



Appendix 4. Excluded references and references with high risk of bias

Content

Page 2–18 Excluded references

Page 18 References with high risk of bias

References that have been excluded and main reason for exclusion

Reference	Main reason for exclusion
Adilgereyeva AS, Abdelazim IA, Zhurabekova GA, El-Ghazaly TE. Morphological parameters of ovarian masses and accuracy of the risk of malignancy index in diagnosing ovarian malignancy. <i>Przegląd menopauzalny = Menopause review</i> . 2022;21(2):81-91. Available from: https://doi.org/https://dx.doi.org/10.5114/pm.2022.116402 .	Not relevant population compared to present PIRO
Ali MA, Sweed MS, NasrElDin EA, Ahmed WE, ElHawwary GE. Risk of Ovarian Malignancy Algorithm and Pelvic Mass Score for the prediction of malignant ovarian tumors: a prospective comparative study. <i>Journal of ultrasonography</i> . 2024;24(94):1-8. Available from: https://doi.org/https://dx.doi.org/10.15557/jou.2024.0001 .	Not relevant population compared to present PIRO
Ali MN, Habib D, Hassanien AI, Abbas AM. Comparison of the four malignancy risk indices in the discrimination of malignant ovarian masses: A cross-sectional study. <i>Journal of gynecology obstetrics and human reproduction</i> . 2021;50(5):101986. Available from: https://doi.org/https://dx.doi.org/10.1016/j.jogoh.2020.101986 .	Incomplete reporting of results
Anbumalar S, Janani S, Dheebha V, Ashraf AM, Kalaivani K. Comparison of the diagnostic accuracy of the iota – simple rules with the rmi index to distinguish between benign and malignant adnexal masses. <i>International Journal of Academic Medicine and Pharmacy</i> . 2023;6(1):400-4. Available from: https://doi.org/10.47009/jamp.2024.6.1.77 .	Incomplete reporting of results
Aslan K, Onan MA, Yilmaz C, Bukan N, Erdem M. Comparison of HE 4, CA 125, ROMA score and ultrasound score in the differential diagnosis of ovarian masses. <i>Journal of gynecology obstetrics and human reproduction</i> . 2020;49(5):101713. Available from: https://doi.org/https://dx.doi.org/10.1016/j.jogoh.2020.101713 .	Incomplete reporting of results
Bahadur A, Bhattacharya N, Mundhra R, Khoiwal K, Chawla L, Singh R, et al. Comparison of Human Epididymis Protein 4, Cancer Antigen 125, and Ultrasound Prediction Model in Differentiating Benign from Malignant Adnexal Masses. <i>Journal of mid-life health</i> . 2023;14(3):176-83. Available from: https://doi.org/https://dx.doi.org/10.4103/jmh.jmh_77_23 .	Incomplete reporting of results
Baral G, Joshi R, Pandit B. Diagnostic Accuracy of Risk of Malignancy Indices in Ovarian Tumor. <i>Journal of Nepal Health Research Council</i> . 2020;18(2):253-8. Available from: https://doi.org/https://dx.doi.org/10.33314/jnhrc.v18i2.2627 .	Not relevant population compared to present PIRO
Barr CE, Funston G, Jeevan D, Sundar S, Mounce LTA, Crosbie EJ. The Performance of HE4 Alone and in Combination with CA125 for the Detection of Ovarian Cancer in an Enriched Primary Care Population. <i>Cancers</i> . 2022;14(9). Available from: https://doi.org/https://dx.doi.org/10.3390/cancers14092124 .	Not relevant population compared to present PIRO
Barrenada L, Ledger A, Dhiman P, Collins G, Wynants L, Verbakel JY, et al. ADNEX risk prediction model for diagnosis of ovarian cancer: systematic review and meta-analysis of external validation studies. <i>BMJ medicine</i> . 2024;3(1):e000817. Available from: https://doi.org/https://dx.doi.org/10.1136/bmjmed-2023-000817 .	Incomplete reporting of results

Behnamfar F, Esmaeilian F, Adibi A, Rouholamin S. Comparison of Ultrasound and Tumor Marker CA125 in Diagnosis of Adnexal Mass Malignancies. <i>Advanced biomedical research</i> . 2022;11:18. Available from: https://doi.org/https://dx.doi.org/10.4103/abr.abr_164_20 .	Incomplete reporting of results
Bryce C. Risk of Ovarian Malignancy Algorithm (ROMA) for Assessing Likelihood of Ovarian Cancer. <i>American family physician</i> . 2023;107(3):303-4.	Not relevant study design
Carreras-Dieguez N, Glickman A, Munmany M, Casanovas G, Agusti N, Diaz-Feijoo B, et al. Comparison of HE4, CA125, ROMA and CPH-I for Preoperative Assessment of Adnexal Tumors. <i>Diagnostics (Basel, Switzerland)</i> . 2022;12(1). Available from: https://doi.org/https://dx.doi.org/10.3390/diagnostics12010226 .	Incomplete reporting of results
Chacon E, Arraiza M, Manzour N, Benito A, Minguez JA, Vazquez-Vicente D, et al. Ultrasound examination, MRI, or ROMA for discriminating between inconclusive adnexal masses as determined by IOTA Simple Rules: a prospective study. <i>International journal of gynecological cancer : official journal of the International Gynecological Cancer Society</i> . 2023;33(6):951-6. Available from: https://doi.org/https://dx.doi.org/10.1136/ijgc-2022-004253 .	Incomplete reporting of results
Chan KKL, Chai VYK, Cheung VYT, Choi CKM, Chu MMY, Siu MKY, et al. Use of ultrasonographic rules and tumour marker HE4 level to predict malignancy of a pelvic mass: abridged secondary publication. <i>Hong Kong medical journal = Xianggang yi xue za zhi</i> . 2022;28 Suppl 6(6):4-7.	Incomplete reporting of results
Chen G-Y, Hsu T-F, Chan IS, Liu C-H, Chao W-T, Shih Y-C, et al. Comparison of the O-RADS and ADNEX models regarding malignancy rate and validity in evaluating adnexal lesions. <i>European radiology</i> . 2022;32(11):7854-64. Available from: https://doi.org/https://dx.doi.org/10.1007/s00330-022-08803-6 .	Incomplete reporting of results
Chen H, Qian L, Jiang M, Du Q, Yuan F, Feng W. Performance of IOTA ADNEX model in evaluating adnexal masses in a gynecological oncology center in China. <i>Ultrasound in obstetrics & gynecology : the official journal of the International Society of Ultrasound in Obstetrics and Gynecology</i> . 2019;54(6):815-22. Available from: https://doi.org/https://dx.doi.org/10.1002/uog.20363 .	Incomplete reporting of results
Chen M, Zhong P, Hong M, Tan J, Yu X, Huang H, et al. Applying low coverage whole genome sequencing to detect malignant ovarian mass. <i>Journal of translational medicine</i> . 2021;19(1):369. Available from: https://doi.org/https://dx.doi.org/10.1186/s12967-021-03046-3 .	Incomplete reporting of results
Cherukuri S, Jajoo S, Dewani D. The International Ovarian Tumor Analysis-Assessment of Different Neoplasias in the Adnexa (IOTA-ADNEX) Model Assessment for Risk of Ovarian Malignancy in Adnexal Masses. <i>Cureus</i> . 2022;14(11):e31194. Available from: https://doi.org/https://dx.doi.org/10.7759/cureus.31194 .	Not relevant study design
Choi H-J, Lee Y-Y, Sohn I, Kim Y-M, Kim J-W, Kang S, et al. Comparison of CA 125 alone and risk of ovarian malignancy algorithm (ROMA) in patients with adnexal mass: A multicenter study. <i>Current problems in cancer</i> . 2020;44(2):100508. Available from: https://doi.org/https://dx.doi.org/10.1016/j.currproblcancer.2019.100508 .	Incomplete reporting of results

