | 11226.138 | . |
| SC | 11375.784 | 11291.561 | . |
| -2 LOG L | 11357.428 | 11218.138 | 139.290 with 3 DF (p=0.0001) |
| Score | . | . | 404.289 with 3 DF (p=0.0001) |

Residual Chi-Square = 64.1329 with 8 DF (p=0.0001)

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Step 4. Variable MULTTRAK entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 11359.428 | 11207.137 | . |
| SC | 11375.784 | 11288.917 | . |

```
-2 LOG L      11357.428     11197.137      160.290 with 4 DF (p=0.0001)
Score               .             .        405.420 with 4 DF (p=0.0001)


            Residual Chi-Square = 41.3555 with 7 DF (p=0.0001)


Step  5. Variable MEANCRVL entered:
```



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```
                    The LOGISTIC Procedure

   Model Fitting Information and Testing Global Null Hypothesis BETA=0

                                Intercept
                 Intercept         and
Criterion          Only       Covariates    Chi-Square for Covariates

AIC            11359.428     11196.580          .
SC             11375.784     11294.716          .
-2 LOG L       11357.428     11184.580      172.848 with 5 DF (p=0.0001)
Score               .             .        405.810 with 5 DF (p=0.0001)


            Residual Chi-Square = 29.9147 with 6 DF (p=0.0001)


Step  6. Variable ANUPAS entered:


   Model Fitting Information and Testing Global Null Hypothesis BETA=0
```

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```
                                Intercept
                 Intercept         and
Criterion          Only       Covariates    Chi-Square for Covariates

AIC            11359.428     11192.261          .
SC             11375.784     11306.752          .
-2 LOG L       11357.428     11178.261      179.166 with 6 DF (p=0.0001)
Score               .             .        407.271 with 6 DF (p=0.0001)


            Residual Chi-Square = 21.5510 with 5 DF (p=0.0006)


Step  7. Variable LWAVGSPD entered:
```

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 11359.428 | 11185.928 | . |
| SC | 11375.784 | 11316.775 | . |
| -2 LOG L | 11357.428 | 11169.928 | 187.500 with 7 DF (p=0.0001) |
| Score | . | . | 410.750 with 7 DF (p=0.0001) |

Residual Chi-Square = 10.7982 with 4 DF (p=0.0289)

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Step 8. Variable DARK entered:



The LOGISTIC Procedure

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 11359.428 | 11180.408 | . |
| SC | 11375.784 | 11327.611 | . |
| -2 LOG L | 11357.428 | 11162.408 | 195.019 with 8 DF (p=0.0001) |
| Score | . | . | 411.839 with 8 DF (p=0.0001) |

Residual Chi-Square = 3.8607 with 3 DF (p=0.2769)

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NOTE: No (additional) variables met the 0.05 significance level for entry into the model.

Summary of Forward Selection Procedure

| Step | Variable Entered | Number In | Score Chi-Square | Pr > Chi-Square |
|---|---|---|---|---|
| 1 | CURVPER | 1 | 283.7 | 0.0001 |
| 2 | LOG2TONS | 2 | 92.1255 | 0.0001 |

| | | | | |
|---|---|---|---|---|
| 3 | SWITPER | 3 | 43.5134 | 0.0001 |
| 4 | MULTTRAK | 4 | 21.1700 | 0.0001 |
| 5 | MEANCRVL | 5 | 11.0233 | 0.0009 |
| 6 | ANUPAS | 6 | 8.3208 | 0.0039 |
| 7 | LWAVGSPD | 7 | 8.7869 | 0.0030 |
| 8 | DARK | 8 | 7.3237 | 0.0068 |

