1 . \*\*\* 2 .
3 . \* Basic survival function runs 5 . stset timeeventY, failure(ips==1) Survival-time data settings Failure event: ips==1 Observed time interval: (0, timeeventY] Exit on or before: failure

> 1,694 total observations 0 exclusions

1,694 observations remaining, representing **304** failures in single-record/single-failure data 17,807.405 total analysis time at risk and under observation At risk from t = Earliest observed entry t = Last observed exit t = 17.61918

7 . \* raw score 9 . stcox CollScore, cformat(%9.2f) pformat(%5.4f)

Failure \_d: ips==1
Analysis time \_t: timeeventY Iteration 0: Log likelihood = -952.05717

Iteration 1: Log likelihood = -944.54837 Iteration 2: Log likelihood = -944.54807 Refining estimates: Iteration 0: Log likelihood = -944.54807

Cox regression with Breslow method for ties

No. of subjects = Number of obs = 713 No. of failures =

= 7,213.4219 Time at risk

LR chi2(1) = 15.02 Log likelihood = -944.54807 Prob > chi2 = 0.0001

t	Haz. ratio	Std. err.	z	P> z	[95% conf.	interval]
CollScore	1.41	0.13	3.91	0.0001	1.19	1.68

```
Collagen Score Sunday March 31 21:09:56 2024
10 .
11 . ***
12 .
13 . * only validation set
15 . stcox CollScore if TrainVal!=0, cformat(%9.2f) pformat(%5.4f)
          Failure _d: ips==1
    Analysis time _t: timeeventY
   Iteration 0: Log likelihood = -579.81363
   Iteration 1: Log likelihood = -578.37707
   Iteration 2: Log likelihood = -578.37707
   Refining estimates:
   Iteration 0: Log likelihood = -578.37707
   Cox regression with Breslow method for ties
                           600
                                                          Number of obs =
   No. of subjects =
                                                                             600
   No. of failures =
                            93
   Time at risk = 6,277.7945
                                                          LR chi2(1)
                                                                        = 2.87
   Log likelihood = -578.37707
                                                          Prob > chi2
                                                                       = 0.0901
                                                            [95% conf. interval]
             _t
                 Haz. ratio Std. err.
                                             z
                                                  P>|z|
                                                                 0.97
                                                                             1.51
      CollScore
                       1.21
                                  0.14
                                           1.70
                                                  0.0892
17 . * categories
19 . stcox i.CollCat, cformat(%9.2f) pformat(%5.4f)
          Failure _d: ips==1
    Analysis time _t: timeeventY
   Iteration 0: Log likelihood = -952.05717
   Iteration 1: Log likelihood = -948.10354
   Iteration 2: Log likelihood = -948.1035
   Refining estimates:
   Iteration 0: Log likelihood = -948.1035
   Cox regression with Breslow method for ties
   No. of subjects =
                                                          Number of obs =
                           713
   No. of failures =
                = 7,213.4219
   Time at risk
                                                          LR chi2(1)
                                                                        = 7.91
                                                          Prob > chi2 = 0.0049
   Log likelihood = -948.1035
```