Christiansen F, Epstein EL, Smedberg E, Akerlund M, Smith K, Epstein E. Ultrasound image analysis using deep neural networks for discriminating between benign and malignant ovarian tumors: comparison with expert subjective assessment. <i>Ultrasound in obstetrics & gynecology : the official journal of the International Society of Ultrasound in Obstetrics and Gynecology</i> . 2021;57(1):155-63. Available from: https://doi.org/https://dx.doi.org/10.1002/uog.23530 .	Not relevant index test compared to present PIRO
Ctri. Use of CA125, HE4 and Risk of ovarian malignancy (ROMA) index in ovarian cancer. http://www.who.int/trialssearch/Trial2.aspx?TrialID=CTRI/2020/09/027922 . 2020.	Not relevant study design
Cui L, Xu H, Zhang Y. Diagnostic Accuracies of the Ultrasound and Magnetic Resonance Imaging ADNEX Scoring Systems For Ovarian Adnexal Mass: Systematic Review and Meta-Analysis. <i>Academic radiology</i> . 2022;29(6):897-908. Available from: https://doi.org/https://dx.doi.org/10.1016/j.acra.2021.05.029 .	Not relevant framing of the present research question
Cui R, Wang Y, Li Y, Li Y. Clinical value of ROMA index in diagnosis of ovarian cancer: meta-analysis. <i>Cancer management and research</i> . 2019;11:2545-51. Available from: https://doi.org/https://dx.doi.org/10.2147/CMAR.S199400 .	Not relevant study design
Cviic D, Jagarlamudi K, Meglic L, Skof E, Zore A, Lukanovic D, et al. A Dual Biomarker TK1 Protein and CA125 or HE4-Based Algorithm as a Better Diagnostic Tool than ROMA Index in Early Detection of Ovarian Cancer. <i>Cancers</i> . 2023;15(5). Available from: https://doi.org/https://dx.doi.org/10.3390/cancers15051593 .	Incomplete reporting of results
Czekierdowski A, Stachowicz N, Smolen A, Lozinski T, Guzik P, Kluz T. Performance of IOTA Simple Rules Risks, ADNEX Model, Subjective Assessment Compared to CA125 and HE4 with ROMA Algorithm in Discriminating between Benign, Borderline and Stage I Malignant Adnexal Lesions. <i>Diagnostics (Basel, Switzerland)</i> . 2023;13(5). Available from: https://doi.org/https://dx.doi.org/10.3390/diagnostics13050885 .	Incomplete reporting of results
Dakhly DMR, Gaafar HM, Sediek MM, Ibrahim MF, Momtaz M. Diagnostic value of the International Ovarian Tumor Analysis (IOTA) simple rules versus pattern recognition to differentiate between malignant and benign ovarian masses. <i>International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics</i> . 2019;147(3):344-9. Available from: https://doi.org/https://dx.doi.org/10.1002/ijgo.12970 .	Incomplete reporting of results
Dewangan S, Gupta S, Chawla I. Comparison of Simple Ultrasound Rules by International Ovarian Tumor Analysis (IOTA) with RMI-1 and RMI-4 (Risk of Malignancy Index) in Preoperative Differentiation of Benign and Malignant Adnexal Masses. <i>Journal of obstetrics and gynaecology of India</i> . 2024;74(2):158-64. Available from: https://doi.org/https://dx.doi.org/10.1007/s13224-023-01890-5 .	Incomplete reporting of results
Dijmarescu AL, Gheorman V, Manolea MM, Vrabie SC, Sandulescu MS, Silosi CA, et al. Serological and immunohistochemical biomarkers for discrimination between benign and malignant ovarian tumors. <i>Romanian journal of morphology and embryology = Revue roumaine de morphologie et embryologie</i> . 2019;60(4):1163-74.	Not relevant population compared to present PIRO

Dochez V, Caillon H, Vaucel E, Dimet J, Winer N, Ducarme G. Biomarkers and algorithms for diagnosis of ovarian cancer: CA125, HE4, RMI and ROMA, a review. <i>Journal of ovarian research</i> . 2019;12(1):28. Available from: https://doi.org/https://dx.doi.org/10.1186/s13048-019-0503-7 .	Not relevant study design
Dochez V, Randet M, Renaudeau C, Dimet J, Le Thuaut A, Winer N, et al. Efficacy of HE4, CA125, Risk of Malignancy Index and Risk of Ovarian Malignancy Index to Detect Ovarian Cancer in Women with Presumed Benign Ovarian Tumours: A Prospective, Multicentre Trial. <i>Journal of clinical medicine</i> . 2019;8(11). Available from: https://doi.org/https://dx.doi.org/10.3390/jcm8111784 .	Not relevant population compared to present PIRO
Elorriaga MA, Neyro JL, Mieza J, Cristobal I, Lluca A. Biomarkers in Ovarian Pathology: From Screening to Diagnosis. Review of the Literature. <i>Journal of personalized medicine</i> . 2021;11(11). Available from: https://doi.org/https://dx.doi.org/10.3390/jpm11111115 .	Not relevant study design
Esquivel Villabona AL, Rodriguez JN, Ayala N, Buritica C, Gomez AC, Velandia AM, et al. Two-Step Strategy for Optimizing the Preoperative Classification of Adnexal Masses in a University Hospital, Using International Ovarian Tumor Analysis Models: Simple Rules and Assessment of Different NEoplasias in the adneXa Model. <i>Journal of ultrasound in medicine : official journal of the American Institute of Ultrasound in Medicine</i> . 2022;41(2):471-82. Available from: https://doi.org/https://dx.doi.org/10.1002/jum.15728 .	Incomplete reporting of results
Feng P, Chen T, Wischhusen J, Ladbury C, Vargas-Hernández VM, Xiong Y. The diagnostic performance of the Mindray system in detecting CA125 and HE4 for patients with ovarian cancer. <i>Translational Cancer Research</i> . 2024;13(8):4474-84. Available from: https://doi.org/10.21037/tcr-24-1107 .	Not relevant population compared to present PIRO
Filiz AA, Kahyaoglu S, Atalay CR. Comparison of International Ovarian Tumor Analysis ADNEX model and Ovarian-Adnexal Reporting and Data System with final histological diagnosis in adnexal masses: a retrospective study. <i>Obstetrics & gynecology science</i> . 2024;67(1):86-93. Available from: https://doi.org/https://dx.doi.org/10.5468/ogs.23061 .	Not relevant population compared to present PIRO
Friedrich L, Meyer R, Levin G. Management of adnexal mass: A comparison of five national guidelines. <i>European journal of obstetrics, gynecology, and reproductive biology</i> . 2021;265:80-9. Available from: https://doi.org/https://dx.doi.org/10.1016/j.ejogrb.2021.08.020 .	Incomplete reporting of results
Froyman W, Timmerman D. Methods of Assessing Ovarian Masses: International Ovarian Tumor Analysis Approach. <i>Obstetrics and gynecology clinics of North America</i> . 2019;46(4):625-41. Available from: https://doi.org/https://dx.doi.org/10.1016/j.ogc.2019.07.003 .	Not relevant population compared to present PIRO
Gao B, Zhao X, Gu P, Sun D, Liu X, Li W, et al. A nomogram model based on clinical markers for predicting malignancy of ovarian tumors. <i>Frontiers in endocrinology</i> . 2022;13:963559. Available from: https://doi.org/https://dx.doi.org/10.3389/fendo.2022.963559 .	Not relevant framing of the question
Gaurilcikas A, Gedgaudaite M, Cizauskas A, Atstupenaite V, Paskauskas S, Gaurilcikiene D, et al. Performance of the IOTA ADNEX Model on Selected Group of Patients with Borderline Ovarian Tumours. <i>Medicina (Kaunas, Lithuania)</i> . 2020;56(12). Available from: https://doi.org/https://dx.doi.org/10.3390/medicina56120690 .	Incomplete reporting of results

