



HELPING SMOKERS QUIT

Adding value to every clinical contact by treating tobacco dependence

Writing a medical certificate of cause of death when the death is attributable to tobacco smoking

The London Clinical Senate is a multi-professional body that supports the development of London's health services, and improvements in health and outcomes, by providing independent advice and leadership. (Ref 1) The Senate's Helping Smokers Quit programme seeks to build on the unique contribution of healthcare professionals to help smokers quit by providing evidence-based care to people they see who are tobacco dependent. We believe every clinician should know the smoking status of each patient they care for, have the competence and commitment to encourage, enable and support those who smoke to quit through direct action or referral and at the end of life to communicate and record the attribution of tobacco smoking in the cause of death. This will:

1. **Comply with established guidance for completing 'death certificates'** - Medical Certificates of Cause of Death (MCCD) (Figures 1a-c) (Ref 2)
2. **Help to provide public and population health colleagues with current and more accurate data about tobacco smoking and mortality**
3. **Increase awareness of the importance of smoking on health in families where others smoke (as recipients of the death certificate) and potentially alter their life course**
4. **Change how clinical teams think about the impact of tobacco dependence and the importance of smoking cessation treatment**

Figure 1a (Ref 2)

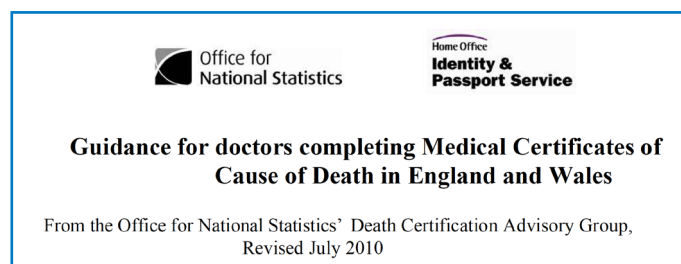


Figure 1b (Ref 2)

6.6 Substance misuse

Deaths from diseases related to chronic alcohol or tobacco use need not to be referred to the coroner, provided the disease is clearly stated on the MCCD.

Figure 1c (Ref 2)

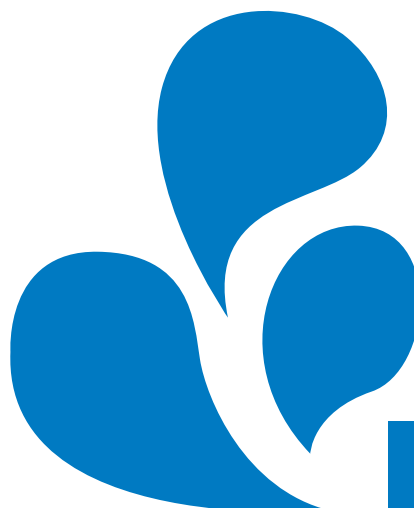
Example:

- Ia. *Carcinomatosis*
- Ib. *Bronchogenic carcinoma upper lobe left lung*
- Ic. *Smoked 30 cigarettes a day*

- II. *Chronic bronchitis and ischaemic heart disease.*

- Ia. *hepatic encephalopathy*
- Ib. *alcoholic liver cirrhosis*
- Ic.

- II. *difficult to control insulin dependent diabetes*



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Does this not happen already?

A study of the death certificates of more than 2,000 people carried out in 2012 showed smoking was identified as the underlying cause of death on only 2 (0.1%) death certificates and included in part II of the death certificate on 10 (0.5%). Yet 279 deaths with diagnoses 'highly attributable' to tobacco smoking were in smokers or ex-smokers. Lung cancer and chronic obstructive pulmonary disease (COPD) were the two diseases categorized as 'highly attributable' to smoking with 85-90% of cases due to smoking (Ref 3). A review of post-mortem reports from the same period failed to identify a single case in which the pathologist cited smoking as causing or contributing to death in these two conditions. In marked contrast, 57.4% of death certificates that included diagnoses linked to alcohol use cited alcohol in part I of the death certificate. This suggests there was no consistency in the approach to the recording of two key risk factors on death certificates.

Is the London Clinical Senate suggesting we follow new guidance?

No. Recording tobacco dependence on the death certificate when the death is attributable to diseases related to tobacco use has been recommended since 1992 and is explicitly included in the updated guidance published in 2010 (Ref 2). However we know it is not routine practice. What is new is that the London Clinical Senate is now recommending that clinicians work towards being compliant with national guidance, and consider using the approach discussed here, based on the learning of clinicians who have developed and implemented this approach in practice, with reference to evidence and data where possible.

Is this what patients and families want?

