

# Death Certification: Topical tips for GPs

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## INTRODUCTION – A CHANGING CONTEXT

Over the last few years the role of doctors around the time of death has been subjected to intense scrutiny, particularly during the Inquiries into the Shipman murders and the retention of post mortem specimens at Alder Hey Hospital. These inquiries led to *Fundamental Reviews of Death Certification* and *The Role of the Coroners Services* (the Luce Report) and the drafting of The Coroners and Justice Bill, which completed its transit through the House of Lords in October 2009. Although the law is not expected to change until 2011, guidance regarding confirmation of death and cremation forms has been updated and there has been a shift in routine practises, such as viewing the body after death and involving the relatives more in the exchange of information. It is likely in the future, when systems have been developed, that doctors will certify deaths on-line – as the final entry in the electronic patient record.

A patient death, even when expected, can cause considerable distress. Doctors play a key role in a number of important (and urgent) practical processes. It is expected that doctors report relevant cases to the coroner, but badly written death certificates may also result in a case being referred directly by the Registrar of Births, Deaths and Marriages resulting in unnecessary delays and possibly an unwelcome post-mortem. This chain of events is upsetting and may give rise to complaints.

This paper is written with GPs and their registrars in mind. Some of the information applies only to England and Wales, but the tips on completing the cause of death statement can be applied universally.

## CONFIRMATION OF THE FACT OF DEATH - IMPLICATIONS OF NEW CODE OF PRACTICE

There was, until recently, no set advice regarding how to establish the fact of death. However in 2008 the Academy of Royal Medical Colleges issued a code of practice (summarised in Box 1). The most striking aspect of this guidance is the expectation that observation and examination of the corpse will take a full five minutes. The Shipman Inquiry<sup>1</sup> raised a number of points related to confirmation of the fact of death, in particular the lack of recorded narrative information regarding the circumstances. (Box 1)

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### Box 1. Confirmation of the fact of death

<p>Observe and examine for a full five minutes to establish:</p> <ul style="list-style-type: none"> <li>• Pulselessness – at carotid / femoral artery</li> <li>• Apnoea – no respiratory effort</li> <li>• No heart sounds – on auscultation</li> </ul> <p>Then examine specifically for:</p> <ul style="list-style-type: none"> <li>• Fixed dilated pupils</li> <li>• Absent corneal reflex</li> <li>• Lack of a response to supra-orbital pressure</li> </ul> <p>Finally – record and inform</p> <ul style="list-style-type: none"> <li>• Write a narrative in medical record – events and symptoms immediately before death, time, circumstances, people present (in case there are any subsequent investigations or an inquest)</li> <li>• Inform             <ul style="list-style-type: none"> <li>• Next of kin</li> <li>• Carers, nursing or funeral director if any risk of serious infectious disease</li> </ul> </li> </ul> <p>Notes:</p> <ul style="list-style-type: none"> <li>• Nurses can confirm death in some hospitals</li> <li>• Stricter rules apply if patient has been in a prolonged coma or the body temperature is less than 35 C</li> <li>• Avoid comments such as “Rest in peace” which may be seen as religious or platitudinous</li> <li>• Based on A Code of Practice for the Diagnosis and Confirmation of Death<sup>5</sup></li> </ul>
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### DEATH CERTIFICATION – THE CHALLENGE OF MULTIPLE STAKEHOLDERS

The functions of the death certificate and the wide ranging impact of poor certification are summarised

in Table 1. Trying to satisfy so many priorities can become confused and achieving improvements is slow, lines of responsibilities unclear. The one group on whom poor certification has, currently at least, little impact is the certifiers themselves.

