

CRVS technical guide

Action guide on training and education on medical certification of cause of death

This CRVS action guide describes the importance of training and education for physicians on medical certification of cause of death

1 Add a learning module to the medical school curriculum

2 Provide training to medical interns and junior physicians

3 Provide refresher training for experienced physicians

4 Ensure channels for system-wide advocacy

Countries need reliable mortality data in order to monitor the health of their populations and develop health policy and public health programs. Ideally this is achieved through analysis of cause of death (COD) information for every death, obtained from the CRVS system.

In most countries physicians are required to certify deaths and record the underlying cause of death on a certificate aligned with the WHO International Form of Medical Certificate of Cause of Death (often referred to as the 'medical death certificate').

For the COD data to be useful, physicians have to correctly fill in the medical death certificate by identifying the condition that directly caused the death and then trace the sequence of events back to the underlying COD. However, few physicians are trained in this process or understand the importance of following it for reliable mortality statistics. These statistics are crucial for the generation of high-quality mortality data that can be used for national health goals and also global development targets.¹

Training programs can take the form of interactive workshops, which have been shown to be very effective,² or online tools for remote-area physicians. More importantly, **the training and education programs should be offered**

at the three key points in a physician's career: to medical students, junior physicians and interns, and senior practicing clinicians.

Education on the principles of medical certification and its importance for public health, and later instruction on how to complete a medical death certificate alongside options for refresher training should be provided as distinct phases for medical students, interns and practising physicians.

Action guide – key tasks and challenges



Step 1: Add a learning module to the medical school curriculum

Integrating a medical death certification training module into the medical school curriculum is a simple and sustainable way to train young physicians.

The aim of this module will be to highlight the importance of high-quality death statistics and introduce the methodology for accurate COD certification.

a. Frame accurate COD reporting as an essential medical duty of the physician

- Highlight that it will directly impact on national health policy and achievement of global health and development goals
- Let the students undertake learning activities using real-world data, for example looking at leading causes of death for their country
- During the activities encourage the students to reflect on the quality of the data, its utility, source, and whether it can be trusted as accurate and reliable.

¹ Pillay-van Wyk V, et al. Improving the quality of medical certification of cause of death: The time is now! *South African Medical Journal* 2011; 101:626.

² Walker S, et al. An accessible method for teaching doctors about death certification. *Health Information Management Journal* 2012; 41:4-10.

b. Emphasise to the students that as future physicians they will be responsible for contributing important data to the nation's health information system in the form of accurate medical death certificates

- Learning activities for this aspect could include case studies³ highlighting correct COD certification and its implications for public health.

c. Encourage students to identify and discuss other uses for medical death certificates in a broader social context, eg for surviving family members

- Learning activities could include helping the students to identify other uses for medical certificates such as benefits related to education and housing and next-of-kin access to health services.

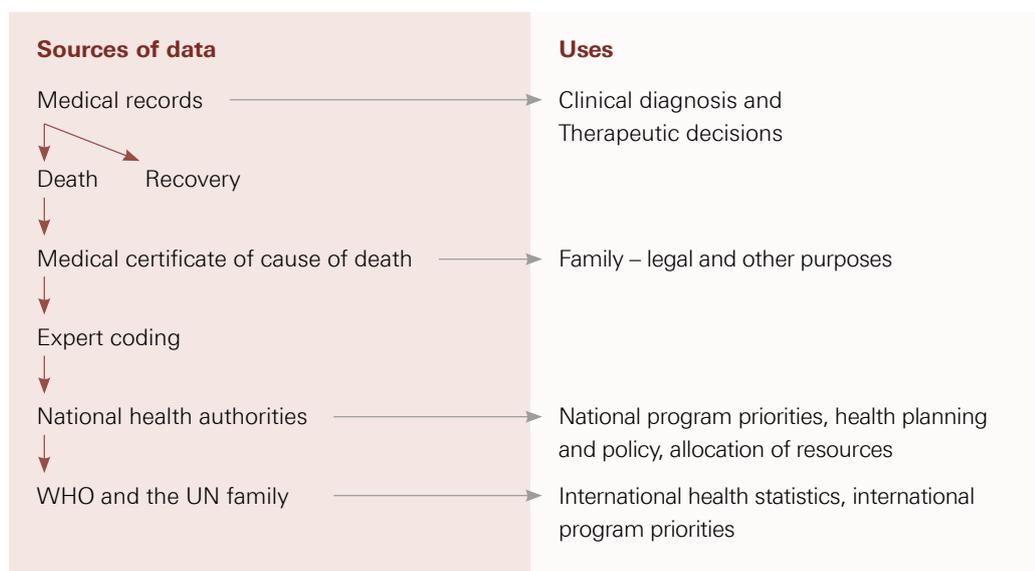
d. After teaching students the importance of accurate death certification in a broader context, focus on examining a medical death certificate

- Begin by discussing the WHO International Form of Medical Certificate of Cause of Death⁴
- Explain the structure and logic of the two parts of the certificate, ie that the certifier has to first detail the chain of events leading to death, and then list the contributory causes.

e. Re-emphasise to the students that medical death certification is both a statistical and diagnostic tool that is valuable for information systems, and also help in clinical care of patients.

- Learning activities could discuss the sources and various uses of death data (**Figure 1**).