Yes. The how, where and when of these potentially difficult conversations will feel a challenge to many clinicians, as it did to the authors, but experience has shown that on the whole the approach is accepted, supported and in some cases encouraged by friends and family. What is important is that any new approach is agreed at the most senior level in your organisation, is supportive of individual clinicians and teams, and ensures a positive experience for friends and family of the deceased. There is an inevitable fear of being perceived as critical when patients or relatives are having a difficult time. There is however a responsibility to report causation as much for tobacco as there is for asbestos.

Will the coroner and registrar be able to support this?

Yes. Improving the coding of death certificates is not just the remit of the, often junior, doctor who completes and signs the MCCD form. This requires system wide training and support from senior clinicians, coders, registrars and coroners to achieve the above aims. Professor Peter Furness, the interim national medical examiner supports an approach that improves the accuracy of death certificates and has worked with the London Senate Helping Smokers Quit team to achieve our current position (Ref 4). We recommend sharing the learning from the national medical examiner pilots with local stakeholders and also from the more recent clinician-started (surgeons, cardiologists, intensivists, pathologists) internal medical examiner programme that started in Southampton in 2015 (Ref 4, 5). The Southampton experience has revealed a need for strong role modelling by senior clinicians so that this activity can be normalised.

I do not work with patients who have cancer or COPD – do I need to read this?

Yes. Whilst doctors looking after patients with cancer or respiratory illness are most likely to use this advice, highly attributable smoked tobacco mortality occurs in other specialties too (Ref 6, 7). Some common examples in the table opposite are taken from the December 2015 action on smoking and health (ASH) paper on illness and death caused by tobacco sourced from English smoking statistics (Ref 8, 9).





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Assessing whether smoking could be a causative or contributory factor in an individual death

Whether smoking is assessed as being one of the causes or a cause of the disease leading to death, or that smoking contributed to a death, comes from knowledge of:

1. how strong the causative relationship to smoking is for a particular disease (see table below); and
2. the individual exposure to potential harm from tobacco smoking as measured by 'pack-years'.

It is then, as with all diagnostic decision making, a clinical judgement as to whether tobacco smoking was causative or contributory to a death. We take a pack year history of greater than 20 pack-years as clinically significant.

Because the term 'Tobacco smoking' can be coded and is understood by clinicians, patients and their families, we recommend using this on the death certificate.

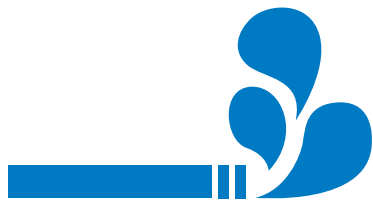
'Pack-years'

'Pack-years', as a measure, is used routinely by clinicians in diagnostic and assessment pathways. It is used as a short-hand indicator that diseases caused by smoking should be in the differential diagnosis list and for current smokers treatment needs to be offered/provided for their tobacco dependence (Ref 10, 11).

It is therefore logical and easy as clinicians to use 'pack-year' calculations in exactly the same way when making clinical decisions about the cause of death that should appear on a death certificate.

Estimated percentages of deaths attributable to smoking for a range of diseases in England in adults aged 35 and over, 2013

Disease	Deaths attributable to smoking	
	Women	Men
Cancer of lung, trachea & bronchus	72%	86%
COPD	79%	83%
Cancer of larynx	74%	80%
Cancer of upper respiratory sites	48%	72%
Cancer of oesophagus	59%	68%
Aortic Aneurysm	54%	61%
Stomach and duodenal ulcer	43%	51%
Bladder cancer	28%	43%
Cancer of kidney and renal pelvis	8%	33%
Pneumonia	12%	22%
Combined circulatory	9%	16%
All deaths in England	13%	21%



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Having the conversation

These conversations are based on real experiences and content from discussions before and after death. They do not cover every eventuality but we hope may help start conversations in your teams and with your patients and their friends and family.

Before death discussion

In-patient respiratory teams, community and hospice teams caring for patients with lung cancer or COPD, who are felt to be approaching, or on an end of life pathway, have an opportunity to do this as part of the conversations they have as long-term condition and palliative care team members, based on existing relationships with families and carers, that are already used to enable best possible end of life care and experiences for patients and families.

Clinician: *‘I/we wanted to be able to talk to you about your “name of relative” – as you know he/she is very sick and I/we wanted to make sure that you had the information you need as a family, from us as team.*

Can I check what you know already from talking to the team and what you have been told - can you tell me what you know about ‘name of relative’s illness, what you are expecting and what are the important things you think we should focus on for “name of relative”?’

