Preventive Medicine 57 (2013) 3–11

Contents lists available at SciVerse ScienceDirect

Preventive Medicine

journal homepage: www.elsevier.com/locate/ypmed

Review

Preventive services recommendations for adults in primary care settings: Agreement between Canada, France and the USA—A systematic review

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ARTICLE INFO

Available online 6 April 2013

Keywords:
Preventive health services
Primary health care
Guidelines as topic
Evidence-based medicine
Recommendations
Agreement between countries

ABSTRACT

Objective. To analyze the level of agreement between recommendations on preventive services developed by Canada, France and the USA.

Methods. We gathered recommendations on primary and secondary preventive services to adults up to November 3rd, 2011 from Canadian and US Task Forces, and equivalent French agencies. We excluded recommendations on immunization, long-term diseases or pregnancy.

Results. Among 250 recommendations, 84 (34%) issued by a single country could not be compared; 43 (26%) of the remaining 166 were in strong agreement (strictly identical grades between advising countries); 25 of 43 resulted in a proposal to be implemented in clinical practice, two others not to be implemented in clinical practice and 16 were indeterminate about implementation. Strong agreement was more frequent for recommendations concerning history-taking and physical examination than for those concerning interventions (odds ratio (OR) = 11.3, 95%CI: 1.6–241.2; $p = 0.04$), and for recommendations concerning a high-risk population than for those concerning the general population (OR = 3.1, 95%CI: 1.4–7.0; $p = 0.006$). Agreement did not differ either according to maximum time range between recommendations' publication or according to the advising country.

Conclusion. Agreement between recommendations is low particularly on those concerning non-clinical preventive services or non-high-risk individuals.

Contents

Abbreviations: ANAES, the previous acronym for the French National Authority for Health (until 2004); AFSSAPS, French Agency for the Safety of Health Products; CTFPHC, Canadian Task Force on Preventive Health Care; HAS, the current acronym for the French National Authority for Health; INCa, French National Cancer Institute; NICE, National Institute for Health and Clinical Excellence; RACGP, Royal Australian College of General Practitioners; USPSTF, United States Preventive Services Task Force.

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http://dx.doi.org/10.1016/j.ypmed.2013.03.012

Introduction

Many leading causes of death and disability—including those due to certain types of cancer, cardiovascular diseases, infectious diseases or diabetes—are associated with identified risk factors, opening the way to preventive strategy policies (World Health Organization, 2011). Health promotion and disease prevention have become integral components of primary health care (Allen et al., 2011), and general practitioners (GP) hold a strategic position in delivering preventive services (Hulscher et al., 2006). During the last thirty years, several countries have developed evidence-based recommendations for periodic health examinations, such as the Canadian Task Force on Preventive Health Care (CTFPHC, since 1979) (Canadian Task Force on Preventive Health Care [CTFPHC], 2012; Public Health Agency of Canada, 1994) and the United States Preventive Services Task Force (USPSTF, since 1983) (U.S. Preventive Services Task Force [USPSTF], 2010a), which often worked in close cooperation. Many other national agencies have focused their guidelines on diseases and their curative treatment, among which specific recommendations on preventive care are scattered (French National Authority for Health, 2009). For each recommendation, the grading system used to recommend or not a particular action depends on the quality of available evidence concerning a preventive service for a given target population, assessing its benefits and harms to health outcomes.

Implementation of evidence-based guidelines in clinical practice is a critical issue, whether for preventive or curative strategies (Harris et al., 2012; Hulscher et al., 2006). Actual rates of preventive service delivery remain low: around 50% for screening, 25% for immunization, and less than 10% for counseling services (Krist et al., 2012; Stange et al., 2000; Yarnall et al., 2003). Many elements—absence of a reminder system, reimbursement, time, awareness or outcome expectancy—contribute to adherence barriers (Cabana et al., 1999; Carlsen and Bringedal, 2011; Lugtenberg et al., 2011; Yarnall et al., 2003). In addition, the failure to reach consensus within the whole body of existing recommendations is a major concern (Burgers et al., 2003; Grol, 2001; Hutchings and Raine, 2006; McMurray and Swedberg, 2006). Beyond the overcoming organizational barriers, a better consensus between national agencies could improve adherence to clinical practice guidelines in primary care settings.