Figure 1 Sources and uses of cause of death data



UN = United Nations; WHO = World Health Organization

Source: University of Melbourne. Reducing barriers to the accurate medical certification of death. CRVS development series. Melbourne, Australia: Bloomberg Philanthropies Data for Health Initiative, Civil Registration and Vital Statistics Improvement, University of Melbourne; 2017.

³ University of Melbourne. *Handbook for physicians on cause of death certification*. Melbourne, Australia: Bloomberg Philanthropies Data for Health Initiative, Civil Registration and Vital Statistics Improvement, University of Melbourne; 2018.

⁴ World Health Organization. *International statistical classification of diseases and related health problems*, 10th revision, vol. 2, 10th edition. Geneva: WHO; 2016.



Step 2: Provide training to medical interns and junior physicians

The most effective time to train junior physicians is when they first begin their residencies. At this stage the theory of medical death certification learnt as students can be consolidated and then extended to the more practical skills of how to fill in medical death certificates. Training for interns must be short, practical and efficient.

f. Briefly reiterate the theoretical aspects of certification of cause of death learnt in medical school.

g. Teach, step-by-step, how to complete a medical death certificate

- The discussion can begin in general terms about the International Form of Medical Certificate of Cause of Death
- The educators should then explain the structure and logic of the two parts of the certificate
- Explain the importance of following the process: the certifier has to detail the sequence of events leading to death first and then list the contributory causes
- As an interactive learning activity provide examples of incorrectly completed death certificates⁵ and task them with reviewing and correcting the errors. Also discuss potential implications of the errors.



Step 3: Provide refresher training for experienced physicians

Senior physicians' understanding of the importance of accurate death certification is a key factor in success as they directly supervise junior physicians. They are, therefore, in a position to ensure good certification practices by providing incentive and expertise.

To ensure that senior physicians have the necessary skills for accurate certification and an understanding of its importance, refresher training should be provided.

h. Provide a short course on accurate medical certification of cause of death for senior practicing physicians

- The course could be integrated into the continuing professional development (CPD) program, which they need to complete to retain their medical licence

- Learning activities in the course could include mock scenarios of deaths that the senior physicians have to complete the death certificate for
- Interactive feedback and discussion with the physicians will be crucial for success.



Step 4: Ensure channels for system-wide advocacy

To maintain the importance of medical death certification as a high-priority matter at all levels of the healthcare system active advocacy will be required.

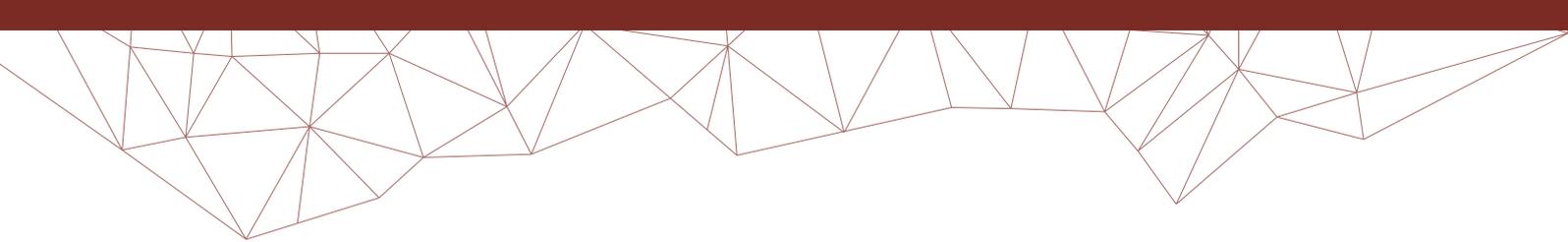
i. Advocacy should be targeted to medical boards, accreditation bodies, health institutes as well as hospital management.

j. Advocacy could also extend to medical departments at universities and institutes

- Face-to-face meetings are preferable
- System-wide advocacy will help to promote policy and planning changes to include medical death certification training at the three key stages of physician training.

k. A system of quality reviews and monitoring and assessment should be implemented

- One method is through clinical audit committees that can oversee the quality of certification practices
- They would also be responsible for setting training requirements and auditing death certificates and disseminating the results of the audits.⁶



Summary

The availability of complete and accurate data on COD is a valuable asset that can inform public health policy at the national and international level. As medical physicians conduct certification on the causes of death, their training and education in this area is critical to ensure the generation of high-quality mortality statistics. An integrated education program on medical certification of COD death targeting three levels of physician-career stages may be the best way to achieve this.

An effective way of starting is by incorporating the training into the medical school curriculum, and it should be focused on highlighting the importance of accurate death certification. Training for junior physicians can focus on more practical aspects like correct completion of the medical death certificate. Senior clinicians should receive refresher training on the concepts and on correct ways of completing the certificate, as well as highlighting their role in encouraging junior physicians to do so.

Finally, for success in achieving high coverage and accuracy, system-wide advocacy may be needed to ensure that it remains a high priority for physicians as well as management at the hospital and academic settings.

The program partners on this initiative include: The University of Melbourne, Australia; CDC Foundation, USA; Vital Strategies, USA; Johns Hopkins Bloomberg School of Public Health, USA; World Health Organization, Switzerland.

Civil Registration and Vital Statistics partners:



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