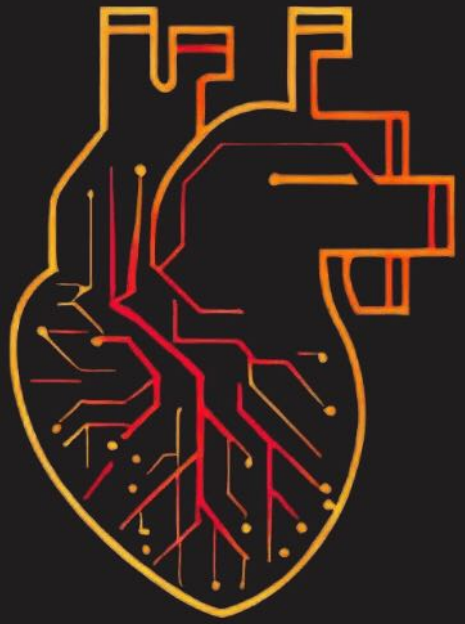
Faut-il prescrire des Ddimères dans la suspicion de dissection aortique ?

Xavier Bobbia

Conflits d’intérêt

	MICU patients ($n = 187$)
Unknown	56 (30)
STEMI	19 (10)
NSTEMI	29 (15.5)
Aortic dissection	5 (3)
Myocarditis or/and pericarditis	4 (2)
Pulmonary embolism	6 (3)
Pneumonia	–
Pneumothorax	–
Pleurisy	22 (12)
Anxiety	22 (12)
Musculoskeletal	3 (2)
Neuropathic	5 (3)
Gastritis	1 (0.5)
Pancreatitis	5 (3)
Stable angina	4 (2)
Heart failure	6 (3)
Gastrointestinal	–
Other infectious disease	–
Other	–
Missing data	–
In-hospital mortality	3 (2)

Charpentier S et al. Eur J Emerg Med 2017



Chest pAIn

13 155 patients sur un an

8 centres

50 SAA (0,38 %)

50 SAA (0,38 %)

9 (18%) externes

dont 4 (44%) décédé à J1

ESC European Society of Cardiology

European Heart Journal (2024) **45**, 3538–3700
https://doi.org/10.1093/eurheartj/ehae179

ESC GUIDELINES

2024 ESC Guidelines for the management of peripheral arterial and aortic diseases

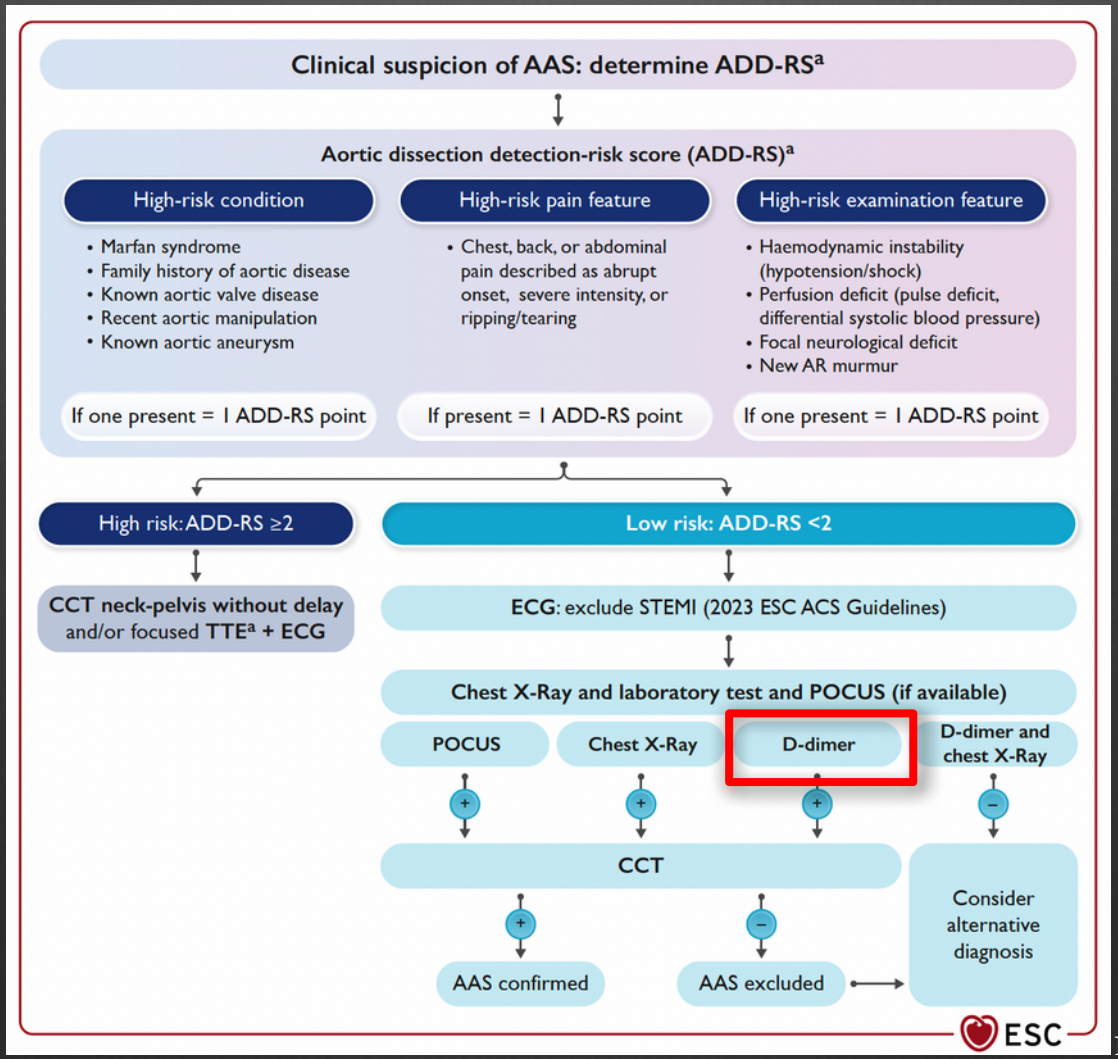
Developed by the task force on the management of peripheral arterial and aortic diseases of the European Society of Cardiology (ESC)