Gentry-Maharaj A, Burnell M, Dilley J, Ryan A, Karpinskyj C, Gunu R, et al. Serum HE4 and diagnosis of ovarian cancer in postmenopausal women with adnexal masses. <i>American journal of obstetrics and gynecology</i> . 2020;222(1):56.e1-.e17. Available from: https://doi.org/https://dx.doi.org/10.1016/j.ajog.2019.07.031 .	Not relevant population compared to present PIRO
Ghose A, McCann L, Makker S, Mukherjee U, Gullapalli SVN, Erekkath J, et al. Diagnostic biomarkers in ovarian cancer: advances beyond CA125 and HE4. <i>Therapeutic advances in medical oncology</i> . 2024;16:17588359241233225. Available from: https://doi.org/https://dx.doi.org/10.1177/17588359241233225 .	Not relevant study design
Giampaolino P, Della Corte L, Foreste V, Vitale SG, Chiofalo B, Cianci S, et al. Unraveling a difficult diagnosis: the tricks for early recognition of ovarian cancer. <i>Minerva medica</i> . 2019;110(4):279-91. Available from: https://doi.org/https://dx.doi.org/10.23736/S0026-4806.19.06086-5 .	Not relevant study design
Giourga M, Pouliakis A, Vlastarakos P, Stavrou S, Tsiriva M, Gerede A, et al. Evaluation of IOTA-ADNEX Model and Simple Rules for Identifying Adnexal Masses by Operators with Varying Levels of Expertise: A Single-Center Diagnostic Accuracy Study. <i>Ultrasound international open</i> . 2023;9(1):E11-E7. Available from: https://doi.org/https://dx.doi.org/10.1055/a-2044-2855 .	Not relevant framing of the question
Gupta KK, Gupta VK, Naumann RW. Ovarian cancer: screening and future directions. <i>International journal of gynecological cancer : official journal of the International Gynecological Cancer Society</i> . 2019;29(1):195-200. Available from: https://doi.org/https://dx.doi.org/10.1136/ijgc-2018-000016 .	Not relevant framing of the question
Hack K, Gandhi N, Bouchard-Fortier G, Chawla TP, Ferguson SE, Li S, et al. External Validation of O-RADS US Risk Stratification and Management System. <i>Radiology</i> . 2022;304(1):114-20. Available from: https://doi.org/https://dx.doi.org/10.1148/radiol.211868 .	Not relevant indextest compared to present PIRO
Hada A, Han L-P, Chen Y, Hu Q-H, Yuan Y, Liu L. Comparison of the predictive performance of risk of malignancy indexes 1-4, HE4 and risk of malignancy algorithm in the triage of adnexal masses. <i>Journal of ovarian research</i> . 2020;13(1):46. Available from: https://doi.org/https://dx.doi.org/10.1186/s13048-020-00643-6 .	Not relevant population compared to present PIRO
Han CY, Lu KH, Corrigan G, Perez A, Kohring SD, Celestino J, et al. Normal Risk Ovarian Screening Study: 21-Year Update. <i>Journal of clinical oncology : official journal of the American Society of Clinical Oncology</i> . 2024;42(10):1102-9. Available from: https://doi.org/https://dx.doi.org/10.1200/JCO.23.00141 .	Not relevant framing of the question
Haque R, Skates SJ, Armstrong MA, Lentz SE, Anderson M, Jiang W, et al. Feasibility, patient compliance and acceptability of ovarian cancer surveillance using two serum biomarkers and Risk of Ovarian Cancer Algorithm compared to standard ultrasound and CA 125 among women with BRCA mutations. <i>Gynecologic oncology</i> . 2020;157(2):521-8. Available from: https://doi.org/https://dx.doi.org/10.1016/j.ygyno.2020.02.027 .	Not relevant framing of the question
He P, Wu Q, Sun L, Wang J, Wang L, Han J, et al. Comparison of ADNEX model, simple rules risk model and risk of malignancy index in diagnosis	Not relevant language

of benign and malignant ovarian tumors. Chinese Journal of Medical Imaging Technology. 2019;35(1):104-7. Available from: https://doi.org/10.13929/j.1003-3289.201805166 .	
Hidalgo JJ, Lluca A, Zolfaroli I, Veiga N, Ortiz E, Alcazar JL. Comparison of IOTA three-step strategy and logistic regression model LR2 for discriminating between benign and malignant adnexal masses. Medical ultrasonography. 2021;23(2):168-75. Available from: https://doi.org/https://dx.doi.org/10.11152/mu-2732 .	Incomplete reporting of results
Hiett AK, Sonek JD, Guy M, Reid TJ. Performance of IOTA Simple Rules, Simple Rules risk assessment, ADNEX model and O-RADS in differentiating between benign and malignant adnexal lesions in North American women. Ultrasound in obstetrics & gynecology : the official journal of the International Society of Ultrasound in Obstetrics and Gynecology. 2022;59(5):668-76. Available from: https://doi.org/https://dx.doi.org/10.1002/uog.24777 .	Incomplete reporting of results
Hou X, Liu S, Liu J, Zhou J, Liang Y, Cui L. The performance of Carbohydrate Antigen 125-Thomsen-nouveau and anti-Mullerian hormone combined with CA125, Human epididymis protein 4 and Risk of Malignancy Algorithm in diagnosis for patients with Epithelial ovarian cancer. Clinical biochemistry. 2023;119:110615. Available from: https://doi.org/https://dx.doi.org/10.1016/j.clinbiochem.2023.110615 .	Incomplete reporting of results
Hu D, Qian J, Yin F, Wei B, Wang J, Zhang H, et al. Evaluation of serum CA125, HE4 and CA724 and the risk of ovarian malignancy algorithm score in the diagnosis of high-grade serous ovarian cancer. European journal of obstetrics, gynecology, and reproductive biology. 2024;297:170-5. Available from: https://doi.org/https://dx.doi.org/10.1016/j.ejogrb.2024.04.022 .	Not relevant framing of the question
Hu Y, Chen B, Dong H, Sheng B, Xiao Z, Li J, et al. Comparison of ultrasound-based ADNEX model with magnetic resonance imaging for discriminating adnexal masses: a multi-center study. Frontiers in oncology. 2023;13:1101297. Available from: https://doi.org/https://dx.doi.org/10.3389/fonc.2023.1101297 .	Incomplete reporting of results
Huang X, Wang Y, He X, Kang F, Luo L, Su Z, et al. Comparison between Serum HE4 and CA125 as Tumor Markers in Premenopausal Women with Benign Pelvic Mass. Clinical laboratory. 2019;65(5). Available from: https://doi.org/https://dx.doi.org/10.7754/Clin.Lab.2018.180913 .	Not relevant outcome measure
Huang X, Wang Z, Zhang M, Luo H. Diagnostic Accuracy of the ADNEX Model for Ovarian Cancer at the 15% Cut-Off Value: A Systematic Review and Meta-Analysis. Frontiers in oncology. 2021;11:684257. Available from: https://doi.org/10.3389/fonc.2021.684257 .	Not relevant study design
Huwidi A, Abobregé A, Assidi M, Buhmeida A, Ermiah E. Diagnostic value of risk of malignancy index in the clinical evaluation of ovarian mass. Molecular and clinical oncology. 2022;17(1):118. Available from: https://doi.org/https://dx.doi.org/10.3892/mco.2022.2551 .	Incomplete reporting of results
Isgandarova A, Yumru AE, Karatas S, Cakmak BD, Dundar B, Turker UA. The Comparison of Pelvic Mass Score and Risk of Malignancy Index-3 in Discrimination of Benign and Malignant Adnexal Masses. Sisli Etfal Hastanesi tip bulteni. 2020;54(4):490-6. Available from: https://doi.org/https://dx.doi.org/10.14744/SEMB.2019.67299 .	Not relevant indextest compared to present PIRO

