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VITAL STATISTICS INSTRUCTION MANUAL  
ON  
MEDICAL CERTIFICATION AND RULES  
FOR MORTALITY CLASSIFICATION  
UNDER THE  
INTERNATIONAL CLASSIFICATION OF DISEASES  
7th (1955) Revision  
1962

DOES NOT CONTAIN  
NE PAS PÊLER

DOMINION BUREAU OF STATISTICS  
Health and Welfare Division  
Vital Statistics Section

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## INTRODUCTION

### Definition of 'underlying cause of death' (1)

A 'cause' of death is the morbid condition or disease process, abnormality, injury, or poisoning leading directly, or indirectly, to death. Symptoms or modes of dying, such as heart failure, asthenia, etc., are not considered to be 'causes' of death for statistical purposes.

The problem of classifying causes of death for vital statistics is relatively simple when only one cause of death is involved. However, in many cases, two or more morbid conditions contribute to the death. In such cases, it has been the traditional practice in vital statistics to select one of these causes for tabulation. This cause has been variously described in the past as "the cause of death", "primary cause of death", "principal cause of death", "fundamental cause of death", etc. In order to make uniform the terminology and procedure for selecting the cause of death for primary tabulation, it was agreed by the Sixth Decennial International Revision Conference that the cause to be tabulated should be designated the underlying cause of death.

In the past this cause has been selected in various ways in different countries. From the standpoint of prevention of deaths, it is important to cut the chain of events or institute the cure at some point. The most effective public health objective, of course, is to prevent the precipitating or initiating cause from operating. For these purposes, the most useful single statistic is that relating to the underlying cause of death, which may be defined as (a) the disease or injury which initiated the train of morbid events leading directly to death, or (b) the circumstances of the accident or violence which produced the fatal injury.

In order to secure uniform application of the above principle, it is implicit that the medical certification form approved by the International Revision Conference should be used. The use of such a form places the responsibility for indicating the train of events on the physician or surgeon signing the medical certificate of death. It is assumed, and rightly so, that the certifying medical practitioner is in a better position than any other individual to decide which of the morbid conditions led directly to death and to state the antecedent conditions, if any, which gave rise to this cause.

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(1) Extracted from Vol. 1, International Classification of Diseases (short title) 7th (1955) Revision, WHO, Geneva.

# INTERNATIONAL FORM OF MEDICAL CERTIFICATE OF CAUSE OF DEATH

The medical certificate of death shown on page 359 of the International Classification of Diseases, Injuries, and Causes of Death(2) is designed to elicit the information which will facilitate the selection of the underlying cause of death when two or more causes are jointly recorded.

The form of medical certificate (see sample below) may be considered as consisting of two parts I and II, which are designated for convenience as:

- I(a) Direct cause  
(due to)
- (b) Intervening antecedent cause  
(due to)
- (c) Underlying cause

II Other significant conditions contributing to the death but not related to the disease or condition causing it.

In Part I is reported the cause leading directly to death stated on line (a) and also the antecedent conditions, (lines (b) and (c), which gave rise to the cause reported in line (a), the underlying cause being stated last in the sequence of events. However, no entry is necessary in lines (b) and (c) if the disease or condition directly leading to death stated in line (a), describes completely the train of events.

In Part II is entered any other significant condition which unfavourably influenced the course of the morbid process, and thus contributed to the fatal outcome, but which was not related to the disease or condition directly causing death.

	CAUSE OF DEATH	Approximate interval between onset and death
I		
Disease or condition directly leading to death*	(a) .....	
	due to (or as a consequence of)	
Antecedent causes	(b) .....	
	( due to (or as a consequence of)	
Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	(c) .....	
II		
Other significant conditions contributing to the death, but not related to the disease or con- dition causing it	( ..... ( ..... ( .....	

\* This does not mean the mode of dying, e.g., heart failure, asthenia, etc. It means the disease, injury, or complication which caused death

RULES FOR SELECTION OF CAUSE OF DEATH  
FOR PRIMARY TABULATION

The rules are set out in pp. 359-368 of Volume I ICD (7th - 1955 Rev.) they include:

- A The General Rule
- B Selection Rules (Nos. 1-8)
- C Modification Rules (Nos. 9-15)

Function of the Rules(3)

The coder is primarily concerned with procedure for selecting the underlying cause of death. Thus, the rules are guides or tools to assist him in selecting, out of two or more conditions, the one which was the starting point in the sequence of morbid events which led to death.

When only one cause of death is recorded, this cause is, of course, coded according to the ICD. In the case of injury both the circumstances which gave rise to the injury i.e., the external cause ("E" code) and the nature of the injury ("N" code) will be selected.

When more than one cause of death is reported, the underlying cause is selected in accordance with the following rules.

General Rule

In a properly completed certificate of cause of death, the conditions in Part I will be entered in a correct etiological order of sequence with the direct or immediate cause entered on line I(a) and the underlying cause on the lowest used line in Part I. Thus the coder will apply the General Rule, selecting the underlying cause for tabulation.

However, when the certifier obviously has not followed the pattern of entry on the medical certificate i.e., where he has not entered the causes in a proper etiological order of sequence, the coder has two alternatives - query, or apply what we call a "Selection Rule", of which there are 8.

Selection Rules

The Classification lays down a number of sequences of conditions which should be regarded as "highly improbable". They are set out on pp. 369-370 of Vol. I, and are dealt with further in Section (E) pp. 33-35) of this manual. It also lays down a number of conditions which may be accepted as "possible" sequences, but these will be studied later (p.36 ).

When the certifier makes no attempt to indicate which condition he considers to be the underlying cause, the coder applies a Selection Rule, of which the following are illustrations. When two or more conditions are entered on the same line with no indication of which was the underlying cause the coder applies Supplementary Rule 8, of the Selection Rules and makes the assignment to whichever in Rule 8 would apply. If conditions are reported in a "highly improbable" order of sequence, for example, if 'cancer of lung' is reported as due to 'tuberculosis

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(3) Condensed from WHO/HS/ICD/8-1961.



of lung', then the coder applies the appropriate Selection Rule which would be Rule 6. If the condition in Part I is unquestionably a direct result of the condition in Part II, then the coder selects the underlying cause which is in Part II by applying Selection Rule 7; for example, if the name of an operation is reported in I and the condition for which the operation was performed is in Part II select that condition in Part II.

In the majority of cases, however, conditions are entered on separate lines in Part I and the coder must decide whether the sequence as stated is an acceptable one. If it is, he will apply the General Rule. If the sequence is not acceptable, he will apply one of the Selection Rules.

#### Modification Rules

When the underlying cause has been selected (whether by the General Rule or one of the Selection Rules) the actual assignment may be changed by the Modification Rule to one which gives more precise or more useful information than would assignment to the straight selected cause. The Modification Rules are in fact arbitrary departures from the underlying cause principle mentioned above but they are only used in fairly well-defined circumstances; they do not normally cause much difficulty in application. For example in a certification which read "Meningitis due to tuberculosis", the tuberculosis would be selected in accordance with the General Rule, but, 'tuberculosis' can be considered a qualifying adjective to modify the cause immediately above (i.e., tuberculous meningitis). Therefore modification Rule 12 is applied, assignment being made to (010) rather than to "tuberculosis of an unspecified site" (008).

#### Unrelated Conditions

In the rules which follow there is frequent use made of the term "unrelated conditions". By this term we mean that there was no causal relationship between the two diseases. In other words, one disease could not cause the other. For example "pulmonary carcinoma" and "pulmonary tuberculosis" may be reported in Part I. For coding purpose they are considered unrelated, although both are diseases of the lung.

A - GENERAL RULE

Select the underlying cause, i.e., the starting point in the sequence of events leading to death. In a properly completed certificate, the condition forming this sequence will be entered in order in Part I with the underlying cause stated on the lowest used line.

The following examples show the pattern of a probable sequence leading to death:

Example 1:

	I(a) Terminal bronchopneumonia .....	4 days
due to	(b) Congestive heart failure .....	weeks
due to	(c) Arteriosclerotic heart disease ..	years

By applying the General Rule the 'underlying cause' would, in this case, be 'arteriosclerotic heart disease' (420.0).