Endorsed by the European Association for Cardio-Thoracic Surgery (EACTS), the European Reference Network on Rare Multisystemic Vascular Diseases (VASCERN), and the European Society of Vascular Medicine (ESVM)

Mazzolai et al. Eur Heart J 2024

In patients presenting with clinical features compatible with possible AAS, a multiparametric algorithm for ruling in or out AAS using the ADD-RS is recommended.[1196–1200]	I	B

Mazzolai et al. Eur Heart J 2024



Mazzolai et al. Eur Heart J 2024

Diagnosis of Acute Aortic Dissection by D-Dimer

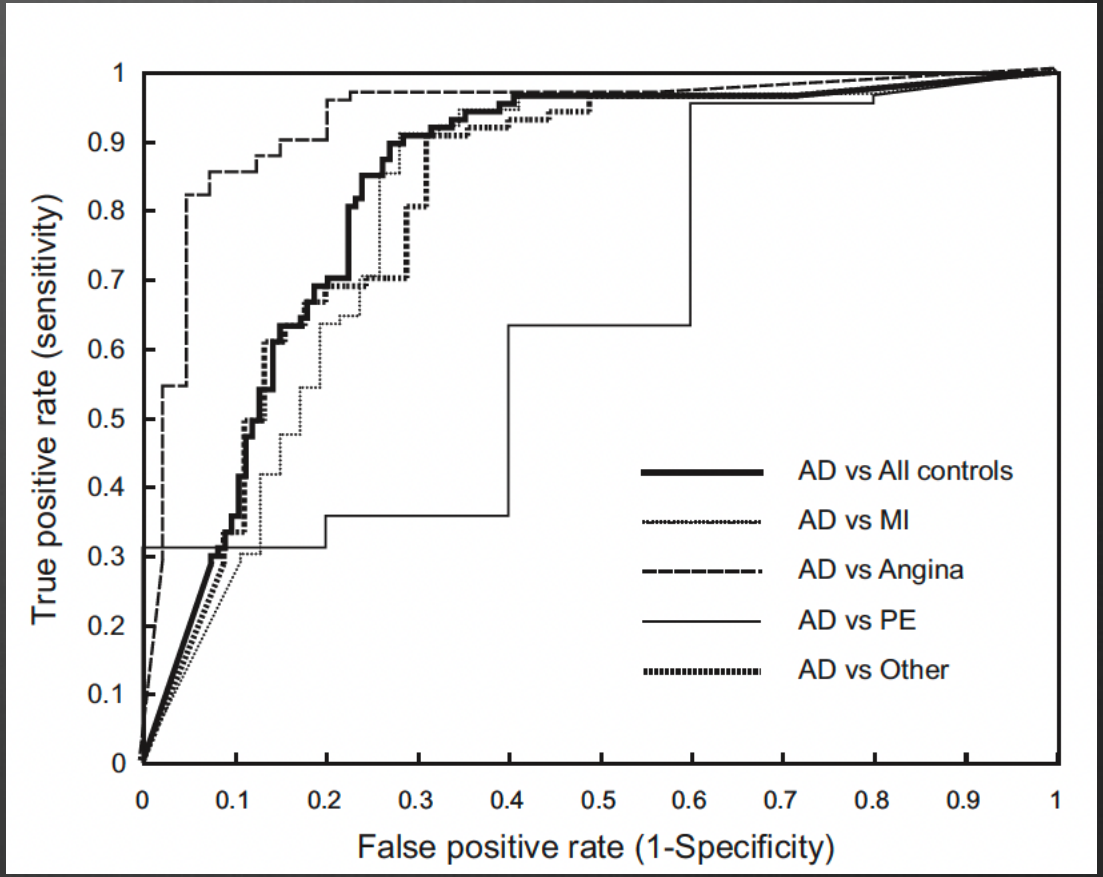
The International Registry of Acute Aortic Dissection Substudy on Biomarkers (IRAD-Bio) Experience

Toru Suzuki, MD; Alessandro Distante, MD; Antonella Zizza, MS; Santi Trimarchi, MD; Massimo Villani, MD; Jorge Antonio Salerno Uriarte, MD; Luigi De Luca Tupputi Schinosa, MD; Attilio Renzulli, MD; Federico Sabino, MD; Richard Nowak, MD; Robert Birkhahn, MD; Judd E. Hollander, MD; Francis Counselman, MD; Ravi Vijayendran, PhD; Eduardo Bossone, MD; Kim Eagle, MD; for the IRAD-Bio Investigators