Jeong SY, Park BK, Lee YY, Kim T-J. Validation of IOTA-ADNEX Model in Discriminating Characteristics of Adnexal Masses: A Comparison with Subjective Assessment. <i>Journal of clinical medicine</i> . 2020;9(6). Available from: https://doi.org/https://dx.doi.org/10.3390/jcm9062010 .	Incomplete reporting of results
Kansal N, Sultan S, Badkur P. Evaluation of Iota Adnex Model to Distinguish Benign and Malignant Ovarian Tumor. <i>International Journal of Life Sciences Biotechnology and Pharma Research</i> . 2024;13(4):320-9.	Incomplete reporting of results
Kapoor S, Singhal S, Dhamija E, Manchanda S, Malhotra N, Bhatla N. Diagnostic performance of ultrasound reporting systems in evaluation of adnexal masses: A prospective observational study. <i>Eur J Obstet Gynecol Reprod Biol</i> . 2024;301:186-93. Available from: https://doi.org/https://dx.doi.org/10.1016/j.ejogrb.2024.08.023 .	Incomplete reporting of results
Khoiwal K, Bahadur A, Kumari R, Bhattacharya N, Rao S, Chaturvedi J. Assessment of Diagnostic Value of Serum Ca-125 and Risk of Malignancy Index Scoring in the Evaluation of Adnexal Masses. <i>Journal of mid-life health</i> . 2019;10(4):192-6. Available from: https://doi.org/https://dx.doi.org/10.4103/jmh.JMH_84_19 .	Incomplete reporting of results
Kicman A, Gacuta E, Kulesza M, Bedkowska EG, Marecki R, Klank-Sokolowska E, et al. Diagnostic Utility of Selected Matrix Metalloproteinases (MMP-2, MMP-3, MMP-11, MMP-26), HE4, CA125 and ROMA Algorithm in Diagnosis of Ovarian Cancer. <i>International Journal of Molecular Sciences</i> . 2024;25(11):06. Available from: https://doi.org/https://dx.doi.org/10.3390/ijms25116265 .	Incomplete reporting of results
Kim B, Park Y, Kim B, Ahn HJ, Lee K-A, Chung JE, et al. Diagnostic performance of CA 125, HE4, and risk of Ovarian Malignancy Algorithm for ovarian cancer. <i>Journal of clinical laboratory analysis</i> . 2019;33(1):e22624. Available from: https://doi.org/10.1002/jcla.22624 .	Not relevant population compared to present PIRO
Kobayashi H, Yamada Y, Kawaguchi R, Ootake N, Myoba S, Kimura F. Tissue factor pathway inhibitor 2: A potential diagnostic marker for discriminating benign from malignant ovarian tumors. <i>The journal of obstetrics and gynaecology research</i> . 2022;48(9):2442-51. Available from: https://doi.org/https://dx.doi.org/10.1111/jog.15345 .	Incomplete reporting of results
Kougioumtsidou A, Karavida A, Mamopoulos A, Dagklis T, Tsakiridis I, Kopatsaris S, et al. Performance of International Ovarian Tumor Analysis (IOTA) predictive models in preoperative discrimination between benign and malignant adnexal lesions: preliminary outcomes in a Tertiary Care Hospital in Greece. <i>Arch Gynecol Obstet</i> . 2025;311(1):113-22. Available from: https://doi.org/https://dx.doi.org/10.1007/s00404-024-07859-7 .	Incomplete reporting of results
Kubelac P, Craciun A, Jalba O, Gheorghe S, Lazar G, Ignat F, et al. Institutional results of OncoOVARIAN Dx - a novel algorithm for the preoperative evaluation of adnexal masses. <i>Journal of BUON : official journal of the Balkan Union of Oncology</i> . 2020;25(3):1658-63.	Not relevant framing of the question
Lam Huong L, Thi Phuong Dung N, Hoang Lam V, Tran Thao Nguyen N, Minh Tam L, Vu Quoc Huy N. The Optimal Cut-Off Point of the ADNEX Model for the Prediction of the Ovarian Cancer Risk. <i>Asian Pacific journal of cancer prevention : APJCP</i> . 2022;23(8):2713-8. Available from: https://doi.org/https://dx.doi.org/10.31557/APJCP.2022.23.8.2713 .	Incomplete reporting of results
Landolfo C, Bourne T, Froyman W, Van Calster B, Ceusters J, Testa AC, et al. Benign descriptors and ADNEX in two-step strategy to estimate risk of	Not relevant indextest

malignancy in ovarian tumors: retrospective validation in IOTA5 multicenter cohort. <i>Ultrasound in obstetrics & gynecology : the official journal of the International Society of Ultrasound in Obstetrics and Gynecology</i>. 2023;61(2):231-42. Available from: https://doi.org/https://dx.doi.org/10.1002/uog.26080.	compared to present PIRO
Lang S, Armstrong N, Deshpande S, Ramaekers B, Grimm S, de Kock S, et al. Clinically inappropriate post hoc exclusion of study participants from test accuracy calculations: the ROMA score, an example from a recent NICE diagnostic assessment. <i>Annals of clinical biochemistry</i>. 2019;56(1):72-81. Available from: https://doi.org/https://dx.doi.org/10.1177/0004563218782722.	Not relevant framing of the question
Ledger A, Ceusters J, Valentin L, Testa A, Van Holsbeke C, Franchi D, et al. Multiclass risk models for ovarian malignancy: an illustration of prediction uncertainty due to the choice of algorithm. <i>BMC medical research methodology</i>. 2023;23(1):276. Available from: https://doi.org/https://dx.doi.org/10.1186/s12874-023-02103-3.	Not relevant indextest compared to present PIRO
Lee SS, Park JS, Lee KB, Jeong DH, Byun JM, Lee SM. Diagnostic Performance of F-18 FDG PET/CT Compared with CA125, HE4, and ROMA for Epithelial Ovarian Cancer. <i>Asian Pacific journal of cancer prevention : APJCP</i>. 2021;22(4):1123-7. Available from: https://doi.org/https://dx.doi.org/10.31557/APJCP.2021.22.4.1123.	Not relevant population compared to present PIRO
Lee Y-J, Kim Y-M, Kang J-S, Nam S-H, Kim D-Y, Kim Y-T. Comparison of Risk of Ovarian Malignancy Algorithm and cancer antigen 125 to discriminate between benign ovarian tumor and early-stage ovarian cancer according to imaging tumor subtypes. <i>Oncology letters</i>. 2020;20(1):931-8. Available from: https://doi.org/https://dx.doi.org/10.3892/ol.2020.11629.	Incomplete reporting of results, population
Lentz SE, Powell CB, Haque R, Armstrong MA, Anderson M, Liu Y, et al. Development of a longitudinal two-biomarker algorithm for early detection of ovarian cancer in women with BRCA mutations. <i>Gynecol Oncol</i>. 2020;159(3):804-10. Available from: https://doi.org/10.1016/j.ygyno.2020.09.021.	Not relevant population compared to present PIRO
Lin H-H, Xu H, Hu H, Ma Z, Zhou J, Liang Q. Predicting Ovarian/Breast Cancer Pathogenic Risks of Human BRCA1 Gene Variants of Unknown Significance. <i>BioMed research international</i>. 2021;2021:6667201. Available from: https://doi.org/https://dx.doi.org/10.1155/2021/6667201.	Not relevant population compared to present PIRO
Liu J, Chen Q, Lyu G. Comparison of ultrasound IOTA simple rules and GI-RADS ultrasonographic stratification in diagnosis of ovarian neoplasms. <i>Chinese Journal of Medical Imaging Technology</i>. 2017;33(5):739-42. Available from: https://doi.org/10.13929/j.1003-3289.201610141.	Not relevant language
Lof P, van de Vrie R, Korse CM, van Gent MDJM, Mom CH, Rosier-van Dunne FMF, et al. Can serum human epididymis protein 4 (HE4) support the decision to refer a patient with an ovarian mass to an oncology hospital? <i>Gynecologic oncology</i>. 2022;166(2):284-91. Available from: https://doi.org/https://dx.doi.org/10.1016/j.ygyno.2022.05.025.	Incomplete reporting of results
Luo F, Li N, Zhang Q, Ma L, Li X, Hu T, et al. Identification of an Individualized Prognostic Biomarker for Serous Ovarian Cancer: A Qualitative Model. <i>Diagnostics</i>. 2022;12(12). Available from: https://doi.org/10.3390/diagnostics12123128.	Not divided into premenopausal and