Example 2:

I(a) Bronchopneumonia
(b) Intestinal obstruction
(c) Carcinoma of large intestine

Select 'carcinoma of large intestine' as the underlying cause.  
Code (153.8).

Example 3:

I(a) Haemorrhage
(b) Ruptured varicose veins of oesophagus
(c) Cirrhosis of liver

Select 'cirrhosis of liver' as the underlying cause.  
Code (581.0).

If, on the other hand the order of entry, in 'example 1', of the same causes were inverted this is described as a highly improbable sequence and will be dealt with in Selection Rule 1.



B - SELECTION RULES

Rule 1 - Improbable Sequence

Where two or more conditions are entered on different lines in I in a highly improbable sequence, and a rearrangement in I of the same conditions would give a probable sequence, assume the rearrangement to be correct and select the underlying cause accordingly.

Example 1:

	I(a) Arteriosclerotic heart disease .....	4 years
<u>due to</u>	(b) Congestive heart failure .....	weeks
<u>due to</u>	(c) Terminal bronchopneumonia .....	4 days

Select 'arteriosclerotic heart disease' by applying Rule 1.  
Code (420.0).

Example 2:

I(a) Perforated gastric ulcer  
(b) Peritonitis

Select 'perforated gastric ulcer' as the underlying cause.  
Code (540.1).

Example 3:

I(a) Carcinoma of gallbladder  
(b) Cholangitis  
(c) Jaundice

Select 'carcinoma of gallbladder' (155.1) the interpretation notes of 'highly improbable' as described earlier on p. 4, include malignant neoplasms when reported "due to" any other disease.

B - SELECTION RULES - continued

Rule 2 - Sequence and unrelated conditions; sequence terminating in I(a)

Where more than two conditions are entered in I so as to provide a sequence terminating in, or involving, the condition entered in I(a) or in the first mentioned condition in I(a), plus one or more conditions unrelated to this sequence, consider the unrelated condition(s) to be in II, and select the underlying cause accordingly.

Example 1:

- I(a) Septicaemia, gangrene
- (b) Diabetes mellitus
- (c) Rheumatic heart disease

Select 'diabetes with gangrene', and consider rheumatic heart disease to be in II.  
Code (260.)

Example 2:

- I(a) Bronchopneumonia
- (b) Measles
- (c) Spastic paralysis

Select 'measles with bronchopneumonia', and consider 'spastic paralysis' to be in II.  
Code to (085.1).

Example 3:

- I(a) Coronary occlusion
- (b) Coronary arteriosclerosis
- (c) Old fractured hip

Select 'coronary arteriosclerosis' (420.1) and consider 'old fractured hip' to be in II.

B - SELECTION RULES - Continued

Rule 3 - Sequence and unrelated conditions; sequence not terminating in I(a).

Where more than two conditions are entered in I so as to provide a sequence not terminating in or involving the condition entered in I(a) or in the first-mentioned condition in I(a), plus one or more conditions unrelated to this sequence, select the underlying cause by applying Rules 8(b), 8(c), 8(f), in that order to the sequence and the unrelated conditions.

Example 1:

- I(a) Sinusitis
- (b) Peritonitis
- (c) Appendicitis

Select 'appendicitis with peritonitis' by applying Rule 8(c), and consider 'sinusitis' to be in II.  
Code (550.1).

Example 2:

- I(a) Chronic bronchitis
- (b) Fractured neck of femur
- (c) Fall on floor at home

Select 'fall on floor, with fracture, neck of femur' by applying Rule 8(b).  
Code to (E903.0, N820).

Example 3:

- I(a) Coronary arteriosclerosis
- (b) Intestinal obstruction
- (c) Constipation

Select 'coronary arteriosclerosis' by applying Rule 8(f), and code to (420.1), consider 'coronary arteriosclerosis' to be the unrelated cause.

B - SELECTION RULES - Continued

Rule 4 - Two underlying causes

Where more than two conditions are entered in I so as to provide two unrelated underlying causes of a sequence, select one of them by applying Rules 8(b) to 8(f) (in that order).

Example 1:

- I(a) Bronchopneumonia
- (b) Measles
- (c) Influenza

Select 'measles, with bronchopneumonia' by applying Rule 8(f)  
Code to (085.1).

Example 2:

- I(a) Aortic aneurysm
- (b) Syphilis
- (c) Arteriosclerosis

Select 'syphilis (syphilitic aortic aneurysm)' by applying  
Rules 8(d) and Modification Rule 12.  
Code to (022.) See p.4 for explanation of the Modification Rule.

Example 3:

- I(a) Myocardial degeneration
- (b) Chronic bronchitis and rheumatoid
- (c) Arthritis

Select 'chronic bronchitis' by applying Rule 8(f).  
Code (502.1)



B - SELECTION RULES - Continued

Rule 5 - Two Sequences

Where more than two conditions are entered in I so as to provide two sequences, with or without a reported underlying condition common to both of them, select the underlying cause of the sequence first mentioned on the certificate and consider the conditions which are not part of this sequence to be in II.

Example 1:

- I(a) Ischaemic necrosis of pancreas
- (b) Ménière's disease
- (c) Arteriosclerosis

Select 'arteriosclerosis (450.0). The two sequences are 'ischaemic necrosis of pancreas' due to 'arteriosclerosis', and 'Ménière's disease due to arteriosclerosis.

Example 2:

- I(a) Cor pulmonale
- (b) Oesophageal varices
- (c) Cirrhosis of liver and chronic bronchitis

Select 'chronic bronchitis' (502.1). The two sequences are 'cor pulmonale due to 'chronic bronchitis' and 'oesophageal varices' due to 'cirrhosis of liver'.

Example 3:

- I(a) Cerebral haemorrhage
- (b) Hypertension
- (c) Coronary occlusion

Select 'cerebral haemorrhage (331) due to hypertension'. The two sequences are 'cerebral haemorrhage' due to 'hypertension' and 'coronary occlusion' due to 'hypertension'. Hypertension can cause both, but coronary occlusion cannot cause cerebral haemorrhage. See also "Highly Improbable Notes" on p. (35).

B - SELECTION RULES - Continued

Rule 6 - No Sequence

Where two or more unrelated conditions are entered on different lines in Part I, select the underlying cause by applying Rules 8(b), 8(c), or 8(f) (in that order). This rule should also be applied when multiple congenital malformations are entered on different lines in Part I.

Example 1:

- I(a) Pulmonary tuberculosis
- (b) Carcinoma of lung

Select 'pulmonary tuberculosis', (002.) by applying Rule 8(f).

Example 2:

- I(a) Bronchogenic carcinoma
- (b) Syphilis
- (c) Gunshot wound to head with skull fracture -  
suicide

Select 'suicide by firearms, with fracture of skull' (E976, N803) by applying Rule 8(b).

Example 3:

- I(a) Diabetic coma
- (b)
- (c) Far advanced pulmonary tuberculosis

Select 'diabetes' (260.) by applying Rule 8(c).

B - SELECTION RULES - continued

Rule 7 - Sequence with II

Where the presumptive underlying condition in I is unmistakably a direct sequel of the condition in II, or is an operation or other form of therapy presumably administered for the condition entered in II, select the condition in II as the underlying cause.

For example, Rule 7 is generally applied if the following were reported in Part I:

- i pneumonia terminal to a 'recent' operation or 'recent' trauma reported in Part II; the term 'recent' is limited to under four weeks;
- ii embolism, thrombosis, or thrombophlebitis, terminal to a recent operation or trauma in Part II;
- iii cerebral or coronary embolism in Part I with a recent operation or trauma in Part II. This must first be considered whether or not it was due to hypertension, arteriosclerosis, cardiovascular or cerebrovascular disease, in which case Rule 7 would not apply.

Example 1:

I(a) Bronchopneumonia 1 wk.

II Brain tumour 2 mo.  
ependymoma, operation 7 days.