**Table 1. Overview of stakeholders in death certification by major domain. (This table is not exhaustive.)**

Domain	Stakeholder	“Agents “	Role of certification	Potential impact of poor certification
Personal	Relatives & Friends	Relatives & Friends known as “informants”	<ul style="list-style-type: none"> <li>• Permits funeral &amp; probate arrangements</li> <li>• Provides permanent record of cause of death</li> </ul>	<ul style="list-style-type: none"> <li>• Delays funeral</li> <li>• Distress &amp; confusion</li> <li>• Negative effect on bereavement</li> </ul>
Legal	Ministry of Justice	Coroners	<ul style="list-style-type: none"> <li>• Facilitates the correct investigation of sudden &amp; “unnatural” deaths</li> </ul>	<ul style="list-style-type: none"> <li>• Avoidable referrals received from registrar</li> <li>• Failure to instigate correct forensic &amp; legal procedures</li> </ul>
Administrative	Local Authority GRO(ONS) (advice/ support)	Registrars of Births Deaths & Marriages	<ul style="list-style-type: none"> <li>• Maintenance of public records</li> <li>• Provides basis of data sent to ONS (&amp; NHSCR)</li> </ul>	<ul style="list-style-type: none"> <li>• Avoidable referrals made to coroner</li> <li>• Incorrect information entered in the register</li> <li>• Uncertainty leading to excess queries to ONS</li> </ul>
Public Health & service planning	ONS NHS / DH	<ul style="list-style-type: none"> <li>• Coders</li> <li>• Epidemiologists</li> <li>• Statisticians</li> <li>• Health Service planners</li> </ul>	<ul style="list-style-type: none"> <li>• Basis of national mortality statistics</li> </ul>	<ul style="list-style-type: none"> <li>• Burden on coders</li> <li>• Misleading or incomplete mortality statistics</li> <li>• Impact on NHS priority &amp; funding decisions</li> <li>• Distorts monitoring &amp; international comparisons</li> <li>• Impacts on research</li> </ul>

(Abbreviations: ONS – Office for National Statistics, GRO - General Register Office, NHSCR - National Health Service Central Register, DH – Department of Health)

## THE DEATH CERTIFICATE – GETTING ORIENTATED

The death certificate, correctly known as The Medical Certificate of the Cause of Death (MCCD), is a relatively simple document of two sides of approximately A4 size. The first side, with five sections, is reproduced in full in appendix (i). There are separate certificates for neonatal deaths and stillbirths. The cause of death statement is the most

important section, where errors have the greatest impact on a range of stakeholders.

The core elements of the cause of death statement are governed by international convention. This allows for intra and inter-national comparisons of mortality data to be made and there are no plans to interfere with the layout.

**Figure 1. The cause for death statement**

<b>CAUSE OF DEATH</b>		<i>Approximate interval between onset and death</i>
The condition thought be the “ <i>Underlying Cause of death</i> ” should appear in the lowest completed line of Part I		
Ia	Disease or condition directly leading to death.....	.....
b	Other disease or condition, if any, leading to <b>I(a)</b> .....	.....
c	Other disease or condition, if any, leading to <b>I (b)</b> .....	.....
II	Other significant conditions CONTRIBUTING TO THE DEATH but .. not related to the disease or condition causing it .....	.....

## WHO CERTIFIES DEATHS ?

GPs certify between 8% and 20% of deaths depending on the demography their lists (especially patients in residential care).

The number of coroners cases has been fairly stable for some years (see table 3) . The Luce Report

suggested that the number of coroner’s post-mortems could be reduced with better initial scrutiny of the circumstances of death. Hospital or “for interest” post mortems have plummeted to almost negligible levels over the last two decades and professional and public attitudes are unlikely to reverse this.

**Table 2. Death by place (%) and most common certifier as well as the proportion of deaths in each place ultimately certified by the coroner. (England & Wales) 6.**

	Place	Hospital	At home	Old people homes & other communal establishments	Elsewhere “street”	Hospice
(A)	% Deaths total all deaths	54%	21%	18%	3%	4%
(B)	Most common certifier	Foundation doctors	GP	Various inc.GP	Coroner	Specialist
(C)	Approx proportion of deaths in (A) ultimately certified by coroner (with or without inquest)	1/5	2/5	1/10	2/3	1/20

