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Composing causes of death

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Karhausen examined the 140 causes of death of Mozart that have been proposed in the medical literature.¹ Recently, Caruncho and Fernandez interpreted Chopin's hallucinations as temporal lobe epilepsy.² Both studies nicely illustrate how a mechanistic view of death and disease still dominates modern medicine.

Identifying the cause of death can be difficult. Many physicians will share the experience that one is sometimes uncertain about the cause of death. In these instances, cardiac arrest is often written on the death certificate, which almost seems true by definition; the heart stopped beating. Intuitively, physicians realize that the mechanistic view of a single cause and a single effect is not always appropriate. Death certificates and national statistics however demand the identification of a single cause of death.

In a seminal paper, Rothman has argued that death and disease seldom have single causes.³ His model of causation identifies multiple components. Sufficient causes are subdivided into component causes. This model illuminates important principles as multi-causality, the dependence on the strength of component causes and interaction between component causes. In his view the death from a fall is caused by the combination of e.g. visual problems, a loose rug, osteoporosis and sarcopenia. This has important consequences, since it is therefore recognized that intervention with any of these component causes is important to prevent the formation of a sufficient cause for the fall.

In the next century, people will live longer lives without disabilities.⁴ The challenge in the future will be to manage elderly patients with multiple chronic diseases. A mechanistic view of single causes of death and disease is not appropriate for our growing population of elderly patients. A more widespread appreciation of the multi-causal nature of death and disease could be an important step to successful ageing in the next century.

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