Analysis of Maximum Likelihood Estimates

| Variable | DF | Parameter Estimate | Standard Error | Wald Chi-Square | Pr > Chi-Square | Standardized Estimate | Odds Ratio |
|---|---|---|---|---|---|---|---|
| INTERCPT | 1 | -12.2991 | 0.1879 | 4285.3055 | 0.0001 | . | . |
| LOG2TONS | 1 | 0.0514 | 0.00770 | 44.5835 | 0.0001 | 0.187238 | 1.053 |
| MULTTRAK | 1 | 0.3790 | 0.1145 | 10.9606 | 0.0009 | 0.098165 | 1.461 |
| ANUPAS | 1 | 1.685E-7 | 6.342E-8 | 7.0614 | 0.0079 | 0.042114 | 1.000 |
| SWITPER | 1 | 0.0297 | 0.00746 | 15.8877 | 0.0001 | 0.019162 | 1.030 |
| CURVPER | 1 | 0.0725 | 0.0113 | 41.0702 | 0.0001 | 0.029588 | 1.075 |
| MEANCRVL | 1 | -2.2560 | 0.7088 | 10.1309 | 0.0015 | -0.097936 | 0.105 |
| DARK | 1 | -0.4000 | 0.1485 | 7.2619 | 0.0070 | -0.102946 | 0.670 |
| LWAVGSPD | 1 | -0.0124 | 0.00337 | 13.4711 | 0.0002 | -0.096597 | 0.988 |

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Association of Predicted Probabilities and Observed Responses

Concordant = 0.0% Somers' D = -.000
Discordant = 0.0% Gamma = -1.00
Tied =100.0% Tau-a = -.000
(40020652174 pairs) c = 0.500



The LOGISTIC Procedure

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Data Set: WORK.MERG_IT3
Response Variable (Events): PTCXX3
Response Variable (Trials): LEN1000
Number of Observations: 5245
Link Function: Logit

Response Profile

| Ordered Value | Binary Outcome | Count |
|---|---|---|
| 1 | EVENT | 384 |
| 2 | NO EVENT | 93725224 |

WARNING: 3347 observation(s) were deleted due to missing values for the response or explanatory variables.

Forward Selection Procedure

Step 0. Intercept entered:

Residual Chi-Square = 375.2301 with 11 DF (p=0.0001)

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Step 1. Variable CURVPER entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 10297.222 | 10264.269 | . |
| SC | 10313.578 | 10296.981 | . |
| -2 LOG L | 10295.222 | 10260.269 | 34.953 with 1 DF (p=0.0001) |
| Score | . | . | 225.822 with 1 DF (p=0.0001) |

Residual Chi-Square = 174.1112 with 10 DF (p=0.0001)

Step 2. Variable LOG2TONS entered:



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The LOGISTIC Procedure

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 10297.222 | 10187.046 | . |
| SC | 10313.578 | 10236.113 | . |
| -2 LOG L | 10295.222 | 10181.046 | 114.176 with 2 DF (p=0.0001) |
| Score | . | . | 303.734 with 2 DF (p=0.0001) |

Residual Chi-Square = 96.1854 with 9 DF (p=0.0001)

Step 3. Variable SWITPER entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 10297.222 | 10176.323 | . |
| SC | 10313.578 | 10241.746 | . |
| -2 LOG L | 10295.222 | 10168.323 | 126.899 with 3 DF (p=0.0001) |
| Score | . | . | 356.279 with 3 DF (p=0.0001) |

Residual Chi-Square = 63.0924 with 8 DF (p=0.0001)

Step 4. Variable MULTTRAK entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 10297.222 | 10152.845 | . |
| SC | 10313.578 | 10234.625 | . |
| -2 LOG L | 10295.222 | 10142.845 | 152.377 with 4 DF (p=0.0001) |
| Score | . | . | 358.974 with 4 DF (p=0.0001) |

Residual Chi-Square = 36.0490 with 7 DF (p=0.0001)

Step 5. Variable ANUPAS entered:



The LOGISTIC Procedure

Model Fitting Information and Testing Global Null Hypothesis BETA=0

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| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 10297.222 | 10147.980 | . |
| SC | 10313.578 | 10246.116 | . |
| -2 LOG L | 10295.222 | 10135.980 | 159.242 with 5 DF (p=0.0001) |
| Score | . | . | 361.410 with 5 DF (p=0.0001) |

Residual Chi-Square = 26.9236 with 6 DF (p=0.0001)

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Step 6. Variable LWAVGSPD entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 10297.222 | 10143.909 | . |
| SC | 10313.578 | 10258.400 | . |
| -2 LOG L | 10295.222 | 10129.909 | 165.314 with 6 DF (p=0.0001) |
| Score | . | . | 362.999 with 6 DF (p=0.0001) |

