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Prediction models for endometrial cancer for the general population or symptomatic women

Dear Editor

Alblas et al have reported a systematic review of prediction models for endometrial cancer in the general population or symptomatic women (Alblas et al., 2019). However, they appear to have omitted two prediction models although they do not meet any overt exclusion criterion. The first is a model which predict risk of having a current diagnosis of endometrial cancer based on symptoms (Hippisley-Cox and Coupland, 2013). The second predicts 1 to 15 year risk of developing a future diagnosis of endometrial cancer (Hippisley-Cox and Coupland, 2015). Both models were developed from the UK QResearch database with the first published in 2013 (Hippisley-Cox and Coupland, 2013) and the second in 2015 (Hippisley-Cox and Coupland, 2015). The papers, which are open access, contain extensive detail on how the models were developed and how missing data were handled. The papers cover very large numbers of patients. Both have performed well on validation samples which include general practices which were not used to derive the models and both are publicly available as web based calculators. Table 1 shows a summary of the key features of each study. Could the authors comment on why these studies were excluded and if they have been overlooked in error, then please could they update their systematic review to include these studies especially as they are amongst the largest studies conducted to date (indeed these studies are more than the combined size of all the studies included in the authors' Table 1).

Declaration of Competing Interest

JHC is professor of clinical epidemiology at the University of Nottingham and codirector of QResearch—a not-for-profit organisation which is a joint partnership between the University of Nottingham and Egton Medical Information Systems (leading commercial supplier of IT for 60% of general practices in the UK). JHC is also a paid director of ClinRisk Ltd which produces open and closed source software to ensure the reliable and updatable implementation of clinical risk algorithms within clinical computer systems to help improve patient care. JHC has received funding from the NIHR SPCR and Biomedical Research centre for unrelated research.

Table 1
summary characteristics of two studies to predict (a) current endometrial cancer and (b) future endometrial cancer.

	Current endometrial cancer	Future endometrial cancer
ROC	0.91 (0.90 to 0.93)	0.803 (0.796–0.811)
D statistic		1.088 (1.058–1.119)
R2 (%)		22 (21.1–23)
Sensitivity for top 10 % highest risk	83.7%	42.6%
Specificity top 10% highest risk	90.1%	90.1%
Women in derivation cohort	1,240,864	2,495,899
Cases with endometrial cancer in derivation cohort	1015	6949
Online calculator	http://qcancer.org/female/	http://qcancer.org/10yr/female/index.php
Predictors	Age, BMI, endometrial polyp, type 2 diabetes, haematuria, intermenstrual bleeding, post-menopausal bleeding, venous thromboembolism.	These were age, BMI, smoking status (heavy smokers had a 34% lower risk), manic depression or schizophrenia (55% higher risk), type 2 diabetes (35% higher risk), endometrial hyperplasia or polyp (2.4-fold higher risk), polycystic ovarian syndrome (98% higher risk), previous breast cancer (2.5-fold higher risk) and previous bowel cancer (56% higher risk).

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