

PHYSIO DAY

JOURNÉES DE PHYSIOLOGIE
EN CARDIOLOGIE INTERVENTIONNELLE



ARNAULT
TZANCK
SAINT-LAURENT-DU-VAR

Parlons chiffres (valeur seuil)

Julien Adjedj

5 & 6 AVRIL 2024

HÔTEL SHERATON · NICE



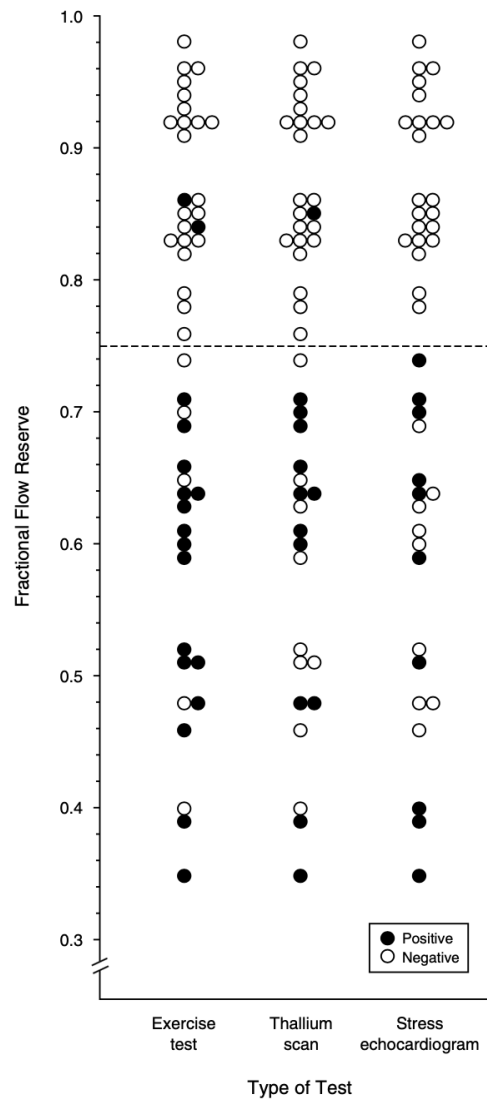
Historique



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N= 45



Valeur seuil de FFR

< ou = 0,75

Pijls N et al. N Engl J Med 1996.



Historique



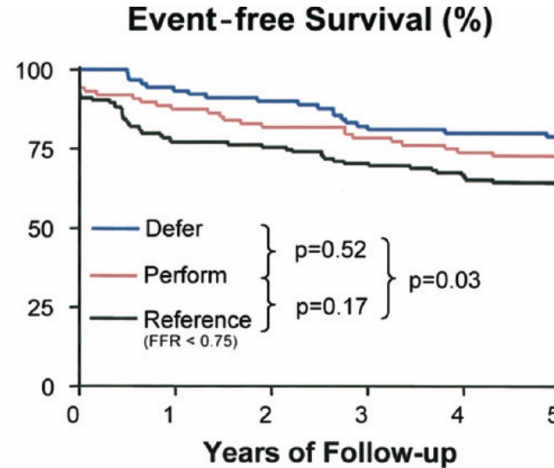
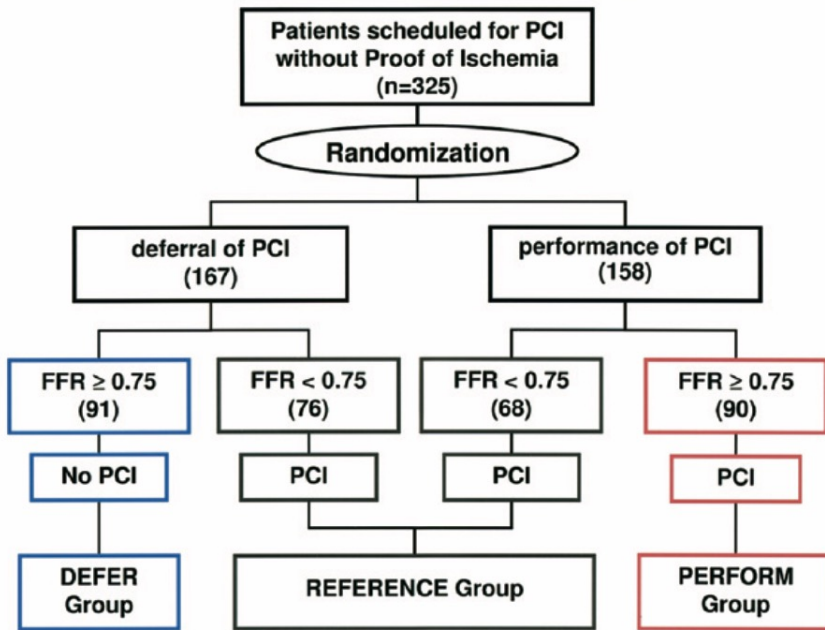
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**Valeur seuil de FFR
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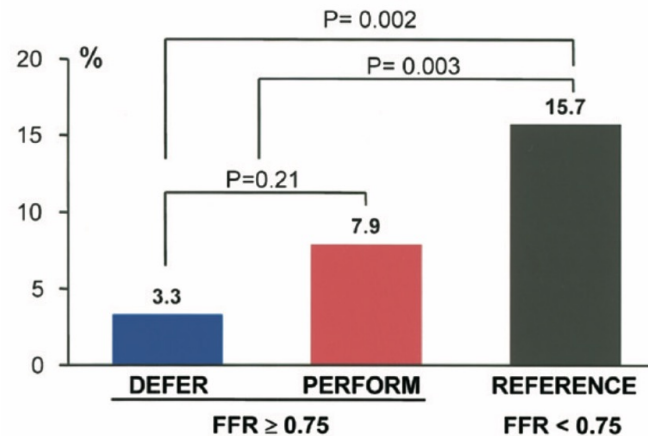
*Pijls, N. H., et al. 2007
J Am Coll Cardiol 49(21): 2105-2111.*