**Table 3. Deaths and the coroner**

Deaths in England & Wales 2008 <sup>7</sup>		% of total
Total number	502,600	100%
Number referred to the coroner	220,000	44%
No further action by coroner (referred back to by attending physician for certification)	110,000	22%
Certified by coroner after PM	80,000	16%
Certified by coroner after PM and inquest	31,000	6%

**BEFORE YOU START 1 - DECIDING WHETHER YOU CAN CERTIFY**

There are four key criteria to satisfy in order to be able to certify a patient death:

Firstly, you must be a medical practitioner! Secondly, you must be reasonably confident about the cause of death and confident that this does not include a coroner’s case. Thirdly, you must have attended the deceased during his/her final illness. As Rooney points out there is no agreed definition of “attended”, but “it is generally accepted to mean a doctor who has cared for the patient during the illness that led to death and so is familiar with the patient’s medical history, investigations and treatment ...and has access to the records”. In fact, if you are the attending practitioner you are legally required to provide a death certificate. In a group practice there may be more than one doctor who might be considered to have attended but it is not acceptable for a GP partner who has never seen the deceased to provide the certificate even if s/he has full access to the records. Finally, you should have seen the body after death. This is not (currently) a legal requirement, but, since Shipman, there is a strong expectation on certifiers to have done this (not just when they are signing cremation forms). If the registrar establishes during their interview with the informant that the certifier has not seen the

body **and** did not see the deceased in the 14 days prior to death s/he must refer to the coroner.

**BEFORE YOU START 2 - DECIDING WHETHER THIS IS A CORONER’S CASE**

Coroners’ cases are summarised in Box 2.

Box 2 : Coroners’ cases

Two tips to bear in mind regarding “violent or

Coroners cases

- cause of death is unknown
- death was violent, or unnatural or there are suspicious circumstances e.g.

The death may be due to:

- accident or poisoning (inc. prescribed or illegal drugs but **not** alcohol)
- suicide
- self-neglect or neglect by others
- an industrial disease, or the deceased’s employment

The death occurred during

- an operation, or before full recovery from an anaesthetic
- detention in police or prison custody, or shortly after release

no doctor attended or deceased not seen within 14 days before death

unnatural deaths”. Violence includes any accident that set in train the sequence of events that led to the death, regardless of the time elapsed. For example, when a tetraplegic man dies of septicaemia from an infected pressure ulcer 10 years after a motorcycle accident, the coroner will accept the referral.” Unnatural” includes any death to which health care provision may have contributed. It is therefore wise to refer to the coroner any case where the family indicate that they believe an error or neglect was a contributing factor. It is illegal to omit details of recent surgical interventions even if you wish to spare the family a coroner’s post-mortem. It is up to the coroner to decide whether to investigate further in these cases. Consent is not required for coroners’ post mortems - next of kin cannot refuse. Interestingly, in 75% of deaths related to a fractured neck of femur coroners elect to refer back to the attending doctors to issue the certificate without a post-mortem or inquest<sup>9</sup>. That is why it is sometimes sensible to provide the next of kin with a certificate even if you have referred the case. Local Coroner’s Officers will always give telephone advice if you are unsure whether to refer.

Curiously, as the law stands, the statutory requirement to report a death to the coroner rests with the

registrar not the attending doctor. Furthermore, coroners can apply local rules which may reflect specific health or occupational issues or their own interpretation of terminology – such as expecting all HIV related deaths to be referred as they may be iatrogenic and therefore “unnatural”. The new Bill should address these anomalies.

### **UNDERSTANDING PROBLEMS WITH DEATH CERTIFICATION – A LOW PRIORITY TASK WITH NO FEEDBACK**

Poor certification represents a substantial burden especially at the registration and coding stages and ultimately distorts national mortality data. Certifiers receive virtually no feedback on their certificates regardless of quality because there is no one with a governance responsibility for scrutinising certificates. The consequences of poor certification are remote both in practical and chronological terms from the certifier. These issues of scrutiny, governance and audit are central to the new legislation.