	postmenopausal
Luo H-J, Hu Z-D, Cui M, Zhang X-F, Tian W-Y, Ma C-Q, et al. Diagnostic performance of CA125, HE4, ROMA, and CPH-I in identifying primary ovarian cancer. The journal of obstetrics and gynaecology research. 2023;49(3):998-1006. Available from: https://doi.org/https://dx.doi.org/10.1111/jog.15540 .	Incomplete reporting of results
Lycke M, Ulfenborg B, Kristjansdottir B, Sundfeldt K. Increased Diagnostic Accuracy of Adnexal Tumors with A Combination of Established Algorithms and Biomarkers. Journal of clinical medicine. 2020;9(2). Available from: https://doi.org/https://dx.doi.org/10.3390/jcm9020299 .	Incomplete reporting of results
Machida H, Hirakawa T, Tsunekawa K, Kimura T, Murakami M, Abe Y. Revised Cut-Off Value of Human Epididymis Protein 4 Enhances Its Use as an Ovarian Tumor Marker. Gynecologic and obstetric investigation. 2023;88(6):349-58. Available from: https://doi.org/https://dx.doi.org/10.1159/000534064 .	Not relevant indextest compared to present PIRO
Madar I, Szabo G. Evaluation of IOTA simple rules and IOTA ADNEX model in the hands of expert examiners at the diagnosis of the adnexal tumors. Australasian journal of ultrasound in medicine. 2019;22(2):147.	Not relevant language
Manodarshni M, Pallavee P, Samal R. Comparison of International Ovarian Tumor Analysis Simple Rules with Risk of Malignancy Index for Preoperative Differentiation of Benign and Malignant Adnexal Masses. Journal of South Asian Federation of Obstetrics and Gynaecology. 2023;15(3):321-5. Available from: https://doi.org/10.5005/jp-journals-10006-2258 .	Incomplete reporting of results
Mina M, Kosmas I, Tsakiridis I, Mamopoulos A, Kalogiannidis I, Athanasiadis A, et al. Prediction Models of Adnexal Masses: State-of-the-Art Review. Obstetrical & gynecological survey. 2021;76(4):211-22. Available from: https://doi.org/https://dx.doi.org/10.1097/OGX.0000000000000873 .	Not relevant study design
Moszynski R, Zywicka P, Wojtowicz A, Szubert S, Sajdak S, Stachowiak A, et al. Menopausal status strongly influences the utility of predictive models in differential diagnosis of ovarian tumors: an external validation of selected diagnostic tools. Ginekologia polska. 2014;85(12):892-9. Available from: https://doi.org/https://dx.doi.org/10.17772/gp/1879 .	Not relevant language
Mulder EE, Gelderblom ME, Schoot D, Vergeldt TF, Nijssen DL, Piek JM. External validation of Risk of Malignancy Index compared to IOTA Simple Rules. Acta radiologica (Stockholm, Sweden : 1987). 2021;62(5):673-8. Available from: https://doi.org/https://dx.doi.org/10.1177/0284185120933990 .	Incomplete reporting of results
Mundhra R, Bahadur A, Kashibhatla J, Kishore S, Chaturvedi J. Comparing Four Different Risk Malignancy Indices in Differentiating Benign and Malignant Ovarian Masses. Journal of Mid-life Health. 2024;15(2):75-80. Available from: https://doi.org/https://dx.doi.org/10.4103/jmh.jmh_192_23 .	Incomplete reporting of results
Nam G, Lee SR, Jeong K, Kim SH, Moon H-S, Chae HD. Assessment of different NEoplasias in the adneXa model for differentiation of benign and malignant adnexal masses in Korean women. Obstetrics & gynecology	Incomplete reporting of results

science. 2021;64(3):293-9. Available from: https://doi.org/https://dx.doi.org/10.5468/ogs.21012 .	
Ngu SF, Chai YK, Choi KM, Leung TW, Li J, Kwok GST, et al. Diagnostic Performance of Risk of Malignancy Algorithm (ROMA), Risk of Malignancy Index (RMI) and Expert Ultrasound Assessment in a Pelvic Mass Classified as Inconclusive by International Ovarian Tumour Analysis (IOTA) Simple Rules. <i>Cancers</i> . 2022;14(3). Available from: https://doi.org/https://dx.doi.org/10.3390/cancers14030810 .	Not relevant population compared to present PIRO
Nohuz E, De Simone L, Chene G. Reliability of IOTA score and ADNEX model in the screening of ovarian malignancy in postmenopausal women. <i>Journal of gynecology obstetrics and human reproduction</i> . 2019;48(2):103-7. Available from: https://doi.org/https://dx.doi.org/10.1016/j.jogoh.2018.04.012 .	Not relevant population compared to present PIRO
Oun RDA, Hamzah HJ, Salman AH, Husain TH, Azzo N, Fadhil AA, et al. Preoperative risk assessment tests for suspicious ovarian mass. <i>Onkologia i Radioterapia</i> . 2023;17(7):178-84.	Incomplete reporting of results
Panichyawat N, Tanmahasamut P, Jaishuen A, Asumpinwong C, Chantrapanichkul P. Prevalence of ovarian mass and diagnostic performance of ultrasonography pattern recognition among women at the Gynaecologic Ultrasonography Unit at University Hospital in Thailand. <i>Journal of obstetrics and gynaecology : the journal of the Institute of Obstetrics and Gynaecology</i> . 2022;42(6):2260-4. Available from: https://doi.org/https://dx.doi.org/10.1080/01443615.2022.2036974 .	Incomplete reporting of results
Park H, Shin JE, Lee DW, Kim MJ, Lee HN. Diagnostic Accuracy of the Risk of Ovarian Malignancy Algorithm in Clinical Practice at a Single Hospital in Korea. <i>Annals of laboratory medicine</i> . 2019;39(3):252-62. Available from: https://doi.org/https://dx.doi.org/10.3343/alm.2019.39.3.252 .	Not relevant referencetest compared to present PIRO
Pascual MA, Vancraeynest L, Timmerman S, Ceusters J, Ledger A, Graupera B, et al. Validation of ADNEX and IOTA two-step strategy and estimation of risk of complications during follow-up of adnexal masses in low-risk population. <i>Ultrasound in obstetrics & gynecology : the official journal of the International Society of Ultrasound in Obstetrics and Gynecology</i> . 2024. Available from: https://doi.org/https://dx.doi.org/10.1002/uog.27642 .	Not relevant population compared to present PIRO
Pelayo M, Pelayo-Delgado I, Sancho-Sauco J, Sanchez-Zurdo J, Abarca-Martinez L, Corraliza-Galan V, et al. Comparison of Ultrasound Scores in Differentiating between Benign and Malignant Adnexal Masses. <i>Diagnostics (Basel, Switzerland)</i> . 2023;13(7). Available from: https://doi.org/https://dx.doi.org/10.3390/diagnostics13071307 .	Incomplete reporting of results
Pelayo M, Sancho-Sauco J, Sanchez-Zurdo J, Abarca-Martinez L, Borrero-Gonzalez C, Sainz-Bueno JA, et al. Ultrasound Features and Ultrasound Scores in the Differentiation between Benign and Malignant Adnexal Masses. <i>Diagnostics (Basel, Switzerland)</i> . 2023;13(13). Available from: https://doi.org/https://dx.doi.org/10.3390/diagnostics13132152 .	Not relevant framing of the question
Pelayo M, Sancho-Sauco J, Sanchez-Zurdo J, Perez-Mies B, Abarca-Martinez L, Cancelo-Hidalgo MJ, et al. Application of Ultrasound Scores (Subjective Assessment, Simple Rules Risk Assessment, ADNEX Model, O-RADS) to Adnexal Masses of Difficult Classification. <i>Diagnostics (Basel,</i>	Not relevant population compared to present PIRO

