



Society of General Internal Medicine

Choosing Wisely – 5 Things Physicians & Patients Should Question

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For asymptomatic adults without a chronic medical condition, mental health problem, or other health concern, don't routinely perform annual general health checks that include a comprehensive physical examination and lab testing. Adults should talk with a trusted doctor about how often they should be seen to maintain an effective doctor-patient relationship, attend to preventive care, and facilitate timely recognition of new problems. Visit intervals should be based on specific concerns, chronic conditions, or prevention strategies based on the best available evidence, tailored to age and risk.

A general health check may help to foster a trusting relationship between a doctor and patient. It may also provide an opportunity for preventive counseling and screening. However, it is not always necessary to have a general health check every year. In contrast to office visits for acute illness, specific evidence-based preventive strategies, or chronic care management such as treatment of high blood pressure, annually scheduled general health checks, including the "health maintenance" visit, have not been shown to reduce morbidity, hospitalizations, or mortality, and may increase the frequency of non-evidence based testing.

Summary of Update

We replicated and updated the original searches used in the two systematic reviews referred to in the 2013 Choosing Wisely recommendation from the Society of General Internal Medicine (SGIM). Our update searched for any trials since 1980, not included in those two systematic reviews, which compared a single in-person encounter for a routine health check to an intervention not including such a check, in any outpatient setting, among healthy adults.

We reviewed 4746 citations at the title-abstract level and 164 at the full text level (see Figure 1.) We found 4 studies which compared routine health checks in a healthy general population to an intervention not including such checks. A matched cohort study using electronic health records in the United Kingdom found that the annual National Health Service Health Checks were associated with increased detection of hypercholesterolemia, and to a lesser extent obesity and hypertension; mortality, morbidity, or hospitalization were not assessed.¹ In a cross-sectional analysis of electronic health record data, Pfoh et al.² found that the Medicare Annual Wellness Visit was not associated with an increase in depression screening. Labeit et al., in an individual-

level analysis of repeated cross-sectional surveys from 1992 to 2008, found that annual health checks were associated with increased uptake of breast cancer screening and cervical cancer screening, as well as blood pressure checks, dental screening, and eyesight tests.³

Our search also retrieved three systematic reviews, of which two were included in the original recommendations.^{4,5} In a systematic review and meta-analysis in 2014, Si et al. found, on the basis of 4 heterogeneous trials, that “general health checks” among populations with mean ages from 35 to 65 were associated with small but statistically significant improvements in systolic and diastolic blood pressure, and in total cholesterol; however, these four trials were characterized by varied populations, interventions, and lengths of follow up, and three of the four trials involved screening for diabetes or cardiovascular disease, with only one characterized as a ‘general health check’ per se.⁶

Discussion

The Choosing Wisely campaign is an opportunity for medical societies to identify key areas in their specialties where unnecessary or costly exams or procedures can be eliminated and evidence-based practices reinforced. One practice common to general internal medicine and family medicine is the “annual physical exam” or “general health check” which typically includes a physical exam and lab testing. Sometimes the general health check is expanded to include preventive measures that are often implemented at the same time. In SGIM’s previous recommendation against routinely performing annual general health checks, we defined general health checks as unique office visits conducted for the stated purpose of health maintenance in the absence of a specific concern or chronic condition. Unfortunately, many concerns were raised about how that recommendation could be misapplied to patients who could benefit from having a general health check, such as vulnerable patients with poor access to doctors, or patients with a mental health problem, substance abuse, or other specific health concern. In SGIM’s new recommendation, we focus more specifically on recommending against routinely performing general health check-ups with physical exams and lab testing on an annual basis, while acknowledging their potential value for patients.

Much of primary care practice relies on discussion with patients rather than procedures; thus general health checks have assumed importance in the eyes of both doctors and patients. Insurers take a variety of approaches to the annual physical, ranging from zero reimbursement to full reimbursement. The Affordable Care Act calls for full coverage of preventive services recommended by the U.S. Preventive Services Task Force (USPSTF), but the USPSTF does not include general health checks on the list of covered preventive services. Apart from the Annual Wellness Visit, Medicare does not cover general health checks; private insurers do tend to cover them.