Select 'ependymoma, brain', (193.0) by applying Rule 7.

Example 2:

I(a) Pulmonary embolism 12 hr.

II Fracture of femur 12 hr.  
Fell out of bed (hospital)

Select 'fall from one level to another' (E902.7-N821) by applying Rule 7.

B - SELECTION RULES - Continued

Rule 7 - Sequence with II - Concluded

Example 3:

I(a) Thrombophlebitis 1 day

II Intestinal obstruction 11 days

"Operation Nov. 4/61, obturator hernia causing intestinal obstruction. Died Nov. 5/61."

Select 'hernia with obstruction' (561.4) by applying Rule 7.

Example 4:

I(a) Hypostatic pneumonia

II Cardiovascular degeneration

Select 'cardiovascular degeneration' (422.1) as the underlying cause, by applying Rule 7. (Hypostatic pneumonia is a terminal condition.)

However Rule 7 would not apply in the following case:

I(a) Coronary thrombosis 3 hr.

(b) Previous coronary episode 1 year ago

II Intertrochanteric fracture rt. femur 8 days

"Operation: reduction, insertion of Jewett nail."

Select coronary thrombosis (420.1) by applying the General Rule; (as pointed out under iii above, the coronary episode was of long-standing duration and not the effect of the fractured femur reported in II.)



B - SELECTION RULES - Concluded

Rule 8 - Supplementary

When two or more conditions are entered on the certificate in such a way that none of them can be regarded as the underlying cause (e.g., when they are entered on the same line separated by "and" or a comma), the following rules (a) to (f) should be used in alphabetical order to select the underlying cause.

- (a) If one condition is frequently a result of the other, prefer the primary condition to the resulting condition.

Example: I(a) Scarlet fever and acute nephritis  
Code to 'scarlet fever' (050.)

- (b) If one condition is an accident, poisoning, or violence, but not a late effect of these, prefer that condition.

Example: I(a) Cancer of stomach and fracture of skull from fall downstairs, home.  
Code to 'fall on stairs' (E900.0) and 'fracture of skull' (N803).

- (c) If there is a significant difference in the apparent seriousness of the conditions reported, in that one is, for example, a surgical emergency, or a very grave condition, whereas the other(s) are not, prefer the serious condition.

"A surgical emergency" may be defined as an acute or sudden onset of a condition which requires immediate surgical intervention, such as: perforation, rupture or strangulation of an internal organ (appendicitis) (ectopic pregnancy) (hernia) (absence of anus or rectum) etc.

Example: I(a) Cardiovascular disease and acute appendicitis with peritonitis.  
Code to 'acute appendicitis with peritonitis' (550.1)

- (d) If one condition is classifiable to the infective and parasitic group (001-138) or to influenza (480-483), and the others are not, prefer the infectious or influenzal group.

Example I (a) Acute bronchitis and influenza.  
Code to 'influenza' (481).

- (e) If the conditions are chronic and their durations are stated, prefer the condition of longer duration.

Example: I(a) Chronic ulcerative colitis 3 years and bronchiectasis 5 years  
Code to 'bronchiectasis' (526)

- (f) Prefer the first mentioned.

Example I(a) Lobar pneumonia and chronic asthma  
Code to 'lobar pneumonia' (490.)

C - MODIFICATION RULES

Rule 9 - Senility

Where the selected underlying cause is classifiable to senility (794) and there is a condition reported elsewhere than to 780-795, code to the latter condition, but take account of the senility if it modifies the coding.

Example 1:

- I(a) Cerebral haemorrhage
- (b) Old age

Code to 'cerebral haemorrhage' (331).

Example 2:

- I(a) Arthritis
- (b) Senility

Code to 'senile arthritis' (723.0). Senility modifies the code of arthritis to become 'senile arthritis'.

Example 3:

- I(a) Senility
- II Myocardial degeneration

Code to 'myocardial degeneration' (422.2)

C - MODIFICATION RULES - Continued

Rule 10 - Ill-defined condition

Where the selected underlying cause is classifiable to 773, 780 to 793, or 795 (the ill-defined conditions) and some other condition classifiable elsewhere than to 773, or 780 to 795 is also reported, proceed as follows:

- (a) if the other condition is entered in Part I, code to that condition;

Example: I(a) Pericarditis  
(b) Uraemia

Code to 'pericarditis' (434.3)

- (b) if the other condition is entered in Part II, and could have been the cause of the ill-defined condition, code to the other condition;

Example: I(a) Splenomegaly

II Amyloidosis

Code to 'amyloidosis' (289.1)

- (c) if the other condition is entered in Part II, and it is highly improbable that it could have been the cause of the ill-defined condition, code to the ill-defined condition in Part I;

Example: I(a) Haematemesis, unknown cause

II Senile cataract

Code to 'haematemesis' (784.5)

If the other condition is selected, take account of the ill-defined condition if it modifies the coding.

Example: I(a) Debility  
(b) Starvation

II Voluntary starvation, male of 60 years.

Code to 'voluntary starvation' (age - 65) (309).

A condition assignable to 773, 780-793, or 795 in Part I, and unrelated to the underlying cause may be ignored.

Example: I(a) Hepatitis of the newborn  
(b) Patent ductus arteriosus

Code to 'patent ductus arteriosus' (754.1)

C - MODIFICATION RULES - Continued

Rule 11 - Linkage

Where the selected underlying cause is linked by a provision in the International Classification with one or more of the other conditions on the certificate, code to the combination.

Where the linkage provision is only for the combination of one condition due to another, code to the combination only when the two causes are stated in the correct causal relationship or can be assumed to be so after application of the Selection Rules.

Where a conflict between linkages occurs, proceed as follows:

- (i) link with a condition in Part I before a condition in Part II;
- (ii) of two or more conditions in Part I, link with the one which could give rise to the other(s);
- (iii) if this does not apply, link with the first-mentioned.

Example 1:

- I(a) Auricular fibrillation
- (b) Myocardial degeneration
- (c) Nephrosclerosis

Nephrosclerosis is assignable to 'hypertensive kidney' (446) with heart involvement (422) and (433) this in turn is assignable to hypertensive cardiorenal (442).  
Code to (442)

Example 2:

- I(a) Parkinson's disease
- (b) Arteriosclerosis

Code to 'arteriosclerotic Parkinson's disease' (350). This category includes 'Parkinson's disease' when reported as "due to" arteriosclerosis.

Example 3:

- I(a) Arteriosclerosis
- II Parkinsonism

Code to 'arteriosclerosis' (450.0) according to the General Rule. There will be no linkage because 'arteriosclerosis' was not stated as the underlying cause of 'Parkinsonism'.



C - MODIFICATION RULES - Continued

Rule 11 - Linkage - Concluded

Example 4:

- I(a) Cerebral thrombosis
- (b) Arteriosclerosis

II Coronary artery disease

Link 'arteriosclerosis' with the condition in I, in accordance with item (i) above.

Code to 'cerebral thrombosis' (332).

Example 5:

- I(a) Cerebral haemorrhage
- (b) Hypertension
- (c) Coronary infarction

'Hypertension' is obviously the underlying cause of the other conditions, since 'coronary infarction' cannot give rise to 'cerebral haemorrhage', thus linkage is with the first mentioned cause.

Code to (331).

Example 6:

- I(a) Hemiplegia
- (b) Coronary arteriosclerosis
- (c) Hypertension and arteriosclerosis

Code to 'hypertension with coronary arteriosclerosis' since this can give rise to 'hemiplegia'.

Code to (420.1).

C - MODIFICATION RULES - Continued

Rule 12 - Adjectival Modifiers

Where the selected underlying cause can be considered equivalent to an adjective qualifying the condition immediately above it, (or can be placed immediately above it after application of the Selection Rules) and the composite term appears in the International Classification, code to the composite term, with the following exceptions -

a) This does not apply to 'heart disease' due to arteriosclerosis". This is coded to 450.0 and not to 'arteriosclerotic heart disease'. The 420.0 category is used only when the term "arteriosclerotic heart disease" is so described.

b) This rule does not apply to "meningitis" 'due to' "influenza". Do not code as 'influenzal meningitis' (340.0); assignment is instead made to 'influenza with nervous manifestations' (483).