t	Haz. ratio	Std. err.	Z	P> z	[95% conf. in	terval]
CollCat High	1.59	0.26	2.79	0.0053	1.15	2.20

```
Collagen Score Sunday March 31 21:09:56 2024 Page 3
20 .
21 . ***
22 .
23 . * only validation set
24 .
25 . stcox i.CollCat if TrainVal!=0, cformat(%9.2f) pformat(%5.4f)
          Failure _d: ips==1
    Analysis time _t: timeeventY
   Iteration 0: Log likelihood = -579.81363
   Iteration 1: Log likelihood = -579.5866
   Iteration 2: Log likelihood = -579.5866
   Refining estimates:
   Iteration 0: Log likelihood = -579.5866
   Cox regression with Breslow method for ties
                           600
                                                          Number of obs =
   No. of subjects =
                                                                             600
   No. of failures =
                            93
                = 6,277.7945
   Time at risk
                                                          LR chi2(1)
                                                                            0.45
   Log likelihood = -579.5866
                                                          Prob > chi2
                                                                       = 0.5004
                                                            [95% conf. interval]
             _t
                 Haz. ratio Std. err.
                                             z
                                                  P>|z|
        CollCat
         High
                       1.15
                                  0.24
                                           0.67
                                                  0.5003
                                                                 0.77
                                                                             1.73
27 . *** INVASIVE
29 . stset timeeventY, failure(IPSinvNBD==1)
   Survival-time data settings
            Failure event: IPSinvNBD==1
   Observed time interval: (0, timeeventY]
       Exit on or before: failure
         1,694 total observations
            0 exclusions
         1,694 observations remaining, representing
           122 failures in single-record/single-failure data
   17,807.405 total analysis time at risk and under observation
                                                  At risk from t =
                                                                           0
                                       Earliest observed entry t =
                                                                           0
                                            Last observed exit t = 17.61918
```

```
Collagen Score Sunday March 31 21:09:56 2024
30 .
31 . * raw score
33 . stcox CollScore, cformat(%9.2f) pformat(%5.4f)
           Failure d: IPSinvNBD==1
     Analysis time _t: timeeventY
   Iteration 0: Log likelihood = -339.40455
   Iteration 1: Log likelihood = -336.11792
Iteration 2: Log likelihood = -336.11749
   Refining estimates:
   Iteration 0: Log likelihood = -336.11749
   Cox regression with Breslow method for ties
   No. of subjects =
                                                             Number of obs =
                            713
                                                                                713
   No. of failures =
                             54
   Time at risk
                  = 7,213.4219
                                                             LR chi2(1)
                                                                               6.57
   Log likelihood = -336.11749
                                                             Prob > chi2
                                                                          = 0.0103
             _t
                  Haz. ratio
                                Std. err.
                                                     P>|z|
                                                               [95% conf. interval]
      CollScore
                        1.46
                                    0.21
                                             2.59
                                                    0.0096
                                                                    1.10
                                                                                 1.94
35 . ***
37 . * only validation set
39 . stcox CollScore if TrainVal!=0, cformat(%9.2f) pformat(%5.4f)
           Failure _d: IPSinvNBD==1
     Analysis time _t: timeeventY
   Iteration 0: Log likelihood = -220.64739
   Iteration 1: Log likelihood = -220.05145
   Iteration 2: Log likelihood = -220.05144
   Refining estimates:
   Iteration 0: Log likelihood = -220.05144
   Cox regression with Breslow method for ties
   No. of subjects =
                                                             Number of obs =
                             600
   No. of failures =
                             36
                 = 6,277.7945
   Time at risk
                                                             LR chi2(1)
                                                                           = 1.19
   Log likelihood = -220.05144
                                                             Prob > chi2
                                                                          = 0.2749
             _t
                  Haz. ratio
                                Std. err.
                                                    P> | z |
                                                               [95% conf. interval]
```