Switzerland). 2023;13(17). Available from: https://doi.org/https://dx.doi.org/10.3390/diagnostics13172785 .	
Peng X-S, Ma Y, Wang L-L, Li H-X, Zheng X-L, Liu Y. Evaluation of the Diagnostic Value of the Ultrasound ADNEX Model for Benign and Malignant Ovarian Tumors. <i>International journal of general medicine</i> . 2021;14:5665-73. Available from: https://doi.org/https://dx.doi.org/10.2147/IJGM.S328010 .	Incomplete reporting of results
Philpott S, Raikou M, Manchanda R, Lockley M, Singh N, Scott M, et al. The avoiding late diagnosis of ovarian cancer (ALDO) project; a pilot national surveillance programme for women with pathogenic germline variants in BRCA1 and BRCA2. <i>Journal of medical genetics</i> . 2023;60(5):440-9. Available from: https://doi.org/https://dx.doi.org/10.1136/jmg-2022-108741 .	Not relevant population compared to present PIRO
Phinyo P, Patumanond J, Saenrungsuaeng P, Chirdchim W, Pipanmekaporn T, Tantraworasin A, et al. Early-Stage Ovarian Malignancy Score versus Risk of Malignancy Indices: Accuracy and Clinical Utility for Preoperative Diagnosis of Women with Adnexal Masses. <i>Medicina (Kaunas, Lithuania)</i> . 2020;56(12). Available from: https://doi.org/https://dx.doi.org/10.3390/medicina56120702 .	Incomplete reporting of results
Poonyakanok V, Tanmahasamut P, Jaishuen A. Prospective comparative trial comparing O-RADS, IOTA ADNEX model, and RMI score for preoperative evaluation of adnexal masses for prediction of ovarian cancer. <i>The journal of obstetrics and gynaecology research</i> . 2023;49(5):1412-7. Available from: https://doi.org/https://dx.doi.org/10.1111/jog.15624 .	Incomplete reporting of results
Poonyakanok V, Tanmahasamut P, Jaishuen A, Wongwananuruk T, Asumpinwong C, Panichyawat N, et al. Preoperative Evaluation of the ADNEX Model for the Prediction of the Ovarian Cancer Risk of Adnexal Masses at Siriraj Hospital. <i>Gynecologic and obstetric investigation</i> . 2021;86(1-2):132-8. Available from: https://doi.org/https://dx.doi.org/10.1159/000513517 .	Incomplete reporting of results
Pozzati F, Sassu CM, Marini G, Mascilini F, Biscione A, Giannarelli D, et al. Subjective assessment and IOTA ADNEX model in evaluation of adnexal masses in patients with history of breast cancer. <i>Ultrasound in obstetrics & gynecology : the official journal of the International Society of Ultrasound in Obstetrics and Gynecology</i> . 2023;62(4):594-602. Available from: https://doi.org/https://dx.doi.org/10.1002/uog.26253 .	Not relevant population compared to present PIRO
Priyanka MB, Panda J, Samantroy S, Panda SR, Jena P. Comparison of Four Risk of Malignancy Indices for Preoperative Evaluation of Ovarian Masses: A Prospective Observational Study. <i>Cureus</i> . 2023;15(7):e41539. Available from: https://doi.org/https://dx.doi.org/10.7759/cureus.41539 .	Incomplete reporting of results
Qian L, Du Q, Jiang M, Yuan F, Chen H, Feng W. Comparison of the Diagnostic Performances of Ultrasound-Based Models for Predicting Malignancy in Patients With Adnexal Masses. <i>Frontiers in oncology</i> . 2021;11:673722. Available from: https://doi.org/10.3389/fonc.2021.673722 .	Incomplete reporting of results
Rai R, Bhutia PC, Tshomo U. Clinicopathological profile of adnexal masses presenting to a tertiary-care hospital in Bhutan. <i>South Asian journal of</i>	Not relevant population

cancer. 2019;8(3):168-72. Available from: https://doi.org/https://dx.doi.org/10.4103/sajc.sajc_303_18 .	compared to present PIRO
Ramya SR. Identification of Effective Model for Prediction of Ovarian Malignancy Risk using Models like Risk of Malignancy Index, Logistic Regression, International Ovarian Tumour Analysis- Simple Rules. Journal of Clinical and Diagnostic Research. 2022;16(4):QC01-QC5. Available from: https://doi.org/10.7860/JCDR/2022/53286.16196 .	Incomplete reporting of results
Rolfesen ALD, Dahl AA, Pripp AH, Dorum A. Base rate of ovarian cancer on algorithms in patients with a pelvic mass. International journal of gynecological cancer : official journal of the International Gynecological Cancer Society. 2020;30(11):1775-9. Available from: https://doi.org/https://dx.doi.org/10.1136/ijgc-2020-001416 .	Not relevant framing of the question
Sahu SA, Shrivastava D. A Comprehensive Review of Screening Methods for Ovarian Masses: Towards Earlier Detection. Cureus. 2023;15(11):e48534. Available from: https://doi.org/10.7759/cureus.48534 .	Not relevant study design
Shen Y, Zhao L, Lu S. Diagnostic performance of HE4 and ROMA among Chinese women. Clinica chimica acta; international journal of clinical chemistry. 2020;500:42-6. Available from: https://doi.org/10.1016/j.cca.2019.10.002 .	Incomplete reporting of results
Shetty J, Saradha A, Pandey D, Bhat R, Pratap K, Bharatnur S. IOTA Simple Ultrasound Rules for Triage of Adnexal Mass: Experience from South India. Journal of obstetrics and gynaecology of India. 2019;69(4):356-62. Available from: https://doi.org/10.1007/s13224-019-01229-z .	Incomplete reporting of results
Shin K-H, Kim H-H, Yoon HJ, Kim ET, Suh DS, Kim KH. The Discrepancy between Preoperative Tumor Markers and Imaging Outcomes in Predicting Ovarian Malignancy. Cancers. 2022;14(23). Available from: https://doi.org/https://dx.doi.org/10.3390/cancers14235821 .	Incomplete reporting of results
Shittu KA, Rabiou KA, Akinola OI, Ahmed SB, Adewunmi AA. Comparison of the diagnostic accuracy of HE4 with CA125 and validation of the ROMA index in differentiating malignant and benign epithelial ovarian tumours among patients in Lagos, Nigeria. Ecancermedicalscience. 2023;17:1568. Available from: https://doi.org/https://dx.doi.org/10.3332/ecancer.2023.1568 .	Not relevant population compared to present PIRO
Siddu S, Bharati S, Gond A, Kumar S. CO-RELATION OF HISTOPATHOLOGICAL DIAGNOSIS WITH CONVENTIONAL RMI SCORING IN EVALUATION AND DIFFERENTIATION OF BENIGN FROM MALIGNANT ADNEXAL MASS. Journal of Population Therapeutics and Clinical Pharmacology. 2024;31(9):1141-9. Available from: https://doi.org/10.53555/ckkf0v89 .	Incomplete reporting of results
Simmons AR, Fourkala EO, Gentry-Maharaj A, Ryan A, Sutton MN, Baggerly K, et al. Complementary Longitudinal Serum Biomarkers to CA125 for Early Detection of Ovarian Cancer. Cancer prevention research (Philadelphia, Pa). 2019;12(6):391-400. Available from: https://doi.org/10.1158/1940-6207.CAPR-18-0377 .	Not relevant population compared to present PIRO
Singh P, Aakash, Singh BS, Mishra A. Evaluating HE4 as a Biomarker in Ovarian Cancer: A Comparative Study with CA-125 in Benign and Malignant Cases. International Journal of Pharmaceutical and Clinical Research. 2024;16(5):2162-4.	Incomplete reporting of results

Solanki V, Singh P, Sharma C, Ghuman N, Sureka B, Shekhar S, et al. Predicting Malignancy in Adnexal Masses by the International Ovarian Tumor Analysis-Simple Rules. <i>Journal of mid-life health</i> . 2020;11(4):217-23. Available from: https://doi.org/https://dx.doi.org/10.4103/jmh.JMH_103_20 .	Rovdjurstids? Incomplete reporting of results
Song Z, Wang X, Fu J, Wang P, Chen X, Zhang D. Copenhagen index (CPH-I) is more favorable than CA125, HE4, and risk of ovarian malignancy algorithm (ROMA): Nomogram prediction models with clinical-ultrasonographic feature for diagnosing ovarian neoplasms. <i>Frontiers in surgery</i> . 2022;9:1068492. Available from: https://doi.org/https://dx.doi.org/10.3389/fsurg.2022.1068492 .	Incomplete reporting of results
Sukanya L. Risk of malignancy index (RMI) for prediction of malignancy in women with adnexal masses. <i>International Journal of Research in Pharmaceutical Sciences</i> . 2022;13(3):339-42. Available from: https://doi.org/10.26452/IJRPS.V13I3.2733 .	Not relevant population compared to present PIRO
Suri A, Perumal V, Ammalli P, Suryan V, Bansal SK. Diagnostic measures comparison for ovarian malignancy risk in Epithelial ovarian cancer patients: a meta-analysis. <i>Scientific reports</i> . 2021;11(1):17308. Available from: https://doi.org/https://dx.doi.org/10.1038/s41598-021-96552-9 .	Not relevant study design
Suryawanshi SV, Dwidmuthe KS, Savalkar S, Bhalerao A. Diagnostic Efficacy of Ultrasound-Based International Ovarian Tumor Analysis Simple Rules and Assessment of the Different Neoplasias in the Adnexa Model in Malignancy Prediction Among Women With Adnexal Masses: A Systematic Review. <i>Cureus</i> . 2024;16(8):e67365. Available from: https://doi.org/https://dx.doi.org/10.7759/cureus.67365 .	Not relevant study design
Syed R, Hassan N, Khurshid S, Gul N, Akram S, Khan AA. DIAGNOSTIC ACCURACY OF RISK OF MALIGNANCY INDEX (RMI) BASED ON SERUM CA 125, ULTRASOUND SCORE AND MENOPAUSAL STATUS IN DETERMINING THE MALIGNANCY RISK IN ADNEXAL MASS. <i>Journal of Population Therapeutics and Clinical Pharmacology</i> . 2024;31(10):507-12. Available from: https://doi.org/10.53555/n3bf6183 .	Incomplete reporting of results
Szuber S, Szpurek D, Wojtowicz A, Zywicka P, Stukan M, Sajdak S, et al. Performance of Selected Models for Predicting Malignancy in Ovarian Tumors in Relation to the Degree of Diagnostic Uncertainty by Subjective Assessment With Ultrasound. <i>Journal of ultrasound in medicine : official journal of the American Institute of Ultrasound in Medicine</i> . 2020;39(5):939-47. Available from: https://doi.org/https://dx.doi.org/10.1002/jum.15178 .	Incomplete reporting of results
Tantipalakorn C, Tinnangwattana D, Lerthiranwong T, Luewan S, Tongsong T. Comparisons of Effectiveness in Differentiating Benign from Malignant Ovarian Masses between Conventional and Modified Risk of Malignancy Index (RMI). <i>International journal of environmental research and public health</i> . 2023;20(1). Available from: https://doi.org/https://dx.doi.org/10.3390/ijerph20010888 .	Incomplete reporting of results
Tran DT, Vo VK, Le MT, Chuang L, Nguyen VQH. Copenhagen Index versus ROMA in preoperative ovarian malignancy risk stratification: Result from the first Vietnamese prospective cohort study. <i>Gynecologic oncology</i> . 2021;162(1):113-9. Available from: https://doi.org/https://dx.doi.org/10.1016/j.ygyno.2021.05.001 .	Not relevant population compared to present PIRO

