

# The new Death Certificate: Your role as Certifiers

by **Kathleen England MD MSc (Public Health Medicine)**  
Medical Officer, Department of Health Information and Research

*Information recorded on death certificates is used to produce population-based mortality statistics. Mortality data is used both in health monitoring and resource allocation as well as epidemiological research.*

Inaccuracies of death certificate information can occur as a result of errors at a number of the steps in the certification process. Resulting inaccuracies in information undermine the quality of the data derived from death certificates.<sup>1</sup> These steps include:

- Inadequate or misinterpreted clinical information can lead to erroneous ante mortem diagnosis, which are then recorded by the physician on the death certificate.
- Information can also be recorded wrongly on the death certificate due to lack of training in how to fill in death certificates.
- Modification of cause of death statement to avoid autopsy and distress to relatives.
- The final step in the process is coding of causes of death by a person who is usually trained. Studies have shown that this is relatively accurate and measures to improve coding and comparability between countries are being implemented.

During 2006-2007 the Department of Health Information and Research participated in an EU Project aimed at improving the quality of mortality statistics through improvements at certification and codification process depending on the individual needs of participating countries. This project led to the updating of the death certificate according to WHO and EU recommendations as well as the creation of training material aimed to assist certifiers in completing correctly the 'cause of death' section of the death certificate.

## International form of the medical certificate for cause of death

**Part I** of the certificate provides 4 lines, on which the sequences of events leading to death are recorded. The condition thought to be the **underlying cause of death (UCD)** should appear on the last (lowest) completed line of part I and is usually the cause used in mortality statistics.

### International form of the medical certificate for cause of death

Cause of death		Approximate interval between onset & death
<b>I</b>		
Dis ease or condition directly leading to death*	a. ....	
	due to (or as a consequence of)	
<i>Antecedent causes</i> Morbid conditions, if any, giving rise to the above cause, stating the underlying condition last	b. ....	
	due to (or as a consequence of)	
	c. ....	
	due to (or as a consequence of)	
	d. ....	
<b>II: Other significant conditions contributing to death but not related to the disease or condition causing it:</b>		

\* This does not mean mode of dying e.g. respiratory failure. It means the disease, injury or complication that caused death.

WHO defines the underlying cause of death as: the disease or injury that initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence that produced the fatal injury.<sup>2</sup>

An example with 4 steps in the chain of events leading directly to death is:

- a) line I a: Pulmonary embolism
- b) line I b: Pathological fracture
- c) line I c: Secondary carcinoma of femur
- d) line I d: **Carcinoma of breast ← (UCD)**

There must always be an entry on line I a. This condition may be the only condition reported in part I of the certificate only if it was not due to, or did not arise as a consequence of any disease or injury that occurred before the immediate cause of death (E.g. 'Viral Myocarditis' was present at death).

**Part II** is for any other significant conditions that contributed to the fatal outcome, but were not related to the disease or condition directly causing death.

In a questionnaire sent to a number of doctors who are commonly involved in death certification they were asked to complete examples of medical parts of death certificates. A number of frequent errors emerged:

### Major errors:

- Mechanism of death or non-specific condition listed without an underlying cause e.g. cardiac arrest, respiratory failure. Because there could be hundreds of different causes leading to the same mechanism of death, this kind of description provides no useful information for cause of death statistics<sup>3</sup> and therefore should not be used. The cause of non specific conditions such as heart failure should always be specified e.g. due to ischaemic heart disease.
- Improper sequencing e.g. underlying cause of death written on first line (line a) followed by other causes on subsequent lines.
- Competing causes: two or more causally unrelated, etiologically specific diseases listed in part I e.g. breast cancer, diabetes listed in part I.
- Not writing down the method of injury e.g. not writing the fall as cause of a fractured femur.
- Limiting underlying cause of death to recent past e.g. not taking account of the effects of a cerebrovascular accident which occurred two years before.

### Minor errors:

- Absent time intervals
- Use of abbreviations.

*continues on page 24*



# The new Death Certificate: Your role as Certifiers

continued from page 10

## Improving the quality of death certification

Selection of a single underlying cause of death becomes more difficult in those who are older and have more morbid conditions. Diabetes mellitus presents a particular problem as this can be regarded as both an underlying cause of death giving rise to ischaemic heart disease and other complications, or it can be regarded as a contributing risk factor.

Training remains an important tool in improving the standard of the information written on death certificates.

Training tools available include:

- Training leaflet
- Training manual
- Web-based training tool

These can be accessed from the Department of Health Information and Research website on:  
<http://www.sahha.gov.mt/pages.aspx?page=41>

The intended use of this package is to assist certifiers in providing quality information in areas where common mistakes occur, by giving instructions and practical examples on the correct completion of the medical part of death certificates.