CollScore

1.22

0.22

1.10

0.2735

0.86

1.72

```
40 .
41 . * categories
43 . stcox i.CollCat, cformat(%9.2f) pformat(%5.4f)
           Failure d: IPSinvNBD==1
     Analysis time _t: timeeventY
   Iteration 0: Log likelihood = -339.40455
   Iteration 1: Log likelihood = -337.61646
Iteration 2: Log likelihood = -337.61643
   Refining estimates:
   Iteration 0: Log likelihood = -337.61643
   Cox regression with Breslow method for ties
   No. of subjects =
                                                            Number of obs =
                            713
                                                                                713
   No. of failures =
                             54
   Time at risk
                  = 7,213.4219
                                                             LR chi2(1)
                                                                               3.58
   Log likelihood = -337.61643
                                                             Prob > chi2
                                                                          = 0.0586
             _t
                  Haz. ratio
                               Std. err.
                                                    P> | z |
                                                              [95% conf. interval]
        CollCat
          High
                        1.68
                                    0.47
                                             1.87
                                                    0.0613
                                                                    0.98
                                                                                2.89
45 . ***
47 . * only validation set
49 . stcox i.CollCat if TrainVal!=0, cformat(%9.2f) pformat(%5.4f)
           Failure _d: IPSinvNBD==1
     Analysis time _t: timeeventY
   Iteration 0: Log likelihood = -220.64739
   Iteration 1: Log likelihood = -220.64682
   Iteration 2: Log likelihood = -220.64682
   Refining estimates:
   Iteration 0: Log likelihood = -220.64682
   Cox regression with Breslow method for ties
   No. of subjects =
                                                            Number of obs =
   No. of failures =
   Time at risk = 6,277.7945
                                                             LR chi2(1)
                                                                          = 0.00
   Log likelihood = -220.64682
                                                             Prob > chi2 = 0.9730
                                                               [95% conf. interval]
             _t
                  Haz. ratio
                               Std. err.
                                                    P>|z|
        CollCat
                                    0.34
                                             0.03
                                                    0.9730
                                                                    0.53
                                                                                1.95
          High
                        1.01
```

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```
50 .
51 . *** IN SITU
53 . stset timeeventY, failure(IPSinsituNBD==1)
   Survival-time data settings
            Failure event: IPSinsituNBD==1
   Observed time interval: (0, timeeventY]
        Exit on or before: failure
         1,694 total observations
             0 exclusions
         1,694 observations remaining, representing
          173 failures in single-record/single-failure data
    17,807.405 total analysis time at risk and under observation
                                                   At risk from t =
                                        Earliest observed entry t =
                                             Last observed exit t = 17.61918
54 .
55 . * raw score
57 . stcox CollScore, cformat(%9.2f) pformat(%5.4f)
    Failure _d: IPSinsituNBD==1
Analysis time _t: timeeventY
   Iteration 0: Log likelihood = -600.06035
   Iteration 1: Log likelihood = -595.98161
   Iteration 2: Log likelihood = -595.98155
   Refining estimates:
   Iteration 0: Log likelihood = -595.98155
   Cox regression with Breslow method for ties
                                                            Number of obs =
   No. of subjects =
                                                                               713
   No. of failures =
   Time at risk
                  = 7,213.4219
                                                            LR chi2(1)
                                                                          = 8.16
   Log likelihood = -595.98155
                                                            Prob > chi2
                                                                         = 0.0043
             _t
                  Haz. ratio
                               Std. err.
                                                   P>|z|
                                                              [95% conf. interval]
                                                   0.0041
      CollScore
                        1.38
                                   0.16
                                            2.87
                                                                   1.11
                                                                               1.73
```

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```
59 . ***
61 . * only validation set
63 . stcox CollScore if TrainVal!=0, cformat(%9.2f) pformat(%5.4f)
           Failure _d: IPSinsituNBD==1
     Analysis time _t: timeeventY
   Iteration 0: Log likelihood = -352.95765
   Iteration 1: Log likelihood = -351.98692
   Iteration 2: Log likelihood = -351.98691
   Refining estimates:
   Iteration 0: Log likelihood = -351.98691
   Cox regression with no ties
   No. of subjects =
                                                            Number of obs =
                                                                               600
   No. of failures =
                             56
   Time at risk
                 = 6,277.7945
                                                            LR chi2(1)
                                                                              1.94
   Log likelihood = -351.98691
                                                            Prob > chi2
                                                                         = 0.1635
                                                   P>|z|
                                                              [95% conf. interval]
             _t
                  Haz. ratio
                               Std. err.
                                              Z
      CollScore
                        1.22
                                   0.18
                                            1.40
                                                   0.1624
                                                                   0.92
                                                                               1.63
65 . * categories
67 . stcox i.CollCat, cformat(%9.2f) pformat(%5.4f)
     Failure _d: IPSinsituNBD==1
Analysis time _t: timeeventY
   Iteration 0: Log likelihood = -600.06035
   Iteration 1: Log likelihood = -597.84952
   Iteration 2: Log likelihood = -597.84949
   Refining estimates:
   Iteration 0: Log likelihood = -597.84949
   Cox regression with Breslow method for ties
   No. of subjects =
                            713
                                                            Number of obs =
                                                                               713
   No. of failures =
   Time at risk
                 = 7,213.4219
                                                            LR chi2(1)
                                                                          = 4.42
   Log likelihood = -597.84949
                                                            Prob > chi2 = 0.0355
             _t
                  Haz. ratio
                               Std. err.
                                                   P>|z|
                                                              [95% conf. interval]
        CollCat
          High
                                                   0.0369
                                                                               2.34
                        1.55
                                   0.33
                                            2.09
                                                                   1.03
```