Residual Chi-Square = 18.8904 with 5 DF (p=0.0020)

Step 7. Variable DARK entered:

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Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 10297.222 | 10136.061 | . |
| SC | 10313.578 | 10266.908 | . |
| -2 LOG L | 10295.222 | 10120.061 | 175.161 with 7 DF (p=0.0001) |
| Score | . | . | 365.326 with 7 DF (p=0.0001) |

Residual Chi-Square = 9.9068 with 4 DF (p=0.0420)

Step 8. Variable MEANCRVL entered:



The LOGISTIC Procedure

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 10297.222 | 10132.081 | . |
| SC | 10313.578 | 10279.284 | . |
| -2 LOG L | 10295.222 | 10114.081 | 181.141 with 8 DF (p=0.0001) |
| Score | . | . | 365.333 with 8 DF (p=0.0001) |

Residual Chi-Square = 4.4839 with 3 DF (p=0.2137)

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Step 9. Variable LOGTONS entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 10297.222 | 10129.460 | . |
| SC | 10313.578 | 10293.019 | . |
| -2 LOG L | 10295.222 | 10109.460 | 185.762 with 9 DF (p=0.0001) |
| Score | . | . | 369.393 with 9 DF (p=0.0001) |

Residual Chi-Square = 0.6383 with 2 DF (p=0.7268)

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NOTE: No (additional) variables met the 0.05 significance level for entry into the model.

Summary of Forward Selection Procedure

| Step | Variable Entered | Number In | Score Chi-Square | Pr > Chi-Square |
|---|---|---|---|---|

| | | | |
|---|---|---|---|
| 1 | CURVPER | 1 | 225.8 | 0.0001 |
| 2 | LOG2TONS | 2 | 86.3139 | 0.0001 |
| 3 | SWITPER | 3 | 44.8200 | 0.0001 |
| 4 | MULTTRAK | 4 | 25.6783 | 0.0001 |
| 5 | ANUPAS | 5 | 9.3226 | 0.0023 |
| 6 | LWAVGSPD | 6 | 6.3833 | 0.0115 |
| 7 | DARK | 7 | 9.4978 | 0.0021 |
| 8 | MEANCRVL | 8 | 5.4075 | 0.0201 |
| 9 | LOGTONS | 9 | 3.9339 | 0.0473 |



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The LOGISTIC Procedure

Analysis of Maximum Likelihood Estimates

| Variable | DF | Parameter Estimate | Standard Error | Wald Chi-Square | Pr > Chi-Square | Standardized Estimate | Odds Ratio |
|---|---|---|---|---|---|---|---|
| INTERCPT | 1 | -12.5357 | 0.2036 | 3791.5838 | 0.0001 | . | . |
| LOGTONS | 1 | 0.0939 | 0.0477 | 3.8722 | 0.0491 | 0.098840 | 1.098 |
| LOG2TONS | 1 | 0.0341 | 0.0115 | 8.7399 | 0.0031 | 0.124090 | 1.035 |
| MULTTRAK | 1 | 0.4243 | 0.1203 | 12.4441 | 0.0004 | 0.109901 | 1.529 |
| ANUPAS | 1 | 1.728E-7 | 6.456E-8 | 7.1638 | 0.0074 | 0.043181 | 1.000 |
| SWITPER | 1 | 0.0291 | 0.00839 | 12.0483 | 0.0005 | 0.018771 | 1.030 |
| CURVPER | 1 | 0.0761 | 0.0142 | 28.8475 | 0.0001 | 0.031050 | 1.079 |
| MEANCRVL | 1 | -1.7852 | 0.7326 | 5.9380 | 0.0148 | -0.077497 | 0.168 |
| DARK | 1 | -0.4295 | 0.1661 | 6.6866 | 0.0097 | -0.110522 | 0.651 |
| LWAVGSPD | 1 | -0.0122 | 0.00358 | 11.6905 | 0.0006 | -0.095702 | 0.988 |

Association of Predicted Probabilities and Observed Responses

Concordant = 0.0% Somers' D = -.000
Discordant = 0.0% Gamma = -1.00
Tied =100.0% Tau-a = -.000
(35990485914 pairs) c = 0.500

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The LOGISTIC Procedure

Data Set: WORK.MERG_IT3
Response Variable (Events): PTCXX4
Response Variable (Trials): LEN1000
Number of Observations: 5245
Link Function: Logit

Response Profile

| Ordered Value | Binary Outcome | Count |
|---|---|---|
| 1 | EVENT | 317 |
| 2 | NO EVENT | 93725291 |

WARNING: 3347 observation(s) were deleted due to missing values for the response or explanatory variables.