The DEFER Study: Flow Chart



No. at risk	0	1	2	3	4	5
Defer group	91	85	80	74	73	72
Perform group	90	80	75	70	67	64
Reference group	144	116	106	96	90	88

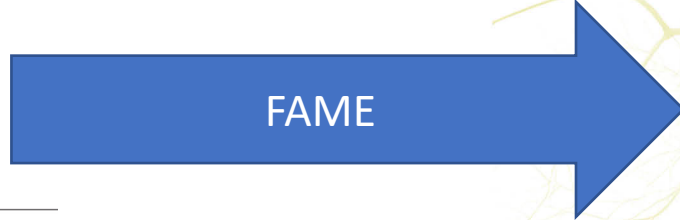
Cardiac Death and Acute MI after 5 Years





Valeur seuil de FFR
 $< \text{ou} = 0,75$

Historique

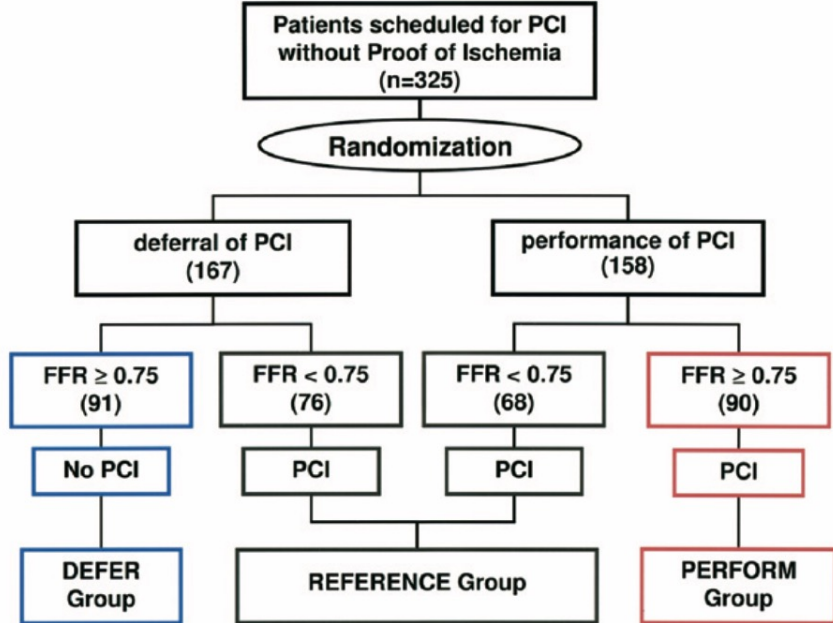


Valeur seuil de FFR
 $< \text{ou} = 0,80$

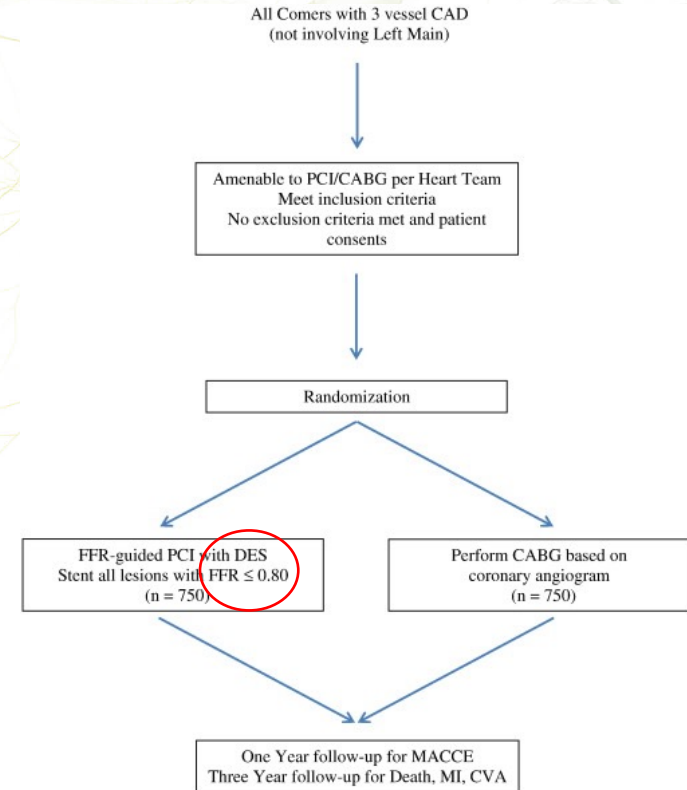


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The *DEFER* Study: Flow Chart



Pijls, N. H., et al. 2007
J Am Coll Cardiol 49(21): 2105-2111.



Fearon, W. F., et al. 2007.
Am Heart J 154(4): 632-636.