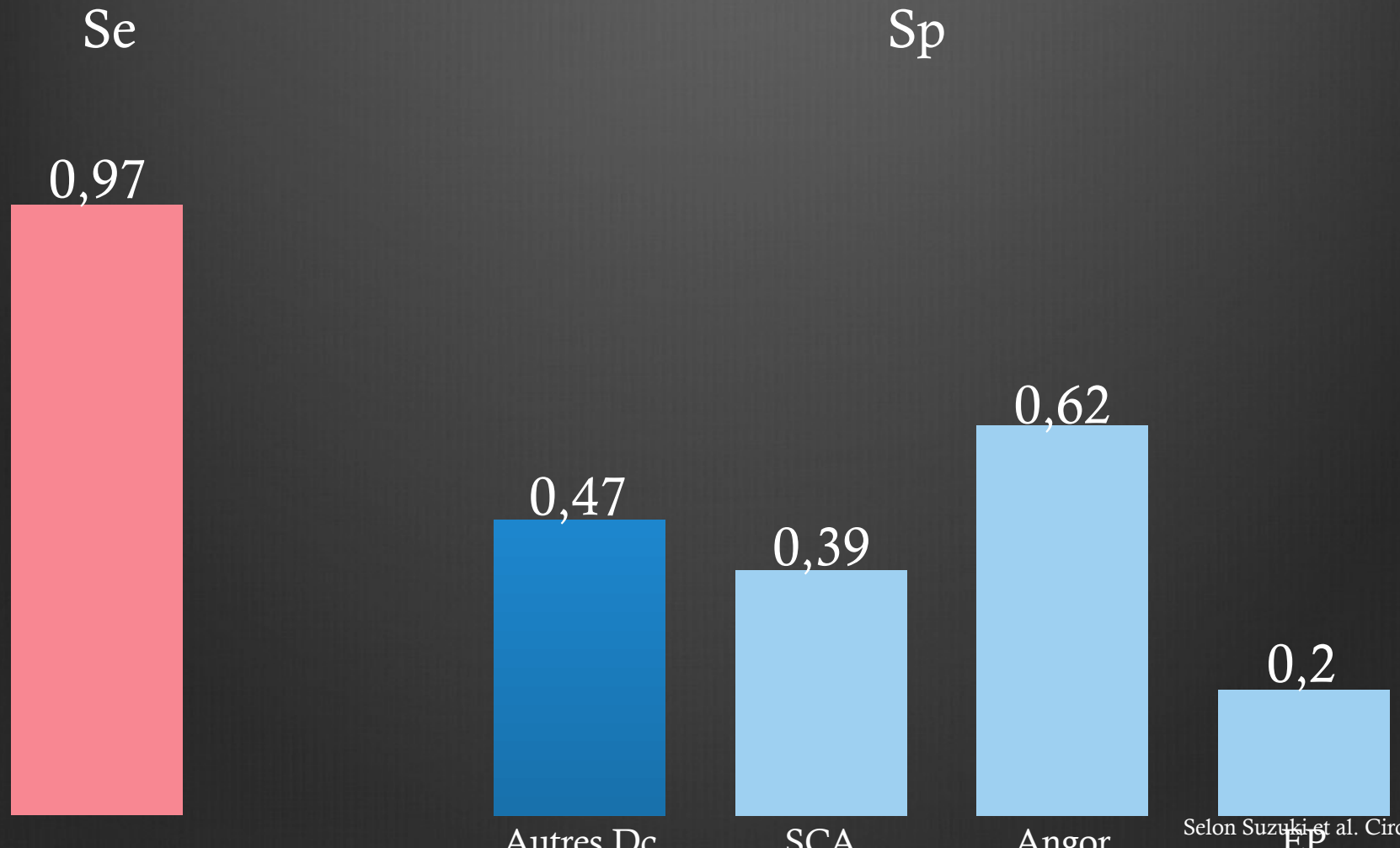
Suzuki et al. Circulation 2009

220 suspicions de SAA (indication d'imagerie)

87 (40%) SAA



Suzuki et al. Circulation 2009



Selon Suzuki et al. Circulation 2009

Méta analyse 22 études 5000 patients

Study	TP	FP	FN	TN	Sensitivity (95% CI)	Specificity (95% CI)
Akutsu 2005	30	22	0	26	1.00 [0.88, 1.00]	0.54 [0.39, 0.69]
Eggebrecht 2004	16	16	0	32	1.00 [0.79, 1.00]	0.67 [0.52, 0.80]
Ersel 2010	29	33	1	36	0.97 [0.83, 1.00]	0.52 [0.40, 0.64]
Fan 2010	104	52	3	101	0.97 [0.92, 0.99]	0.66 [0.58, 0.73]
Giachino 2013	41	41	1	20	0.98 [0.87, 1.00]	0.33 [0.21, 0.46]
Gorla 2015	61	130	0	185	1.00 [0.94, 1.00]	0.59 [0.53, 0.64]
Hazui 2005	27	4	2	45	0.93 [0.77, 0.99]	0.92 [0.80, 0.98]
Levcik 2013	41	22	0	13	1.00 [0.91, 1.00]	0.37 [0.21, 0.55]
Li 2010	118	64	9	152	0.93 [0.87, 0.97]	0.70 [0.64, 0.76]
Nazerian 2014	229	514	4	288	0.98 [0.96, 1.00]	0.36 [0.33, 0.39]
Ohlmann 2006	93	62	1	32	0.99 [0.94, 1.00]	0.34 [0.25, 0.45]
Okazaki 2014	12	1	3	45	0.80 [0.52, 0.96]	0.98 [0.88, 1.00]
Peng 2015	28	4	7	37	0.80 [0.63, 0.92]	0.90 [0.77, 0.97]
Reeps 2010	7	3	0	1	1.00 [0.59, 1.00]	0.25 [0.01, 0.81]
Sakamoto 2011	19	40	16	188	0.54 [0.37, 0.71]	0.82 [0.77, 0.87]
Sbarouni 2007	17	12	1	17	0.94 [0.73, 1.00]	0.59 [0.39, 0.76]
Shao 2014	46	30	43	249	0.52 [0.41, 0.62]	0.89 [0.85, 0.93]
Spinner 2006	24	35	2	21	0.92 [0.75, 0.99]	0.38 [0.25, 0.51]
Stanojlovic 2013	29	5	0	20	1.00 [0.88, 1.00]	0.80 [0.59, 0.93]
Weber 2003	24	11	0	24	1.00 [0.86, 1.00]	0.69 [0.51, 0.83]
Xue 2007	16	10	0	17	1.00 [0.79, 1.00]	0.63 [0.42, 0.81]
Yoshimuta 2015	9	64	0	1163	1.00 [0.66, 1.00]	0.95 [0.93, 0.96]