Example 1:

- I(a) Aneurysm of aorta
- (b) Arteriosclerosis

Code to (451) 'arteriosclerotic aneurysm of aorta'.

Example 2:

- I(a) Arteriosclerosis
- (b) Endocarditis, mitral valve

Code to (421.0) 'Arteriosclerotic mitral valvular disease', after applying Rule 1.

Example 3:

- I(a) Valvular heart disease (aortic)
- (b) Old rheumatic fever

Code to (411) 'rheumatic aortic valvular disease'.

C - MODIFICATION RULES - Continued

Rule 13 - Specificity

Where the selected underlying cause describes a disease in general terms and a more precise description of the same disease is reported elsewhere on the certificate, code to the latter.

This rule also applies when the selected underlying cause is an early stage of a disease and a more advanced stage of the same disease is reported elsewhere on the certificate. It does not apply to a 'chronic' form "due to" an 'acute' form unless the Tabular List gives special instructions to that effect.

Example 1:

- I(a) Eclampsia
- (b) Toxaemia of pregnancy

Code to 'eclampsia of pregnancy' (642.3)

Example 2:

- I(a) Aneurysm of aorta
- (b) Aortitis (syphilitic)

Code to 'aneurysm of aorta (syphilitic)' (022).

Example 3:

- I(a) Chronic bronchitis
- (b) Acute bronchitis

Code to 'acute bronchitis' (500).

Example 4:

- I(a) Chronic nephritis
- (b) Acute nephritis

Code to 'chronic nephritis' (592) in accordance with instructions in the Tabular List.

Example 5:

- I(a) Pulmonary embolism
- (b) Incomplete intestinal obstruction
- (c) Small intestinal fistula

Code to 'intestinal fistula' (578) by applying the General Rule. The Specificity Rule is not applicable, even though assignment is made to a less specific category.

C - MODIFICATION RULES - Continued

Rule 14 - Late effects

Where the selected underlying cause is an early form of disease for late effects of which the International List provides a separate category, and a condition reported elsewhere on the certificate is a 'late effect' of this disease as defined by the category, code to the latter.

Generally, the 'late effect' category is taken when the interval between onset and death is one year or more. If the interval is less than one year, and the disease or injury is indicated by the certifier as a 'late effect', code to the 'late effect' category.

The International List provides the following categories for:

- (i) - late effects of certain diseases 013; 035; 081; 083; 284; 344;
- (ii) - late effects of complications of therapeutic procedure E956-E959
- (iii) - late effects of injuries or poisonings E960-E965

Example 1:

- I(a) Paralysis, late effect of
- (b) Acute poliomyelitis 8 months

Code to 'late effects of acute poliomyelitis' (081)

Example 2:

- I(a) Hydrocephalus, late effect of
- (b) Basal adhesions
- (c) Intracranial abscess

Code to 'late effect of intracranial abscess' (344.1)

Example 3:

- I(a) Obstruction of trachea, scarring,
- (b) Accidental swallowing of lye 14 months ago.

Code to 'late effect of accidental poisoning (E961 and N964.9).

Example 4:

- I(a) Abscess of spine
- (b) Old tubercular spine, 2 years

Code to active tuberculosis of spine (012.0), even though the interval between onset and death was over one year. The tuberculosis of the bone is not considered 'arrested' when an abscess is present.



C - MODIFICATION RULES - Concluded

Rule 15 - Old Infective and Maternal Conditions

Where the selected underlying cause is an infective disease classifiable to 040-43, 050-052, 055, 056, 057.0, 057.1, 057.3, 058, 059, 061, 084-087, 089, 091, 094, 100-108, 480-483, 490-493, or a maternal cause classifiable to 640-689, and has a stated interval between onset and death of 1 year or more, proceed as follows:

- (a) if a 'late effect' of this disease is reported elsewhere on the certificate, code to the 'late effect';

Example: I(a) Nephritis, result of  
(b) Scarlet fever, years ago

Code to 'nephritis not specified as acute or chronic' (593).

- (b) if no 'late effect' is reported but there is another condition entered on the certificate, code to the other condition;

Example: I(a) Malnutrition  
(b) Had whooping cough 1 year ago

Code to 'malnutrition' (286.5)

- (c) if there is no other condition entered on the certificate, code to "Other unknown and unspecified causes 795.5".

Example: I(a) Unknown  
(b) Had influenza and pneumonia 1 year ago.

Code to 'unknown cause' (795.5).

D - SEX AND AGE LIMITATIONS

Sex limitations

Certain categories in the Classification are, by their very titles, limited to one sex. For example:

Categories 177-179)  
218 )  
276 ) apply to males only, and  
610-617)  
  
171-176)  
214-217)  
233-235) apply to females only  
275 )  
622-689)

In these cases if, after verification, the sex and cause of death on the certificate are not consistent, and there is no obvious reason for the discrepancy, the death should be assigned to 795.5.

Age limitations:

Some categories, in addition to possibly being limited to one sex, may also be limited to certain ages, for one reason or another:

- (1) - Certain categories (and all the terms listed thereunder) in the Classification are, by their very titles limited to certain ages - For example, 763 is limited to ages under 4 weeks; 772 to ages under 1 year.
- (2) - In other cases, some of the inclusion terms under certain categories may or may not have age limitations under certain conditions (and these are generally noted under the title). For example, category 764 "Diarrhoea of the Newborn" includes deaths from gastroenteritis and colitis (or any condition under 571) at ages under 4 weeks only; however where specified as "diarrhoea of newborn", there is no such age limitation.
- (3) - In other cases it is highly improbable or impossible for a person under or over a certain age span to contract or die from, certain conditions.

The following pages list the categories on which age and/or sex limitations apply. Those where a sex and/or age limitation must be applied are indicated by an asterisk (\*); the age limitations on other categories without an asterisk are included merely as guides to the upper or lower limits. In such cases the Alphabetic Index and the notes under the appropriate category in Vol. I will indicate the proper category to which the death should be assigned. If the cause of death appears to be inconsistent with the stated age, confirmation of the age or cause of death should be obtained before final assignment.

D - SEX AND AGE LIMITATIONS - Concluded

Category	Limitations		Category	Limitations	
	Sex	Age		Sex	Age
001 .....		15 yrs+	571.0 .....		4 wks -
022 .....		10 " +			2 yrs*
023 .....		10 " +	571.1 .....		2 yrs+*
024 .....		10 " +	584 .....		10 " +
025 .....		10 " +	610-612 .....	M*	20 " +
080 .....		65 "	613-617 .....	M*	
			622-637 .....	F*	10 " +
171-176 .....	F*	10 " +	640-689 .....	F*	12-50 yrs
177-179 .....	M*	10 " +	702 .....		15 yrs+
214-217 .....	F*	10 " +	722-727 .....		1 yr +
218 .....	M*	10 " +	750-759 (except 757.1)		-40 yrs
233-235 .....	F*	10 " +	(757.1) .....		(any age)
252 .....		1 yr +	756.0 Not specified as		-1 yr*
275 .....	F*	10 yrs+	congenital		
276 .....	M*	10 " +	757.0 .....	M*	
286.5 .....		1 yr +*	760 .....		-4 wks
286.7 vitamin K deficiency		4 wks+*	761 Palsy or paralysis		
288 .....		1 yr +	birth NOS )		
304 .....		65 yrs+	brachial plexus )		
309 Cerebral atrophy or	-65 yrs		Erb's ) (only)		-4 wks*
degeneration with			Klumpke's )		
psychosis not specified			seventh nerve )		
as presenile psychosis.					
(Excludes infant deaths)			762 .....		-1 yr
330 .....		4 wks+	763 .....		-4 wks*
331 .....		4 wks+	764 All conditions except		
334 Cerebral oedema only		4 wks+	those specified as		
344 .....		4 wks+*	Diarrhea of newborn		-4 wks*
351 .....		4 wks+*	Diarrhea of newborn*		Any age
352 .....		1 yr +*	766 Impetigo only .....		-4 wks*
357 Hemorrhage of the spinal		4 wks+*	768 .....		-4 wks
cord only			772 .....		-1 yr *
360 Bell's palsy or paralysis		4 wks+*	773-776 .....		-1 yr
Disease,			(773 Albuminuria of infants )		
facial nerve (seventh)			Cyanosis neonatorum )		
Paralysis, seventh			Disease NOS of navel or )		
cranial nerve			umbilicus )		
370 Conjunctivitis,		4 wks+*	Hemorrhage from umbili-		
ophthalmia			cus NOS )		
410-416 .....		1 yr +	Hepatitis of newborn )		
420 .....		10 yrs+	Sclerema neonatorum )		
421-422 .....		4 wks*	-if so described may be ..		1 yr +
434.4 .....		4 wks+	785.6 .....		2 yrs+*
440-447 .....		10 yrs+	785.8 .....		1 yr +*
450.0 .....		20 " +	794 .....		65 yrs+
451-452 .....		1 yr +*	E926 .....		-1 yr *
467.2 Hemorrhage NOS .....		4 wks+*	E930 Aviators' disease, )		
490-493 .....		4 " +*	Caisson disease, ) only		15 yrs+
523-524 .....		15 yrs+	Diver's palsy, )		
527.0 .....		1 yr +*	Diver's paralysis )		
545 Constriction)			E963; E970-E979 .....		15 yrs+
Hypertrophy ) of					
Obstruction ) pylorus		1 yr +*			
Stenosis ) (only)					
Stricture )					