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Plan



Valeur FFR

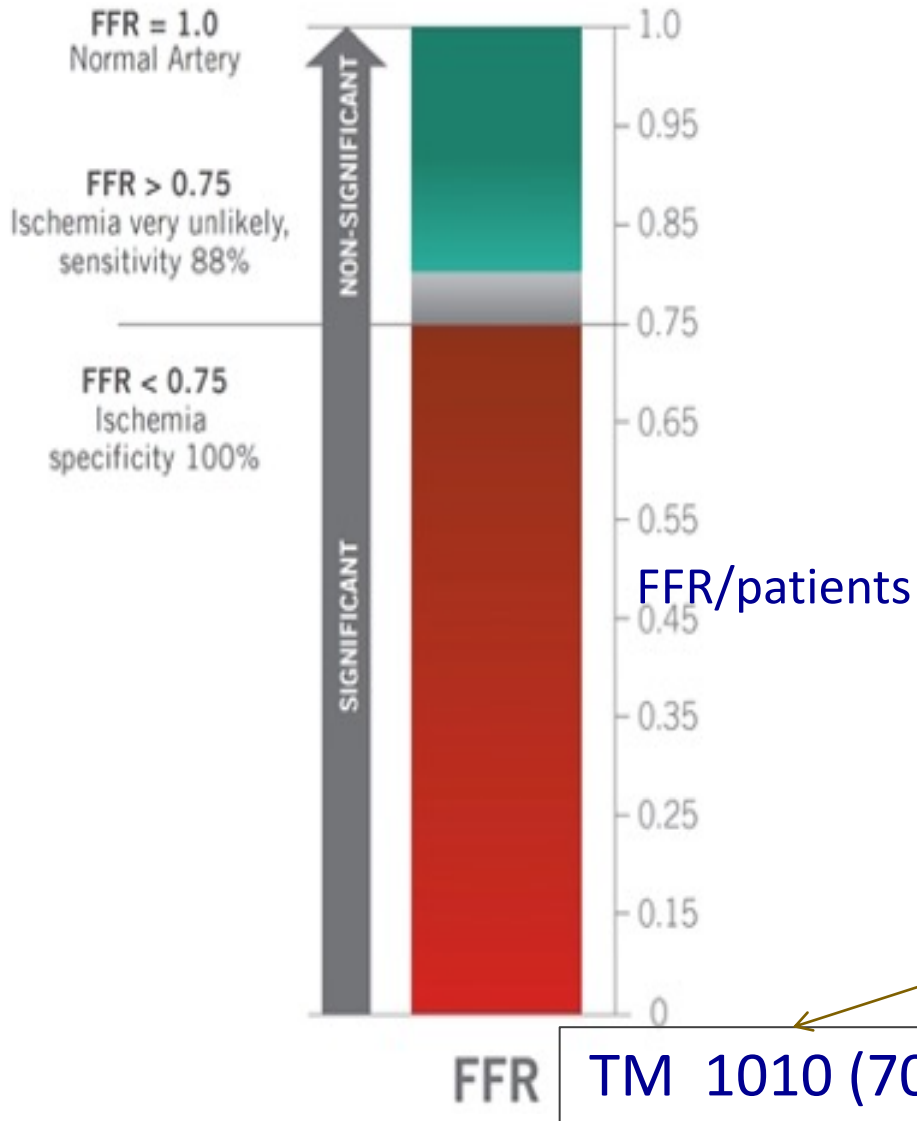
Etendue ischémie

Benefice/risque de la revascularisation



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Zone grise



17380
mesures de FFR

Prevalence de la
zone grise

2602 (15%)
FFR 0.76 - 0.80

8170 (47%)
FFR 0.70 - 0.85

6711 exclus
Multiple mesures
Multiple sténoses
PAC
Intra-stent restenoses
Pont myocardique

1459 (8%)
FFR 0.70 - 0.85

FFR TM 1010 (70%)

Suivi à 5

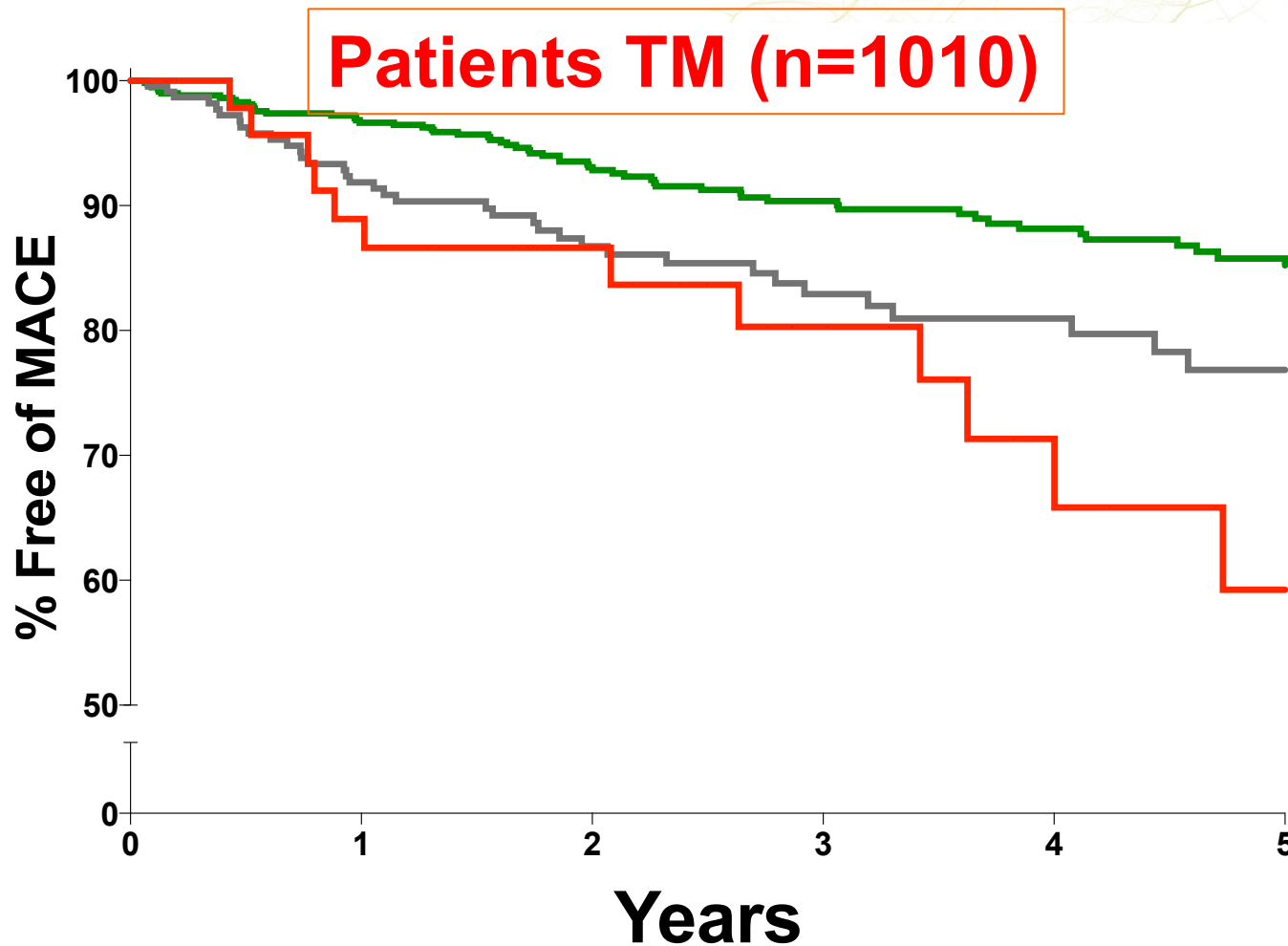
Revasc 449 (30%)



