



Atherosclerosis Risk in Communities Study

Cohort Surveillance

Stroke Derived Variable Dictionary

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1. COMPDIAG

Purpose

To determine the stroke diagnosis by computer algorithm.

Description

COMPDIAG is the computer diagnosis for stroke events. Values A-H represent definite or probable strokes, value I represents possible strokes with undermined type, and values J-L represent no strokes. See COMP_DX for formatted version of this variable. Also see stroke classification algorithm in manual 3 for details.

Type

Stroke

Algorithm

COMPDIAG	Description
A	Definite Subarachnoid Hemorrhage (SAH)
B	Definite Brain Hemorrhage (IPH)
C	Definite Brain Infarction, Thrombotic (TIB)
D	Definite Brain Infarction, Non-carotid Embolic (EIB)
E	Probable SAH
F	Probable IPH
G	Probable TIB
H	Probable EIB
I	Possible Stroke of Undetermined Type
J	If not A - I (No Stroke)
K	COMPDIAG =J & DTH18 in 430-438 & STR2=N & not OHD (Undocumented (no chart) Fatal Cases with Stroke Codes)
L	COMPDIAG =J and DTH18 in 430-438 & OHD (Out of Hospital Deaths with Stroke Codes)

Related variables

COMP_DX, DTH18 (underlying cause of death), EVENTYPE, FINAL_DX, FINALDX, STR2 (hospital chart)

2. COMP_DX

Purpose

To determine the formatted value of stroke diagnosis by computer algorithm.

Description

COMP_DX is the formatted value of COMPDIAG for stroke computer diagnosis.

Type

Stroke

COMP_DX	Description
DEF_SAH	if COMPDIAG = A (Definite SAH)
DEF_IPH	if COMPDIAG = B (Definite IPH)
DEF_TIB	if COMPDIAG = C (Definite TIB)
DEF_EIB	if COMPDIAG = D (Definite EIB)
PROB_SAH	if COMPDIAG = E (Probable SAH)
PROB_IPH	if COMPDIAG = F (Probable IPH)
PROB_TIB	if COMPDIAG = G (Probable TIB)
PROB_EIB	if COMPDIAG = H (Probable EIB)
POSS_STR	if COMPDIAG = I (Possible Stroke of Undetermined Type)
NO_STR	if COMPDIAG = J (No stroke)
UNDC_STR	if COMPDIAG = K (Undocumented Fatal Cases with Stroke Codes)
OHD_STR	if COMPDIAG = L (Out-of-Hospital Deaths with Stroke Codes)

Related Variables

COMPDIAG, FINAL_DX, FINALDX

3. FINALDX

Purpose

To determine the final stroke classification.

Description

FINALDX takes adjudication values if present, or reviewer's diagnosis if agree with computer diagnosis, or computer's diagnosis if MMCC reviews are not required. See FINAL_DX for formatted version of this variable.

Type

Stroke

Remarks

1. Since the protocol was changed from 2 reviewers to 1 reviewer, one of the reviewer's diagnosis was randomly selected to perform the following algorithm for determining the final diagnosis.
2. Adjudication values and cases meeting exclusionary conditions are in small letters. Since FINALDX contains capital and small letter characters, it is advised that you **change all characters to uppercase (UPCASE in SAS)** whenever appropriate.

Algorithm

FINALDX	Description
COMPDIAG	If MMCC reviews are not required (skipouts: OHD, no chart or no neurological symptoms/signs. COMPDIAG= J, K or L for these cases.)
SDX5	if adjudicated cases, or if reviewer diagnosis=computer diagnosis (SDX5 takes values of A-J)
j	if meets exclusionary conditions
K	if upcase(FINALDX)=J & DTH18 in 430-438 & STR2=N & not OHD (Undocumented Fatal Cases with Stroke Codes)
L	if upcase(FINALDX)=J & DTH18 in 430-438 & OHD (Out of Hospital Deaths with Stroke Codes)

Related Variables

COMPDIAG, COMP_DX, DTH18 (underlying cause of death), FINAL_DX, SDX5 (reviewer's stroke diagnosis), STR2 (hospital chart)

4. FINAL_DX

Purpose

To determine the formatted value of final stroke classification.

Description

FINAL_DX is the formatted value of the upcased FINALDX.