## E - EXPLANATORY NOTES AND INSTRUCTIONS

for

### Cause of Death Coding

The preceding International Rules will usually determine the underlying cause of death for primary mortality statistics. In addition, each country generally has to adopt certain "ground rules" or rules for interpretation of certain categories depending on the consistency and completeness of medical certification in that country.

In addition to the general "ground rules" suggested in the I.C.D. Manual (pp.369-371, Vol. I, 7th Revision) - and which are here expanded into explanatory notes and instructions - the first portion of this Section brings together miscellaneous notes and instructions regarding the use of Vols. I and II. These comprise such things as guides on how to use the Alphabetical Index (Vol. II), an explanation of the abbreviations and symbols used in the I.C.D., notes on categories which are not normally used for primary mortality coding, some guide notes on accidents, poisonings and violence and miscellaneous notes regarding certain categories of the International List with new additional four-digits.

#### (1) Guides on how to use Vol. II (Alphabetical Index)

The Alphabetical Index is not difficult to use but an understanding of its structure and contents will facilitate searching. It is important that the exact terminology, as it appears on the medical record, be found in the Index; then before assigning a code number Vol. I should be consulted. Although the order of the terms may be different from that shown on the record, the Index does contain many diagnostic terms found under various indentations.

Normally one looks up, first, the noun portion of the term, then, under its indentations, the desired qualifier.

Section I pp. 1-476 is the index to the 'disease' section  
Section II pp. 477-512 is the index to the external causes of injury  
(Violence)  
Section III pp. 513-540 is the index to the causes of stillbirth.

Example: "Acute haemolytic anaemia of newborn with immaturity"  
would be located in the following manner in the Index:

Anaemia  
    haemolytic  
        acute  
            newborn - see Anaemia, newborn

Anaemia  
    newborn (due to Rh. factor incompatibility) (erythroblastic)  
        with  
            immaturity 770.5

After finding the category in the Index, the coder should refer to the appropriate category number in Vol. I and check the title, the inclusion terms, and footnotes (if any) before making a final assignment of the cause of death.



E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

(II) Abbreviations and Other Symbols in Volumes I and II

NEC = Not elsewhere classified

NOS = Not otherwise specified

SAI = sine altera indicatione = without other qualification

Asterisk(\*)

An asterisk(\*) placed after a code is an indication that the coder should consult the note under that category in Vol. I. These notes generally indicate that such a category is not to be used for primary death classification (and sometimes neither for primary morbidity classification) when the antecedent or underlying cause of this condition is known.

Following is the list of the categories where the asterisk is used, with instructions on how to deal with each: (The double asterisk (\*\*) indicates a DBS ruling).

306\* Psychosis with cerebral arteriosclerosis - code to (334)

308\* Psychosis of other demonstrable etiology

.0 Resulting from brain tumour - code to the brain tumour

.1 Resulting from epilepsy and other convulsive disorders -  
code to epilepsy or other disorder

.2 Other organic brain disease - code to other brain disease.

343\* Encephalitis, myelitis, and encephalomyelitis (except acute infectious), code to the underlying cause if it is known.

389\*\* Blindness - when this is the only cause of death reported,  
code to (795.0).

397-398\* Deaf mutism, Other deafness - when the only cause of death reported code to (795.0).

410-413\* Chronic rheumatic (specified valve) heart disease, the asterisk directs the coder to consult the note under each category. It also means that where more than one heart valve is mentioned priority is taken in a numeric order, e.g., (410 is preferred over 411 when both are mentioned).

616\* Sterility, male - if the causative condition is known code to that, otherwise code to (795.0).

636\* Sterility, female - code to the causative condition if known; otherwise code to (795.0)

649\*\* Pregnancy associated with other conditions, code to the other condition(s) if they are not classifiable under the numbers (640-648)

E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

660\*\* Delivery without mention of complication. This title is reserved for morbidity coding. For mortality coding see also indexing "Death, sudden, cause unknown, puerperal, during or after delivery" (688.2).

721\* Arthritis, acute, nonpyogenic, code to the underlying cause, if that cannot be established use this code (721).

E950-959\* Therapeutic misadventure and late complications of therapeutic procedures. These numbers are not to be used for primary mortality classification if the condition for which therapeutic treatment was given is known. (Headnote p. 284, Vol. I).

N995\*, N998-N999\* = Early complications of trauma and adverse reactions to therapeutic procedures.

N995\* = secondary causes to injuries; the primary injury e.g., 'fracture', 'rupture of an organ', etc. should be coded for tabulation.

N998-N999\* are secondary codes used for complications of surgical procedures, and are not used for primary death classification.

If the disease or injury (that necessitated surgical procedure) is not stated, then, the coder should query the certifier.

Brackets

Round bracket ( ): the round bracket has a special meaning which must be kept in mind by the coder whenever the index is used. Terms enclosed in the bracket do not change the code assignment, e.g.:

Arteriosclerosis (aorta) (artery)(diffuse)(senile), etc.; the number of of qualifiers within the brackets does not change the code (450.0).

Astrocytoma (malignant) 193.9. Astrocytoma NOS is coded as malignant.

Long bracket: this is used to combine or enclose terms that must be further qualified by some other condition. Terms not so bracketed need not be so qualified, e.g.

"Flu" (   
Grippe or ( with pneumonia is coded (480)   
Influenza (

Dagger †

The dagger placed after a code number means this category is to be used for morbidity coding only, e.g.

Late effects of brain haemorrhage, mortality code (331)   
" " " " " , morbidity code (352)

"(See also \_\_\_\_\_)"

This bracketed term means that the code number here listed is correct only if the title as listed in the Index is the only condition mentioned on the medical certificate. If there is another disease or qualifier mentioned the "(see also \_\_\_\_\_)" means that the coder should look in the place where the more detailed arrangement appears, e.g.:

Chondroma (see also neoplasm, cartilage, benign) 225   
Chondroma, cricoid, code 212

E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

(III) Accidents and Other Violence (E800-999) (N800-999)

A dual classification is provided for accidental and other violent deaths, i.e. (E) category for the 'external cause', and, (N) category for 'nature of the injury', both categories being coded in Canada for mortality tabulations.

4th - Digit

The ICD provides for a 4th-digit sub-grouping of certain categories which can be used to identify certain characteristics and provide more detailed statistics on accidental or other violent deaths. These are optional for International Statistical purposes, but are generally used for Canadian Mortality Statistics.