Forward Selection Procedure

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Step 0. Intercept entered:

Residual Chi-Square = 223.1691 with 11 DF (p=0.0001)

Step 1. Variable SWITPER entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 8622.484 | 8601.292 | . |
| SC | 8638.840 | 8634.004 | . |
| -2 LOG L | 8620.484 | 8597.292 | 23.192 with 1 DF (p=0.0001) |
| Score | . | . | 138.229 with 1 DF (p=0.0001) |

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Residual Chi-Square = 108.1007 with 10 DF (p=0.0001)

Step 2. Variable MULTTRAK entered:



The LOGISTIC Procedure

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| | Intercept | Intercept and |
|---|---|---|

| Criterion | Only | Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 8622.484 | 8548.799 | . |
| SC | 8638.840 | 8597.867 | . |
| -2 LOG L | 8620.484 | 8542.799 | 77.685 with 2 DF (p=0.0001) |
| Score | . | . | 162.675 with 2 DF (p=0.0001) |

Residual Chi-Square = 51.0316 with 9 DF (p=0.0001)

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Step 3. Variable LOG2TONS entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 8622.484 | 8530.345 | . |
| SC | 8638.840 | 8595.769 | . |
| -2 LOG L | 8620.484 | 8522.345 | 98.139 with 3 DF (p=0.0001) |
| Score | . | . | 188.711 with 3 DF (p=0.0001) |

Residual Chi-Square = 29.6896 with 8 DF (p=0.0002)

Step 4. Variable CURVPER entered:

Model Fitting Information and Testing Global Null Hypothesis BETA=0

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| Criterion | Intercept Only | Intercept and Covariates | Chi-Square for Covariates |
|---|---|---|---|
| AIC | 8622.484 | 8525.136 | . |
| SC | 8638.840 | 8606.916 | . |
| -2 LOG L | 8620.484 | 8515.136 | 105.348 with 4 DF (p=0.0001) |
| Score | . | . | 211.529 with 4 DF (p=0.0001) |

Residual Chi-Square = 17.4954 with 7 DF (p=0.0145)

NOTE: No (additional) variables met the 0.05 significance level for entry into the model.



The LOGISTIC Procedure

Summary of Forward Selection Procedure

| Step | Variable Entered | Number In | Score Chi-Square | Pr > Chi-Square |
|---|---|---|---|---|
| 1 | SWITPER | 1 | 138.2 | 0.0001 |
| 2 | MULTTRAK | 2 | 57.9853 | 0.0001 |
| 3 | LOG2TONS | 3 | 21.0535 | 0.0001 |
| 4 | CURVPER | 4 | 13.1592 | 0.0003 |

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Analysis of Maximum Likelihood Estimates

| Variable | DF | Parameter Estimate | Standard Error | Wald Chi-Square | Pr > Chi-Square | Standardized Estimate | Odds Ratio |
|---|---|---|---|---|---|---|---|
| INTERCPT | 1 | -13.3396 | 0.1091 | 14940.7553 | 0.0001 | . | . |
| LOG2TONS | 1 | 0.0397 | 0.00859 | 21.3066 | 0.0001 | 0.144462 | 1.040 |
| MULTTRAK | 1 | 0.5926 | 0.1255 | 22.2843 | 0.0001 | 0.153487 | 1.809 |
| SWITPER | 1 | 0.0320 | 0.00967 | 10.9233 | 0.0009 | 0.020613 | 1.032 |
| CURVPER | 1 | 0.0716 | 0.0168 | 18.1076 | 0.0001 | 0.029233 | 1.074 |

Association of Predicted Probabilities and Observed Responses

| | |
|---|---|
| Concordant = 0.0% | Somers' D = -.000 |
| Discordant = 0.0% | Gamma = -1.00 |
| Tied =100.0% | Tau-a = -.000 |
| (29710917163 pairs) | c = 0.500 |

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