Vara J, Pagliuca M, Springer S, Gonzalez de Canales J, Brotons I, Yalcich J, et al. O-RADS Classification for Ultrasound Assessment of Adnexal Masses: Agreement between IOTA Lexicon and ADNEX Model for Assigning Risk Group. <i>Diagnostics</i> (Basel, Switzerland). 2023;13(4). Available from: https://doi.org/https://dx.doi.org/10.3390/diagnostics13040673 .	Not relevant population compared to present PIRO
Varsha K, Uma T, Pallavi LP, Hari K, Kolli NS. ACCURACY OF CA 125, USG, CECT, RMI 1 SCORE IN DIAGNOSIS OF OVARIAN TUMOUR. <i>International Journal of Academic Medicine and Pharmacy</i> . 2024;6(3):284-8. Available from: https://doi.org/10.47009/jamp.2024.6.3.60 .	Incomplete reporting of results
Velayo C, Reforma K, Sicam R, Hernandez-Diwa M, Sy A. Prediction of ovarian cancer using a multivariate assay: a randomized controlled trial to improve diagnostic strategies in Filipino women (preliminary results of the overa study). <i>International journal of gynecological cancer</i> . 2020;30(SUPPL 3):A70-A1. Available from: https://doi.org/10.1136/ijgc-2020-IGCS.140 .	Incomplete reporting of results
Velayo CL, Reforma KN, Sicam RVG, Diwa MH, Sy ADR, Tantengco OAG. Improving diagnostic strategies for ovarian cancer in Filipino women using ultrasound imaging and a multivariate index assay. <i>Cancer epidemiology</i> . 2022;81:102253. Available from: https://doi.org/https://dx.doi.org/10.1016/j.canep.2022.102253 .	Incomplete reporting of results
Velayo CL, Reforma KN, Sicam RVG, Diwa MH, Sy ADR, Tantengco OAG. Clinical Performance of a Multivariate Index Assay in Detecting Early-Stage Ovarian Cancer in Filipino Women. <i>International journal of environmental research and public health</i> . 2022;19(16). Available from: https://doi.org/https://dx.doi.org/10.3390/ijerph19169896 .	Incomplete reporting of results
Viora E, Piovano E, Baima Poma C, Cotrino I, Castiglione A, Cavallero C, et al. The ADNEX model to triage adnexal masses: An external validation study and comparison with the IOTA two-step strategy and subjective assessment by an experienced ultrasound operator. <i>European journal of obstetrics, gynecology, and reproductive biology</i> . 2020;247:207-11. Available from: https://doi.org/https://dx.doi.org/10.1016/j.ejogrb.2020.02.022 .	Incomplete reporting of results
Wang H, Liu P, Xu H, Dai H. Early diagnosis of ovarian cancer: serum HE4, CA125 and ROMA model. <i>American journal of translational research</i> . 2021;13(12):14141-8.	Incomplete reporting of results
Wang Q, Wu Y, Zhang H, Yang K, Tong Y, Chen L, et al. Clinical Value of Serum HE4, CA125, CA72-4, and ROMA Index for Diagnosis of Ovarian Cancer and Prediction of Postoperative Recurrence. <i>Clinical laboratory</i> . 2019;65(4). Available from: https://doi.org/10.7754/Clin.Lab.2018.181030 .	Incomplete reporting of results
Wang T, Cui W, Nie F, Huang X, Huang L, Liu L, et al. Comparative Study of the Efficacy of the Ovarian-Adnexa Reporting and Data System Ultrasound Combined With Contrast-Enhanced Ultrasound and the ADNEX MR Scoring System in the Diagnosis of Adnexal Masses. <i>Ultrasound in medicine & biology</i> . 2023;49(9):2072-80. Available from: https://doi.org/10.1016/j.ultrasmedbio.2023.05.012 .	Not relevant reference test
Wang Z, Tao X, Ying C. CPH-I and HE4 Are More Favorable Than CA125 in Differentiating Borderline Ovarian Tumors from Epithelial Ovarian Cancer	Not relevant population

at Early Stages. Disease markers. 2019;2019:6241743. Available from: https://doi.org/10.1155/2019/6241743 .	compared to present PIRO
Watrowski R, Obermayr E, Wallisch C, Aust S, Concin N, Braicu EI, et al. Biomarker-Based Models for Preoperative Assessment of Adnexal Mass: A Multicenter Validation Study. <i>Cancers</i> . 2022;14(7). Available from: https://doi.org/https://dx.doi.org/10.3390/cancers14071780 .	Not relevant index test
Winarto H, Ongkowidjaja IT, Kusuma F, Putra AD, Utami TW, Laihad BJ, et al. Modified Risk of Ovarian Malignancy Algorithm and Risk of Malignancy Index in Predicting Epithelial Ovarian Cancer in Indonesian Population: A Single-centered Validation Study. <i>Journal of South Asian Federation of Obstetrics and Gynaecology</i> . 2022;14(3):283-6. Available from: https://doi.org/10.5005/jp-journals-10006-1980 .	Incomplete reporting of results
Woolas R, Young L, Brinkmann D, Gardner F, Hadwin R, Woolas T, et al. Exploration of Preliminary Objective Triage by Menopause Score and CA 125 Result Prior to Accelerating Fast-Track Booking for Suspected Ovarian Cancer-A Role for the Pathway Navigator? <i>Diagnostics (Basel, Switzerland)</i> . 2024;14(5). Available from: https://doi.org/https://dx.doi.org/10.3390/diagnostics14050541 .	Not relevant framing of the question
Wu Y, Miao K, Wang T, Xu C, Yao J, Dong X. Prediction model of adnexal masses with complex ultrasound morphology. <i>Frontiers in medicine</i> . 2023;10:1284495. Available from: https://doi.org/https://dx.doi.org/10.3389/fmed.2023.1284495 .	Not relevant framing of the question
Xie W, Zhang Q, Wang Y, Xiang Z, Zeng P, Huo R, et al. Ultrasound-based ADNEX model for differentiating between benign, borderline, and malignant epithelial ovarian tumours. <i>Clinical Radiology</i> . 2024;81:106761. Available from: https://doi.org/https://dx.doi.org/10.1016/j.crad.2024.106761 .	Incomplete reporting of results
Yang S, Tang J, Rong Y, Wang M, Long J, Chen C, et al. Performance of the IOTA ADNEX model combined with HE4 for identifying early-stage ovarian cancer. <i>Frontiers in oncology</i> . 2022;12:949766. Available from: https://doi.org/https://dx.doi.org/10.3389/fonc.2022.949766 .	Incomplete reporting of results
Yasmin, Parveen N, Gupta B, Tandon A, Gogoi P. Comparison of ADNEX Model with GI-RADS Ultrasound Scoring System in Evaluation of Adnexal Mass. <i>Journal of Obstetrics and Gynecology of India</i> . 2024. Available from: https://doi.org/10.1007/s13224-024-02000-9 .	Not relevant population compared to present PIRO
Yue X, Yue Z, Wang Y, Dong Z, Yang H, Yue S. Value of the Copenhagen index in the diagnosis of malignant adnexal tumors: A meta-analysis. <i>International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics</i> . 2023;160(2):506-15. Available from: https://doi.org/10.1002/ijgo.14310 .	Not relevant index test compared to present PIRO
Yue X, Zhong L, Wang Y, Zhang C, Chen X, Wang S, et al. Value of Assessment of Different Neoplasias in the Adnexa in the Differential Diagnosis of Malignant Ovarian Tumor and Benign Ovarian Tumor: A Meta-analysis. <i>Ultrasound Med Biol</i> . 2022;48(5):730-42. Available from: https://doi.org/10.1016/j.ultrasmedbio.2022.02.001 .	Not relevant study design
Zahir N, Ali S, Rukhsana. Diagnostic Accuracy of Risk of Malignancy Index RMI in Patients with Adnexal Mass. <i>Pakistan Journal of Medical and Health</i>	Incomplete reporting of results