Evidence for the value of the annual physical is mixed and limited. SGIM examined the utility of the annual physical (considered by many to be a fundamental aspect of primary care) in its first list of items for the Choosing Wisely campaign, published in 2013, recommending against routine annual use in asymptomatic adults. This was based on two reviews of published

studies. Those two papers were both high quality systematic reviews. One identified 14 randomized controlled trials of general health checks, and found no mortality benefit and no beneficial effect on morbidity, hospitalization, disability, worry, or absence from work. 4 of these trials included only comprehensive physical exams with lab testing; 9 included comprehensive physical exams, lab testing, and other preventive services (1 study did not describe its intervention in detail). See Appendix. ⁴ The 23 observational studies and 10 trials of periodic health evaluations (defined as one or more visits with a health care provider for the primary purpose of assessing patients' overall health and risk factors for disease that may be prevented by early intervention), and found that the only benefits were higher rates of cervical cancer screening (i.e., gynecologic examination and Papanicolaou smear), fecal occult blood testing, and cholesterol screening, and less patient worry. In this review, 16 of the observational studies included only comprehensive physical exams with lab testing, while 7 included comprehensive physical exams, lab testing, and other preventive services. Four of the trials included only comprehensive physical exams with lab testing, while 6 included comprehensive physical exams, lab testing, and other preventive services. See Appendix. ⁵

This updated topic review sought to take a broader appraisal of the existing evidence. We ultimately concluded that the evidence is weak that general health checks which included comprehensive physical exams and lab testing (not necessarily annual) could produce a small improvement in blood pressure and total cholesterol level, and possibly increase performance of cervical cancer screening, fecal occult blood testing, and cholesterol screening. The existing evidence indicates that general health checks do not produce significant improvement in mortality or clinically important outcomes other than a possible decrease in patient worry, but the overall strength of evidence is weak. If we apply the criteria that are used by the U.S. Preventive Services Task Force to identify preventive services that should be recommended for routine use, the evidence base is definitely insufficient to support routine use of annual general health checks for asymptomatic adults without a specific concern, chronic condition, or evidence-based prevention strategy. On the other hand, the evidence is insufficient to support a recommendation against all use of general health checks.

Screening and Prevention as Part of General Health Checks

In contrast to the mixed evidence base for general health checks alone, screening and prevention for individual conditions is an important part of evidence-based practice. Among other organizations, the USPSTF recommends screening for cervical cancer, breast cancer, colon cancer, and lung cancer in the context of a discussion of the potential benefits and harms of screening, as well as screening for abdominal aortic aneurysm, cardiovascular risk factors such as hyperlipidemia, depression, alcohol misuse, tobacco use, obesity, and intimate partner violence. Multiple organizations also recommend preconception counseling and prenatal care. Though frequently addressed as part of a general health check, screening for these conditions does not in itself require an annual visit, and can be accomplished in a variety of ways, such as during visits performed for other reasons.

Other Positive Aspects of General Health Checks

Despite the absence of research evidence that general health checks lead to significant improvement in clinical outcomes beyond a possible reduction in patient worry or increased rates of recommended preventive screening tests, physicians cite anecdotal experience about the discovery of early symptoms or signs of disease that led to interventions which improved outcomes (e.g., in hypertension, diabetes mellitus, angina, or depression). It is possible that studies lacked the power to detect benefits distributed across many different clinical conditions.

A number of other potential positive aspects of general health checks should be mentioned. They may strengthen the provider-patient relationship through regular contact.^{7,8} They may build trust and rapport (e.g., a recent review indicates that continuity of care may supplement patients' trust in providers by strengthening the aspect of "vigilance" in care).⁹ They may encourage healthy behavior.¹⁰ They may help keep open lines of communication which might be needed in the case of acute illness or other health-related stressors. Furthermore, a physician's role as a community-oriented public health worker may be potentiated through general health checks with patients; and, conversely, patients may be educated about health through such visits, acting as change agents in their communities. While these aspects may be important byproducts of the patient-provider relationship, it is not clear that the annual health check per se is necessary to promote them, or that such a yearly visit is superior to other interventions, such as less frequent general health checks or chronic care follow-up visits. In particular, the peer-reviewed literature lacks rigorous evaluations of the potential communicative, affective, ethical, and population-health benefits of the general health check. Advocates for low-income patients have expressed concerns about how a reduction in use of general health checks could affect low-income patients, who are more likely to go for more than a year without seeing a physician. While evidence is lacking on how a reduction in use of general health checks could affect low-income patients, evidence also is lacking on how use of general health checks affects low-income patients who are resource limited, for whom a visit without a concern means significant expenditures of time and money. Our Choosing Wisely recommendation should be seen as encouragement for researchers to address these issues.