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Valeur de FFR

Evènements CV par strate de FFR





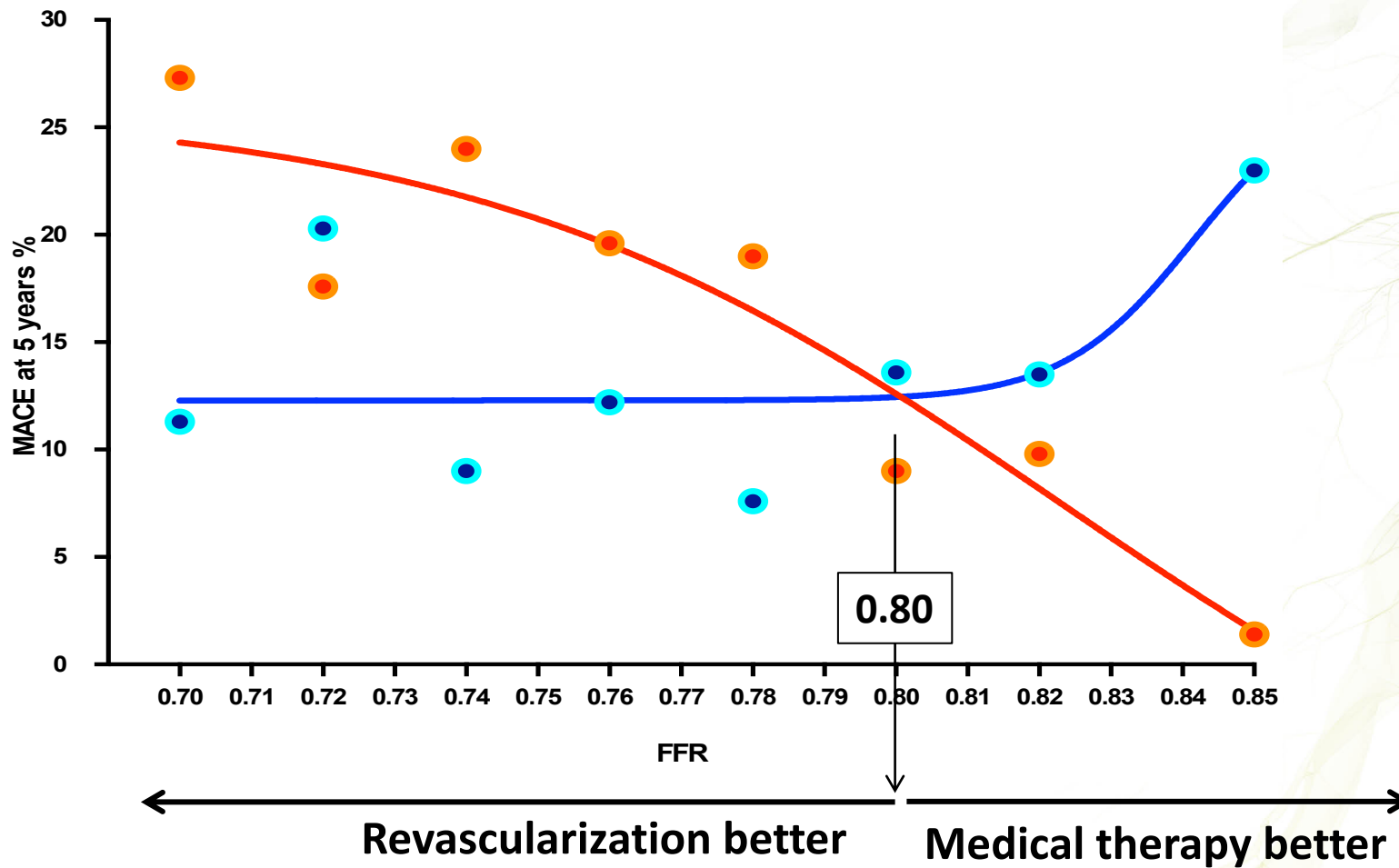
Evènements CV par strate de FFR

Patients TM (n=1010)

Patients Revasc (n=449)