Type

Stroke

Algorithm

FINAL_DX	Description
DEF_SAH	if upcase(FINALDX) = A (Definite SAH)
DEF_IPH	if upcase(FINALDX) = B (Definite IPH)
DEF_TIB	if upcase(FINALDX) = C (Definite TIB)
DEF_EIB	if upcase(FINALDX) = D (Definite EIB)
PROB_SAH	if upcase(FINALDX) = E (Probable SAH)
PROB_IPH	if upcase(FINALDX) = F (Probable IPH)
PROB_TIB	if upcase(FINALDX) = G (Probable TIB)
PROB_EIB	if upcase(FINALDX) = H (Probable EIB)
POSS_STR	if upcase(FINALDX) = I (Possible Stroke of Undetermined Type)
NO_STR	if upcase(FINALDX) = J (No stroke)
UNDC_STR	if upcase(FINALDX) = K (Undocumented Fatal Cases with Stroke Codes)
OHD_STR	if upcase(FINALDX) = L (Out-of-hospital Deaths with Stroke Codes)

Related Variables

COMP_DX, COMPDIAG, FINALDX, SDX3 (exclusionary conditions for diagnostic criteria)

5. EVENTYPE

Purpose

To determine the event type classification for stroke events.

Description

EVENTYPE is a character variable for event type determined by STR15 and derived variable EVTYPE01. The outcome O is for out-of-hospital death, I for in-hospital death, and N for non-fatal events.

Type

Stroke

Algorithm

EVENTYPE	Description
EVTYPE01	if EVTYPE01 is not missing
N	if EVTYPE01 is missing, and STR15=A
I	if EVTYPE01 is missing, and STR15=D

Related Variables

EVTYPE01(event type variable defined in CHD Surveillance), STR15 (discharged alive or dead)

6. YEAR

Purpose

To define the stroke event year.

Description

YEAR is the admission or discharge/death year that is determined by the listing order STR12, STR14, CEL04, HRA14, DTH09.

Type

Stroke

Algorithm

YEAR is the year from the listing order: STR12, STR14, CEL04, HRA14 or DTH09, minus 1900.
The resulting value of YEAR is a 2-digit number.

Related Variables

STR12 (date of admission), STR14 (date of discharge), CEL04 (date of discharge/death), HRA14 (date of discharge/death), DTH09 (date of death).

7. SK_ELIG2

Purpose

To determine eligibility for stroke abstractions.

Description

A cohort event is eligible for stroke investigation if 1) hospitalized events has stroke related terms in the discharge summary, or has eligible stroke ICD codes; 2) if the underlying cause of death for out-of-hospital deaths contains ICD-9 codes 430-438; 3) if transferred from/to an eligible event. Note that events prior to 1997 that have ICD-9 code 430-438 were eligible for stroke abstractions. At and after 1997, only code 430-436 was abstracted for stroke. The distributed 1987-1997 stroke files only included eligible events (SK_ELIG2=1-3).

Type

Stroke

Algorithm

SK_ELIG2	Description
1	Cohort hospitalized events with stroke* ICD codes (eligible)
2	Out-of-hospital deaths with ICD-9 code 430-438 in the underlying case of death (eligible)
3	Transfers from/to an eligible stroke event whose SK_ELIG2=1 (eligible)
4	Hospitalized events contains only ICD-9 code 437-438 in and after year 1997
5	Events with stroke history in HRA form (ineligible)
.C	Confirmed events that were not eligible
0	Other ineligibles

Related Variables

CEL11E, CEL10, DTH18, STR11

8. ID

Purpose

To determine a stroke event ID.

Description

ID is a character variable. ID is a unique identifier for each stroke event. There may be multiple ID values for a cohort participant ID if the participant has multiple stroke events.

Type

Stroke

Related Variables

CHRT_ID, CELB02

9. **CHRT_ID**

Purpose

To map a surveillance ID to the Cohort participant ID.

Description

CELB02 is a character variable. CELB02 is the cohort participant ID from question number 2 of the Cohort Event Eligibility (CEL) form. CELB02 is the same for all occurrences within a person. For any community surveillance occurrence that is not for an ARIC cohort participant CELB02 is missing.

Type

Stroke

Related Variables

CELB02

10. TEACHING

Purpose

To determine hospital's teaching status

Description

TEACHING is a character variable. It is derived from STRC1A to determine the teaching status of each hospital.

Type

Stroke

Algorithm

See algorithm of STRC1A for the details.

Related Variables

STRC1A