E810-835 Motor Vehicle Accidents

4th-digit (.0-.9) indicates type of vehicle(s) involved.  
See pp. 251 and 243-249, Vol. I.

E870-936 Non-transport accidents

4th-digit (.0-.9) indicates place of occurrence of the accident.

N800-959 Nature of injury

4th-digit (.0-.8) indicates the character or nature of the wound or fracture. See p. 295. Vol. I.  
These 4th-digits are NOT used for Canadian mortality statistics.

(E960-965) N(800-979.9) Late effects

Where the (E) code (E960-965) designates a 'late effect' of an accident or poisoning (i.e. 1 year or more after the event) the 4th-digit code (.9) should accompany the (N) category to indicate a late effect.

E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

(III) Accidents and Other Violence (E800-999)(N800-999) - Continued

Accident and Epilepsy:

Where epilepsy or epileptic seizure is the underlying cause of an accident, code to epilepsy (353). The accident may be coded as a secondary assignment.

When an accident is reported to be due to a disease condition for example, cerebral haemorrhage, coronary heart attack, acute alcoholism etc., the assignment is made to the accident, unless it is stated that death took place before the accident occurred. This does not apply to epilepsy or epileptic seizure, for which the International Classification provides special instructions (p.129). Nor does it apply to a pathological fracture due to a disease of the bone, in which case assignment would be made to the disease of the bone.

Accidents - Successive External Causes:

Where successive external accidents are reported to have caused death, assignment is made to the initiating event, except where this was a trivial accident leading to a more serious one.

e.g. "Fell getting over fence, gun went off, bullet penetrating heart and lung".

Assignment is made to the second event (E919.9, N861.)

Accidental Falls in categories E902-904:

E902: includes injuries by accidental fall from one level to another, e.g.

Fall from chair or bed, and from a vehicle when it is indicated that the vehicle is stationary (except boarding or alighting from a stationary vehicle on a public highway, in which case code to the appropriate m.v. category).

This title does not include 'fall from a height' when the resulting injury is drowning (E929).

E903: includes injuries by accidental fall on same level.

e.g. Fall "on" or "to," floor, ground, sidewalk. (E903).

E904: includes injuries by accidental fall of an unspecified nature, and fracture(s) from an unspecified cause. (E904).

Accident or Suicide? - Doubtful Diagnosis:

Where there is doubt as to whether death was accidental or suicidal, classify as an accidental death.



E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

(III) Accidents and Other Violence (E-800-999) (N800-999) - Concluded

Collision NOS (E816, E819):

A motor vehicle traffic accident qualified only as "collision" NOS will be classified to E816 with the appropriate 4th digit (.4) or (.9).

Manslaughter (Non-Accidental)(E983):

Manslaughter, non-accidental includes injuries inflicted by another person with intent to injure or kill.

Tractor Accidents:

Tractor accidents occurring in transport on a public highway will be classified to the appropriate category for motor vehicle accidents.

Tractor accidents occurring on a farm and indicated to be in transport, are classified to E912.0.



E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

(IV) Other Problems in Primary Code Assignment to Disease

Assumption of Intervening Cause

In Part I an intervening cause may be assumed for the purpose of accepting the sequence as reported, but the assumed cause must not be coded.

- e.g. I(a) Abscess of lung  
(b) Measles

It may be assumed that 'pneumonia' was present which led to 'abscess of lung', but an assumed 'pneumonia' must not be coded with measles. Code 085.0.

Interpretation of "highly improbable"

Interpretation of the term "highly improbable sequence" as referred to in Rules 1 and 10, and to the term "unrelated" referred to in Rules 2, 3, 4, and 6 are dealt with as follows:

- a) Consider it highly improbable if an infectious or parasitic disease (001-138), other than erysipelas (052) septicaemia (053) tetanus (061) or gas gangrene (063), is reported "due to" any other disease outside the group.

- e.g. I(a) Chickenpox (087)  
(b) Acute encephalitis (343)

It is highly improbable that 'acute encephalitis' is the underlying cause of 'chickenpox', rearrangement of these conditions by applying Rule 1 would give a probable sequence. Code to 'chickenpox' (087).

- b) Consider it highly improbable if a 'malignant neoplasm' is reported due to any other disease;

- e.g. I(a) Malignant neoplasm of stomach  
(b) Pneumonia

Rearrange the same conditions by applying Rule I.  
Code to 'malignant neoplasm of stomach'

- c) Consider it highly improbable if a congenital malformation (750-759) is reported due to any other disease, including immaturity;

- e.g. I(a) Congenital malformation of heart  
(b) Immaturity

Code to congenital heart (754.5).

E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

(IV) Other Problems in Primary Code Assignment to Disease - Continued

Interpretation of "highly improbable" - Continued

- d) Consider it highly improbable if diabetes (260); haemophilia (295); or influenza (480-483) is reported due to any other disease;

e.g. I(a) Influenza  
(b) Acute myocarditis

Code to influenza (481)

- e) Consider it highly improbable if rheumatic fever (400-401) or rheumatic heart disease (411,413-416) is reported due to any disease except scarlet fever (050) streptococcal sore throat (051) streptococcal septicaemia (053.0) or acute tonsillitis (473);

e.g. I(a) Acute rheumatic heart disease  
(b) Acute pneumonia

Code to 'acute rheumatic heart disease' (401.3).

- f) Consider it highly improbable if a non-inflammatory disease of the central nervous system (330-334, 350-357) except cerebral embolism in (332) is reported due to endocarditis (410-414, 421,430) or to a disease of the digestive system (530-587);

e.g. I(a) Cerebral haemorrhage  
(b) Gastritis

Code to 'cerebral haemorrhage' (331).

E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

(IV) Other Problems in Primary Code Assignment to Disease - Concluded

Interpretation of "highly improbable" - Concluded

- g) Consider it highly improbable where a condition with a stated date of onset "X" is reported due to a condition with a stated date of onset "Y" and "X" predates "Y";

e.g. I(a) Chronic nephritis 5 years  
(b) Arthritis 2 years

Code to 'chronic nephritis' (592).

- h) Consider the following to be 'highly improbable' sequences if so reported:

'Arthritis' (rheumatoid) due to 'arteriosclerosis'. Code to (720-725);

'Bronchitis' (acute) (chronic) due to 'arteriosclerosis'. Code to (500-502);

'Cerebral haemorrhage' due to 'Coronary embolism, occlusion, infarction, or thrombosis'. Code to (331);

'Coronary artery diseases' (any) due to 'cerebrovascular diseases'. Code to (420.1).

These examples will not cover all "highly improbable" sequences, but, in other cases, the coder should follow the General Rule unless there is strong indication to the contrary.

E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

(V) Probable Sequences

No attempt is made to list all possible sequences in Part I.  
The following list merely serves as a guide to the coder in accepting the sequence when so reported.

Acute or terminal circulatory diseases:	Acceptable when reported as <u>"due to"</u>
Aneurysm of heart	)
Cardiac:	)
embolism	)
infarction	)
thrombosis	)
Coronary (artery):	)
embolism	)
infarction	)
occlusion	)
rupture	)
thrombosis	)
Any condition classifiable to 422; 430-434.1-.4	)
Intracranial vascular lesions, terminal, or <u>acute</u> conditions in (330-334)	)
Cerebrovascular lesions, including cerebral haemorrhage	) ) ) )
Kidney infections;(such as cystitis, pyelitis, and other conditions classifiable to the genito-urinary system).	) ) )
Hypertension	Hydronephrosis or Pyelonephritis
Arteriosclerosis	Nephritis NOS "        chronic
Pneumonia (490-493) and other respiratory diseases (except influenza and tuberculosis)	Mongolism, Cerebral palsy, Chronic heart disease, Other degenerative diseases

E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

(VI) Effect of Duration on Classification

If the duration of a reported condition equals the age, or if it is stated to be "life", this will usually be classified to the congenital condition.

Example: I(a) Hydrocephalus, life

Code to 'congenital hydrocephalus' (752).

(VII) Neonatal, Neonatorum, Newborn. Age under four weeks.

