NAME: The ICU Data (ICU.DAT)

KEYWORDS: Logistic Regression

SIZE: 200 observations, 21 variables

SOURCE: Hosmer and Lemeshow (2000) Applied Logistic Regression: Second

Edition. These data are copyrighted by John Wiley & Sons Inc. and must

be acknowledged and used accordingly. Data were collected at Baystate

Medical Center in Springfield, Massachusetts.

DESCRIPTIVE ABSTRACT:

The ICU data set consists of a sample of 200 subjects who were part of

a much larger study on survival of patients following admission to an adult

intensive care unit (ICU). The major goal of this study was to develop a

logistic regression model to predict the probability of survival to hospital

discharge of these patients and to study the risk factors associated with

ICU mortality. A number of publications have appeared which have focused on

various facets of the problem. The reader wishing to learn more about the

clinical aspects of this study should start with Lemeshow, Teres, Avrunin,

and Pastides (1988).

LIST OF VARIABLES:

Column

Position Name Codes/Values Abbreviations

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6-8 Identification Code ID Number ID

11 Vital Status 0 = Lived STA

1 = Died

14-15 Age Years AGE

18 Sex 0 = Male SEX

1 = Female

21 Race 1 = White RACE

2 = Black

3 = Other

24 Service at ICU Admission 0 = Medical SER

1 = Surgical

27 Cancer Part of Present 0 = No CAN

Problem 1 = Yes

30 History of Chronic Renal O = No CRN

Failure 1 = Yes

33 Infection Probable at ICU 0 = No INF

Admission 1 = Yes

36 CPR Prior to ICU Admission 0 = No CPR

1 = Yes

39-41 Systolic Blood Pressure at mm Hg SYS

ICU Admission

44-46 Heart Rate at ICU Admission Beats/min HRA

49 Previous Admission to an ICU 0 = No PRE

within 6 Months 1 = Yes

52 Type of Admission 0 = Elective TYP

1 = Emergency

55 Long Bone, Multiple, Neck, 0 = No FRA

Single Area, or Hip Fracture 1 = Yes

58 PO2 from Initial Blood Gases 0 = > 60 PO2

1 = < 60

61 PH from Initial Blood Gases 0 => 7.25 PH

1 =< 7.25

64 PCO2 from initial Blood 0 = < 45 PCO

Gases 1 = > 45

67 Bicarbonate from Initial 0 = > 18 BIC

Blood Gases 1 = < 18

70 Creatinine from Initial Blood 0 = < 2.0 CRE

Gases 1 = > 2.0

73 Level of Consciousness at ICU O = No Coma LOC

Admission or Stupor

1 = Deep

stupor

2 = Coma

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PEDAGOGICAL NOTES:

These data have been used to fit an ordinary logistic regression

model and for various exercises involving logistic regression.

REFERENCES:

1. Hosmer and Lemeshow, Applied Logistic Regression, Wiley, (1989).

2. Lemeshow, S., Teres, D., Avrunin, J. S., Pastides, H. (1988). Predicting

the Outcome of Intensive Care Unit Patients. Journal of the American

Statistical Association, 83, 348-356.