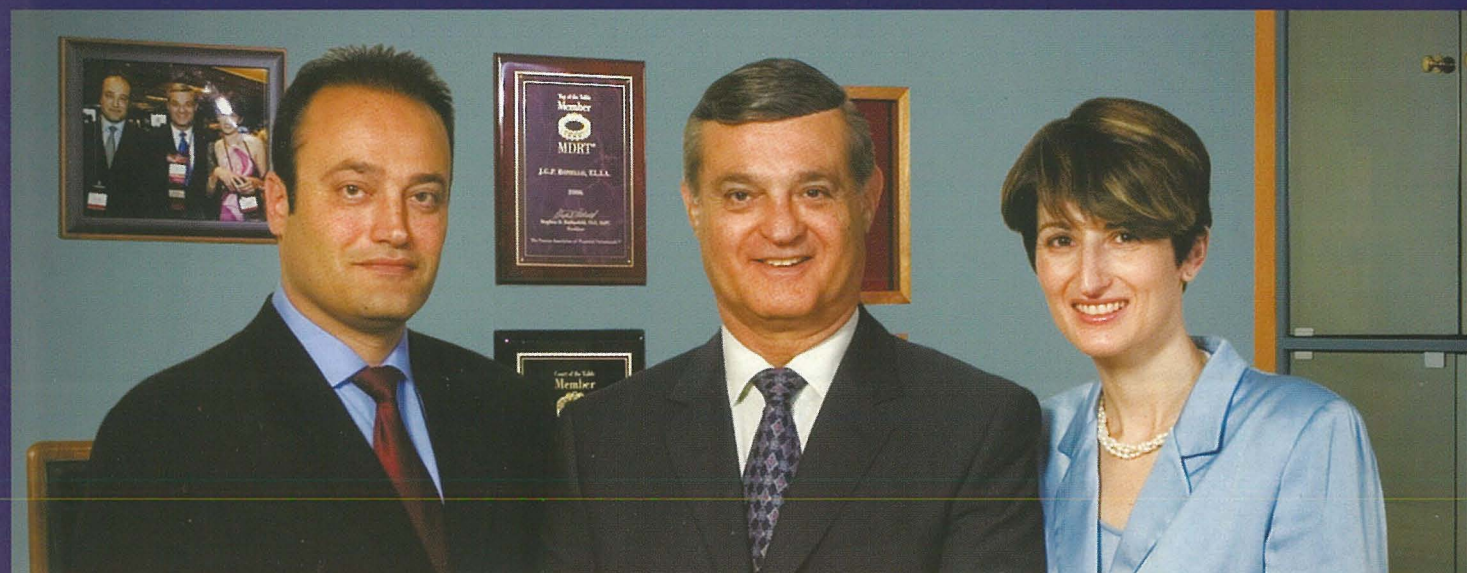
Medicine is becoming more and more evidence based. This increases the value of the information being collected, however it also emphasizes the need of more reliable data on which policy makers can base their decisions.

The attending physician is the individual best able to prioritize the medical history to determine, in his or her best judgement, what disease process initiated the sequence of events leading to death.<sup>3</sup>

All information requested on the death certificate form should be written in a clear and legible manner. Abbreviations should not be used. All information regarding the deceased as requested on the death certificate should be completed. ☐

## References

1. Myers KA, Farquhar D. Improving the accuracy of death certification. *Canadian Medical Association Journal* 1998; 158(10).
2. World Health Organisation. Instruction Manual of the International Statistical Classification of Diseases and Related Health Problems, 10<sup>th</sup> revision, Geneva 1992.
3. Kircher T, Anderson RE. Proper completion of the death certificate. *Journal of the American Medical Association* 1987; 258:349-52.



matthew@bonellofinancial.com

joe@bonellofinancial.com

elaine@bonellofinancial.com

## YOUR RELIABLE FINANCIAL SERVICES PARTNERS

SINCE 1967

### CALL US NOW

WE'LL OFFER YOU OUR  
EXPERIENCED OPINION  
OVER A CUP OF COFFEE.

Financial Planning Services Ltd.

4, Marina Court, G. Cali Street,  
Ta' Xbiex, XBX 1421.

e-mail: [info@bonellofinancial.com](mailto:info@bonellofinancial.com)

Tel.: +356 2134 4243

+356 2134 4244

+356 7947 2512

Fax: +356 2134 1202

**Financial  
Planning  
Services Ltd**

Licensed to conduct Investment Services and Insurance Broking Business by the Malta Financial Services Authority. Founding Members of the Malta Stock Exchange.  
STOCKBROKERS • INDEPENDENT FINANCIAL ADVISORS • LIFE ASSURANCE & PENSIONS • RETIREMENT PLANNING • SUCCESSION STRATEGIES