

Initial steps of an online search tool development for diagnostic and prognostic factors in prostate cancer

Authors: Beyer K.¹, Moris L.², Lardas M.³, Haire A.¹, Barletta F.⁴, Scuderi S.⁴, Molnar M.⁵, Herrera R.⁵, Rauf A.⁶, Campi R.⁷, Greco I.⁷, Shiranov K.⁸, Dabestani S.⁹, Van Den Broeck T.B.², Sujenthiran A.¹⁰, Gacci M.⁷, Gandaglia G.⁴, Omar M.I.¹¹, MacIennan S.¹¹, Roobol M.¹², Farahmand B.¹³, Vradi E.⁵, Devecsero Z.¹⁴, Asiimwe A.⁵, Zong J.¹⁵, MacIennan S.J.¹¹, Collette L.¹⁶, N'Dow J.¹¹, Briganti A.⁴, Bjartell A.¹⁷, Van Hemelrijck M.¹ and PIONEER Consortium

Affiliations: ¹King's College London, Dept. of Translational and Oncology Research (TOUR), London, United Kingdom, ²University Hospitals Leuven, Dept. of Urology, Leuven, Belgium, ³Metropolitan General Hospital, Dept. of Urology, Athens, Greece, ⁴IRCCS Ospedale San Raffaele, Dept. of Urology, Dept. of Oncology, URI, Milan, Italy, ⁵Bayer A.G., Dept. of Epidemiology, Berlin, Germany, ⁶Mid Cheshire Hospitals, NHS Foundation Trust, Dept. of Urology, Crewe, United Kingdom, ⁷University of Florence, Dept. of Minimally Invasive and Robotic Urologic Surgery and Kidney Transplantation, Florence, Italy, ⁸CDC, Dept. of Urology, Rostov-on-Don, Russia, ⁹Lund University, Skane University Hospital, Dept. of Clinical Sciences Lund, Malmö, Sweden, ¹⁰St George's NHS Foundation Trust, Dept. of Urology, London, United Kingdom, ¹¹University of Aberdeen, Dept. of Academic Urology, Aberdeen, United Kingdom, ¹²Erasmus MC, Dept. of Urology, Rotterdam, The Netherlands, ¹³Bayer AB, Dept. of Global Epidemiology, Stockholm, Sweden, ¹⁴Sanofi, Paris, France, ¹⁵Bayer HealthCare Pharmaceuticals Inc, Dept. of Global Epidemiology, Whippany, United States of America, ¹⁶EORTC Headquarters, Dept. of Statistics, Brussels, Belgium, ¹⁷Lund University, Dept. of Translational Medicine, Dept. of Medical Faculty, Lund, Sweden

Background

- PIONEER is part of the Innovative Medicine Initiative's (IMI's) "Big Data for Better Outcomes" (BD4BO) umbrella programme.
- PIONEER aims to transform the field of prostate cancer (PCa) care with particular focus on improving prostate-cancer related outcomes, health system efficiency and the quality of health and social care across Europe by maximising the potential of Big Data.