Potential Negative Aspects of Annual General Health Checks

It is important to acknowledge the potential negative aspects of annual general health checks (that is, those done on a yearly basis without specified screening in mind or for the follow up of a chronic condition). Some of these negative aspects overlap with the potential adverse effects of screening methodologies (e.g., overdiagnosis,¹¹ labeling, and anxiety). Negative aspects also include the inconvenience of the general health check and the potential for harm through over-testing.¹²

Summary: The General Health Check and the Doctor-Patient Relationship

The doctor-patient relationship is critically important. One of its most valuable components is screening for and prevention of certain specified conditions. However, strictly adhering to annually scheduled health checks among healthy asymptomatic adults in the absence of other concerns is not likely to improve outcomes compared to screening and prevention that can occur

through less frequent preventive health or other visits or through other system-based health promotion strategies. For this reason, asymptomatic adults without a chronic medical condition, mental health problem, or other health concern may not need a general health check on an annual basis. All adults, regardless of income or insurance status, should establish a relationship with a primary care provider. As part of that relationship, adults should talk with the doctor about the screening and preventive measures that may be of value to them, as well as the frequency of visits most appropriate for addressing their health concerns and maintaining a trusting relationship.

A succinct version of this recommendation is: **“Talk with a trusted doctor about how often you need to be seen.”** We support further research regarding effective and equitable delivery mechanisms for prevention and health maintenance, including: periodic exams,¹³ best practices for effective patient-centered visits,^{14,15} care provided by non-physicians outside of the clinical exam, and care managed via electronic health records¹⁶ and patient portals, potentially incorporating patient decision aids.¹⁷

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Appendix

Choosing Wisely Systematic review summary
Periodic Health Exam

Krogsboll, 2012*

Review	Comprehensive exam or lab tests only	Comprehensive exam or lab tests and other preventive services
Tibblin, 1982	Yes	Yes
Friedman, 1968	Yes	Yes
The South-East London Screening Study Group, 1977	Yes	Yes
Bennett, 1972	Unclear†	Unclear†
Lannerstad, 1977	Yes	Yes
Theobald, 1998	Yes	Yes
Wilhelmsen, 1986	Yes	Yes
WHO European Collaborative Group, 1989	Yes	No
Olsen, 1976	Yes	Yes
Murray, 1986	Yes	No
Imperial Cancer Research Fund OXCHECK Study Group, 1995	Yes	No
Family Heart Study Group, 1994	Yes	No
Thomsen, 2005	Yes	Yes
Jorgensen, 2002	Yes	Yes

* Defined general health checks as: screening for more than one disease or risk factor in more than one organ system, whether performed only once or repeatedly.

† The intervention was described as a routine health examination, a full examination, and screening programme in general practice, but not in detail. (see table 3 in the article)

Boulware, 2007*

Review	Comprehensive exam or lab tests only†	Comprehensive exam or lab tests and other preventive services
Observational studies		
Grimaldi, 1965	Yes	No
Roberts et al., 1969	Yes	No
Slesinger et al., 1976	Yes	No
Geiger et al., 1993	Yes	Yes
Nakanishi et al., 1996	Yes	No
Kottke et al., 1997	Yes	No
Sox et al., 1997	Yes	No
Bernacki et al., 1998	Yes	No
Williams et al., 1998	Yes	No
Hahn, 1999	Yes	No

