Table 30-6 Logistic Regression Analysis: Risk Factors Associated with Discharge Disposition Following Rehabilitation

```
LOGISTIC REGRESSION VARIABLES Discharge
  /METHOD=ENTER ADL Age Marital Gender
  /CONTRAST (ADL)=Indicator(1)
  /CONTRAST (Marital)=Indicator(1)
  /CONTRAST (Gender)=Indicator(1)
  /CLASSPLOT
  /PRINT=GOODFIT CI(95)
  /CRITERIA=PIN(0.05) POUT(0.10) ITERATE(20) CUT(0.5).
```

Logistic Regression

Run using Regression > Binary Logistic

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	100	100.0
	Missing Cases	0	.0
	Total	100	100.0
Unselected Cases		0	.0
Total		100	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
Home	0
LTC	1

Categorical Variables Codings

		Frequency	Parameter coding (1)
Gender	Male	50	.000
	Female	50	1.000
Marital	Married	41	.000
	Not Married	59	1.000
ADL	Independent	44	.000
	Limited	56	1.000

Block 0: Beginning Block

Classification Table[a,b]

Observed			Predicted: Discharge: Home	Predicted: Discharge: LTC	Predicted: Percentage Correct
Step 0	Discharge	Home	56	0	100.0
		LTC	44	0	.0
	Overall Percentage				56.0

a. Constant is included in the model.
b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-.241	.201	1.433	1	.231	.786

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	ADL(1)	6.662	1	.010
		Age	13.278	1	.000
		Marital(1)	8.315	1	.004
		Gender(1)	2.597	1	.107
	Overall Statistics		23.891	4	.000

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	26.855	4	.000
	Block	26.855	4	.000
	Model	26.855	4	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	110.331[a]	.236	.316

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	11.233	8	.189

Contingency Table for Hosmer and Lemeshow Test

		Discharge = Home		Discharge = LTC		
		Observed	Expected	Observed	Expected	Total
Step 1	1	8	9.273	2	.727	10
	2	9	8.330	1	1.670	10
	3	8	6.794	1	2.206	9
	4	5	7.057	5	2.943	10
	5	9	6.380	1	3.620	10
	6	5	5.597	5	4.403	10
	7	6	4.668	4	5.332	10
	8	2	3.985	9	7.015	11
	9	3	2.554	7	7.446	10
	10	1	1.362	9	8.638	10

Classification Table[a]

			Predicted		
			Discharge		Percentage
	Observed		Home	LTC	Correct
Step 1	Discharge	Home	44	12	78.6
		LTC	15	29	65.9
	Overall Percentage				73.0

a. The cut value is .500

Variables in the Equation

								95% C.I.for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	ADL(1)	.965	.481	4.031	1	.045	2.625	1.023	6.736
	Age	.117	.037	10.106	1	.001	1.125	1.046	1.209
	Marital(1)	1.019	.480	4.499	1	.034	2.770	1.081	7.103
	Gender(1)	-.592	.474	1.561	1	.212	.553	.218	1.401
	Constant	-10.274	2.935	12.252	1	.000	.000		

a. Variable(s) entered on step 1: ADL, Age, Marital, Gender.

```
             Step number: 1

             Observed Groups and Predicted Probabilities

       8 +                                                                                                    +
         I                                                                                                    I
         I                                                                                                    I
F        I                                                                                                    I
R      6 +                                                                                                    +
E        I                                                                                                    I
Q        I                                                                      L                             I
U        I                                                                      L                             I
E      4 +                   H      L LL                                L       L                             +
N        I                   H      L LL                                L       L                             I
C        I         L         H      H LL            H                   L       L             LL              I
Y        I         L         H      H LL            H                   L       L             LL              I
       2 +       H H        LH  H   H LH H HL    HH HL  L    LL   L     L       L L  L        LL L            +
         I       H H        LH  H   H LH H HL    HH HL  L    LL   L     L       L L  L        LL L            I
         I   HLHHHHHH HH H  HHH H HHH HH HHHH HH HH HHL L L HHHHLHHH LL L  L H  H H  L L H L  LH LLL          I
         I   HLHHHHHH HH H  HHH H HHH HH HHHH HH HH HHL L L HHHHLHHH LL L  L H  H H  L L H L  LH LLL          I
Predicted ---------+---------+---------+---------+---------+---------+---------+---------+---------+----------
  Prob:   0        .1        .2        .3        .4        .5        .6        .7        .8        .9         1
  Group:  HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL

          Predicted Probability is of Membership for LTC
          The Cut Value is .50
          Symbols: H - Home
                   L - LTC
          Each Symbol Represents .5 Cases.
```

See the Chapter 30 Supplement 2 for explanation of the histogram shown here.