In international literature, very few comparisons between the findings of national agencies can be found. Most of them targeted a specific field or a specific population (Burgers et al, 2002; Kanis et al., 2000; Mallery and Rockwood, 1992; McMurray and Swedberg, 2006). Some international agencies have analyzed recommendations on specific preventive topics published across countries (International Agency for Research on Cancer, 2013; National Cancer Institute, 2012). To date, comparisons between Canada and the USA are rare or old (Agency for Healthcare Research and Quality, 2013; Hayward et al., 1991; Mavriplis and Thériault, 2006; Milone and Milone, 2006), and there have been no comparisons between recommendations on preventive care issued by other countries. Above all, no methodology has been developed to perform a comprehensive comparison of all preventive services in adults, allowing to quantify the level of agreement between several countries and to assess its determinants.

In this context, it seemed important to describe the recommendations from three various countries, to analyze their level of agreement, to compile a list of the most consensual recommendations and to assess the determinants of strong agreement.

Methods

Recommendations—sources and search for

We chose Canada and the United States of America (USA) because their recommendations on preventive care have long been world-notorious. For the Canadian recommendations, we included those from the new CTFPHC website (CTFPHC, 2012) or, if lacking, the latest version of the Canadian Guide to Clinical Preventive Health Care published (Public Health Agency of Canada, 1994). For the US recommendations, we used those from the USPSTF's Guide to Clinical Preventive Services (USPSTF, 2010a).

We added France as a European country publishing recommendations focused on curative treatment. Because there was no single French agency publishing preventive services guidelines, we included all relevant recommendations published by the French National Authority for Health (called HAS in French, and ANAES until 2004) (French National Authority for Health, 2011). If none were found, we completed our research by querying the catalogue and index of French-language medical sites, which is a quality controlled health information portal using a terminology based on the Medical Subject Headings thesaurus (Sakji et al., 2009).

Recommendations—selection

We retrieved recommendations on preventive care in Canada, France, and the USA. We consulted websites and databases for the last time on November 3rd, 2011. We considered that any of those which were accessible on the official websites were still relevant. We included all recommendations found regarding primary and secondary prevention in asymptomatic adults (Leavell and Clark, 1965), except those dedicated to very specific populations (pregnant women or people already suffering from long-term disease or injury, considered as tertiary prevention) or published by specific national agencies (immunization) [Appendix Method 1].

Recommendations—extraction and splitting

Given the discrepancies among the countries between the scope of a recommendation and the target population, we decided to split the recommendations to allow one-to-one comparisons between countries. We performed this splitting as needed on three successive levels: "topics of recommendation" (e.g. breast cancer, colorectal cancer, coronary heart disease, tobacco use); "preventive services" (e.g. screening for breast cancer by self-examination, by mammography, or by magnetic resonance imaging); target population as defined by gender, age and risk level for disease occurrence) [Appendix Fig. 1]. The splitting did not take into account the recommended frequency of each preventive service. We defined the final products of splitting as a "targeted recommendation" [Appendix Method 2].

Recommendations—synthesis and grading

The grading system of a recommendation depended on the quality of evidence assessing the benefit/risk balance of a preventive service for a given target population. Each country adopted its own grading system to strongly or weakly recommend or discourage implementing preventive services for a given target population (CTFPHC, 2003; French National Authority for Health, 2010; Public Health Agency of Canada, 1994; USPSTF, 2008a). In some cases, the French grading system also takes into account practices and expert opinions, referred to as a "Professional Consensus" [Appendix Table 1]. To allow a comparison between countries for a targeted recommendation, we determined equivalences between these different grading systems [Table 1]. Thus, we defined an "equivalent grade of recommendation" for each targeted recommendation.

For any targeted recommendation allowing comparison between at least two countries, we defined strong agreement as when the related equivalent grades of recommendation were strictly identical among the three advising