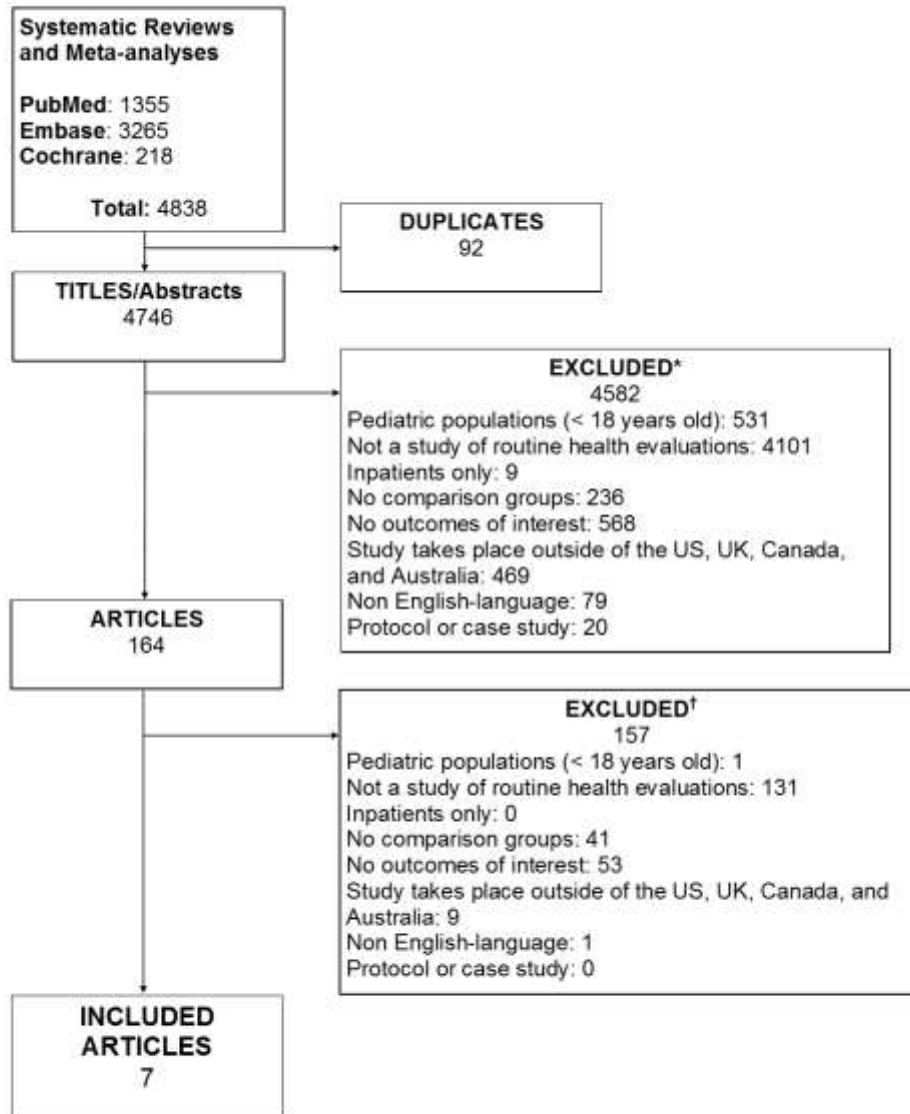
Freedman et al., 2000	Yes	Yes
Stange et al., 2000	Yes	Yes
Hama et al., 2001	Yes	Yes
Nutting et al., 2001	Yes	No
Parchman and Byrd, 2001	Yes	No
Tao et al., 2001	Yes	Yes
Burton et al., 2002	Yes	Yes
Chiou and Chang, 2002	Yes	Yes
Finkelstein, 2002	Yes	No
Schneider et al., 2003	Yes	No
Flocke and Stange, 2004	Yes	No
Lin et al., 2004	Yes	No
Somkin et al., 2004	Yes	No
Trials		
Cutler et al., 1973	Yes	No
Fletcher et al., 1977	Yes	Yes
Stone et al., 1981	Yes	Yes
Belcher, 1990	Yes	Yes
Burton et al., 1995	Yes	Yes
Elder et al., 1995	Yes	No
Morrissey et al., 1995	Yes	Yes
Nakanishi, 1996	Yes	No
Theobald, 1998	Yes	Yes
Patrick, 1999	Yes	No

*Defined PHE as: as one or more visits with a health care provider for the primary purpose of assessing patients' overall health and risk factors for disease that may be prevented by early intervention.

†By default, all of the studies involved comprehensive exam or lab work based on the PHE definition

Figure 1

Results for Choosing Wisely search update



* Sum of excluded abstracts exceeds 4582 because reviewers were not required to agree on reasons for exclusion
† Sum of excluded articles exceeds 157 because reviewers were not required to agree on reasons for exclusion