### **THE CAUSE OF DEATH STATEMENT – BEING REASONABLY SURE**

Accuracy of the cause of death statement is increasingly based on pre-mortem clinical information alone, albeit somewhat enhanced by increased use of imaging including scans and angiography. The key is to approach the task as you might any other clinical decision: do I have enough information to commit myself? In the case of death following acute central chest pain in a previously well man the answer is ‘no’ – how could you distinguish between an infarct or dissecting aneurysm? However, if you have been treating this patient for years for hypertension and he has documented coronary artery disease that has recently deteriorated, the answer is ‘yes’, even in the absence of an ECG, troponin assay or autopsy.

### **THE CAUSE OF DEATH STATEMENT – THE LAST FEW LINES IN YOUR PATIENT’S NARRATIVE**

Think of this as a short story about the patient with a logical and coherent plot, where one event leads inexorably to another, culminating in the last breath. If there is no pathophysiological link between the items included in Part 1 – think again. The trick is also to be concise.

### **ERRORS IN DEATH CERTIFICATES**

Deriving useful estimates of errors is difficult

because of inter-study differences. Up to 70% contain some flaw, with around 15% deemed very poor and estimates suggesting up to 5% that cannot be registered. A few very simple tips could have a significant impact on quality.

### **Box 3. Common errors in the cause of death statement**

- Errors in terminology (especially use of modes of death);
- Errors or lack of clarity in clinical information (e.g. abbreviations, lack or histology or site of origin of neoplasms or organisms in infections);
- Incorrect sequencing of clinical conditions leading to death ;

### **TIP 1 - LOW FREQUENCY TASKS NEED JUST-IN-TIME LEARNING – READ THE INSTRUCTIONS!**

With an average list of 1800 patients, each GP will have less than 20 patients die per year of which s/he will only certify one or two, so reviewing the procedures each time is a sensible precaution. The front four pages of every booklet of death certificates set out clear instructions for doctors. However, most doctors never look at them. All instructions remain current, except that ‘old age’ is thought to be acceptable as the sole cause of death at 80 instead of 70 years.

In 2008 the National Death Certification Advisory Group produced clear updated guidance<sup>8</sup> illustrated with numerous examples. This is worth downloading (see URL at end) and keeping with your certificate booklet.

### **TIP 2 - SEQUENCING**

You are asked to write the immediate cause of death on line 1a, and then go back through the patient’s story identifying the sequence of events or conditions which led to the death on subsequent lines, till you reach the one which initiated the fatal sequence.

The condition on the lowest used line of part 1 will usually be selected as the underlying cause of death for statistical purposes. Remember that this underlying cause may be a longstanding, chronic disease or disorder that predisposed the patient to later fatal complications. For example:

<b>CAUSE OF DEATH</b>	
The condition thought be the “ <i>Underlying Cause of death</i> ” should appear in the lowest completed line of Part I	
1a Disease or condition directly leading to death..... <i>Pseudomonas septicaemia</i>	<b>Approximate interval between onset and death</b> ...3 days...
b Other disease or condition, if any, leading to <b>I(a)</b> ... <i>Recurrent urinary tract infections due to neurogenic bladder</i>	...5 years
c Other disease or condition, if any, leading to <b>I(b)</b> ... <i>Multiple Sclerosis</i> .....	15 years
<b>II</b> Other significant conditions CONTRIBUTING TO THE DEATH but .. not related to the disease or condition causing it ..... .....	.....