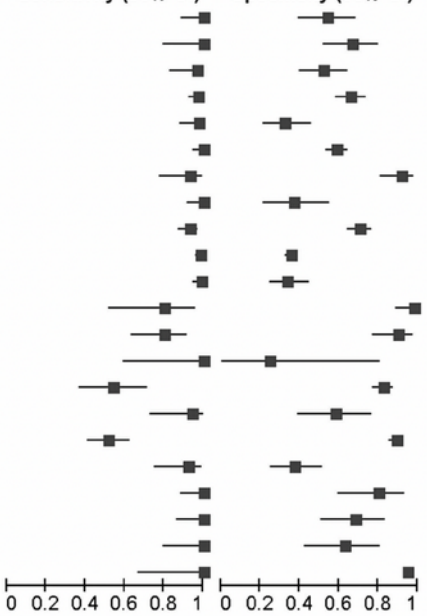


Figure 2. A paired forest plot by D-dimer for acute aortic dissection. TP: true positive. FP: false positive. FN: false negative. TN: true negative.

AUC

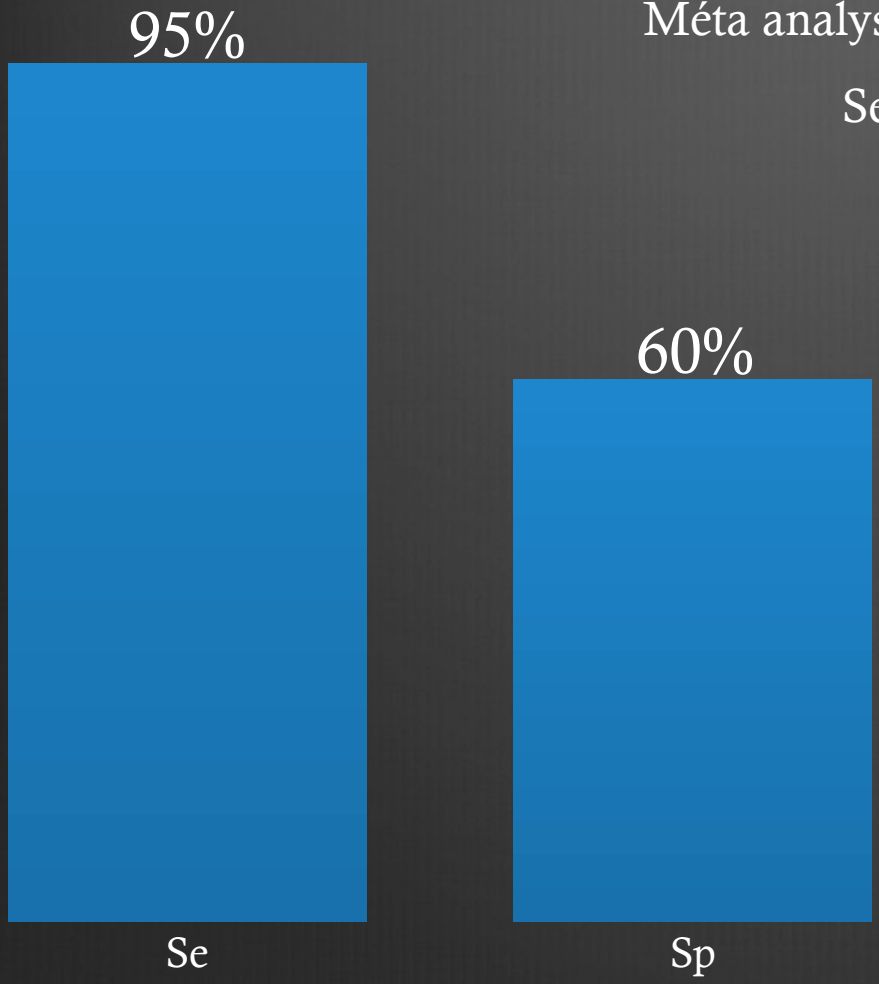
0,95

(95%CI 0,90–099)