Relative: *I know/am not sure if “name of relative” is dying/will not get better. I know they have lung cancer/COPD.*

Clinician: *Do you know what caused their lung cancer/COPD?*

Relative: *Yes. It was because of his/her smoking.*

Clinician: *Yes, you are right, smoking was the cause, even though “name of relative” worked so hard to stop smoking, which must have been very hard for him/her to do, XX years/months/weeks ago.*

Clinician: *What we need to focus on now is addressing the symptoms that are causing “name of relative” distress now – it would really help to know from you what you think we should be addressing....*

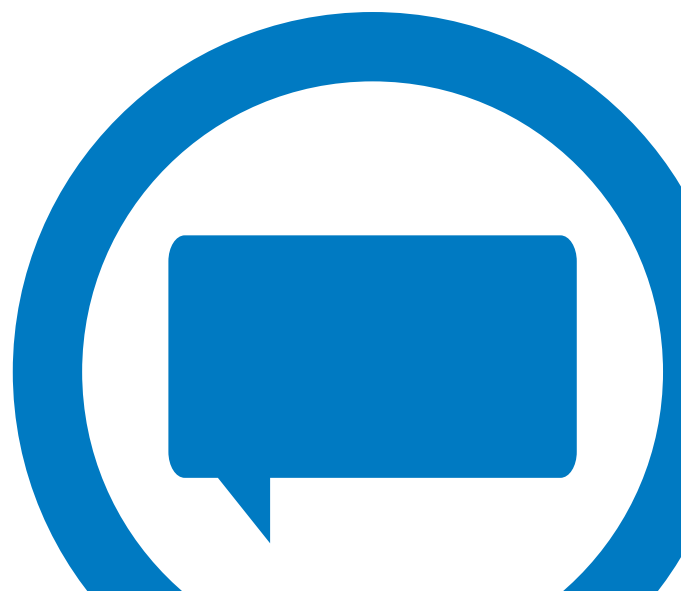
- Breathlessness discussion
- Pain discussion
- Fear/anxiety discussion

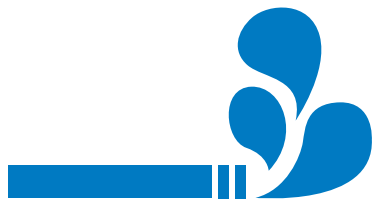
For anticipated deaths we recommend teams plan ahead and agree a draft for the MCCD as this enables the after death process to work more smoothly for families.

All in-patient deaths from the previous day should be discussed and the content of the MCCD confirmed with the responsible consultant – in some settings this is addressed via medical examiner pilots ([Ref 5](#)).

This discussion can usefully also be built into consultant-led board rounds which enables:

1. A consultant-led team discussion of the diagnoses causing death
2. A well-informed discussion by the team member(s) who talks to the family (registrar/coroner) after death
3. Support for team members involved in the death of a patient
4. Team learning and reflection on the care provided up to death - information that is then used for mortality reviews.





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Having the conversation continued

After death discussion

This is probably where the conversation will happen until it becomes more usual to discuss this as part of advance care planning as detailed above.

Clinician: *Thank you for coming in today. I have asked whether we could speak now so we have the opportunity to discuss and better understand how your "name of relative" died and to let you know what we as a team have agreed to write on "relatives name" death certificate and why.*

Do you know what was the cause of "name of relative"'s death?

Relative: *I know / I think it was his/her throat cancer*

Clinician: *Yes, that is what we are planning to write as the main cause. The death certificate also asks us to record any underlying causes for the main cause. Do you know what caused "name of relative" throat cancer?*

Relative: *Yes, it was his/her smoking wasn't it?*

Clinician: *Yes, it is highly likely that this was the most significant cause. When "Relatives name" was seeing us in clinic we calculated how much tobacco he/she had smoked and it was at a high enough level to cause smoking related problems such as throat cancer. The team looking after "relatives name" has agreed to include this as a cause.*

Relative: *I'm not sure I was expecting you to tell me that... You are right though; he/she knew that, we all knew that. It makes me feel angry/sad and I'm not sure I'm happy that it's on there, but it's a fact isn't it. Maybe spelling it out like that will help my sons quit.*



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Completing the death certificate

These are two suggested examples of completed sample death certificates (Figures 2a/b). The phrase recommended after our Helping Smokers Quit workshop with stakeholders in June 2015 for Part 1 or 2 is 'Tobacco smoking'. This is also being used by the Southampton medical examiner team. This therefore is the communication to the family as recipient of the MCCD, the local authority death registrar and the coroner.

Figure 2a – Tobacco smoking in position 1(b or c)

In this case the patient died in hospital from Type 1 respiratory failure due to an exacerbation of very severe COPD. She had a 45-tobacco pack year history and though she had experienced recent episodes being smoke free she had numerous relapses. The reason for recording with a direct causal relationship was her pack year history and the highly attributable (79% in women) condition.