Collagen Score Sunday March 31 21:09:56 2024

```
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68 .
69 . ***
71 . * only validation set
73 . stcox i.CollCat if TrainVal!=0, cformat(%9.2f) pformat(%5.4f)
           Failure _d: IPSinsituNBD==1
     Analysis time _t: timeeventY
   Iteration 0: Log likelihood = -352.95765
   Iteration 1: Log likelihood = -352.49011
   Iteration 2: Log likelihood = -352.49011
   Refining estimates:
   Iteration 0: Log likelihood = -352.49011
   Cox regression with no ties
   No. of subjects =
                                                           Number of obs =
                            600
                                                                              600
   No. of failures =
                            56
   Time at risk = 6,277.7945
                                                           LR chi2(1)
                                                                            0.94
   Log likelihood = -352.49011
                                                           Prob > chi2 = 0.3335
                                                             [95% conf. interval]
             _t
                  Haz. ratio Std. err.
                                                   P>|z|
        CollCat
          High
                        1.30
                                   0.35
                                            0.97
                                                   0.3344
                                                                  0.77
                                                                              2.19
74 .
75 . ***
76 .
77 . ***
79 . **** multivariate
80 .
81 . stset timeeventY, failure(ips==1)
   Survival-time data settings
            Failure event: ips==1
   Observed time interval: (0, timeeventY]
        Exit on or before: failure
         1,694 total observations
            0 exclusions
         1,694 observations remaining, representing
          304 failures in single-record/single-failure data
    17,807.405 total analysis time at risk and under observation
                                                   At risk from t =
                                                                            0
                                        Earliest observed entry t =
                                             Last observed exit t = 17.61918
```

82 .

83 . stcox CollScore i.HER2binIHC Age i.ComplExcision TotalSizeCORR i.CytNuclGrade i.Necrosis i.Tam i > .RT, cformat(%9.2f) pformat(%5.4f)

Failure \_d: ips==1 Analysis time \_t: timeeventY

Iteration 0: Log likelihood = -787.27218 Iteration 1: Log likelihood = -750.78743 Iteration 2: Log likelihood = -750.19227
Iteration 3: Log likelihood = -750.1912

Refining estimates:

Iteration 0: Log likelihood = -750.1912

Cox regression with Breslow method for ties

596 No. of subjects = No. of failures = 127

Number of obs = 596

Time at risk = **6,008.1671** 

Log likelihood = -750.1912

LR chi2(11) = 74.16 Prob > chi2 = 0.0000

interval]	[95% conf.	P> z	z	Std. err.	Haz. ratio	_t
1.63	1.11	0.0027	3.00	0.13	1.35	CollScore
						HER2binIHC
2.63	1.26	0.0014	3.19	0.34	1.82	Positive
1.02	0.95	0.3387	-0.96	0.02	0.98	Age
						ComplExcision
2.26	0.87	0.1682	1.38	0.33	1.39	Uncertain
2.88	1.18	0.0072	2.69	0.42	1.85	No
1.04	1.00	0.0247	2.25	0.01	1.02	TotalSizeCORR
						CytNuclGrade
2.77	0.27	0.8130	-0.24	0.51	0.87	Intermediate
3.33	0.35	0.8883	0.14	0.62	1.08	High
						Necrosis
3.82	0.50	0.5318	0.63	0.72	1.38	Yes
						Tam
1.00	0.49	0.0478	-1.98	0.13	0.70	Yes
						RT
0.47	0.19	0.0000	-5.20	0.07	0.30	Yes

84 . 85 . \*\*\*

86 .
87 . \* only validation set

89 . stcox CollScore i.HER2binIHC Age i.ComplExcision TotalSizeCORR i.CytNuclGrade i.Necrosis i.Tam i > .RT if TrainVal!=0, cformat(%9.2f) pformat(%5.4f)

Failure \_d: ips==1 Analysis time \_t: timeeventY

Iteration 0: Log likelihood = -471.3121
Iteration 1: Log likelihood = -449.18266
Iteration 2: Log likelihood = -448.55077
Iteration 3: Log likelihood = -448.54775
Iteration 4: Log likelihood = -448.54775

Refining estimates:

Iteration 0: Log likelihood = -448.54775

Cox regression with Breslow method for ties

No. of subjects = 501 No. of failures = 78 Number of obs = 501

Time at risk = **5,231.1644** 

LR chi2(11) = 45.53Prob > chi2 = **0.0000** 

Log likelihood = -448.54775

interval]	[95% conf.	P>   z	z	Std. err.	Haz. ratio	_t
1.49	0.91	0.2143	1.24	0.15	1.17	CollScore
						HER2binIHC
2.73	1.05	0.0291	2.18	0.41	1.69	Positive
1.0	0.93	0.1849	-1.33	0.02	0.97	Age
						ComplExcision
2.93	0.90	0.1080	1.61	0.49	1.62	Uncertain
3.65	1.16	0.0130	2.48	0.60	2.06	No
1.07	1.02	0.0002	3.69	0.01	1.04	TotalSizeCORR
						CytNuclGrade
4.79	0.20	0.9833	-0.02	0.79	0.98	Intermediate
6.44	0.32	0.6336	0.48	1.10	1.44	High
						Necrosis
7.53	0.37	0.5037	0.67	1.28	1.67	Yes
						Tam
2.36	0.85	0.1764	1.35	0.37	1.42	Yes
						RT
0.72	0.27	0.0012	-3.25	0.11	0.44	Yes

90 . 91 . \*\*\* with TILs

93 . stcox CollScore i.TILcatMED i.HER2binIHC Age i.ComplExcision TotalSizeCORR i.CytNuclGrade i.Necr > osis i.Tam i.RT, cformat(%9.2f) pformat(%5.4f)

Failure \_d: ips==1 Analysis time \_t: timeeventY

Iteration 0: Log likelihood = -780.64676
Iteration 1: Log likelihood = -738.30514
Iteration 2: Log likelihood = -737.54603
Iteration 3: Log likelihood = -737.54506

Refining estimates:

Iteration 0: Log likelihood = -737.54506

Cox regression with Breslow method for ties

No. of subjects = No. of failures = 126 Number of obs = 594

Time at risk = **5,988.589** 

LR chi2(12) = 86.20Prob > chi2 = **0.0000** 

Log likelihood = -737.54506

interval]	[95% conf.	P> z	Z	Std. err.	Haz. ratio	_t
1.60	1.07	0.0087	2.63	0.13	1.31	CollScore
2.98	1.29	0.0015	3.17	0.42	1.96	TILcatMED High
2.27 1.01	1.06 0.95	0.0240 0.1972	2.26 -1.29	0.30 0.02	1.55 0.98	HER2binIHC Positive Age
2.13 2.82	0.84 1.15	0.2168 0.0100	1.24 2.57	0.32 0.41	1.34 1.80	ComplExcision Uncertain No
1.04	1.00	0.0532	1.93	0.01	1.02	TotalSizeCORR
2.54 2.84	0.24 0.28	0.6737 0.8564	-0.42 -0.18	0.47 0.53	0.78 0.90	CytNuclGrade Intermediate High
3.81	0.49	0.5594	0.58	0.71	1.36	Necrosis Yes
1.01	0.50	0.0601	-1.88	0.13	0.71	Tam Yes
0.47	0.19	0.0000	-5.19	0.07	0.30	RT Yes

94 . 95 . \*\*\*

96

97 . \* only validation set

98 .

99 . stcox CollScore i.TILcatMED i.HER2binIHC Age i.ComplExcision TotalSizeCORR i.CytNuclGrade i.Necr > osis i.Tam i.RT if TrainVal!=0, cformat(%9.2f) pformat(%5.4f)

Failure \_d: ips==1
Analysis time \_t: timeeventY

Iteration 0: Log likelihood = -465.1383
Iteration 1: Log likelihood = -438.90325
Iteration 2: Log likelihood = -438.06328
Iteration 3: Log likelihood = -438.05932
Iteration 4: Log likelihood = -438.05932
Refining estimates:

Iteration 0: Log likelihood = -438.05932

Cox regression with Breslow method for ties

No. of subjects = 500 No. of failures = 77 Time at nick = 5 227 2657 Number of obs = 500

Time at risk = **5,227.2657** 

LR chi2(12) = 54.16 Prob > chi2 = 0.0000

Log likelihood = -438.05932

interval]	[95% conf.	P> z	Z	Std. err.	Haz. ratio	t
1.49	0.90	0.2439	1.17	0.15	1.16	CollScore
3.23	1.12	0.0171	2.38	0.51	1.90	TILcatMED High
2.34 1.00	0.87 0.92	0.1601 0.0771	1.40 -1.77	0.36 0.02	1.43 0.96	HER2binIHC Positive Age
2.96 3.66	0.91 1.15	0.1012 0.0144	1.64 2.45	0.49 0.60	1.64 2.05	ComplExcision Uncertain No
1.07	1.02	0.0005	3.49	0.01	1.04	TotalSizeCORR
4.25 5.51	0.17 0.26	0.8355 0.8140	-0.21 0.24	0.70 0.93	0.84 1.20	CytNuclGrade Intermediate High
7.89	0.38	0.4818	0.70	1.34	1.73	Necrosis Yes
2.46	0.88	0.1401	1.48	0.39	1.47	Tam Yes
0.73	0.27	0.0014	-3.19	0.11	0.44	RT Yes

100 . 101 . \*\*\*

102 . \*\* DISTRIBUTION OF INTERACTION TERMS

104 . tabulate Tam, summarize(CollTAM)

	Summa		
Tam Recd	Mean	Std. dev.	Freq.
No	0	0	327
Yes	02308185	.8850983	386
Total	01249592	.6509532	713

106 . tabulate Tam, summarize(CollRT)

Tam Recd		mary of CollRT Std. dev.	Freq.
No Yes	.0028734 .01347038	.52264154 .52676842	327 386
Total	.00861033	.52453813	713

107 .
108 . tabulate RT, summarize(CollTAM)

RT Recd		ary of CollTAM Std. dev.	Freq.
No Yes	03135369 .01977021	.65811727 .63845877	450 263
Total	01249592	.6509532	713

109 .