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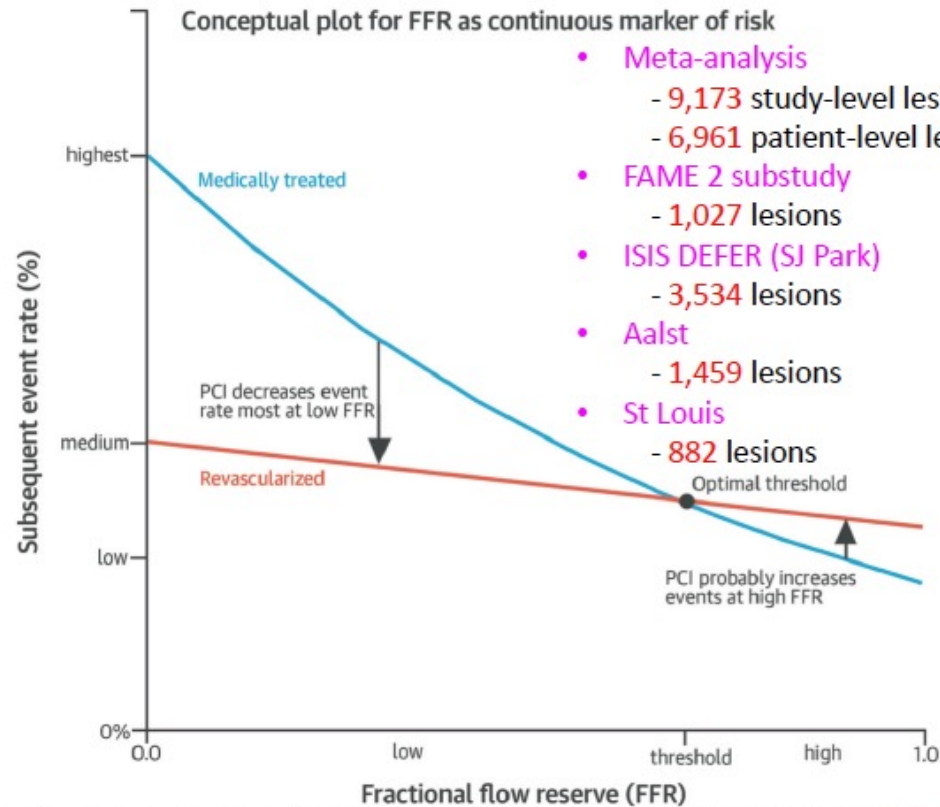




Valeur de FFR

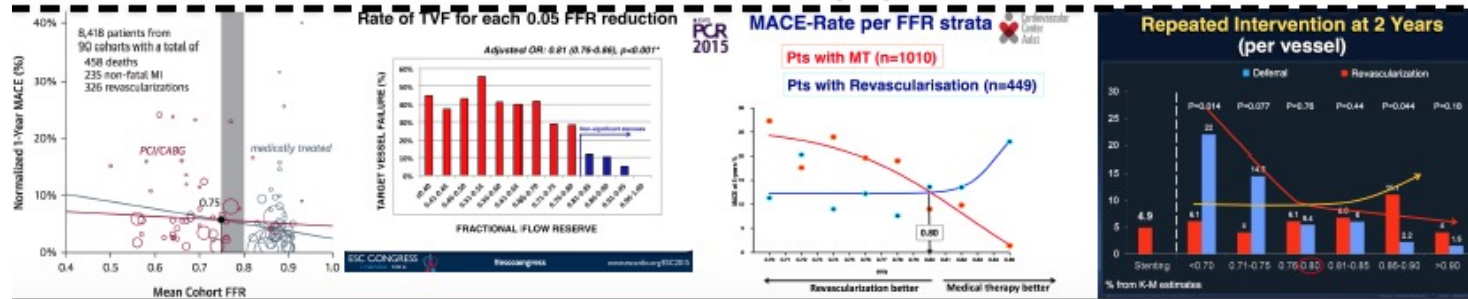


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- Meta-analysis
 - 9,173 study-level lesions
 - 6,961 patient-level lesions
- FAME 2 substudy
 - 1,027 lesions
- ISIS DEFER (SJ Park)
 - 3,534 lesions
- Aalst
 - 1,459 lesions
- St Louis
 - 882 lesions