Sciences. 2023;17(1):666-8. Available from: https://doi.org/10.53350/pjmhs2023171666 .	
Zareen H, Malik MM, Nafees R, Ali SI. EVALUATION OF RISK OF MALIGNANCY INDICES 1, 2, AND 3 IN PRE-OPERATIVE ASSESSMENT OF THE OVARIAN MASSES. Journal of Pharmaceutical Negative Results. 2022;13:3275-82. Available from: https://doi.org/10.47750/pnr.2022.13.S08.402 .	Incomplete reporting of results
Zhang S, Yu S, Hou W, Li X, Ning C, Wu Y, et al. Diagnostic extended usefulness of RMI: comparison of four risk of malignancy index in preoperative differentiation of borderline ovarian tumors and benign ovarian tumors. Journal of ovarian research. 2019;12(1):87. Available from: https://doi.org/https://dx.doi.org/10.1186/s13048-019-0568-3 .	Not relevant framing of the question
Zhang Y, Zhao Y, Feng L. External Validation of the Assessment of Different NEoplasias in the adneXa Model Performance in Evaluating the Risk of Ovarian Carcinoma Before Surgery in China: A Tertiary Center Study. Journal of ultrasound in medicine : official journal of the American Institute of Ultrasound in Medicine. 2022;41(9):2333-42. Available from: https://doi.org/https://dx.doi.org/10.1002/jum.15920 .	Incomplete reporting of results
Zhao B, Fu Y, Wen L, Wang Z, Fu C, Liu M. Comparison of diagnostic efficiency between IOTA LR2 model and doctors' experiences. IOTA LR2 2022;47(8):1082-8. Available from: https://doi.org/https://dx.doi.org/10.11817/j.issn.1672-7347.2022.220051 .	Not relevant language
Zhao X, Zhao M, Gao B, Zhang A, Xu D. Modified HE4, CA125, and ROMA cut-off values and predicted probability of ovarian tumor in Chinese patients. Gland surgery. 2021;10(11):3097-105. Available from: https://doi.org/https://dx.doi.org/10.21037/gs-21-666 .	Not relevant population compared to present PIRO
Zhong D, Gao XQ, Li HX, Wang HB, Liu Y. Analysis of Diagnostic Efficacy of the International Ovarian Tumor Analysis ADNEX Model and the ACR O-RADS US (Ovarian-Adnexal Reporting and Data System) for Benign and Malignant Ovarian Tumors: A Retrospective Study in a Tumor Center in Northeast China. J Imaging Inform Med. 2024;8:08. Available from: https://doi.org/https://dx.doi.org/10.1007/s10278-024-01170-2 .	Incomplete reporting of results
Zunzunwala SS, Chavan NN. Comparison of Four Risk of Malignancy Indices in Preoperative Evaluation of Patients with Adnexal Masses. Journal of South Asian Federation of Obstetrics and Gynaecology. 2023;15(6):658-61. Available from: https://doi.org/10.5005/jp-journals-10006-2351 .	Incomplete reporting of results

References with high risk of bias

References	High risk of bias /applicability due to
Braicu EI, Krause CL, Torsten U, Mecke H, Richter R, Hellmeyer L, et al. HE4 as a serum biomarker for the diagnosis of pelvic masses: a prospective, multicenter study in 965 patients. BMC cancer. 2022;22(1):831. Available from: https://doi.org/https://dx.doi.org/10.1186/s12885-022-09887-5 .	Population; high RoB and unclear applicability. Flow and Timing; unclear

Carballo EV, Maturen KE, Li Z, Patel-Lippmann KK, Wasnik AP, Sadowski EA, et al. Surgical outcomes of adnexal masses classified by IOTA ultrasound simple rules. <i>Scientific reports</i>. 2022;12(1):21848. Available from: https://doi.org/https://dx.doi.org/10.1038/s41598-022-26441-2.	Population; unclear RoB and applicability. Index test; unclear RoB, high applicability concerns. Reference standard; unclear RoB and applicability. Flow and Timing: unclear.
Chen Y-N, Ma F, Zhang Y-d, Chen L, Li C-Y, Gong S-P. Ultrasound Features Improve Diagnostic Performance of Ovarian Cancer Predictors in Distinguishing Benign and Malignant Ovarian Tumors. <i>Current medical science</i>. 2020;40(1):184-91. Available from: https://doi.org/https://dx.doi.org/10.1007/s11596-020-2163-7.	Population; unclear RoB and applicability. Flow and Timing; unclear.
Garg S, Kaur A, Kaur Mohi J, Sibia P, Kaur N. Evaluation of IOTA simple ultrasound rules to distinguish benign and malignant ovarian tumours. <i>Journal of Clinical and Diagnostic Research</i>. 2017;11(8):TC06-TC9. Available from: https://doi.org/10.7860/JCDR/2017/26790.10353.	Population; unclear RoB and unclear applicability. Reference standard; high RoB and unclear applicability. Flow and Timing; high RoB
Moro F, Momi M, Bertoldo V, Ledger A, Barreñada L, Ceusters J, et al. External validation of ultrasound-based models for discrimination between benign and malignant adnexal masses in Italy: the prospective multicenter IOTA phase 6 study. <i>medRxiv</i>. F. Moro, UniCamillus, International Medical University, Rome, Italy2024.	Population; unclear RoB and applicability. Index test; unclear RoB. Flow and Timing; unclear
Shetty J, Reddy G, Pandey D. Role of Sonographic Gray-Scale Pattern Recognition in the Diagnosis of Adnexal Masses. <i>Journal of clinical and diagnostic research : JCDR</i>. 2017;11(9):QC12-QC5. Available from: https://doi.org/https://dx.doi.org/10.7860/JCDR/2017/28533.10614.	Population; unclear concerns for RoB and applicability. Index test; unclear concern for RoB. Reference standard; unclear concerns for RoB and applicability. Flow and Timing; unclear concerns
Shi H, Liu L, Deng X, Xing X, Zhang Y, Djouda Rebecca Y, et al. Exosomal biomarkers in the differential diagnosis of ovarian tumors: the emerging roles of CA125, HE4, and C5a. <i>Journal of ovarian research</i>. 2024;17(1):4. Available from: https://doi.org/https://dx.doi.org/10.1186/s13048-023-01336-6.	Population; high RoB, unclear concerns for applicability.
Vo TQN, Tran DT, Nguyen TTN, Vo VD, Le MT, Nguyen VQH. Diagnostic performances of the Ovarian Adnexal Reporting and Data System, the Risk of Ovarian Malignancy Algorithm, and the Copenhagen Index in the preoperative prediction of ovarian cancer: a	Population; high RoB, unclear concerns for applicability

prospective cohort study. J. 2025;36(2):e30. Available from: https://doi.org/10.3802/jgo.2025.36.e30 .	
---	--