Waranabe et al. Sci Report 2016

Méta analyse 12 études 2827 patients

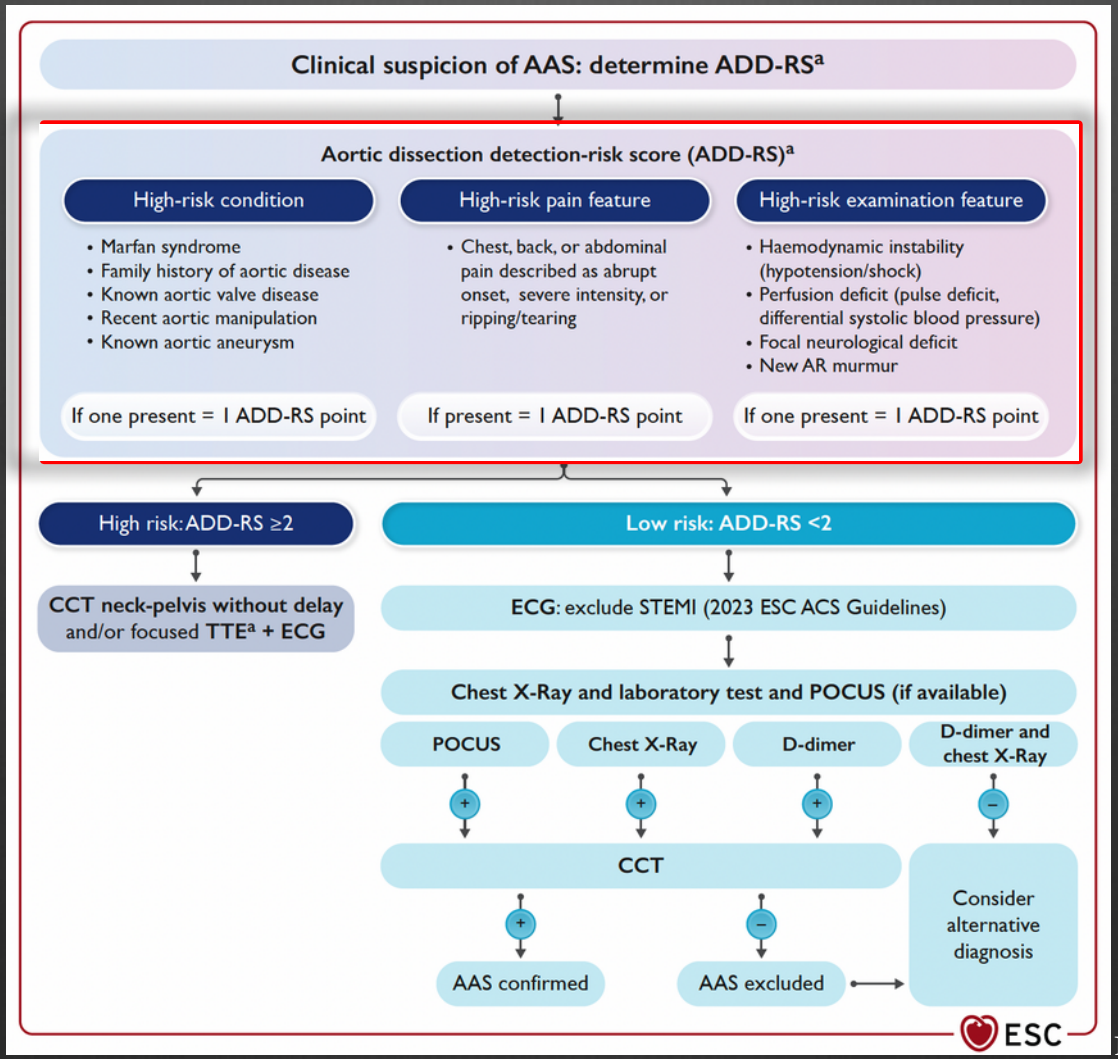
Seuil 500 ng mL^{-1}



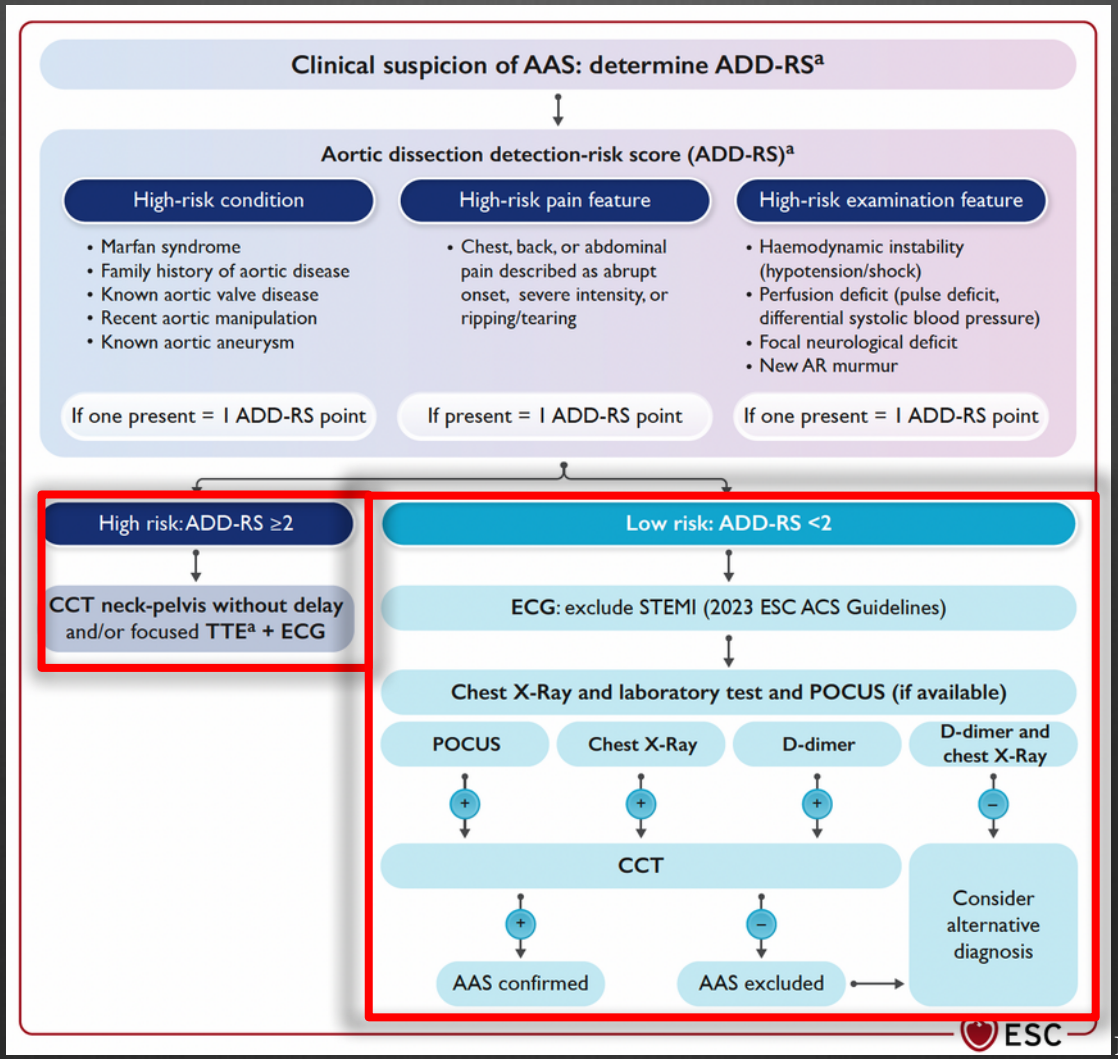
RV+ = 2.4 (95% CI 1.8–3.3)

