

Society of General Internal Medicine

Choosing Wisely Five Things Physicians and Patients Should Question

Don't perform routine general health checks for asymptomatic adults.

Routine general health checks are office visits between a health professional and a patient exclusively for preventive counseling and screening tests. In contrast to office visits for acute illness or chronic care management such as treatment of high blood pressure, regularly-scheduled general health checks without a specific cause including the “health maintenance” annual visit, have not shown to be effective in reducing morbidity, mortality or hospitalization, while creating a potential for harm from unnecessary testing.

Discussion

Routine general health checks, also known as periodic health evaluations, routine medical exams or annual exams, are used to screen asymptomatic people to reduce morbidity and mortality by detecting disease or modifiable risk factors. A routine health check was one of the two most common reasons patient visited their health care provider in the United States and Canada in 2009¹⁻². Both physician and patient factors contribute to the continued use of general health checks.

In spite of their common use, multiple studies including Cochrane reviews and a high-quality systematic review, have failed to find any benefit from routine general health checks for asymptomatic adults.³⁻⁶ The Cochrane review examined randomized clinical trials comparing screening for more than one disease or risk factor in more than one organ system with no health checks in adults in primary care or community settings. It found:

1. Nine trials of 155,899 patients showed no significant effect on all-cause mortality (risk ratio [RR], 0.99; 95% CI, 0.95-1.03), with no heterogeneity across the trials. Subgroup examination based on the duration of follow-up, types of testing, inclusion of lifestyle counseling, and other factors did not alter the results. Similarly, 8 trials of 152,435 patients had no significant reduction in cardiovascular mortality (RR, 1.03; 95% CI, 0.91-1.17), and 8 trials of 139,290 patients had no reduction in cancer mortality (RR, 1.01; 95% CI, 0.92-1.12). There was more heterogeneity in the results for those end points.
2. Outcomes other than mortality were not consistently reported across the trials. The 5 trials reporting hospitalization data failed to find a benefit with general health checks. Five of 7 trials found that general health checks did not reduce disease morbidity, 1 trial found that health checks increased the prevalence of diagnosed chronic conditions at 7 years, and 1 trial found that health checks were associated with higher rates of self-reported high blood pressure and high cholesterol at 1 year. Costs, harms, or the use of follow-up medications and testing as a result of screening could not be reliably estimated based on the available data.
3. There is potential bias in the studies since the majority were unblinded and had considerable loss to follow-up.
4. There is also some concern that the screening practices of some of studies may not be reflective of current practices, since 9 of the 14 studies were initiated before 1980, and the most recent was in 1992. However, most evaluated common screening practices that

have not changed much over the years (height, weight, visual acuity, blood pressure, blood work, physical exam, urinalysis, and questionnaires to establish risk factors).

5. A earlier review by Boulware and colleagues⁶ used a slightly different definition of a general health check, but also included observational studies. The authors reported that general health checks compared to usual care had no effect on mortality, disability and hospitalizations. However, the review did conclude that general health checks may improve the delivery of preventative health care and decrease patient worry. The Krogsbøll review identified 2 trials that found no benefit on decreasing worry while the Boulware review identified one trial that found benefit.

Although this data has limitations, there is no convincing evidence that general health checks are beneficial. National expert panels such as the Canadian Task Force on Periodic Health Examination in 1979⁷ and the United States Preventative Service Task Force in 1989⁸ have recommended against annual general health checks and instead recommend focused evidence-based health checks tailored by patient-specific risk factors.

These studies refer exclusively to general health checkups. This recommendation does not include visits for acute illnesses, the follow-up of chronic conditions or visits for the purposes of evidence-based screening. Thus, healthcare providers should consider placing more emphasis on evidence-based and patient-specific interventions as opposed to population-based routine general health checks.

References

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