110 . tabulate RT, summarize(CollRT)

RT Recd		mary of CollRT Std. dev.	Freq.
No Yes	0 .02334284	0 .86450226	450 263
Total	.00861033	.52453813	713

111 . 112 . \*\*\*

113 .

```
Collagen Score Sunday March 31 21:09:57 2024
114 . stcox CollTAM, cformat(%9.2f) pformat(%5.4f)
     Failure _d: ips==1
Analysis time _t: timeeventY
    Iteration 0: Log likelihood = -952.05717
    Iteration 1: Log likelihood = -951.58369
    Iteration 2: Log likelihood = -951.58359
    Refining estimates:
    Iteration 0: Log likelihood = -951.58359
    Cox regression with Breslow method for ties
    No. of subjects =
                             713
                                                            Number of obs =
                                                                                713
    No. of failures =
                             149
    Time at risk
                  = 7,213.4219
                                                             LR chi2(1)
                                                                           = 0.95
    Log likelihood = -951.58359
                                                             Prob > chi2 = 0.3304
              _t
                                                               [95% conf. interval]
                   Haz. ratio Std. err.
                                                    P> | z |
        CollTAM
                         1.13
                                    0.14
                                             0.98
                                                    0.3274
                                                                    0.89
                                                                                1.43
115 .
116 . ***
117 .
118 . * only validation set
```

Time at risk = **6,277.7945** 

Log likelihood	d = -579.272	03		> chi	= 0.2980

600

1.08

IR chi2(1)

_t	Haz. ratio	Std. err.	z	P> z	[95% conf.	interval]
CollTAM	1.16	0.16	1.05	0.2939	0.88	1.53

```
Collagen Score Sunday March 31 21:09:57 2024
121 .
122 . * categories
124 . stcox CollRT, cformat(%9.2f) pformat(%5.4f)
            Failure d: ips==1
      Analysis time _t: timeeventY
    Iteration 0: Log likelihood = -952.05717
    Iteration 1: Log likelihood = -951.22604
Iteration 2: Log likelihood = -951.22594
    Refining estimates:
    Iteration 0: Log likelihood = -951.22594
    Cox regression with Breslow method for ties
    No. of subjects =
                              713
                                                               Number of obs =
    No. of failures =
                              149
    Time at risk
                    = 7,213.4219
                                                                LR chi2(1)
    Log likelihood = -951.22594
                                                                Prob > chi2
               _t
                    Haz. ratio
                                  Std. err.
                                                       P>|z|
                                                                  [95% conf. interval]
          CollRT
                          1.22
                                      0.18
                                               1.29
                                                       0.1964
                                                                       0.90
125 .
126 . ***
127 .
128 . * only validation set
129
130 . stcox CollRT if TrainVal!=0, cformat(%9.2f) pformat(%5.4f)
```

713

1.66

1.64

= 0.1973

```
Failure _d: ips==1
 Analysis time _t: timeeventY
Iteration 0: Log likelihood = -579.81363
Iteration 1: Log likelihood = -578.62932
Iteration 2: Log likelihood = -578.6292
Refining estimates:
Iteration 0: Log likelihood = -578.6292
Cox regression with Breslow method for ties
                                                       Number of obs =
No. of subjects =
                         600
                                                                           600
No. of failures =
               = 6,277.7945
Time at risk
                                                        LR chi2(1)
                                                                        2.37
Log likelihood = -578.6292
                                                        Prob > chi2
                                                                     = 0.1238
         _t
              Haz. ratio
                           Std. err.
                                               P>|z|
                                                          [95% conf. interval]
     CollRT
                    1.32
                               0.23
                                         1.55
                                               0.1215
                                                              0.93
                                                                           1.86
```

131 .