BIRTHS AND DEATHS REGISTRATION ACT 1953
(Form prescribed by Regulations of Births and Deaths Regulations 1987)

MEDICAL CERTIFICATE OF CAUSE OF DEATH
For use only by a Registered Medical Practitioner WHO HAS BEEN IN ATTENDANCE during the deceased's last illness, and to be delivered by him forthwith to the Registrar of Births and Deaths.

Name of deceased: **Jane Smith**
Date of death as stated to me: **Thirteenth** day of **June** 2015. Age as stated to me: **67**.
Place of death: **Anne Ward, St James Hospital, Bellingham Avenue, London NW34 8GT**
Last seen alive by me: **Twelfth** day of **June** 2015.

1 The certified cause of death takes account of information obtained from post-mortem. Information from post-mortem may be available later but mortem not being held. I have reported this death to the Coroner for further action. (See overleaf)

Please ring appropriate district health authority if death by me or not by me. See also by another medical practitioner Not seen after death by a medical practitioner.

CAUSE OF DEATH
The condition should be the 'Certified Cause of Death' should be entered in Part I.
I (a) (Disease or condition directly leading to death): **Chronic Obstructive Pulmonary Disease**
(b) (Other disease or condition leading to (a) any): **Tobacco Smoking**
(c) leading to (b): Other disease or condition, if any.

II Other significant conditions CONTRIBUTING TO THE DEATH but not related to the disease or condition causing it: **Dementia / Tobacco Smoking**

The death might have been due to or contributed to by the employment followed at some time by the deceased Please tick where applicable.

I hereby certify that I was in medical attendance during the above named deceased's last illness, and that the particulars and cause of death above written are true to the best of my knowledge and belief.
Signature: **Dr Sara Hamid** Qualifications as registered by General Medical Council: **MBBS**
Residence: **St James Hospital, NW34 8GT** Date: **June 14 2015**

For deaths in hospital: Please give the name of the consultant responsible for the above-named as a patient: **Dr John Roberts**

Figure 2b – Tobacco smoking in position 2

In this case the patient died at home from a presumed aspiration pneumonia based on the clinical findings when he was assessed and a plan made for palliative care at home. He was due for a swallowing assessment following a review by his GP just over 2 weeks earlier. He was known to have Parkinson's disease. He had a 40-tobacco pack year history and was still smoking in the weeks leading up to his pneumonia. The causal sequence was due to the suspected aspiration and swallowing problem but as pneumonia is attributable to tobacco smoking (22% in men) it was recorded as a contributing factor along with his advanced dementia.

BIRTHS AND DEATHS REGISTRATION ACT 1953
(Form prescribed by Regulations of Births and Deaths Regulations 1987)

MEDICAL CERTIFICATE OF CAUSE OF DEATH
For use only by a Registered Medical Practitioner WHO HAS BEEN IN ATTENDANCE during the deceased's last illness, and to be delivered by him forthwith to the Registrar of Births and Deaths.

Name of deceased: **Godfrey Brown**
Date of death as stated to me: **Thirtieth** day of **July** 2015. Age as stated to me: **77**.
Place of death: **17, Acacia Road, Birmingham B43 8VA**
Last seen alive by me: **Twelfth** day of **July** 2015.

1 The certified cause of death takes account of information obtained from post-mortem. Information from post-mortem may be available later but mortem not being held. I have reported this death to the Coroner for further action. (See overleaf)

Please ring appropriate district health authority if death by me or not by me. See also by another medical practitioner Not seen after death by a medical practitioner.

CAUSE OF DEATH
The condition should be the 'Certified Cause of Death' should be entered in Part I.
I (a) (Disease or condition directly leading to death): **Bronchopneumonia**
(b) (Other disease or condition leading to (a) any): **Parkinson's Disease**
(c) leading to (b): Other disease or condition, if any.

II Other significant conditions CONTRIBUTING TO THE DEATH but not related to the disease or condition causing it: **Dementia / Tobacco Smoking**

The death might have been due to or contributed to by the employment followed at some time by the deceased Please tick where applicable.

I hereby certify that I was in medical attendance during the above named deceased's last illness, and that the particulars and cause of death above written are true to the best of my knowledge and belief.
Signature: **Dr Elena Bakowska** Qualifications as registered by General Medical Council: **MBBS MRCPG**
Residence: **The Lodge Surgery B43 8SD** Date: **July 31st 2015**

For deaths in hospital: Please give the name of the consultant responsible for the above-named as a patient: _____





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