the use of ^{18}F FPPRGD$_2$ PET as a tool to detect response to anti-angiogenesis treatment as early as 1 week after initiation of the therapeutic regimen.

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Nomogram for Predicting Pulmonary Hypertension in Patients without Pulmonary Embolism

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Editor:

We read with considerable interest the article by Dr Aviram and colleagues in the October 2015 issue of *Radiology* entitled "Pulmonary Hypertension: A Nomogram Based on CT Pulmonary Angiographic Data for Prediction in Patients without Pulmonary Embolism" (1). They showed that cardiovascular data derived from computed tomographic (CT) pulmonary angiography were associated with pulmonary hypertension (PH), and they created a nomogram based on patient age and CT pulmonary angiographic data that may facilitate identification of PH in patients who do not have acute pulmonary embolism.

The nomogram is a mathematically simple approach with the ability to reduce statistical predictive models into a single numeric estimate of the probability of an outcome (eg, presence of a disease), facilitating clinical decision making. The generation of these estimates enables the nomogram to be tailored to the personalized profile of a patient (2). Dr Aviram and colleagues reported a good predicting performance of their constructed model; however, the traditional biostatistical methods they used for evaluating models focus solely on accuracy, calibration, and discrimination using metrics such as sensitivity, specificity, or area under the receiver operating characteristic curve (AUC). Although these methods are mathematically simple and generally have an intuitive interpretation, they have little clinical relevance. For example, one cannot tell how high an AUC must be to justify clinical use of a prediction model (3). Its clinical usefulness should be prospectively validated in an independent cohort before its clinical implementation; however, the large sample size needed for prospective validation may make relative research daunting.

To address this issue, decision curve analysis (DCA) might be the desirable method for evaluating the clinical usefulness of a predictive model. DCA is a method for evaluating the benefits of a diagnostic test across a range of patient preferences for accepting risk of undertreatment (false-negative findings) and overtreatment (false-positive findings) to facilitate decisions about test selection and use. The key concept of DCA is that of a "probability threshold," which indicates a level of diagnostic certainty above which the patient would choose to be treated (4). It can be applied directly to a data set without the need for the sort of external data on costs, benefits, and preferences typically required by traditional decision analytic techniques (5).

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1. Aviram G, Shmueli H, Adam SZ, et al. Pulmonary hypertension: a nomogram based on CT pulmonary angiographic data for prediction in patients without pulmonary embolism. Radiology 2015;277(1):236–246.
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Response

From
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We thank Dr Huang and colleagues for their interest in our article (1), in which we proposed a simple prediction model that can be used as a screening tool for PH among patients whose images from CT pulmonary angiography were negative for pulmonary embolism. The model is based on the patient's age and four CT-derived measurements (ie, right atrial volume, reflux grade, pulmonary artery diameter, and the ratio between the diameter of the pulmonary artery and the aorta) (1). We built this model on one cohort of patients who underwent CT pulmonary angiography

and echocardiography within 24 hours of each other and tested it on another cohort who met the same inclusion criteria and found very similar results (1).

The idea behind the nomogram model is to take advantage of unused quantitative and semi-quantitative data generated by CT pulmonary angiography, which had already been performed for the diagnosis of pulmonary embolism, in order to use it as a screening tool that can alert the clinicians to the possible presence of an alternative diagnosis that could explain the patient's symptoms (eg, PH).

Dr Huang and colleagues claim that the biostatistical model used should have been based on DCA (2). DCA is a method for evaluating the benefits of a diagnostic test that incorporates clinical consequences of under- or overtreatment (2,3). This is not applicable to the proposed screening tool for PH, which requires high sensitivity (4).

Following the application of the proposed nomogram, it can be expected that clinicians will refer their patients, who show a probability of having PH, to echocardiography for further evaluation rather than directly decide on treatment based on the nomogram alone. We note that our nomogram should be considered as a primary diagnostic tool only after additional experience with its use in a large cohorts of patients. Currently, our prediction model can serve as a screening tool that may alert the clinicians to the presence of PH after exclusion of pulmonary embolism with CT pulmonary angiography.

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1. Aviram G, Shmueli H, Adam SZ, et al. A nomogram based on CT pulmonary angiography for prediction of pulmonary hypertension in patients without pulmonary embolism. Radiology 2015;277(1):236–246.
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Errata

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Glioblastoma Multiforme Recurrence: An Exploratory Study of ^{18}F FPPRGD$_2$ PET/CT
Andrei Iagaru, Camila Mosci, Erik Mittra, Greg Zaharchuk, Nancy Fischbein, Griffith Harsh, Gordon Li, Seema Nagpal, Lawrence Recht, Sanjiv Sam Gambhir

Erratum in:
Radiology 2016;280(1):328
DOI:10.1148/radiol.2016164020

Page 498, the second Advance in Knowledge should read as follows: with maximum standardized uptake values of 0.**9**–5.**9** (mean, 2.**6** ± 1.2).

Page 550, second paragraph of "Lesion Detection and Changes in Response to Bevacizumab Therapy", first sentence should read: When recurrent GBM was present (17 lesions in 15 patients), the uptake of ^{18}F FPPRGD$_2$ 60 minutes after injection had an SUV$_{max}$ of 0.**9**–5.**9** (mean, 2.6 ± 1.2) prior to treatment.

Figure 3 caption should read: ^{18}F FPPRGD$_2$ PET image shows a **23.8**% decrease in SUV$_{max}$ 1 week after bevacizumab therapy and a **61.9**% decrease 6 weeks after bevacizumab therapy.

Figure E1 caption should read: ^{18}F FPPRGD$_2$ PET image obtained 1 week after bevacizumab therapy shows a 4.**9**% decrease in maximum standardized uptake value (SUV$_{max}$).
Figure E2 caption should read: ^{18}F FPPRGD$_2$ PET image obtained 1 week after bevacizumab therapy shows a 5**8**.8% decrease in SUV$_{max}$.

Table 1, first row of data across (Lesion) should read: **2.1** ± **0.8**, 1.**3** ± 0.**8**, 1.**2** ± 0.**7**, .025, .034, .673.

Table 2, Pretreatment value should be **1.5** for patient 8 and **5.9** for patient 11. For patient 12, Volume (cm^3): Change at 1 Week after Bevacizumab (%) should be **–15.6**, and Change at 6 Weeks after Bevacizumab (%) should be **–21.8**. For patient 14, SUV$_{max}$: Change at 6 Weeks after Bevacizumab (%) should be **–36.0**, and Change from 1 to 6 Weeks after Bevacizumab should be **14.3**.

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Elbow Imaging in Sport: Sports Imaging Series
Matthew D. Bucknor, Kathryn J. Stevens, Lynne S. Steinbach

Erratum in:
Radiology 2016;280(1):328
DOI:10.1148/radiol.2016164015

The institutional affiliation for Kathryn J. Stevens should be as follows: **Department of Radiology, Stanford University School of Medicine, Stanford, Calif**.

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Potential Utility of a Combined Approach with US and MR Arthrography to Image Medial Elbow Pain in Baseball Players
Johannes B. Roedl, Felix M. Gonzalez, Adam C. Zoga, William B. Morrison, Mika T. Nevalainen, Michael G. Ciccotti, Levon N. Nazarian

Erratum in:
Radiology 2016;280(1):328
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An early online version of the article erroneously described use of the Telos device to apply valgus stress. This has been corrected to reflect that the manual technique was used in the study.