Code to conditions under (760-776) whether qualified or not as "of newborn", "neonatal", "neonatorum"; provided age is under four weeks.

Categories 760-776 apply only to liveborn infants, for stillbirths, see the categories Y30-Y39.

(VIII) Expressions Indicating Doubtful Diagnosis

Where an expression such as "apparently", "possibly", "probably", "presumably", etc., is used, ignore the expression and code to the disease or condition mentioned.

Example: I(a) Drowning  
(b) Probably suicide

Code to 'Suicide by submersion (drowning)' (E975 N990).

See also note on p. (31) Accident or Suicide?

The alternative "either", "or".

Where the cause of death is described as an alternative condition such as "pulmonary tuberculosis or cancer of the lung", assign to "other diseases of lung" 527.2; or, if the doubtful diagnosis suggests two different anatomical sites, code to "other ill-defined cause", such as "either coronary attack or cerebral haemorrhage" code to (795.0).



E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

(IX) Neoplasms

Neoplasms are classified under 4 main groups: malignant, benign, unspecified and those of the lymphatic and haematopoietic tissues. If the specific name is given without being qualified as to whether a benign type or a malignant type, direction on how to classify is found in Volume I of the ICD pp. 75-78.

e.g. "Glioblastoma, cerebellum" this variety is classified under malignant neoplasm (193.0).

Neoplasms are generally coded to the site, (selecting the primary site); however neoplasms of the "lymphatic and haematopoietic tissues" (200-205) are really classified according to the type rather than the site.

e.g. Lymphosarcoma, retroperitoneal, code to (200.1) and not to 'peritoneum' (158).

Malignant neoplasms

For mortality coding purposes 'malignant neoplasm' is generally assigned to the primary site. If the primary site is not indicated, the coder should query. Following are some guides for classification -

(a) Multiple Sites

Where malignant neoplasms of more than one site, are entered on the certificate, the site indicated to be 'primary' should be selected. The site may be indicated to be 'primary' in various ways:

- i) it may be definitely stated to be 'primary';
- ii) all other sites may be stated to be 'secondary';
- iii) it may be followed by the words 'with metastasis to; or 'with spread to' etc.

(b) Liver and Lymph Nodes

Malignant neoplasm of liver or lymph nodes must be specified as primary to be coded to (155.0) or (200.2). If they are not so specified and another site is mentioned, code to the other site, even if the other site is mentioned in Part II. The reason for this is, that primary malignant neoplasms of the liver and lymph occur much less frequently than primary malignant neoplasms of other sites. Conversely, the liver and lymph nodes are often the sites for secondary growths (metastasis).

(c) Lung

Malignant neoplasm of lung must be specified as the primary site to be coded to (162.1). If it is selected as the presumptive primary site without further qualification, code to (163).

E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

(IX) Neoplasms - Concluded

(d) No indication of primary site

Where there is no indication as to which was the primary site (for example if the sites are entered on the same line, or in a sequence which does not point to one as the primary) code to (199). The exception would be where the classification provides multiple sites within one category e.g. (140.8) or (191.8).

(e) Secondary sites

Malignant neoplasm of multiple sites specified as 'secondary' should be coded to (199).

The following examples show how to apply the above instructions:

Example to (b): I(a) Malignant neoplasm of lymph glands  
II Carcinoma of breast

Code to (170)

Example to (c): I(a) Secondary spread from  
(b) Carcinoma of lung  
Code to (163)

Example to (d): I(a) Malignant neoplasm of tongue and  
(b) mandible  
Code to (199)

Example to (e): I(a) Multiple secondary sites primary  
(b) not found  
Code to (199)

Code to 'secondary cancer of liver primary unknown' (156).

(X) Multiple Congenital Circulatory Defects

Where multiple congenital heart defects are reported Rule 6 should apply. However, 'Tetralogy of Fallot' should not be missed when the defects comprising the 'tetralogy syndrome' appear separately on the certificate. The defects are four concurrent symptoms comprising: ventricular septal defect with pulmonary atresia or stenosis, dextroposition of aorta, and hypertrophy of right ventricle.

(XI) Numbering of Causes

Where the certifier has departed from the principle of certifying in accordance with the International Form by numbering the causes of death entered on the certificate, but the causes nonetheless formed an evident sequence, the coder should apply the General Rule or Rule 1. If this does not apply Rule 8 should be used.

E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

(XII) Pneumonia, qualifiers indexed differently

Where 'pneumonia' is reported with two or more qualifiers, each indexed differently, assign to the last mentioned qualifier.

e.g. "Acute haemorrhagic pneumonia" code to 'haemorrhagic pneumonia' (493).

(XIII) Pulmonary Tuberculosis Inactive (Cured or Arrested)

Decision has recently been made, for International coding comparability purposes, to amend the former practice in the treatment of the primary code selection of 'arrested' pulmonary tuberculosis.

The former coding practice was: where a reported respiratory disease was stated or indicated to be due to an 'old' or 'arrested' pulmonary tuberculosis, the primary code assignment was made to the resultant respiratory disease. (Arrested pulmonary tuberculosis was not coded for mortality purpose.) However after the exchange of International codes, this was found not to be the practice adopted by other countries. Effective January 1, 1962, category (002) will be subdivided as follows:

- 002.1 to indicate activity
- .2 to indicate inactivity (cured or arrested). (See also Section F, p 44.)

(XIV) Operations

Where an operation appears on the certificate as the cause of death without mention of the condition for which it was performed, and the Index provides no assignment for it, it is assumed that the condition for which such an operation is usually performed was present and assignment will be made in accordance with the Selection Rules. However, if the name of the operation presents some doubt as to what morbid condition was present the coder should query. Failing this, the operation is to be coded to "Other unknown and unspecified causes" (795.5), unless there is mention of a therapeutic misadventure in which case (E950-E954) is coded.

Findings at operation or autopsy

After the cause has been selected for primary code assignment and should the findings at the operation or autopsy show a more precise description of the same disease, Rule 13, para. 1 is applicable.

e.g. I(a) Operation, bowel resection  
Operative findings: "Carcinoma of colon".  
Assignment is made to (153.8).

Operations on patients with pre-existing heart conditions

The coder will follow the General Rules since no "blanket Rule" can apply to all cases.

E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

(XIV) Operations - Concluded

Operations on patients with pre-existing heart conditions - Concluded

e.g.

- (1) I(a) Cardiac arrest during anaesthetic
  - (b) Arteriosclerosis
  - (c) Acute appendicitis

Code to the Operative condition (550.0).

e.g.

- (2) I(a) Coronary occlusion
  - (b) Coronary arteriosclerosisII Cholecystectomy

Code to the coronary condition in I, (420.1).

(XV) Specificity

See also Rule 13, this rule does not apply where the selected underlying cause is a definite condition and that condition has its own category, even though that category is a residual one.

e.g.

- I(a) Pulmonary embolism
- (b) Incomplete intestinal obstruction
- (c) Intestinal fistula

The underlying cause is 'intestinal fistula', assignment should be made to (578).

(XVI) 'Subacute' Diseases

Where the International Classification provides for 'acute' forms of diseases but not for the 'subacute' forms, the category for 'acute' should be used.

e.g.

"Subacute leukaemia" code to (204.3).



E - EXPLANATORY NOTES AND INSTRUCTIONS - Continued

(XVII) Viruses

Encephalitis, alone, specified as 'acute infectious' or 'due to virus'

Code as follows:

Arthropod - borne	082.0
Coxsackie	082.1
ECHO	082.1
Lymphocytic choriomeningitis	082.1
Lethargic	082.2
Polio	080.0
Other unspecified virus	082.3

Encephalitis following a virus infection should be assigned as the secondary code, for example:

Encephalitis following:

infectious hepatitis code to 092  
pneumonia " " 490-493  
upper respiratory virus infection code to 475  
virus gastroenteritis code to 571

Meningitis

Where meningitis is reported due to a specific virus, or other specific organism, code as follows:

Meningitis due to :	Coxsackie virus	082.1
" " "	ECHO "	082.1
" " "	Polio "	080.2
" " "	other specified organism	340.0-340.2
Meningitis due to virus pneumonia code to		492
Meningitis due to influenza code to		483

Virus infection (NOS) (COXSACKIE) (ECHO) without any further qualification should be classified as 096.9.