>15,000 lesions

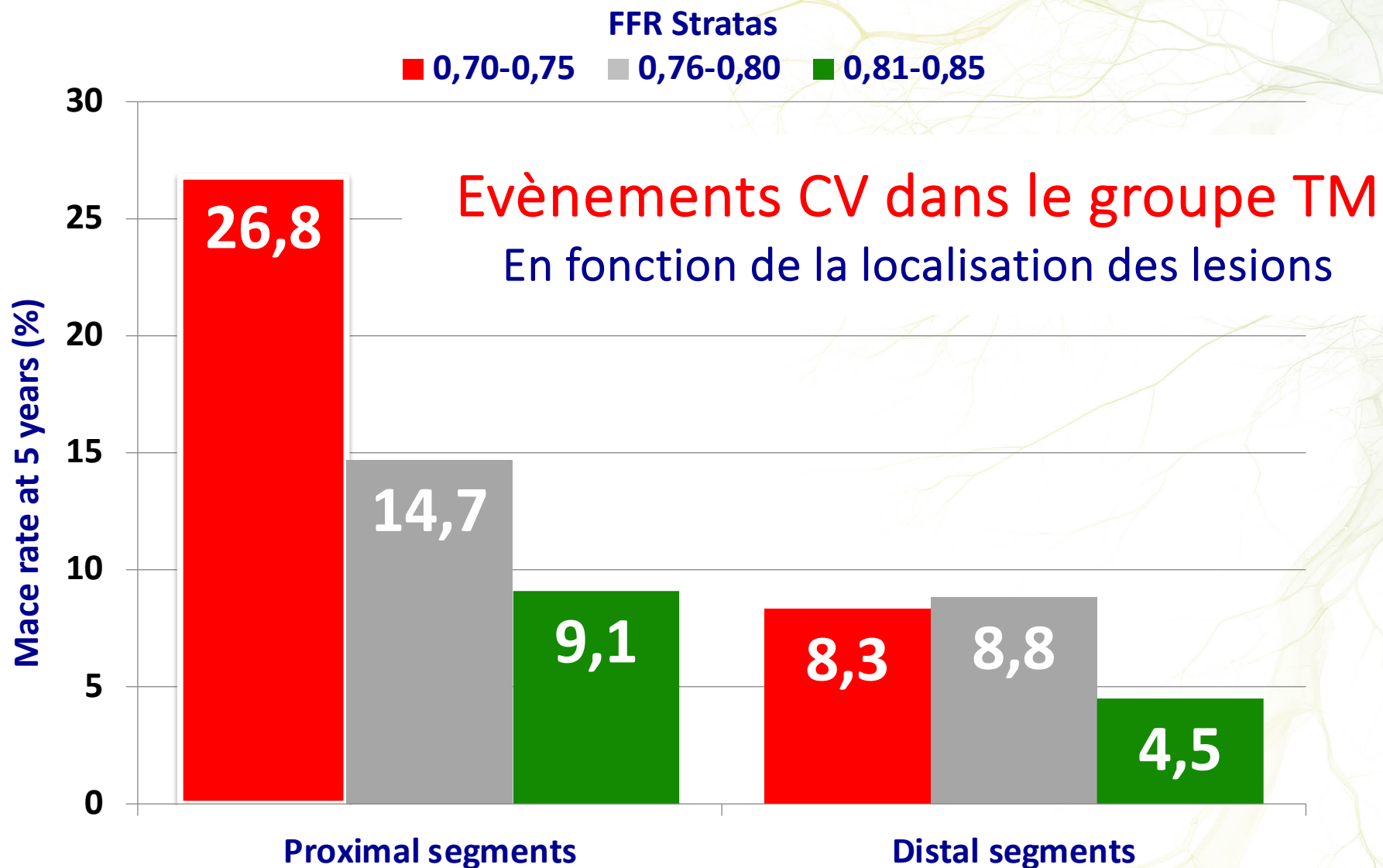




Etendue de l'ischémie



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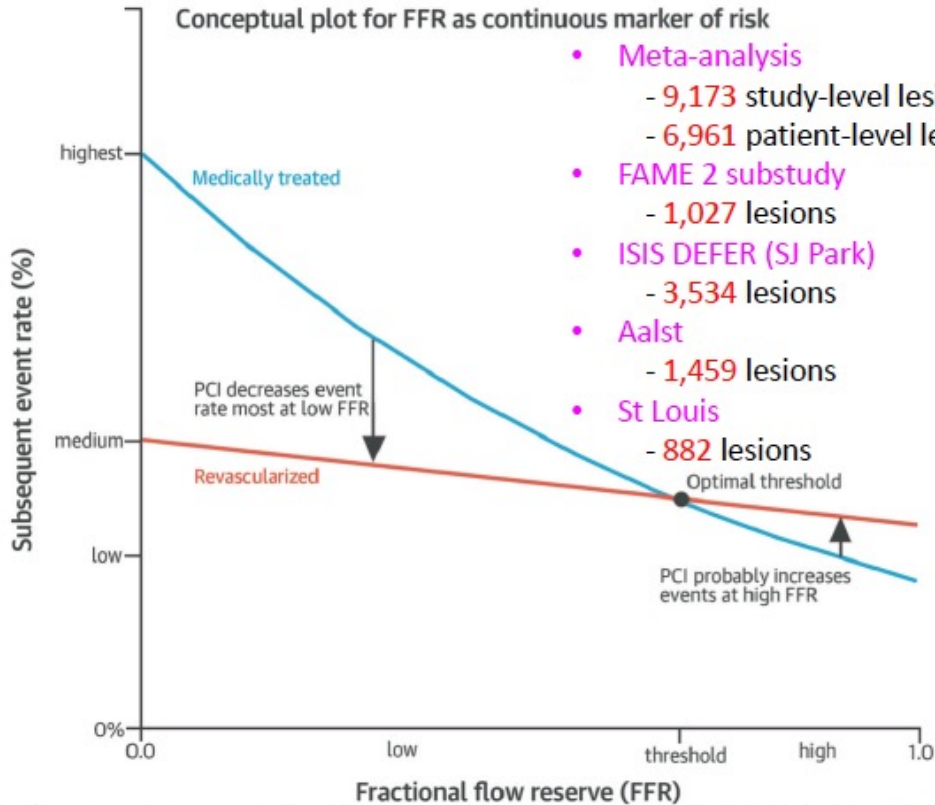




Conclusion



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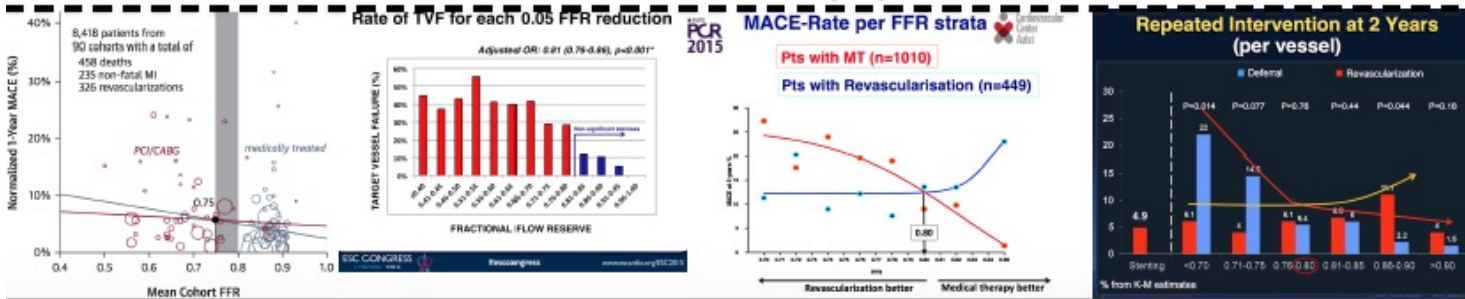
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Valeur FFR