132 . \*\*\*\* Fullest multivariate in all

133

134 . stcox CollScore i.TILcatMED i.HER2binIHC Age i.Complexcision TotalSizeCORR i.CytNuclGrade i.Necr
> osis i.Tam CollTAM i.RT CollRT, cformat(%9.2f) pformat(%5.4f)

Failure \_d: ips==1
Analysis time \_t: timeeventY

Iteration 0: Log likelihood = -780.64676
Iteration 1: Log likelihood = -738.60989
Iteration 2: Log likelihood = -736.68673
Iteration 3: Log likelihood = -736.68166
Iteration 4: Log likelihood = -736.68166

Refining estimates:

Iteration 0: Log likelihood = -736.68166

Cox regression with Breslow method for ties

No. of subjects = 594 No. of failures = 126 Time at risk = 5,988.589 Number of obs = **594** 

Log likelihood = -736.68166

LR chi2(14) = 87.93 Prob > chi2 = 0.0000

_t	Haz. ratio	Std. err.	Z	P> z	[95% conf.	interval]
CollScore	1.50	0.24	2.57	0.0102	1.10	2.04
TILcatMED High	1.90	0.41	2.99	0.0028	1.25	2.90
HER2binIHC Positive Age	1.52 0.98	0.30 0.02	2.13 -1.15	0.0329 0.2486	1.03 0.95	2.23 1.01
ComplExcision Uncertain No	1.31 1.79	0.31 0.41	1.13 2.54	0.2585 0.0112	0.82 1.14	2.09 2.81
TotalSizeCORR	1.02	0.01	2.01	0.0444	1.00	1.04
CytNuclGrade Intermediate High	0.81 0.98	0.49 0.58	-0.35 -0.04	0.7227 0.9664	0.25 0.31	2.65 3.11
Necrosis Yes	1.29	0.68	0.49	0.6271	0.46	3.65
Tam Yes CollTAM	0.75 0.76	0.14 0.16	-1.54 -1.30	0.1232 0.1929	0.52 0.50	1.08 1.15
RT Yes CollRT	0.30 1.03	0.07 0.28	-4.91 0.10	0.0000 0.9228	0.18 0.60	0.48 1.76

135 . 136 . \*\*\*

137 .

138 . \* only validation set

139 .

140 . stcox CollScore i.TILcatMED i.HER2binIHC Age i.Complexcision TotalSizeCORR i.CytNuclGrade i.Necr
> osis i.Tam CollTAM i.RT CollRT if TrainVal!=0, cformat(%9.2f) pformat(%5.4f)

Failure \_d: ips==1
Analysis time \_t: timeeventY

Iteration 0: Log likelihood = -465.1383
Iteration 1: Log likelihood = -438.9013
Iteration 2: Log likelihood = -437.72859
Iteration 3: Log likelihood = -437.72234
Iteration 4: Log likelihood = -437.72234
Refining estimates:

Iteration 0: Log likelihood = -437.72234

Cox regression with Breslow method for ties

No. of subjects = 500 No. of failures = 77 Time at risk = 5,227.2657

LR chi2(14) = 54.83

Number of obs =

Prob > chi2 = 0.0000

500

Log likelihood = -437.72234

_t	Haz. ratio	Std. err.	Z	P>   z	[95% conf.	interval]
CollScore	1.26	0.35	0.84	0.4036	0.73	2.16
TILcatMED High	1.85	0.51	2.26	0.0241	1.08	3.17
HER2binIHC Positive Age	1.42 0.96	0.36 0.02	1.37 -1.72	0.1714 0.0862	0.86 0.93	2.33 1.01
ComplExcision Uncertain No	1.61 2.02	0.49 0.60	1.58 2.37	0.1146 0.0177	0.89 1.13	2.91 3.60
TotalSizeCORR	1.04	0.01	3.53	0.0004	1.02	1.07
CytNuclGrade Intermediate High	0.85 1.25	0.70 0.98	-0.20 0.29	0.8444 0.7745	0.17 0.27	4.30 5.80
Necrosis Yes	1.64	1.28	0.63	0.5285	0.35	7.56
Tam Yes CollTAM	1.53 0.84	0.42 0.25	1.53 -0.57	0.1271 0.5716	0.89 0.47	2.62 1.52
RT Yes CollRT	0.43 1.17	0.12 0.33	-3.15 0.55	0.0016 0.5841	0.26 0.67	0.73 2.04

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141 . 142 . \*\*\*

143 .