

## Correction

Knijn N, Nagtegaal ID. Guidelines for reporting histopathology studies *J Clin Pathol* 2014;67:1111–2. Figure 1 and box 1 were left out in the printed PDF version of this article. Please find the complete article below.

### GUIDELINES FOR REPORTING HISTOPATHOLOGY STUDIES

With the increasing amount of published papers and the need for evidence-based guidelines for diagnostics and treatment, it becomes of utmost importance to assess the quality of publications. The highest degrees of evidence in medicine are based on prospectively randomised clinical trials. In histopathology, trials are virtually non-existing and prospective studies are still relatively rare. The majority of our practice is based on retrospective studies, quite often from single centres.

Higher levels of evidence can be reached by systematic reviews of the existing literature and meta-analyses, that are increasingly present in the literature (figure 1).<sup>1</sup> These meta-analyses are also important to provide information about the prognostic value of traditional factors, against which new diagnostic tools can be compared. However, the reporting of meta-analyses varies,<sup>2–4</sup> limiting the possibility to assess strength and weaknesses of the reviews. Therefore, the PRISMA guidelines have been implemented for the reporting of systematic reviews and meta-analyses.<sup>5</sup> However the PRISMA guidelines focus on the reporting of a meta-analysis, not on the reporting of the individual studies included in the meta-analyses. The establishment of quality of publications and

### Box 1 Guidelines for reporting of histopathology studies

#### Introduction

1. States the FOI, the study objectives and hypotheses

#### Material and Methods

2. Describes patient characteristics, inclusion and exclusion criteria
3. Describes (neoadjuvant) treatment details
4. Describes type of material used and number of slides examined
5. Specifies criteria for the FOI
6. Describes the number of independent (blinded) scorers
7. States the method of case selection, study design, hospital and time period
8. Describes the end of follow-up period and median follow-up time
9. Defines all clinical end points examined
10. Specifies all statistical methods
11. Describes how associations with other clinical/pathological factors were analysed

#### Results

12. Describes the number of patients included in the analysis and reason for dropout
13. Reports patient/tumour characteristics (including FOI) with number of missing values
14. Describes the relation of the FOI with standard prognostic variables
15. >90% of initial cases included in UV/MV analysis
16. Reports the estimated effect (RR/OR, CI and p value provided) in UV analysis
17. Reports the estimated effect (HR, CI and p value provided) in MV analysis
18. Reports the estimated effects (HR, CI and p values provided) of other prognostic factors included in MV analysis

#### Discussion

19. Interprets the results in context of the prespecified hypotheses and other relevant studies; include a discussion of limitations of the study.
  20. Discusses implications for future research and clinical value
- FOI, factor of interest; MV, multivariate; RR, relative risk, UV, univariate.

judgement of the risk of bias is a key element in executing a systematic review, but is considered a subjective measurement. Quality assessment scales and reporting checklists for studies have been developed; among others Quadas,<sup>6</sup> Newcastle-Ottawa scale<sup>7</sup> and REMARK.<sup>8</sup> For most histopathology studies these cannot be applied. The Quadas scale compares diagnostic interventions, not

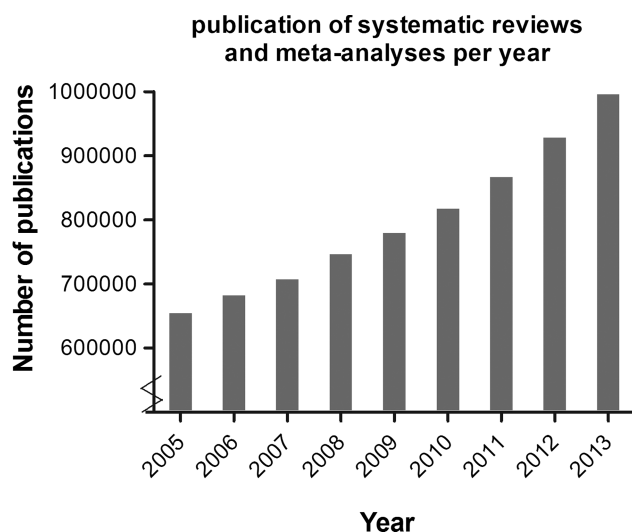
diagnostic criteria. The Newcastle-Ottawa scale has been developed for case-control and cohort studies. The REMARK guidelines are specifically designed for the reporting of tumour marker prognostic studies. The latter initiative comes close to what is needed for histopathology studies, however, some checklist items are only applicable on prognostic studies which assess biological molecules. Sample size calculations are rare in retrospective histopathology studies, moreover prognostic model-building, checking model assumptions, model validation and internal validation is impossible. Therefore we have adjusted the REMARK checklist to make it more suitable for retrospective histopathology studies (box 1).

Journal editors should consider the endorsement of guidelines and standardised checklists for the reporting of histopathology studies since these studies are inherently different from clinical trials and prognostic biomarker research.

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**Figure 1** Number of publications of systematic reviews and meta-analysis per year. Source: pubmed.<sup>1</sup>

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