RV- = 0.079 (95% CI 0.036–0.172)

Waranabe et al. Sci Report 2016

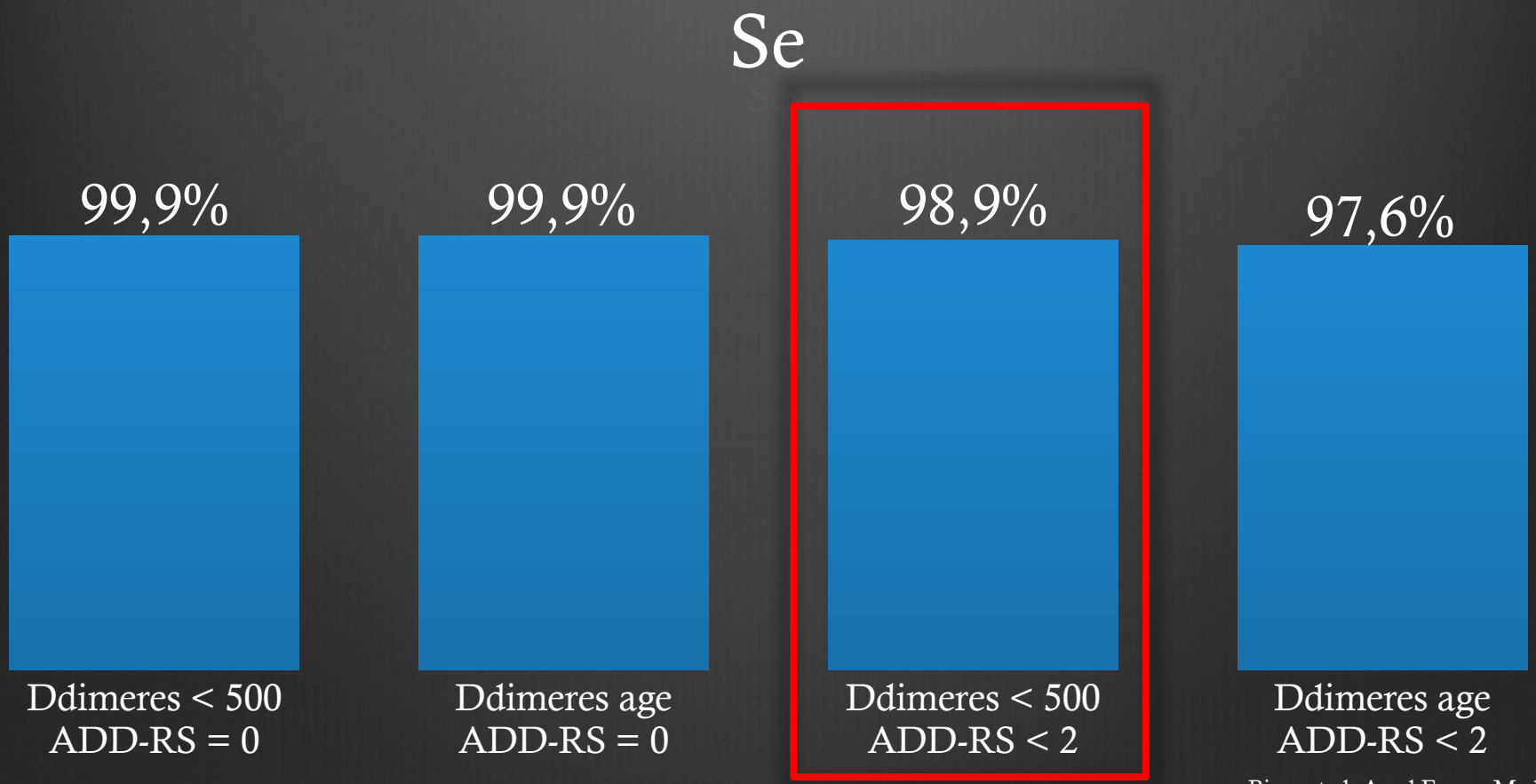


Mazzolai et al. Eur Heart J 2024

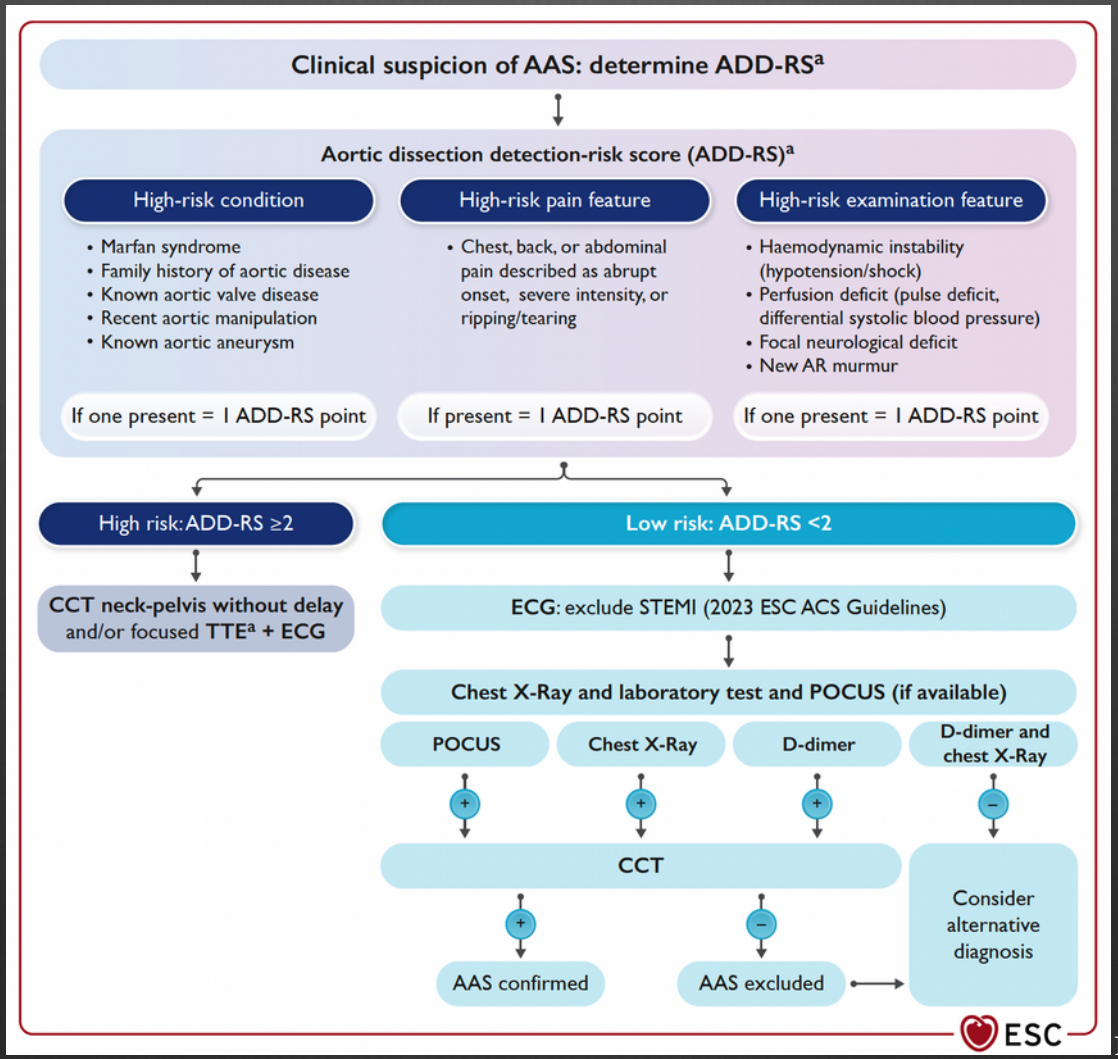


Mazzolai et al. Eur Heart J 2024

Revue systématique 4 études 3804 patients



Bima et al. Acad Emerg Med 2020