E - EXPLANATORY NOTES AND INSTRUCTIONS - Concluded

(XVIII) Querying

Causes of death are tabulated for statistical purposes. Since medical statisticians, and others interested in health statistics, make use of the data gathered by the coder, the information tabled is only as good as the figures that go into the tables.

In querying the coder should avoid non-essential questions to the certifier or intimidation in putting forth his question. Care should be taken to ask precisely what is required, and to give the reason for asking. By doing this we can maintain good relationships with those concerned.

When is it necessary to query?

It is necessary to query only when additional information would affect the assignment of the underlying cause of death.

(a) Where there is insufficient information.

(b) For clarification.

It is not necessary to query if the additional information requested already appears elsewhere on the certificate of the cause of death.

In no circumstances should a second or further query, on the same case, be sent to the certifier.

A suggested form of querying is presented in the following example:  
"Maxillary cancer".

"Will you please state the particular structure primarily affected. This information is needed in order to make the correct code assignment, e.g.: 'Maxillary sinus' (160.2); 'Maxillary bone' (196.0); or 'inferior maxilla' (196.1)."

F - ADDITIONAL SUB-GROUP NUMBERS

Categories with fourth-digit subdivisions (additional to those shown in the ICD)  
are:

002 Pulmonary tuberculosis

002(a) This title will include active pulmonary tuberculosis.  
See also p. (40).

002(b) This title will include inactive, (cured or arrested) pulmonary tuberculosis.

(For coding purposes these sub-group letters will be coded as (002.1) and (002.2). In accordance with international agreement these additional fourth-digit codes will be published as letters (a) and (b).)

008 Tuberculosis, unspecified site

008(a) This title will include active tuberculosis of unspecified site.

008(b) This title will include inactive tuberculosis of unspecified site.

344 Late effects of intracranial abscess or pyogenic infection

344(a) This title will include hydrocephalus (internal) (external) NOS at ages 4 weeks and over.  
This title excludes hydrocephalus NOS with mention of spina bifida, meningocele, obstruction of foramen of Monro (751 b).

344(b) This title includes acquired hydrocephalus or other late effects of intracranial abscess or pyogenic infection.

F - ADDITIONAL SUB-GROUP NUMBERS - Concluded

Categories with fourth-digit subdivisions (additional to those shown in the ICD)  
are: - Concluded

587 Diseases of pancreas (p. 179 Vol. I.)

587.0 Acute pancreatitis

This title includes the listed terms in Vol. I, p. 179.

587.1 Chronic pancreatitis

This title includes 'chronic pancreatitis' and  
'interstitial pancreatitis'.

587.2 Other diseases of pancreas except fibrocystic disease:

Atrophy )	pancreatic:
Calculus ) of pancreas	" cyst
Cirrhosis )	" dwarfism
Necrosis of pancreas:	" infantilism
NOS	
Aseptic	
fat	

587.3 Cystic fibrosis	Fibrocystic disease of pancreas
Fibrosis (congenital	(congenital)
" cystic (of pancreas)	Meconium ileus
" of pancreas	Mucoviscidosis
	Pancreatic fibrosis

These listed terms in (587.3) are the only terms taken out  
of category 587.2. All others will be classified as shown  
in the Tabular List.

751 Spina bifida and meningocele p. 219 Vol. I.

This category is subdivided into 751(a) and (b).

751(a) Will include spina bifida and meningocele without  
mention of hydrocephalus.

751(b) Will include spina bifida and meningocele with mention  
of hydrocephalus.

G - NOTES ON SPECIFIC CATEGORIES OF THE ICD

752 Congenital hydrocephalus

Assumption of congenital

Hydrocephalus without further qualification may be assumed to be 'congenital' under the following circumstances:

Hydrocephalus NOS reported alone, at ages under 4 weeks (752).

Hydrocephalus NOS when it is reported with another cerebral, or central nervous system condition which is assumed to be congenital at any age, e.g. spina bifida, meningocele; (751(b)), obstruction of foramen of Monro; (752), Arnold Chiari syndrome, (752); or with one which is stated to be congenital (752).

Congenital hydrocephalus with spina bifida (751 b)

750-759 Congenital malformations p. 219 Vol. I.

For assumption of other congenital malformations see the terms listed in the International List at ages under 4 weeks, and under 1 year.

401 Rheumatic Fever with Heart Involvement

This title includes:

rheumatic fever, active, with heart involvement  
acute pericarditis NOS  
rheumatic pericarditis NOS  
and  
rheumatic ( carditis, endocarditis ) Where the interval since  
( heart disease, myocarditis ) onset was under 1 year  
( pancarditis, NOS ) or at ages under 15 years

This title also includes 'rheumatic heart disease NOS' for those under 15 years of age (401.3).

410-415 Chronic Rheumatic Valvular Heart Disease

Diseases of the mitral or bicuspid valve 410 )  
" " " tricuspid valve 412 )  
" " " pericardium in 416 )

are not to be used to qualify other heart conditions as rheumatic, when mentioned together, unless the condition in 410, 412, or 416 is specified as rheumatic.

'Acute pericarditis' when selected as the underlying cause can qualify other heart conditions as rheumatic.

G - NOTES ON SPECIFIC CATEGORIES OF THE ICD - Continued

410-413 Where more than one valve is reported to be rheumatic in origin, priority is taken in numeric order.

~~443~~ ~~ARTERIOSCLEROTIC HYPERTENSIVE HEART DISEASE~~

451-452 Non-syphilitic Aneurysms See p. 151, Vol. I.

451 Aortic aneurysm, non-syphilitic

452 Other aneurysm, except of heart and aorta

Non-syphilitic aneurysms which are reported due to hypertension are assigned to (451), (452) the aneurysms.

660 Delivery without mention of complication

This table will not be used for mortality coding.  
See also p. 29.

670-678 Delivery with Specified Complications pp. 196-198 Vol. I.  
A fourth-digit must accompany these categories.  
(.0-.7)

776 Immaturity

For the purpose of this classification an immature infant is a liveborn infant with a birth weight of 5 1/2 pounds (2500 grams) or less; or with a period of gestation of less than 37 weeks; or, specified as premature.

This classification does not apply to stillbirths.

- (a) Immaturity regardless of where this is entered on the certificate, when mentioned with a disease or condition classifiable to (760-773) is linked by adding the fourth-digit (.5).
- (b) Where immaturity is reported to be the underlying cause of a congenital malformation, the death should be coded to the malformation. If the congenital malformation is of such a nature that it would not ordinarily cause death, for example (malformations of the extremities, clubfoot, or supernumerary digits) code to 'immaturity with the subsidiary condition' (774).
- (c) Where immaturity in Part I is linked with an ill-defined cause (773.5) and there is another condition other than (773) in Part II follow the ordinary rules i.e. apply Rule 10(b) or 10(c) whichever is applicable.

Example 1:

I(a) Pneumonia (age 3 wks.)  
II Immaturity  
Code to (763.5)



G - NOTES ON SPECIFIC CATEGORIES OF THE ICD - Concluded

776 Immaturity - Concluded

Example 2:

- I(a) Malformation, ventricular septal defect
- (b) Immaturity

Code to (754.2)

Example 3:

- I(a) Debility (age 2 weeks)
- (b) Immaturity
- II Gastro-enteritis

Code to (764.5) by applying Rule 10 (b).

Example 4:

- I(a) Acute bronchitis
- (b) Immaturity

Code to (774).

Age over 4 weeks

Example 5:

- I(a) Hydrocephalus
- (b) Immaturity
- II Spina bifida

Code to 751(b)

Example 6:

- I(a) Acute bronchitis
- (b) Immaturity
- II Congenital syphilis

Code to (020.2) in accordance with the note under category 020.

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