Etendue ischémie

Bénéfice/risque de la revascularisation



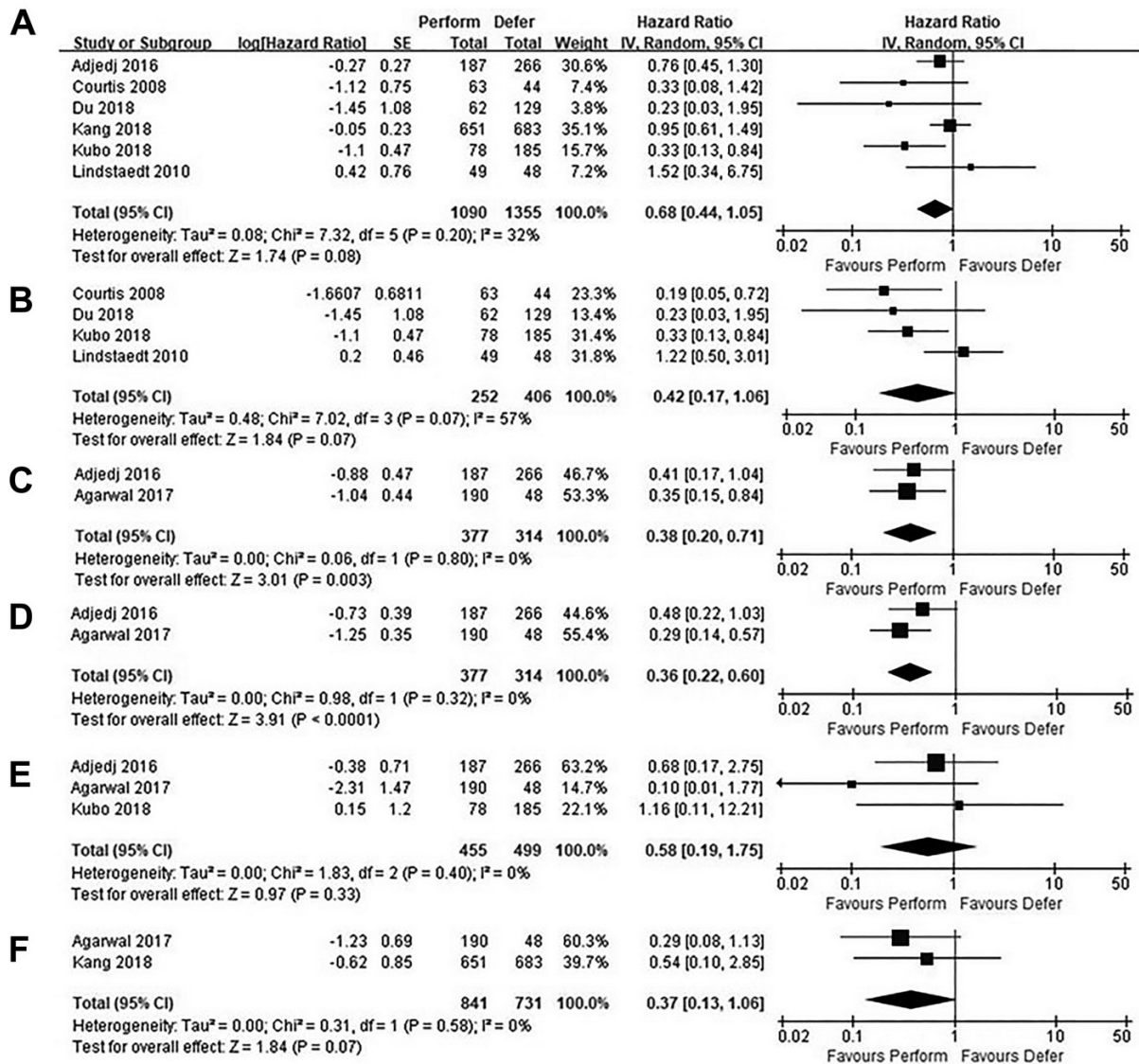


Conclusion

Valeur FFR



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Etendue ischémie

Bénéfice/risque de la revascularisation

Figure 3. Sensitivity analysis and subgroup analysis of deferral versus performance of revascularization for coronary stenosis with grey zone FFR values on MACE (A), TV-MACE (B), overall death (C), death or MI (D), MI (E), and spontaneous MI (F). FFR indicates fractional flow reserve; MACE, major adverse cardiac event; MI, myocardial infarction.



Conclusion



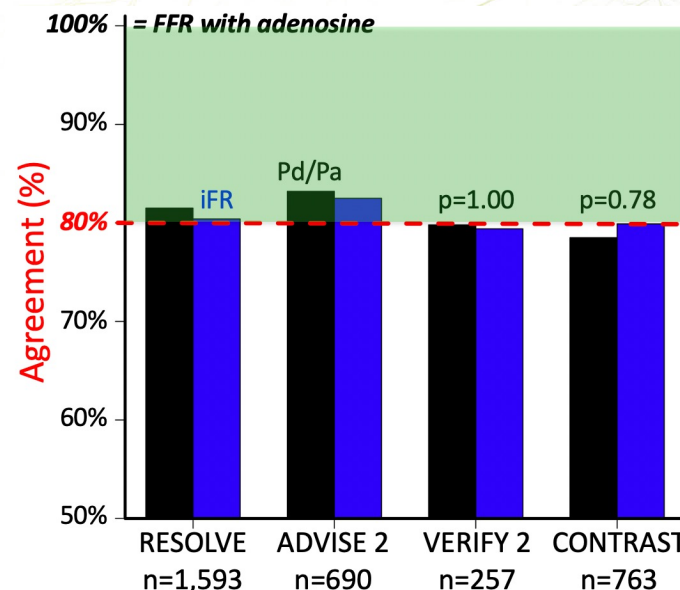
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Valeur seuil FFR définie par tests non invasifs → 0,75

Valeur seuil FFR définie par évènements cliniques ttt med vs revasc → 0,80

Qu'en est-il des valeurs de repos ? → comparaison avec FFR → 0,89

Qu'en est-il des valeurs de repos ? → vigilance sur le suivi à 5 ans



Key conclusion

- 80% agreement
- 3,300+ lesions
- multiple studies

RESOLVE = Jeremias A, JACC 2014;63:1253-61
ADVISE 2 = Escaned J, JACC Cardiovasc Interv. 2015;8:824-33
VERIFY 2 = Hennigan B, Circ Cardiovasc Interv. 2016;9.
CONTRAST = Johnson NP, JACC Cardiovasc Interv. 2016 Apr 25;9:757-67

