Eur J Epidemiol (2011) 26:761–762
DOI 10.1007/s10654-011-9628-8

COMMENTARY

STROBE-ME too!

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Published online: 11 November 2011

The past decade has seen a growing catalogue of guidelines for reporting findings of epidemiologic studies [1–4]. The basic rationale of each of these guidelines is that these efforts will ultimately improve the credibility of epidemiological research and publications. Recently, the European Journal of Epidemiology published the guide lines for prognostic studies in genomics [5, 6]. In this issue the journal includes the paper of the Gallo et al. entitled 'STrengthening the Reporting of OBservational studies in Epidemiology—Molecular Epidemiology (STROBE-ME). In 2004, the STROBE initiative provided a checklist of 22 items to be reported in epidemiological studies. The present STROBE-ME initiative builds on the STROBE Statement [2]. It is difficult to suppress a '*me-too*' feeling and the question raised by Vandenbroucke comes to mind: for whom do these guidelines toll [4]? Why do we need this extension of the STROBE statement given the abundance guidance?

Building upon STROBE, STROBE-ME focuses specifically on biomarkers. A biomarker is a characteristic that can be objectively measured and evaluated as an indicator of pathogenic processes. There is no doubt that biomarkers have been highly valuable in epidemiological research capturing exposures, providing quantitative measurements, improving diagnosis and last but not least identifying high risk groups for prevention and interventions. Despite these successes, molecular epidemiologic research of the past decades has taught us that discovery of plasma biomarkers for major diseases is more challenging than anticipated. It may be argued that the "one biomarker-one phenotype" assumption may have been a too simplistic approach. The large number of biological processes that may underlie the pathogenesis of complex diseases such as cardiovascular disease, cancer and dementia predict that multiple biomarkers are needed to capture the diversity. New developments in –omics technology including lipidomics, metabolomics and proteomics will make proteome wide approaches feasible in the near future and will boost research molecular epidemiologic research. However, findings using the new –omics technology have been difficult to reproduce, resulting even in law-suits investigating possibilities of fraud in reporting [7]. This puts the reporting of key information in biomarker research back on the agenda.

It is without a doubt that STROBE-ME targets a timely issue in epidemiology, that is biomarker research in epidemiology [8–13]. The items added to STROBE concern collection, handling and storage of biological samples, laboratory methods, validity and reliability of biomarkers, special study designs and ethical considerations. The items addressed differ from those reported by recent guidelines focusing on genetics [3, 5]. As the quest for biomarkers for common diseases will enter a new era, STROBE-ME is a valuable addition to the collection of guidelines.

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