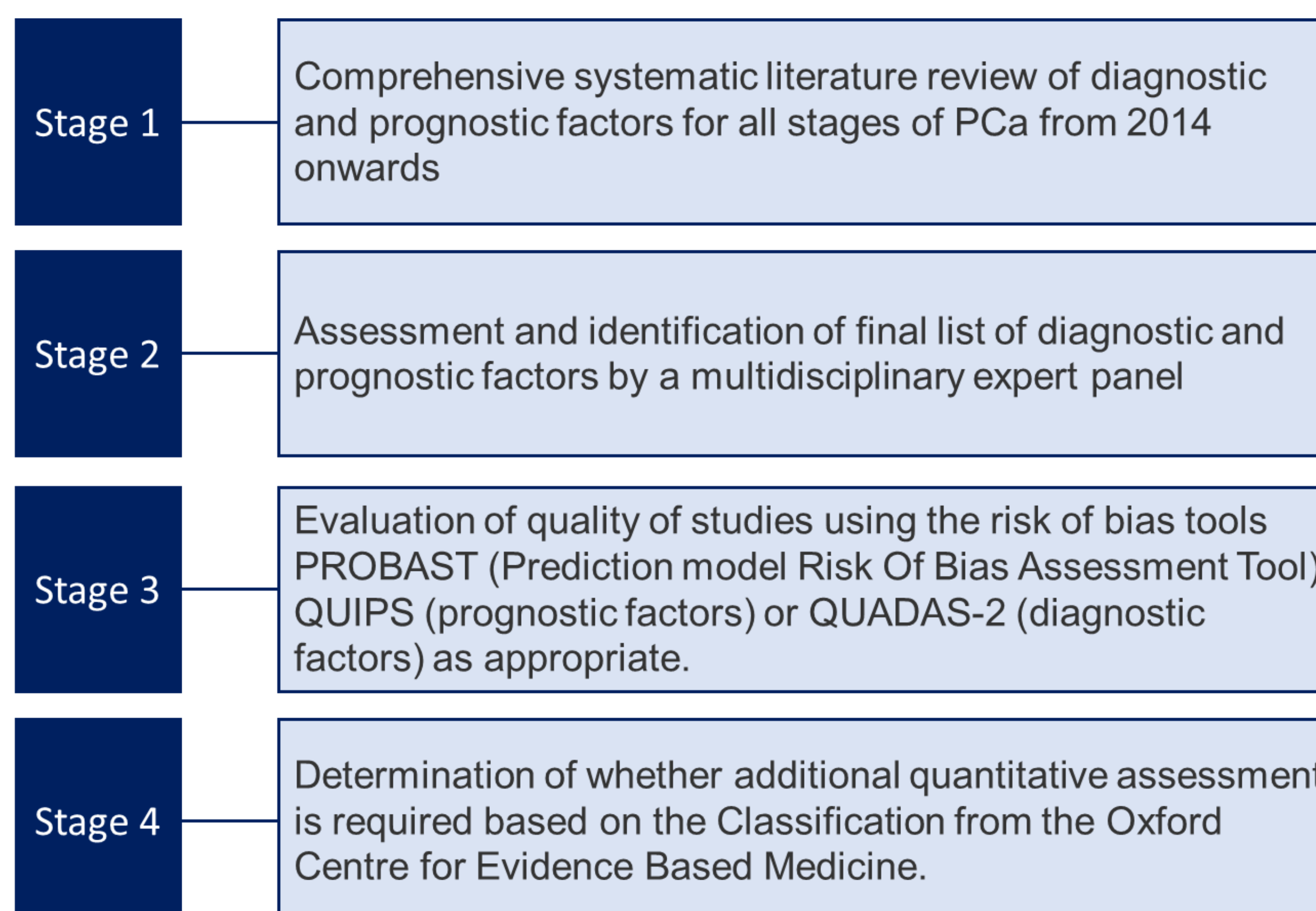


Introduction

- One of the major challenges in the field of diagnostic and prognostic factors is the variety of clinical data being published at rapid pace.
- This makes it difficult to incorporate real-world clinical diagnostic and prognostic outcome data into the management of prostate cancer (PCa).
- We set out to develop an online search tool to assess the current evidence on diagnostic and prognostic factors for PCa.

Methods

- We summarised preliminary results of the first step of this development process: A systematic review covering all diagnostic and prognostic factors for PCa.
- The systematic review followed a four-step approach:

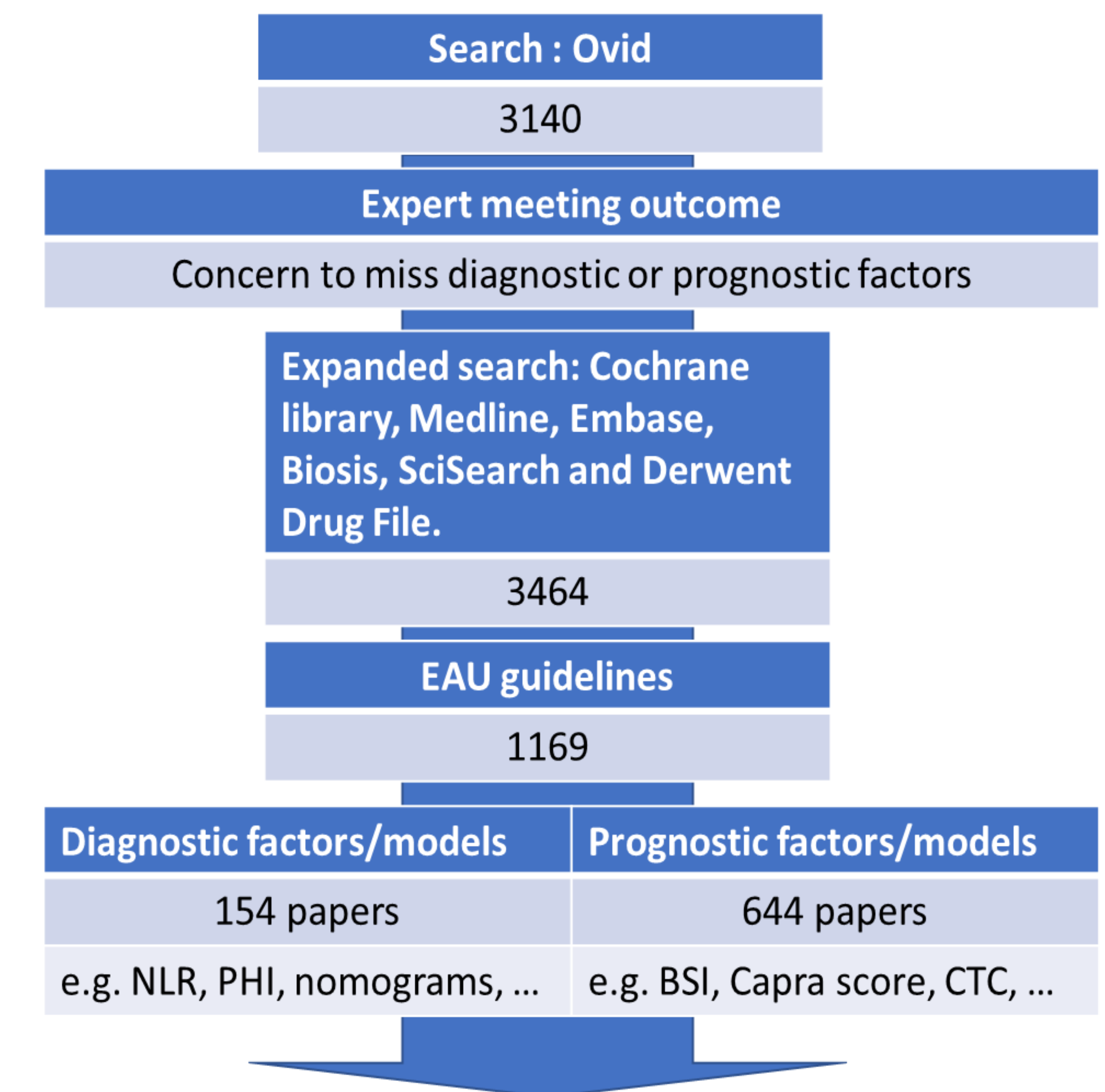


Results

- Stage 1 identified 6,604 citations.
- After removing duplicates, we screened 4,215 abstracts from which 798 met the inclusion criteria (see Figure 1).
- We are currently conducting Stage 3 of our systematic review and assessing the quality of all studies identified for each of the diagnostic and prognostic factors reported.

Results (continued)

Figure 1: Results of Stage 1 and Stage 2



Conclusion

- A vast amount of data is available for diagnostic and prognostic factors of prostate cancer and hence the process set out above will systematically review the quality of the evidence.
- Ultimately, we will convert all the information obtained as part of this four-step approach into an online search tool available to all stakeholders.