It follows that the sequence will be in chronological order from bottom up as stated in the “interval” – if not – you’ve done something wrong. In part II of the certificate you should also enter any other diseases, injuries, conditions or events which contributed to the death, but were **not** part of the direct sequence. Just because something is longstanding does not mean it should go in part II. In up to 70% of certificates at least one time interval is omitted.

process are not acceptable as the only, unqualified cause of death. The certificate include a line (admittedly in small print) advising that “the condition directly leading to death ...does not mean heart failure, asphyxia, asthenia etc”. The full list of modes and other unacceptable vague terms appears in the instructions of the certificate booklet. The commonly but erroneously used terms are renal failure, liver failure, cardiac arrest and shock. Qualified modes of death are acceptable for example:

**TIP 3- AVOID USING MODES OF DEATH**

Terms that do not identify a disease or pathological

<b>CAUSE OF DEATH</b>	
The condition thought be the “ <i>Underlying Cause of death</i> ” should appear in the lowest completed line of Part I	
1a Disease or condition directly leading to death..... <i>Multiple organ failure due to</i>	<b>Approximate interval between onset and death</b> ...2 weeks...
b Other disease or condition, if any, leading to <b>I(a)</b> ... <i>poorly differentiated metastases throughout abdominal cavity from a</i>	...3 months
c Other disease or condition, if any, leading to <b>I(b)</b> ... <i>Primary Caecal Adenocarcinoma</i> .....	... 2 years
<b>II</b> Other significant conditions CONTRIBUTING TO THE DEATH but .. not related to the disease or condition causing it <i>Ischaemic heart disease.</i>	8 years.....

#### TIP 4 – BE MORE SPECIFIC

In over 70% of malignancies and infections details that would significantly improve the accuracy of clinical information are omitted. For example, with malignancies, the histology is not given or the provenance of metastases. With infections, the causative organism is omitted and whether the infection was community or hospital acquired. If you circle the section on the back of the certificate indicating “Results of investigations awaited”, you will receive an automated letter from the registrar after two weeks. This additional information will alter data sent for coding but not the entry in the register. Remember abbreviations such as CVA and the “#” symbol for fracture are not acceptable. Always consider the possibility of an occupational factor in the sequence of events, indicate this on the certificate and contact the coroner’s officer about it.

#### TIP 5 - THINK ABOUT THE NEXT OF KIN

Expectations are changing and it is worth considering steps to help relatives. You can use lay terms on certificates along side technical terms (such as ‘stroke’ or ‘broken hip’). Real or perceived stigma around some diagnoses may make you consider being economical with the information, but obfuscation is illegal and may emerge when the registrar interviews the informants. Pay attention to voiced concerns, especially regarding hospital-acquired infections (MRSA or *C.Difficile*) and the quality of residential care. Do not leave these concerns to fester, as initiating investigations after a death is registered is complicated. Within current arrangements, the safest course is to include details of any contributing infections in the ‘cause of death’ sequence and consider whether you need to discuss these with the coroner’s officer.

#### TIP 6. BE AWARE OF PROPOSED CHANGES - THE CORONERS AND JUSTICE BILL

The principle concerns in the processes around the time of death, underscored by the Shipman Inquiry<sup>1</sup> are: the inconsistent and ineffective role of the second doctor or referee as a safeguard, the lack of sequential statistical data and the failure to systematically and sensitively exchange information with relatives.

The most significant provision of the Coroners and Justice Bill (which is likely to be piloted in 2010-11 and enacted in 2012) will be the introduction of the Medical Examiner (ME) – a second medical certifier (probably a doctor employed by the PCT) for all cases, not just cremations. MEs will go well beyond the referee role and become responsible for the clinical governance of the certification process, collating data, carrying out local audits and

providing advice to doctors to improve the quality their certification. Importantly, the ME will be expected to talk with relatives as a routine part of their scrutiny. Doctors’ queries currently directed at the coroner’s officer will be dealt with by the ME who will, after scrutiny, either authorise the attending doctor to issue the MCCD or to refer the case to the coroner thereby hopefully reducing referrals by a least 10%.

In addition the requirement on doctors to report deaths to the coroner will become a statutory duty using a new “reportable death form”. It is hoped that there will be updated guidance consistently applied by coroners across the country under the auspices of a Chief Coroner.

Last, but not least, the bereaved will be entitled to a short copy of the register’s entry, with a simple record of the facts of death without the medical details and the Coroner’s Services will need to adhere to the proposed *Charter for Bereaved*.

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Figure 1

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