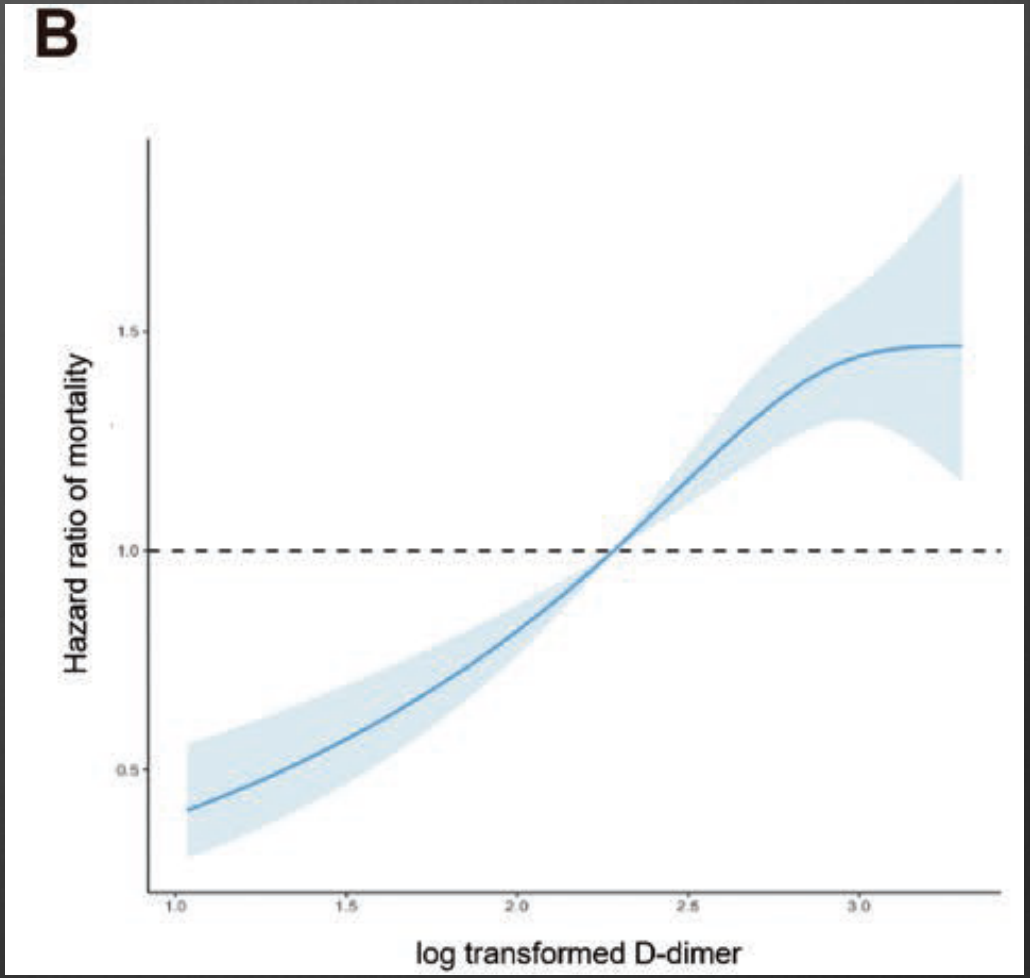


Mazzolai et al. Eur Heart J 2024

Intérêt pronostic ?

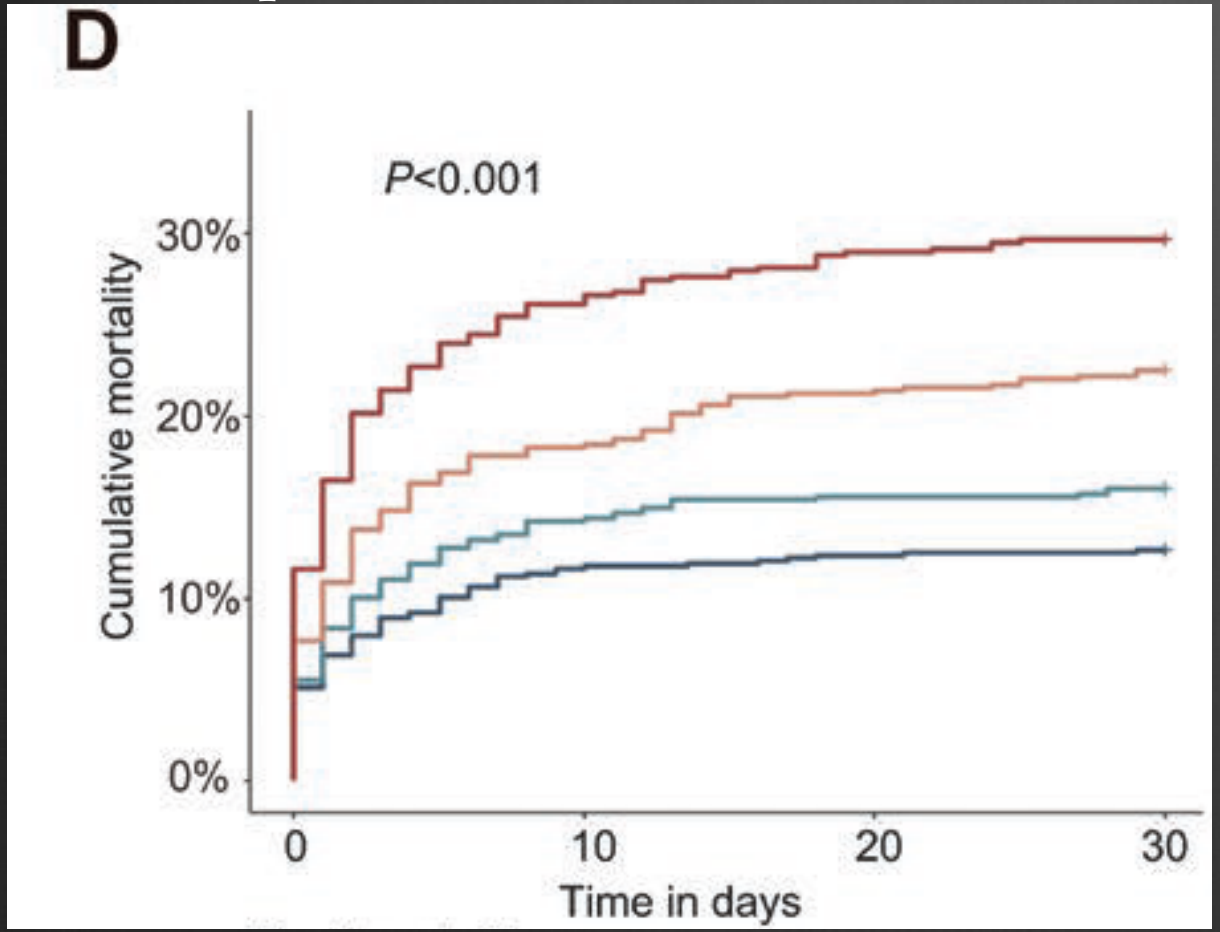
3132 SAA type A

Dimères et mortalité hospitalière



Qiu et al. J Am Heart Assoc. 2025

Intérêt pronostic ?



Q4 – 20000 ng mL^{-1}

Q4 – 4210 ng mL^{-1}

Q4 – 1910 ng mL^{-1}

Q4 – 720 ng mL^{-1}

Qiu et al. J Am Heart Assoc. 2025

Faut-il prescrire des Ddimères dans la suspicion de dissection aortique ?

Non

Chez les patients

avec forte suspicion

Oui

Chez les patients

avec faible suspicion

Seuil 500 avec Rx et ECMU