Editorials

Keeping Track of Deaths in General Practice – An Audit?

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Mortality rates and patterns of death are important data of health outcomes. Autopsies, mortality review meetings and case analysis constitute an essential and significant part of quality management of the care provided by physicians. This process is common practice in many hospitals, though less so in the primary care setting.

Quality management includes process evaluation and outcome evaluation. Diagnosis and care of a patient include a data collection process (medical history, physical examination, laboratory and imaging tests), data analysis (for diagnosis), treatment, and follow-up. This process is complex and often influenced by physician variables (such as awareness and skills), patient variables (i.e., compliance) and the medical system (access, economic resources). But, perhaps the most important factor is the interaction of all these variables in the triangle of care (physician, patient, system) or often the square of care (physician, family, patient, system). Postmortem analysis and mortality reviews mainly deal with an acute event that subsequently caused the death of the patient.

Family physicians take care of their patients for many years and are responsible for their mental and physical health. They treat the patients in acute situations (such as pneumonia, abortions, pelvic fracture), through chronic illnesses (high blood pressure, diabetes, depression) and for preventive medicine and health promotion. Data collection on patients accumulates not from one episode of hospitalization but through the collective data accumulated in many visits of the patient with the family physician, from hospitalization summary reports, from visit reports with consultants, and from visits of other family members reporting on the medical condition of the patient.

The death of a patient is an opportunity to evaluate the outcomes and process variables in the treatment of the patient that led to his or her death, not only through the last episode of care but through the continuum of care between the physician, his/her patients and their families. Unfortunately, although this process is vital it is not commonly practiced. This process is even more significant in a practice of a lone family physician without a team.

Many reports have clearly indicated the feasibility of holding a mortality register in family physician practices, which will include up to 97.8% of deaths. This is true if different data sources are included, such as death certificates, information from family members, information from the Ministry of Interior, and hospital summary data [1]. Many studies have pointed out that family physicians have a high interest in receiving such information, and many view it as an important tool for improving the care of their patients and even utilize these data [2-4].

What is the difference between the national mortality data collected by the national Bureau of Statistics and data based on mortality registers in family physician practices? This is analogous to a forest studied from two different viewpoints. One is through a bird’s eye, where we learn about the forest from above. The other is to analyze in depth one tree or a group of trees. Thus, we learn about the forest through examining the treetop, the leaves, the trunk and the roots.

The in-depth analysis through the mortality registers in family physician practices will allow us to include information beyond how many die each year, what age and gender, and causes of death (collected through the national data). Where did these patients die? Who wrote the death certificate? How long has it been since the patient’s last visit with the family physician? What known risk factors did the patient have? Which of the family members were involved? And more.

Keeping a mortality register allows characterization of the causes of death, the age of death, and the family members left in our care. The mortality register allows comparison of our practice results with national data. In addition, death patterns over the years can be identified. Moreover, each patient who died leaves family members and friends who are often cared for by the same practice. This fact emphasizes the importance of the family physician’s role in the bereavement stage.

In Israel, where nearly all practices are computerized and some are even linked to hospital information systems, it is feasible to manage such a register. However, it does necessitate cooperation between the different health management organizations providing the primary medical care and the different institutions (city municipality, Hevra Kadisha*, Ministry of Health, hospitals, Ministry of Interior).

* Burial Society
In this issue of *IMAJ*, Rosenberg et al. [5] report on their experience managing a mortality register in their teaching clinic. They emphasize the educational value of using such a register and exemplify this by describing how the review of cases led to changes in clinical practice. Hermoni and collaborators [6] described such a register in a rural clinic in Israel. It is important that the different institutions cooperate, and primary care practices should be encouraged to keep mortality registers.

The potential advantage of managing a death register includes also having the opportunity for bereavement follow-up, improving the data on the death certificate, and further quality management in primary care [1-8].

References

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Vertebrates’ hearts begin as a valveless tube that has generally been described as a peristaltic pump. Using confocal laser scanning microscopy and time-resolved three-dimensional visualization methods, Forouhar and co-workers followed the heart wall and blood cells in the zebrafish embryo. The embryonic heart tube did not demonstrate the properties expected of a peristaltic pump.

Instead, elastic wave propagation and reflection in the heart tube produced an action that is more consistent with a hydroimpedance pump influenced by mechanical features of the heart tube, such as its diameter, length, and elasticity.

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Eitan Israeli

Battegay et al. from Basel found that potent antiretroviral therapy dramatically improved the prognosis of patients infected with HIV-1. Primary and secondary prophylaxis against Pneumocystis carinii, Mycobacterium avium, cytomegalovirus, and other pathogens can be discontinued safely once CD4 cell counts have increased beyond pathogen-specific thresholds. Approximately one-third of individuals receiving antiretroviral therapy will not reach CD4 cell counts above 500 cells/μl after 5 years despite continuous suppression of plasma HIV-1 RNA. Whether this failure represents a risk factor for the long-term incidence of opportunistic diseases – such as tuberculosis or malignancies – is not known. The authors describe the time course of CD4 cell concentrations in patients whose plasma HIV-1 RNA is durably suppressed by antiretroviral therapy, in patients with incomplete suppression of plasma HIV-1 RNA, and during treatment interruptions. They also describe immune reconstitution disease, an inflammatory syndrome associated with immunologic recovery occurring days to weeks after the start of antiretroviral therapy.

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Mortality Register 423