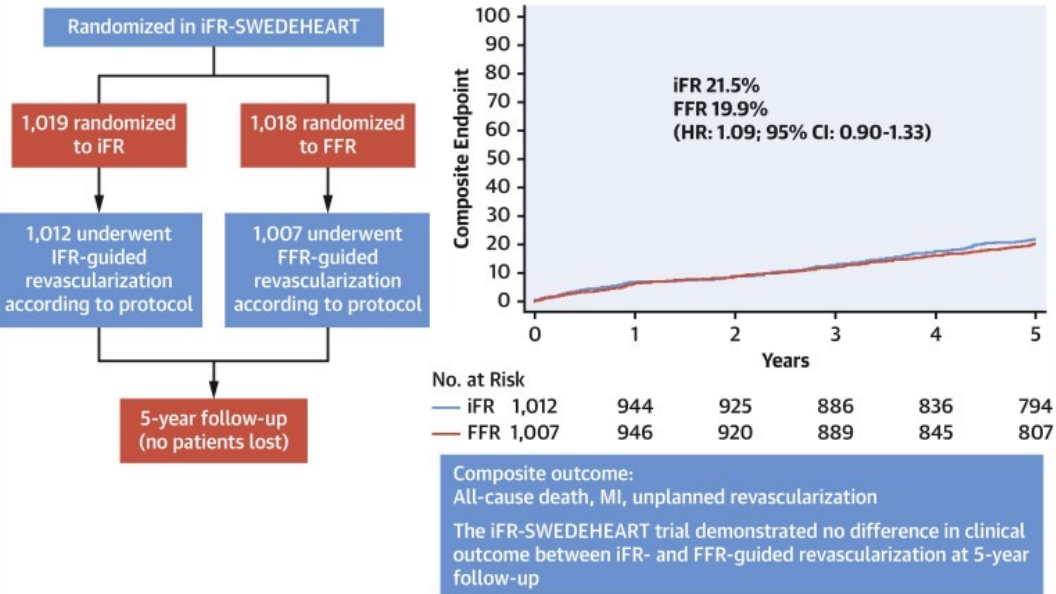


Conclusion



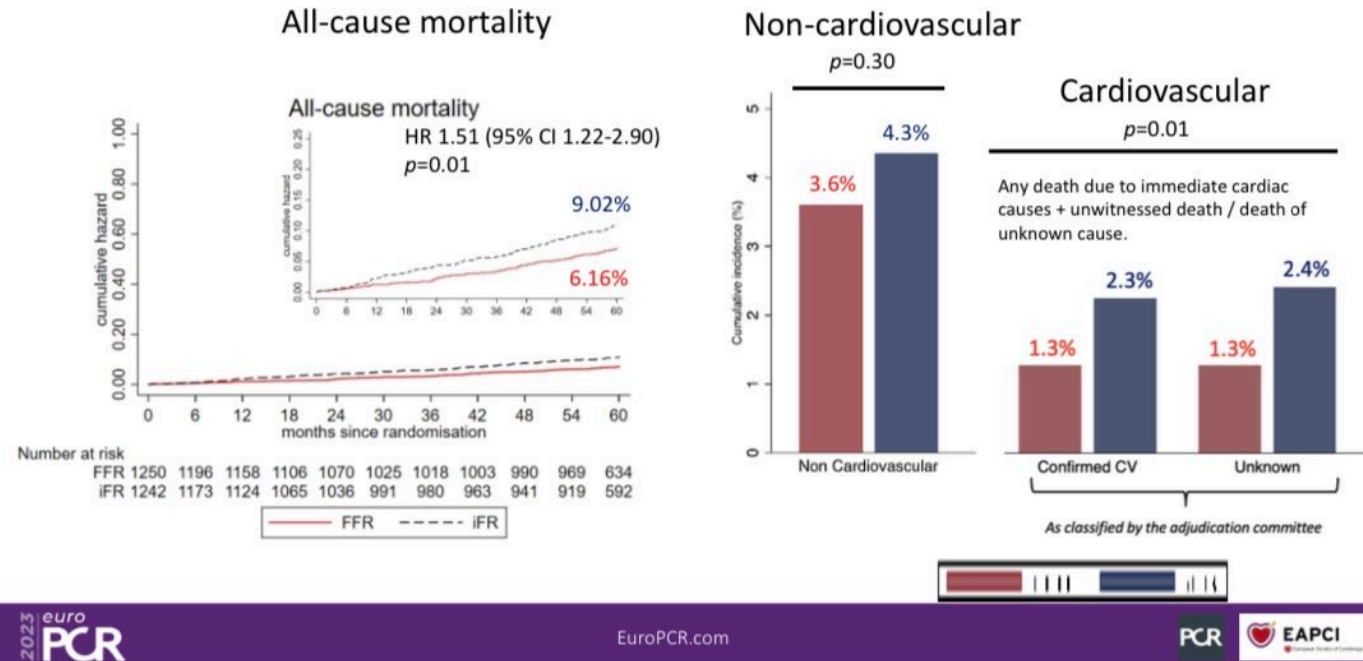
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CENTRAL ILLUSTRATION: Instantaneous Wave-Free Ratio vs Fractional Flow Reserve in Patients With Stable Angina Pectoris or Acute Coronary Syndrome: Study Enrollment and Outcome



Götberg, M. et al. . 2022;79(10):965-974.

5-year results: Mortality



2023 euro PCR

EuroPCR.com





Conclusion discutons seuils



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Valeur FFR (plus la valeur est basse plus MACE)

La FFR est une aide à la décision de revascularisation

Etendue ischémie (plus l'étendue est grande plus MACE)

Bénéfice/risque de la revascularisation (plus revasc à risque plus de MACE)



Merci @ vous



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Cardio&vous